

Alien NEXT Test

Terry Cobb
CommScope

Presentation

- **A comparison of Alien NEXT measurements on a multi-port type (field) installation to a 6 around 1 test. Category 5e cable and connectors were used.**
- **Measurements are limited to 250 MHz to limit connector contribution.**

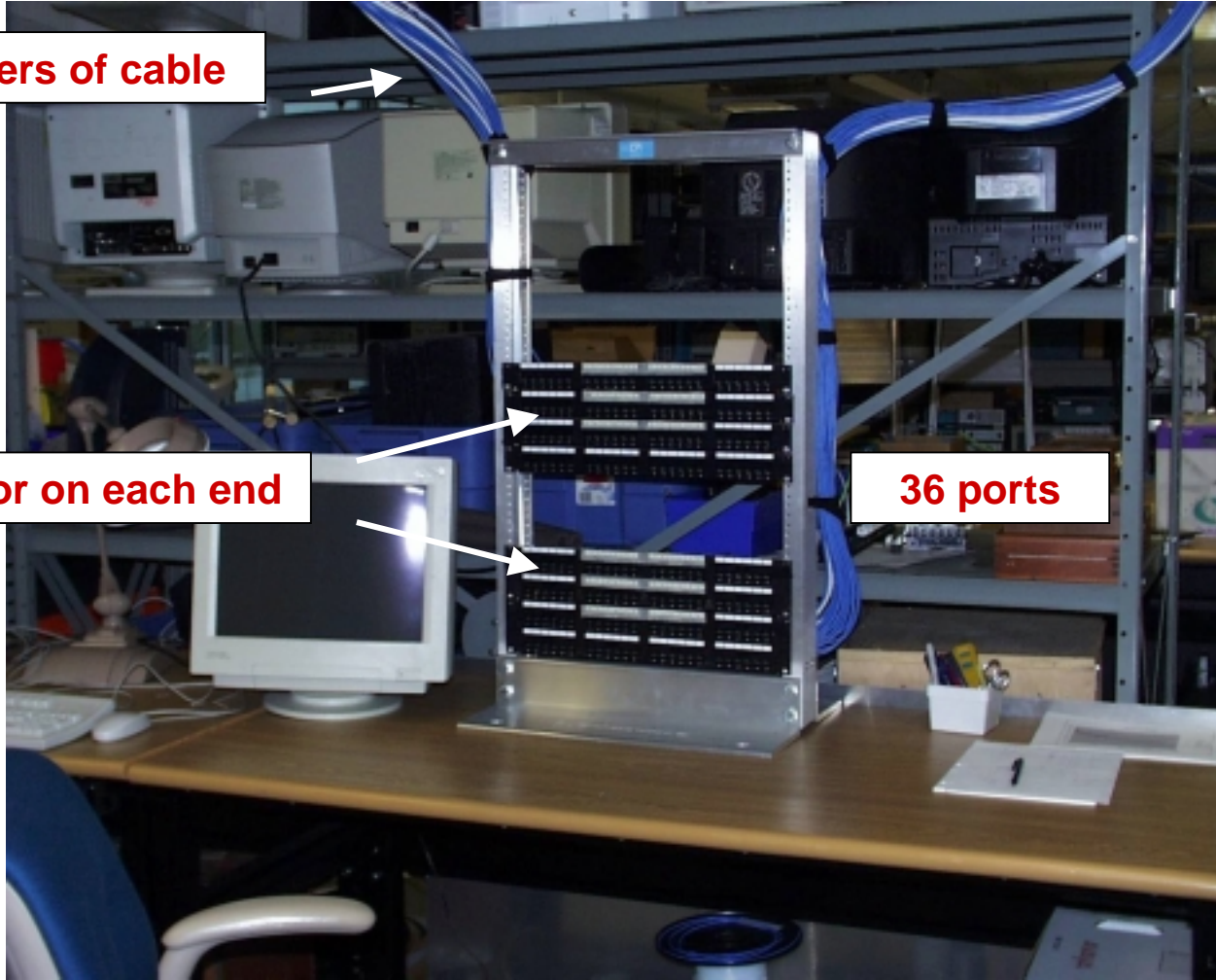
Alien NEXT Test

36 Ports

40 meters of cable

