P802.3cd D1.2 Editorial Update

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Agenda

- D1.2 release update
- D1.2 open (mag./TBD) items

P802.3cd D1.2 Open Items Summary

Introduction

- Draft 1.2 includes a large number of parameters that are marked in magenta and in some cases the value TBD/TBC.

- Summary:
  - 55 parameters to be address
  - 5 clauses and annexes
  - 11 topic groups

- Clauses and annexes:
  - 136, 19 parameters, 3 topics
  - 137, 12 parameters, 1 topic
  - 138, 6 parameters, 5 topics
  - 140, 4 parameters, 1 topic
  - 139B, 2 parameters, 2 topics

Clause 136, Part I

Clause	Subclause	Page	Line	Parameter	Value	Topic
136	Table 136-11 136.9.3.1.2	xxx 208	46 23	Linear fit pulse peak (min.)	0.49*v_f	Tx specs.
136	Table 136-11		48	Level separation mismatch ratio RLM (min.)	TBD	Tx specs., COM
136	Table 136-11 136.14.4.3	206 224	12 9	Signal-to-noise-and-distortion ratio (min.); value and reference	TBD	Tx specs., COM
136	Table 136-11	206	17	JRMS	TBD	Tx specs., COM
136	Table 136-11	206	18	J4	TBD	Tx specs., COM
136	136.9.4.2.3	211	33	Test channel calibration	Last item in method is TBD Resolution of # 213	Rx spec

Clause 136, Part II

Clause	Subclause	Page	Line	Parameter	Value	Topic
136	Table 136-15	215	14	COM Single-ended device capacitance	1.80E-04	COM
136	Table 136-15	215		COM Single-ended package capacitance at package-to-board interface	1.10E-04	COM
136	Table 136-15	215		COM Package transmission line characteristic impedance	90	COM
136	Table 136-15	215		COM Transmitter differential peak output voltage: Victim	0.45	COM
136	Table 136-15	215		COM Transmitter differential peak output voltage: Far-end aggressor	0.45	COM
136	Table 136-15	215		COM Transmitter differential peak output voltage: Near-end aggressor	0.63	COM
136	Table 136-15	215		COM Transmitter signal-to-noise ratio	32.5	COM
136	Table 136-15	215		COM Decision feedback equalizer (DFE) length	12	COM
136	Table 136-15	215		COM Normalized DFE coefficient magnitude limit for n = 1	0.7	COM
136	Table 136-15	215		COM Normalized DFE coefficient magnitude limit for n = 2 to Nb	0.2	COM
136	Table 136-15	215		COM Random jitter, RMS	0.01	COM
136	Table 136-15	215		COM Dual-Dirac jitter, peak	0.02	COM
136	Table 136-15	215		COM One-sided noise spectral density	1.64E–8	COM

Clause 137, Part III

Clause	Subclause	Page	Line	Parameter	Value	Topic
137	Table 137-5	234	13	COM Single-ended device capacitance	1.80E-04	COM
137	Table 137-5	234		COM Single-ended package capacitance at package-to-board interface	1.10E-04	COM
137	Table 137-5	234		COM Package transmission line characteristic impedance	90	COM
137	Table 137-5	234		COM Transmitter differential peak output voltage: Victim	0.45	COM
137	Table 137-5	234		COM Transmitter differential peak output voltage: Far-end aggressor	0.45	COM
137	Table 137-5	234		COM Transmitter differential peak output voltage: Near-end aggressor	0.63	COM
137	Table 137-5	234		COM Transmitter signal-to-noise ratio	32.5	COM
137	Table 137-5	234		COM Decision feedback equalizer (DFE) length	12	COM
137	Table 137-5	234		COM Normalized DFE coefficient magnitude limit for n = 1	0.7	COM
137	Table 137-5	234		COM Normalized DFE coefficient magnitude limit for n = 2 to Nb	0.2	COM
137	Table 137-5	234		COM Random jitter, RMS	0.01	COM
137	Table 137-5	234		COM Dual-Dirac jitter, peak	0.02	COM
137	Table 137-5	234		COM One-sided noise spectral density	1.64E–8	COM

Clause 136B

Clause	Subclause	Page	Line	Parameter	Value	Topic
136B	136B.1.1.2	361	48	Reference for return loss	92.11.3.2	TF Return loss
136B	136B.1.1.6	362	31	Multiple disturber far end crosstalk loss	Table 92-13	TF crosstalk

Clause 138, part I

Clause	Subclause	Page	Line	Parameter	Value	Topic
138	Table 138-8	252	14	Outer Optical Modulation Amplitude (OMA), each lane (min)	–4 TBC	TX specs
138	Table 138-8	252	16	Launch power in OMAouter minus TDECQ (min)	–5 TBC	TX specs
138	Table 138-8	252	17	Transmitter and dispersion eye closure (TDECQ), each lane (max)	4 TBC	TX specs
138	Table 138-9	253	46	Stressed receiver sensitivity (OMAouter), each lane (max)	–3 TBC	RX specs
138	Table 138-9	253	47	Receiver sensitivity (OMAouter), each lane (max)	-7 TBC	RX specs
138	Table 138-9	253	50	Stressed eye closure (SECQ), lane under test	4 TBC	RX specs
138	138.8.1.1	255	33	Delay between PRBS31Q patterns	31 UI TBC	RX specs
138	138.8.8	256	49	Measurement bandwidth	19.34 GHz TBD	RX specs
138	Table 138-13	256	14	Jitter tolerance frequency and magnitude	f<40 kHz | Not specified 40kHz<f<4 MHz | 2×105/f 4 MHz<f<10LB | 0.05	RX specs

Clause 138, part II

Clause	Subclause	Page	Line	Parameter	Value	Topic
138	Table 138-10	254	17	Power budget (for max TDECQ)	6 TBC	power budget
138	Table 138-10	254	18	Operating distance	0.5 to 70	power budget
138	Table 138-10	254	19	Channel insertion loss	1.8	power budget
138	Table 138-10	254	12	Allocation for penalties (for max TDECQ)	4.1 TBC	power budget
138	Table 138-10	254	23	Additional insertion loss allowed	0.1	power budget
138	138.9.2 138.11.4.5	257 265	32 40	Hazard level	TBD	hazard level
138	138.10.2.2.2	260	35	Maximum discrete reflectance	-20 dB TBC	fiber conn. refl.

Clause 140

Clause	Subclause	Page	Line	Parameter	Value	Topic
140	Table 140-6	297	46	Optical return loss tolerance (max)	21.4 dB	Opt. budget, refl.
140	140.7.7	301	4	Optical return loss tolerance (max)	21.4 dB	Opt. budget, refl.
140	Table 140-11	303	14	Optical return loss (min)	37 dB	Opt. budget, refl.
140	Table 140-13	304	22	Maximum value of each discrete reflectance	–37 dB, –42 dB, –45 dB, –47 dB, –48 dB, –49 dB	Opt. budget, refl.

Thank you!