TIA-TR42 Liaison

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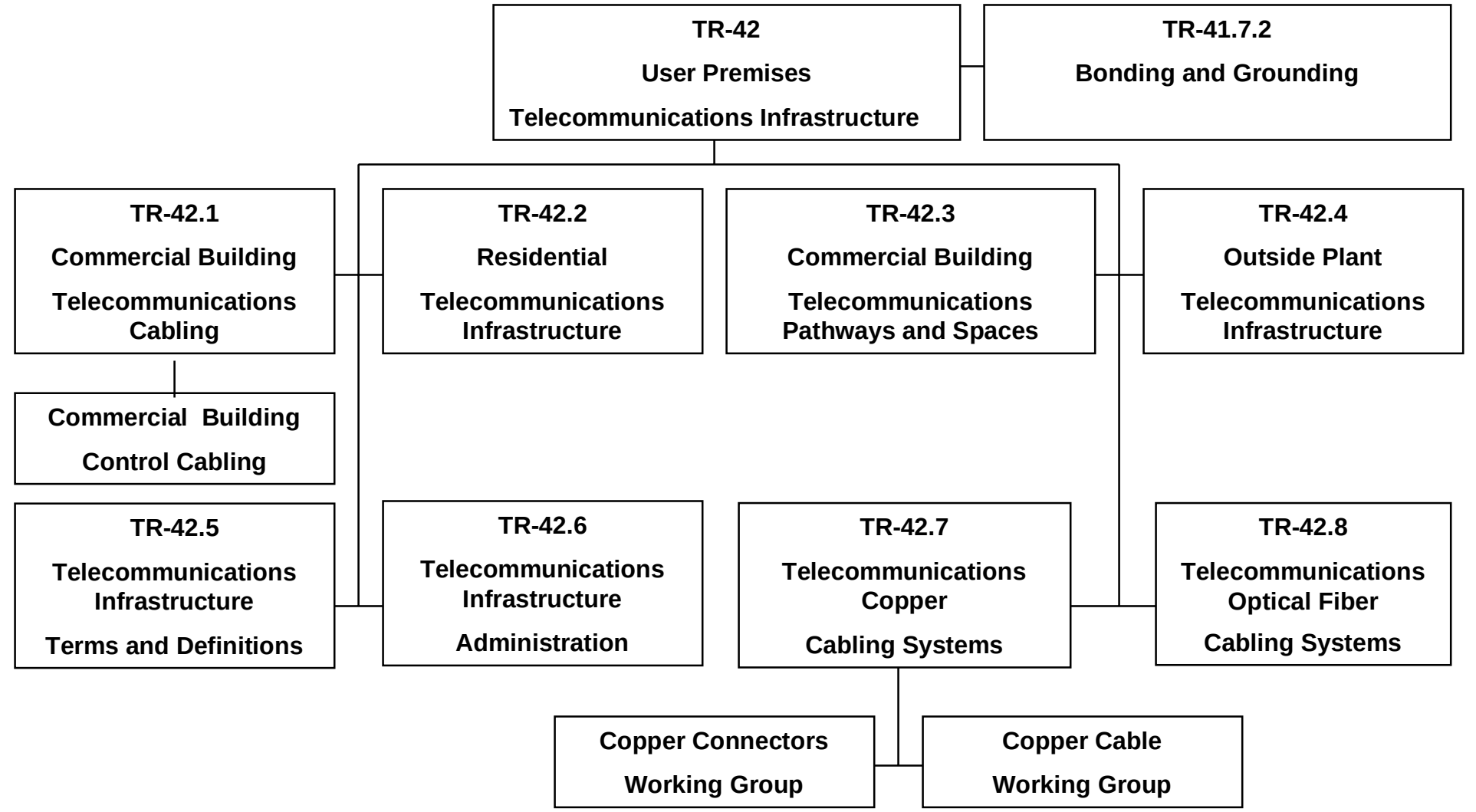
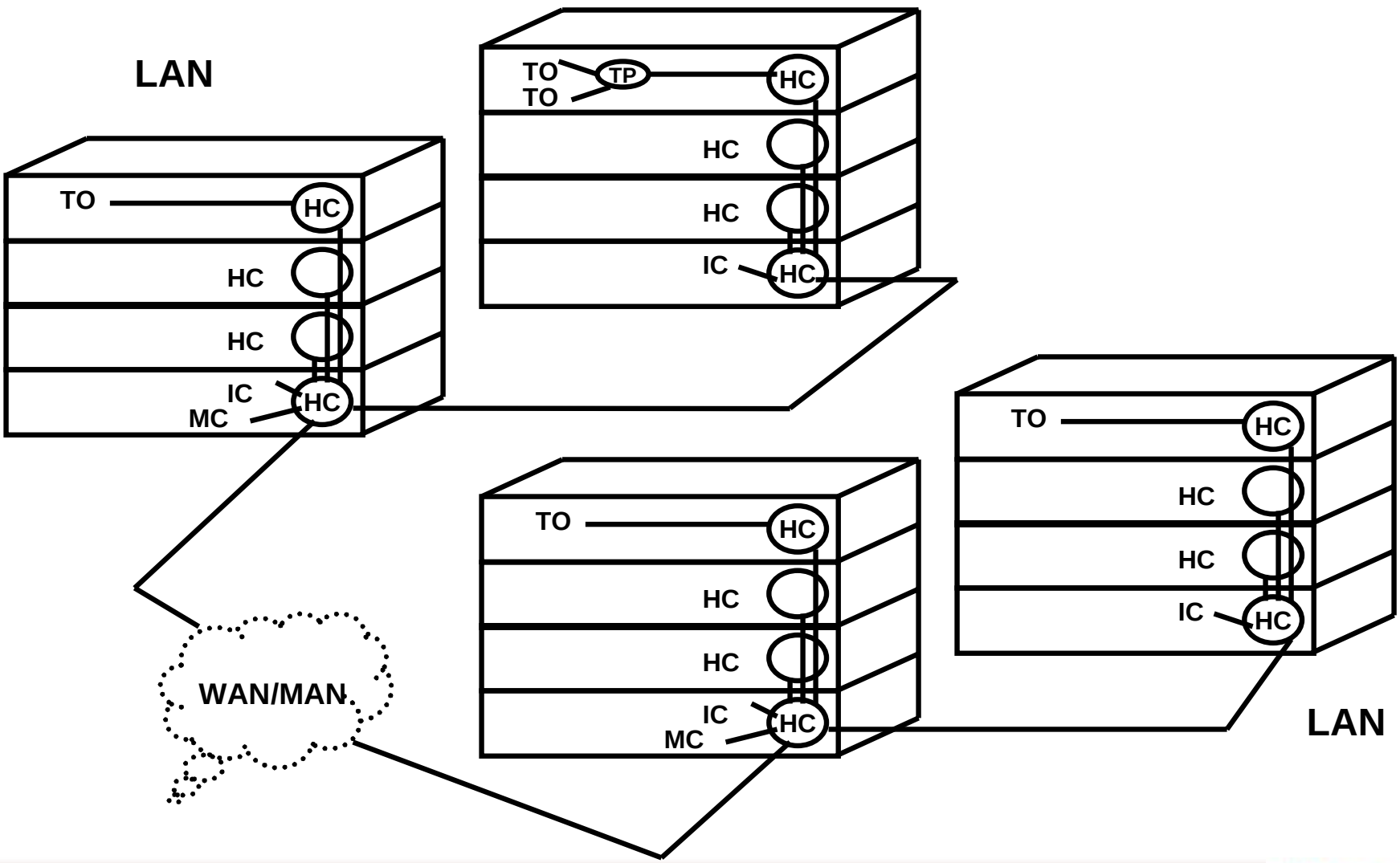
TIA Organization Structure