Connector on each end

36 ports



March 2004

IEEE 802.3an 10GBASE-T

Alien NEXT Test

36 Ports

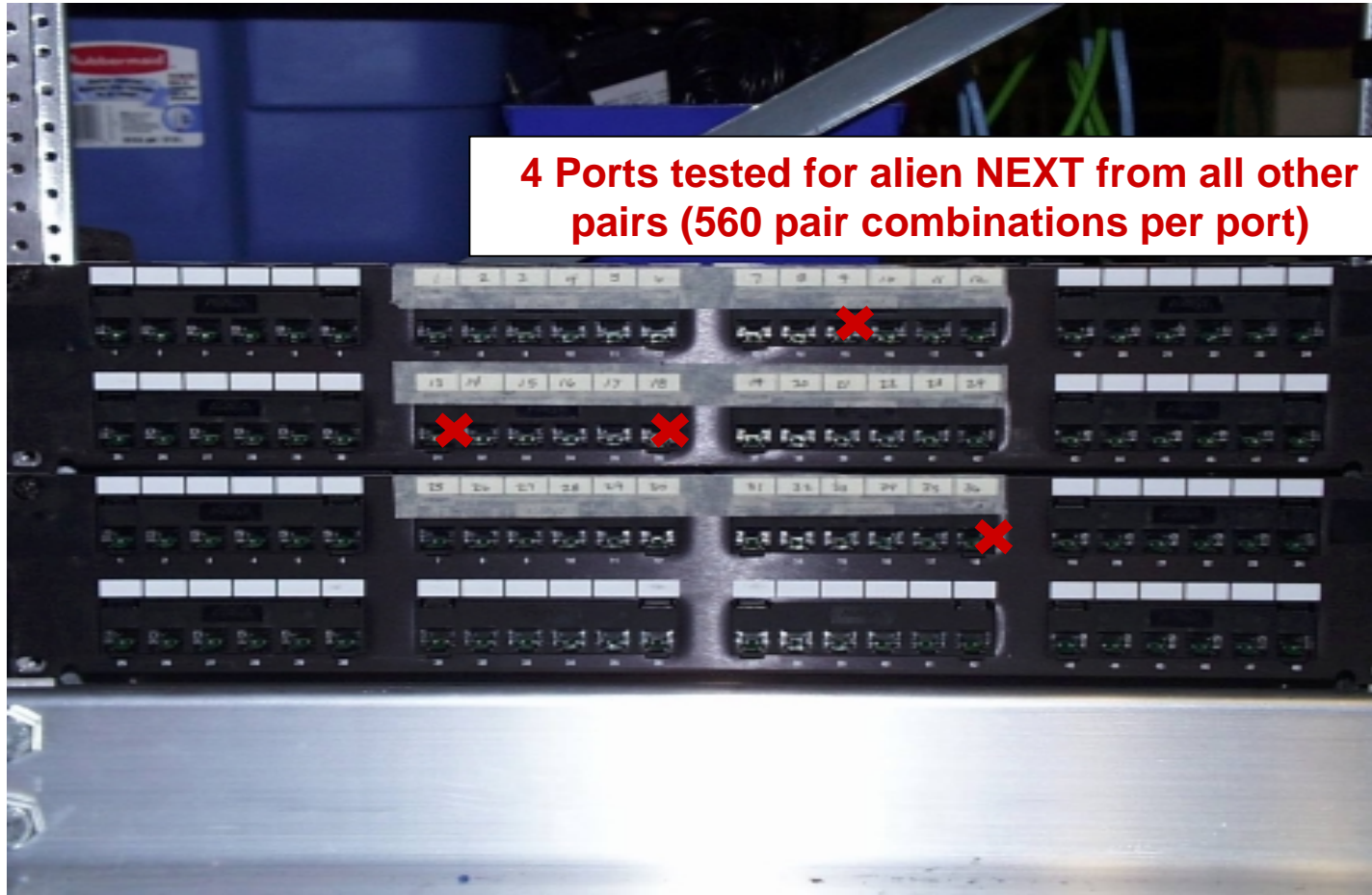


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Alien