



GTEM 250

GTEM CELL FOR EMISSIONS AND IMMUNITY TESTING



GTEM 250

A GTEM (Gigahertz Transverse Electro Magnetic) cell is a test site for efficiently performing both radiated immunity and emissions testing in a single, controllable and shielded environment. Compared to other test sites, GTEM testing is faster with high accuracy and excellent reproducibility.

In principle, the GTEM cell is a coaxial line expanding pyramidally and having an impedance of 50 Ω. At its end, the line is terminated by a combination of termination resistors and RF absorbers designed and constructed to match the above mentioned impedance.

The GTEM 250 has a maximum septum height of 250 mm and is suitable for emissions and immunity testing.

- Emissions and immunity testing in a single, shielded environment
- Meets basic standard: IEC/EN 61000-4-20
- Meets standards for emissions testing: CISPR 14-1, IEC 61000-6-3 and IEC 61000-6-4 for EUTs without connected cables
- Meets standards for immunity testing: EN 60118-13
- Ideal for design qualification and pre-certification
- Fields generated are largely homogeneous and simple to calculate
- Efficient power conversion requires smaller power amplifier
- Excellent VSWR over the entire frequency range - no need for measurement of reflected power

Standard configuration:

- Desktop version
- Door on the right side, clear opening of 20 cm x 13 cm
- EUT BOX for free application
- Fan with power supply unit for countries EU, AUS, UK, US/JP
- Emission correlation tool (Windows software for manual input)
- Measurement report for TDR and VSWR
- Measurement report for input power requirements for 10 V/m (80 - 1000 MHz)
- Shipped assembled

Options:

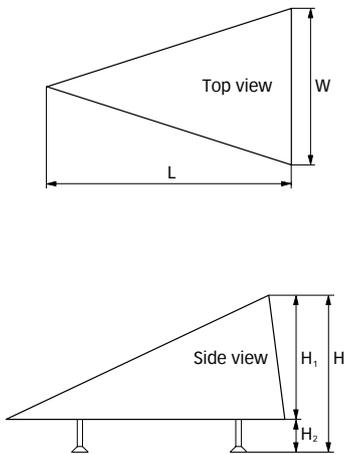
- POW 250, extended version for 100 W RF-input power
- OPL 250, feed through for fiber optics
- Special filter solutions
- Endwise version
- ETV 250, extended test volume for GTEM 250 in direction to the input section, lowest septum height of 100 mm, max. EUT size of 30 x 30 x 30 mm at 100 mm septum height
- SHD 1, additional door, clear opening of 20 cm x 13 cm
- SHW 250, shielded window, 12 cm x 7 cm
- Manipulator solution
- Test house software for emission and immunity testing



GTEM 250-SAE, view to the special opening

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Specifications

Max. septum height:	250 mm
Septum height at marker position:	217 mm
Dimension (LxWxH in m):	1.25 x 0.65 x 0.45
Weight:	45 kg
Height H_1 of cell corpus:	0.345 m
Height H_2 of supports:	0.105 m
Door (LxH in m):	0.20 x 0.13
EUT size (max. dimension, LxWxH in m):	0.20 x 0.20 x 0.15
EUT dimension for uniform-area 0 to 6 dB (LxWxH) in m:	0.083 x 0.083 x 0.083
RF-input connector:	N-type
Nominal impedance:	50 Ω
Frequency range:	DC up to 20 GHz
Frequency range according IEC/EN 61000-4-20:	30 to 1000 MHz
Return loss / VSWR (DC to 18 GHz):	>15 dB / <1.45:1
Shielding effectiveness (30 MHz to 3 GHz):	>60 dB (typ. >80 dB)
Max input power:	50 W (100 W with option POW 250)

Model No. and options

Part number	Description
225500	GTEM 250
	GTEM with septum height 250 mm, 50 W
243608	GTEM 250-SAE
	GTEM with septum height 250 mm, 50 W, with special opening to test IC with approx. 45 mm septum height, meets SAE 1752/3, IEC 62132-2 and IEC 61967-2
251710	POW 250
	Option for GTEM 250: Extended version for 100 W RF-input power, order only with GTEM
251720	ETV 250
	Option for GTEM 250: Extended test volume for GTEM 250 in direction to the input section, lowest septum height of 100 mm, max. EUT size of 30 x 30 x 30 mm @ 100 mm septum height, special shipment required, order only with GTEM
251970	SHW 250
	Shielded window for GTEM 250 door (SHD 1), order only with GTEM

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Model No. and options (continued)

225583	SIA 250 Option for GTEM 250: Upgrade of empty EUT BOX (included in standard delivery) to 10 x 15 A filter with banana jacks, 4x 5 A filter with Sub-D 9 pins, order only with GTEM 250
225584	SIB 250 Option for GTEM 250: Upgrade of empty EUT BOX (included in standard delivery) to 2 x 15 A filter with banana jacks, 37x 5 A filter with Sub-D 37 pins, order only with GTEM 250
255200	SIC 250 Option for GTEM 250: Upgrade of empty EUT BOX (included in standard delivery) to mains port 6 A, 6x filter with banana jacks and 9x filter with Sub-D 9 pins, order only with GTEM 250
255215	SID 250 Option for GTEM 250: Upgrade of empty EUT BOX (included in standard delivery) to mains port 6 A, 2x filter with banana jacks, 1x PE and 15x filter with Sub-D 15 pins, order only with GTEM 250
251150	EUT BOX-250 Option for GTEM 250: Upgrade of empty EUT BOX (included in standard delivery) to 4x 16 A power filter, 250 V AC, banana, order only with GTEM 250
251151	EUT BOX-251 Option for GTEM 250: Filter box with 4x 16 A power filter, 250 V AC, banana, easy exchangeable of standard GTEM 250 filter box
225507	EUT BOX-252 Empty EUT BOX of GTEM 250
225569	OPL 250 Option for GTEM 250: Feed through for fiber optics, order only with GTEM

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