

FO-4.2.1 Support for Dispersion Compensation

Working Group on
Modal Dependence of
Multimode Fiber Bandwidth

Content

- Why this presentation?
- What can FO-4.2.1 offer?
- Results from the last 5 years FO-4.2.1
- Questions to IEEE

Why this presentation?

TIA working group FO-4.2.1 is interested to work together with IEEE 802.3 study group on 10 Gb/s over FDDI-grade MMF.

We have multimode system experts (both 850 nm and 1300 nm) in our working group willing and able to support the work of this SG.

What can FO-4.2.1 offer?

- Experience in verifying solutions by:
 - Round robins
 - Multi vendor fiber and source samples
 - Multi lab involvement
 - Anonymity assured (in the past by NIST)
 - Simulation / use of enhanced models
 - FO-4.2.1 supports use of the link model from IBM
- Any other work involving multimode link components (fibers, sources, etc.)

What can FO-4.2.1 offer?

- In FO-4.2.1 the following companies are represented:

Agilent
Big Bear Networks
Corning
Draka Comteq
IBM
JDS Uniphase
OFS
Perkin Elmer
Raytheon
Tyco Electronics

Avaya
ClariPhy Comm.
Corning Cable Systems
Honeywell
Infineon Technologies
NIST
Optiwave Corp.
PK Technology
R Soft

Results from the last 5 years

FO-4.2.1

- **FOTP 203**
Launched Power Distribution Measurement Procedure for Graded-Index Multimode Fiber Transmitters
- **FOTP 204**
Measurement of Bandwidth on Multimode Fiber
- **TSB-62-20**
Enhanced Bandwidth Performance over Laser-Based, Multimode Fiber Local Area Networks
- **FOTP 220-A**
Differential Mode Delay Measurement of Multimode Fiber in the Time Domain
- **492AAAC-A**
Detail Specification for 850-nm Laser-Optimized, 50 μ m Core Diameter/125- μ m Cladding Diameter Class Ia Graded-Index Multimode Optical Fibers

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Results from the last 5 years

FO-4.2.1 (continued)

- Three JLT papers last year:
 - “Modeling and Simulation of Next-Generation Multimode Fiber Links”, Pepeljugoski et al., Journal of Lightwave Technology, May 2003.
 - “Development of System Specification for Laser-Optimized 50- μm Multimode Fiber for Multigigabit Short-Wavelength LANs”, Pepeljugoski et al., Journal of Lightwave Technology, May 2003.
 - “Measurement for Enhanced Bandwidth Performance Over 62.5- μm Multimode Fiber in Short-Wavelength Local Area Networks”, Schlager et al., Journal of Lightwave Technology, May 2003.

Questions to IEEE

FO-4.2.1 intends to support the SG

- What is the information / help wanted from FO-4.2.1
- What is the most efficient collaboration process between FO-4.2.1 and the SG?