

Features

Test from 150 kHz to 230 MHz

Designed for IEC / EN 61000-4-6

For 4 wire unscreened unbalanced cables

Individual calibration Included

Three Year Warranty



Description

Com-Power CDN-AF4E is part of a series of Coupling/Decoupling Networks designed specifically for testing product for conducted immunity per IEC 61000-4-6.

The CDN-AF4E series is for used for testing products uses four wire unscreened cables for data communication. It has four 2 mm shrouded banana sockets for both EUT and AE power connections. The CDN-AF4E can handle up to 5 A of current.

The RF disturbance signal is injected using a BNC connector which can handle up to 40 V of input. Also bottom surface of the CDN is not painted, so that the CDN can be grounded as required by the test.

All Com-Power CDNs can be purchased separately or part of the CIS series conducted immunity test system. This is a pre-packaged solution that includes ACS series power amplifier and accessories required for the test.

All Com-Power CDNs are individually calibrated. The Com-Power CDN-AF4E fully complies with the requirement contained in the IEC / EN 61000-4-6 and CISPR 16-1-2.

Application

During conducted Immunity testing, CDNs are utilized to provide a means of coupling RF common mode signals to each line. In addition, CDNs provide required common mode impedance between each line and ground, minimize interference to the auxiliary equipment via common mode decoupling of the disturbing signals and provide uninterrupted communication between the EUT and Auxiliary equipment.

Before you begin testing with the CDN-AF4E you will need to establish a calibrated drive levels corresponding to your desired test levels. During drive level calibration the RF signal level being injected to the CDN is adjusted incrementally until the voltage level measured at the 150Ω to 50Ω adapter (ADA-515) connected to the EUT port is approximately equal to the U_{mr} value given in table below. The ADA-515 and accessories that are needed for this calibration is also available from Com-Power.

Test Levels Open Circuit Voltage	Open Circuit Voltage @ U_{mr}
1	0.167
3	0.5
10	1.67

U_{mr} = Voltage level measured at the output of the 150Ω to 50Ω adapter (ADA-515)

Specifications

Product Name	Coupling Decoupling Network (CDN)
Applicable Test Standard	IEC / EN 61000-4-6
Frequency Range	150 kHz to 230 MHz
I/O rating for EUT/AE Ports	5 Amps
Max Input Voltage	40 V
Voltage Rating	311 V AC Line to Ground 440 V DC Line to Ground
Application	4 wire unscreened unbalanced cables
RF Input Connector	50 Ω BNC (female)
I/O Connection	2 mm shrouded banana sockets
Common mode impedance	550 kHz - 26 MHz: 150 Ω \pm 20 Ω 26 MHz - 80 MHz: 150 Ω + 60 Ω / - 45 Ω 80 MHz - 230 MHz: 150 Ω + 60 Ω / - 60 Ω
Voltage Division Factor	9.5 dB +4 / -1 dB
Dimensions	6 x 6 x 13 inches 15.2 x 15.2 x 33 cm
Weight	5 lbs. 2.3 kg
Accessories Available from Com-Power for setting test levels and running the test	ADA-AF4E shorting adapters ADA-515-2 150 Ω to 50 Ω adapters TEP-050 50 Ω Terminator ATTN-6-100W Power Attenuator DCU-300-100W Directional Coupler ASC series Power Amplifiers



Shorting Adapter Set ADA-AF4E



ADA-515-2 Adapter Set



TEP-050 Terminator

All values are typical values unless otherwise specified.
Specifications are subject to change without notice.

Typical Data

