

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

INTERDIGITAL, INC., INTERDIGITAL
VC HOLDINGS, INC., AND
INTERDIGITAL MADISON PATENT
HOLDINGS, SAS,

Plaintiffs,

v.

AMAZON.COM SERVICES LLC,

Defendant.

Case No.: 2:25-cv-00822-AWA-DEM

**MEMORANDUM IN SUPPORT OF AMAZON.COM SERVICES LLC'S
MOTION TO DISMISS UNDER RULE 12(b)(6)**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. FACTUAL BACKGROUND.....	2
A. Video Compression.....	2
B. The Challenged Patents.....	4
1. The '435 Patent.....	4
2. The '734 Patent.....	6
3. The '338 Patent.....	7
III. LEGAL STANDARD.....	8
A. Motion to Dismiss.....	8
B. Patent Eligibility	9
IV. ARGUMENT	10
A. The '435 Patent Is Patent Ineligible.....	10
1. <i>Alice</i> Step 1: The '435 Patent Is Directed to an Abstract Idea.....	10
2. <i>Alice</i> Step 2: The '435 Patent Does Not Recite an Inventive Concept	15
3. Claim 1 of the '435 Patent Is Representative of All Claims.....	19
B. The '734 Patent Is Patent Ineligible.....	20
1. <i>Alice</i> Step 1: The '734 Patent Is Directed to an Abstract Idea.....	20
2. <i>Alice</i> Step 2: The '734 Patent Does Not Recite an Inventive Concept	22
3. Claim 7 of the '734 Patent Is Representative of All Claims.....	24
C. The '338 Patent Is Patent Ineligible.....	25
1. <i>Alice</i> Step 1: The '338 Patent Is Directed to an Abstract Idea.....	25
2. <i>Alice</i> Step 2: The '338 Patent Does Not Recite an Inventive Concept	28
3. Claim 7 of the '338 Patent Is Representative of All Claims.....	29
D. Claim Construction Is Unnecessary Before Granting this §101 Motion	30
E. Dismissal Should Be With Prejudice.....	30
V. CONCLUSION.....	30

TABLE OF AUTHORITIES

<u>Cases</u>	Page(s)
<i>Affinity Labs of Tex., LLC v. DIRECTV, LLC</i> 838 F.3d 1253 (Fed. Cir. 2016).....	17
<i>AI Visualize, Inc. v. Nuance Commcn’s, Inc.</i> 97 F.4th 1371 (Fed. Cir. 2024)	9
<i>Alice Corp. Pty. V. CLS Bank Int’l</i> 573 U.S. 208 (2014).....	passim
<i>Asghari-Kamrani v. United Servs. Auto. Ass’n</i> No. 2:15-cv-478, 2016 WL 3670804 (E.D. Va. July 5, 2016).....	30
<i>Ashcroft v. Iqbal</i> 556 U.S. 662 (2009).....	8
<i>In re Bd. of Trs. of Leland Stan. Junior Univ.</i> 991 F.3d 1245 (Fed. Cir. 2021).....	15
<i>Bell Atl. Corp. v. Twombly</i> 550 U.S. 544 (2007).....	8
<i>Broadband iTV, Inc. v. Amazon.com, Inc.</i> 113 F.4th 1359 (Fed. Cir. 2024)	passim
<i>BSG Tech LLC v. BuySeek.com, Inc.</i> 899 F.3d 1281 (Fed. Cir. 2018).....	16
<i>Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.</i> 776 F.3d 1343 (Fed. Cir. 2014).....	10
<i>CyberSource Corp. v. Retail Decisions, Inc.</i> 654 F.3d 1366 (Fed. Cir. 2011).....	15
<i>Diamond v. Diehr</i> 450 U.S. 175 (1981).....	18, 23
<i>Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.</i> 758 F.3d 1344 (Fed. Cir. 2014).....	12
<i>Elec. Power Grp., LLC v. Alstom, S.A.</i> 830 F.3d 1350 (Fed. Cir. 2016).....	9
<i>Enfish, LLC v. Microsoft Corp.</i> 822 F.3d 1327 (Fed. Cir. 2016).....	17

Genetic Techs. Ltd. v. Merial L.L.C.
 818 F.3d 1369 (Fed. Cir. 2016).....8

GoTV Streaming, LLC v. Netflix, Inc.
 166 F.4th 1053 (Fed. Cir. 2026)23, 26, 27, 28, 29

Hawk Tech. Sys., LLC v. Castle Retail, LLC
 60 F.4th 1349 (Fed. Cir. 2023)28

Intell. Ventures I LLC v. Erie Indem. Co.
 850 F.3d 1315 (Fed. Cir. 2017).....16

Mackay Radio & Telegraph Co. v. Radio Corp. of Am.
 306 U.S. 86 (1939).....22

Nielsen Co. (US), LLC v. VideoAmp, Inc.
 No. 24-cv-123-RGA, 2025 WL 961421 (D. Del. Mar. 31, 2025)13, 16

Parker v. Flook
 437 U.S. 584 (1978).....21, 22

PUREPREDICTIVE, Inc. v. H20.AI, Inc.
 No. 17-cv-3049-WHO, 2017 WL 3721480 (N.D. Cal. Aug. 29, 2017)13, 14

Q Techs., Inc. v. Walmart, Inc.
 No. 2024-1667, 2026 WL 304827 (Fed. Cir. Feb. 5, 2026)16, 23

Realtime Adaptive Streaming LLC v. Netflix, Inc.
 No. 17-1692-CFC-SRF, 2018 WL 6521978 (D. Del. Dec. 12, 2018)12

Realtime Data LLC v. Array Networks Inc.
 537 F. Supp. 3d 591 (D. Del. 2021).....13

RecogniCorp, LLC v. Nintendo Co.
 855 F.3d 1322 (Fed. Cir. 2017).....12

Sanderling Mgmt. Ltd. v. Snap Inc.
 65 F.4th 698 (Fed. Cir. 2023)30

SAP Am., Inc. v. InvestPic, LLC
 898 F.3d 1161 (Fed. Cir. 2018).....18, 23, 27

Schuchardt v. President of the United States
 839 F.3d 336 (3d Cir. 2016).....8

Secured Mail Sols. LLC v. Universal Wilde, Inc.
 873 F.3d 905 (Fed. Cir. 2017).....9

Sensormatic Elecs., LLC v. Wyze Labs, Inc.
 No. 2020-2320, 2021 WL 2944838 (Fed. Cir. 2021)12, 16

Smart Sys. Innovations, LLC v. Chicago Transit Auth.
 873 F.3d 1364 (Fed. Cir. 2017).....19

TecSec, Inc. v. Adobe Inc.
 978 F.3d 1278 (Fed. Cir. 2020).....14

In re TLI Commc’ns LLC Pat. Litig.
 823 F.3d 607 (Fed. Cir. 2016).....9

TPP Tech LLC v. Zebra Techs. Corp.
 403 F. Supp. 3d 382 (D. Del. 2019).....13

Trading Techs. Int. v. IBG LLC
 921 F.3d 1084 (Fed. Cir. 2019).....9, 15, 29

Trinity Info Media LLC v. Covalent, Inc.
 72 F.4th 1355 (Fed. Cir. 2023)14

Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC
 874 F.3d 1329 (Fed. Cir. 2017).....17

U.S. ex rel. Wilson v. Kellogg Brown & Root, Inc.
 525 F.3d 370 (4th Cir. 2008)30

Ultramercial, Inc. v. Hulu, LLC
 772 F.3d 709 (Fed. Cir. 2014).....19, 25

Uniloc 2017 LLC v. Netflix, Inc.
 No. SACV 18-2055-GW-DFMX, 2019 WL 3291581 (C.D. Cal. May 14, 2019)17, 22

