

CISPR 22 ISN Single Balanced Pair Module

Per CISPR 22 (2005), ISN's are specialized coupling decoupling devices used for measuring the conducted asymmetric common mode radio interference voltages of ITE. FCC-TLISN-T4-02 ISN has been designed to perform conducted emissions test per CISPR 22 on two balanced pair telecom lines. It meets the requirements for Longitudinal Conversion Loss defined in CISPR 22, Ed.5, 2005, accepted by CISPR.



Specifications

Specification Frequency 150 kHz - 30 MHz
Useable Frequency 150 kHz – 150 MHz

Connectors
 Basic Network D-sub 25 pin
 LCL Adapters RJ11 and RJ45

Common Mode Impedance
 150 kHz – 100 MHz 150Ω ±20Ω
 100 MHz – 150 MHz 150Ω +60Ω / – 45Ω

Phase Angle
 150 kHz – 30 MHz 0°±20°

Transmission Bandwidth of Differential Signal (Symmetrical Signal) EUT-AE

150 kHz – 1 MHz <.20dB
 10 MHz <.25dB
 30 MHz <.50dB
 100 MHz <3.0dB

Decoupling Common Mode Attenuation RF Output Port to AE

150 kHz >35dB
 1.5 MHz >55dB
 30 MHz >55dB

Crosstalk EUT/AE Pair 1 to Pair 2

150 kHz >74dB
 1.5 MHz >60dB
 30 MHz >40dB
 100 MHz >30dB

Voltage Division Factor (Common Mode)

Basic Network Measured between the RF Output Port and the EUT Port Factor to be added to the reading of the measuring receiver -- Typically 9.5 dB ±1dB

Intentional Signal Parameter

AC Voltage <63 VRMS
 DC Voltage <100 V
 Current <.25Amperes
 Test Voltage <220 VDC

Longitudinal Conversion Loss EUT

Frequency	Basic Network	
150 kHz	>85dB	CAT 6: LCL (dB) = 75 – 10 log ₁₀ [1 + (f/5) ²] dB (± 3 dB for f < 2 MHz, -3dB / +6 dB for f between 2 MHz and 30 MHz)
1.5 MHz	>85dB	
5 MHz	>70dB	CAT 5: LCL (dB) = 65 – 10 log ₁₀ [1 + (f/5) ²] dB (± 3 dB for f < 2 MHz, -3dB / +4.5 dB for f between 2 MHz and 30 MHz)
10 MHz	>64dB	
20 MHz	>58dB	CAT 3: LCL (dB) = 55 – 10 log ₁₀ [1 + (f/5) ²] dB (± 3 dB)
30 MHz	>55dB	



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