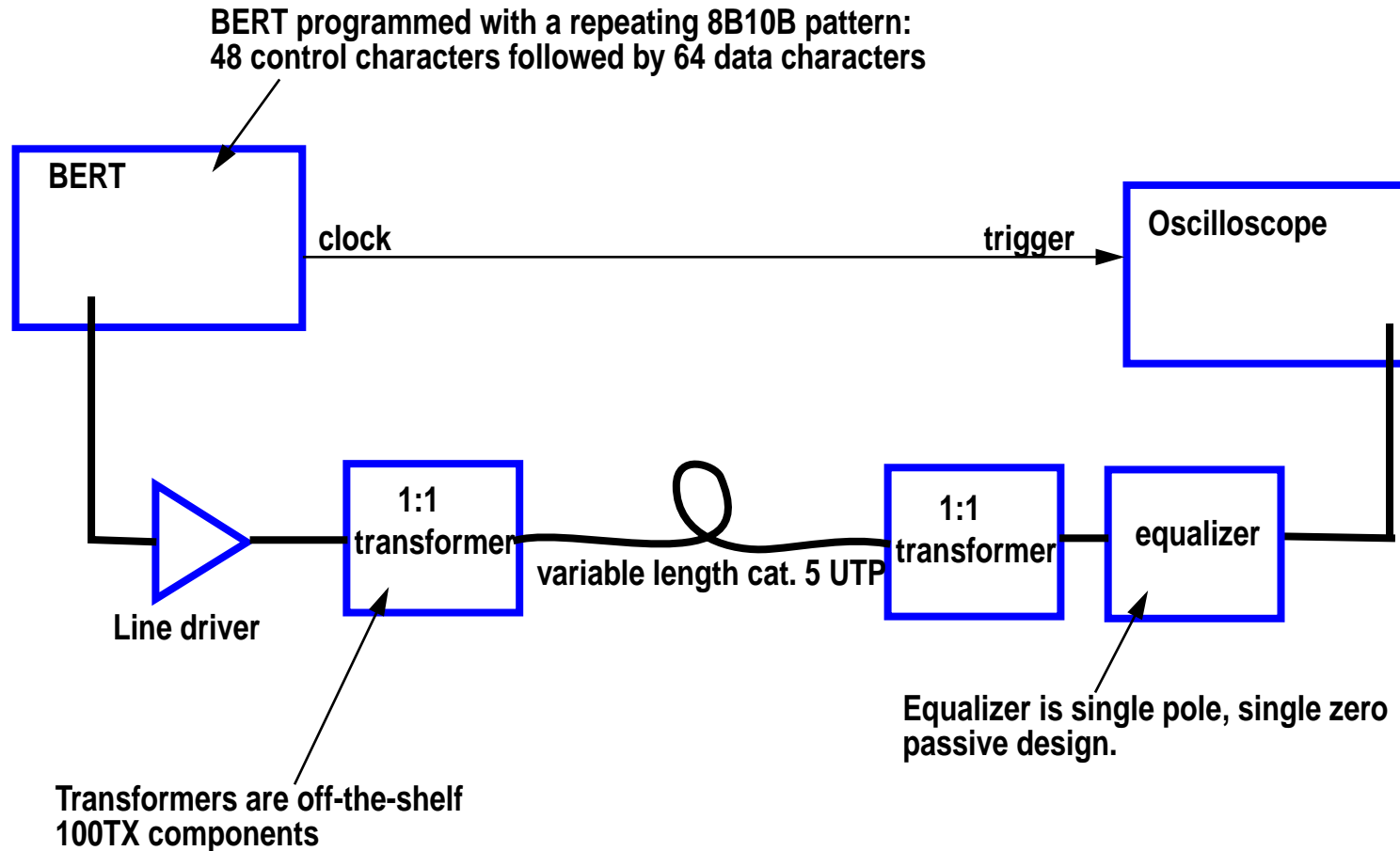

S100 UTP links with fixed equalization

Alistair Coles
Rod Chidzey

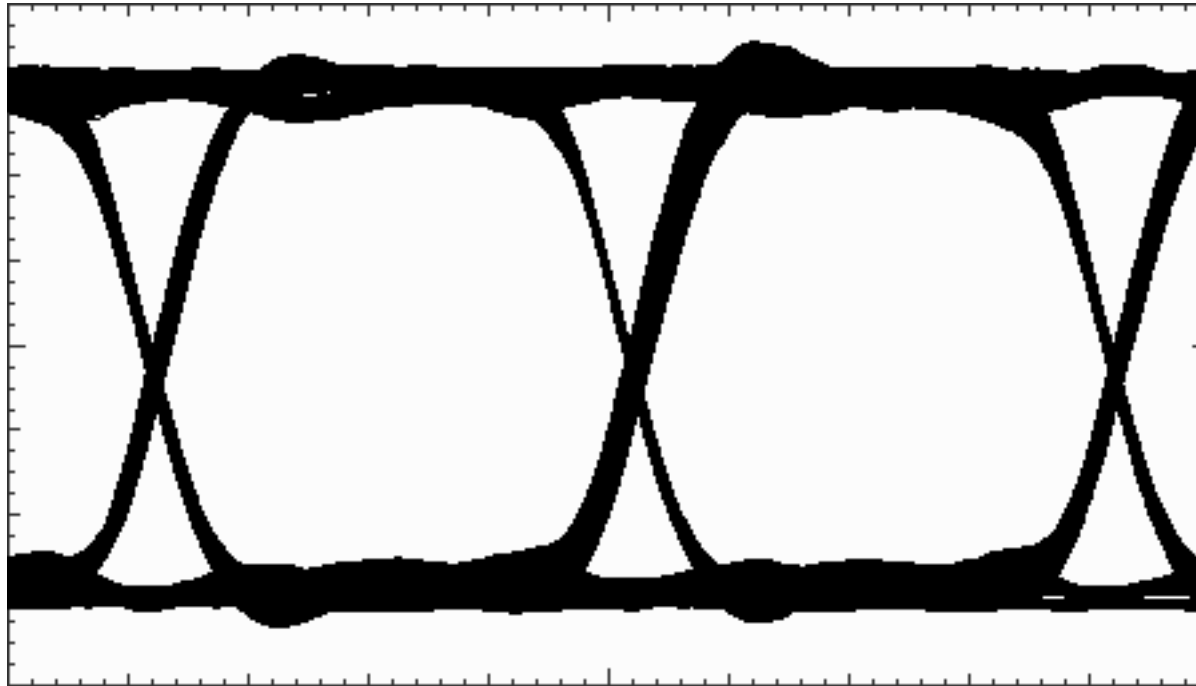
anc@hplb.hpl.hp.com