Uniloc USA, Inc. v. ADP, LLC
 772 Fed. App’x. 890 (Fed. Cir. May 24, 2019)5

Wisk Aero LLC, v. Archer Aviation Inc.
 No. 3:21-cv-2450-WHO, 2022 WL 1157489 (N.D. Cal. Apr. 19, 2022).....13

Statutes

35 U.S.C. § 101 passim

35 U.S.C. §§ 102 and 10319

Other Authorities

Fed. R. Civ. P. 12(b)(6).....8

Fed. R. Civ. P. 12(c)1

I. INTRODUCTION

This is one of many patent cases that InterDigital has filed against Amazon in jurisdictions around the world to try to force Amazon to accept unfair terms for a license to InterDigital's portfolio of video coding patents.¹ Before InterDigital filed any patent infringement actions against Amazon, Amazon had already filed an action in the High Court of England and Wales aimed at securing a video patent license that would create global patent peace between the parties rather than litigate the eligibility, validity, and value of InterDigital's portfolio on a patent-by-patent basis. In this action, as part of their retaliatory, worldwide infringement campaign, Plaintiffs InterDigital, Inc., InterDigital VC Holdings, Inc., and InterDigital Madison Patent Holdings, SAS (collectively, "InterDigital") allege Defendant Amazon.com Services LLC ("Amazon") infringes U.S. Patent Nos. 11,252,435; 12,149,734; 12,143,606; and 8,149,338 (the '435, '734, and '338 patents are referred to as "the Challenged Patents").²

Amazon moves to dismiss with prejudice InterDigital's infringement claims for the '435, '734, and '338 patents because the patents fail to claim patent-eligible subject matter under 35 U.S.C. §101.³ The '435 and '734 patents are directed to calculating a weighted average in a conventional video coding environment, with the '734 patent simply adding that "temporal distance" is used for the weighting. The '338 patent is directed to using metadata for conventional color correction operations. It is well established that patent claims that are directed to using math

¹ In the United States: *In the Matter of Certain Video-Capable Elec. Devices*, Inv. No. 337-TA-1481 (I.T.C. 2026); *Interdigital, Inc. et al. v. Amazon.com, Inc. et al*, No. 7:26-cv00064 (W.D. Tex. 2026); *Interdigital, Inc. et al. v. Amazon.com Services, LLC*, No. 1:25-cv-01365 (D. Del. 2025). InterDigital has also filed infringement actions in Brazil, the UPC, and Germany.

² See Dkt. Nos. 1-1, 1-2, 1-3, 1-4.

³ Amazon focuses this motion on three of the asserted patents in light of page limitations set by the Court's rules. But nothing herein should be construed as an admission that the '606 patent claims eligible subject matter; to the contrary, this patent has similar flaws. Amazon reserves the right to seek judgment on the pleadings for §101 invalidity under Rule 12(c) as the case proceeds.

or using different kinds of data, even for video coding purposes, recite abstract ideas. And nothing else in the claims adds any inventive concept. Accordingly, under directly analogous Supreme Court and Federal Circuit case law, the asserted claims are ineligible and InterDigital’s claims for the Challenged Patents should be dismissed with prejudice for failure to state a claim.

II. FACTUAL BACKGROUND

A. Video Compression

Digital videos are sequences of still images (frames) that, when displayed in rapid succession, create the illusion of motion. Dkt. 1 ¶22. The smallest unit in each image is a “pixel,” the total of which define the resolution of the video (e.g., 1,920 pixels by 1,080 pixels for “1080p”). *Id.* Each pixel will have certain values associated with it that define the color and/or luminance (brightness) of that pixel. However, sending information about each pixel in every frame of a video would result in large file sizes. *Id.* To efficiently transmit video signals (e.g., during streaming), video encoding algorithms therefore seek to reduce (compress) the amount of information transmitted. *Id.* To that end, it was well-known that, instead of transmitting information for every pixel in every frame, “[m]ost video coding techniques use prediction plus residual coding to model video images.” ’435 patent at 1:30–32.⁴

Specifically, video frames are first partitioned into “blocks” of pixels—e.g., 16x16, 8x8, or 4x4 pixels—and then the “[p]rediction is performed on each [video] frame on a partition basis.” *Id.* at 1:35–40, 2:18–47. Rather than transmitting every original pixel value in a block, the values for some pixels are instead copied (predicted) from other pixels. This can be done using neighboring pixels in the same frame (“spatial” or “intra” prediction), since there is often

⁴ Residual coding in video compression is the process of encoding only the difference (the “residual” or error signal) between a predicted frame and the actual current frame, rather than encoding the entire frame.

correlation between them or “spatial redundancy” (e.g., all pixels for a wall in the image being similar). ’734 patent at 3:3–7. Prediction can also be done using pixels from a previous-in-time frame (“motion compensated” or “inter” prediction) given “temporal redundancy” between neighboring frames (e.g., the same object moving within successive frames over time). *Id.* at 3:7–12. In either case, the result is a “prediction block” for that block. ’734 patent at 3:22–28. Should the pixel values in this prediction block differ slightly from what the true pixel values should be for the block, then only these small pixel value differences (residuals) need be coded, rather than entire pixel values, thereby requiring less data to be transmitted overall. *Id.*

During motion compensated (inter frame) prediction, a current video block is predicted using either a single reference frame (unidirectional inter prediction, or uni-prediction) or using two reference frames (bidirectional inter prediction, or “bi-prediction”). *See id.* at 3:57–63. In uni-prediction, the current block’s pixel values are copied specifically from a region in a previous frame. But because this region of the reference frame may not be located in the same spot as the current block in the current frame (e.g., an object depicted in the reference frame may be at a different location in the current frame due to the object being in motion), a “motion vector” is used to signal the amount and direction of distance between the region and block (hence, motion prediction). *Id.* at 3:11–15. In bi-prediction, the current block’s pixel values are predicted instead as a blend of two regions from two reference frames, one being from some time earlier than the current picture and the other being from some time in the future. *Id.* at 3:57–63. The blend ratio may be determined by assigning weights to each of the two predictors, such as an equal weighting ($w=0.5$) for a half-and-half blend. *Id.* at 3:61–63, 4:5–14.

B. The Challenged Patents

1. The '435 Patent

The '435 patent is titled “Method and apparatus for parametric, model-based geometric frame partitioning for video coding.” '435 patent. The '435 patent relates to “geometric partitioning,” where instead of simply using square or rectangular blocks to partition a frame, these blocks may be further sub-partitioned into other shapes like triangles. *Id.* at Abstract, 1:37–55, 6:45–50, 11:32–55. This can be done using diagonal edges or even curves, which may further reduce the size of the residuals and other information to be sent for video blocks. *Id.* As the '435 patent admits, geometric partitioning was well-known and commonplace as described in several “prior art approaches.” *Id.* at 2:55–4:55. One known geometric partitioning approach used “two similar triangles [for partitions] divided by a diagonal segment.” *Id.* at 2:58–60. Another prior art approach proposed two motion compensation “modes where segments connecting two boundary points are used to generate block partitions.” *Id.* at 3:53–59, FIGS. 4A, 4B.

The claims of the '435 patent are directed to using a mathematical formula, namely a linear average using weighting factors $w(x, y)$ and $1-w(x, y)$ to predict the pixels located at (x, y) within a partition boundary. *Id.* at 2:55–4:54, claim 1. In particular, the '435 patent describes how to “handle pixels on partition boundaries”—i.e., in a “partial surface”—that are “subject to the influence of the predictor used to describe each one of the partition sides.” *Id.* at 12:30–40. The values for such pixels are calculated as “a weighted linear average from predictions of the two ... [neighboring] partitions.” *Id.* at 27:46–49. This allows the prediction to “mix information from both partition sides” by computing an average of each side’s predictor, weighted based on the proximity of their location in the frame. *Id.* at 4:49–54. The first predictor is weighted by $w(x, y)$ and the second predictor is weighted by $1-w(x, y)$, where the function w depends on the pixel’s location in x and y coordinates. *Id.* at claim 1. In the prior art, this concept is known as

“feathering,” where two images within an overlap region are combined using respective weights representing the contribution of each image. The only hardware the claims recite for performing this math is an unspecified “apparatus” and a generic “processor” configured to perform mathematical functions. *Id.* at 6:50-54, 6:64-7:1, 9:18-37. The claims do not recite any new computing or streaming technology. The specification likewise describes no new computing technology, explaining that “the present principles are implemented as a combination of hardware and software ... executed by[] a machine comprising any suitable architecture” and implemented on a generic “computer platform having hardware such as one or more central processing units ..., a random access memory ..., and input/output ... interfaces.” *Id.* at 28:31–40.

