

# Receiver Interference Tolerance (83D.3.2.2)

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# Interference tolerance (D1.1)

Table 83D-3—Receiver interference tolerance parameters

Parameter	Test Value	Units
Maximum BER <sup>a</sup>	10 <sup>-15</sup>	
Applied peak-to-peak sinusoidal jitter	<a href="#">Table 88-13</a>	UI
Applied broad band noise	TBD	
Applied peak-to-peak random jitter	TBD	V
Minimum eye height after reference CTLE	<a href="#">40 (TBC)</a>	mV
<a href="#">Minimum eye width after reference CTLE</a>	<a href="#">0.45 (TBC)</a>	UI
Channel insertion loss at 12.89 GHz	TBD	
COM of ISI channel	TBD	

<sup>a</sup>Maximum BER assumes errors are not correlated to ensure a sufficiently high mean time to false packet acceptance (MTTFPA) assuming 64B/66B coding. Actual implementation of the receiver is beyond the scope of [this](#) standard

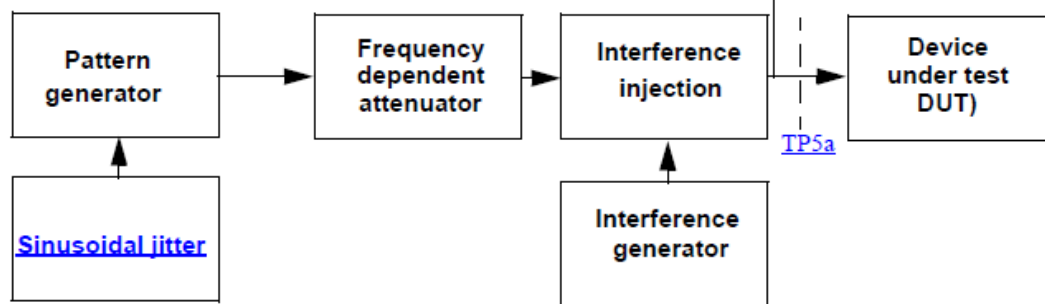


Figure 83D-12—Interference tolerance test setup

# Interference tolerance reference CTLE (D1.1)

Table 83D-4—Reference CTLE coefficients

Peaking (dB)	G	$\frac{P_1}{2\pi}$	$\frac{P_2}{2\pi}$	$\frac{Z_1}{2\pi}$

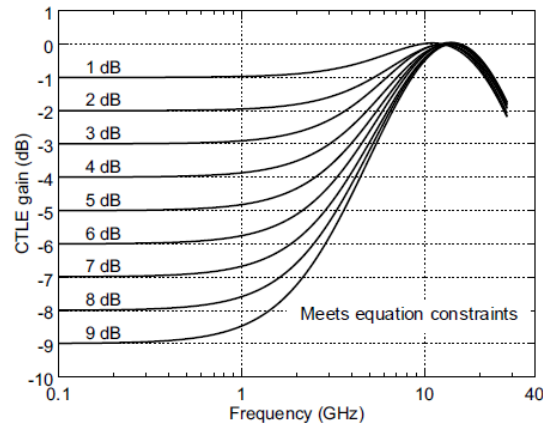


Figure 83D-11—Selectable continuous time linear equalizer (CTLE) characteristic

# Interference tolerance Update

Table 83D-3—Receiver interference tolerance parameters

Parameter	Test Value	Units
Maximum BER <sup>a</sup>	10 <sup>-15</sup>	
Applied peak-to-peak sinusoidal jitter	<a href="#">Table 88-13</a>	UI
Applied broad band noise	Adjust to meet eye height and width	mVrms
Applied peak-to-peak random jitter		UI
Minimum eye height after reference CTLE	45	<a href="#">mV</a>
<a href="#">Minimum eye width after reference CTLE</a>	0.48	<a href="#">UI</a>
Channel insertion loss at 12.89 GHz	15	dB

<sup>a</sup>Maximum BER assumes errors are not correlated to ensure a sufficiently high mean time to false packet acceptance (MTTFPA) assuming 64B/66B coding. Actual implementation of the receiver is beyond the scope of [this](#) standard

Change:

Broadband noise is added via the interference generator and is added such that the eye opening using the reference receiver and optimal CTLE setting is 40 mV (TBC) eye height and 0.45 UI (TBC) eye width.

