



# KEMZ 801A EM CLAMP FOR IEC/EN 61000-4-6



KEMZ 801A

- As specified in IEC/EN 61000-4-6
- Very efficient coupling
- Can be used on almost any cable
- Ruggedly designed

IEC 61000-4-6 (EN 61000-4-6) defines three basic types of transducer used for the injection of test signals into the equipment under test (EUT). The basic requirement is to inject a known level of RF signal onto the cable of the EUT at each test frequency and to determine whether the EUT continues to function correctly. In order to do this, it is necessary to decouple the auxiliary equipment (AE) from the test signal. If this is not achieved it is difficult to know whether any fault is due to a failure of the EUT or the AE. Whilst the coupling/decoupling network (CDN) is one of the best ways to achieve this test and indeed it is mandatory to use them under some circumstances, it is not always possible to use a CDN.

The normative Annex A of IEC/EN 61000-4-6 gives additional information regarding the clamp injection. The KEMZ 801A is similar to the described EM clamp in the standard and injects the disturbance signal through a combination of inductive and capacitive coupling. The use of a ferrite cores along the length of the clamp also improves the common mode impedance of the test set-up and the reproducibility of the test.

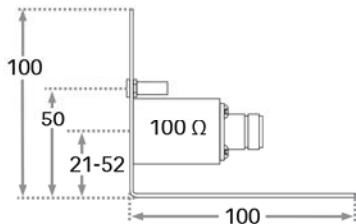
Optionally offered is the calibration kit CAL 801A which allows test level setting and correction factor measurement.

### Technical specifications

Frequency range:	10 kHz to 1000 MHz
Nominal impedance:	50 Ω
Connector:	N-type female
Maximum input level	
0.01 to 100 MHz:	100 W for 15 min
100 to 230 MHz:	100 W for 3 min
230 to 1000 MHz:	50 W for 3 min
Maximum correction factor	
0.15 to 400 MHz:	4 dB (50 Ω system), 13.5 dB (150 Ω system)
Maximum cable diameter:	20 mm
Dimension (LxWxH):	647 mm x 130 mm x 105 mm
Weight:	approx. 7 kg



CAL 801A calibration unit for  
KEMZ 801A



all dimensions in mm

Dimensions of the 150 Ω to 50 Ω  
adapter (part of CAL 801A), side view

### Technical specifications of CAL 801A

Dimensions:	see drawing
Maximum length of the clamp:	670 mm
Connectors on the clamp side:	4 mm banana
RF connector:	N-type female
Weight:	approx. 640 g

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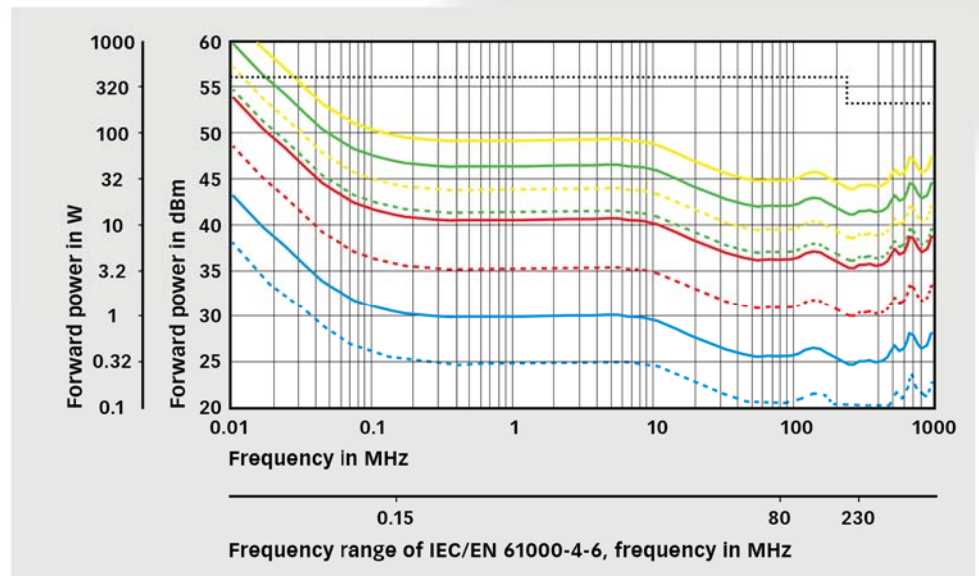


