

Connector ANEXT vs Internal NEXT

Sterling Vaden

Superior Modular Products

Supporters:

Valerie Rybinski, The Siemon Co.

Bryan Sparrowhawk, Leviton

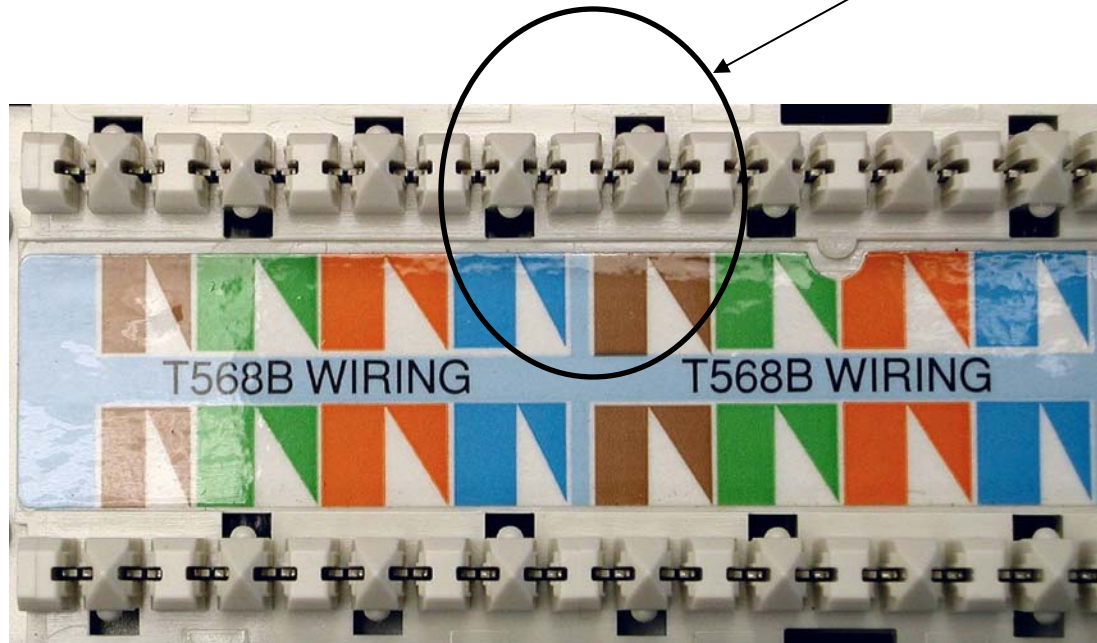
Shadi Abughazaleh, Hubbell

Joe Dupuis, Ortronics

Paul Vanderlaan, Belden

A Cat 6 module

45-78 ANEXT

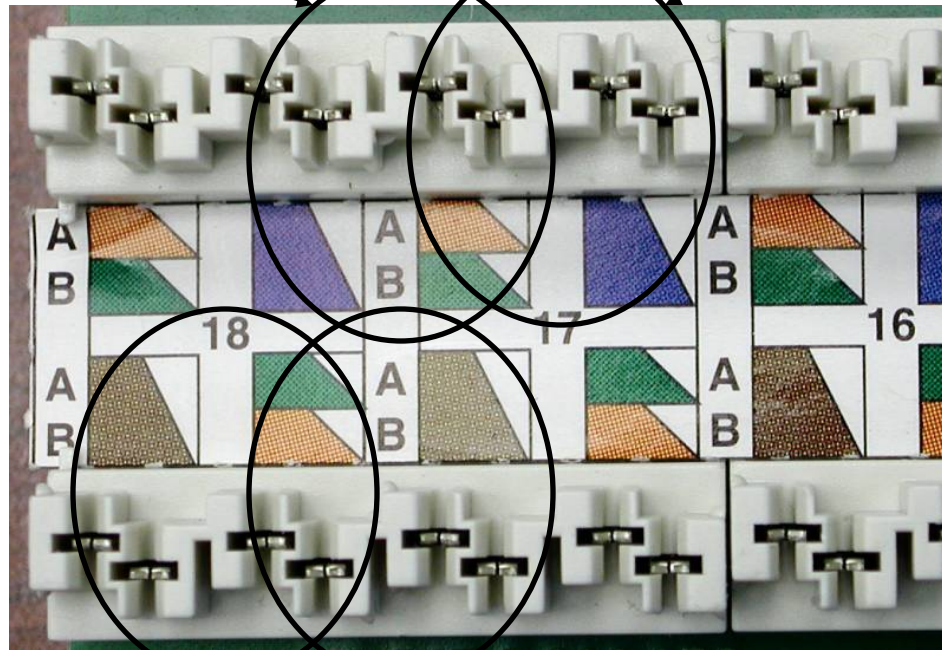


- The 45-78 ANEXT coupling occurs mainly from IDC connectors side-by-side.

