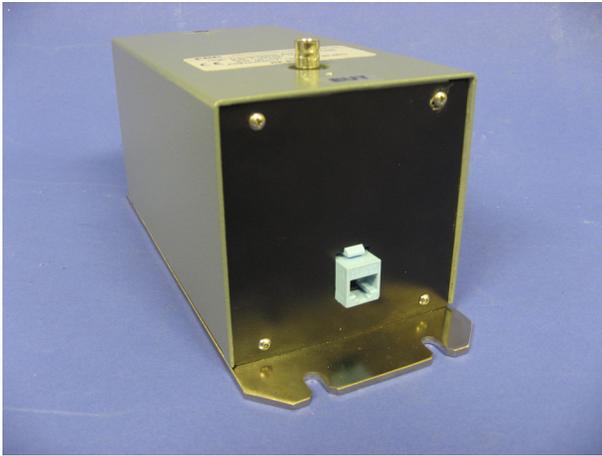


HIGH TRANSMISSION BANDWIDTH CDN FOR IEC-61000-4-6



The F-090407-1004-1A is Coupling Decoupling Network (CDN) for IEC-61000-4-6 conducted immunity testing that is capable of passing all transmission quality parameters for TIA 568 Category 6 Permanent Link.

As digital telecommunications speeds increase, tolerances for electromechanical imperfections in the transmission path decrease. These imperfections include the typical cable to connector and connector to connector interfaces routinely encountered in telecommunications cabling as well as the challenge of connecting the CDN to telecommunications cabling with minimal impact to the telecommunications signal integrity.

Recent field testing experience has demonstrated the need for the smallest impact to the digital telecommunications signals. Successful passing of IEC 61000-4-6 conducted immunity testing could only be accomplished using a CDN with the highest digital transmission qualities: [Category 6 Permanent Link](#).

Validation of products intended for high speed telecommunications applications is performed using a Fluke DTX-1800 digital cable tester. The Fluke digital cable tester measures the transmission quality parameters including NEXT, Insertion Loss, Return Loss, and several others through the CDN. The performance of the CDN is compared to an appropriate telecommunications cable Category. The high transmission quality CDN has positive margins for all Fluke measurements per TIA 668 Category 6 Permanent Link parameters.

Specifications

4 balanced pair

Frequency: 150 kHz – 80 MHz

Common Mode Impedance: 150 kHz – 30 MHz 150Ω +20Ω
30 MHz – 80 MHz 150Ω +60Ω -45Ω

Phase Angle: 150 kHz – 30 MHz 0° ±20°

RF Attenuation (RF port to EUT): 9.5 ± 1dB

RF test voltage: <30 volts

Transmission bandwidth of differential signal (symmetrical) EUT – AE at 250 MHz

Insertion Loss: < 2dB
Return Loss: > 20 dB
Next: > 40 dB
PSNext: > 39 dB
PS ACR-F(PSELFEXT): > 30 dB
Delay Skew: < 2ns

Connector: RJ45

Rated for POE

F-090407-1004-1A



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