

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SONOS, INC.,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 24-131-JNR
)	
LINKPLAY TECHNOLOGY INC.,)	
LINKPLAY TECHNOLOGY, INC.,)	
NANJING, and ORIGIN ACOUSTICS, LLC,)	
)	
Defendants.)	

**LINKPLAY DEFENDANTS’ ANSWER AND DEFENSES TO SONOS’
SECOND AMENDED COMPLAINT**

Defendants Linkplay Technology Inc. (“Linkplay US”) and Linkplay Technology Inc., Nanjing (“Linkplay Nanjing”) (collectively, “Linkplay”), by and through their undersigned counsel, hereby responds to Plaintiff Sonos, Inc.’s (“Sonos”) Second Amended Complaint for Patent Infringement (“Complaint”) as follows. Unless expressly and specifically admitted below, Linkplay denies each-and-every allegation in the corresponding Complaint.

The numbered paragraphs below correspond to the numbered paragraphs of the Complaint. Headings used in the Complaint are restated below for ease of reference, but no admissions are thereby made, as such headings are not allegations requiring an answer.

As to the paragraph before numbered paragraph 1, Linkplay admits that Sonos files a complaint for patent infringement against Linkplay asserting the patents-in-suit and Exhibit 1-5, 106 purport to be copies of the patents-in-suit, but denies that the complaint has any merit.

INTRODUCTION

1. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

2. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

3. Linkplay admits that Exhibits 6-9 purport to be articles from the alleged sources. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

4. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

5. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

6. Linkplay admits that the patents-in-suit purport to be issued by the U.S. Patent & Trademark Office. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

7. Linkplay admits that Exhibits 10-11 purport to be articles from IPO and IEEE. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

8. Linkplay admits that Exhibit 12 purports to be a printed copy of a Sonos webpage. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

9. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

10. Linkplay admits that Exhibits 15 and 16 purport to be articles from Digital Trends and What Hi-Fi. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

11. Admitted that the Muzo Cobblestone was launched in 2015. Denied that this was “piggybacking off of Sonos’s success.” Denied that Muzo Cobblestone “ultimately failed” and denied it was discontinued around 2019, as it was discontinued in 2017. Denied that the Muzo Cobblestone “was intended to compete with Sonos’s Connect product of the time.” Otherwise denied.

12. Linkplay admits that Linkplay has an independently developed line of products called “WiiM.” Linkplay further admits that WiiM Amp, WiiM Amp Pro, WiiM Pro, WiiM Pro Plus, WiiM Ultra, WiiM Mini, and WiiM Wake-up Light are among the WiiM line of products. Linkplay further admits that Linkplay has an independently developed control app called “WiiM Home” designed for iOS, Android, MacOS, and Windows operation systems. Linkplay admits that Linkplay has its independently developed modules, including A28, A31, A76D, A88, A97 series, A98 series, and A118. Linkplay admits Exhibits 17-18 and 87-88 purport to be printed copies of Linkplay webpages. Linkplay denies that WiiM was launched “with more ambitious plans to compete directly with Sonos.” Linkplay denies all the remaining allegations.

13. Linkplay admits Exhibit 19 purports to be an article from Digital Trends and Exhibit 20 purports to be a printed copy of WiiM Forums webpage. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations on Sonos’s prices, so denies the same. Admitted that Linkplay’s prices as currently charged on Amazon.com vary depending the date. Linkplay denies all remaining allegations.

14. Denied.

15. Denied as to Linkplay's purported motivations and acts. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of Origin Acoustics's acts, so denies the same. Otherwise denied.

16. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

17. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Otherwise denied.

18. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

19. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

20. Linkplay admits that Sonos served a subpoena on Origin Acoustics. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of other allegations regarding Sonos's and Origin Acoustics's acts, so denies the same. Otherwise denied.

21. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

22. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

23. Denied.

24. Linkplay admits Exhibit 80 purports to be a copy of Design Patent No. D959,405. Linkplay denies all remaining allegations, including to the extent Sonos alleges Linkplay infringes its Design Patent No. D959,405 or otherwise has any bearing on this suit.

25. Denied. Linkplay independently designed and developed its own products.

26. Linkplay admits Exhibit 23 purports to be an article from Digital Trends.

Linkplay denies all remaining allegations. Linkplay independently designed and developed its own products.

27. Denied. Linkplay independently designed and developed its own products.

28. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the screen shots included in the paragraph and presented as “example comparisons,” and therefore denies them. Linkplay denies all remaining allegations, including that the example comparisons demonstrate “copying” or “mimic”-king Sonos. Otherwise denied.

29. Linkplay admits Exhibit 23 purports to be an article from Digital Trends.

Linkplay denies all remaining allegations, including to the extent Sonos asserts that “FILL YOUR HOME WITH MUSIC” qualifies as a trademark, that Linkplay infringes any such trademark, or otherwise the slogan has any bearing on this suit.

30. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

31. Denied. Linkplay independently designed and developed its own products, which do not infringe the asserted patent claims.

32. Denied with respect to all allegations regarding Linkplay. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same.

33. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of Origin Acoustics’s acts, so denies the same. Otherwise denied.

34. Denied with respect to all allegations regarding Linkplay. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Sonos and Origin Acoustics, so denies the same. Otherwise denied.

35. Linkplay admits that Exhibit 31 purports to be a printed copy of Sonos webpage and Exhibit 32 purports to be a copy of a Sonos user guide. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of Sonos's allegations that it prominently displays its patents on its website or it includes a notice of its patents in its product inserts/manuals and the Sonos app, and therefore denies them. Linkplay denies all remaining allegations.

36. Linkplay admits that Exhibits 27 and 30 purport to be court documents from C.A. No. 14-1330-RGA. Linkplay further admits Exhibits 28 and 29 purport to be articles from VentureBeat and CNET, respectively. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Linkplay denies all remaining allegations.

37. Linkplay admits that Exhibits 84 and 85 purport to be documents from Inv. No. 337-TA-1191. Linkplay further admits Exhibit 86 purports to be an article from the New York Times. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Linkplay denies all remaining allegations.

38. Denied.

THE PARTIES' PRE-LITIGATION COMMUNICATIONS

39. Admitted that Linkplay Technology Inc. ("Linkplay US") and Sonos (with Linkplay US and Sonos collectively referred to as "the parties" for purposes of Linkplay's

responses in this section only, including ¶¶ 30–41) had several in-person and electronic communications prior to Sonos initiated this suit. Denied as to Sonos’s representations and characterizations of these pre-suit communications. The purpose of the parties’ pre-litigation communications from January to December 2023 was to discuss collaboration between the parties, Sonos’s possible investment in Linkplay US, and technical issues with Sonos and Linkplay US’s products. Sonos did not raise any IP issues until December 2023. Admitted that Linkplay US received, by email, a letter from Sonos’s counsel dated December 11, 2023 titled “Notice of Infringement of Sonos’s Patents.” Denied that the “pre-litigation communications ultimately culminated in” this letter. The letter came as a complete surprise to Linkplay US, only days after Sonos mentioned its IP for the first time after months of seemingly cooperative business communications. Linkplay US also denies that this letter provided any actual notice of infringement. Although this letter listed certain Sonos patents, it included no explanation of how each “WiiM player and Linkplay US module” read on at least one claim of each of the hundreds of Sonos patents. All remaining allegations denied.

40. Admitted that, at Sonos’s request and invitation, the parties first met in person on or around January 6, 2023 at the Las Vegas Consumer Electronics Show. Denied that Sonos raised any topic Sonos’s IP or infringement of it at any time during this meeting. As no such topic was discussed, Sonos’s statement that Linkplay US “would not agree to stop infringing” is completely false. Otherwise denied.

41. Admitted that in February 2023, the parties had a subsequent meeting via online conference call. Denied that infringement or Sonos IP was discussed at any time during this meeting, much less that any product discussion concerned infringement or Sonos IP. Denied that Linkplay US sought a partnership to use Sonos’s IP. Instead, Sonos sought Linkplay US’s

proprietary technical information at the meeting to explore the potential of collaborating with Linkplay US. Otherwise denied.

42. Admitted that in September 2023, the parties met twice in person in San Francisco, and following the first meeting, Sonos brought its executives, including the Chief Product Officer and VP of Audio, to discuss extensively how the two companies could work together and Linkplay US's software/hardware capabilities. Denied that infringement or Sonos IP was discussed at any time during these meetings, much less that any product discussion concerned infringement or Sonos IP. Admitted that Sonos offered to invest in Linkplay US, but this proposed investment was in no context of solving any IP-infringement issue. Otherwise denied.

43. Admitted that the parties exchanged emails, text messages, and phone calls in and around November and December 2023. Denied that infringement or Sonos IP was discussed at any time during these exchanges until early December, 2023, a week before Sonos's December 11 letter. Denied that in any of those exchanges, Sonos "specifically explained" to Linkplay US any of its allegations of IP infringement, copying, and unfair competition. Linkplay further incorporates by reference here Linkplay's account in its counterclaims. Otherwise denied.

44. Denied, including specifically denying that Linkplay infringed or that Sonos raised infringement or IP issues before Linkplay US's launch of WiiM Amp. Instead, Sonos suddenly and drastically changed course from the months of cooperative business discussions and replaced with this litigation, after it found Linkplay US's successful WiiM Amp product on the market.

45. Denied, including specifically denying that Linkplay US or Linkplay infringed or that Sonos raised infringement or IP issues during the months of business communications with Linkplay US until shortly before the December 11, 2023 letter.

46. Denied, including specifically denying that Linkplay infringed or that Sonos raised infringement or IP issues during the months of business communications with Linkplay US until shortly before the December 11, 2023, letter.

47. Denied that Sonos made “months of good-faith attempts to remedy Linkplay’s infringement.” The months of communications were not about Sonos’s IP or infringement as Sonos alleged, but instead to explore business opportunities for the parties to collaborate, at Sonos’s initial request. Admitted that Linkplay US received, by email, a letter from Sonos’s counsel dated December 11, 2023 titled “Notice of Infringement of Sonos’s Patents,” but Linkplay US denies the letter was a result of “months of good-faith attempts to remedy Linkplay’s infringement.” The letter came as a complete surprise to Linkplay US, only days after Sonos mentioned its IP for the first time after months of cooperative business communications. Linkplay US also denies that this letter provided any actual notice of infringement. Admitted that this letter listed certain Sonos patents. All remaining allegations denied. The letter included no explanation of how each “WiiM player and Linkplay US module” read on at least one claim of each of the hundreds of Sonos patents.

48. Admitted that Linkplay US did not respond to Sonos’s letter. All remaining allegations denied.

49. Denied.

50. Denied.

51. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Otherwise denied.

THE PARTIES

52. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

53. Admitted.

54. Admitted.

55. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same.

56. Denied.

57. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics's acts, so denies the same. Otherwise denied.

JURISDICTION AND VENUE

58. The allegations in this paragraph state a legal contention that requires no response. But to the extent a response is required, Linkplay admits that the Complaint supposedly sets forth claims for patent infringement but denies that Sonos's claims have merit. Linkplay admits that this Court has subject-matter jurisdiction over patent-infringement suits.

59. For purposes of this action only, personal jurisdiction over Linkplay US is not challenged. Otherwise denied.

60. For purposes of this action only, personal jurisdiction over Linkplay US is not challenged. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Otherwise denied, including the allegations in footnote 2.

61. For purposes of this action only, personal jurisdiction over Linkplay US is not challenged. Admitted that Linkplay US is incorporated in Delaware and is registered to do business with the State of Delaware Division of Corporations. Denied as to the allegations regarding Linkplay Nanjing. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of Origin Acoustics's acts, so denies the same. Otherwise denied.

