

HE PHY Padding and Packet Extension

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SIG Field Signaling (2)

- Timing Parameters:

$$TXTIME = T_{L_PREMABLE} + T_{HE_PREMABLE} + T_{HE_DATA} + T_{PE}$$

where $T_{HE_DATA} = T_{HE_SYM} \times N_{SYM} = (12.8 + T_{GI}) \times N_{SYM}$

- L-SIG:

$$L_LENGTH = \left\lceil \frac{TXTIME - 20}{4} \right\rceil \times 3 - 3 + m, \quad m = 1 \text{ or } 2$$

SIG Field Signaling (3)

- HE-SIG-A: “PE-Disambiguity” Field:
 - Tx: if the following is met, set this field to 1; otherwise, set to 0.

$$T_{PE} + 4 \times \left(\left\lceil \frac{TXTIME - 20}{4} \right\rceil - \left(\frac{TXTIME - 20}{4} \right) \right) \geq T_{SYM}$$

- Rx Side Computation:

$$N_{SYM} = \left\lfloor \left(\frac{L_LENGTH - m + 3}{3} \times 4 - T_{HE_PREAMBLE} \right) / T_{SYM} \right\rfloor - b_{PE_Disambiguity}$$

$$T_{PE} = \left\lfloor \frac{\left(\frac{L_LENGTH - m + 3}{3} \times 4 - T_{HE_PREAMBLE} \right) - N_{SYM} \times T_{SYM}}{4} \right\rfloor \times 4$$