

CCI PVKIT 1

CALIBRATION KIT FOR CAPACITIVE COUPLING CLAMP VERIFICATION



FOR TESTS ACCORDING TO ...

- > EN 61000-4-4
- > IEC 61000-4-4

CALIBRATION SET FOR CAPACITIVE COUPLING CLAMP VERIFICATION






The IEC 61000-4-4 Ed 3.0 published 2012 recommends the calibration of the capacitive coupling clamp into a 50ohm coaxial load.

The capacitive coupling clamp (CCI) is connected to the 50 ohm output of the EFT generator. A flexible insulated plate inside the CCI is connected to a coaxial 50 ohm load resistor for verificate the EFT / Burst wave of the capacitive coupling clamp.

HIGHLIGHTS

- > Calibration kit for capacitive coupling clamp as per IEC 61000-4-4 Ed.3
- > Extension for the PVF BKIT 1 for capacitive coupling clamp calibration with EFT/burst
- > Flexible transducer plate 1050 mm x 120 mm included
- > Support provided to adapt the load resistors on 100 mm height level

APPLICATION AREAS

-  INDUSTRY
-  MEDICAL
-  BROADCAST
-  TELECOM
-  RESIDENTIAL

TECHNICAL DETAILS

CCI PVKIT 1 CALIBRATION SE-TUP

CALIBRATION OF THE CAPACITIVE COUPLING CLAMP

The standard IEC 61000-4-4 Ed 3.0 recommends a new calibration of the capacitive coupling clamp. EM TEST developed for the calibration, the CCI PVKIT 1.

Components required for carry out the calibration:

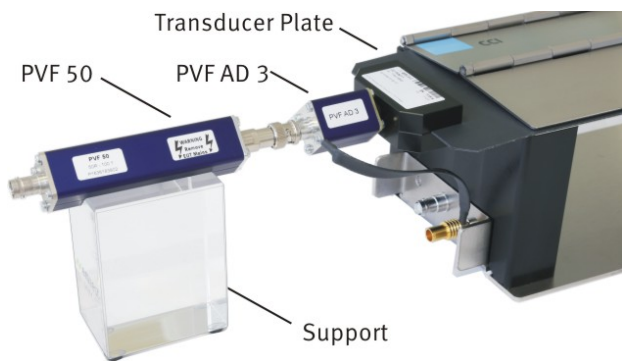
- CCI PVKIT 1: Consisting of
 - Transducer-plate and support
 - PVF AD 3: Adapter 4mm for connect the transducer-plate to the coaxial SHV connector of PVF 50

Additional required (e.g. from the PVF BKIT 1)

- PVF 50: Load resistor 50ohm

Calibration set-up

The transducer plate shall be placed into the capacitive coupling clamp such that the end with the connection is aligned with the end of the coupling plate. The connecting adapter PVF AD3 is bond with a low impedance connection band to ground reference plane for grounding of the 50ohm coaxial measurement terminator/attenuator. The load resistor PVF 50 is connected to the PVF AD3 adapter. An acrylic support places the PVF 50 to the same 100 mm height as the coupling clamp is distant from the reference ground. The distance between the transducer plate and the PVF 50 measurement terminator/attenuator shall not exceed 0,1m. A setup example is given in figures on this datasheet.



COUPLING CLAMP CALIBRATION

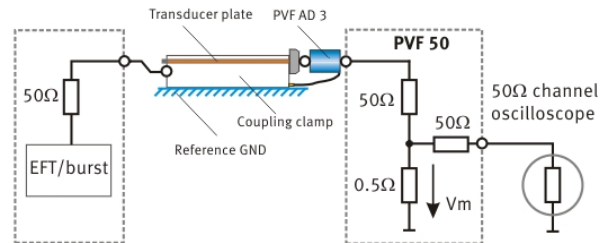
The calibration of the capacitive coupling plane is performed with the open circuit voltage setting at the EFT/burst generator (50ohm output): 2,000V

Resulting output voltage across the PVF 50 (50 ohm matching resistor): 1,000 V.

Measuring voltage V_m : 10 V

Measured voltage considering the 50 ohm input impedance of the oscilloscope: 5 V

Resulting attenuation (theoretical): 400:1



TECHNICAL DETAILS

TRANSDUCER PLATE

TECHNICAL DATA FOR TRANSDUCER PLATE

Description	Transducer plate with 4 mm connection plug
Input Voltage	Max. 5,000 V
Dimension	
Insulation	1,100 ±5 mm x 130 ±1 mm
Copper foil	1,050 ±5 mm x 120 ±1 mm thickness foil <0.5 mm
Weight	300 g

OPTIONS

OPTIONAL ACCESSORIES

PVF BKIT 1	Calibration Kit for EFT Burst calibration includes: <ul style="list-style-type: none"> - PVF 50, 50 ohm load resistor - PVF 1000, 1,000 ohm load resistor - PVF AD 1, Adapter 4 mm to coaxial SHV connector, (connection from the EUT output and GND plug to the PVF 50)
PVF 50	Coaxial 50 ohm load resistor for EFT/Burst transient calibration

SUPPORT

TECHNICAL DATA FOR INSULATED SUPPORT

Description	Support for measuring adapter PVF 50 on 100 mm level for capacitive coupling clamp verification
Hight PVF 50	100 mm ± 1 mm
Material	Acrylic
Dimension	70 mm x 49 mm x 95 mm
Weight	400 g

ADAPTER PVF AD 3

TECHNICAL DATA PVF AD 3

Description	Adapter to match the transducer plate to the PVF 50 load resistor, (connection Load resistor to transducer plate), GND connection to earth of the ICC
Voltage	Max. 8.000 V
Connector	4 mm banana, SHV connector to PVF 50
GND Strip	approx. 150 mm, 4 mm banana, 8.9 mm F103
Dimension	78 mm x 26 mm x 26 mm
Weight	70 g

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.