62. Admitted that Linkplay US and Linkplay Nanjing identify Lifeng Zhao as their CEO. Denied that Linkplay US and Linkplay Nanjing identify the same U.S. headquarters or that Linkplay US has any offices in China. Denied that Linkplay US is the alter ego of Linkplay Nanjing and that these entities operate together as a single business entity. Otherwise denied.

63. Denied that this Court has personal jurisdiction over Linkplay Nanjing. Otherwise denied.

64. Denied.

65. Denied.

66. Denied.

67. For purposes of this action only, personal jurisdiction over Linkplay US is not challenged. Denied with respect to personal jurisdiction over Linkplay Nanjing. Denied as to the allegations concerning Linkplay Nanjing. Otherwise denied.

68. For purposes of this action only, personal jurisdiction over Linkplay US is not challenged. Denied that with respect to personal jurisdiction over Linkplay Nanjing. Denied as to the allegations concerning Linkplay Nanjing. Otherwise denied.

69. Denied that the Court has personal jurisdiction over Linkplay Nanjing, notwithstanding the Court's order to the contrary. Otherwise denied.

70. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of allegations regarding Origin Acoustics, so denies the same. Otherwise denied.

71. For purposes of this action only, Linkplay does not challenge venue under 28 U.S.C. §1391(c) and 28 U.S.C. §1400(b), but denies that venue is convenient within the meaning of 28 U.S.C. § 1404.

PATENTS-IN-SUIT

Background

72. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

73. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

74. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

75. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

76. Linkplay denies the allegation that Sonos's system is "unconventional." Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

77. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

78. Linkplay denies the allegation that Sonos's system is "new" and "unconventional." Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

79. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

80. Linkplay denies the allegation that the Sonos system is “unconventional” or “provided an entirely new paradigm in home audio.” Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations, so denies the same. Otherwise denied.

U.S. Patent No. 7,571,014

81. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

82. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

83. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

84. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations that Inventions Claimed in U.S. Patent No. 7,571,014 Improved Technology & Were Not Well-Understood, Routine, or Conventional

85. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

86. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

87. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

88. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

89. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

90. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

91. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Denied to the extent Sonos implies that the Court's finding on invalidity of the '014 patent applies to or binds Linkplay. Linkplay is not in privity with any parties Sonos has previously litigated against in this District on patent-infringement

issues, and thus is not precluded from challenging patentability on any ground prior litigants here have raised. Otherwise denied.

92. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Denied to the extent Sonos implies that the Court's finding on invalidity of the '014 patent applies to or binds Linkplay. Linkplay is not in privity with any parties Sonos has previously litigated against in this District on patent-infringement issues, and thus is not precluded from challenging patentability on any ground prior litigants here have raised. Otherwise denied.

93. This appears to state a legal conclusion to which no response is required. To the extent a response is required, Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 7,571,014 Provide Important Advantages to Multi-Room Audio Systems

94. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

95. Denied that Linkplay has “[r]ecogniz[ed] the advantages of Sonos’s patented group volume control technology” or “incorporated Sonos’s technology into their products and marketed to their customers the features that the technology enables.” Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the other allegations, so denies the same. Otherwise denied.

U.S. Patent No. 9,164,532

96. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

97. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

98. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

99. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

100. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 9,164,532 Improved Technology & Were Not Well-Understood, Routine, or Conventional

101. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

102. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

103. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

104. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

105. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

106. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

107. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 9,164,532 Provide Important Advantages to Multi-Room Audio Systems

108. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

109. Denied that Linkplay has “[r]ecogniz[ed] the advantages of Sonos’s patented grouping and synchronization technology” or “incorporated Sonos’s technology into their products and marketed to their customers the features that the technology enables.” Otherwise denied.

U.S. Patent No. 9,213,357

110. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

111. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

112. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

113. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–109. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 9,213,357 Improved Technology & Were Not Well-Understood, Routine, or Conventional

114. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–109. Otherwise denied.

115. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

116. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

117. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

118. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 9,213,357 Provide Important Advantages to Multi-Room Audio Systems

119. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–109. Otherwise denied.

120. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

U.S. Patent No. 10,541,883

121. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

122. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

123. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

124. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

125. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

126. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,541,883 Improved Technology & Were Not Well-Understood, Routine, or Conventional

127. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

128. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

129. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

130. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

131. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

132. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

133. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,541,883 Provide Important Advantages to Multi-Room Audio Systems

134. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

135. Denied that Linkplay has “[r]ecogniz[ed] the advantages of Sonos’s patented playback-device-setup technology” or “incorporated Sonos’s technology into their products and marketed to their customers the features that the technology enables.” Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the other allegations, so denies the same. Otherwise denied.

U.S. Patent No. 10,853,023

136. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

137. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

138. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

139. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

140. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,853,023 Improved Technology & Were Not Well-Understood, Routine, or Conventional

141. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

142. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

143. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

144. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

145. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

146. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

147. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

148. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,853,023 Provide Important Advantages to Multi-Room Audio Systems

149. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

150. Denied that Linkplay has “[r]ecogniz[ed] the advantages of Sonos’s patented smart line-in processing” or “incorporated Sonos’s technology into their products and marketed to their customers the features that the technology enables.” Linkplay lacks knowledge or information sufficient to form a belief as to the truth of the other allegations, so denies the same. Otherwise denied.

U.S. Patent No. 10,146,498

151. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Admitted that what appear to be copies of the described materials are attached as one or more exhibits to the Complaint. Otherwise denied.

152. Denied. None of the '498, '357, or '532 Patent is entitled to purported priority.

153. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

154. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–120. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,146,498 Improved Technology & Were Not Well-Understood, Routine, or Conventional

155. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–120. Otherwise denied.

156. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

157. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

158. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

159. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

160. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

161. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

162. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

The Allegations That Inventions Claimed in U.S. Patent No. 10,146,498 Provide Important Advantages to Multi-Room Audio Systems

163. Linkplay incorporates by reference and re-alleges the foregoing paragraphs 96–120. Otherwise denied.

164. Linkplay denies all allegations in this paragraph that purport to attribute to this patent anything not stated therein. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

COUNT I: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 7,571,014

165. Linkplay incorporates by reference and re-alleges above paragraphs 1-164. Otherwise denied.

166. Denied, and specifically denied that any of those identified committed acts of infringement.

167. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement with respect to each accused product, which it has not shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

168. Denied, and specifically denied that any of those identified committed acts of infringement.

169. Denied, and specifically denied that any of those identified committed acts of infringement.

170. Denied, and specifically denied that any of those identified committed acts of infringement.

171. Denied.

172. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

173. Denied, and specifically denied that any of those identified committed acts of infringement.

174. Denied, and specifically denied that any of those identified committed acts of infringement.

175. Denied, and specifically denied that any of those identified committed acts of infringement.

176. Denied, and specifically denied that any of those identified committed acts of infringement.

COUNT II: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 9,164,532

177. Linkplay incorporates by reference and re-alleges above paragraphs 1-176.

Otherwise denied.

178. Denied, and specifically denied that any of those identified committed acts of infringement.

179. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement separately with respect to each accused product, which it has not shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

180. Denied, and specifically denied that any of those identified committed acts of infringement.

181. Denied, and specifically denied that any of those identified committed acts of infringement.

182. Denied, and specifically denied that any of those identified committed acts of infringement.

183. Denied.

184. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

185. Denied, and specifically denied that any of those identified committed acts of infringement.

186. Denied, and specifically denied that any of those identified committed acts of infringement.

187. Denied, and specifically denied that any of those identified committed acts of infringement.

188. Denied, and specifically denied that any of those identified committed acts of infringement.

COUNT III: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 9,213,357

189. Linkplay incorporates by reference and re-alleges above paragraphs 1-188. Otherwise denied.

190. Denied, and specifically denied that any of those identified committed acts of infringement.

191. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement separately with respect to each accused product, which it has not shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

192. Denied, and specifically denied that any of those identified committed acts of infringement.

193. Denied, and specifically denied that any of those identified committed acts of infringement.

194. Denied, and specifically denied that any of those identified committed acts of infringement.

195. Denied.

196. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

197. Denied, and specifically denied that any of those identified committed acts of infringement.

198. Denied, and specifically denied that any of those identified committed acts of infringement.

199. Denied, and specifically denied that any of those identified committed acts of infringement.

COUNT IV: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 10,541,883

200. Linkplay incorporates by reference and re-alleges above paragraphs 1-199. Otherwise denied.

201. Denied, and specifically denied that any of those identified committed acts of infringement.

202. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement separately with respect to each accused product, which it has not shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

203. Denied, and specifically denied that any of those identified committed acts of infringement.

204. Denied, and specifically denied that any of those identified committed acts of infringement.

205. Denied, and specifically denied that any of those identified committed acts of infringement.

206. Denied.

207. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

208. Denied, and specifically denied that any of those identified committed acts of infringement.

209. Denied, and specifically denied that any of those identified committed acts of infringement.

210. Denied, and specifically denied that any of those identified committed acts of infringement.

211. Denied, and specifically denied that any of those identified committed acts of infringement.

COUNT V: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 10,853,023

212. Linkplay incorporates by reference and re-alleges above paragraphs 1-211. Otherwise denied.

213. Denied, and specifically denied that any of those identified committed acts of infringement.

214. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement separately with respect to each accused product, which it has not shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

215. Denied, and specifically denied that any of those identified committed acts of infringement.

216. Denied, and specifically denied that any of those identified committed acts of infringement.

217. Denied, and specifically denied that any of those identified committed acts of infringement.

218. Denied.

219. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

220. Denied, and specifically denied that any of those identified committed acts of infringement.

221. Denied, and specifically denied that any of those identified committed acts of infringement.

222. Denied, and specifically denied that any of those identified committed acts of infringement.

223. Denied, and specifically denied that any of those identified committed acts of infringement.

COUNT VI: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 10,146,498

224. Linkplay incorporates by reference and re-alleges above paragraphs 1-223. Otherwise denied.

225. Denied, and specifically denied that any of those identified committed acts of infringement.

226. Admitted that Sonos provides a claim chart here, but denied all the allegations stated in the claim chart and the allegation that it shows infringement. Sonos bears the burden of proof to show infringement separately with respect to each accused product, which it has not

shown with the claim chart or otherwise in its Complaint. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement. Otherwise denied.

227. Denied, and specifically denied that any of those identified committed acts of infringement.

228. Denied, and specifically denied that any of those identified committed acts of infringement.

229. Denied, and specifically denied that any of those identified committed acts of infringement.

230. Denied.

231. Linkplay lacks knowledge or information sufficient to form a belief as to the truth of these allegations, so denies the same. Otherwise denied.

232. Denied, and specifically denied that any of those identified committed acts of infringement.

233. Denied, and specifically denied that any of those identified committed acts of infringement.

234. Denied, and specifically denied that any of those identified committed acts of infringement.

235. Denied, and specifically denied that any of those identified committed acts of infringement.

SONOS'S PRAYER FOR RELIEF

Linkplay denies that Sonos is entitled to any of the prayed-for relief. Otherwise denied.

ADDITIONAL DEFENSES

As further answer and as additional defenses, but without assuming any burden that it would not otherwise have or admitting that it bears the burden of proof with respect to any of the following, Linkplay asserts the following defenses by alleging as follows. Linkplay reserves all rights to allege additional defenses that become known through the course of discovery.

**FIRST DEFENSE
(Failure to State a Claim)**

The Complaint fails to state a claim on which relief can be granted.