The '435 patent's only allegedly inventive aspect is mathematically averaging two values to calculate pixels using the specific mathematical equation of $w(x, y)$ and $1-w(x, y)$. This is confirmed by the prosecution of U.S. Application No. 15/482,191, of which the '435 patent is a continuation.⁵ Specifically, the claims there, just like those here, recited a processor configured to decode image data for geometric partitions according to a parametric model, where pixels have different values based on whether they are located in one of the partitions or in an overlapping partial surface, and where the partial surface pixels are predicted based on a weighted linear average from predictions of the partitions. Declaration of Robert Green (“Green Dec.”), Ex. A at 4 (claim 42), 5 (claim 47). The examiner rejected these claims as anticipated by the applicant-admitted prior art from the patents' common specification, which the examiner found discloses using a parametric model to obtain pixel values, and “mix[ing] information from both partition sides” to predict the “boundary” pixels in the partial surface. *Id.* at 14–16. In response, the

⁵ *Uniloc USA, Inc. v. ADP, LLC*, 772 Fed. App'x. 890, 898 n.3 (Fed. Cir. May 24, 2019) (“The prosecution history is part of the intrinsic record of the patent and is a matter of public record” and “thus subject to judicial notice and may be considered” in an eligibility analysis.).

applicant abandoned the application and filed the '435 patent with claims simply adding the specific equation for calculating a weighted average. *Id.* at 18–19; *id.*, Ex. B at 1:16–21.

2. The '734 Patent

The '734 patent is titled “Generalized bi-prediction for video coding with reduced coding complexity.” Bi-prediction is the process of using two reference frames for prediction, one being from some time earlier than the current picture and the other being from some time in the future. *See supra* II.A. The '734 patent admits bi-prediction “has been widely adopted in most of the state-of-the-art video codecs.” *Id.* It also acknowledges that “weighted bi-prediction,” using different weighting values, was known in the art, though it states that the two were typically given equal weights in some prior art methods. *Id.* at 3:61–63, 4:5–14. The use of predetermined settings had also been applied to calculated weights for bi-prediction. *Id.* at 4:63–5:3. That is, it was known in the art to limit the number of potential weights as a set of predetermined weights. *Id.*

The '734 patent’s purported improvement over these prior methods is that it selects the weighting between the two references based on a comparison of the relative time difference from the current picture to be decoded. *Id.* at 1:44–48, claim 7. In particular, the '734 patent proposes constraining the weights as the ratio corresponding to the relative temporal distance from the two references. This is represented with simple equation of $w_0 + w_1 = 1$, where w_0 and w_1 are the two weights applied to the motion-predicted signals from each reference, respectively. *Id.* at 4:55–56. Applying this constraint results in a weighted linear average, the same mathematical concept explained above with respect to the '435 patent. *See supra* § II.A. In mathematical form, this is represented as $P[x] = w_0 * P_0[x+v_0] + w_1 * P_1[x+v_1]$. *Id.* at Eq. 1. That is, the first motion predicted signal ($P_0[x+v_0]$) is multiplied by w_0 and the second motion predicted signal ($P_1[x+v_1]$) is multiplied by w_1 . Then these two are summed, to “combine two separate prediction signals in a weighted-averaging manner.” *Id.* at 5:35–41. This is no more than the abstract idea of using a

mathematical formula to calculate a weighted average.

3. The '338 Patent

The '338 patent, titled “Method and Apparatus for Color Decision Metadata Generation,” relates to using “metadata” to perform color correction of video content in post-production workflows. '338 patent at 1:16–37. As the '338 patent admits, the color correction operations recited in the '338 patent claims were already “used in the movie or television industries” at the time. *Id.* at 1:22–25. To perform such color correction, “a person operating a video editor may manipulate the colors of video content in order to allow for a specific effect desired by a director for artistic purposes,” such as by “brightening the colors” in a video to create a “pastel” effect or “darkening” for a “gritty” effect. *Id.* at 1:22–28. In addition to these “artistic purposes,” the '338 patent explains that the claimed color correction also includes display-dependent corrections, in which a “broadcaster may specify for a specific type of device (such as for a particular type of display device) that one color correction technique be applied for one type of device (a plasma display device) and that a second color correction be applied for a second type of device (a Cathode Ray Tube display device).” *Id.* at 3:23–28.

The '338 patent also provides examples of “color correctors and color correction operations,” which it admits “are known in the art[,] such as using a series of three 1-D lookup tables with Red Green and Blue (RGB) output (see FIG. 2), a series of three 1-D tables using luma and chroma (YCrCb), 3-D lookup tables, pre-computed matrix transformations, lift gain gamma functional specifications, and the like.” *Id.* at 3:46–54. The '338 patent states that, at the time, there existed “difficult[ies] for [color] changes to be retained from the editing device to the device that will be used to display device content[.]” *Id.* at 1:29–32. Similar problems would occur “if video content is subjected to multiple devices in an editing flow.” *Id.* at 1:32–37.

Thus, the '338 patent proposes a “system of generating metadata that represents a framework where color modifications made may be transmitted between different devices and software used and/or provided by vendors.” ’338 patent at 3:35–39. “Preferably, this metadata is based off an XML schema associated [with] color correction metadata.” *Id.* at 3:35–45. The ’338 patent specification provides exemplary XML schemas, with their terms and components laid out in the form of various tables. *Id.* at Tables 2–4. However, in stark contrast, the ’338 patent claims leave any such details out. Couched in entirely functional language, the claims generically recite “determining” multiple color correction operations “in response to received metadata” and then “performing” the color corrections on a “specified region” within video content, with no explanation for what this “received metadata” comprises or how the “region” is “specified.” *Id.* at claim 7.

III. LEGAL STANDARD

A. Motion to Dismiss

Under Rule 12(b)(6), a court must dismiss a complaint if the complaint fails to state a claim upon which relief can be granted. To survive a Rule 12(b)(6) motion to dismiss, the plaintiff must allege “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 547 (2007). In determining whether the plaintiff sufficiently states a claim, the plaintiff’s factual allegations are presumed to be true. *See Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). But this presumption “attaches only to those allegations for which there is sufficient factual matter to render them plausible on their face.” *Schuchardt v. President of the United States*, 839 F.3d 336, 347 (3d Cir. 2016). The Federal Circuit has repeatedly recognized that courts may determine patent eligibility under §101 on a Rule 12(b)(6) motion. *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373 (Fed. Cir. 2016). Courts determine “claims to be patent-ineligible at the motion to dismiss stage based on intrinsic evidence from the specification without

need for extraneous fact finding outside the record.” *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 912–13 (Fed. Cir. 2017).⁶

B. Patent Eligibility

The Supreme Court set forth a two-step approach for determining patent eligibility under 35 U.S.C. §101. *Alice Corp. Pty. V. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014). At Step 1, a court considers the “focus of the claims” and their “character as a whole” to determine whether the claims are directed to an abstract idea. *Elec. Power Grp., LLC v. Alstom, S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). To be non-abstract, computer-implemented claims must be “directed to a specific improvement to computer functionality.” *In re TLI Commc’ns LLC Pat. Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016). Claims are ineligible when they merely describe functional limitations “in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.” *Elec. Power Grp.*, 830 F.3d at 1351.