Generic Cabling - ISO/IEC 11801 - TIA/EIA-568-A



TIA TR42 - User Premises: Telecommunication Cabling Infrastructure

42 - User Premises: Telecommunication Cabling Infrastructure

42.1 - Commercial Building Cabling

ANSI/TIA/EIA-568-B.1, Commercial Building Telecommunications Cabling Standard

42.7 - Copper Cabling Systems (connector,cable)

ANSI/TIA/EIA-568-B.2, 100 Ohm Balanced Twisted-pair Cabling Standard

ANSI/TIA/EIA-568-B.4, Shielded Twisted-pair Cabling Standard

42.8 - Optical Fiber Cabling Systems

ANSI/TIA/EIA-568-B.3, Optical Fiber Cabling Standard

Cabling Standard Update:

- **TIA/EIA-TSB-95 and Category 5e - TIA/EIA-TIA/EIA-568-A-5 on hold until return loss issues are resolved.**

- **March 30th meeting scheduled to resolve technical issues.**

- **At a minimum re-circulation ballots required.**

- **Ballot in May. Comments back in July early August. With review at August meeting possible publication in September.**

Cabling Standards Update:

Press Release

TR42.1 (formerly TR41.8.1): Press Release on Return Loss Measurements

TR 41.8.1 has established a task group to investigate the measurement of cabling return loss. The specification of this parameter is required to support full-duplex applications such as 1000BASE-T. At this time, TIA has not fully developed field test methods and test cord requirements for return loss.

