INCITS T11.2 Report

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TG T11.2 - FC physical layer

- Membership is 40 companies.
- Projects in development include FC-MJSQ, FCSM-2, FC-PI-2, and FC-PI-3.
- The FC-PI-2 document was forwarded to T11 for letter balloting.
- Optical activities of special interest included 1310 nm 1 km link and Electronic Dispersion Control (EDC).
- Copper activities of special interest included 2, 4, and 8 GBaud use of SCA-2 connectors and defining power on the IB 4x/10GBASE-CX4 connector.
- The FCIA voted to open 4Gig into the Fabric.

FC-PI-2 PMD Variants

	100MB/1G	200MB/2G	400MB/4G	1200MB/10G
SM 1300nm	**100-SM-LC-L** 0,5 m-10 km	**200-SM-LC-L** 0,5 m-10 km	**400-SM-LC-L** 0,5 m-10 km	Note 1
MM 50μ 850nm	**100-M5-SN-I** 0,5 m-500 m	**200-M5-SN-I** 0,5 m-300 m	**400-M5-SN-I** 0,5 m-150 m	Note 1
MM 62.5μ 850nm	**100-M6-SN-I** 0,5 m-300 m	**200-M6-SN-I** 0,5 m-150 m	**400-M6-SN-I** 0,5 m-70 m	Note 1
EL Unbalanced	**100-SE-EL-S** Length depends on media	**200-SE-EL-S** Length depends on media		
EL Balanced	**100-DF-EL-S** Length depends on media	**200-DF-EL-S** Length depends on media	**400-DF-EL-S** Length depends on media	**1200-DF-EL-S** Length depends on media

Note 1: For the Optical Variants refer to 10GFC document (refers to 802.3ae)

Power on IB4/CX4 Connector

- Enables external module (MIA).
  - Coverts from electrical to optical (30m to 10km).
  - No MSA needed
- Enables repeaters (in Cable)
- Supplies remote power (video camera…)

Pin Number	Signal Definitions	Alternate Signal Definitions
G1	Signal Ground	Signal Ground
G2	Signal Ground	ODIS
G3	Signal Ground	Signal Ground
G4	Signal Ground	Signal Ground
G5	Signal Ground	Signal Ground
G6	Signal Ground	FAULT
G7	Signal Ground	TYPE_SENSE
G8	Signal Ground	V_OUT
G9	Signal Ground	V_OUT_RETURN

EDC

- Study group was formed in Apr. 2003.
- Project proposal to be accepted in Aug. 2003
  - First public review target Aug. 2004.
  - Completed Standard by Dec. 2004.
- Work is based on IEEE 802.3 equalization adhock.
- The same principles of EDC can be used for both fiber and copper.
- Main Goal: To support longer distances over “legacy” fibers/cables.
  - To reach 100m over 62.5μm @ 10Gig (now 28m).
  - To support 4Gig over 2Gig cable plants.