



CDNE M310 COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT



- Frequency range 30 to 300 MHz
- 520 V, 10 Amps, M3 version
- 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.

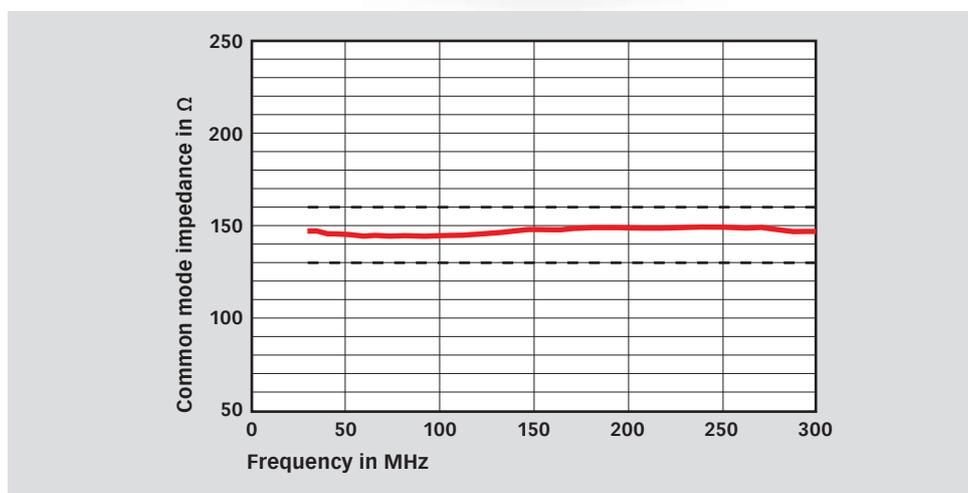
The Teseq CDNEs are compliant with the actual versions of CISPR 16-1-2, CISPR 16-2-1 and CISPR 15's CDN method.

Technical specifications

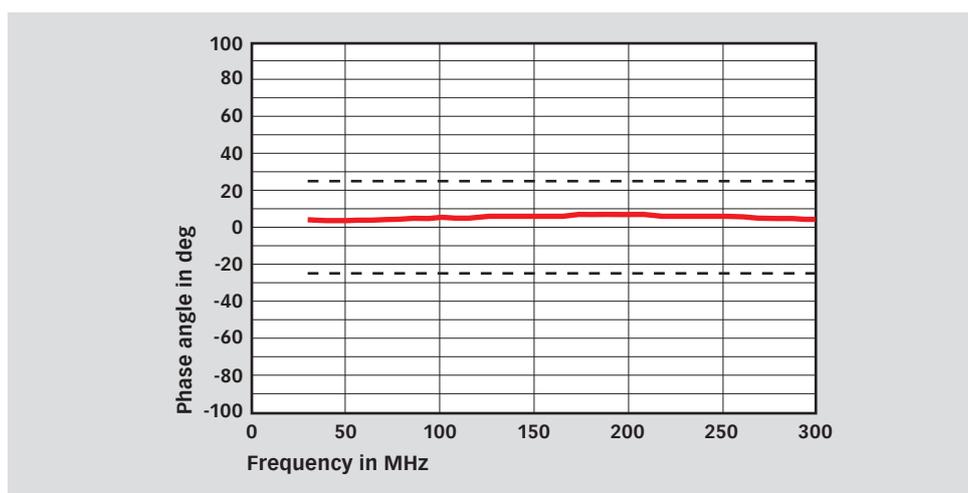
| | |
|---------------------------------------------------------|------------------|
| Frequency range: | 30 to 300 MHz |
| Power rating (EUT- and AE port) | |
| AC max. voltage (line to ground): | 300 V |
| AC max. voltage (line to line): | 520 V |
| DC max. voltage: | 300 V |
| Current max: | 10 A |
| Test voltage: | 2000 V AC, 2 s |
| Mains sockets (EUT- and AE port): | 4 mm, safety |
| 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)