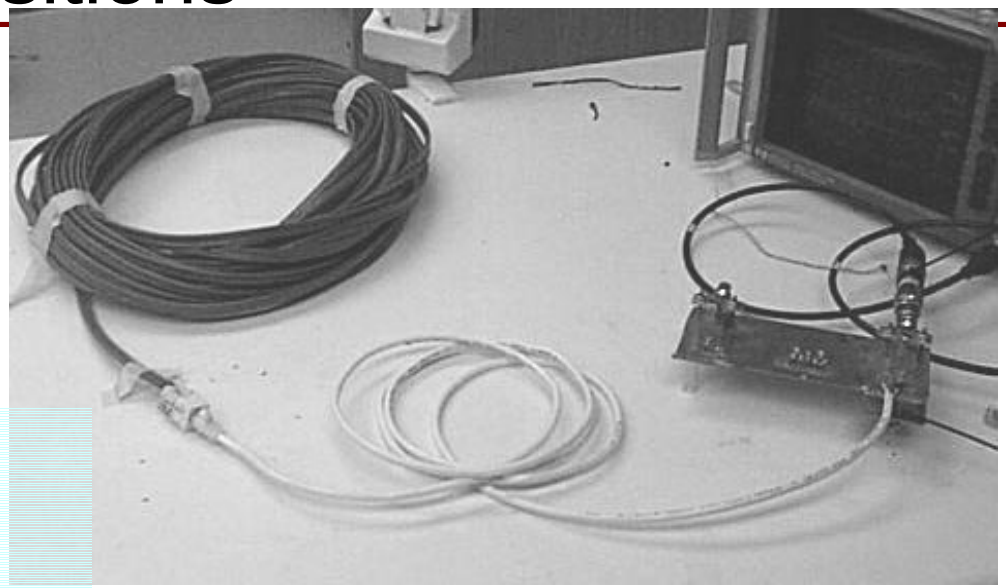
Return loss measurement accuracy is sensitive to handling of tester cords, termination practices, and other effects that are under study. These effects may lead to inconsistent measurements. TR41.8.1 has made significant progress in the specification of suitable requirements and guidelines to improve return loss measurement accuracy. This work is expected to be available for committee ballot by February 1999. There is no standard for field verification of return loss until these requirements are approved.

Sincerely,

Masood Shariff and John Siemon
Co-chairs, TIA TR42.1 (formerly TR41.8.1)

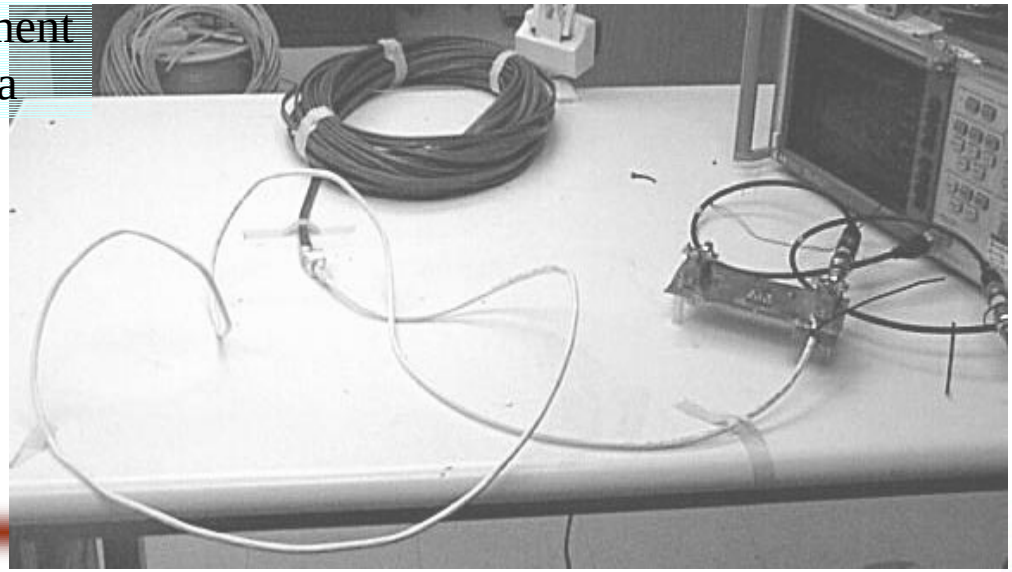
RL Measurements With Patch 1 in Different Positions