NEXT Test

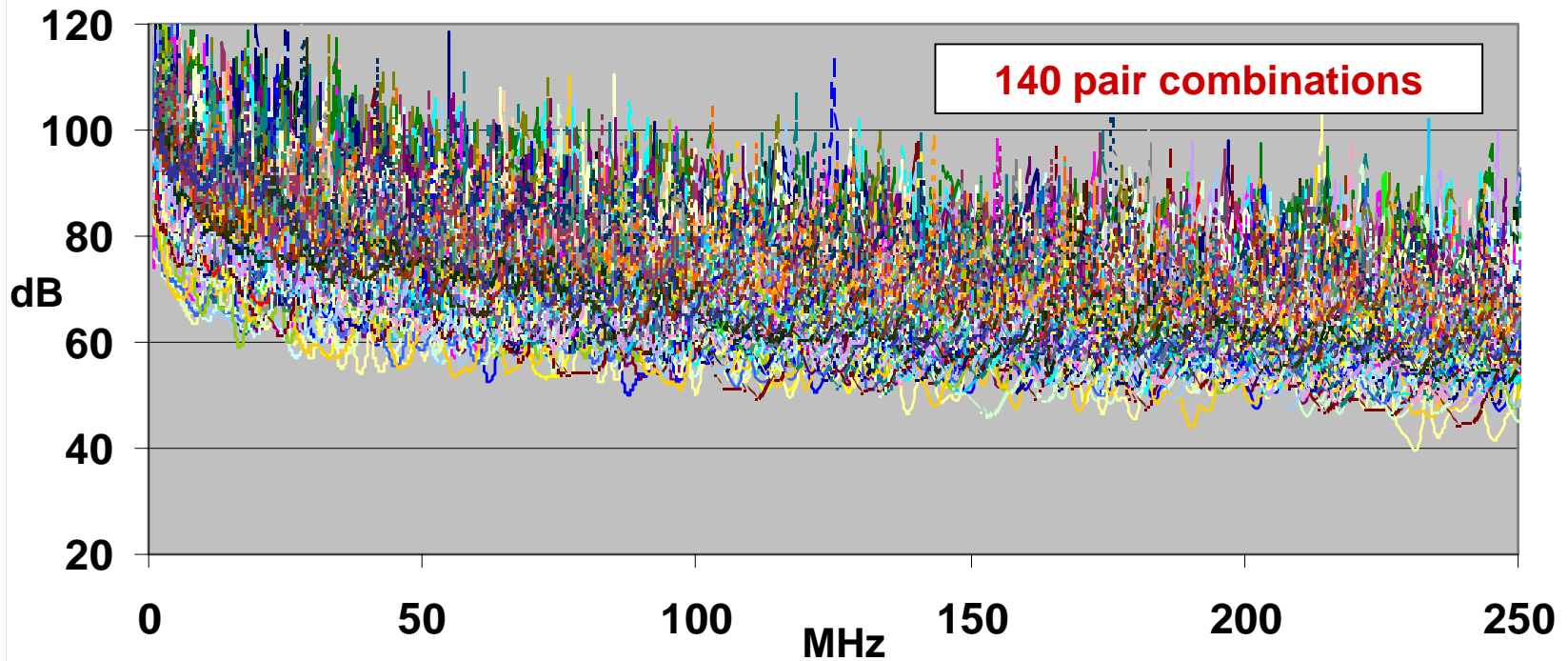
36 Ports



Alien NEXT Test

36 Ports

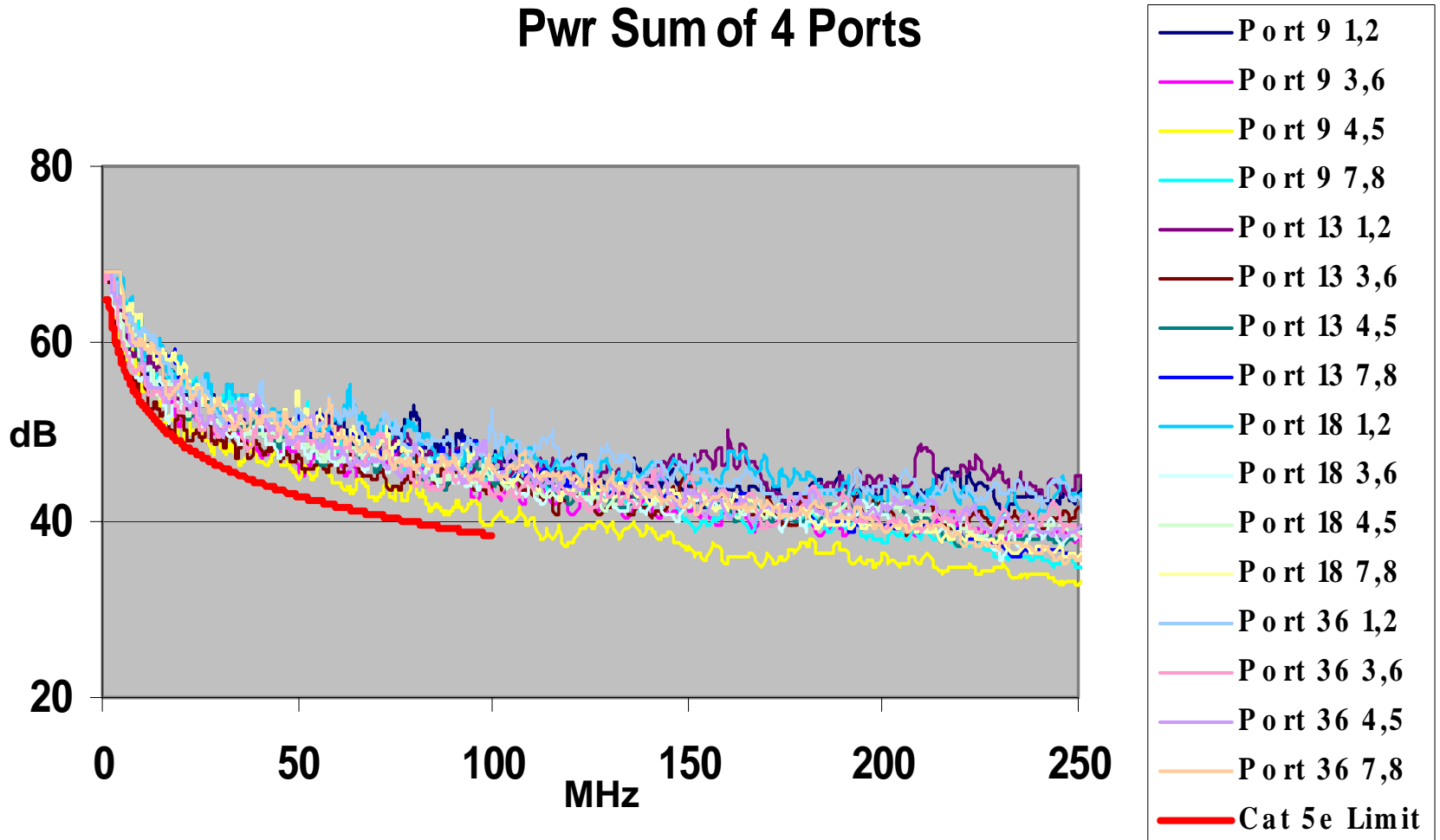
Port 18 pair 3,6



