



GTEM 250A SAE TEST CELL FOR SAE 1752/3, IEC 62132-2 AND IEC 61967-2



The standards SAE J1752/3 and IEC 61967-2 define a method for measuring the electromagnetic radiation from an integrated circuit (IC). The IC itself is mounted on a test board that is clamped to a special hole in the top of the TEM cell. The test board is not inside the cell but becomes a part of the cell wall. The connected spectrum analyser or receiver measures the RF emissions emanating from the integrated circuit and impressed onto the septum of the cell. The standard IEC 62132-2 is prepared for doing immunity test on integrated circuits in a (G)TEM set-up.

The GTEM cell is a frequency extended variant of the traditional TEM (Transverse Electro-Magnetic) cell. The GTEM cell is, in principle, a tapered coaxial line (offset septum plate), which is terminated by a combination of discrete resistors and RF absorbers to achieve a broadband match.

Teseq offers with GTEM 250A SAE a GTEM cell with excellent VSWR for improved testing in range above 1 GHz.



- Test cell with special opening to test integrated circuits on approx. 45 mm septum height
- Meets IEC/EN 61000-4-20, SAE J1752/3, IEC 62132-2 and IEC 61967-2
- For 100 Watts input power
- Excellent VSWR up to 18 GHz

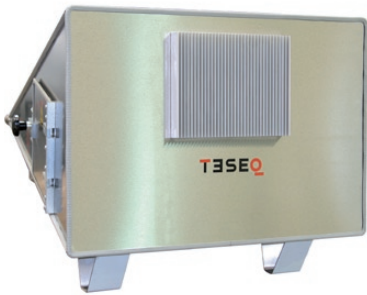
Technical specifications

Septum height:	250 mm
Dimension (LxWxH in m):	1.25 x 0.65 x 0.45
Weight:	approx. 90 kg
Height of cell corpus:	0.345
Height of supports:	0.105
Door (LxH in m):	0.20 x 0.13
EUT dimensions for inside testing	
EUT size (max. dimension, LxWxH in m):	0.20 x 0.20 x 0.15
EUT size (3 dB criteria, LxWxH in m):	0.150 x 0.15 x 0.08
Dimensions of the opening for IC testing:	80 mm x 80 mm
Septum height for IC testing:	approx. 45 mm
RF-input connector:	N-type
Nominal impedance:	50 Ω
Frequency range:	DC up to 18 GHz
Return loss / VSWR:	max. 20 dB / <1.25:1
Max input power (without additional external air cooling, without any EUT waste heat)	
below 1 GHz:	100 W for 15 min
above 1 GHz:	100 W continuous
Operating temperature:	+5°C to +30°C
Temperature range for this specification:	+20°C to 28°C
Shield characteristic (without any filter)	
10 MHz to 1 GHz:	100 dB
1 to 18 GHz:	90 dB
Applications:	Measuring of Emission, Radiated, radio frequency field-immunity test