Presented to IEEE 1394B
February 9th 1998

Experimental link

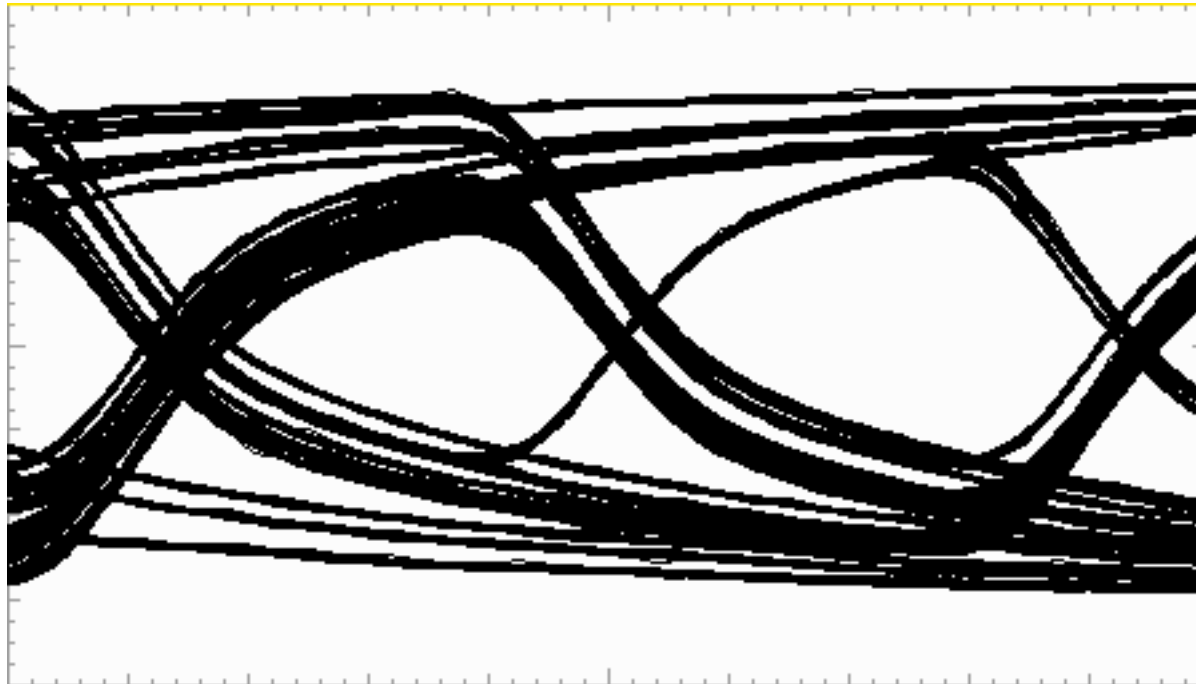


— 0.5m cable, no equalizer



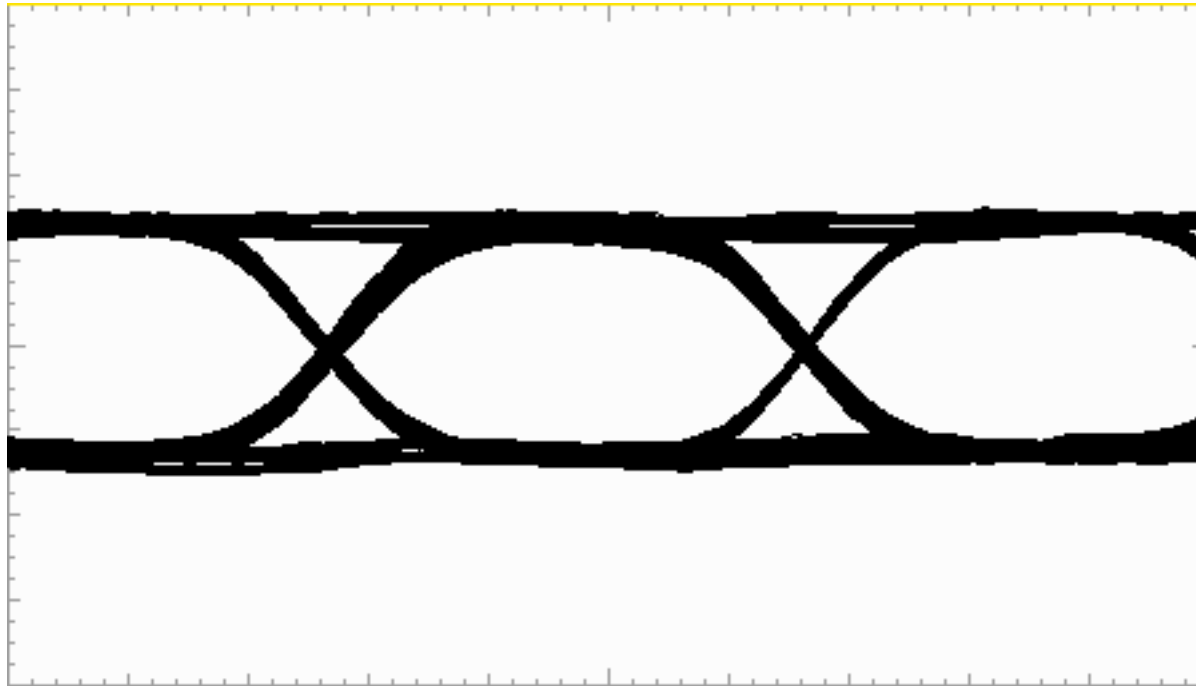