**SECOND DEFENSE
(Noninfringement)**

Linkplay has not infringed and does not infringe, directly or indirectly, any claim of any of the asserted patents, whether literally or under the doctrine of equivalents, and is not liable for infringement of any valid and enforceable claim of the patents-in-suit. Linkplay incorporates by reference all discovery responses and expert reports on noninfringement, as if they are pleaded here.

**THIRD DEFENSE
(Invalidity)**

One or more of the claims of the patents-in-suit are invalid for failure to satisfy the conditions of patentability set forth in 35 U.S.C. § 1 *et seq.*, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6) and 122(b) (for abandonment due to violation of requirements associated with non-publication request), the non-statutory doctrine of obviousness-type double-patenting,

improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto. Linkplay additionally incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity, as if they are pleaded here.

**FOURTH DEFENSE
(Lack of Standing)**

Sonos's claims and prayer for relief are barred because Sonos does not have standing to bring its claims including, but not limited to, that Sonos does not own the alleged invention(s) disclosed in the patents-in-suit.

**FIFTH DEFENSE
(Lack of Notice)**

Linkplay did not receive adequate notice of the asserted patents, and thus lacks knowledge of infringement, before service of the original Complaint in this action. For at least this reason, Linkplay could not have, and did not, indirectly infringe or willfully infringe any claim of the asserted patents before service of the original Complaint. Linkplay reserves all rights to move for appropriate relief, including that Sonos's indirect infringement and willful infringement claims are not cognizable as a matter of law because Linkplay did not have the requisite knowledge due to lack of notice of the asserted patents.

**SIXTH DEFENSE
(Limitation of Damages)**

Sonos's claims and prayer for relief are barred in whole or in part by 35 U.S.C. §§ 286, and 287, due to a failure to properly mark and failure to provide actual notice of alleged infringement.

**SEVENTH DEFENSE
(Equitable Estoppel)**

Sonos's claims are precluded or otherwise estopped under the doctrine of equitable estoppel. Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of Linkplay's Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos's products, integrating the Linkplay products with Sonos's products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos's IP or Linkplay US's alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business

information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay.

**EIGHTH DEFENSE
(Waiver)**

On information and belief, Sonos's claims and prayer for relief are barred by the doctrine of waiver. As set forth in paragraphs 39-51 of the Answer above and paragraphs 12-47 of Linkplay's Counterclaims, Sonos had, and was aware of, its existing patent rights during its dealings with Linkplay. During one of the meetings, Mike Tatum, Sonos' VP of Corporate Strategy and M&A, mentioned that Sonos' legal team was investigating Linkplay's products against Sonos' patents but represented that Sonos still wanted to collaborate with Linkplay. It is especially clear that Sonos was aware of its patent rights during the meetings because, just one week later, Sonos memorialized its knowledge of its patent rights in a cease-and-desist letter alleging patent infringement by Linkplay. Sonos had an actual intention to relinquish its patent rights when it made an affirmative grant of consent or permission to Linkplay as Sonos repeatedly assured Linkplay that it was focused on collaboration or investment, not litigation.

Sonos's conduct was so inconsistent with an intent to enforce its rights to induce a reasonable belief that such right has been relinquished, and thus falls within the doctrine of waiver.

**NINTH DEFENSE
(License, Exhaustion)**

To the extent Sonos's infringement allegations relate to products or services that were provided by or for any licensee of the patents-in-suit or provided to Linkplay by or through a licensee of the patents-in-suit or under a covenant not to sue, whether express or implied, Sonos's claims are barred.

**TENTH DEFENSE
(Inequitable Conduct)**

On information and belief, Sonos's claims and prayer for relief are barred by the doctrine of inequitable conduct. Sonos has previously been found by a Court to have misled and deceived the USPTO in the prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) ("Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit." (emphasis added)). Sonos was also found to have unfairly captured claim scope in obtaining patents. *Id.* at *19 ("[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.").

On information and belief, Sonos similarly committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of one or more of the asserted patents. For example, during prosecution of one or more asserted patents and/or their

priority patent applications, Sonos misled and deceived the USPTO in its various statements to the USPTO, in obtaining the asserted patents. That includes, but not limited to, statements made to the USPTO in the form of declarations or otherwise that result in improper correction of inventorship in at least the '014 Patent, improper revival of abandoned application from which at least the '014 Patent, the '357 Patent, and the '532 Patent stem, improper discounts in fee payments (due to for example improper small-entity claim) impacting at least the '014 Patent, the '357 Patent, the '532 Patent and the '023 Patent, and/or improper request for non-publication. On information and belief, Sonos also knowingly named incorrect inventorship in at least the '014 Patent, the '357 Patent, and the '532 Patent. Sonos is on notice of the factual bases for these claims, through at least Linkplay's invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the asserted '014 patent, Sonos, its patent prosecutor(s) (including Joe Zheng), Robert Lambourne, and/or Nicholas Millington knowingly prepared and/or filed an August 20, 2008 declaration falsely and improperly stating that Millington was properly a coinventor to the prosecuted claims and thus his patent publication anticipating and/or rendering obvious the claims did not qualify as prior art. This statement was false and knowingly false at least because this statement factually conflicts with itself (in that Millington could not have "contributed substantially" to the invention while working "independently") as well as in Sonos's later identification of Millington as the sole inventor of later related patents (including '532, '357 and '498). The prosecution of the '014 patent should not have proceeded in light of the rejection of the claims over the Millington prior-art reference.
- During the prosecution of U.S. Application No. 10/816,217, the parent to several asserted patents (including the following: '014, '532, '357, and '498), Sonos and/or its patent prosecutor(s) (including K. Brian Bathurst) knowingly prepared and/or filed a November 21, 2005 Petition for Revival (of an abandoned application) falsely and improperly stating that "The entire delay in filing the required reply from the due date from the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional." This statement was false and knowingly false at least because Sonos's failure to pay or even make ordinary arrangements to pay the initial filing fee could not have been unintentional. The prosecution of the '217 application should not have proceeded in light of its abandonment, and the applications of the '014, '532, '357, and '498 patents could not have been filed as continuing applications to an abandoned application. These patents would not have been issued as a result.

- During the prosecution of several asserted patents (including, but not limited to, the following: '014, '023, '532, '357), Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it would not have qualified for that status. The prosecution of the applications of the '014, '023, '532, '357 patents should not have proceeded in light of their abandonment and these patents would not have been issued as a result.

As another example, on information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the asserted patents in this case. That includes, but not limited to, using continuation patent filings to claim subject matter in the asserted patents that Sonos knew or should have known that are not described and/or enabled in specifications of the applications and/or their priority applications. Further, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art, citing to the USPTO as many as eighteen pages of references. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the asserted patents, many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question. Each and all inequitable conduct would render at least one asserted patent abandoned and/or unenforceable. Linkplay incorporates by reference its invalidity contentions, including those portions that concern factual bases of inequitable conduct and/or Sonos’s representations to the PTO during the prosecution of its patents.

**ELEVENTH DEFENSE
(Prosecution Laches)**

On information and belief, Sonos’s delay in prosecuting the asserted patents was unreasonable and inexcusable under the totality of circumstances, resulting in prejudice to

Linkplay and/or others during the period of delay. Courts have found delays greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Four out of the five asserted patents were filed as continuing patent applications, between eight and fifteen years after the first priority application. Sonos used the unreasonable and inexcusable delay to wait and see how technology and products in the market involve, and then inappropriately used continuation patent practice to unfairly capture claim scope for the asserted patents. That includes, but not limited to, claiming subject matter in the asserted patents to cover what others in the market were using while such subject matter is not sufficiently described and/or enabled in specifications of the applications and/or their priority applications. This is consistent with how Sonos has also been found to inappropriately use the patent-prosecution system to unfairly capture claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”). Linkplay and other companies in the industry suffered prejudice from Sonos’s unreasonable and inexcusable prosecution delays because it invested in developing, marketing, and selling its products during the delay period.

**TWELTH DEFENSE
(Prosecution-History Estoppel)**

On information and belief, due to narrowing amendments made during the prosecution of the applications for reasons substantially relating to patentability that resulted in the asserted patents or related patent applications, Sonos is estopped from arguing that the asserted patents as infringed by the accused products under the doctrine of equivalents.

**THIRTEENTH DEFENSE
(Unclean Hands)**

On information and belief, Sonos's claims and prayer for relief are barred by the doctrine of unclean hands. Sonos misled and deceived Linkplay in its dealings with Linkplay US before filing this Complaint, as further described *infra* in Linkplay's counterclaims. Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of Linkplay's Counterclaims as if they are fully set forth here. Sonos pursued discussions with Linkplay under the guise of collaboration and investment so that Sonos could acquire confidential technical and financial information to gain an advantage during future litigation. Multiple Sonos high-level technical and business representatives contributed to the misconduct, including Mike Tatum, Eddie Lazarus, Rebecca Zavin, Maxime Bouvat-Merlin, and Jim Hong. The misconduct occurred over the course of 2023, at the dates mentioned in aforementioned paragraphs of the Answer and Counterclaims. The meetings took place at numerous physical locations in addition to phone and email. Sonos's receipt of Linkplay's confidential technical and financial information unfairly helped or will help Sonos in this lawsuit, as explained in the above section on Equitable Estoppel. Indeed, this information has already benefited Sonos in its deciding whether to pursue litigation, and Sonos will continue to benefit from this information as it pursues infringement and damages theories.

Sonos has a history of first reaching out to potential technology partners and then suing them for patent infringement after learning more about the intricate details of their products. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Sonos has also inappropriately used the patent prosecution system to unfairly capture claim scope for the asserted patents, for example, through continuation patent practice. That includes, but is not limited to, using continuation patent filings to claim subject matter in the

asserted patents that Sonos knew or should have known is not described and/or enabled in specifications of the applications and/or their priority applications. Sonos has previously been found to have done so in obtaining patents. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”). On information and belief, Sonos strategically deceptively committed acts to mislead the United States Patent and Trademark Office in the prosecution of one or more of the asserted patents. Sonos has been found to have deceived the patent office in the prosecution of its patents. *Id.* at *27 (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). In addition, during prosecution of one or more asserted patents and/or their priority patent applications, Sonos misled and deceived the USPTO in its various statements to the USPTO, in the form of declarations or otherwise, that result in improper correction of inventorship in at least the ’014 Patent, improper revival of abandoned application from which at least the ’014 Patent, the ’357 Patent, and the ’532 Patent stem, improper discounts in fee payments (due to for example improper small-entity claim) impacting at least the ’014 Patent, the ’357 Patent, the ’532 Patent and the ’023 Patent, and/or improper request for non-publication. On information and belief, Sonos also knowingly named incorrect inventorship in at least the ’014 Patent, the ’357 Patent, and the ’532 Patent. Each and all inequitable conduct would render at least one asserted patent abandoned and/or unenforceable.

**FOURTEENTH DEFENSE
(Patent Misuse)**

On information and belief, Sonos’s claims and prayer for relief are barred by the doctrine of patent misuse. On information and belief, Sonos has impermissibly broadened the physical or temporal scope of the asserted patents with an anticompetitive effect by demanding license fees from products that do not infringe, demanding license fees from expired patents, demanding licensee fees on sales outside the territories for which Sonos has enforceable patent rights, price fixing, market division, and other unlawful anticompetitive behaviors.

**FIFTEENTH DEFENSE
(Ensnarement)**

On information and belief, Sonos’s claims for infringement under the doctrine of equivalents against Linkplay are barred by the doctrine of ensnarement, as Sonos’s application of the doctrine of equivalents ensnares the prior art.