To:

Pattern generator amplitude is adjusted and broadband noise is added (via interference generator) such that the eye opening using the reference receiver and optimal CTLE setting is 40 mV (TBC) eye height and 0.45 UI (TBC) eye width.

Change figure 83D-12 “frequency dependent attenuator” to “ISI channel”, change “Channel insertion loss...” to “ISI channel insertion loss”

Change figure 83D-12 to add random jitter box as an input to the pattern generator

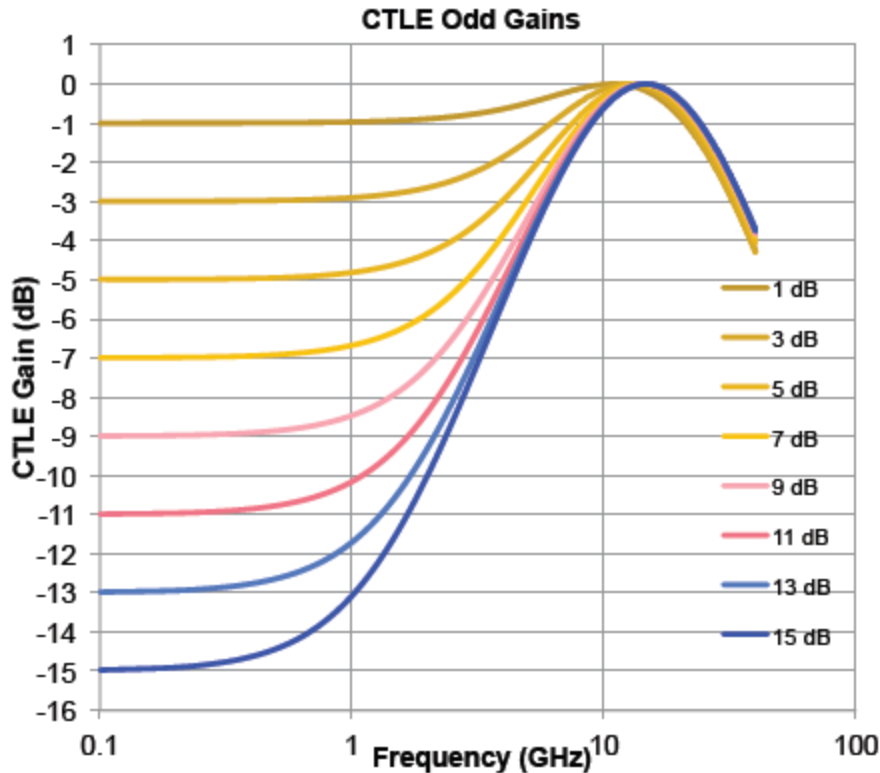
Add notes on “Channel insertion loss at 12.89 GHz” line item

b: Channel insertion loss includes the loss between TP5a and TP5 as seen in Figure 93-9

c: Channel return loss meets target return loss described in 83D.4.1

# Reference receiver CTLE update

<http://www.ieee802.org/3/bm/public/tools/index.html>



Gain (dB)	G (Linear)	Z (GHz)	P1 (GHz)	P2 (GHz)
1	0.89125	8.3640e9	1.86e10	1.41e10
2	0.79433	7.0990e9	1.86e10	1.41e10
3	0.70795	5.6760e9	1.56e10	1.41e10
4	0.63096	4.9601e9	1.56e10	1.41e10
5	0.56234	4.3580e9	1.56e10	1.41e10
6	0.50119	3.8440e9	1.56e10	1.41e10
7	0.44668	3.3990e9	1.56e10	1.41e10
8	0.39811	3.0120e9	1.56e10	1.41e10
9	0.35481	2.6720e9	1.56e10	1.41e10
10	0.31623	2.3728e9	1.56e10	1.41e10
11	0.28184	2.1090e9	1.56e10	1.41e10
12	0.25119	1.8755e9	1.56e10	1.41e10
13	0.22387	1.6690e9	1.56e10	1.41e10
14	0.19953	1.4853e9	1.56e10	1.41e10
15	0.17783	1.3225e9	1.56e10	1.41e10

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