KEMZ 801A, view to the ferrite cores

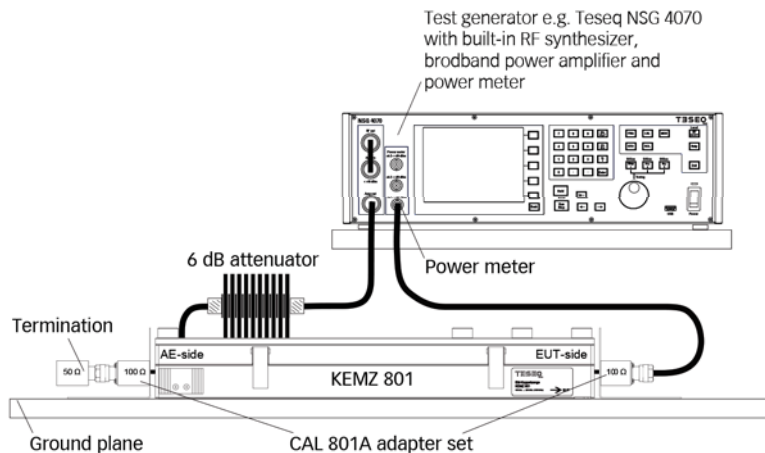
Power requirements in accordance with IEC/EN 61000-4-6

(6 dB attenuator, 0.5 dB cable loss, typical insertion loss of KEMZ 801A)

- calibration level for 3 V EMF without modulation, — 3 V EMF with AM 80%,
- calibration level for 10 V EMF without modulation, — 10 V EMF with AM 80%,
- calibration level for 20 V EMF without modulation, — 20 V EMF with AM 80%
- calibration level for 30 V EMF without modulation, — 30 V EMF with AM 80%
- ..... Max. forward power on the 6 dB attenuator input



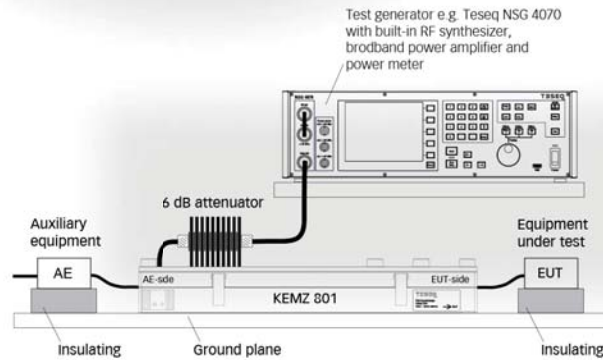
Test set-up calibration according IEC/EN 61000-4-6 with EM clamp



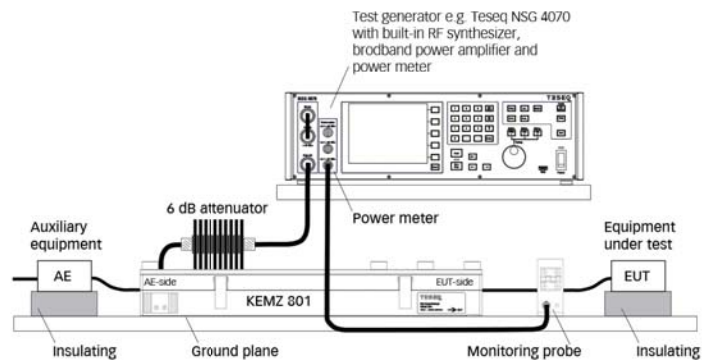
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## EM CLAMP FOR IEC/EN 61000-4-6

### Test set-up with EUT according IEC/EN 61000-4-6 with EM clamp



### Test set-up with EUT according IEC/EN 61000-4-6 with EM clamp and monitoring probe



### Model no. and options

Part number	Description
255100	KEMZ 801A EM Clamp, conform with IEC/EN 61000-4-6
255102	KEMZ 801AS EM Clamp, conform with IEC/EN 61000-4-6, supplied with calibration set CAL 801A
255103	KEMZ 801AS50 EM Clamp, conform with IEC/EN 61000-4-6, supplied with calibration set CAL 801A and 50 Ω termination 1 W
97-235501	KEMZ 801-TC Traceable calibration (ISO17025), order only with KEMZ 801A
255101	CAL 801A Calibration unit for KEMZ 801A