

# Some Data on Production Channels and Components and Prototype Components

Class 7A channels, and cat 6A  
and cat 8 RJ-45 connectors

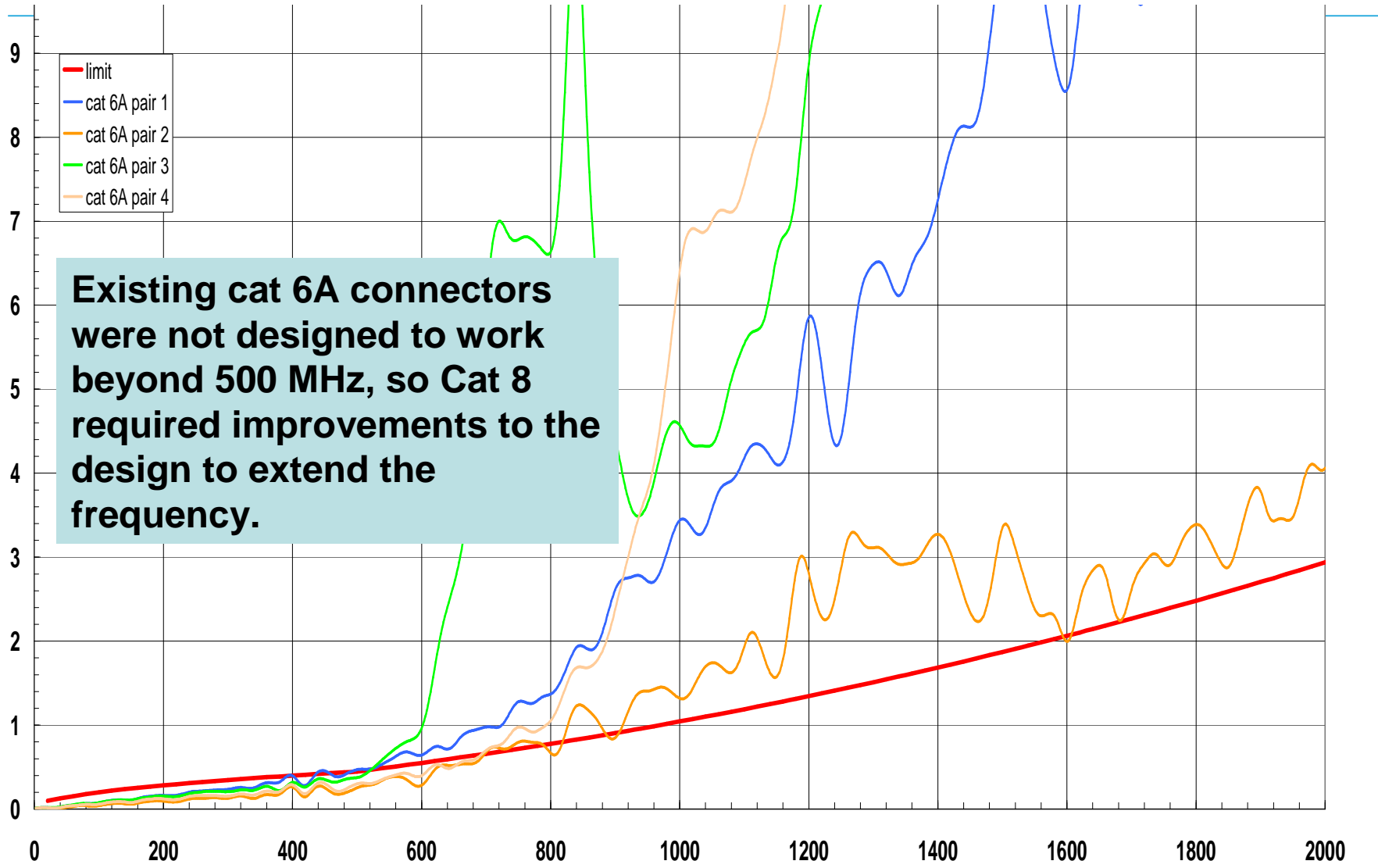
Wayne Larsen, Commscope