2ns/div

— 50m cable, no equalizer



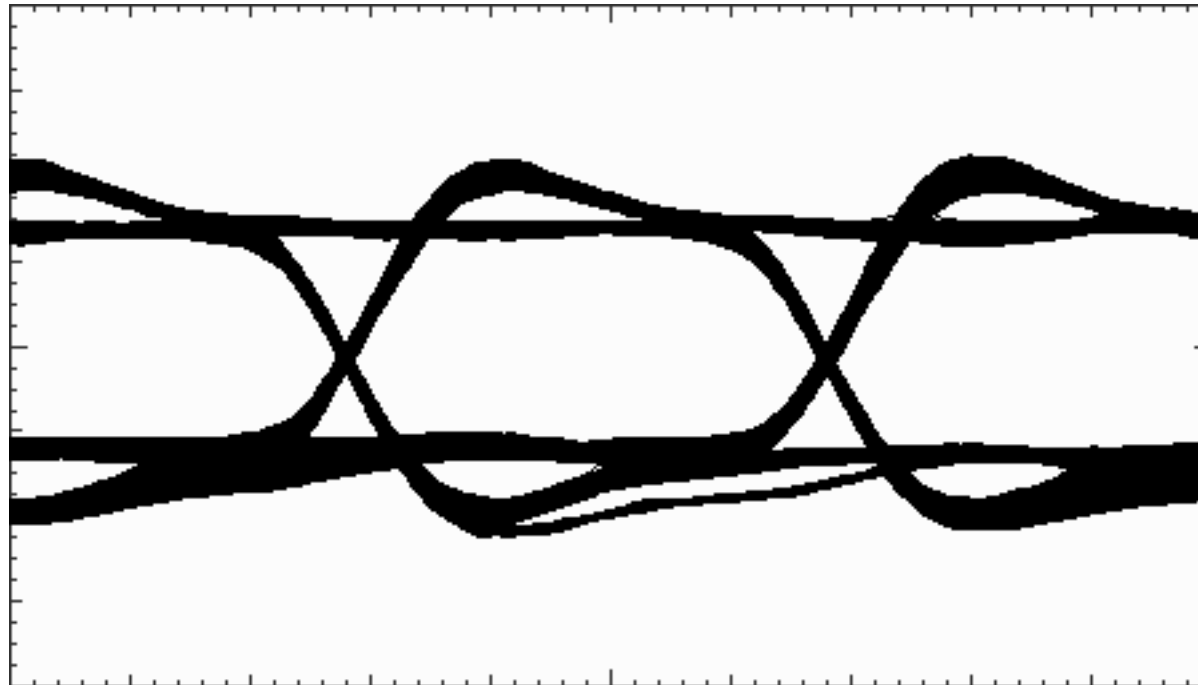
2ns/div

— 50m cable, tuned fixed equalizer



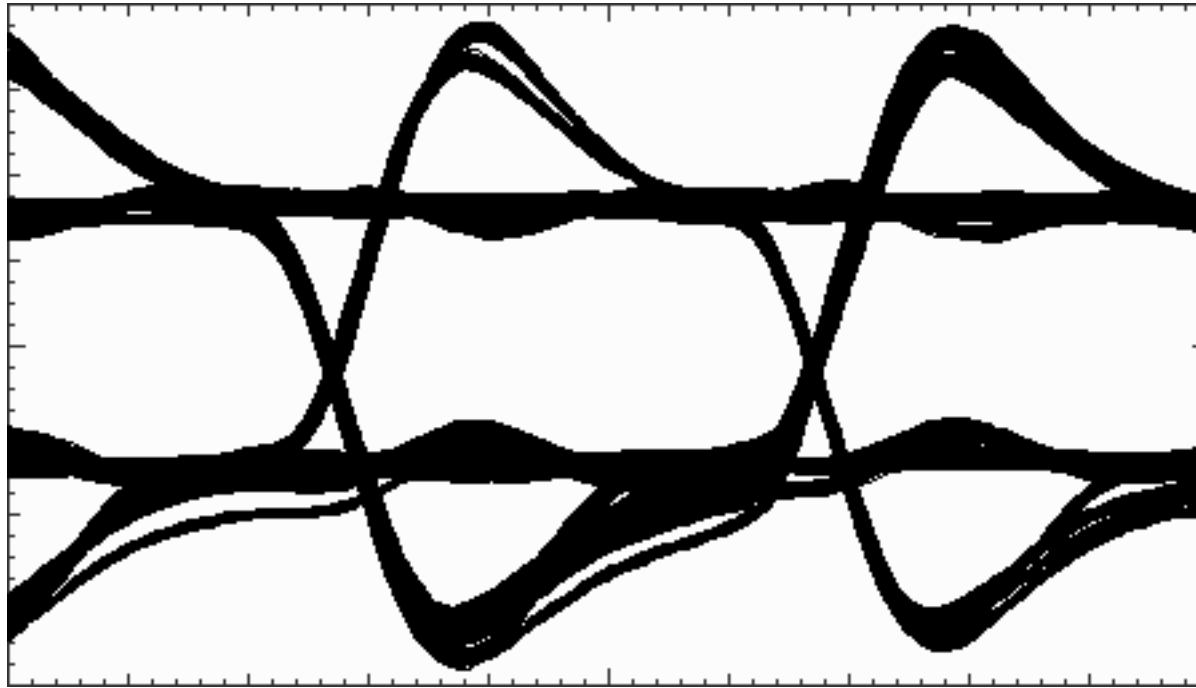
