



# CDNE M310 COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT



- Frequency range 30 to 300 MHz
- 520 V, 10 Amps, M3 version
- Conform with CISPR 15 ed.9, CISPR 16-1-2 and CISPR 16-2-1
- Outperforms the requirements of the CDN method of older CISPR 15 versions
- Excellent performance
- Calibration kit available

CISPR 15 edition 9 offers different methods for the measurement of radio disturbance characteristics of electrical lighting equipment. One of these is the CDNE method. This method specifies 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.

The Teseq CDNEs are compliant with the actual versions of CISPR 16-1-2, CISPR 16-2-1 and CISPR 15 edition 9.

Using a CDNE 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.

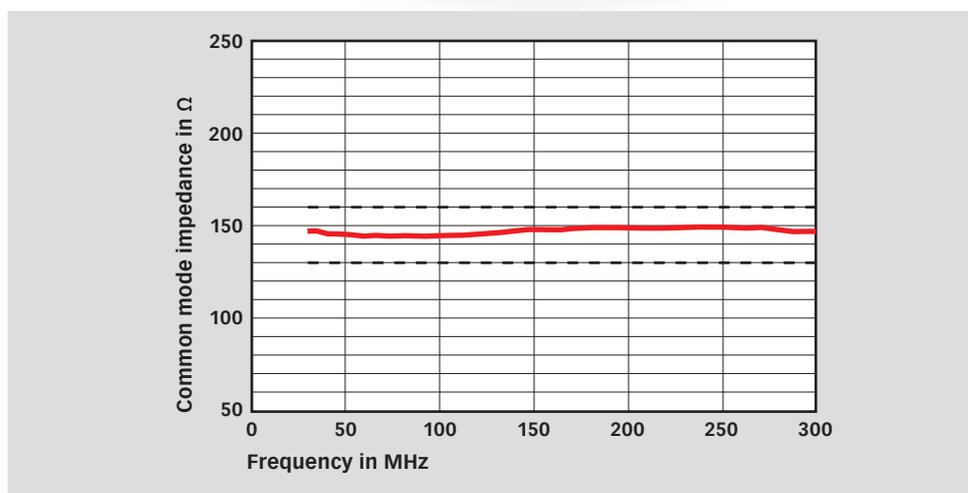
CISPR 15 edition 9 requires the termination of the mains supply cable of the EUT with a CDNE positioned on the reference-ground plane for the OATS, SAC or FAR measurement method. The receiver port of the CDNE is terminated with a 50 Ω impedance.

## Technical specifications

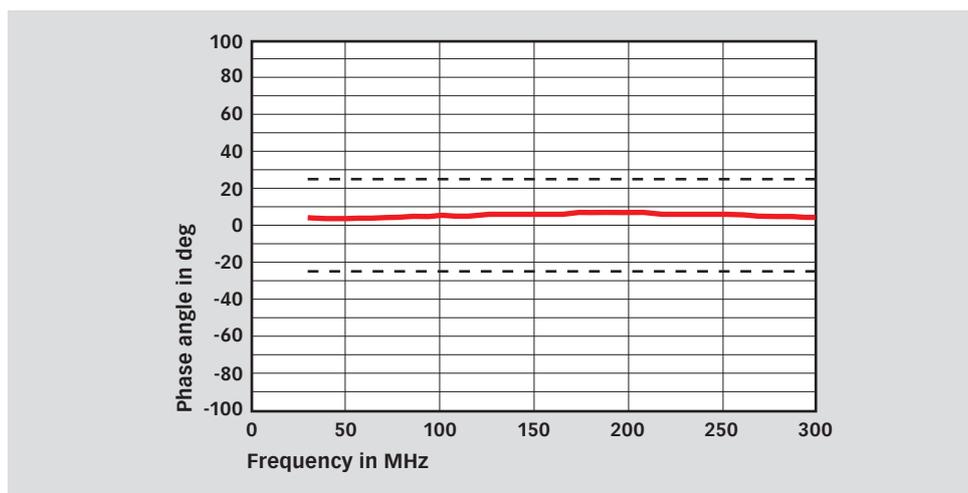
Frequency range:	30 to 300 MHz
Power rating (EUT- and AE port)	
AC max. voltage (line to ground):	300 V
AC max. voltage (line to line):	520 V
DC max. voltage:	300 V
Current max:	10 A
Test voltage:	2000 V AC, 2 s
Mains sockets (EUT- and AE port):	4 mm, safety
Common mode impedance (EUT port):	150 Ω +10/ -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

# CDNE M310 COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT

Typical common mode impedance (EUT)