If the claims are directed to an abstract idea under Step 1, the Court should proceed to Step 2 and decide whether the claims add an “inventive concept” through either an element or combination of elements “that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Alice*, 573 U.S. at 217–18. *Alice*’s Step 2 requires examining the additional elements beyond the abstract idea, if any, to determine whether such elements provide an “inventive concept” because “[t]he abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” *Trading Techs. Int. v. IBG LLC*, 921 F.3d 1084, 1093 (Fed. Cir. 2019); *AI Visualize, Inc. v. Nuance Commcn’s, Inc.*, 97 F.4th 1371, 1379 (Fed. Cir. 2024) (“At this step we must ask: [w]hat else is there in the claims

⁶ Unless otherwise noted, quotation marks and internal cites have been omitted and any emphasis is added.

before us?”). For §101, courts also analyze a “representative claim” when they are substantially similar and linked to the same abstract idea. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014).

IV. ARGUMENT

The Challenged Patents claim methods of encoding and decoding video using simple mathematical algorithms or methods of organizing or classifying data. Numerous courts have held such claims abstract and ineligible. Indeed, even the math used (basic weighted averages) and the metadata instructions (conventional color correction) are simplistic. At bottom, these claims cover nothing more than conventional coding standards with the mere addition of ideas that are abstract and lack the sort of inventive concept necessary to overcome a §101 challenge. Just as other courts have invalidated similar claims, this Court should do the same.

A. The '435 Patent Is Patent Ineligible

1. *Alice* Step 1: The '435 Patent Is Directed to an Abstract Idea

The '435 patent claims are directed to the abstract idea of mathematically predicting pixels based on a weighted average. Claim 1, which is representative (*infra* §IV.A.3), recites:

1. An apparatus, comprising:

at least one processor being configured to:

obtain values for pixels of a current block of a picture according to a parametric model;

classify said pixels of said current block into two partitions according to said obtained values, wherein pixels of the two partitions overlap in a partial surface, and wherein a first value obtained according to said parametric model indicates that a pixel of said current block is in a first partition of said two partitions, a second value indicates that a pixel of said current block is in a second partition of said two partitions, and a value in between said first and second values indicates that a pixel of said current block is in said partial surface;

predict said current block to form a predicted block by:

predicting pixels in said first partition using a first predictor,

predicting pixels in said second partition using a second predictor, and

predicting pixels in said partial surface based on a weighted linear average of said first predictor and said second predictor, wherein said first predictor is weighted by $w(x, y)$ and said second predictor is weighted by $(1-w(x, y))$ to form said weighted linear average, wherein $w(x, y)$ is said obtained value from said parametric model for pixel at location (x, y) ; and
decode said current block responsive to said predicted block.

'435 patent at claim 1.

Although this weighted averaging is claimed in connection with geometric partitioning, the '435 patent admits that geometric partitioning was conventional. *Supra* §II.A. Nonetheless, the patent describes several so-called limitations of the prior art that the patent allegedly overcomes by predicting pixels within a boundary region between two geometric partitions using a weighted linear average of the predictors for the two partitions computed according to a specific equation: $w(x, y)$ and $1-w(x, y)$. *See id.* at 4:4–54, claim 1. Here, given the '435 patent's admission that geometric partitioning for motion prediction was already well-established and the prosecution history of the '191 application confirming that weighted averaging for the boundary between two partitions was known, the only "advance" that the '435 patent could possibly claim is mathematical averaging according to a specific equation within such a "generic environment." *Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359, 1369 (Fed. Cir. 2024); *supra* §II.B.1.

The Federal Circuit has repeatedly held that claims reciting such mathematical operations, even when performed as part of coding video or images, are abstract. For example, in *Coffelt v. NVIDIA Corp.*, the patent was "directed to a method for deriving a pixel color in a graphic image." 680 F. App'x 1010, 1011 (Fed. Cir. 2017). The claims were abstract because they "recite[d] nothing more than a mathematical algorithm that could be implemented using a pen and paper." *Id.* at 1010. In the claims, "a pixel color [was] derived mathematically using vectors in a particular steradian region" (i.e., in space). *Id.* The court reiterated that "analyzing information by steps people can go through in their minds, or by mathematical algorithms, without more . . . are mental

processes within the abstract-idea category.” *Id.* at 1011. Although the claims recited “a series of calculating steps, i.e., an algorithm, used to derive the color of a pixel,” they were abstract because “calculating a ... steradian region of space ... is a purely arithmetic exercise.” *Id.* Just as in *Coffelt*, claim 1 of the ’435 patent is directed to a mathematical calculation that can be done using pen and paper or in the human mind: computing a weighted average value of two predictors.

Moreover, although the claim here is in the context of video coding, adding math to “standard encoding and decoding” is “an abstract concept long utilized to transmit information.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326–27 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract.”); *see also Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1350–51 (Fed. Cir. 2014) (holding that “a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible”); *Sensormatic Elecs., LLC v. Wyze Labs, Inc.*, No. 2020-2320, 2021 WL 2944838, at *3 (Fed. Cir. 2021) (“[T]he concept of encoding or decoding image data is abstract[.]”).

District courts, including this Court, have also found claims directed to mathematical operations are impermissibly abstract. For example, in *Brunswick Corp. v. Volvo Penta of the Ams., LLC*, the Court found claims abstract by applying the Federal Circuit’s holding that “mathematical algorithms for performing calculations, without more, are patent ineligible under §101.” 640 F. Supp. 3d 498, 519 (E.D. Va. 2022) (quoting *In re Bd. of Trs. of Leland Stan. Junior Univ.*, 991 F.3d 1245, 1250 (Fed. Cir. 2021)); *Realtime Adaptive Streaming LLC v. Netflix, Inc.*, No. 17-1692-CFC-SRF, 2018 WL 6521978, at *5, 6 (D. Del. Dec. 12, 2018) (finding claim directed to “encoding and decoding data, and the digital compression of data,” abstract). Similarly, data compression patents have been found abstract when they are “conducting data analysis and

performing mathematical operations” that “could be implemented using pen and paper.” *Realtime Data LLC v. Array Networks Inc.*, 537 F. Supp. 3d 591, 607–08 (D. Del. 2021) (digital data compression utilizing multiple encoders to compress data blocks was directed to ineligible abstract idea of manipulating information because the claims “consisted entirely of general, abstract steps” involving data analysis and mathematical operations); *TPP Tech LLC v. Zebra Techs. Corp.*, 403 F. Supp. 3d 382, 387 (D. Del. 2019) (“series of mathematical equations to compute a value ... are quintessential abstract ideas”); *Nielsen Co. (US), LLC v. VideoAmp, Inc.*, No. 24-cv-123-RGA, 2025 WL 961421, at *3 (D. Del. Mar. 31, 2025) (“method[s] of calculating, using a mathematical formula, even if the solution is for a specific purpose, are abstract”); *Wisk Aero LLC, v. Archer Aviation Inc.*, No. 3:21-cv-2450-WHO, 2022 WL 1157489, at *4–6 (N.D. Cal. Apr. 19, 2022) (“computing an optimal mix ... by minimizing a weighted set of costs” is patent ineligible); *PUREPREDICTIVE, Inc. v. H20.AI, Inc.*, No. 17-cv-3049-WHO, 2017 WL 3721480, at *5–7 (N.D. Cal. Aug. 29, 2017) (method for “predictive analysis” patent ineligible for claiming mathematical concept).

