

BTI Progress

IEEE P802.3bs 400GbE Task Force

IEEE 802 Mar 2015

Berlin, Germany

BTI Progress

- BTI's updated Mar 2015
- BTIs for electrical interfaces removed, as Task Force selected PAM-4 electrical interface proposals
- Summarized in http://www.ieee802.org/3/bs/public/15_01/big_ticket_items_3bs_01_0115.pdf
- Following slides are Task Force's assessment of BTI status. (Items in red have had supporting material presented).

BTI Progress

Item	Proposal	BTI Actions	March Presentations	BTI out of March Plenary
PCS	gustlin_3bs_02_0115	Slide 11 per gustlin_3bs_02 are work items PMD selection influence PCS and FEC Need burst error nature to select PCS and FEC Error model by PMD type?	gustlin_3bs_02_0315.pdf gustlin_3bs_01_0315.pdf	* AM details
FEC	Reference: wang_x_3bs_01_0115	PMD selection BERin required by PMD Try to eliminate unacceptable FEC options e.g. in wang_x_3bs_01 4x100G or 1x400G FEC striping Impact of overspeed on PMD error rates	gustlin_3bs_02_0315.pdf wang_x_3bs_01_0315.pdf	* 4x100 vs. 1x400 decision
PMA	Reference: Slavick_3bs_01_0115 Wang_t_3bs_01_0115 Gustlin_3bs_02_0115	PMD selection and electrical interfaces will impact Muxing scheme	gustlin_3bs_02_0315.pdf wang_t_3bs_01_0315.pdf	* muxing choice related to FEC arch (4x100 vs. 1x400)
Arch	dambrosia_3bs_02b_0115	None	None	
EEE	marris_3bs_01_0115	None	None	
OTN	trowbridge_3bs_01a_0115	none	trowbridge_3bs_01_0315.pdf	* reuse of modules (depends on PMA muxing)

BTI Progress (500m SMF)

Item	Proposal	BTI Actions	March Presentations
500m SMF	Cole_3bs_03a_1114 (NRZ)	<p>Evaluate Coupling between electrical and optical interfaces</p> <p>RX Technical feasibility</p> <p>Dispersion penalty worst case (in SMF ad hoc)</p> <p>TDP.</p> <p>MPI</p> <p>RX sensitivity</p>	cole_3bs_02_0315
	Welch_3bs_01a_0115 (PAM4)	<p>Evaluate Coupling between electrical and optical interfaces</p> <p>RX Technical feasibility</p> <p>Dispersion penalty worst case (in SMF ad hoc)</p> <p>TDP.</p> <p>MPI</p> <p>RX sensitivity</p> <p>More Test results (prefer real data on all proposals)</p> <p>CLARIFIED TEST RESULTS: per anslow_3bs_02_0315 "test results establishing acceptable BER curve" (slide 4)</p>	<p>welch_3bs_01_0315.pdf</p> <p>welch_3bs_02_0315.pdf</p> <p>cole_3bs_02_0315.pdf</p>

BTI Progress (2km SMF)

Item	Proposal	BTI Actions	March Presentations	
2km SMF PMD	Cole_3bs_01_0115.pdf (NRZ)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	cole_3bs_03_0315 cole_3bs_02_0315	* economic feasibility
	Kojima_3bs_01a_0115 (NRZ)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	shirao_3bs_01a_0315	* economic feasibility
	Cole_3bs_02_0115.pdf (PAM4, 8x50)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	stassar_3bs_01_0315	
	Lewis_3bs_01a_0115 (PAM4, 4x100)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	tipper_3bs_01_0315.pdf lewis_3bs_01_0315.pdf	

BTI Progress (10km SMF PMD)

Item	Proposal	BTI Actions	March Presentations
10km SMF PMD	Cole_3bs_01_0115.pdf (NRZ)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	cole_3bs_03_0315 cole_3bs_02_0315
	Kojima_3bs_01a_0115.pdf (NRZ)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	shirao_3bs_01_0315
	Cole_3bs_02_0115.pdf (PAM4)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity More Test results (prefer real data on all proposals)	stassar_3bs_01_0315 ghiasi_3bs_02_0315.pdf
	Takahara_3bs_01_1114 (DMT) corbeil_3bs_01_0115 (DMT)	Evaluate Coupling between electrical and optical interfaces RX Technical feasibility Dispersion penalty worst case (in SMF ad hoc) TDP. MPI RX sensitivity Optical loss budget model interoperability more test results	corbeil_3bs_01_0315.pdf tanaka_3bs_01_0315