Alien NEXT Test

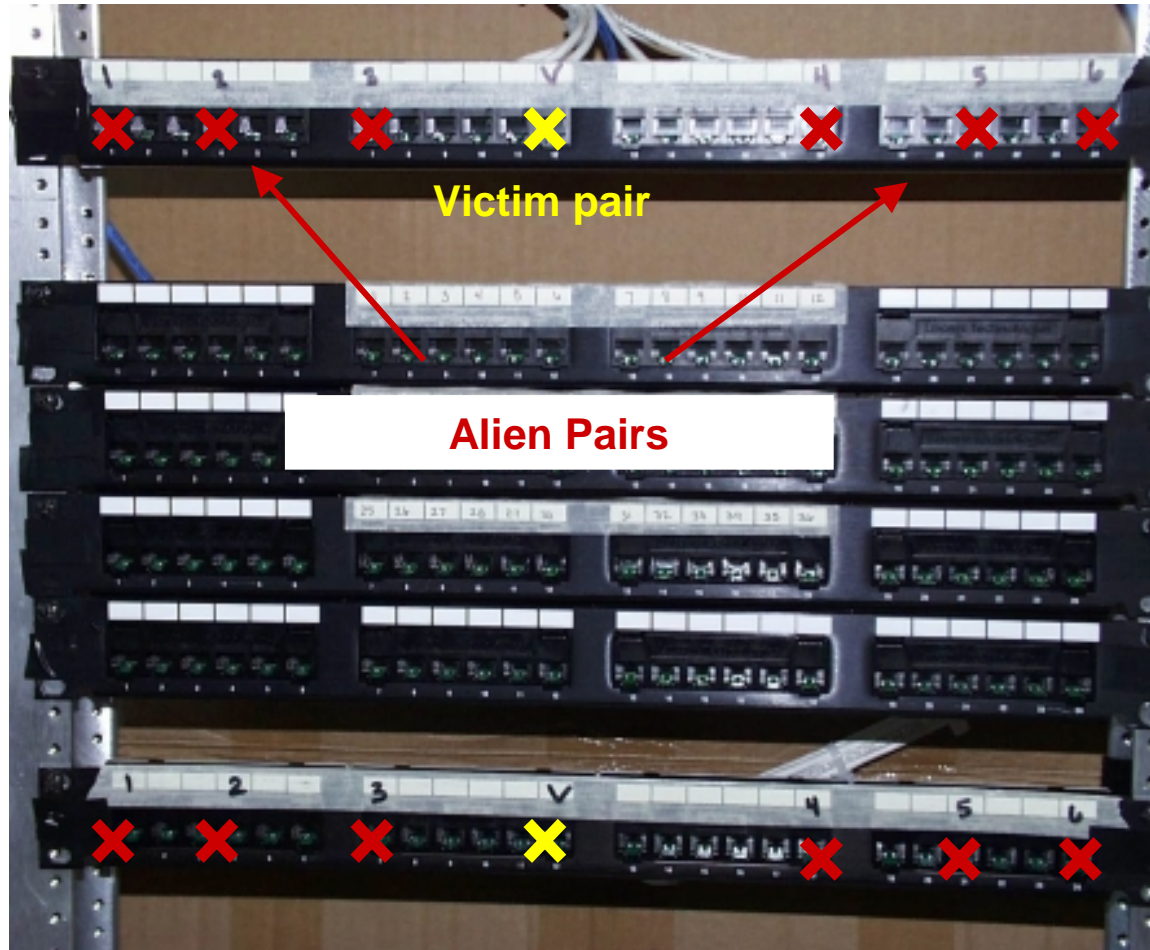
36 Ports

Pwr Sum of 4 Ports



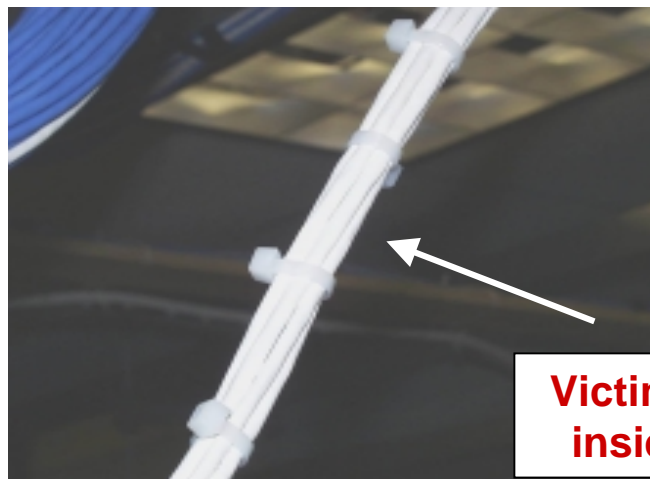
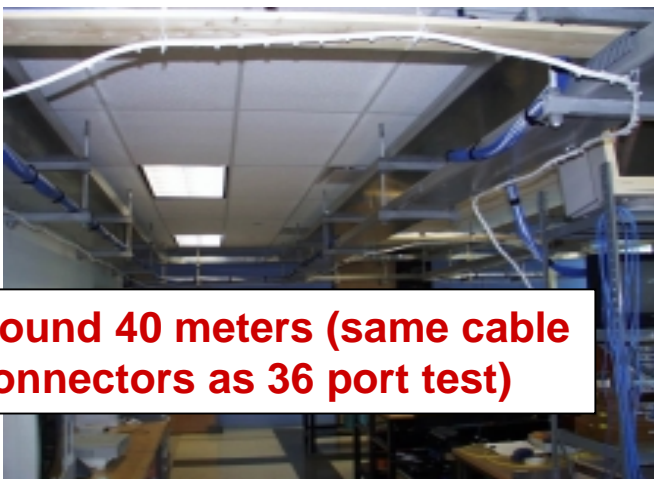
Alien NEXT Test

