CDNE M310-USJP
COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT

- **Frequency range 30 to 300 MHz**
- **125 V, 10 Amps, M3 version for Japan and US socket**
- **Conforms with CISPR 16-1-2**
- **Enables testing to CISPR 16-2-1 and CISPR 15 CDN method**
- **Excellent performance**
- **Calibration kit available**

CISPR 16-2-1's most recent edition 3.0 specifies a new test method which allows the use of a coupling/decoupling network for emission measurement (CDNE) to measure disturbance voltages in the 30 to 300 MHz frequency range. This method enables EUTs to be connected directly to the CDNE, allowing a single conducted emission measurement to replace a lengthy radiated emission test. Product standards may use this fast, convenient and economical alternative.

CISPR 15 offers an independent method for measurement of radio disturbance characteristics of electrical lighting equipment. This method specifies the use of a coupling/decoupling network (CDN) as defined in IEC 61000-4-6 with an extended frequency range 30 to 300 MHz. Using a CDNE as described in CISPR 16-1-2 instead of CDN offers improved measurement reproducibility due to standard's requirements for more restrictive limits of asymmetrical impedance, phase angle, symmetrical impedance and internal attenuation.

The Teseq CDNEs are compliant with the actual versions of CSIPR 16-1-2, CISPR 16-2-1 and CISPR 15's CDN method.

Technical specifications

Frequency range:	30 to 300 MHz
Power rating (EUT- and AE port)	
AC max. voltage (line to ground):	125 V
AC max. voltage (line to line):	125 V
DC max. voltage:	125 V
Current max:	10 A
Test voltage:	2000 V AC, 2 s
Mains sockets (EUT-/AE port):	NEMA 5-15/IEC C14
Common mode impedance (EUT port):	150 Ω +10/-20 Ω
Phase angle (EUT port):	0° ±25°
Differential mode impedance (EUT port):	100 Ω ±20 Ω
Coupling path (EUT/RF port)	
Connection (RF port):	BNC, 50 Ω
RF voltage (generated from EUT):	<10 V
Transducer factor/Voltage division factor (EUT/RF port)	
incl. internal 10 dB attenuator:	20 dB ±1.5 dB
Insertion Loss (EUT/AE port), f <400 Hz:	>0.1 dB
Decoupling of CM disturbance (RF port/AE):	>30 dB

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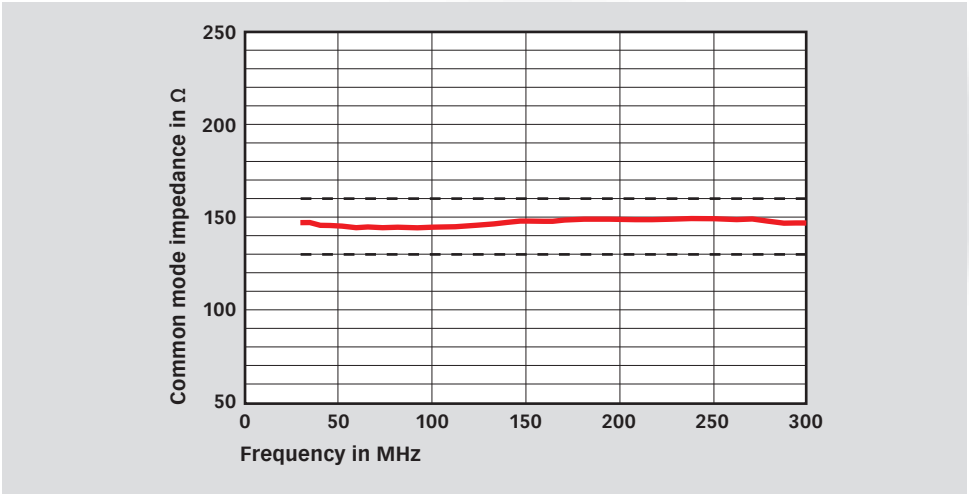
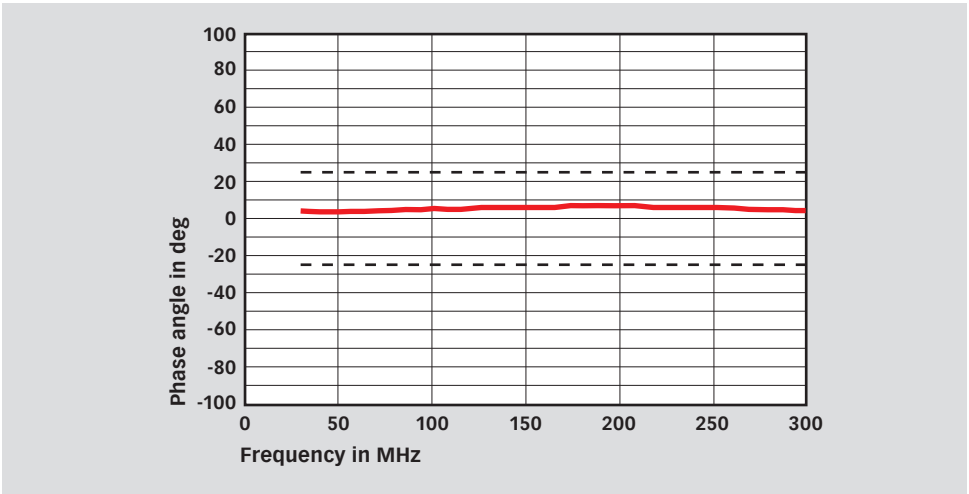
Typical common mode impedance (EUT)