RESERVATION OF ALL DEFENSES

Linkplay alleges that it may have other separate and additional defenses of which it is not presently aware and hereby reserves the right to raise such defenses by amendment of its Answer, including to conform to its proofs at trial. Linkplay therefore reserves all defenses under the Federal Rules of Civil Procedure, including Rule 8(c), the Patent Laws of the United States and any other and additional defenses, at law or in equity, that are now or may become available or appear during, or as a result of, discovery in this action.

COUNTERCLAIMS

For its counterclaims against Plaintiff Sonos, Inc. (“Sonos”), Counterclaim Plaintiffs Linkplay Technology Inc. (“Linkplay US”) and Linkplay Technology Inc., Nanjing (“Linkplay Nanjing”) (collectively, “Linkplay”) allege as follows:

INTRODUCTION

Linkplay’s History and Products

1. Linkplay was founded with the goal of bringing wireless streaming technology to smart audio and smart home products, making it easy to use and universally accessible to enhance people's lives.

2. Over the past decade, in service of that goal, Linkplay has become one of the world's most innovative companies in the audio and smart-home industries.

3. Linkplay has been at the forefront of smart-audio and smart-home solutions, offering voice control, audio streaming, intuitive companion apps, and cloud services helping to lead global brands to revolutionize smart speakers, soundbars, and smart home devices.

4. Linkplay's acclaimed WiiM series, featuring the WiiM Mini, Pro, and Pro Plus audio streamers, along with the groundbreaking WiiM Amp, smartly upgrades a legacy audio device into connected, intelligent devices, allowing people to enjoy enhanced, high-fidelity listening.

5. Linkplay remains dedicated to innovating accessible smart-audio and home products, leveraging the latest in connectivity, voice technology, and cloud services to enrich homes globally.

6. The Consumer Electronics Society (CES) has widely acknowledged Linkplay's commitment to product innovation, with the WiiM Pro Plus clinching the CES Innovation Award 2024 for its exceptional design and engineering in consumer technology. *See Ex. A, available at <https://www.ces.tech/innovation-awards/honorees/2024/honorees/w/wiim-pro-plus.aspx>. The new WiiM Ultra just won the CES Innovation Award 2025 as "a high-performance streaming device designed to deliver an unparalleled audio experience."* *See Ex. A, available at <https://www.ces.tech/ces-innovation-awards/2025/wiim-ultra/>*

7. Linkplay products consistently set the benchmark for excellence. The New York Times Wirecutter lauded the WiiM Amp as among “the best stereo amplifiers and receivers under \$300.” *See* Ex. B, *available at* <https://www.nytimes.com/wirecutter/reviews/best-mini-stereo-amplifier/>. CNET named the WiiM Pro the “Best Music Streamer 2023.” *See* Ex. C, *available at* <https://www.cnet.com/tech/home-entertainment/wiim-pro-review-the-best-streamer-for-music-fans/>. And What-HiFi honored the WiiM Pro Plus as the “Best Music Streamer Under £300, 2023.” *See* Ex. D, *available at* <https://www.whathifi.com/awards/best-music-streamers-2023/>; Ex. E, *available at* <https://www.whathifi.com/reviews/wiim-pro-plus>.

8. Some industry publications have compared certain Sonos products directly to certain Linkplay products.

9. Industry publications comparing the Linkplay WiiM Pro and the Sonos Port have lauded Linkplay’s product as superior in many respects. For example, the Digital Trends article quoted by Sonos in its complaint (Ex. F, *available at* <https://www.digitaltrends.com/home-theater/wiim-pro-review>), made the following observations in its comparison of these products:

- “Both devices have indicator lights on the front for power, but the WiiM Pro also features touch controls for volume (which can be swapped for track skipping), playback, and presets.”
- “[With the WiiM Pro, y]ou get an optical input, plus an optical and coaxial digital set of outputs. The Port only has a single coaxial digital output The WiiM Pro, by contrast, is festooned with wireless options. You can use the WiiM app to access a variety of streaming services, or AirPlay, Bluetooth, and Chromecast Audio — the latter two options will be especially useful to Android users — as well as Spotify Connect/Tidal Connect.”
- “Sonos has been criticized for not offering any kind of headphone listening experience, which makes the WiiM Pro all the more impressive. It supports Bluetooth as an output — a feature that’s very rare in the wireless multiroom universe.”
- “Sonos supports a wide variety of both lossy and lossless formats, but it has a hard limit on resolution that die-hard audiophiles may find annoying: audio quality can’t exceed 24-bit/48kHz... The WiiM Pro doesn’t quite tick all of the audiophile boxes (it doesn’t

decode DSD), but it comes very close, with support for hi-res lossless ALAC, APE, FLAC, and WAV, up to 24-bit/192kHz, in addition to the usual lossy suspects, MP3, AAC, WMA, and OGG. There's even beta-level support for the MQA format, which Tidal uses to deliver its top-tier Masters tracks, something that Sonos does not support.”

- “Cleverly, once grouped, the WiiM app lets you decide if you want each device to play the full stereo stream, or if each device should play just one channel. Sonos only lets you create these kinds of stereo pairs if both devices are identical.”

10. Industry publications comparing Linkplay WiiM Amp and Sonos Amp have lauded Linkplay's product as superior in many respects. For example, the Digital Trends article quoted by Sonos in its complaint (Ex. G, *available at* <https://www.digitaltrends.com/home-theater/wiim-amp-review>) made the following observations in its comparison of these products:

- The 5-way binding posts accept almost any method including banana plugs and bare wires. Since it's possible (though not an official feature) to run two sets of 8-ohm speakers (4 speakers in total), it's nice to be able to run one set via banana plugs and another set as bare wire — the Sonos Amp can only handle one of these connections at a time.”
- “But if you're extremely picky about maximizing sound quality, WiiM's platform is technically superior.”
- “Take the included Bluetooth remote, for instance. It's easy to overlook because most folks will use the WiiM app to interact with the Amp. And yet, it not only turns the Amp into a full-fledged Amazon Alexa smart speaker, but it also gives everyone in the house (and visitors too) an easy, familiar, and app-free way to control important functions like volume, muting, playback, and source selection, including access to the first four of 12 available presets. That's a lot of extra value that the Sonos Amp can't match.”
- “Speaking of streaming over wireless connections, the WiiMAmp is astonishingly flexible ... this is one area where the Sonos Amp feels decidedly limited.”
- “I'm guessing the generous selection of EQ presets will get you most of the way there. That's something the Sonos Amp doesn't offer. Its only tone controls are separate bass and treble sliders.”
- “As you can see, they're all more expensive than the WiiM Amp, and that extra investment doesn't always mean more or better features and performance. For its price, the WiiM Amp provides an unbeatable value.”

11. In addition, as the disastrous redesign of Sonos app struggled to meet its customers' expectations (*see, e.g.*, Ex. G, *available at* <https://www.engadget.com/audio/speakers/why-is-the-sonos-app-so-broken-140028060.html> and <https://www.engadget.com/audio/speakers/sonos-ceo-patrick-spence-falls-on-his-sword-after-horrible-app-launch-160704330.html>), the WiiM Home app is consistently rated by users as more reliable and providing a better experience (*see, e.g.*, Ex. G, *available at* <https://en.community.sonos.com/general-feedback-and-conversation-229090/sonos-app-arghhhhh-6904085>).

The Parties' Pre-Litigation Dealings

12. The parties had extensive dealings before the filing of this lawsuit.
13. These dealings began over a year before this suit was filed, at Sonos's request and invitation.
14. During the course of these dealings, Sonos repeatedly asked Linkplay for technical assistance. Sonos conceded that its products did not perform as well as Linkplay's in certain areas.
15. During these dealings and communications with Linkplay, Sonos performed a tremendous amount of analysis to understand Linkplay's technology, products, and team. Based on such analysis, Sonos repeatedly expressed interest to collaborate with Linkplay technically as working partners and also expressed interest to make an investment in or acquire Linkplay to share Linkplay's success.
16. The content of these dealings and the communications exchanged show Sonos acknowledged that Linkplay independently innovated superior products instead of copying Sonos's. Sonos's dealings and communications with Linkplay directly contradict the

implications in Sonos's complaint that Linkplay merely copied Sonos and/or is incapable of independent innovation.

17. These dealings began around January 2023, when Mike Tatum, Sonos VP of Corporate Strategy and M&A, contacted Jade Wu, Linkplay's then Chief Business Officer. Tatum asked Wu for a meeting at the 2023 CES expo held in Las Vegas, Nevada.

18. Henry Jeong, Linkplay VP of Global Sales, responded and agreed to the meeting.

19. Jeong met Tatum and Eddie Lazarus, Sonos's then CFO and Chief Legal Officer in January 2023. This January 2023 meeting explored how Sonos and Linkplay could cooperate. Tatum and Lazarus did not raise Sonos's IP or any alleged infringement thereof.

20. The parties entered into an NDA on February 7, 2023. The NDA generally covered information exchanged "[i]n connection with our mutual consideration of a possible negotiated transaction (the "Transaction") between Sonos and [Linkplay]."

21. In February 2023, the parties had a subsequent meeting via online conference call. Attending for Linkplay were Jeong and CEO Lifeng Zhao. Attending for Sonos were its SVP of software Rebecca Zavin and other technical people. Sonos asked many technical questions about Linkplay's products and its software designs. Sonos noted that the Linkplay WiiM Pro had fast synchronization. Sonos did not raise Sonos's IP or any alleged infringement thereof at the meeting.

22. Sonos asked Jeong about his ideas for inter-company cooperation. Jeong offered to help Sonos integrate Sonos API into Linkplay or Linkplay technology into Sonos products.

23. Sonos solicited suggestions for improving its portable devices. Sonos also admitted that its software was "heavy" and products too costly.

24. In September 2023, Sonos asked for another meeting, this time to be held in person in San Francisco, California. Eventually, two meetings between the companies occurred at Sonos's San Francisco office in September 2023, one on September 14 and another on September 25.

25. Zhao, Jeong, and Steven Willenborg attended these meetings for Linkplay. Among the Sonos employees attending were Mike Tatum, its Chief Product Officer (believed to be Maxime Bouvat-Merlin), product managers, and senior marketing managers. No employees from any legal department were present at this meeting.

26. At these San Francisco meetings, Sonos raised the possibility of acquiring Linkplay or investing in the company and asked Linkplay to disclose its financial status and investors. Sonos did not raise Sonos's IP or any alleged infringement thereof at these meetings.

27. Also at these meetings, Sonos again sought technical assistance from Linkplay regarding Sonos's products. On this point, it had brought Jim Hong, a product lead at Sonos living in Seattle, into the conversation after the meetings to discuss the technical matters.

28. The discussions on possible inter-company collaboration continued via email into November 2023. Tatum stated on November 21, 2023 that Hong had left Sonos. But on information and belief, Hong did not actually leave Sonos.

29. On November 21, 2023, Sonos's Tatum asked for a follow-up meeting. The parties exchanged cordial emails through December about possible cooperation and investment. On December 1, Tatum claimed that "our team I believe has come up with an attractive option," presumably regarding cooperation and/or investment.

30. On or around December 4, 2023, Sonos and Linkplay held a call about cooperation and/or investment. Sonos again asked for Linkplay's financial information. Tatum,

for that time, mentioned that Sonos's legal team was investigating Linkplay's products against Sonos's patents but represented that Sonos still wanted to collaborate with Linkplay.

31. Tatum also mentioned that Sonos wanted Linkplay to raise the prices on its products. He suggested that Linkplay raise its prices to the \$400–500 range that Sonos was selling at.

