Test patterns comment resolution

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Some of the comments included

#	Topic	Clause	Author	Comment
461	Scrambled idle pattern definition	82	Dudek	
199	Scrambled idle pattern name	82	Anslow	
165	Make short pattern PRBS9	83	Gustlin	+ many others
603	Add scrambled RF pattern	82	Dawe	
325	Add several patterns	83	Chang	
470	PRBS pattern phases	83	Dudek	
627	Which PMA generates patterns?	83	Dawe	
573	Remove square pattern from PMA	86	Dawe	Dawe_01_0109
544	Square on one PRBS31 on others	83	Dawe	
657	Square on one PRBS31 on others	83	Trowbridge	
562	Add Pattern 1 to Table 86-15	86	Dawe	Dawe_01_0109
563	Add Pattern 2 to Table 86-15	86	Dawe	Dawe_01_0109
473	PMA generate Pattern 2?	86	Dudek	
475	Use Pattern 2 for SRS test?	87	Dudek	

Pattern choices 1

- 461 Is the pattern generated at the bit rate?
- 199 Change "pseudo-random" to "scrambled idle“?
- Make the short pattern PRBS9?
  - 165, 146, 101 propose this in clause 83
  - 564, 205, 463, 332, 221, 235, 109, 123 also propose this
- 603 Add a scrambled Remote Fault pattern and checker (Pattern 6)?
- 325 Proposes additional patterns
- 470 Proposes to add:
  - There shall be at least 31 bits delay between the PRBS31 patterns generated on one lane and any other lane.
- 627 Proposes to change which PMA generates patterns

Comment Numbers shown blue to be resolved in this session

Pattern choices 2

- Is the square (eight ones, eight zeros) required by the PMDs?
  - Review Dawe_01_0109 slides 8, 9, 10
  - 437, 438, 439, 441, 440 propose to measure OMA with square **or** PRBS9
  - 573, 636, 637, 634 propose to test OMA with PRBS9 and **delete** square
  - 635 proposes to test transition time in Cl 86 with PRBS9
  - 420 proposes to remove $RIN_{12}OMA$ from Cl 86 test tables
  - 544 questions whether RIN spec is needed in Cl 87 & 88
  - Decision: Remove square pattern from PMA? Yes / No
- If square is required is it necessary to have PRBS31 on other lanes?
  - 544, 657 question this need
- Should Pattern 1 and/or Pattern 2 from clause 52 be optional test patterns?
  - Request for late presentation Anslow_08_0109.pdf
  - 562, 563 propose to add these patterns to Table in clause 86
  - 473, 475 question whether PMA should generate Pattern 2

Pattern Tables

- What patterns should be in Tables 86-16, 87-11, 88-15 ?
  - Review presentation Dawe_01_0109 slides 14, 15

See next two slides for proposals

Pattern reference Nos

No	Pattern	D 1.1	Resolution
1	Cl 52		
2	Cl 52		
3	PRBS31	Yes	
4	Short	TBD	
5	Scrambled idle	Yes	
6	Scrambled Remote Fault		
-	Square Cl 52		
-	Square 8, 8	Yes	

Table 86-16 test patterns for clause 86

	D 1.1	566, 419, 420	206	437	635	Resoltn
Wavelength, spectral width		1, 2, 3, 5, R	3, 5, V			
Average optical power		1, 2, 3, 5, R	3, 5, V			
Transmitter OMA	Square	Squ, 4	Square	Squ, 4	Squ	
Extinction ratio		1, 2, 3, 5, R	3, 5, V			
Transmitted waveform (eye mask)		1, 3, 5, R	3, 5, V			
TDP (assuming anslow_04_0109)		2, 3, 5, R	3, 5, V			
RIN12OMA		Remove	Square			
Stressed receiver sensitivity		2, 3, 5, R	3, 5, V			
Calibration of OMA for receiver tests		Squ, 4	Square	Squ, 4		
Vertical eye closure penalty calibration			3, 5, V			
J2 (assuming anslow_04_0109)		1, 2, 3, 5, R	3, 5, V			
J9 (assuming anslow_04_0109)		3, 5, R	3, 5, V			
DDPWS		4	4			
AC common mode voltage		1, 2, 3, 5, R	3, 5, V			
Transition time		Squ, 4	Square	Squ, 4	4	

V – valid 40/100GBASE-SR signal, R – valid 40/100GBASE-SR signal or 10GBASE-R signal

Table 86-16 test patterns for clause 86, 87, 88

	D 1.1	Dawe_01	Resolution
Wavelength, spectral width		5, 6, 3 (1, 2, R)	
Average optical power		5, 6, 3 (1, 2, R)	
Transmitter OMA	Square	4, Square	
Extinction ratio		5, 6, 3 (1, 2, R)	
Transmitted waveform (eye mask)		5, 6, 3 (1, R)	
TDP (assuming anslow_04_0109)		5, 6, 3 (R)	
RIN12OMA		Remove	
Stressed receiver sensitivity		5, 6, 3 (2, R)	
Calibration of OMA for receiver tests		4, Square	
Vertical eye closure penalty calibration		5, 6, 3 (R)	
J2 (assuming anslow_04_0109)		5, 6, 3 (1, 2, R)	
J9 (assuming anslow_04_0109)		5, 6 (R)	
DDPWS		4	
AC common mode voltage		5, 6, 3 (1, R)	
Transition time		4, Square	
Receiver upper cutoff frequency		5, 6, 3 (1, R)	

6 – Scrambled Remote Fault, R – Portion of valid n0GBASERn signal or a 10GBASE-R signal
Patterns in brackets expected to give similar results

Tables 87-11, 88-15 test patterns for clauses 87 & 88

	D 1.1	223, 237	475	438	Resolution
Wavelength	, V	3, 5, V	3, 5, V		
Side mode suppression ratio		3, 5, V	3, 5, V		
Average optical power		3, 5, V	3, 5, V		
OMA	Square	Square	Square	Squ, 4	
TDP		3, 5, V	3, 5, V		
Extinction ratio	, V	3, 5, V	3, 5, V		
RINxOMA	Square	Square	Square		
Transmitter waveform		3, 5, V	3, 5, V		
Stressed receiver sensitivity		3, 5, V	3, 5, V		
Calibration of OMA for receiver tests		Square	Square		
Vertical eye closure penalty calibration		3, 5, V	3, 5, V		
Receiver upper cutoff frequency		3, 5, V	3, 5, V		

V – valid 40/100GBASE-R signal