COM-POWER CORPORATION

Coupling Decoupling Network
CDN-AF2E

Features

Frequency Range: 150 kHz to 230 MHz

Designed for IEC / EN 61000-4-6

For 2 wire unscreened unbalanced cables

Individual calibration Included

Three Year Warranty

Description

Com-Power CDN-AF2E is a part of the series of Coupling/Decoupling Networks designed specifically for testing product for conducted immunity per IEC 61000-4-6.

The CDN-AF2E is designed for used for testing products which uses two wire unscreened cables for data communication. It has two 2 mm shrouded banana sockets for both EUT and AE power connections. The CDN-AF2E 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 for easy and effective grounding.

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-AF2E 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 disturbance signals and provide uninterrupted communication between the EUT and Auxiliary equipment.

Before you begin testing with the CDN-AF2E you will need to establish 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 Umr value given in table below. The ADA-515 and ccesssories that are needed for this calibration is also available from Com-Power.

Test Levels Open Circuit Voltage	Open Circuit Voltage @ Umr
1	0.167
3	0.5
10	1.67

Umr= Voltage level measured at the output of the 150Ω to 50Ω adapter (ADA-515)

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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	**310 V AC Line to Ground** **440 V DC Line to Ground**
Application	**2 wire unscreened unbalanced cables**
RF Input Connector	**50 Ω BNC** (female)
I/O Connection	**2 mm shrouded banana sockets**
Common mode impedance	**150 kHz - 26 MHz: 150Ω ± 20Ω** **26 MHz - 80 MHz: 150Ω + 60Ω / – 45Ω** **80 MHz - 230 MHz: 150Ω + 60Ω / – 60Ω**
Voltage Division Factor	**9.5 dB +3 / -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-AF2E** 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-AF2E

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