32. Sonos proposed to continue negotiating terms of a business deal, over the holidays, for Linkplay to be part of the “exclusive” “Work with Sonos” developer program and integrate Linkplay's products with Sonos, and for Sonos to make an investment in Linkplay. Sonos suggested that the discussions would continue at least to mid-January 2024.

33. However, on Monday, December 11, 2023, to Linkplay's surprise, Sonos sent Linkplay a cease-and-desist letter alleging that Linkplay was infringing a number of Sonos's patents. The parties ceased having any direct written or oral communications after that.

34. While Linkplay engaged in extensive technical and business discussions with Sonos in good faith and went out of its way to help Sonos improve its products, Sonos seems to think no good deed should go unpunished. In exchange for the assistance Sonos received from Linkplay to help improve Sonos's products and the technical and financial information shared by Linkplay, Sonos now sues Linkplay asking for damages and an injunction.

35. In this respect, Linkplay is much like Google, another company from which Sonos sought technical assistance to improve its products before suing for damages and injunctive relief with the benefit of the confidential technical information it received during its purported efforts to collaborate. See *Sonos, Inc. v. Google LLC*, No. 2:20-cv-00169-JAK, Doc. 29, ¶¶ 6–13 (C.D. Cal. March 2, 2020) (Answer by Google) (noting how Sonos approached Google for technical assistance and collaboration before suing Google for patent infringement).

36. But there is no basis for Sonos's claims. The technologies Linkplay uses were all independently developed by Linkplay. They are not technologies Linkplay took from Sonos, and they are not the technologies described in the patents Sonos asserts.

37. The asserted patents describe older technologies—not the advanced technologies Linkplay uses. In fact, the technologies described in Sonos's asserted patents were not even first developed by Sonos.

38. The ideas in those patents were not new; they were already known in the field and were obvious and dated by the time Sonos applied for each of these asserted patents.

39. The technologies in these asserted patents do not reflect the design of modern wireless audio devices.

40. Indeed, it appears Sonos itself does not even use these technologies in its modern devices.

41. During the course of these pre-suit inter-company discussions, Sonos repeatedly emphasized that it sought to collaborate with Linkplay. Indeed, Sonos specifically discussed the possibility of going further and investing in Linkplay or acquiring it outright.

42. Based on these representations from Sonos, Linkplay shared confidential technical and financial information with Sonos.

43. Sonos's receipt of this confidential information helped or will help it in this lawsuit against Linkplay.

44. During the course of these pre-suit inter-company discussions, Sonos mentioned it had some concerns about Linkplay's use of Sonos's intellectual property, but assured Linkplay its focus was on possible collaboration with or investment in Linkplay.

45. Based on this representation, Linkplay reasonably believed that Sonos had no intention of bringing a patent-infringement lawsuit, such as this one, against Linkplay, much less one that would benefit from the confidential technical and financial information Sonos had received from Linkplay while the companies were discussing collaboration or investment.

46. Linkplay initially believed that Sonos had held these discussions entirely in good faith.

47. Sonos did not conduct all of these discussions in good faith.

PARTIES

48. Linkplay Technology Inc. is a Delaware corporation but operates out of its principal place of business at 8000 Jarvis Ave., Suite 130, Newark, CA 94560. Linkplay Technology Inc., Nanjing is a Chinese corporation operating out of China.

49. On information and belief and as alleged by itself, Counterclaim Defendant Sonos is a Delaware corporation with its principal place of business at 614 Chapala Street, Santa Barbara, California 93101.

JURISDICTION AND VENUE

50. Linkplay incorporates by reference Counterclaim paragraphs 1–49 above as if fully set forth herein.

51. Counterclaim Counts One through Eighteen (hereafter, Counterclaims 1–18), plead in more detail below, arise under the patent laws of the United States, Title 35, United States Code, in which Linkplay seeks relief under the Declaratory Judgment Act. The jurisdiction of this Court is proper under at least 35 U.S.C. § 271 et seq., 15 U.S.C. § 1051 et seq., and 28 U.S.C. §§ 1331, 1338, 1367, and 2201-02.

52. Sonos has consented to the personal jurisdiction of this Court with respect to Counterclaims 1-18 at least by commencing its action for patent infringement in this District, as set forth in its complaint. This Court further has general personal jurisdiction over Sonos as to all Counterclaims because, upon information and belief and as alleged by Sonos, Sonos is incorporated in Delaware. The exercise of personal jurisdiction over Sonos with respect to these Counterclaims would not offend traditional notions of fair play and substantial justice.

53. Based at least on Plaintiff's filing of this action, venue for Counterclaims 1–18 is proper, though not necessarily convenient, in this District under at least 28 U.S.C. §§ 1391 and 1400.

COUNTERCLAIMS

54. Linkplay incorporates by reference above paragraphs 1–53 as if fully set forth herein.

55. Counterclaims 1-18 concern the following six patents which Sonos has asserted against Linkplay (“patents-in-suit”):

- 7,571,014 (the “’014 patent”)
- 9,164,532 (the “’532 patent”)
- 9,213,357 (the “’357 patent”)
- 10,146,498 (the “’498 patent”)
- 10,541,883 (the “’883 patent”)
- 10,853,023 (the “’023 patent”)

56. As further described below, Linkplay seeks a declaration that each of these patents is (A) not infringed, (B) invalid, and (C) unenforceable.

COUNT ONE: **DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE ’014 PATENT**

57. Linkplay has not infringed and does not infringe the ’014 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not

liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its “noninfringement contentions”).

58. Linkplay’s accused products do not directly infringe the ’014 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or under the Doctrine of Equivalents, include but not limited to “displaying on a screen a first list showing at least available players,” “displaying, when at least one of the players is selected as a zone group head, on the screen a second list showing at least some of the players that are eligible to be grouped with the zone group head,” “wherein any one of the players in the group serves as a zone group head,” “adjusting a volume meter represented by an averaged value of audio volumes of the players in the group.”

59. Linkplay’s accused products do not directly infringe the ’014 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

60. Linkplay’s accused products do not indirectly infringe the ’014 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise “if, but only if, there is direct infringement”). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform the requisite inducing and/or contributing acts, and as the accused products have substantial

noninfringing use including not implementing multi-room playback and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

61. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the '014 Patent, as if they are pleaded here.

62. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

63. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '014 Patent.

64. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

65. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT TWO:
DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE '532 PATENT

66. Linkplay has not infringed and does not infringe the '532 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its "noninfringement contentions").

67. Linkplay's accused products do not directly infringe the '532 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or under the Doctrine of Equivalents, include but not limited to "transmit audio content, playback timing for the audio content, and device clock information to every other zone player in the first group," and "play back the audio content in synchrony with every other zone player in the first group according to the playback timing and the device clock information."

68. Linkplay's accused products do not directly infringe the '532 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

69. Linkplay's accused products do not indirectly infringe the '532 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise "if, but only if, there is direct infringement"). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform the requisite inducing and/or contributing acts, and as the accused products have substantial noninfringing use including not implementing multi-room playback and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

70. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the '532 Patent, as if they are pleaded here.

71. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

72. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '532 Patent.

73. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

74. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT THREE:
DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE '357 PATENT

75. Linkplay has not infringed and does not infringe the '357 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its "noninfringement contentions").

76. Linkplay's accused products do not directly infringe the '357 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or under the Doctrine of Equivalents, include but not limited to "transmit, via the network interface of the first playback device to a second playback device, the audio information, playback timing

information associated with the audio information, and device clock information of the first playback device” and “play back the audio information in synchrony with the second playback device by using the playback timing information associated with the audio information and the device clock information of the first playback device to play back the audio information.”

77. Linkplay’s accused products do not directly infringe the ’357 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

78. Linkplay’s accused products do not indirectly infringe the ’357 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise “if, but only if, there is direct infringement”). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform the requisite inducing and/or contributing acts, and as the accused products have substantial noninfringing use including not implementing multi-room playback and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

79. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the ’357 Patent, as if they are pleaded here.

80. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

81. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '357 Patent.

82. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

83. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT FOUR:
DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE '498 PATENT

84. Linkplay has not infringed and does not infringe the '498 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its "noninfringement contentions").

85. Linkplay's accused products do not directly infringe the '498 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or under the Doctrine of Equivalents, include but not limited to "providing first device clock timing information to the second zone player over an asynchronous network while the first zone player is in the first synchrony group," "all zone players in the first synchrony group playback the first audio information using the first device clock timing information that the first zone player

provides over the asynchronous network,” “receiving control information from the controller device via the asynchronous network , wherein the control information includes an identification of a third zone player , and wherein the control information directs the first zone player to (a) disengage from the first synchrony group , (b) join a second synchrony group with the third zone player , and (c) receive second audio information from the third zone player for playback in synchrony with the third zone player,” “after receiving the control information from the controller device, (a) disengaging the first zone player from the first synchrony group , (b) joining the first zone player to the second synchrony group , (c) receiving the second audio information from the third zone player , and (d) playing the second audio information in synchrony with the third zone player.”

86. Linkplay’s accused products do not directly infringe the ’498 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

87. Linkplay’s accused products do not indirectly infringe the ’498 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise “if, but only if, there is direct infringement”). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform the requisite inducing and/or contributing acts, and as the accused products have substantial noninfringing use including not implementing multi-room playback and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

88. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the '498 Patent, as if they are pleaded here.

89. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

90. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '498 Patent.

91. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

92. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT FIVE:
DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE '883 PATENT

93. Linkplay has not infringed and does not infringe the '883 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its "noninfringement contentions").

94. Linkplay's accused products do not directly infringe the '883 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or

under the Doctrine of Equivalents, include but not limited to “detecting a triggering event that causes the playback device to enter a setup mode in which the playback device transmits at least a first message indicating that the playback device is available for setup” and “while in the setup mode, receiving a response to the first message that facilitates establishing an initial communication path with a computing device that is installed with an application for controlling the playback device.”

95. Linkplay’s accused products do not directly infringe the ’883 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

96. Linkplay’s accused products do not indirectly infringe the ’883 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise “if, but only if, there is direct infringement”). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform the requisite inducing and/or contributing acts, and as the accused products have substantial noninfringing use including not implementing multi-room playback and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

97. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the ’883 Patent, as if they are pleaded here.

98. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

99. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '883 Patent.

100. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

101. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT SIX:
DECLARATORY JUDGMENT OF NONINFRINGEMENT OF THE '023 PATENT

102. Linkplay has not infringed and does not infringe the '023 patent, either directly (either literally or under the doctrine of equivalents), contributorily, or by inducement, and is not liable for infringement of any valid and enforceable claim of this patent. Linkplay further incorporates by reference all discovery responses and expert reports it has served or will serve on noninfringement (including its "noninfringement contentions").

103. Linkplay's accused products do not directly infringe the '023 patent at least because the different technology Linkplay independently developed and implemented in its products. The accused products do not perform at least the claimed "arming" and "rearming" processes and claim features related thereto.

104. Linkplay's accused products do not directly infringe the '023 patent, literally or under the Doctrine of Equivalents, at least because the accused products do not meet each and every claim feature required by the asserted claims. The claim features not met, literally or

under the Doctrine of Equivalents, include but not limited to “arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content,” “after arming the playback device, playing the second type of media content,” “while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector,” “while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector,” “in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content,” “determining that the playback device is no longer receiving the first type of media content,” and “in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.”

105. Linkplay’s accused products do not directly infringe the ’023 patent to the extent they are not made, used, sold, offered for sale in the United States or imported into the United States, under 35 U.S.C. § 271.