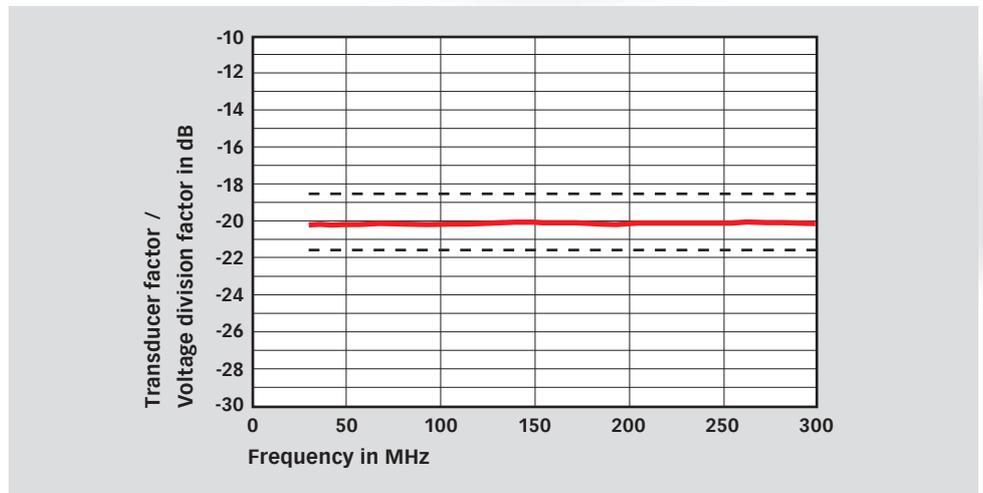


Typical common mode phase angle (EUT)

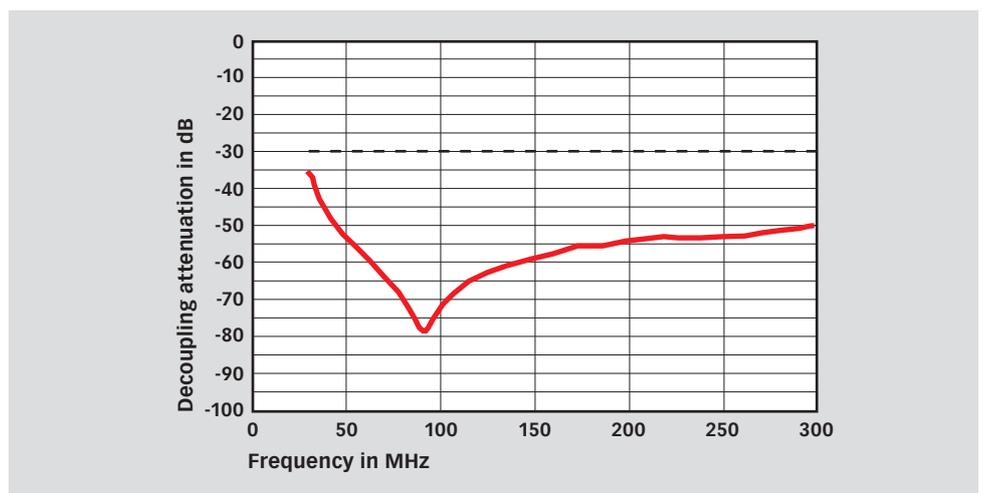


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Typical transducer factor / voltage division factor (RF Out port/EUT)



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



CDNE M310

COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT

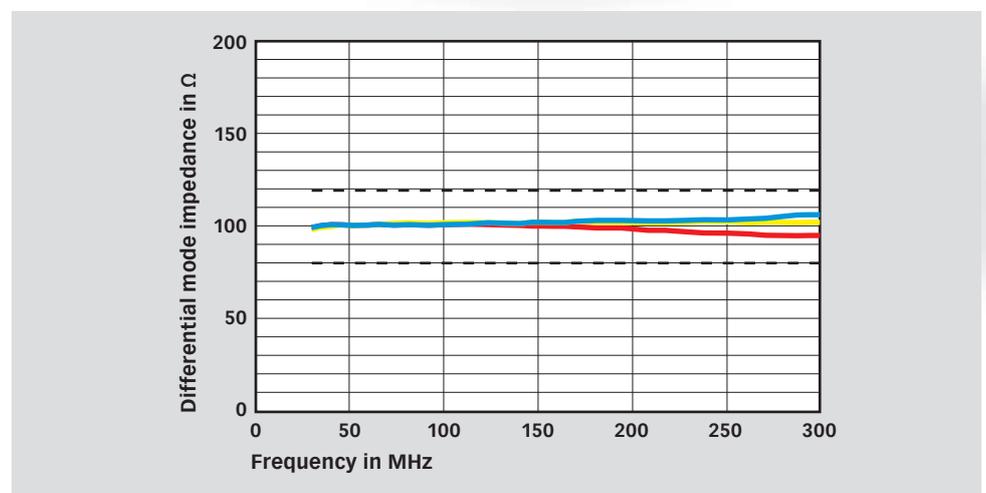


CDNE M310, view to the EUT port



CDNE M310, 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 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 244231 | CDNE M310 CDNE M3, 10 A, 30 to 300 MHz (banana), 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 |
| 242322 | CAS CDNE Calibration kit for CDNE, traceable calibration and certificate included |

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82-244231 E02 February 2015