Another Cat 6 module

45-36 ANEXT

45-36 NEXT

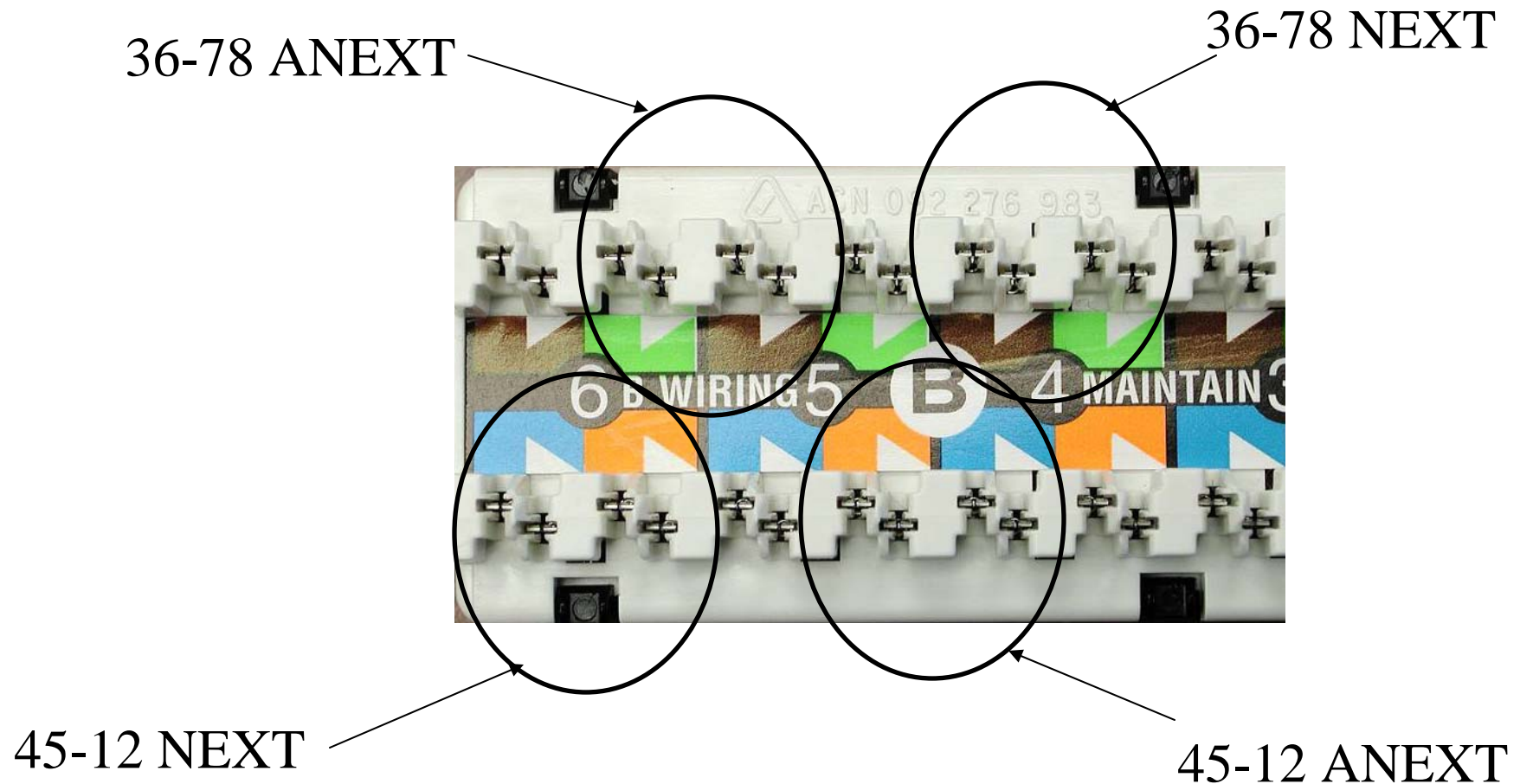


12-78 NEXT

12-78 ANEXT

- The 12-78 ANEXT and 12-78 NEXT coupling from IDC occur both internal and external to port. Similar for 45-36

Another Cat 6 module



- The 45-12 ANEXT and 45-12 NEXT coupling from IDC occur both internal and external to port. Similar for 36-78

Conclusion

- The coupling between similar parts such as IDC blocks can be significant.
- Magnitudes of -48 dB at 100 MHz for a typical Cat5e block and -59 dB for an offset block are typical without compensation applied.
- Some designs will show similar couplings within connector as port-to-port.
- Fixing coupling within port will not necessarily fix coupling to adjacent ports.