



"Results You Can Count On"

Model 4901-N16 WT-105 (Rev 21) Noise Module For the 4901 Multi-Output Noise Simulator

Overview

The Model 4901-N16 WT-105 Noise Module provides all the tests requiring noise generation in Revision 21 of the WT-105 ADSL2/ADSL2plus Functionality Test Plan. In addition, micro-interruption tests required in this standard may be controlled through this module.

The easy-to-use interface saves time and increases accuracy by eliminating the need for manual selections and follows the actual test plan as defined by the DSL Forum Test and Interoperability Work Group. The user is not required to interpret the standard as the Noise Module automatically sets up the specific tests needed. In addition, the Model 4901 can communicate with Telebyte's line of local loop simulators where applicable.

- The tests in this library require two 4901-AWGx cards and at least one 4901-D1-Micro Differential Mode Noise Injector for micro-interruptions.



**Model 4901-N16 WT-105 Noise Module
List of Tests Included**

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Standard Section	Test Case
5.3 Impulse Noise Protection Test (Table 5-10)	-140 dBm/Hz AWGN at ATU-C and ATU-R ends -110 dBm/Hz AWGN at ATU-C and ATU-R ends 15 Impulses 1 second apart at ATU-C and ATU-R ends
5.4 Dual Latency Test (Tables 5-11)	-140 dBm/Hz AWGN at ATU-C and ATU-R ends -110 dBm/Hz AWGN at ATU-C and ATU-R ends 15 Impulses 1 second apart at ATU-C and ATU-R ends
5.5.1 Bitswapping Test (Tables 5-13 & 5-14)	-140 dBm/Hz AWGN at VTU-O and VTU-R ends -110 dBm/Hz increased to -50 dBm/Hz random downstream tone -110 dBm/Hz increased to -50 dBm/Hz random upstream tone
5.6.1 Linear Channel Characteristics Function (HLIN) Test (Tables 5-17 & 5-18)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.2 Logarithmic Channel Characteristics Function (HLOG) Test (Tables 5-19 & 5-20)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.3 Quiet Line Noise (QLN) Test (Table 5-21 & 22)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.4 Signal-to-Noise Ratio Test (Tables 5-23 & 5-24)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.5 Loop Attenuation (LATN) Test (Tables 5-25 & 5-26)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.6 Signal Attenuation (SATN) Test (Tables 5-27 & 5-28)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.7 Signal-to-Noise Ratio Margin (SNRM) Test (Tables 5-29 & 5-30)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.8 Attainable Net Data Rate (ATTNDR) Test (Tables 5-31 & 5-32)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.6.9 Actual Aggregate Transmit Power (ACTATP) Test (Tables 5-33 & 5-34)	-120 dBm/Hz AWGN at ATU-C and ATU-R ends
5.7.1 Low Power Entry Test (Table 5-35)	-140 dBm/Hz AWGN at ATU-C and ATU-R ends
5.7.2 Low Power Exit Test (Tables 5-36 & 5-37)	-140 dBm/Hz AWGN at ATU-C and ATU-R ends
5.8 Low Power (L2) Mode (Tables 5-38 & 5-39)	-140 dBm/Hz AWGN at ATU-C and ATU-R ends
5.11 Virtual Noise Test	Not Defined
Micro-Interruption Tests*	
7.1 Verification of the Code Violation (CV) and Errored Second (ES) performance monitoring parameters (Tables 7-1 & 7-2)	“micro-interruption” of 3 ms “micro-interruption” of 1 ms every 10 seconds for 2.5 min.
7.2 Verification of the Severely Errored Second (SES) performance monitoring parameter (Table 7-3)	“micro interruption” of 330 ms every 1 sec for 2 sec

*Requires 4901-D1-Micro