



# 25G Direct Attach Copper Link budget

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Recommended changes for editors note in 110A-5:

Replace page 223 lines 39-50

Replace:

This subclause provides information on channel insertion losses for intended topologies ranging from 0.5 m to 5 m and 3 m in length. The maximum channel insertion loss associated with the 5 m topology is determined using Equation (110A-1). The channel insertion loss budget at 12.8906 GHz for the 5 m topology is illustrated in Figure 110A-1.

With:

This subclause provides information on channel insertion losses for the maximum and minimum cabling topologies.

The maximum channel insertion loss associated with the CA-L, CA-S and CA-N topologies is determined using Equation (110A-1). The channel insertion loss budget at 12.8906 GHz for the CA-L topology is illustrated in Figure 110A-1.

$$IL_{Chmax}(f) = IL_{Camax}(f) + 2IL_{Host}(f) - 2IL_{MatedTF}(f) \text{ for } 0.05 \text{ GHz} \leq f \leq 19 \text{ GHz} \quad (110A-1)$$

for  $0.05 \text{ GHz} \leq f \leq 19 \text{ GHz}$

Where

- $f$  is the frequency in GHz
- $IL_{Chmax}(f)$  is the maximum channel insertion loss in dB between TP0 and TP5 representative of the cable assembly and a maximum host channel
- $IL_{Camax}(f)$  is the maximum cable assembly insertion loss in meters
- $2IL_{Host}(f)$  is the maximum insertion loss from TP0 to TP2 or TP3 to TP5 using Equation (92-8)
- $2IL_{MatedTF}(f)$  is the nominal insertion loss of the mated test fixture using Equation (92A-4)

Insert the following table:

Table 110A-1: Cable insertion loss budget values

Cable distance	$IL_{Chmax}(f)$	$IL_{Camax}(f)$	$2IL_{Host}(f)$	$2IL_{MatedTF}(f)$	Units
CA-L	35	22.48	2x9.85	2x3.59	dB
CA-S	29	16.48	2x9.85	2x3.59	dB
CA-N	25.5	12.98	2x9.85	2x3.59	dB

Delete '0.5m' from the equation variables (110A-2) and line 22.