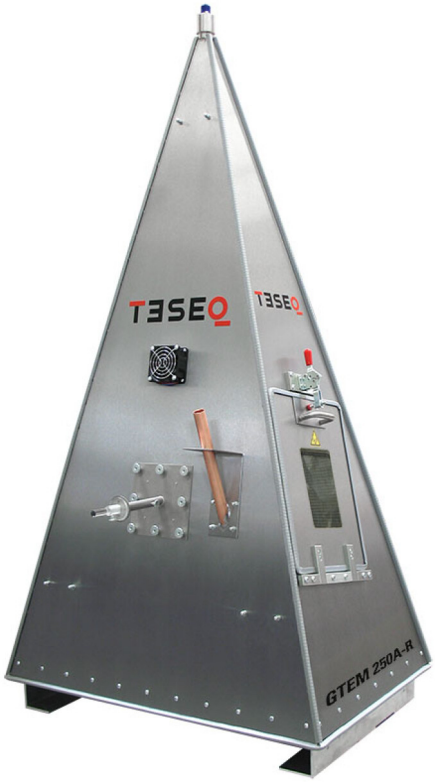


GTEM 250A-R-V-MPH

Test cell for electroacoustics - hearing aids

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. Teseq offers with GTEM 250A a cell with excellent VSWR for improved testing in the entire frequency. The version V allows the vertical and space saving positioning on a desktop.
The GTEM 250A-R-V-MPH is ideal for testing on electroacoustics - hearing aids as given in IEC 60118-13 because of the excellent parameters and included manipulator.

MAIN FEATURES

- **Vertical solution for space saving**
- **Meets IEC/EN 61000-4-20, IEC 60118-13 and others**
- **For 100 Watts input power**
- **Excellent VSWR up to 18 GHz**

Standard configuration

- Desktop version, Shipped assembled
- Door on the right side, clear opening of 20 cm x 13 cm
- Window in door
- Feed through tube for fiber optics
- Manipulator (turntable) handoperated
- 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

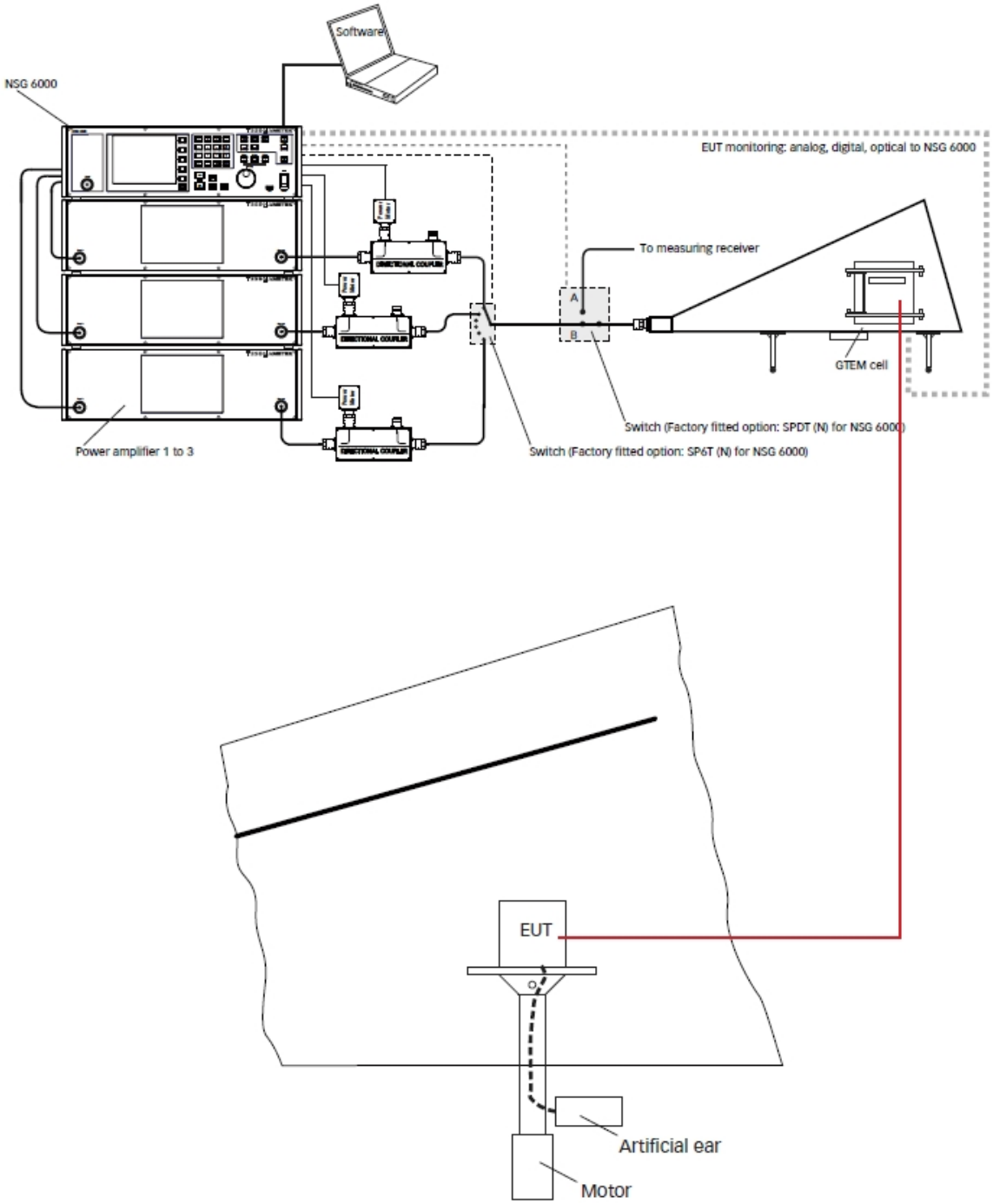
	GTEM 250A-R-V-MPH
Max. septum height	250 mm
Septum height at marker position	217 mm
EUT size (max. dimension, LxWxH in m)	0.20 x 0.20 x 0.15
EUT dimension for uniform-area 0 to 6 dB (LxWxH) in m	0.083 x 0.083 x 0.083
RF input connector	N-type
Nominal impedance	50 Ohm
Frequency range	DC up to 20 GHz
Frequency range according IEC/EN 61000-4-20	30 to 3000 MHz
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 above 1 GHz	 100 W for 15 min 100 W continuous