106. Linkplay’s accused products do not indirectly infringe the ’023 patent at least because there is no underlying direct infringement, which is required for any possible finding of indirect infringement. *Limelight Networks, Inc., v. Akamai Technologies, Inc.*, 134 S. Ct. 2111, 2117 (2014) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961)) (finding indirect infringement liability can only arise “if, but only if, there is direct infringement”). Linkplay also does not actively induce any direct infringement or contribute to any direct infringement as Linkplay lacks the requisite knowledge, as Linkplay does not perform

the requisite inducing and/or contributing acts, and as the accused products have substantial noninfringing use and are not especially made or especially adapted for use in an infringement. 35 U.S.C. § 271(b)-(c).

107. Linkplay further incorporates by reference all discovery responses and expert reports on noninfringement of the '023 Patent, as if they are pleaded here.

108. Sonos is not entitled to relief of any claim in the Complaint for at least the reasons in this Answer and Counterclaims, including the defenses set forth above.

109. Based on Sonos's filing of this action and at least Linkplay's second defense, an actual controversy has arisen and now exists between the parties on whether Linkplay infringes the '023 Patent.

110. Absent a declaration of non-infringement, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

111. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that Linkplay has not infringed (directly or indirectly) any valid and enforceable claim of this patent, either literally or under the doctrine of equivalents.

COUNT SEVEN:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '014 PATENT

112. Each of the asserted claims of the '014 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description

and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6) and 122(b) (for abandonment due to violation of requirements associated with non-publication request), the non-statutory doctrine of obviousness-type double-patenting, improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

113. The claims of the '014 patent are invalid under § 101 at least because they are directed to patent illegible abstract ideas without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of evaluating the output of basic mathematical operation(s) to affect the amplitude of audio waves, evaluating the output of basic mathematical operation(s) to process audio data, centralized control of audio system settings for networked playback devices, visualizing volume control of multiple players based on mathematical relationships, and/or simultaneously or uniformly adjusting volumes of multiple players.

114. The claims of the '014 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity contentions, cited in the '014 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '014 patent, cited in the prosecution history and Reexamination of the '014 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos patent litigations asserting the '014 patent or its related patents. For example, the asserted claims of the '014 patent are anticipated and obvious under at least those exemplary

prior art and grounds charted in the invalidity claim charts included in Linkplay's invalidity contentions.

115. The claims of the '014 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those identified in Linkplay's invalidity contentions. The deficiencies that render any claims, independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

116. The claims of the '014 patent are invalid under 35 U.S.C. § 102(f) for failure to name the proper inventors. The underlying application was filed with Robert A. Lambourne as the sole inventor. Sonos claimed that the inventorship was incorrect and requested correction later, only upon discovery by its prosecution agent, to add Nicholas A. J. Millington as a co-inventor. As detailed in Linkplay's invalidity contentions, the '014 patent improperly named Millington as a co-inventor and thus invalid under 102(f), at least because he did not "substantially contribution" to the conception of the invention, and/or because Millington did not conceive or reduce to practice the claimed inventions by himself, but obtained the idea from someone else.

117. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '014 patent, as if they are pleaded here.

118. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '014 Patent.

119. Absent a declaration of invalidity and/or unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

120. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT EIGHT:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '532 PATENT

121. Each of the asserted claims of the '532 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6) and 122(b) (for abandonment due to violation of requirements associated with non-publication request), the non-statutory doctrine of obviousness-type double-patenting,

improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

122. The claims of the '532 patent are invalid under § 101 at least because they are directed to patent illegible abstract idea without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of (a) timing the processing of audio data by evaluating the output of basic mathematical operation(s); (b) synchronizing a group of networked devices; and/or (c) synchronizing a group of networked devices with independent clocks.

123. The claims of the '532 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity contentions, cited in the '532 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '532 patent, cited in the prosecution history of the '532 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos patent litigations asserting the '532 patent or its related patents. For example, the asserted claims of the '532 patent are anticipated and obvious under at least those exemplary prior art and grounds charted in the invalidity claim charts included in Linkplay's invalidity contentions.

124. The claims of the '532 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those identified in Linkplay's invalidity contentions. The deficiencies that render any claims,

independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

125. The claims of the '532 patent are invalid under the non-statutory doctrine of obviousness-type double-patenting because they are rendered obvious by other Sonos patents or patent applications that claim similar subject matter, alone or in light of additional prior art, as explained in Linkplay's invalidity contentions.

126. The claims of the '532 patent are invalid under 35 U.S.C. § 102(f) for failure to name the proper inventors. Lambourne should have been a co-inventor but was not listed in the inventorship and/or the listed inventor(s) did not conceive or reduce to practice the claimed inventions by himself/themselves, but obtained the ideas from someone else, such as coworkers or former coworkers at Microsoft, as explained in Linkplay's invalidity contentions.

127. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '532 patent, as if they are pleaded here.

128. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '532 Patent.

129. Absent a declaration of invalidity, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

130. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT NINE:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '357 PATENT

131. Each of the asserted claims of the '357 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6) and 122(b) (for abandonment due to violation of requirements associated with non-publication request), the non-statutory doctrine of obviousness-type double-patenting, improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

132. The claims of the '357 patent are invalid under § 101 at least because they are directed to patent illegible abstract idea without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of (a) timing the processing of audio data by evaluating the output of basic mathematical operation(s); (b) synchronizing a group of networked devices; and/or (c) synchronizing a group of networked devices with independent clocks.

133. The claims of the '357 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity

contentions, cited in the '357 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '357 patent, cited in the prosecution history of the '357 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos patent litigations asserting the '357 patent or its related patents. For example, the asserted claims of the '357 patent are anticipated and obvious under at least those exemplary prior art and grounds charted in the invalidity claim charts included in Linkplay's invalidity contentions.

134. The claims of the '357 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those identified in Linkplay's invalidity contentions. The deficiencies that render any claims, independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

135. The claims of the '532 patent are invalid under 35 U.S.C. § 102(f) for failure to name the proper inventors. Lambourne should have been a co-inventor but was not listed in the inventorship and/or the listed inventor(s) did not conceive or reduce to practice the claimed inventions by himself/themselves, but obtained the ideas from someone else, such as coworkers or former coworkers at Microsoft, as explained in Linkplay's invalidity contentions.

136. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '357 patent, as if they are pleaded here.

137. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '357 Patent.

138. Absent a declaration of invalidity, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

139. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT TEN:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '498 PATENT

140. Each of the asserted claims of the '498 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6) and 122(b) (for abandonment due to violation of requirements associated with non-publication request), the non-statutory doctrine of obviousness-type double-patenting,

improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

141. The claims of the '498 patent are invalid under § 101 at least because they are directed to patent illegible abstract idea without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of (a) grouping and regrouping networked devices; (b) synchronizing a group of networked devices; and/or (c) synchronizing a group of networked devices with independent clocks.

142. The claims of the '498 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity contentions for the '357 patent and/or the '532 patent that are in the same patent family as the '498 patent, cited in the '498 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '498 patent, cited in the prosecution history of the '498 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos patent litigations asserting the '498 patent or its related patents. For example, the asserted claims of the '498 patent are anticipated and obvious under at least those exemplary prior art and grounds charted in the invalidity claim charts that will be included in Linkplay's invalidity contentions.

143. The claims of the '498 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35

U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those that will be identified in Linkplay's invalidity contentions. The deficiencies that render any claims, independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

144. The claims of the '498 patent are invalid under 35 U.S.C. § 102(f) for failure to name the proper inventors. Lambourne should have been a co-inventor but was not listed in the inventorship and/or the listed inventor(s) did not conceive or reduce to practice the claimed inventions by himself/themselves, but obtained the ideas from someone else, such as coworkers or former coworkers at Microsoft, as will be explained in Linkplay's invalidity contentions.

145. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '498 patent, as if they are pleaded here.

146. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '498 Patent.

147. Absent a declaration of invalidity, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

148. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT ELEVEN:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '883 PATENT

149. Each of the asserted claims of the '883 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6), the non-statutory doctrine of obviousness-type double-patenting, improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

150. The claims of the '883 patent are invalid under § 101 at least because they are directed to patent illegible abstract idea without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of (a) communicating directly between two devices before communicating through a network the two devices are both connected to and/or (b) establishing access to a secure network.

151. The claims of the '883 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity contentions, cited in the '883 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '883 patent, cited in the Reexamination of the '883 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos

patent litigations asserting the '883 patent or its related patents. For example, the asserted claims of the '883 patent are anticipated and obvious under at least those exemplary prior art and grounds charted in the invalidity claim charts included in Linkplay's invalidity contentions.

152. The claims of the '883 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those identified in Linkplay's invalidity contentions. The deficiencies that render any claims, independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

153. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '883 patent, as if they are pleaded here.

154. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '883 Patent.

155. Absent a declaration of invalidity, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

156. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT TWELVE:
DECLARATORY JUDGMENT OF INVALIDITY OF THE '023 PATENT

157. Each of the asserted claims of the '023 patent is invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including but not limited to 35 U.S.C. §§ 101 (for lack of patent eligible subject matter), 102 (for being anticipated by prior art, abandonment of invention, and improper inventorship), 103 (for being unpatentable over prior art), 111 (for failure to submit proper patent application fees), 112 (for lack of written description and/or enablement, indefiniteness, for failure to meet the requirement for dependent claims, and for failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6), the non-statutory doctrine of obviousness-type double-patenting, improper inventorship, abandonment, all grounds in Linkplay's invalidity contentions including all supplements and amendments thereto, and the rules, regulations, and laws pertaining thereto.

158. The claims of the '023 patent are invalid under § 101 at least because they are directed to patent illegible abstract idea without significantly more under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). For example, the claims are directed toward the patent-ineligible subject matter of (a) prioritizing one source of data over another source of data and/or (b) switching between sources.

159. The claims of the '023 patent are invalid under §§ 102 and 103 because they are anticipated or rendered unpatentable by at least the prior art identified in Linkplay's invalidity contentions, cited in the '023 patent, cited in other Sonos patents claiming priority to or being claimed priority by or otherwise related to the '023 patent, cited in the prosecution history of the

'023 patent, and cited by Sonos's opponents, such as D&M Holdings and Google, in Sonos patent litigations asserting the '023 patent or its related patents. For example, the asserted claims of the '023 patent are anticipated and obvious under at least those exemplary prior art and grounds charted in the invalidity claim charts included in Linkplay's invalidity contentions.

160. The claims of the '023 patent are invalid under § 112 due to lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4, and/or failure to disclose corresponding structure, material, or acts for terms to be construed under 35 U.S.C. § 112 ¶ 6. Exemplary claim terms that have one of more 112 deficiencies include those identified in Linkplay's invalidity contentions. The deficiencies that render any claims, independent or dependent, invalid for lack of written description and/or enablement under 35 U.S.C. § 112 ¶ 1, indefiniteness under 35 U.S.C. § 112 ¶ 2, and/or for failure to meet the requirements for dependent claims under 35 U.S.C. § 112 ¶¶ 3 and 4 also infect and thus invalidate all claims depending therefrom.

161. Linkplay further incorporates by reference Linkplay's invalidity contentions including all supplements and amendments thereto, all discovery responses and expert reports on invalidity with respect to the '023 patent, as if they are pleaded here.

162. Based on Sonos's filing of this action and at least Linkplay's third defense, an actual controversy has arisen and now exists between the parties over whether any valid claims exist for the '023 Patent.

163. Absent a declaration of invalidity, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary

to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

164. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that each of the asserted claims of this patent is invalid and unenforceable.

COUNT THIRTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '014 PATENT

165. The '014 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions and expert reports it has served or will serve on invalidity and/or unenforceability.

166. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '014 patent. Sonos has previously been found by a Court to have misled and deceived the USPTO in the prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the '014 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

167. On information and belief, Sonos named the wrong inventorship with deceptive intent either initially when filing the application for the '014 patent by leaving out an inventor or later when adding a non-inventor to the inventorship. The underlying application was filed with Robert A. Lambourne as the sole inventor. Later in prosecution, Sonos claimed that the inventorship was incorrect and requested correction, only upon discovery by its prosecution agent, to add Nicholas A. J. Millington as a co-inventor. The record puts inventorship and Sonos's practice in naming the inventorship in the '014 patent in question.

168. On information and belief, Sonos and/or its patent-prosecution agents committed inequitable conduct during the prosecution of this asserted patent and/or its parent applications. Sonos is on notice of the factual bases for these claims, through at least Linkplay's invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the asserted '014 patent, Sonos, its patent prosecutor(s) (including Joe Zheng), Robert Lambourne, and/or Nicholas Millington knowingly prepared and/or filed an August 20, 2008 declaration falsely and improperly stating that Millington was properly a coinventor to the prosecuted claims and thus his patent publication anticipating and/or rendering obvious the claims did not qualify as prior art. This statement was false and knowingly false at least because this statement factually conflicts with itself (in that Millington could not have "contributed substantially" to the invention while working "independently") as well as in Sonos's later identification of Millington as the sole inventor of later related patents (including '532, '357 and '498). The prosecution of the '014 patent should not have proceeded in light of the rejection of the claims over the Millington prior-art reference.
- During the prosecution of U.S. Application No. 10/816,217, the parent to several asserted patents (including the following: '014, '532, '357, and '498), Sonos and/or its patent prosecutor(s) (including K. Brian Bathurst) knowingly prepared and/or filed a November 21, 2005 Petition for Revival (of an abandoned application) falsely and improperly stating that "The entire delay in filing the required reply from the due date from the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional." This statement was false and knowingly false at least because Sonos's failure to pay or even make ordinary arrangements to pay the initial filing fee could not have been

unintentional. The prosecution of the '217 application should not have proceeded in light of its abandonment, and the applications of the '014, '532, '357, and '498 patents could not have been filed as continuing applications to an abandoned application. These patents would not have been issued as a result.

- During the prosecution of several asserted patents (including, but not limited to, the following: '014, '023, '532, '357), Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it would not have qualified for that status. The prosecution of the applications of the '014, '023, '532, '357 patents should not have proceeded in light of their abandonment and these patents would not have been issued as a result.

169. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the '014 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution (including the Reexamination proceeding) of the '014 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

170. The '014 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11

(N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos's products, integrating the Linkplay products with Sonos's products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos's IP or Linkplay US's alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing,

and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '014 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

171. Based on Sonos's filing of this action and at least Linkplay's relevant defenses identified above, an actual controversy has arisen and now exists between the parties over whether the '014 patent is enforceable.

172. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damages.

173. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that this patent is unenforceable.

COUNT FOURTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '532 PATENT

174. The '532 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including lack of standing, equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions including all supplements and

amendments thereto and expert reports it has served or will serve on invalidity and/or unenforceability.

175. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '532 patent. Sonos has previously been found by a Court to have misled and deceived the USPTO in the prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the '532 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

176. On information and belief, Sonos and/or its patent-prosecution agents committed inequitable conduct during the prosecution of this asserted patent and/or its parent applications. Sonos is on notice of the factual bases for these claims, through at least Linkplay's invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the asserted '014 patent, Sonos, its patent prosecutor(s) (including Joe Zheng), Robert Lambourne, and/or Nicholas Millington knowingly prepared and/or filed an August 20, 2008 declaration falsely and improperly stating that Millington was properly a coinventor to the prosecuted claims and thus his patent publication anticipating and/or rendering obvious the claims did not qualify as prior art. This statement was false and knowingly false at least because this statement factually conflicts with itself (in that Millington could not have “contributed substantially” to the invention while working “independently”) as well as in Sonos's later identification of Millington as the sole inventor of later related patents (including '532, '357 and '498). The prosecution of the '014 patent

should not have proceeded in light of the rejection of the claims over the Millington prior-art reference.

- During the prosecution of U.S. Application No. 10/816,217, the parent to several asserted patents (including the following: '014, '532, '357, and '498), Sonos and/or its patent prosecutor(s) (including K. Brian Bathurst) knowingly prepared and/or filed a November 21, 2005 Petition for Revival (of an abandoned application) falsely and improperly stating that “The entire delay in filing the required reply from the due date from the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.” This statement was false and knowingly false at least because Sonos’s failure to pay or even make ordinary arrangements to pay the initial filing fee could not have been unintentional. The prosecution of the '217 application should not have proceeded in light of its abandonment, and the applications of the '014, '532, '357, and '498 patents could not have been filed as continuing applications to an abandoned application. These patents would not have been issued as a result.
- During the prosecution of several asserted patents (including, but not limited to, the following: '014, '023, '532, '357), Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it would not have qualified for that status. The prosecution of the applications of the '014, '023, '532, '357 patents should not have proceeded in light of their abandonment and these patents would not have been issued as a result.

177. On information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the '532 patent. For example, the '532 patent was filed 9 years after the first priority application – it was filed in 2012, as a continuation of U.S. Application No. 13/297,000 (granted as U.S. Patent No. 9,182,777) filed in 2011, which is continuation of U.S. Application No. 10/816,217 (granted as U.S. Patent No. 8,234,396) filed in 2004, which claims priority to U.S. Prov. Application No. 60/490,768 filed in 2003. Courts have found delays greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Sonos then inappropriately used the continuation patent practice to unfairly

capture claim scope for the '532 patent. This is consistent with how Sonos has also been found to inappropriately use the patent-prosecution system to unfairly capture claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”).

178. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the '532 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the '532 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

179. The '532 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology

solutions to help improve Sonos's products, integrating the Linkplay products with Sonos's products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos's IP or Linkplay US's alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading

conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '532 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

180. Based on Sonos's filing of this action and at least Linkplay's fourth and seventh through thirteenth defenses, an actual controversy has arisen and now exists between the parties over whether the '532 Patent is enforceable.

181. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

182. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that the claims of this patent are unenforceable.

COUNT FIFTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '357 PATENT

183. The '357 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including lack of standing, equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions including all supplements and amendments thereto and expert reports it has served or will serve on invalidity and/or unenforceability.

184. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '357 patent. Sonos has previously been found by a Court to have misled and deceived the USPTO in the prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was ***strategically and deceptively*** added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the '357 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

185. On information and belief, Sonos and/or its patent-prosecution agents committed inequitable conduct during the prosecution of this asserted patent and/or its parent applications. Sonos is on notice of the factual bases for these claims, through at least Linkplay's invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the asserted '014 patent, Sonos, its patent prosecutor(s) (including Joe Zheng), Robert Lambourne, and/or Nicholas Millington knowingly prepared and/or filed an August 20, 2008 declaration falsely and improperly stating that Millington was properly a coinventor to the prosecuted claims and thus his patent publication anticipating and/or rendering obvious the claims did not qualify as prior art. This statement was false and knowingly false at least because this statement factually conflicts with itself (in that Millington could not have “contributed substantially” to the invention while working “independently”) as well as in Sonos's later identification of Millington as the sole inventor of later related patents (including '532, '357 and '498). The prosecution of the '014 patent should not have proceeded in light of the rejection of the claims over the Millington prior-art reference.

- During the prosecution of U.S. Application No. 10/816,217, the parent to several asserted patents (including the following: '014, '532, '357, and '498), Sonos and/or its patent prosecutor(s) (including K. Brian Bathurst) knowingly prepared and/or filed a November 21, 2005 Petition for Revival (of an abandoned application) falsely and improperly stating that “The entire delay in filing the required reply from the due date from the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.” This statement was false and knowingly false at least because Sonos’s failure to pay or even make ordinary arrangements to pay the initial filing fee could not have been unintentional. The prosecution of the '217 application should not have proceeded in light of its abandonment, and the applications of the '014, '532, '357, and '498 patents could not have been filed as continuing applications to an abandoned application. These patents would not have been issued as a result.
- During the prosecution of several asserted patents (including, but not limited to, the following: '014, '023, '532, '357), Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it would not have qualified for that status. The prosecution of the applications of the '014, '023, '532, '357 patents should not have proceeded in light of their abandonment and these patents would not have been issued as a result.

186. On information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the '357 patent. For example, the '357 patent was filed 11 years after the first priority application – it was filed in 2014, as a continuation of U.S. Application No. 13/297,000 (granted as U.S. Patent No. 9,182,777) filed in 2011, which is continuation of U.S. Application No. 10/816,217 (granted as U.S. Patent No. 8,234,396) filed in 2004, which claims priority to U.S. Prov. Application No. 60/490,768 filed in 2003. Courts have found delays greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Sonos then inappropriately used the continuation patent practice to unfairly capture claim scope for the '357 patent. This is consistent with how Sonos

has also been found to inappropriately use the patent-prosecution system to unfairly capture claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”).

187. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the ’357 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the ’357 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

188. The ’357 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos’s products, integrating the Linkplay products with Sonos’s

products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos's IP or Linkplay US's alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct

was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '357 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

189. Based on Sonos's filing of this action and at least Linkplay's relevant defenses identified above, an actual controversy has arisen and now exists between the parties over whether the '357 Patent is enforceable.

190. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

191. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Linkplay requests a declaration that this patent is unenforceable.

COUNT SIXTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '498 PATENT

192. The '498 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including lack of standing, equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions including all supplements and amendments thereto and expert reports it has served or will serve on invalidity and/or unenforceability.

193. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '498 patent.

Sonos has previously been found by a Court to have misled and deceived the USPTO in the prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the ’498 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

194. On information and belief, Sonos and/or its patent-prosecution agents committed inequitable conduct during the prosecution of this asserted patent and/or its parent applications. Sonos is on notice of the factual bases for these claims, through at least Linkplay’s invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the asserted ’014 patent, Sonos, its patent prosecutor(s) (including Joe Zheng), Robert Lambourne, and/or Nicholas Millington knowingly prepared and/or filed an August 20, 2008 declaration falsely and improperly stating that Millington was properly a coinventor to the prosecuted claims and thus his patent publication anticipating and/or rendering obvious the claims did not qualify as prior art. This statement was false and knowingly false at least because this statement factually conflicts with itself (in that Millington could not have “contributed substantially” to the invention while working “independently”) as well as in Sonos’s later identification of Millington as the sole inventor of later related patents (including ’532, ’357 and ’498). The prosecution of the ’014 patent should not have proceeded in light of the rejection of the claims over the Millington prior-art reference.
- During the prosecution of U.S. Application No. 10/816,217, the parent to several asserted patents (including the following: ’014, ’532, ’357, and ’498), Sonos and/or its patent prosecutor(s) (including K. Brian Bathurst) knowingly prepared and/or filed a November 21, 2005 Petition for Revival (of an abandoned application) falsely and improperly stating that “The entire delay in filing the

required reply from the due date from the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.” This statement was false and knowingly false at least because Sonos’s failure to pay or even make ordinary arrangements to pay the initial filing fee could not have been unintentional. The prosecution of the ’217 application should not have proceeded in light of its abandonment, and the applications of the ’014, ’532, ’357, and ’498 patents could not have been filed as continuing applications to an abandoned application. These patents would not have been issued as a result.

- During the prosecution of several asserted patents (including, but not limited to, the following: ’014, ’023, ’532, ’357), Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it would not have qualified for that status. The prosecution of the applications of the ’014, ’023, ’532, ’357 patents should not have proceeded in light of their abandonment and these patents would not have been issued as a result.