Patch 1_Picture 1

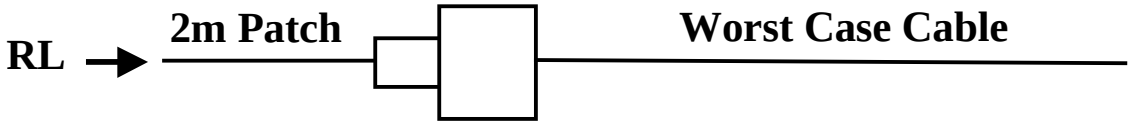


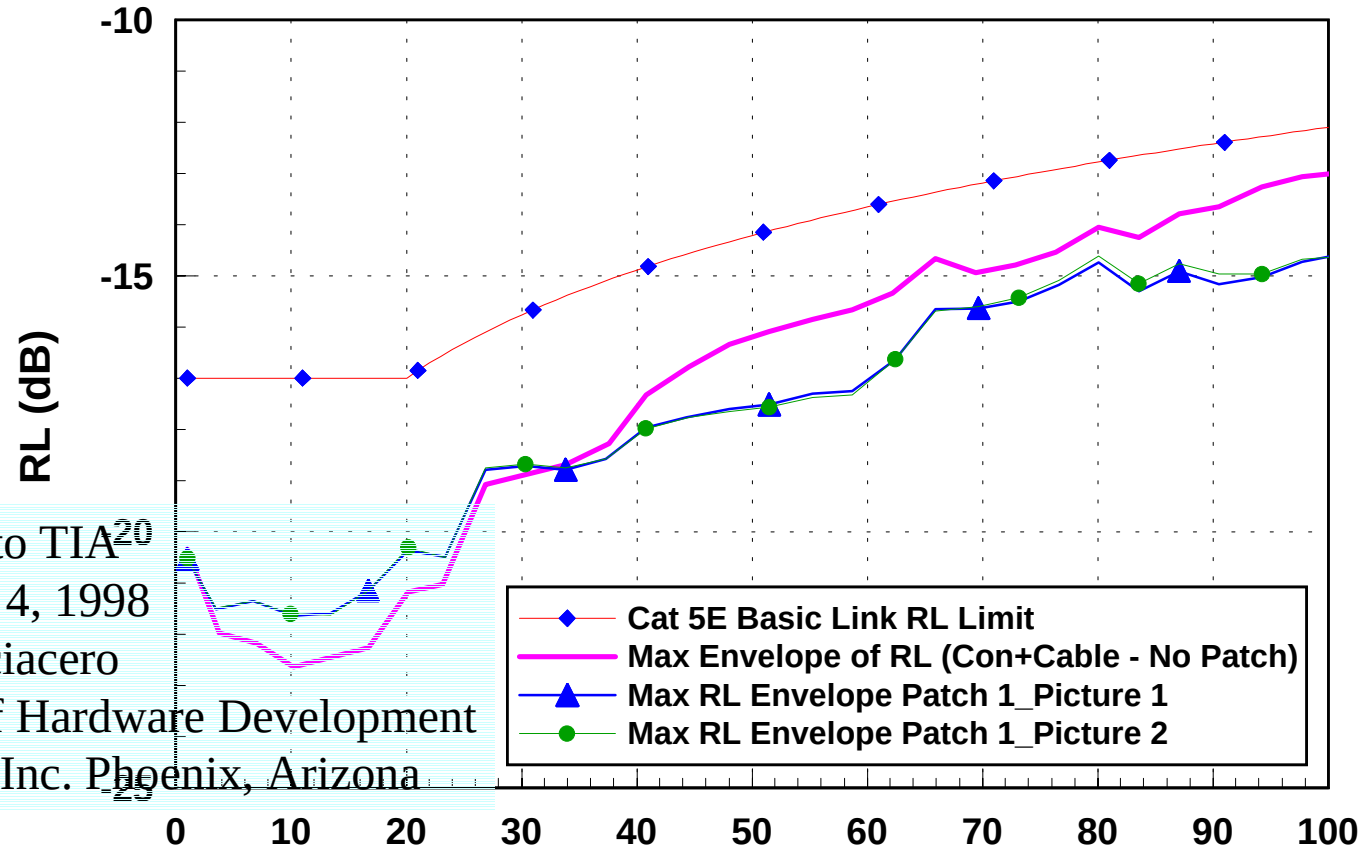
Presented to TIA
November 4, 1998
By: Jim Sciacero
Director of Hardware Development
Microtest, Inc. Phoenix, Arizona

