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**Copper “Cu” Sub-Task Force  
Closing Report  
San Francisco, CA - July 2009**

**Cu Sub-Task Force Chair  
Chris Di Minico**

**Editor(s) – Ryan Latchman  
Arthur Marris**

# Cu Sub-Task Force

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- **Cu Sub-Task Force Chair and Editor for 40GBASE-CR4 and 100GBASE-CR10, clause 85**
  - **Chris DiMinico**
- **Editor, 40 Gb/s (XLAUI) and 100 Gb/s (CAUI) interfaces, Annex 83A, 83B**
  - **Ryan Latchman**
- **Editor, Clauses 69, 74, 84, Annexes 69A, 69B**
  - **Arthur Marris**

# Copper Sub-Task Force Schedule

	Sun	Mon	Tues	Wed	Thur	Fri						
8:00		SEC	Task Force			Logic	Copper	Optics	Task Force Motions & Closing Business			
8:30												
9:00												
9:30		802.0 Plenary	Logic	Copper	Optics	Lunch	Lunch	Lunch				
10:00												
10:30		Task Force	802.3 Plenary	Logic	Copper	Optics	Logic	Copper	Optics		802.3 Plenary	SEC
11:00												
11:30												
12:00												
12:30												
13:00												
13:30		Dinner	Tutorial #1	Dinner			Dinner					
14:00												
14:30												
15:00												
15:30												
16:00												
16:30	Task Force	Tutorial #2	Logic	Copper	Optics	Social						
17:00												
17:30												
18:00	Task Force	CFI	Logic	Copper	Optics							
18:30												
19:00												
19:30												
20:00												
20:30												
21:00												
21:30												
22:00												

# Comment resolution - Tuesday and Wednesday

- **Clause 85, 40GBASE-CR4 and 100GBASE-CR10**
- **Backplane Clauses 69, 73, 74, 84, Annexes 69A, 69B**
- **Annex 83A, 83B 40 Gb/s (XLAUI) and 100 Gb/s (CAUI) interfaces**
  
- **Resolved all ER/T/TR**
- **Editorial responses posted**

Clause/Annexes	Editor	TR	T	ER	E	Total
85	Chris DiMinico	56	42	10	11	119
69, 74, 84, 69A, 69B	Aurthur Marris	4	1	0	6	11
83A,83B	Ryan Latchman	24	4	10	4	42
		84	47	20	21	172

5 late comments considered

## Clause 00 comment#96 related to clause 85

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- **Summary comment#96 ...change the reach objective for CR4/10 to 7m (from 10m) to allow for more loss be assigned to the PCB.....**
- **Use gustlin\_04\_0709 as reach objective guidance and subsequent input for insertion loss allocation.**
  - **Change the reach objective for CR4/10 to 7m (from 10m) to allow for more loss to be assigned to the PCB, keeping constant the channel loss budget (26.3dB)..change clause 85A.4 from 4.74dB total loss for tx/rx host boards to 5dB**
- **Comment resolution: The link loss budget accommodates at least 7 m reach and an IL of 6.5 dB between TP0-TP2 with TP0-TP5 channel loss budget 24.44 dB**

# Resolved key items to clause 85

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## Insertion loss allocation between PCB trace loss, connector, and cable

- Possible impact to cable reach objective; use comment#96 proposed remedy (comment#96 is not closed); 7 m guidance in gustlin\_04\_0709.pdf

## IL cable assembly fit

- Difference in backplane versus cable assembly IL- polynomial fit proposed

## Cable assembly specifications

- IL and FEXT

## TP2 and TP3 specification refinements

## Return loss

- Consideration for RL budget related to ILD and power penalty IL allocation

# Resolved key items Annexes 69,69A,69B,84

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- 69B- frequency range of specified parameters**
- 69 - architecture diagrams**

# Resolved key items Annexes 83A,83B

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- Lane speed descriptions and designations
- Inclusion of shall statements and PICS entries
- Rise and fall times
- Consideration for PPI specifications
- Use of MCB and HCB