



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
- 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

GTEM 250A-R

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

Standard configuration

- Desktop version, Shipped assembled
- Door on the right side, clear opening of 20 cm x 13 cm
- Window in door
- EUT BOX for free application, easily interchangeable
- Feed through tube for fiber optics
- Fan with power supply unit for countries EU, AUS, UK, US/JP
- Measurement report for TDR, return loss and input power requirements for 10 V/m (30 - 3000 MHz)

Specifications

	GTEM 250A-R
Max. septum height	250 mm
Septum height at marker position	217 mm
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 Ohm
Frequency range	DC up to 20 GHz
Frequency range according IEC/EN 61000-4-20	30 to 3000 MHz
Typical return loss / VSWR (DC to 18 GHz)	>19 dB / <1.25:1
Shielding effectiveness (30 MHz - 1 GHz / 1 - 18 GHz)	100 dB / 90 dB
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

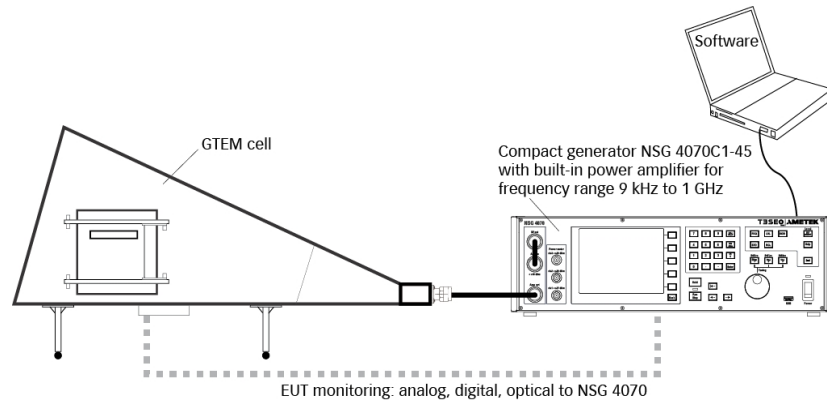
General Specifications

	GTEM 250A-R
Dimension (LxWxH in m)	1.23 x 0.66 x 0.54
Weight	approx. 45 kg
Height H1 of cell corpus	0.43 m
Height H2 of supports	0.11 m
Door (LxH in m)	0.20 x 0.13
Operating temperature	+5°C to +30°C
Temperature range for this specification	+20°C to +28°C

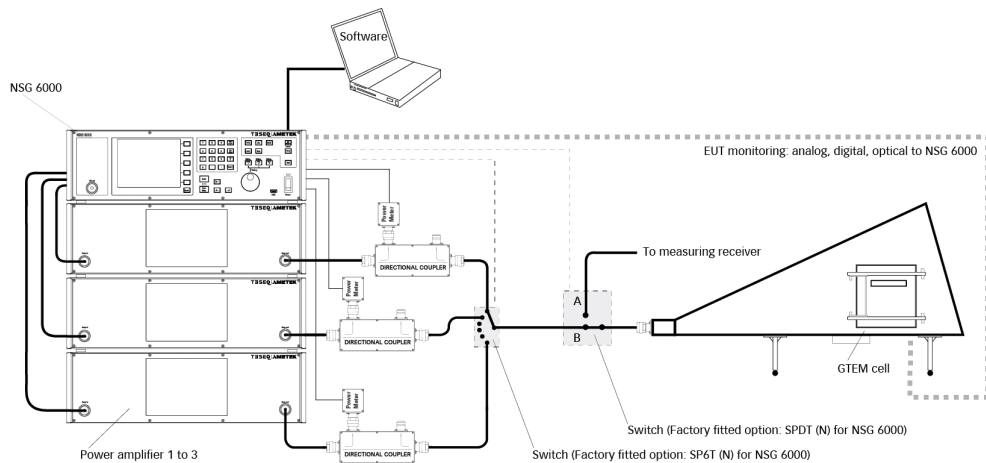
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Options

- Special filter solutions
- Endwise version
- Manipulator solution
- Test house software



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



View to the back side of the GTEM 250A-R