InterDigital may argue that using a “parametric model” is somehow also part of the alleged advance. But first, such model cannot be part of the alleged advance over the prior art because, as the examiner found, it was disclosed by the admitted prior art from the specification. *Supra* §II.B.1. Second, the only distinction for the parametric model made in the patent is the *form* of the partition (a curve). ’435 patent at 3:52–4:3, FIGS. 4A, 4B, 10:44–61. This concept of mathematically describing the partition boundary was already conventional. *Id.* It is also an abstract mathematical operation. Indeed, the patent defines “parametric modeling” as the “formulation of at least one curve,” which is a form of a “polynomial.” *Id.* at 10:44–61. And third, the claim does not recite details regarding the parametric model or how it is used. Accordingly,

this limitation cannot render the claim non-abstract. For example, in *directPacket Rsch., Inc. v. Polycom, Inc.*, the Federal Circuit explained that it consistently holds “the ideas of encoding and decoding . . . data and of converting formats are abstract.” No. 2024-1147, 2025 WL 1752247, at *4 (Fed. Cir. June 25, 2025). There, the court found the claim patent-ineligible because it said “little of **how** the purported invention improve[s] the functionality of device interoperability [and] its limitations are recited at such a level of **result-oriented generality** that it fails to teach anything beyond a generalized implementation of the abstract idea of translation.” *Id.*; see also *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1293 (Fed. Cir. 2020). Here too, the claim merely recites using a parametric model at the highest level of generality without explaining details that would improve technology or going beyond the abstract idea of using basic math to calculate a weighted average.

Moreover, the claim recites only a generic and conventional component, i.e., “at least one processor.” And the steps the claim performs or are configured to perform are defined by purely functional elements. The specification also makes clear that no specialized components are contemplated. See ’435 patent at 28:31–40. Because the claimed elements are merely generic, conventional components, they are not directed to improvements in computer functions or capabilities. Rather, they merely use those generic computer components as tools to perform a method that is itself the abstract idea. See *Trinity Info Media LLC v. Covalent, Inc.*, 72 F.4th 1355, 1362–63 (Fed. Cir. 2023) (“*Alice/Mayo* step one often turns on whether the claims focus on the specific asserted improvement in computer capabilities or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool.”).

Here, there is no specific solution for improving computer functionality. The only arguable improvement is not to a computer itself but to a completely abstract mathematical operation that can be performed using pen and paper or in the mind, i.e., averaging two values according to a

specific equation. The specification states that “[c]onsidering the discrete nature of the partitions” in geometric partitioning, “on the neighborhoods of the separation line or curve, some pixels can only be considered to partly belong to one or the other partition . . . due to the fact that the parametric model formulation is continuous and the partitions realization is discrete.” ’435 patent at 12:33–38. Therefore, the claim recites predicting pixels within a partial surface between two partitions based on a linear average. But such averaging was already known, and the ’435 patent does not teach that there was anything new about the type of averaging it claims, or why it could not simply be accomplished with pen and paper or in the human mind. As the Federal Circuit has explained, “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under §101.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011). Notably, that is true even for a *new* mathematical formula “that yields different or better results.” *Leland Stan.*, 991 F.3d at 1251 (reiterating that “a claim for a *new* abstract idea is still an abstract idea”).

Accordingly, under *Alice* Step 1, claim 1 of the ’435 patent is directed to the abstract idea of mathematically predicting pixels based on a weighted average.

2. *Alice* Step 2: The ’435 Patent Does Not Recite an Inventive Concept

Claim 1 of the ’435 patent also does not recite an inventive concept because it does not contain any “additional elements” that are arguably inventive beyond abstract math. *Supra* §IV.A.1. But because this idea is itself abstract, it cannot save the claim under Step 2. *Trading Techs.*, 921 F.3d at 1093. As explained above with respect to Step 1, the ’435 patent admits that motion prediction for geometric partitioning was conventional as of the claimed priority date. The patent’s background further acknowledges that the prior art MPEG-4 AVC standard (H.264) already employed tree-based frame partitioning, along with intra and inter prediction modes. ’435 patent at 2:30–3:17. The patent does not claim to have invented video encoding, prediction, or

motion compensation. It claims only to add a new “geometric” partitioning mode layered on top of existing, well-known technology. *Id.* at 8:28–50; *id.* at 4:38–41, 18:1–10. The patent frames the claims as an “extension” of the MPEG-4 Standard that “helps to overcome the limitations inherent to tree-based frame partitioning.” *Id.* at 14:13–39. This strongly undermines any claim to an inventive concept. *BSG Tech LLC v. BuySeek.com, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“If a claim’s only inventive concept is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.”). Moreover, these conventional elements of geometric partitioning “merely limit[] when or [how geometric partitioning is accomplished], which does not render the claims any less abstract, but instead reflects the application of an abstract idea using generic ... components operating in their conventional manner.” *Q Techs., Inc. v. Walmart, Inc.*, No. 2024-1667, 2026 WL 304827, at *2 (Fed. Cir. Feb. 5, 2026). Here, that limitation is pixel prediction, which itself is just math and thus could not save the claim from abstraction regardless. *Broadband*, 113 F.4th at 1368 (“[T]he combination of two abstract ideas does not render an abstract idea less abstract.”).

Further, within this environment, the claim merely recites abstract and generic computer functions: obtaining and classifying information, prediction, and decoding. ’435 patent at claim 1. This cannot save the claim from abstraction. *Sensormatic Elecs.*, 2021 WL 2944838, at *3 (finding “the concept of encoding or decoding image data is abstract[]”); *Intell. Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) (“We have previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data.”); *Nielsen Co. (US), LLC*, 2025 WL 961421, at *6 (agreeing that using correlated data to make “predictions . . . is algebra” and noting that limiting the prediction to a particular

technological environment does not avoid abstraction as that “simply provide[s] further narrowing of what are still mathematical operations”). That is why courts have found similar applications of abstract ideas to conventional video coding, including motion prediction, to be patent ineligible. *See, e.g., Uniloc 2017 LLC v. Netflix, Inc.*, No. SACV 18-2055-GW-DFMX, 2019 WL 3291581, at *5–6 (C.D. Cal. May 14, 2019). That is also why courts regularly evaluate video coding and image processing patents under §101 and find them ineligible where the claims recite only the application of mathematical operations to image data. *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (claims directed to the abstract idea of an algorithm or mathematical formula for routing information were ineligible); *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (applying the abstract idea of delivering media content to a specialized device did not supply an inventive concept).

All of this conventional computer activity is also done using conventional hardware. The only hardware element in claim 1 is a generic “processor,” which cannot supply an inventive concept. *Alice*, 573 U.S. at 223 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–38 (Fed. Cir. 2016) (distinguishing claims that “improve the functioning of the computer itself” from those “for which computers are invoked merely as a tool”). The specification also acknowledges that its “teachings . . . may be implemented in various forms of hardware, software, firmware, special purpose processors, or combinations thereof,” and that the “software may be implemented as an application program tangibly embodied on a program storage unit” run on “a machine implemented on a computer platform having hardware such as one or more central processing units (‘CPU’), a random access memory (‘RAM’), and input/output (‘I/O’) interfaces.” ’435 patent at 28:26–40. This is a textbook description of a generic, off-the-

shelf computer. Such “wholly generic computer implementation” cannot supply the inventive concept that §101 requires. *Alice*, 573 U.S. at 223.

The ’435 patent also confirms that all claimed components are conventional by repeatedly and expressly characterizing the underlying components as well-understood elements of existing video coding standards. The patent identifies each of the major system components—“general control of the encoder/decoder; region prediction (motion compensation/intra data prediction); motion estimation; entropy coding/decoding; and in-loop filtering for artifacts reduction”—as standard video coding processes that are merely “adapted” to incorporate the claimed abstract idea. ’435 patent at 14:10–17, 17:46–54. The patent does not improve these components in any technically novel, non-abstract way; it merely instructs that they be “modified” or “extended” to accept math-based geometric partitioning. *Id.* at 7:50–54, 7:58–63, 14:64–15:6, 16:24–27, 17:16–22, 17:46–62, 19:6–20, 20:3–7, 22:15–17, 22:56–57, 23:35–38, 23:48–52, 27:10–23, 28:5–14. The specification further confirms that the patent builds entirely on well-known, pre-existing conventional components by emphasizing those components “may be adapted” or “extended”: “encoder and/or decoder control modules may be modified/extended”; “the motion compensation module may be adapted”; “the motion estimation module may be adapted”; “intra frame prediction may be adapted”; and “the deblocking in-loop filter module may be adapted”/“extended.” *Id.* at 17:16–55. Such adaptation of conventional elements by adding “new” mathematical operations, which are abstract under Step 1, cannot supply an inventive concept.