2ns/div

— 22m cable, 50m fixed equalizer



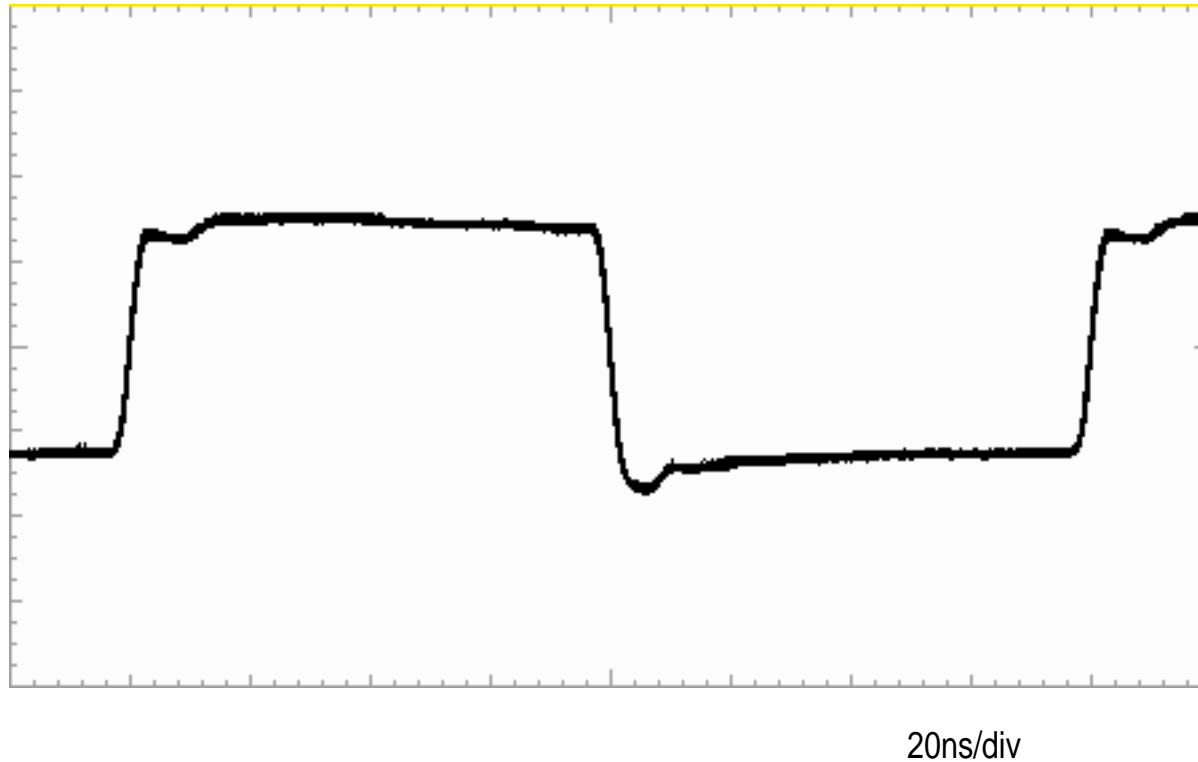
2ns/div

— 0.5m cable, 50m fixed equalizer