6 around 1



Alien NEXT Test

6 around 1



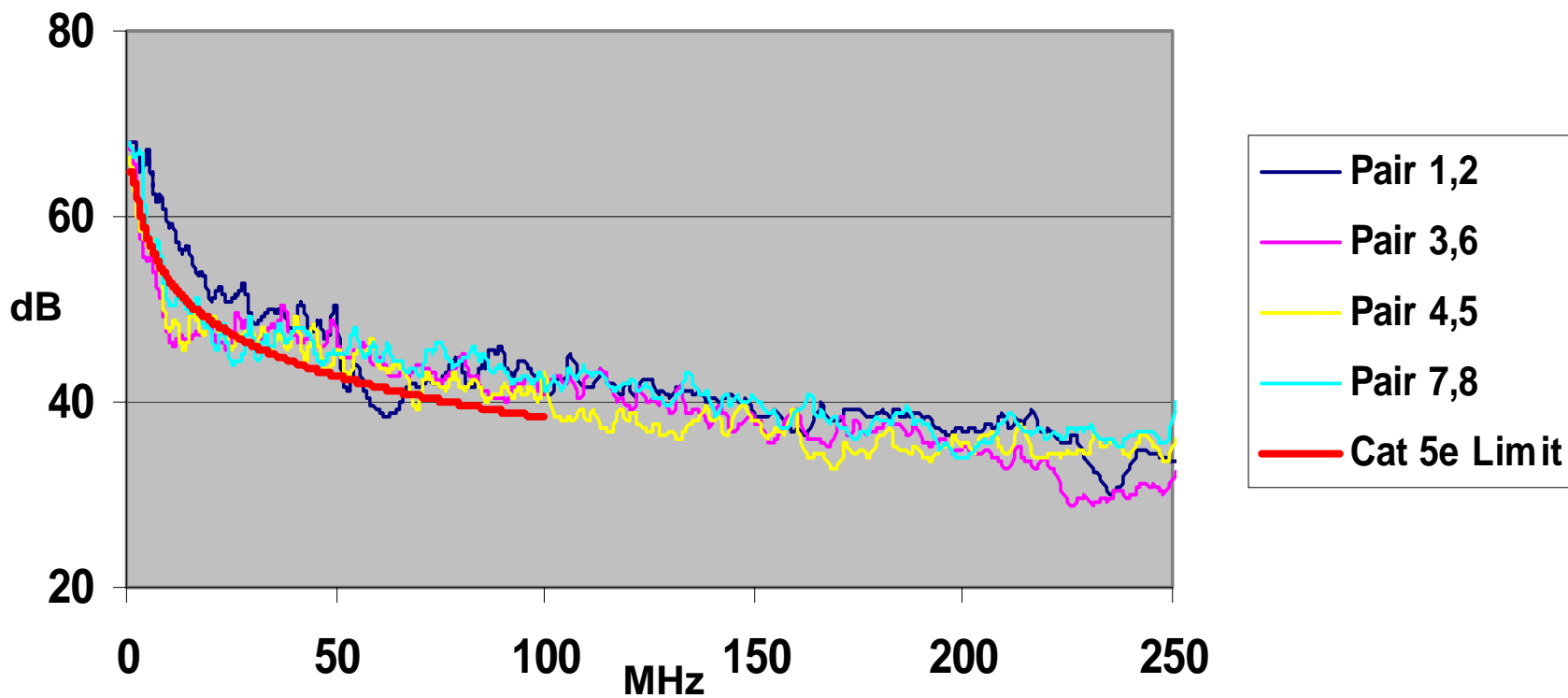
Tightly bound 40 meters (same cable and connectors as 36 port test)