195. On information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the ’498 patent. For example, the ’498 patent was filed 11 years after the first priority application – it was filed in 2014, as a continuation of U.S. Application No. 13/297,000 (granted as U.S. Patent No. 9,182,777) filed in 2011, which is continuation of U.S. Application No. 10/816,217 (granted as U.S. Patent No. 8,234,396) filed in 2004, which claims priority to U.S. Prov. Application No. 60/490,768 filed in 2003. Courts have found delays greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Sonos then inappropriately used the continuation patent practice to unfairly capture claim scope for the ’498 patent. This is consistent with how Sonos has also been found to inappropriately use the patent-prosecution system to unfairly capture claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence,

that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”).

196. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the ’498 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the ’498 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

197. The ’498 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos’s products, integrating the Linkplay products with Sonos’s products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos’s IP or Linkplay US’s

alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such

right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '498 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

198. Based on Sonos's filing of this action and at least Linkplay's relevant defenses identified above, an actual controversy has arisen and now exists between the parties over whether the '498 Patent is enforceable.

199. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

200. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Linkplay requests a declaration that this patent is unenforceable.

COUNT SEVENTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '883 PATENT

201. The '883 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including lack of standing, equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions including all supplements and amendments thereto and expert reports it has served or will serve on invalidity and/or unenforceability.

202. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '883 patent. Sonos has previously been found by a Court to have misled and deceived the USPTO in the

prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the ’883 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

203. On information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the ’883 patent. For example, the ’883 patent was filed 15 years after the first priority application – it was filed in 2019, as a continuation of U.S. Application No. 15/091,113 filed in 2016, which is continuation of U.S. Application No. 14/486,667 (granted as U.S. Patent No. 9,866,447) filed in 2014, which is continuation of U.S. Application No. 13/618,829 (granted as U.S. Patent No. 8,868,698) filed in 2012, which is continuation of U.S. Application No. 11/147,116 (granted as U.S. Patent 8,326,951) filed in 2005, which claims priority to U.S. Prov. Application No. 60/577,284 filed in 2004. Courts have found delays greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Sonos then inappropriately used the continuation patent practice to unfairly capture claim scope for the ’883 patent. This is consistent with how Sonos has also been found to inappropriately use the patent-prosecution system to unfairly capture

claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”).

204. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the ’883 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the ’883 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

205. The ’883 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos’s products, integrating the Linkplay products with Sonos’s products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year

of extensive communications between the parties never centered on Sonos's IP or Linkplay US's alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US's assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos's misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos's patents against Linkplay. Linkplay's reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay's reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such

right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '883 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

206. Based on Sonos's filing of this action and at least Linkplay's relevant defenses identified above, an actual controversy has arisen and now exists between the parties over whether the '883 Patent is enforceable.

207. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

208. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that this patent is unenforceable.

COUNT EIGHTEEN:
DECLARATORY JUDGMENT OF UNENFORCEABILITY OF THE '023 PATENT

209. The '023 patent is unenforceable for at least one of the grounds for unenforceability Linkplay has pleaded in its defenses to Sonos's infringement claims, including lack of standing, equitable estoppel, waiver, inequitable conduct, prosecution laches, unclean hands, or patent misuse. Linkplay realleges and incorporates by reference the allegations in the above paragraphs corresponding to these defenses as if they were fully set forth herein. Linkplay further incorporates by reference all invalidity contentions including all supplements and amendments thereto and expert reports it has served or will serve on invalidity and/or unenforceability.

210. On information and belief, Sonos committed strategic and deceptive acts to mislead the United States Patent and Trademark Office in the prosecution of the '023 patent. Sonos has previously been found by a Court to have misled and deceived the USPTO in the

prosecution of its patents. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *27 (N.D. Cal. Oct. 6, 2023) (“Sonos claimed the priority date of the 2006 provisional application because the inventive subject matter was ostensibly disclosed by that application. But here, this subject matter could not have been disclosed until 2019, when the reappropriated sentence was *strategically and deceptively* added to the specification of the patents in suit.” (emphasis added)). For example, on information and belief, Sonos filed the ’023 patent as a continuing application or amended the claims during prosecution, knowing the claimed subject matter was not disclosed or enabled in the original application.

211. On information and belief, Sonos and/or its patent-prosecution agents committed inequitable conduct during the prosecution of this asserted patent and/or its parent applications. Sonos is on notice of the factual bases for these claims, through at least Linkplay’s invalidity contentions, which are incorporated herein by reference. The factual bases include, but are not limited to:

- During the prosecution of the ’023 patent, Sonos and/or its patent prosecutors knowingly falsely and improperly claimed small-entity status to reduce its prosecution fees despite knowing it did not qualify for that status, as explained in Linkplay’s invalidity contentions.

212. On information and belief, Sonos has also inappropriately used the patent-prosecution system to unfairly capture claim scope for the ’023 patent. For example, the ’023 patent was filed 7.5 years after the first priority application – it was filed in Oct 2018, as a continuation of U.S. Application No. 15/583,553 filed in 2017 (granted as U.S. Patent No. 10,108,393), which is continuation of U.S. Application No. 14/628,999 (granted as U.S. Patent No. 9,686,606) filed in 2015, which is continuation of U.S. Application No. 14/561,421 (granted as U.S. Patent No. 9,681,223) filed in 2014, which is continuation of U.S. Application No. 13/089,167 (granted as U.S. Patent No. 8,938,312) filed in April 2011. Courts have found delays

greater than eight years to be unreasonable for purposes of prosecution laches. *Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *17 (N.D. Cal. Oct. 6, 2023) (finding Sonos patents unenforceable due to prosecution laches) (determining that Federal Circuit and Supreme Court cases on prosecution laches found delays greater than eight years unreasonable). Sonos then inappropriately used the continuation patent practice to unfairly capture claim scope for the '883 patent. This is consistent with how Sonos has also been found to inappropriately use the patent-prosecution system to unfairly capture claim scope. *Id.* at *19 (“[T]his order finds and concludes, by clear and convincing evidence, that Sonos was guilty of unreasonable and inexcusable delay in prosecution of the patents in suit, to the extreme prejudice of Google and others.”).

213. On information and belief, during prosecution, Sonos intentionally “buried” the relevant prior art by over-disclosing non-prior art and/or nonrelevant prior art in the '883 patent. *See PACT XPP Schweiz AG v. Intel Corp.*, C.A. No. 19-01006-JDW, D.I. 399 at 14–16 (D. Del. March 24, 2023) (denying summary judgment of no inequitable conduct and holding that “burying” is a recognized theory of inequitable conduct under *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)). During the prosecution of the '883 patent, Sonos cited hundreds of references to the USPTO, and many of these disclosed references have publication dates later than the filing date of the earliest non-provisional, bringing their relevance into question.

214. The '023 patent is further unenforceable against Linkplay under the doctrines of equitable estoppel, waiver, and/or unclean hands. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1024-26 (Fed. Cir. 2008) (recognizing equitable estoppel/waiver as an unenforceability doctrine). Linkplay incorporates by reference and realleges paragraphs 39-51 of the Answer above and paragraphs 12-47 of the Counterclaims as if they are fully set forth here. Sonos has

had a history of first reaching out to potential technology partners for help and then suing them for patent infringement after learning more about the intricate details of their products and technologies. *See Sonos, Inc. v. Google LLC*, C 20-06754 WHA, 2023 WL 6542320, at *10–11 (N.D. Cal. Oct. 6, 2023). Here, Sonos requested to meet with Linkplay US to explore business opportunities to work together, including asking Linkplay US to provide its superior technology solutions to help improve Sonos’s products, integrating the Linkplay products with Sonos’s products, and for Sonos to make an investment on or acquisition of Linkplay US. Nearly a year of extensive communications between the parties never centered on Sonos’s IP or Linkplay US’s alleged infringement, until a sudden and dramatic change of course in December 2023 when Sonos repaid Linkplay US’s assistance and good-faith collaboration with a cease-and-desist letter sent on December 11, 2023, just prior to the holidays and this lawsuit a few weeks later, just before the lunar new year. Sonos misleadingly, deceitfully, and in bad faith indicated it wanted to meet with Linkplay to collaborate with, invest in, and possibly acquire Linkplay, not enforce its patents against Linkplay. Indeed, during the course of the pre-suit inter-company discussions that took place from January 2023-December 2023, Sonos assured Linkplay its focus was on possible collaboration with or investment in Linkplay. Linkplay entered into an NDA with Sonos while relying on Sonos’s misleading, deceitful, and bad-faith indication of its desire to collaborate with, invest in, and acquire Linkplay as opposed to enforcing Sonos’s patents against Linkplay. Linkplay’s reasonable reliance ultimately led it to provide to Sonos confidential technical, financial and business information, while continuing and expanding its design, manufacture, and sales that Sonos later alleges are infringing activities. On information and belief, Sonos then used such dishonestly acquired information to bring this patent-infringement lawsuit against Linkplay. As a result of Sonos's misleading conduct and Linkplay’s

reasonable reliance, Linkplay has been materially prejudiced because (1) Linkplay continued to manufacture and sell the accused products without fear of legal repercussions from Sonos; (2) Linkplay would have lost its substantial investment in research, development, manufacturing, and marketing; and (3) Sonos's acquisition of Linkplay's confidential information under false pretenses provides it an unfair advantage in this lawsuit. By virtue of Sonos's misleading conduct, it is estopped from enforcing the asserted patent(s) against Linkplay. Sonos's conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished, and thus falls within the doctrine of waiver. Sonos should be barred to assert the '023 patent against Linkplay under the doctrine of equitable estoppel and/or waiver.

215. Based on Sonos's filing of this action and at least Linkplay's relevant defenses identified above, an actual controversy has arisen and now exists between the parties over whether the '023 Patent is enforceable.

216. Absent a declaration of unenforceability, Sonos will continue to assert infringement against Linkplay and others, including Linkplay's customers, in violation of the law and contrary to the public policy of the United States, and thereby will continue to cause Linkplay irreparable injury and damage.

217. Under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Linkplay requests a declaration that this patent is unenforceable.

PRAYER FOR RELIEF

WHEREFORE, Linkplay respectfully asks the Court to grant the following relief:

- A. Dismissal of Sonos's Complaint in its entirety and with prejudice;
- B. Denying all relief that Sonos seeks in its Complaint;
- C. A declaration that Linkplay has not infringed and does not infringe the '014 Patent;

- D. A declaration that Linkplay has not infringed and does not infringe the '532 Patent;
- E. A declaration that Linkplay has not infringed and does not infringe the '357 Patent;
- F. A declaration that Linkplay has not infringed and does not infringe the '498 Patent;
- G. A declaration that Linkplay has not infringed and does not infringe the '883 Patent;
- H. A declaration that Linkplay has not infringed and does not infringe the '023 Patent;
- I. A declaration that the '014 Patent is invalid and/or unenforceable;
- J. A declaration that the '532 Patent is invalid and/or unenforceable;
- K. A declaration that the '357 Patent is invalid and/or unenforceable;
- L. A declaration that the '498 Patent is invalid and/or unenforceable;
- M. A declaration that the '883 Patent is invalid and/or unenforceable;
- N. A declaration that the '023 Patent is invalid and/or unenforceable;
- O. Linkplay's reasonable attorney's fees, experts' fees, costs and expenses; and
- P. Such other relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Linkplay hereby demands a jury for all issues so triable raised by Sonos's Complaint, by Linkplay's Answer, by Linkplay's Defenses, and by Linkplay's Counterclaims.

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Dated: January 16, 2025

/s/ Karen E. Keller

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