



MAIN FEATURES

- 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
- Ideal for design qualification and pre-certification

GTEM 1000

GTEM cell for emissions and immunity testing

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.

Standard configuration

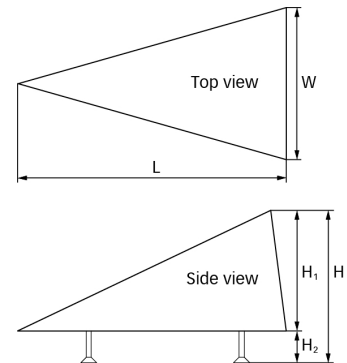
- Under-carriage with locking casters and additional supports
- Door, left or right side, clear opening of 48 cm x 68 cm
- Shielded window, 30 cm x 10 cm
- Door contact for free application
- EUT Box-1 with 2x 16 A filter, 1 socket inside, line safety switch, earth leakage circuit breaker, switchable illumination
- Media interface (Media S) for 3x N-type connectors and optical feed through
- Measurement report for TDR, return loss and input power requirements for 10 V/m (30 - 3000 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
- SAE opening, clear opening of 93.4 mm x 93.4 mm
- XYZ manipulator MPH 1000 or MPC 1000 solution
- Test house software

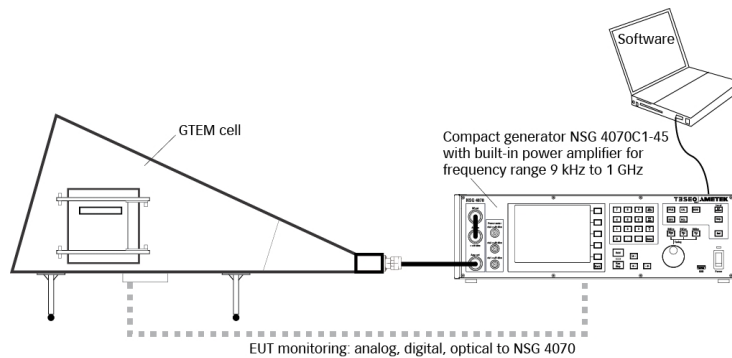
Specifications

| | GTEM 1000 |
|---|----------------------|
| Max. septum height | 1000 mm |
| Septum height at marker position | 866 mm |
| EUT size (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 | 0.33 x 0.33 x 0.33 |
| RF input connector | N-type |
| Nominal impedance | 50 Ohm |
| Frequency range | DC up to 20 GHz |
| Frequency range according IEC/EN 61000-4-20 | 30 to 3000 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, 30 to 3000 MHz) | 9.7 W (3 W CW) |
| Field deviation (isotropic, 5 points, 30 to 3000 MHz) | <6 dB |

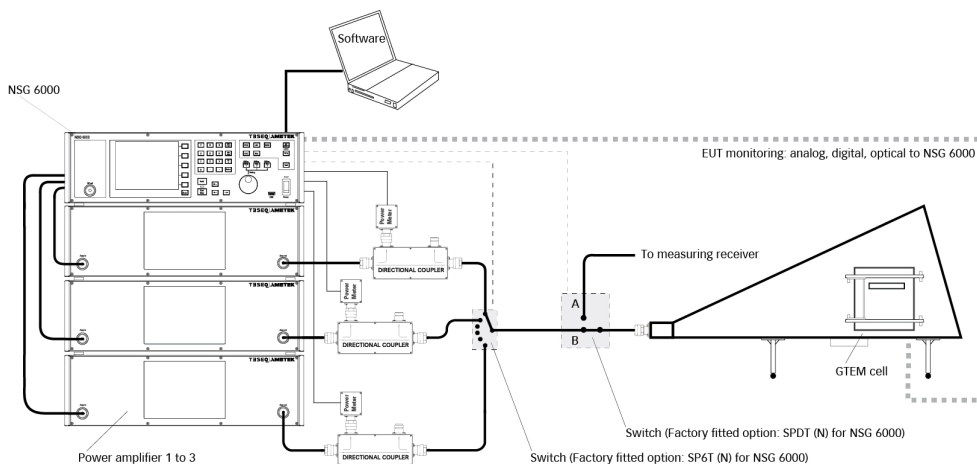


General Specifications

| | GTEM 1000 |
|--------------------------|--------------------|
| Dimension (LxWxH in m) | 4.95 x 2.54 x 2.30 |
| Weight | approx. 790 kg |
| Height H1 of cell corpus | 1.73 m |
| Height H2 of supports | 0.57 m |
| Door (LxH in m) | 0.48 x 0.68 |



Example of immunity test setup 9 kHz to 1 GHz with one power amplifier



Example of test setup 9 kHz to 6 GHz with three power amplifiers and measuring receiver

Ordering information

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



Model No. and options (selection shown for EU only)

| Description | Item No | Text |
|--------------------|---------|--|
| GTEM 1000-L-EU | 258821 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on left side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000 |
| GTEM 1000-L-EU-MPH | 258822 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on left side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000, XYZ-manipulator handoperated included |
| GTEM 1000-L-EU-MPC | 258823 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on left side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000, remote controlled XYZ-manipulator included |
| GTEM 1000-R-EU | 258814 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on right side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000 |
| GTEM 1000-R-EU-MPH | 258815 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on right side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000, XYZ-manipulator handoperated included |
| GTEM 1000-R-EU-MPC | 258816 | GTEM with septum height 1000 mm, under-carriage with locking casters, door on right side with clear opening of 48 cm x 68 cm and shielded window of 30 cm x 10 cm, door contact for free application, EUT Box-1 with 2x 16 A filter, 1 Schuko-socket inside, line safety switch, RCD, switchable illumination, media interface (Media S) for 3x N-type connectors and optical feed through, max. 1000 W RF input power, switchable fans, shipped disassembled, required Teseq supervisor option ASS 1000, remote controlled XYZ-manipulator included |

emitec industrial

Emitec Messtechnik AG
 Birkenstrasse 47
 6343 Rotkreuz

+41 41 748 60 10
 info@emitec.ch
 www.emitec-industrial.ch

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