Indeed, “[t]he ‘novelty’ of any element or steps in a process, [here, allegedly, averaging for pixel prediction in geometric partitioning,] or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the §101 categories of possibly patentable subject matter.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981); *see also SAP Am.*,

Inc. v. InvestPic, LLC, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (“We may assume that the techniques claimed are [g]roundbreaking, innovative, or even brilliant, but that is not enough for eligibility. Nor is it enough for subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art, passing muster under 35 U.S.C. §§102 and 103.”).

Accordingly, the ’435 patent does not claim an inventive concept and is patent ineligible.

3. Claim 1 of the ’435 Patent Is Representative of All Claims

InterDigital asserts Amazon infringes “at least Claim 1 of the ’435 Patent.” Dkt. No. 1 at ¶ 61. To the extent InterDigital asserts other claims, claim 1 is representative because all the claims are linked to the same abstract idea of mathematical averaging for video encoding/decoding. Claim 11, the other independent claim, recites the same abstract functions as claim 1 but merely in method form. The Federal Circuit has repeatedly held that method and apparatus claims directed to the same concept rise and fall together for §101 purposes. *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1368 n.7 (Fed. Cir. 2017).

The dependent claims only add particularity, which does not alter their abstractness. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014). Here, each of the dependent claims merely narrows the broader concept of claim 1 without introducing any independently patent-eligible subject matter. In particular, the dependent claims merely recite features inherent in conventional geometric partitioning, not any improvement to computer functionality or advance over the prior art. For example, claim 3 merely recites at least one of inter-frame prediction (“temporal neighboring blocks”), which was admittedly conventional, and intra-frame prediction (“spatial neighboring blocks”), which was admittedly known in the context of geometric partitioning. ’435 patent at 2:37–40, 3:44–48. Claims 4, 8, and 9 simply recite properties of geometric partitioning, which were admittedly conventional, including non-square and non-rectangular partitions, a partition mask, and decoding a partition shape. *Id.* at 3:63–66, FIGS. 4A,

4B. Additional mathematical operations cannot save the claims. *See Broadband*, 113 F.4th at 1368 (“[T]he combination of two abstract ideas does not render an abstract idea less abstract.”). For example, claim 2 merely recites using a curve, which the specification explains can be “a straight line,” where partitions defined by line segments were known in the art. ’435 patent at 3:63–66, 10:47–55. And regardless, the curve is defined mathematically by a polynomial. *Id.* Claims 5, 6, and 7 just recite properties of the mathematical weighting function used for the averaging, $w(x, y)$, or of the mathematically obtained values. Finally, claim 10 is recited functionally in a result-oriented fashion, devoid of any details that could render it non-abstract or inventive. The claims depending from claim 11 simply mirror those depending from claim 1 and fail for the same reasons. Thus, all claims should be found ineligible.

B. The ’734 Patent Is Patent Ineligible

1. Alice Step 1: The ’734 Patent Is Directed to an Abstract Idea

The ’734 patent claims are similar to the ’435 patent claims in that they are directed to using a weighted average to predict a block within the current picture frame. Claim 7, which is representative (*infra* §IV.B.3), recites:

7. A video decoding apparatus comprising a processor configured to perform at least:
for a current block, obtaining a first temporal distance to a first reference picture and a second temporal distance to a second reference picture;
selecting at least a first weight value from among a plurality of weights in a first predetermined set of weights, the first predetermined set of weights being selected based at least in part on a comparison of the first temporal distance and the second temporal distance; and
predicting the current block as a weighted sum of a first reference block in the first reference picture and a second reference block in the second reference picture, wherein the first reference block is weighted by the first weight and the second reference block is weighted by a second weight.

’734 patent at claim 7.

The '734 patent admits that decoding and encoding video was conventional. *Id.* at 1:23–25. Like the '435 patent, it also acknowledges that weighed “bi-directional motion compensated prediction” (i.e., weighted bi-prediction) was commonly used. *Id.* at 3:57-61. Indeed, it discusses prior disclosures of “generalized bi-prediction” using the equation $P[x]=w_0*P_0[x+v_0]+w_1*P_1[x+v_1]$ (denoted as “Eq[uation] 1”), with the variables “ w_0 ” and “ w_1 ” representing “weight values” for the prediction. *Id.* at 4:32-49. The '734 Patent also discusses an “Eq[uation] 2” that requires the two weights to sum to 1, such that one can be determined from the other, which simplifies to: $P[x]=(1-w_1)*P_0[x+v_0]+w_1*P_1[x+v_1]$. *Id.* at 4:55-62. The alleged novelty of '734 patent is simply using a comparison of the time difference between the current frame and each reference frame (i.e., how near in time is the current frame being predicted to the chosen reference frame), as the basis for choosing the weights from an existing set of options. But the choice of information input into the equation does not change the core nature of the '734 claims, which amounts to “comput[ing] the prediction signal . . . as a weighted average.” '734 patent at 5:35–5:42.

This is precisely the application of a weighted mathematical calculation that was found abstract in *Parker v. Flook*, 437 U.S. 584, 593-95 (1978). Like the calculation here, the formula in *Parker* calculated weights based on the distances for two points relative from the current point.

[T]he solution of respondent’s novel formula will produce a new alarm base (B1) that will be **a weighted average** of the preceding alarm base (Bo) of 400 degrees and the current temperature (PVL) of 425. It will be closer to one or the other depending on the value of the weighting factor (F) selected by the operator. If F is 80%, that percentage of 425 (340) plus 20% (1 - F) of 400 (80) will produce a new alarm base of 420 degrees.

Id. at 598. Equation Two even follows the same mathematical structure as the *Parker* equation (437 U.S. at 597 (“ $B_1=B_0(1.0-F) + PVL(F)$ ”)), which included a similar weighting constraint for determining the weighted average. Whether the weighting factor is selected by an operator as in

Parker, or by the operation of a video encoding apparatus choosing reference frames, the respective alleged inventions claim the same underlying mathematical equation of calculating a weighted average. That is an ineligible abstract idea.

As discussed, the Supreme Court and Federal Circuit have repeatedly found that claiming a mathematical concept, including in the context of video coding, is abstract. *Supra* §IV.A.1. The fact that the claim recites the mathematical relationship in words, rather than a formula does not save them. *Mackay Radio & Telegraph Co. v. Radio Corp. of Am.*, 306 U.S. 86, 93 (1939) (holding claims describing what was essentially “a trigonometrical function of two variables” invalid).

Accordingly, under *Alice* Step 1, claim 7 of the ’734 patent is directed to the abstract idea of a mathematical algorithm for using a weighted average.

2. *Alice* Step 2: The ’734 Patent Does Not Recite an Inventive Concept

The claim limitations also do not provide an inventive concept. The ’734 patent teaches that using weighted bi-prediction for video encoding and decoding was conventional. ’734 patent at 1:23–25, 3:57-61, 4:32-49. Indeed, the patent acknowledges that “block-based hybrid video coding systems [were] the most widely used and deployed” at the time of the alleged invention (’734 patent at 1:27–5:42) and gives specific examples. *Id.* at 1:23–35. At best, the claims are applying the abstract idea of a weighted average to this existing technological domain, which is insufficient to satisfy §101. *Supra* §IV.A.1; *see also Uniloc*, 2019 WL 3291581, at *5–6. The fact that the weights in the weighted average are selected from an existing set “based at least in part on a comparison of the first temporal distance and the second temporal distance” also cannot save the claims. This limitation merely restricts the criteria used to choose the variables that will be plugged into the weighted average equation. That in itself is just another abstract idea—giving things weight based on their proximity in time—which is why the Federal Circuit recently

reaffirmed that “the use of . . . proximity information” while practicing an abstract idea “does not render the claims any less abstract.” *Q Techs.*, 2026 WL 304827, at *2.