Patch 1_Picture 2



Max. Envelope of RL with Patch 1 in Different Position field Expected Results Within Link Limits





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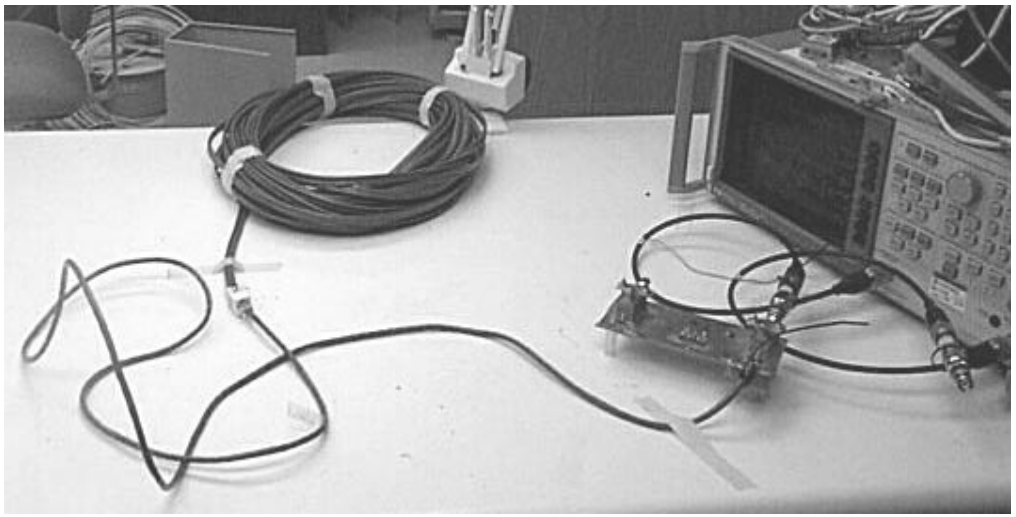
RL Measurements With Patch 2 in Different Positions