Typical common mode phase angle (EUT)



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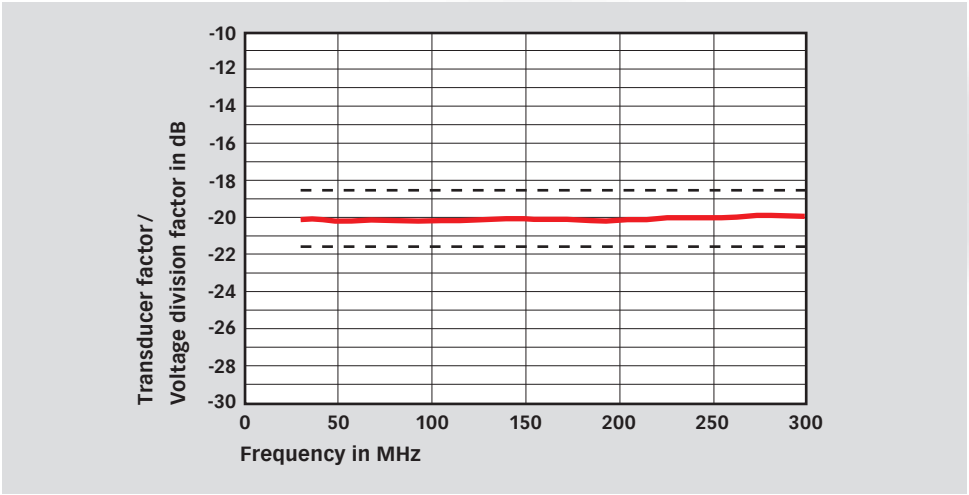
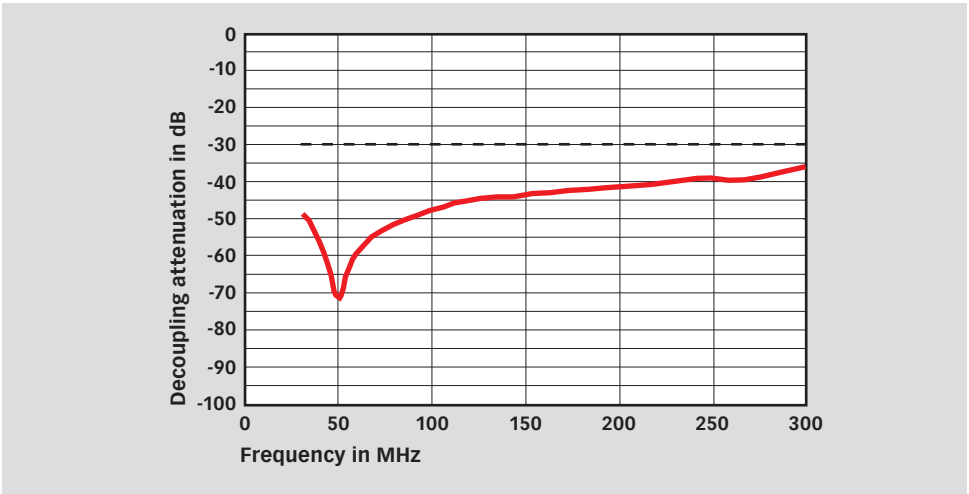
Typical transducer factor / voltage division factor (RF Out port / EUT)



Typical decoupling of CM disturbance (RF Out port / AE)



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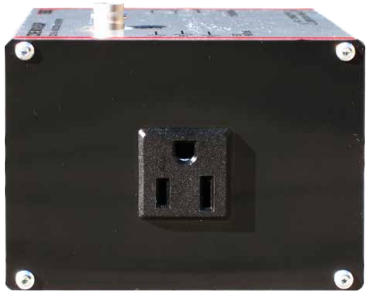
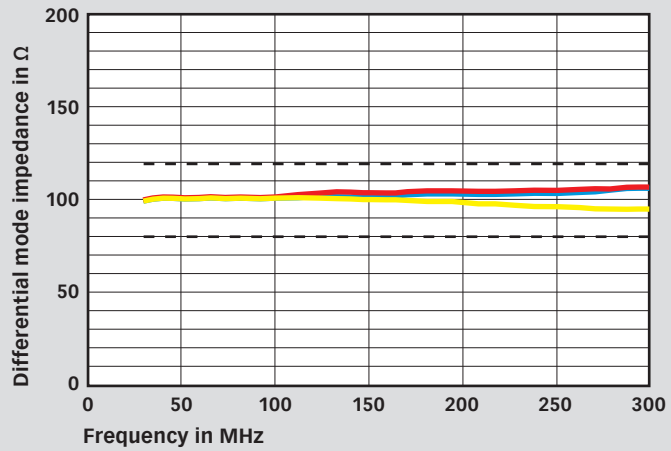


CDNE M310-USJP, view to the EUT port

CDNE M310-USJP, view to the AE port

Typical differential mode impedance (— L-N, — L-PE, — N-PE)



Mechanical specifications

Size (W x H x D) in mm:	105 x 75 x 125
Weight:	approx. 700 g

Model no. and options

Part number	Description
256758	CDNE M310-USJP CDNE M3, 10 A, 30 to 300 MHz, connector US / JP, L, N, PE, Coupling Decoupling Network for Emissions measurement, conform with CISPR 16-1-2 and CISPR 15
97-244230	CDNE-TC Traceable calibration (ISO17025), order only with the device

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