



GTEM 1000 GTEM CELL FOR EMISSIONS AND IMMUNITY TESTING



GTEM 1000, door right side

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 1000 has a maximum septum height of 1000 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:

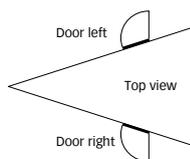
- Under-carriage with locking casters and additional supports
- Door, left or right side, clear opening of 48 cm x 68 cm
- Shielded window, 30 cm x 10 cm
- Door contact for free application
- Switchable fans
- EUT BOX-1 with 2x 16 A filter, 1 socket inside, line safety switch, earth leakage circuit breaker, switchable illumination
- Media interface (Media S) for 3x N-type connectors and optical feed through
- 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 disassembled, required Teseq supervisor, option ASS 1000

Options:

- Special filter solutions
- SSA 1000, stainless steel angles option for GTEM 1000, recommended for countries with high humidity like Thailand, Malaysia, Philippines...
- Additional door
- XYZ manipulator MPH 1000 handoperated or MPC 1000 remote controlled
- Test house software for emission and immunity testing

Ordering information:

The door side and the country version of the single phase AC socket needs to be selected.



Schuko



UK version



US/JP version



Advanced Test Solutions for EMC

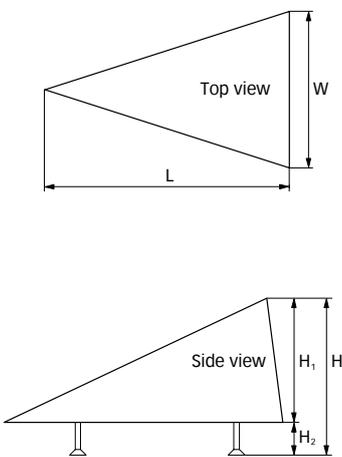


GTEM 1000

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Specifications



Max. septum height:	1000 mm
Septum height at marker position:	866 mm
Dimension (LxWxH) in m:	4.95 x 2.54 x 2.30
Weight:	approx. 790 kg
Height H ₁ of cell corpus:	1.73 m
Height H ₂ of under-carriage:	0.57 m
Door (clear opening, LxH) in m:	0.48 x 0.68
EUT max. dimension (LxWxH) in m:	0.74 x 0.74 x 0.66
EUT dimension for uniform-area 0 to 6 dB (LxWxH) in m:	0.333 x 0.333 x 0.333
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:	1000 W
Required input power for 10 V/m (isotropic, 5 points, 80 to 1000 MHz):	9.7 W (3 W CW)
Field deviation (isotropic, 5 points, 30 to 1000 MHz):	<6 dB

Model No. and options

Part number	Description
250300	GTEM 1000 Septum height 1000 mm, under-carriage, door, window, EUT BOX-1 and Media S included
251752	SSA 1000 Stainless steel angles option for GTEM 1000, recommended for countries with high humidity like Thailand, Malaysia, Philippines...
240381	ASS 1000 Supervisor build up for GTEM 1000 (travel and accommodation costs are additionally)
230100	MPH 1000 Manipulator handoperated for GTEM 1000
230101	MPC 1000 Manipulator remote controlled for GTEM 1000



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Model No. and options (continued)

251920	SHD 2 Additionally shielded door, clear opening 0.44 m x 0.38 m
251940	SHD 4 Additionally shielded door, clear opening 0.48 m x 0.68 m
251100	EUT BOX-1 EUT supply for single phase, 2x 16 A filter, 1 socket inside, line safety switch, earth leakage circuit breaker, switchable illumination, available for GTEM 500 to 2000
251200	EUT BOX-3 EUT supply for three phase, 4x 32 A filter, 1 socket inside, line safety switch, earth leakage circuit breaker, switchable illumination, available for GTEM 500 to 2000
251201	EUT BOX-31 Option for GTEM 500 - 2000: Upgrade of EUT BOX-1 (included in standard delivery) to EUT BOX-3, order only with GTEM
251210	EUT BOX-4 Option for GTEM 500 - 2000: EUT Box with DC power filter 4x 10 A, banana jacks 4 mm
251211	EUT BOX-5 Option for GTEM 1000 - 2000: EUT BOX with 2x 63 A power filter, 250 V AC, banana jacks 6 mm / 4 mm, suitable for GTEMs without EUT MG
251212	EUT BOX-6 Option for GTEM 1000 - 2000: EUT BOX with 10x 63 A power filter, 250 V AC, banana jacks 6 mm / 4 mm
251000	DC1 Option for EUT BOX-1, EUT BOX-3 or EUT BOX-31: DC power filter 2x 10 A, banana jacks 4 mm
251300	EUT MG-1 Option for GTEM 1000 - 2000: Switching cabinet size 2, 2x 16 A filter, 3 sockets inside and 2 sockets outside, line safety switch, earth leakage circuit breaker, line switch, emergency switch, pilot lamps, switchable illumination, door switch, Please note: GTEM cells with option EUT MG are not supplied with EUT BOX-1. EUT BOX-1 can be ordered as an option.



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Model No. and options (continued)

251400	EUT MG-3 Option for GTEM 1000 - 2000: Switching cabinet size 2, 4x 32 A filter, 1x CEE socket and 2 sockets inside and 2 sockets outside, line safety switch, earth leakage circuit breaker, line switch, emergency switch, pilot lamps, switchable illumination, door switch, Please note: GTEM cells with option EUT MG are not supplied with EUT BOX-1. EUT BOX-1 can be ordered as an option.
251010	DC2 Option for EUT MG: DC power filter 2x 10 A, banana jacks 4 mm
251820	SIF M 25 lines signal filter for Media, 5 A, D sub 25 pins
248290	ITE Filter Filter for 2 balanced pairs with adapters for RJ11 and RJ45 (ADR T411, ADR T442, ADR T443 and ADR T444)
248270	CAN Filter Filter for 6 lines CAN bus, D sub 9 pins
248375	RS232 Filter 9 lines signal filter, 5 A, D sub 9 pins
248382	USB Filter Filter for shielded USB
251600	Media S Connector panel with frame, 3x N-type connectors, 1x optical feed through
251650	Plate S Exchange panel for media S