Features

For Signal Lines

Frequency Range - 150 kHz - 80 MHz

Meets EN 61000-4-6 Requirements

Individual Calibration

Two Year Warranty

Description

The signal line Coupling / Decoupling Networks (CDN) are for testing from 150 kHz - 80 MHz according to the EN 61000-4-6 standard for immunity to conducted disturbance induced by radio frequency fields.

As the name implies, the CDNs has both coupling and decoupling networks. The coupling network delivers injected RF common mode current disturbance signals through the various signal conductors to the equipment under test (EUT). The decoupling networks are used to insure that the disturbing signals injected on the signal line of the EUT by the coupling networks does not interfere with any the auxiliary equipment (AE) connected to the EUT. Each CDN contains integrated direct capacitive coupling along with a high impedance choke for inductive decoupling.

The disturbing signal is injected on signal lines by using a series of coupling networks represented by series C, S, AF and T.

Individual calibration data will be provided with each CDN. However, test level calibration must be performed on site to determine the minimum required test signal needed to achieve the required voltage levels specified by EN 61000-4-6. The appropriate calibration accessories for conducting the level test is available from Com-Power.

Application

During the test the CDN is connected to the signal cables between the equipment under test (EUT) and auxiliary equipment (AE). The type of cables will determine which CDN to use for the test.

The **C series** CDNs are for injecting disturbing signals onto 50 Ohm (CDN-C50) and 75 Ohm (CDN-C75) coax cables. These CDNs have BNC EUT and AE connections.

The **S series** CDNs are for shielded cables with single or multiple conductors. These CDNs are available for testing 1, 2, 4, 9, 15, 25, 36 and 50 conductor cables. These CDNs have D type or BNC connectors for EUT and AE connections.

The **AF series** CDNs are for unshielded cables with single or multiple conductors carrying low current. Available in 2 conductor (AF2), 4 conductor (AF4) and 8 conductor (AF8). AF series CDNs are supplied with RCA connectors.

The **T series** CDNs are for cables with unshielded balanced conductor pairs typically found in ISDN, DSL and 10/100 baset T data transfer applications. These CDNs can be used at voltages up to 100 VAC and currents up to 2 Amps.

Specifications

Frequency: 150 kHz - 80 MHz
Voltage (maximum): 100 VAC (CDN series C & S)
160 VAC (CDN series AF & T)
Current (Maximum) 2 Amps
Maximum RF input: 40 V max
Common mode impedance: 150 kHz - 26 MHz: 150 Ohms ± 20 Ohms
26 MHz - 80 MHz: 150 Ohms + 60 Ohms and - 45.5 Ohms
RF (Disturbance coupling) connector: BNC (f) 50 Ohms

Common mode adapters: 150 Ohm to 50 Ohm **(model ADA-515)**
50 Ohm Terminator **(model TEP-050)**

Test level calibration components selection table:

Model	AE & EUT Connector Type	Calibration Adapter Input (AE)	Calibration Adapter Output (EUT)	Common Mode Adapters for Input (AE)	Common Mode Adapters for Output (EUT)
CDN-C50	BNC (f)	ADA-C50	ADA-C50	ADA-515 & TEP-050	ADA-515
CDN-C75	BNC (f)	ADA-C75	ADA-C75	ADA-515 & TEP-050	ADA-515
CDN-S1	BNC (f)	ADA-S1	*	*	ADA-515
CDN-S4	BNC (f)	ADA-S4	*	*	ADA-515
CDN-S9	DB-9	ADA-S9	*	*	ADA-515
CDN-S15	DB-15	ADA-S15	*	*	ADA-515
CDN-S25	DB-25	ADA-S25	*	*	ADA-515
CDN-S36	Centronics	ADA-S36	*	*	ADA-515
CDN-S50	DB-50	ADA-S50	*	*	ADA-515
CDN-AF2	RCA	ADA-AF2	ADA-AF2	ADA-515 & TEP-050	ADA-515
CDN-AF4	RCA	ADA-AF4	ADA-AF4	ADA-515 & TEP-050	ADA-515
CDN-AF8	RCA	ADA-AF8	ADA-AF8	ADA-515 & TEP-050	ADA-515
CDN-T2	RJ11	ADA-T2	ADA-T2	ADA-515 & TEP-050	ADA-515
CDN-T4	RJ45	ADA-T4	ADA-T4	ADA-515 & TEP-050	ADA-515
CDN-T8	RJ45	ADA-T8	ADA-T8	ADA-515 & TEP-050	ADA-515

***** The C & S Type CDNs are designed to inject noise to the screen of the cable (IEC-61000-4-6). Since the connector at the input (AE) of the CDN is connected to ground, no calibration adaptor or common mode adaptor is required on the AE side of the CDN during test level calibration.

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