General Specifications

	GTEM 250A-R-V-MPH
Dimension (LxWxH in m)	0.55 x 0.66 x 1.23
Weight	approx. 45 kg
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

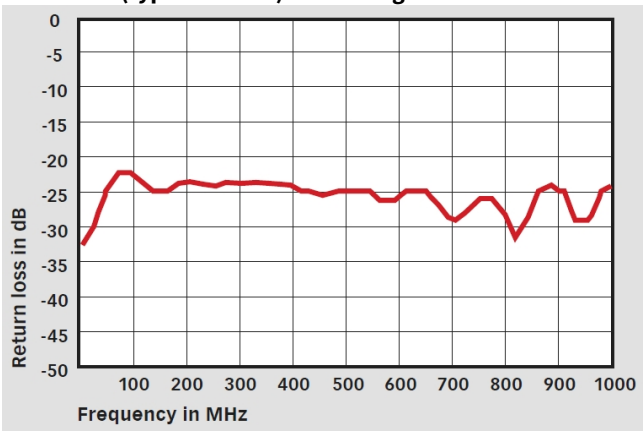
Options

- Manipulator solution
- Test house software

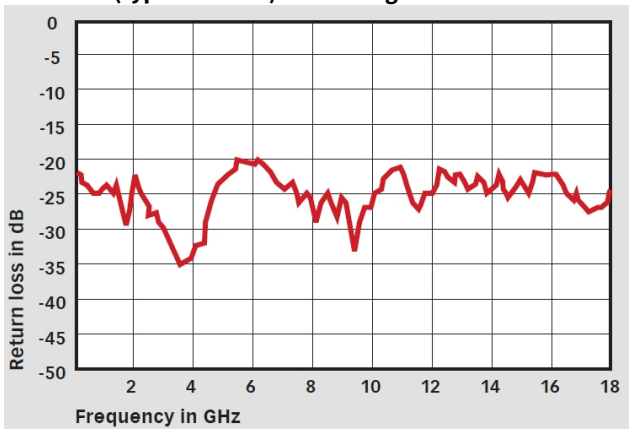


Example of test setup 9 kHz to 6 GHz with three power amplifiers and measuring receiver

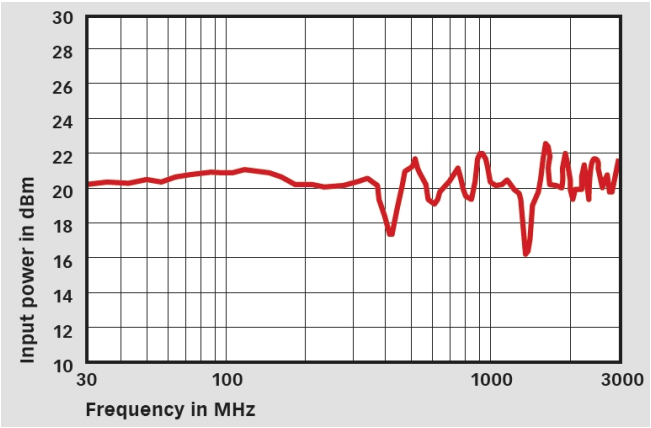
Return loss (typical values) in the range 1 MHz to 1 GHz

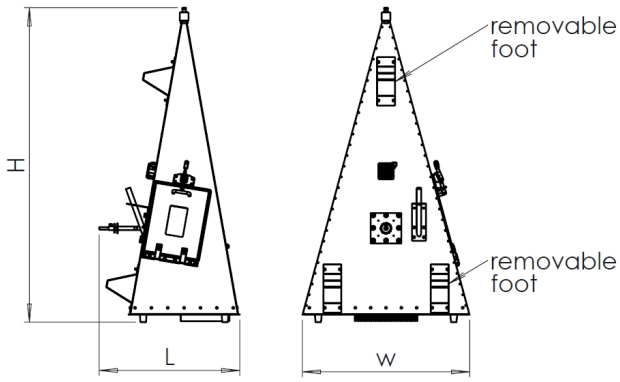


Return loss (typical values) in the range 1 to 18 GHz



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





Model No. and options

Description	Item No	Text
GTEM 250A-R-V-MPH	259285	GTEM with septum height 250 mm, low VSWR, door side right, max. RF input power 100 W, shielded window in door, optical feed through, vertical desktop model