

# Broad Band Noise Test Specification for Clause 202

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# Broad Band Noise Test

- 201.6.3.2 Broadband stationary noise rejection**

This **informative** specification is provided to verify for the receiver’s tolerance to broadband stationary noise from a variety of sources. The test is performed with a noise source consisting of a signal generator with Gaussian distribution, bandwidths, and magnitudes shown in Table 202–??. **The minimum noise frequency is 10MHz.** The receive DUT is connected to the noise source through a directional coupler, as shown in Figure 202–??. with a link segment as defined in 202.? for -T1 and shown in Figure 202–??. with a link segment as defined in 202.?? for -V1. The BER is expected to be less than  $10^{-12}$ , and to satisfy this specification, the frame loss ratio is less than  $10^{-9}$  for 125-octet packets measured at the MAC/PLS service interface.

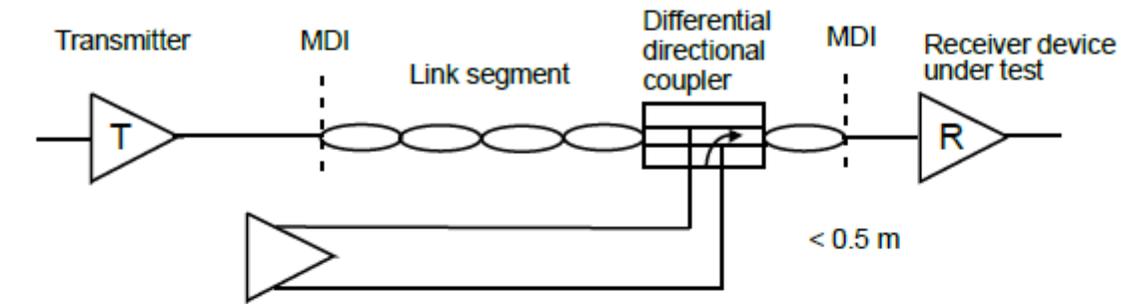
**Table 201–17—Broadband stationary noise source, high speed**

PHY type	Noise bandwidth (MHz)	Added noise at MDI (dBm/Hz)	
		-T1	-V1
10G+100MBASE	3500	-148	-151
5G+100MBASE	3500	-144	-147
2.5G+100MBASE	1750	-140	-143

<b>7.5G+100MBASE</b>	<b>3500</b>	<b>-146</b>	<b>-149</b>
<b>1G+100MBASE</b>	<b>1750</b>	<b>-140</b>	<b>-143</b>

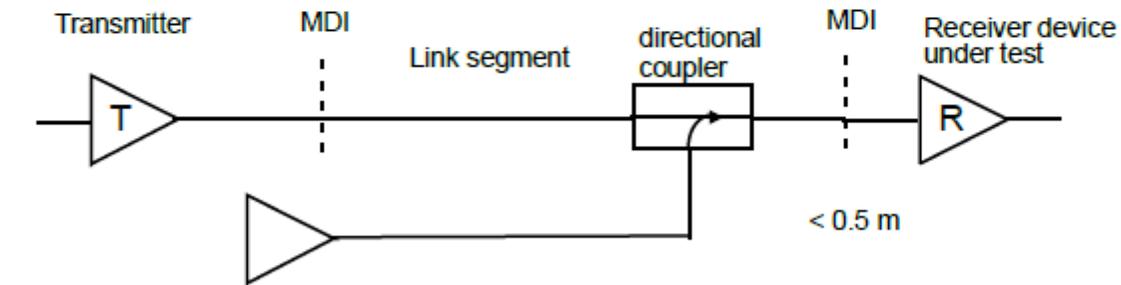
**Editorial Note:**  
Set the figure and table numbers as fits into 202 clauses.

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**Noise source**  
(Gaussian signal generator)

**Figure 201-36—Broadband stationary noise rejection test setup, -T1**



**Noise source**  
(Gaussian signal generator)

**Figure 201-37—Broadband stationary noise rejection test setup, -V1**