The requirement of choosing weights is also described in purely functional terms. Claim 7 does not state **how** to use temporal distance to select the set of predetermined weights, much less how to then choose a specific weight from that set. It simply states that the choice is made “based at least in part on a comparison of the first temporal distance and the second temporal distance,” with no other guidance. The specification provides no help either, though unclaimed features could not save the claims regardless. *GoTV Streaming, LLC v. Netflix, Inc.*, 166 F.4th 1053, 1061 (Fed. Cir. 2026) (reaffirming that “only features that are claimed, not unclaimed details that appear in the specification, can supply something beyond ineligible matter”). Even if there were specificity though, the purported novelty in the choice of weight values is of no moment. *Diehr*, 450 at 175, 188–89; *InvestPic, LLC*, 898 F.3d at 1163. But here, the intrinsic patent record even shows that there was nothing novel beyond the abstract idea itself. During prosecution, the Examiner presented prior art that disclosed selecting the weights for bi-prediction **using relative temporal difference**. Green Dec., Ex. C at 3–4. To overcome the prior art, the claims were amended to recite selecting from a **set** of weights based on the relative temporal proximity, rather than a single weight. *Id.* at 9–10, 11 (arguing selection from a set as point of novelty). That was despite the fact that the ’734 patent admits that using a discrete number of predetermined weights was known. ’734 patent at 4:63–5:3. Regardless, the only purported novelty is limiting the available options to a predetermined set of weights, rather than running through all possibilities. That is a quintessential human thought process that cannot save the claims. *Broadband*, 113 F.4th at 1368 (“[T]he combination of two abstract ideas does not render an abstract idea less abstract.”). Whether a single value is chosen (or a set is chosen, from which a single value is likewise taken),

the claim is directed to no more than applying a mathematical formula to calculate a weighted average with different inputs.

The patent's description of the hardware and software for the invention confirms there is no improvement to computer functionality. The patent is clear that the purported invention is implemented on generic computers using conventional hardware and software. '734 patent at 26:15–31 (“[T]he methods described herein may be implemented in a computer program, software, or firmware incorporated in a computer-readable medium for execution by a computer or processor A processor in association with software may be used to implement a radio frequency transceiver for use in a WTRU, UE, terminal, base station, RNC, or any host computer.”). The specification further identifies various well-known, conventional computing devices on which the claim could be implemented. *Id.* at 25:62–26:14 (discussing “one or more processors, one or more microprocessors, one or more microcontrollers, one or more microchips, one or more application-specific integrated circuits (ASICs), one or more field programmable gate arrays (FPGAs), one or more memory devices”). However, the '734 patent relies entirely on a POSITA's skills and knowledge such that any of these would suffice if “deemed suitable.” *Id.* Claim 7 is directed to an abstract idea and fails to contain an inventive concept. It is therefore ineligible.

3. Claim 7 of the '734 Patent Is Representative of All Claims

InterDigital asserts Amazon infringes “at least Claim 7 of the '734 Patent.” Dkt. No. 1 at ¶ 69. To the extent InterDigital asserts other claims, claim 7 is representative of all '734 patent claims for purposes of patent ineligibility because none change the focus or provide anything beyond the same ineligible abstract idea. The '734 patent has four claim sets that correspond amongst each other: claims 7–12, which are directed to a video decoding apparatus; claims 1–6, which are directed to corresponding decoding methods; claims 17–20, which are directed to a

video encoding apparatus; and claims 13–16, which are directed to encoding methods that correspond to the encoding apparatus claims.

First, independent claim 1 recites four steps that are verbatim identical to the limitations of claim 7; the only difference is in the preamble. *Compare*, '734 patent at claim 1 *with* claim 7. As the Court in *Alice* noted, “the system claims are no different in substance from the method claims.” 573 U.S. at 226. Independent claims 13 and 17 also recite the exact same steps as claim 7, differing only in that the preambles claim *encoding* instead of *decoding*. '734 patent at claims 13, 17. Accordingly, claim 7 is also representative of these two independent claims.

The dependent claims do not add anything more that is inventive because they simply add particularity to the claims. *Ultramercial*, F.3d at 714. Claims 2–4 merely specify the number of predetermined weights that are used (seven, no more than four, and four, respectively), while claim 6 specifies a specific mathematical equation (where the two weights add up to one). *Id.* at claims, 2–4, 6. Similarly, claim 5 adds the limitation that the second weight is selected from a set of predetermined weights that is different from the first set of predetermined weights. *Id.* at claim 5. At most these are additional abstract ideas that cannot save the claims from ineligibility. *Broadband*, 113 F.4th at 1368. The addition of minor details does not substantively change what the claims do. Therefore, all claims should be found ineligible.

C. The '338 Patent Is Patent Ineligible

1. *Alice* Step 1: The '338 Patent Is Directed to an Abstract Idea

The '338 patent claims are directed to the abstract idea of using metadata to perform color correction operations for image data, such as for video content. '338 patent at 1:16–37. Claim 7, which is representative (*infra* §IV.C.3), recites:

7. A method of performing a color correction operation comprising the steps of:

determining with a processor of a color correction machine a number of color correction operations to be performed in response to received metadata; and performing with the processor of said color correction machine the color correction operations determined in said previous step on image data and said color correction operations are performed on a specified region of an image selected from image data used for rendering a sequence of images.

'338 patent at claim 7.

The '338 patent admits that color correction of video content, including as recited in its claim 7, was commonplace at the time, being “used in the movie or television industries.” *Id.* at 1:22–25. As discussed above, these color corrections include both “artistic” and display-dependent corrections. *Id.* at 1:22–25, 3:23–28. The '338 patent provides numerous examples of such color corrections, each of which it admits are “known in the art.” *Id.* at 1:22–25, 3:23–54. Given that the conventionality of color correction is uncontested, the purported “advance” recited in claim 7 of the '338 patent is not the act of color correction itself but instead using “metadata” to specify the color corrections. The Federal Circuit has held that such an ordinary use of metadata amounts to an abstract idea. *See Broadband*, 113 F.4th at 1367.

Claim 7 is analogous to the claims in *Broadband*, which recited creating an “electronic program guide” using “metadata,” where the metadata determined the “hierarchical location” of video content titles to be displayed within a “template.” *Id.* at 1367–69. Like color correction here, there was no dispute that using a template to create a program guide was conventional and therefore could not be the claimed “advance” over the prior art. *Id.* at 1366, 1368–69 (stating that the template was only a “generic environment” for practicing the claimed use of metadata); *see also GoTV*, 166 F.4th at 1065 at 20 (Fed. Cir. Feb. 9, 2026) (precedential) (discussing *Broadband*). The only potential “advance” was performing such use of a template “according to metadata.” *Broadband*, 113 F.4th at 1368–69. In other words, after setting the claimed template usage aside, the claims were merely “directed to receiving metadata and organizing the display of video content

based on that metadata.” *Id.* The Court held this was no different than the same type of general data-processing claims held time and time again to be abstract. *Id.* (citing *Elec. Power Grp.*, 830 F.3d at 1351; *In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d 607, 609–610 (Fed. Cir. 2016)).

So too here. Given the '338 patent's admission that the use of color correction was already well-established, the only possible “advance” in claim 7 is the use of metadata within that “generic environment.” *See Broadband*, 113 F.4th at 1369. Just as in *Broadband*, this recites only the abstract idea of “receiving metadata and [performing color correction operations to] video content based on that metadata.” *See id.* at 1368–69; *see also SAP Am., Inc.*, 898 F.3d at 1168 (“As many cases make clear, even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” (quoting *Elec. Power Grp.*, 830 F.3d at 1353, 1355)).