Victim cable on inside is blue

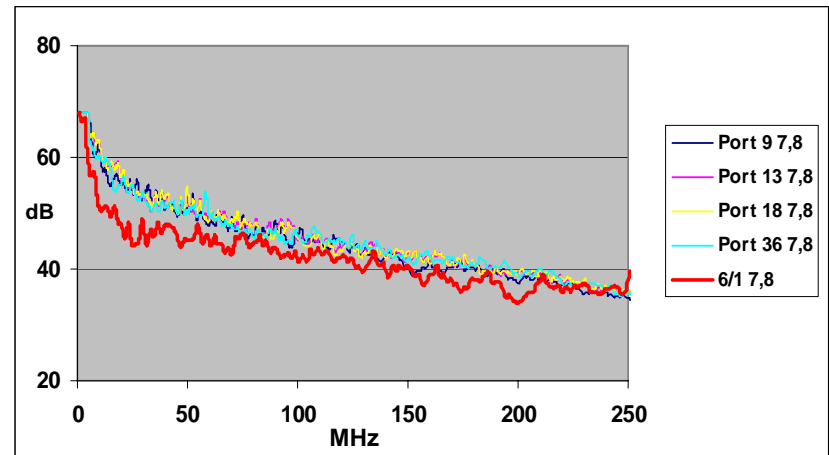
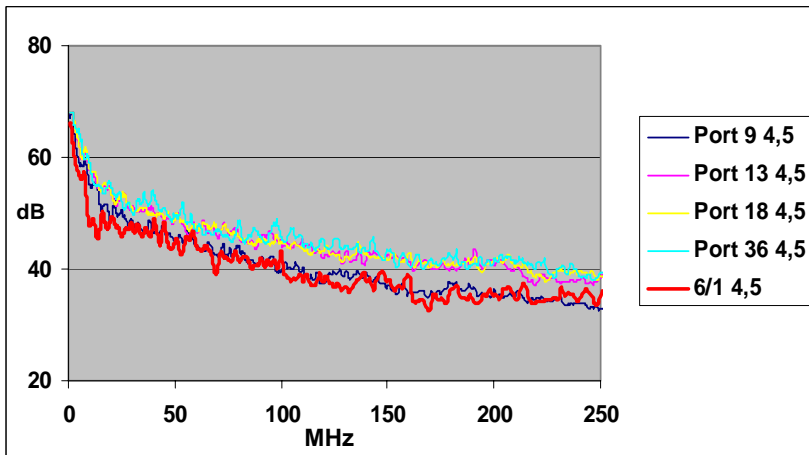
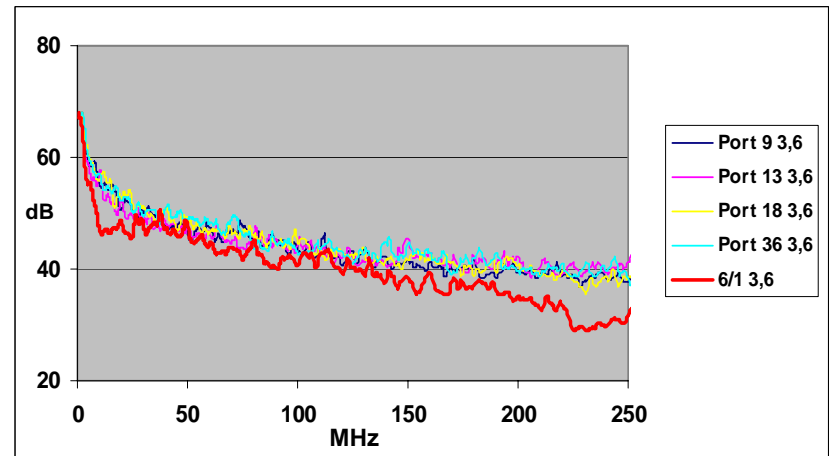
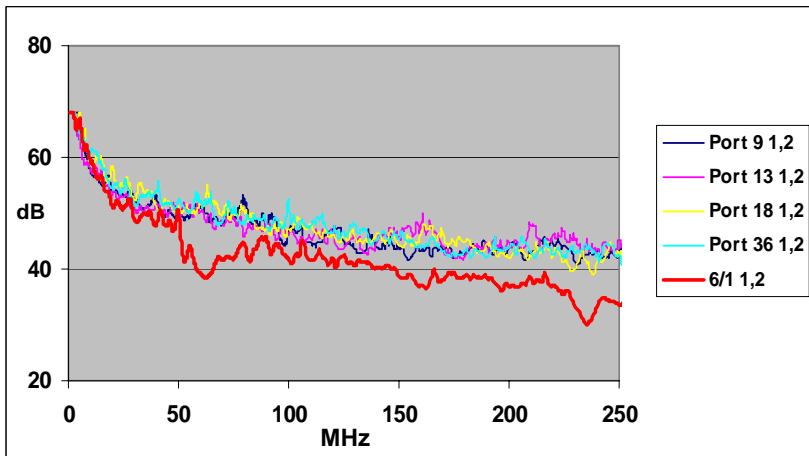
Alien NEXT Test