Patch 2_Picture 3



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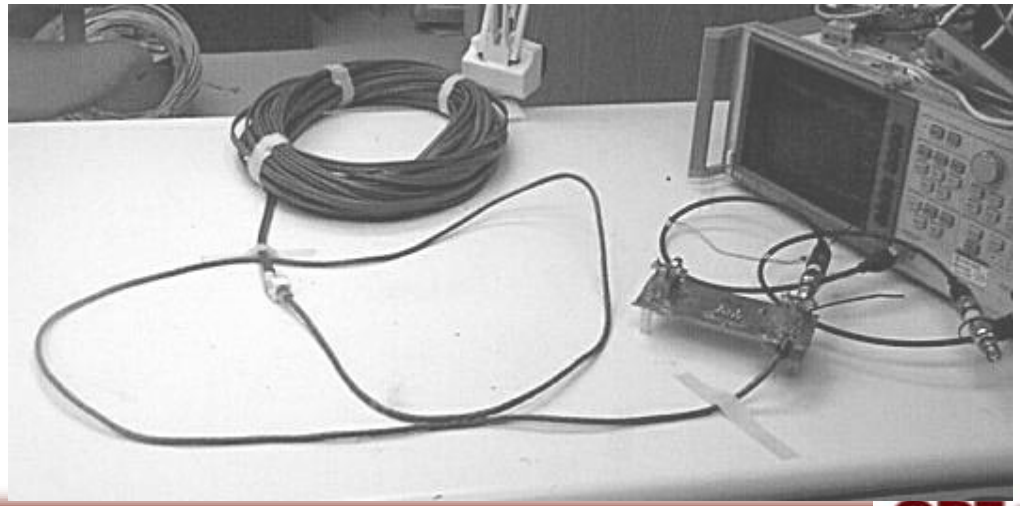
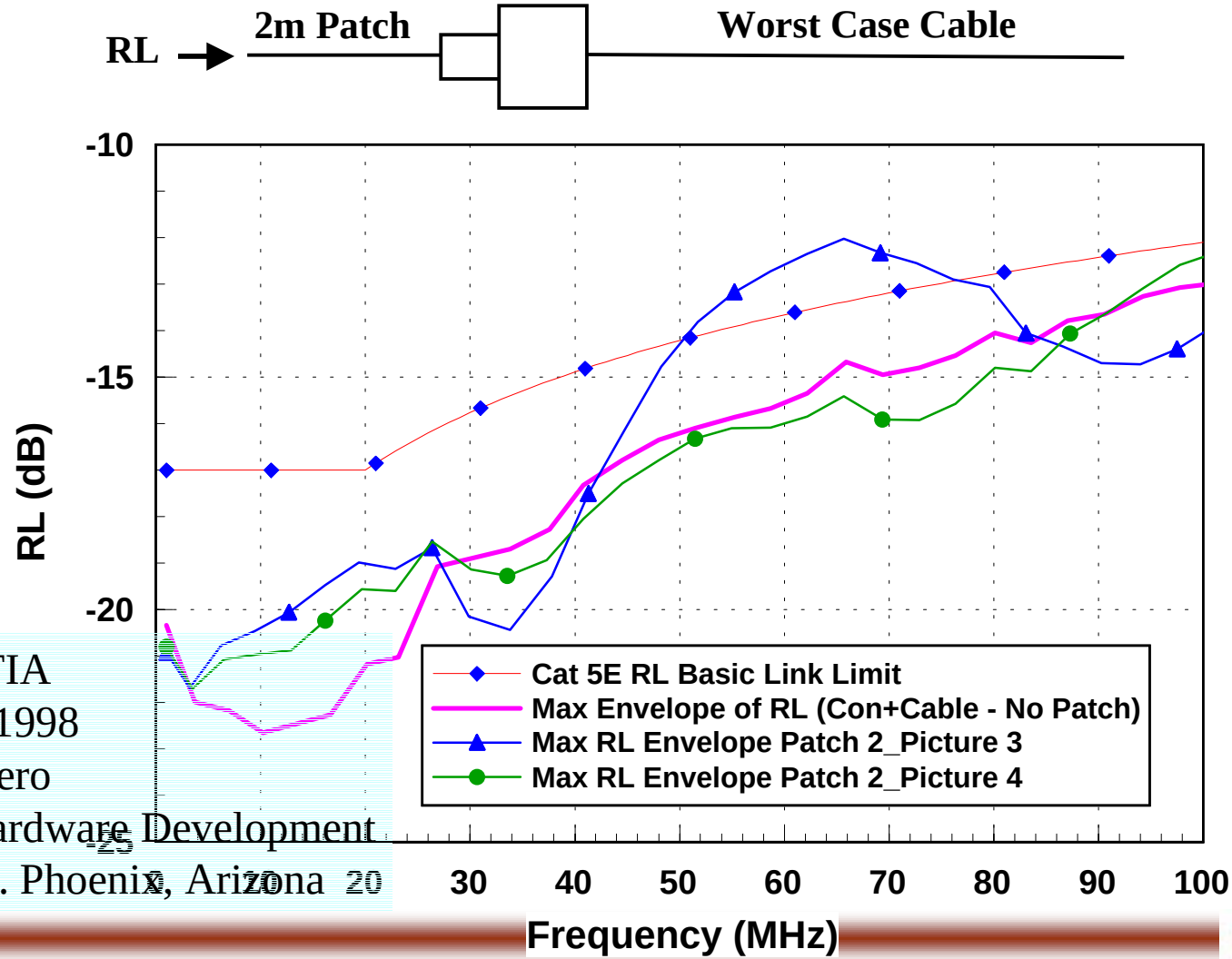
Patch 2_Picture 4



Max. Envelope of RL with Patch 2 in Different Positions yield Wide Variations (4 dB) and Exceeds the Link Limit