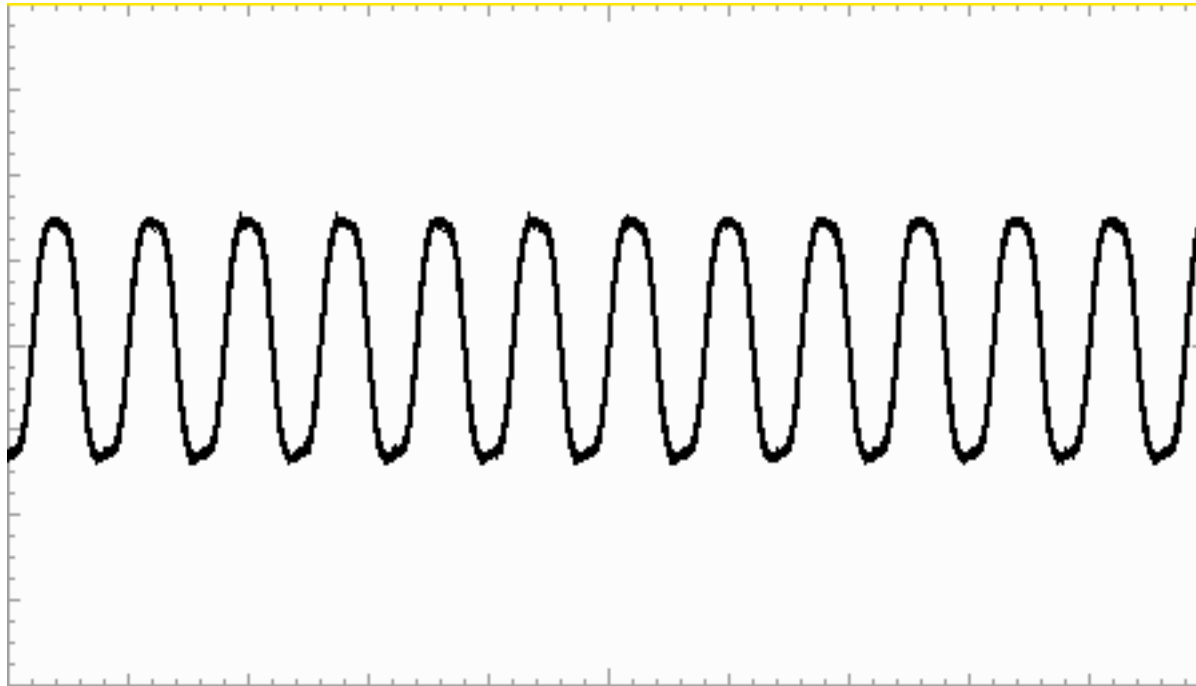
2ns/div

— 50m cable, 50m fixed equalizer



- Maximum run length: 10 ones followed by 10 zeros.

— 50m cable, 50m fixed equalizer



- Alternating one/zero

Conclusion

- A simple fixed passive equalizer may be used with 50m of category 5 UTP at S100 rates.

- Further work:
 - Test with truly random data.