# Supporters

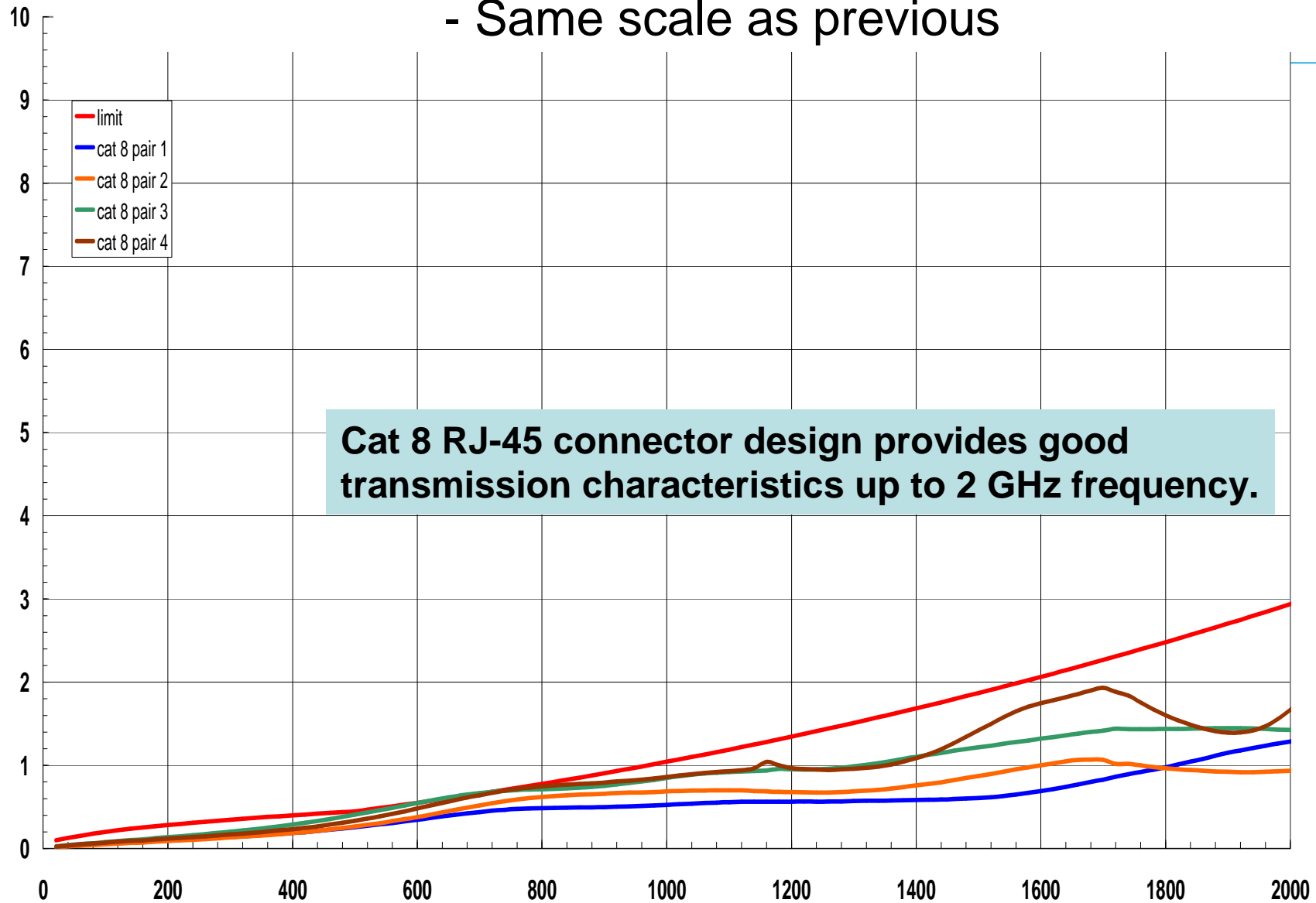
- Paul Langer
- Kamal Dalmia
- George Zimmerman
- Pete Cibula
- Keith Kosanovich
- Peter Wu
- Paul Kish
- Aquantia
- Aquantia
- CME Consulting
- Intel
- Leviton
- Marvell
- Belden