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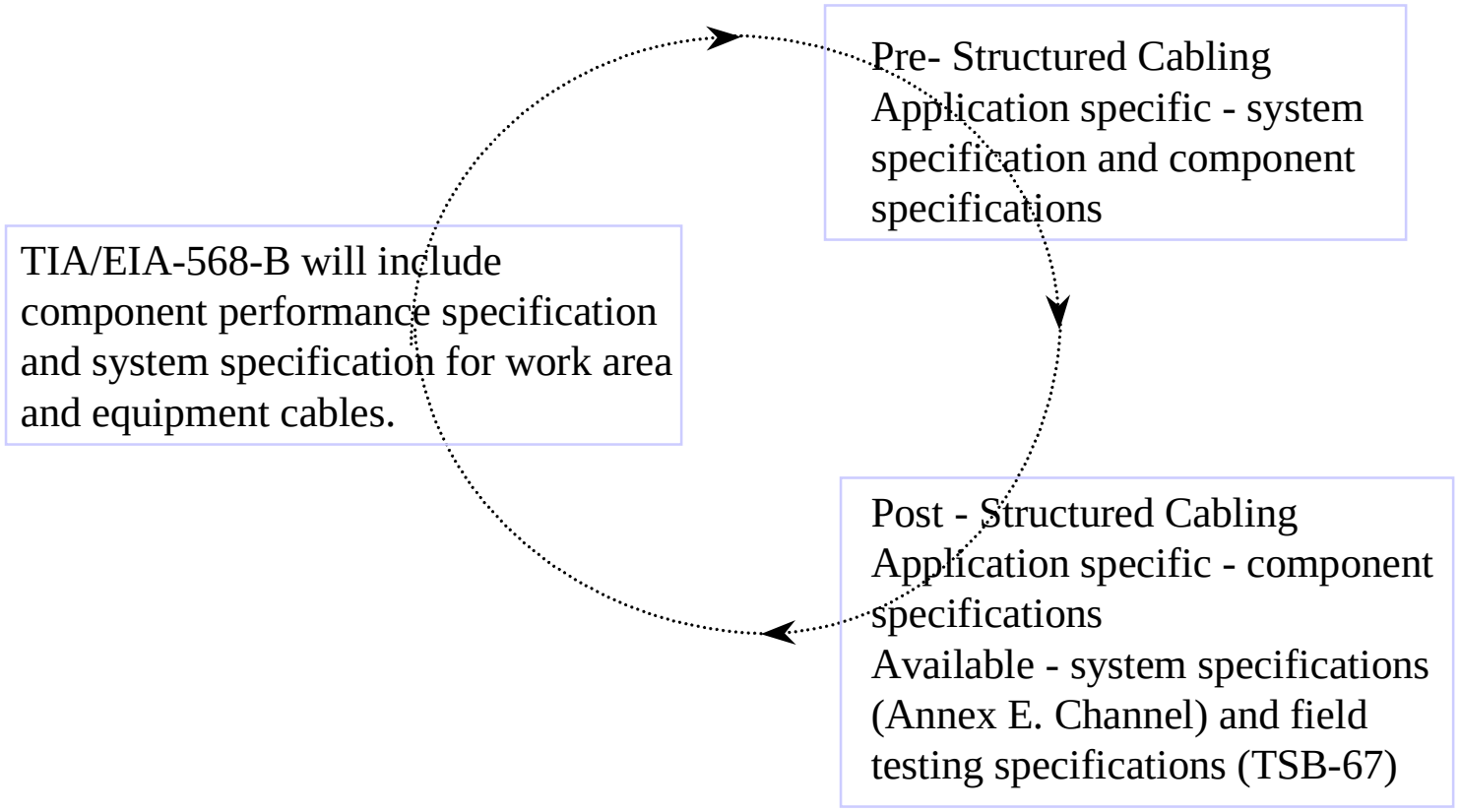
Patch Cord Specifications



Field Testing Installed Cabling

- **TIA/EIA-TSB-67 - Transmission Performance Specification for Field Testing of 100 ohm Twisted Pair Cabling Systems to TIA/EIA-568A - Category 5.**
  - **Attenuation, NEXT, Wire Map, Length**
- **TIA/EIA-TSB-95 - Transmission Performance Specification for additional Category 5 specifications and Field Testing for 100 ohm Twisted Pair Cabling Systems.**
  - **ELFEXT, Return Loss**