6 around 1

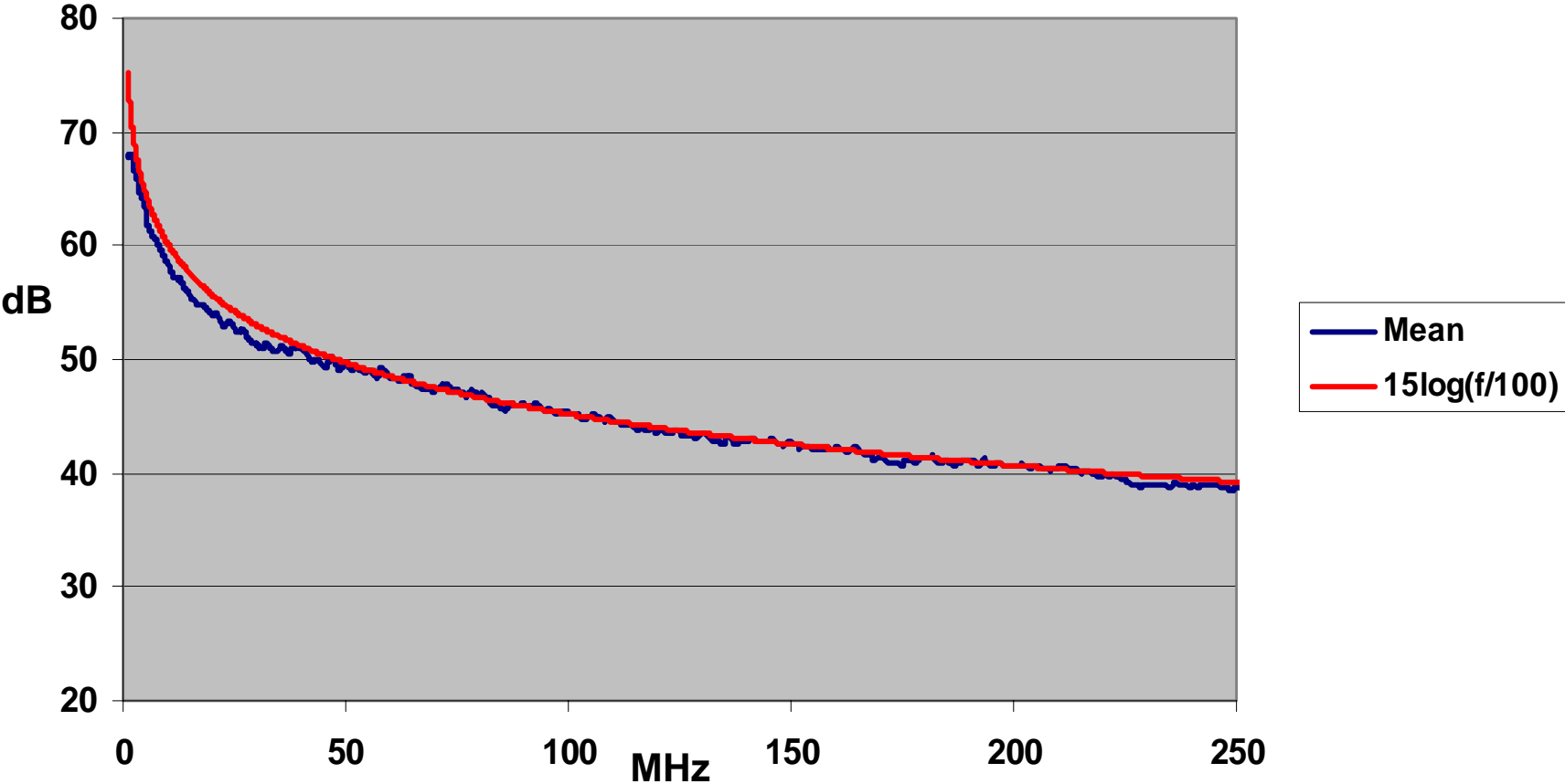
Pwr Sum 6 around 1



36 Port Compared to 6 around 1



Mean of 4 Ports Compared to $15\text{Log}(f/100)$



Conclusion

- **A 6 around 1 Alien NEXT test is probably not representative of actual installations.**
- **Alien NEXT for cable decreases at -15dB per decade.**