# Insertion Loss of Cat6A Production Connectors to 2000 MHz

- Don't use old products to new frequency Ranges

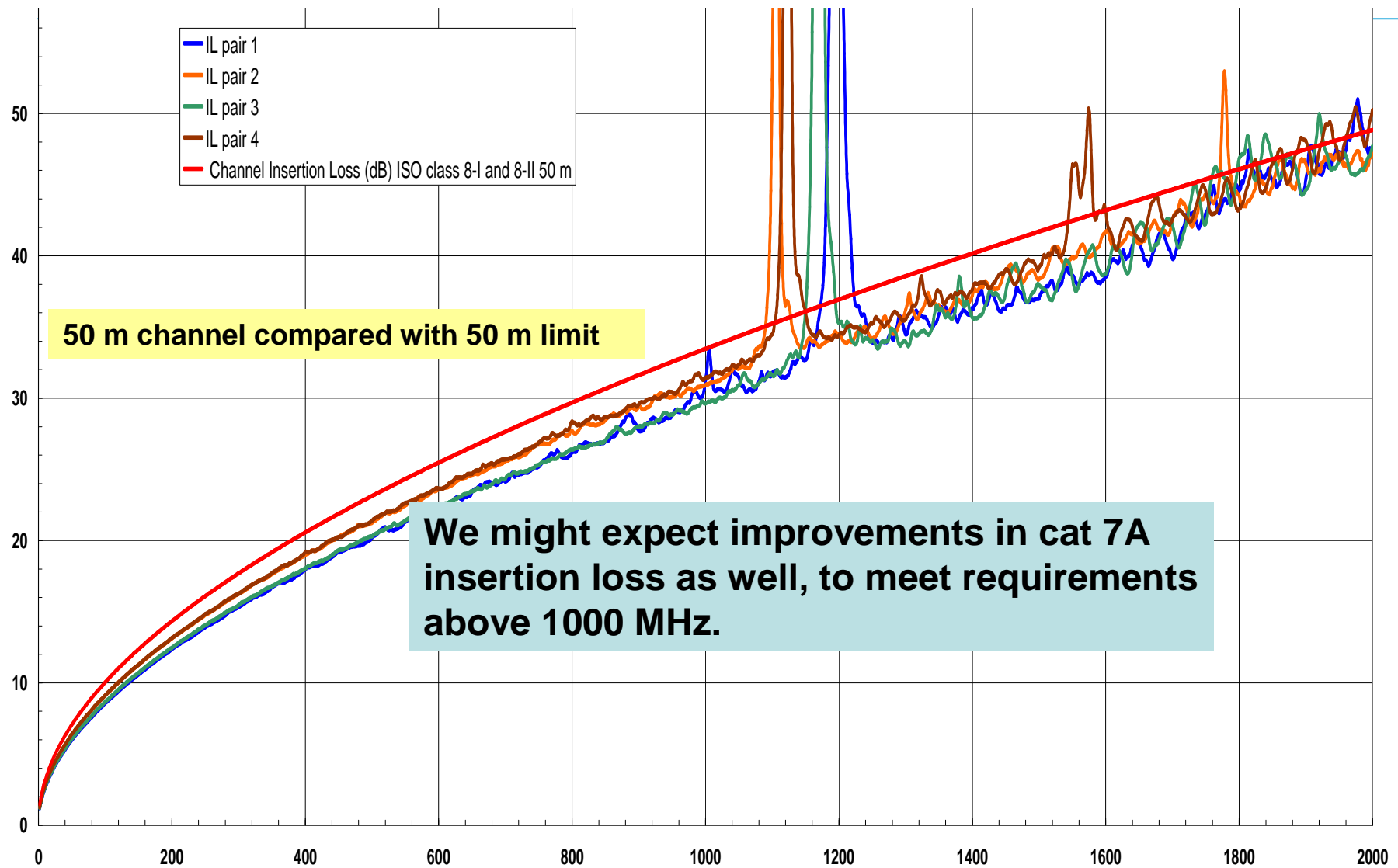


# Insertion Loss of Cat8 Proto Connector - Same scale as previous



**Cat 8 RJ-45 connector design provides good transmission characteristics up to 2 GHz frequency.**

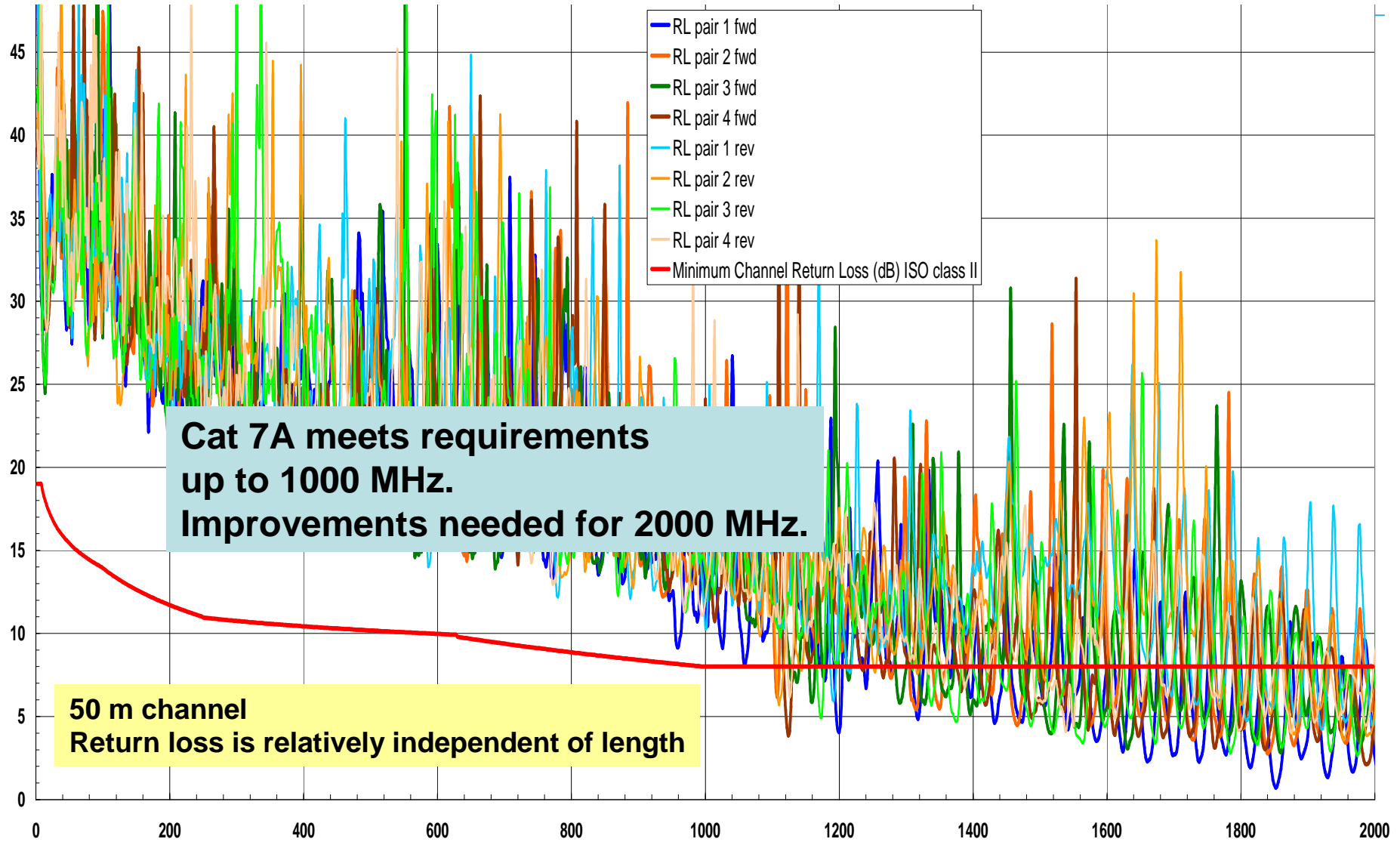
# Insertion Loss cat 7A channel (1000 MHz) compared with ISO class II limit - Another illustration that old systems should not be used at high frequencies



50 m channel compared with 50 m limit

We might expect improvements in cat 7A insertion loss as well, to meet requirements above 1000 MHz.

# Return Loss cat7A channel (1000 MHz) compared with ISO class II limit - Another illustration that old systems should not be used at higher frequencies



# Conclusions

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- Neither the cat 7A nor the cat 6A system will be suitable for use up to 2000 MHz, without changes.
- Both the ISO class I (similar to TIA cat 8, based on 6A) and the ISO class II (based on cat 7A) are likely to eventually be suitable for use up to 2000 MHz.