InterDigital may argue claim 7 recites not just abstract data processing but, rather, a specific solution for improving computer functionality. In particular, InterDigital may assert that the claim solves the problem identified in the specification that, “[w]hen the colors of video content are modified, it may be difficult for such changes to be retained from the editing device to the device that will be used to display device content such as a video monitor or a film projector.” '338 patent at 1:29–32. However, as the Federal Circuit recently explained, computer-implemented patent claims pass the *Alice* test at step one only if they recite “a concrete asserted improvement in *how* [computer] functions are carried out.” *GoTV*, 166 F.4th at 1064–65. Doing so “requires more than result-focused functional language and more than just using those functions in the context of specifically identified content.” *Id.* at 19. The claim here fails to meet this threshold.

Claim 7 recites “determining” some number of color correction operations “in response to received metadata.” But it fails to provide any specifics or place any concrete requirements on

how the metadata is used for the “determining” of color correction operations. *Cf. Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1357 (Fed. Cir. 2023) (holding claims that recited “displaying” and “converting” images and video “using a first... and second set of temporal and spatial parameters” to be abstract, because they “do not disclose performing any ‘special data conversion’” or “what th[e] [claimed] parameters are or how they should be manipulated”). The claim then recites “performing” the determined color correction operations on some “specified region of an image,” but it similarly fails to explain *how* this region is specified, let alone *how* this is able to achieve the ’338 patent’s purported solution. *See id.*

As such, the claim merely recites generic, abstract computer functions like receiving and processing data, without any concrete details on *how* to achieve these functions. *GoTV*, 166 F.4th at 1064 (“On one side of the line (...favoring the patent challenger at step one) are claims that simply call for the use of computers and networks as tools to carry out an abstract idea, using their ordinary functions without specific hardware or process advances in those functions—e.g., receiving inputs, storing and retrieving, processing, outputting (including displaying), and transmitting.”). Accordingly, claim 7 is directed to the abstract idea of using metadata to perform conventional color correction operations for video content.

2. Alice Step 2: The ’338 Patent Does Not Recite an Inventive Concept

Claim 7 also contains no “additional elements” that provide an “inventive concept” beyond the abstract idea. Color correction was an admittedly established practice and thus cannot be inventive. ’338 patent at 1:22–28. At best, it merely limits the claim to a particular “generic environment.” *Broadband*, 113 F.4th at 1369. Further, within this environment, the claim only recites the abstract, generic computer functions of receiving and processing metadata, performed by a generic “processor” for some nonspecific “color correction machine.” ’338 Patent at 3:46–54 (admitting that “[d]ifferent types of color correctors” for performing color correction operations

were “known in the art”), FIG. 2. But “[i]n conducting the step-two inquiry, [the Federal Circuit] ha[s] repeatedly emphasized that it is not sufficient[] ... for a claim to use functional, result-focused language or to encompass ordinary computers and networks to perform their ordinary functions in carrying out an abstract idea, even when narrowed to a particular use or environment (such as particular subject matter), without going further to require a specific implementation to improve how those functions are carried out.” *GoTV*, 166 F.4th at 1067–68. As such, claim 7 provides nothing else but an abstract idea and, therefore, contains no inventive concept able to render the claim patent-eligible. *See Trading Techs.*, 921 F.3d 1084, 1093 (“The abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.”).

Accordingly, claim 7 fails at Step 2 and is ineligible.

3. Claim 7 of the ’338 Patent Is Representative of All Claims

InterDigital asserts that Amazon infringes “at least Claim 7 of the ’338 Patent.” Dkt. No. 1 at ¶ 85. To the extent InterDigital asserts other claims, claim 7 is representative of all other claims because none change the focus or provide anything beyond the same ineligible abstract idea. The ’338 patent’s other independent claims, claims 1 and 4, are directed to the same abstract idea. The only difference is that they claim “generating” the metadata used to specify how many color correction operations there are and when they should be performed. These are two features inherent in performing conventional color correction and cannot save the claims. *See GoTV*, 166 F.4th at 1065 (holding that claiming “generating” data to specify display details was “familiar from, say, a pattern specifying many but not all details for a dress or trousers (with tailoring for final production to fit a particular body in limb length or other body dimensions) or a kitchen-cabinet blueprint (tailorable to height and length wall measurements)”).

The ’338 patent’s dependent claims fare no better. Claims 2, 3, and 5 require performing the independent claims’ abstract idea a second time, which still recites only an abstract idea. *See*

Broadband, 113 F.4th at 1368 (“[T]he combination of two abstract ideas does not render an abstract idea less abstract.”). Claims 6 and 8 merely provide a specific list of color correction operations to be performed, including “a one dimensional color transformation, a three dimension color transformation, a predetermined matrix, and a lift, gain, and gamma function,” which are the same conventional operations that the specification already admits to being “known in the art.” See ’338 patent at 3:46–54. Adding nothing material, the ’338 patent claims may thus be represented by claim 7. All claims should therefore be found ineligible.

D. Claim Construction Is Unnecessary Before Granting this §101 Motion

The Challenged Patents’ eligibility is an issue ripe for the Court’s consideration. There are no claim construction or factual disputes affecting the *Alice* analysis because no plausible claim construction would bring the claims within the scope of patentable subject matter. Indeed, “[n]o matter what construction the Court adopts the substance of the claims [from a §101 standpoint] is the same” and the claims are patent-ineligible. *Asghari-Kamrani v. United Servs. Auto. Ass’n*, No. 2:15-cv-478, 2016 WL 3670804, at *6 (E.D. Va. July 5, 2016).

E. Dismissal Should Be With Prejudice

While “a court should freely give leave [to amend] when justice so requires,” leave may be denied if amendment would be futile. *U.S. ex rel. Wilson v. Kellogg Brown & Root, Inc.*, 525 F.3d 370, 376 (4th Cir. 2008). Here, amendment would be futile because “[n]o amendment to a complaint can alter what a patent itself states.” *Sanderling Mgmt. Ltd. v. Snap Inc.*, 65 F.4th 698, 706 (Fed. Cir. 2023).

V. CONCLUSION

For the foregoing reasons, the Court should hold all claims of the ’435, ’734, and ’338 patents invalid under §101 and dismiss Counts I (’435 patent), II (’734 patent), and IV (’338 patent) of the complaint with prejudice.

Dated: March 13, 2026

Respectfully Submitted,

/s/ William R. Poynter

William R. Poynter

wpoynter@kaleolegal.com

Virginia State Bar No. 48672

KALEO LEGAL

4456 Corporation Lane, Suite 135

Tel: (757) 679-3503

Fax: (757) 304-6175

Of Counsel:

Counsel for Amazon.com Services LLC

Martin R. Bader (*Pro Hac Vice*)

mbader@sheppardmullin.com

**SHEPPARD, MULLIN, RICHTER &
HAMPTON, LLP**

12275 El Camino Real, Suite 100

San Diego, CA 92130

Telephone: 858.720.8900

Facsimile: 858.509.3691

Robert L. Green (*Pro Hac Vice*)

rgreen@sheppardmullin.com

**SHEPPARD, MULLIN, RICHTER &
HAMPTON, LLP**

700 Louisiana Street, Suite 2750

Houston, TX 77002-2791

Telephone: 713.431.7100

Facsimile: 713.431.7101

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been electronically filed with the Clerk of the Court on March 13, 2026 using the CM/ECF system which does send notification of such filing to all counsel of record.

/s/ William R. Poynter

William R. Poynter

wpoynter@kaleolegal.com

Virginia State Bar No. 48672

KALEO LEGAL

4456 Corporation Lane, Suite 135

Tel: (757) 679-3503

Fax: (757) 304-6175