Recommended Modifications to Figures 119-5 and 119-6 to satisfy D2.0 ballot comments

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Figure proposals for Gorshe comments on 802.3bs Draft 2.0

- Per the comments, Figures 119-5 and 119-6 require correction.
  - Both incorrectly show all AM bits with a single FEC codeword

- It is further recommended that these figures be enhanced for clarity, making the symbol transmission order obvious to the reader.
  - The symbol transmission order in the figures is by taking a symbol row by row, moving down the column and then repeating per column.
  - In at least some figures in 802.3 (e.g., Figure 49-7, the 64B/66B block illustration), the order is to start with the first column and move across the row, repeating per row.
  - It is more common in telecommunications standards illustrations to use the same format as 802.3 Figure 49-7.
  - Consequently, it would be very helpful to the reader to indicate the transmission order within the figure.

Current Figures 119-5 and 119-6

PCS lane, *i*	Reed-Solomon symbol index, *k* (10-bit symbols)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0 am_0 119												
1	am_1												
2	am_2												
3	am_3												
4	am_4												
5	am_5												
6	am_6												
7	am_7												

= 65-bit pad = 3-bit status field = Resumption of 257-bit blocks

Figure 119–5—200GBASE-R alignment marker mapping to PCS lanes

PCS lane, *i*	Reed-Solomon symbol index, *k* (10-bit symbols)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0 am_0 119												
1	am_1												
2	am_2												
3	am_3												
4	am_4												
5	am_5												
6	am_6												
7	am_7												
8	am_8												
9	am_9												
10	am_10												
11	am_11												
12	am_12												
13	am_13												
14	am_14												
15	am_15												

= 133-bit pad = 3-bit status field = Resumption of 257-bit blocks

Figure 119–6—400GBASE-R alignment marker mapping to PCS lanes

Proposed correction to Figure 119-5

- The proposed modified figure shows the AM values being divided across two FEC codewords (i.e., the outputs from FEC encoders A and B).

PCS lane *i*	Reed Solomon symbol A index, *k* (10-bit symbols)						
	0	1	2	3	4	5	6
0	am_0						
1	am_1						
2	am_2						
3	am_3						
4	am_4						
5	am_5						
6	am_6						
7	am_7						

PCS lane *i*	Reed Solomon symbol B index, *k* (10-bit symbols)						
	0	1	2	3	4	5	6
0	am_0						
1	am_1						
2	am_2						
3	am_3						
4	am_4						
5	am_5						
6	am_6						
7	am_7						

= pad bits = 3-bit status field = Resumption of 257-bit blocks

Proposed correction to Figure 119-6

- To show the AM values divided across the two FEC words.

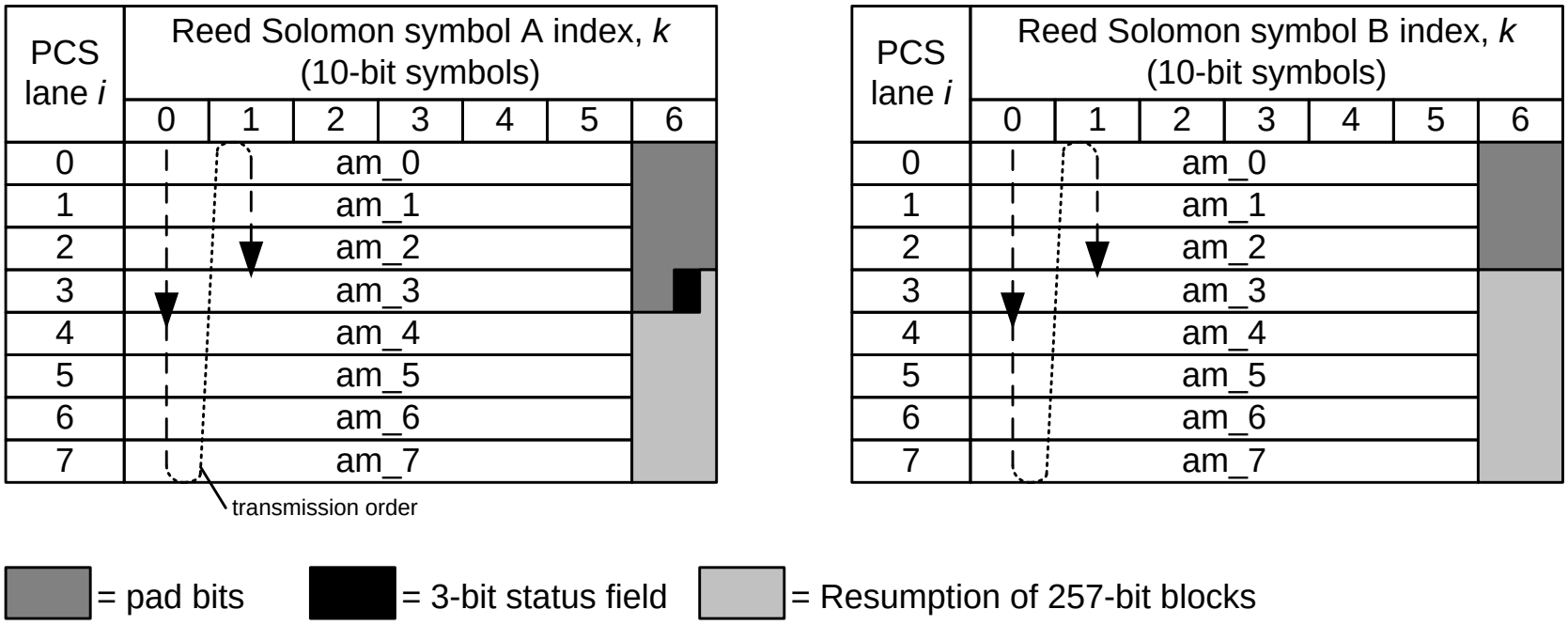
PCS lane *i*	Reed Solomon symbol A index, *k* (10-bit symbols)						
	0	1	2	3	4	5	6
0	am_0						
1	am_1						
2	am_2						
3	am_3						
4	am_4						
5	am_5						
6	am_6						
7	am_7						
8	am_8						
9	am_9						
10	am_10						
11	am_11						
12	am_12						
13	am_13						
14	am_14						
15	am_15						

PCS lane *i*	Reed Solomon symbol B index, *k* (10-bit symbols)						
	0	1	2	3	4	5	6
0	am_0						
1	am_1						
2	am_2						
3	am_3						
4	am_4						
5	am_5						
6	am_6						
7	am_7						
8	am_8						
9	am_9						
10	am_10						
11	am_11						
12	am_12						
13	am_13						
14	am_14						
15	am_15						

= pad bits = 3-bit status field = Resumption of 257-bit blocks

Recommended enhanced Figure 119-5

- The recommended enhancement to the modified figure adds indications of the symbol transmission order.



Recommended enhanced Figure 119-6

- The recommended enhancement to the modified figure adds indications of the symbol transmission order.