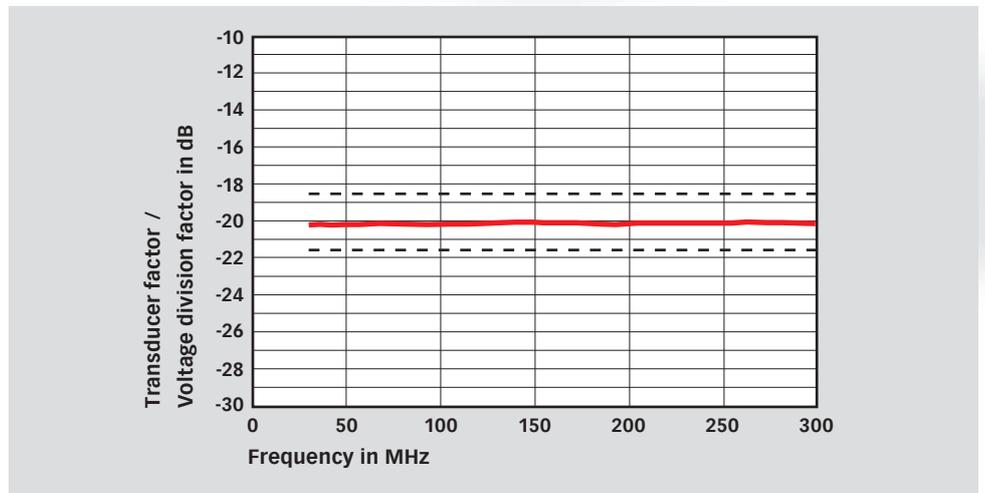


Typical common mode phase angle (EUT)

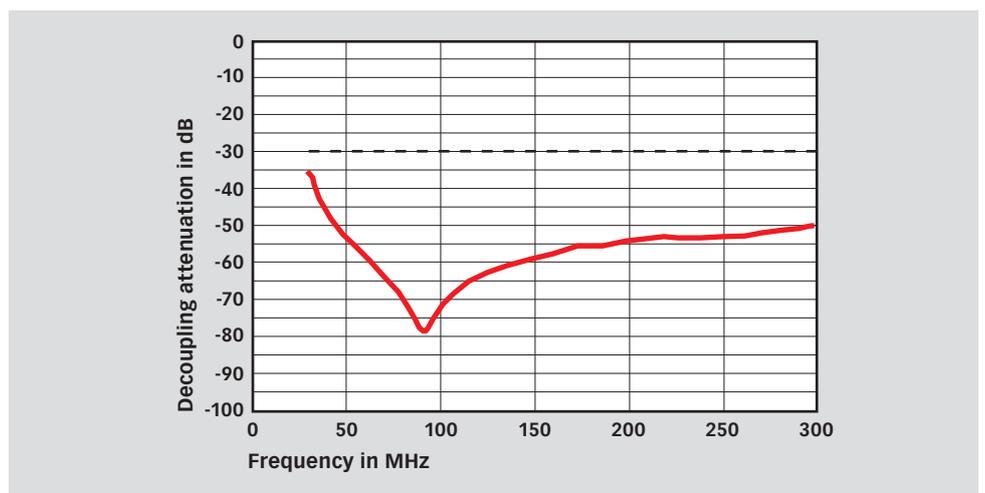


# CDNE M310 COUPLING DECOUPLING NETWORK FOR EMISSION MEASUREMENT

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

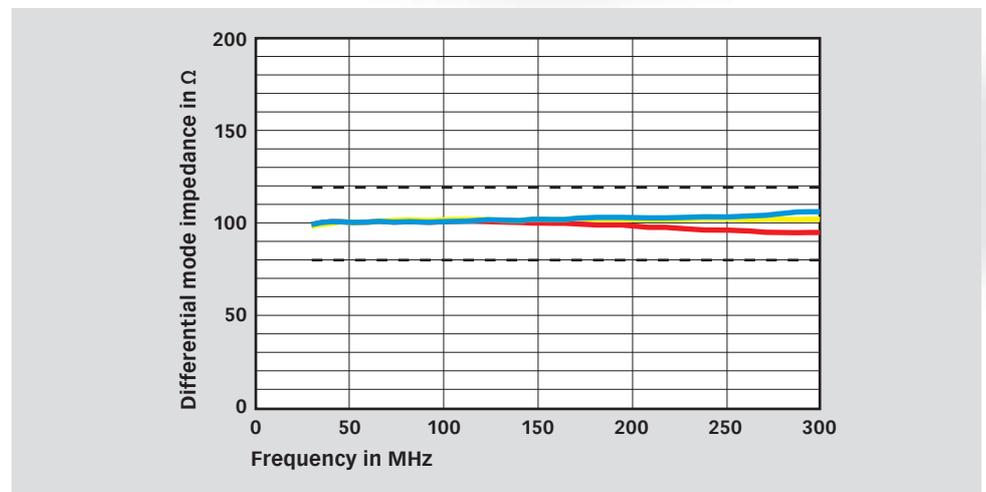


CDNE M310, view to the EUT port



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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