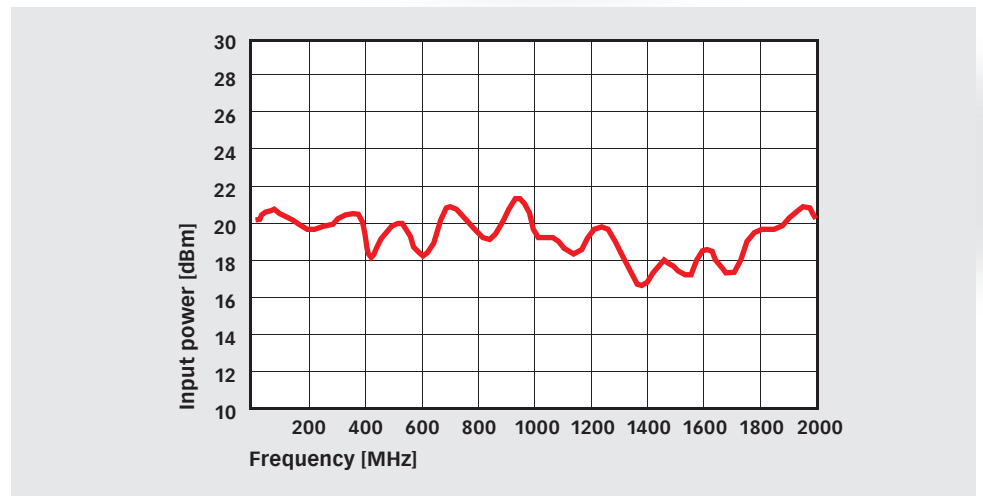
Advanced Test Solutions for EMC

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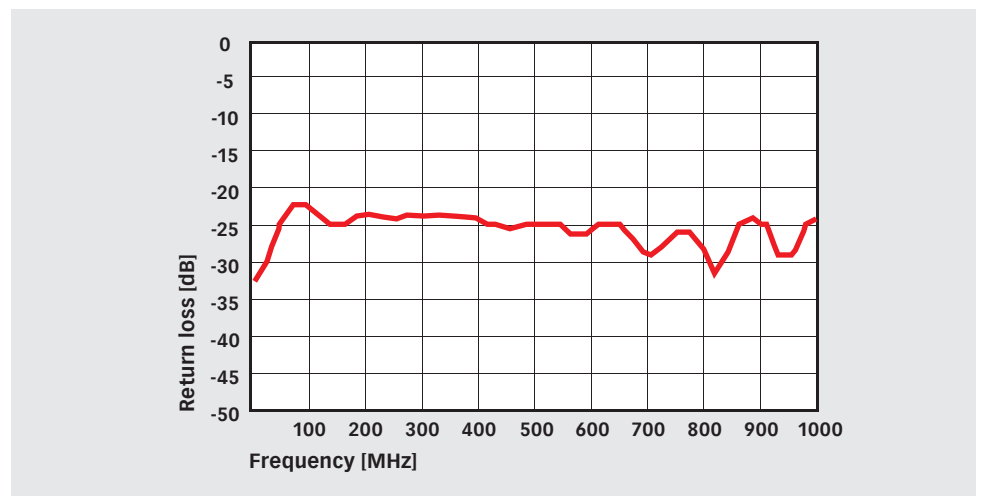
GTEM 250A SAE with view to the back side

Required input power for field strength of 10 V/m (Y axis, typical values)



GTEM 250A SAE with view to opening for IC testing

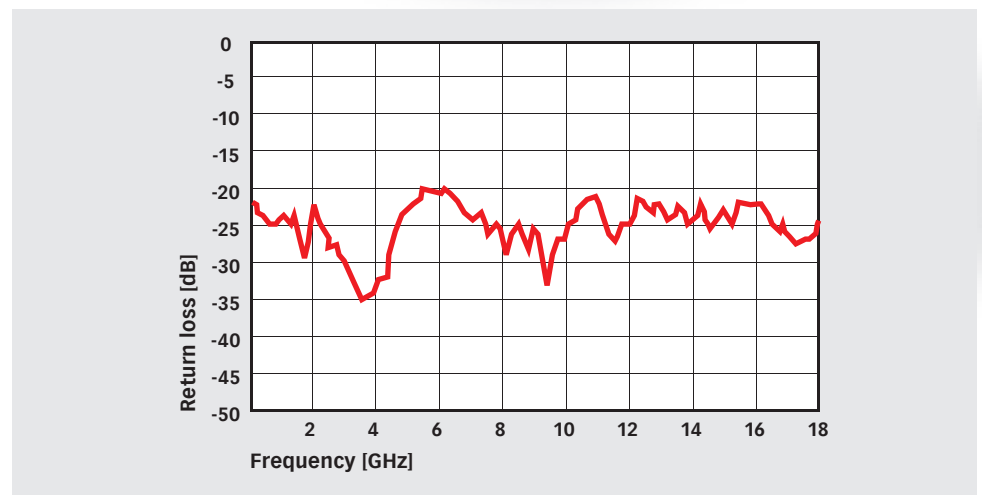
Return loss (typical values) in the frequency range 1 MHz to 1 GHz



GTEM 250A SAE

TEST CELL FOR SAE 1752/3, IEC 62132-2 AND IEC 61967-2

Return loss (typical values) in the frequency range 1 to 18 GHz



Delivery information

Part number	Description
252925	GTEM 250A SAE GTEM 250, 100 Watt, low VSWR, special opening to test IC on approx. 45 mm septum height, meets SAE 1752/3, IEC 62132-2 and IEC 61967-2
225569	OPL 250 Feed through for fiber optics
251150	EUT-BOX 250 Upgrade of empty EUT Box (included in standard delivery) to 4x 16 A power filter, 300 V AC/DC, banana
251151	EUT-BOX 251 Filter box with 4x 16 A power filter, 300 V AC/DC, banana, easy exchangeable of standard GTEM 250 filter box
225583	SIA 250 Upgrade of empty EUT Box (included in standard delivery) to 10x 15 A filter with banana jacks, 4x 5 A filter with Sub-D 9 pins
225584	SIB 250 Upgrade of empty EUT Box (included in standard delivery) to 2x 15 A filter with banana jacks, 37x 5 A filter with Sub-D 37 pins