EMCTEST Technologies

Makes your EMC Test easier!

EMC GTEM-1000 Gtem Cell

Introduction

The GTEM cell is a TEM waveguide with the upper frequency limit extended to the GHz range. It is a low-cost alternative measurement facility for both radiated emission and immunity measurements. It is included in the recently published standard IEC/EN 61000-4-20 "Emission and Immunity Testing in Transverse Electromagnetic (TEM) Waveguides". Compared to other measuring methods like EMC test in anechoic chambers or OATS (Open Area Test Sites), GTEM-cells offer some significant advantages for the testing of small and medium sized EUT´s (Equipment Under Test) up to a frequency range of 20 GHz. Quick turnarounds of the EUT as well as numerous testing variations are easy and fast to handle. Switching from emission to immunity testing requires only simple adjustments from receiver input to amplifier output.
You are irrespective of long waiting times associated with off-site test labs or weather and ambient delays that can occur at OATS facilities. Whether you are at the design qualification, pre-compliance, compliance, or production sampling stage, the GTEM is the right choice for you!.

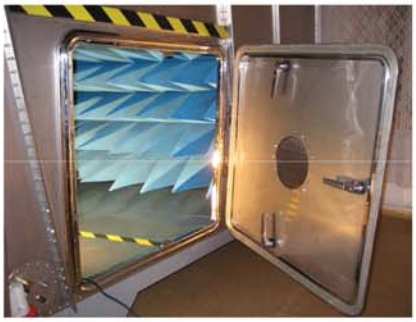
EMCTEST Technologies

Makes your EMC Test easier!

Technical Panel

Apex

Bottom view



Door

Lock and window

Side view

Key Features

- Engineered and completely manufactured in Italy.
- Ruggedized fully INOX steel construction
- Unique compact design.
- Optimized for EMI and EMC.
- Strong fields achieved with low input power

Reliant EMC is your top source for test equipment that enables you to reduce cost and time by self testing and certifying your products for Electromagnetic Compliance (EMC)

Reliant EMC LLC (408) 916-5750 Contact@ReliantEMC.com www.ReliantEMC.com

Reliant EMC

- Broadband up to 20Ghz.
- High effective shielding
- 4 poles 450Vac 50Hz 30A filter standard
- Excellent quality at Low cost

Theory of operation

GTEM-cells (Giga-hertz Transversal Electro-Magnetic cells) are waveguide structures intended for electromagnetic compatibility measurements, as well as biomedical applications. The electromagnetic field distribution inside the cell is in TEM mode. With TEM mode propagation, there is no component of electric and magnetic field in the direction of propagation of electromagnetic wave. Therefore the field components are strictly perpendicular. Assuming the field distribution ideal TEM below the cut-off frequency of the cell (before the introduction of higher order modes), the electromagnetic field distribution can be considered static.

Applications

- EMI and EMS devices
- Radiation and susceptibility test
- Specifically designed for telecom application
- Biomedical and dosimetrical applications
- Isotropic sensors calibration
- Receiver sensitivity test

Specifications *

Operating range:	DC-18GHz
RF Input	max continuous. input power: 800W RF continuous.
Input connector type	7/16” or "N" UG-21 connector
Shielding:	better than 60 to 100dB depending from frequencies
Absorbers:	650 mm anechoic pyramidal foam
Outer cell dimension:	(L)5200x(W)2750x(H)2200 cm
Door Size:	Primary: 75 x 75 cm.
Construction	Fully inox-steel with structural bars.

Technical panel *	**Power supply / Filter box - In and out. ***
N.1 Feed-thru "SMA/BNC" connector	N.1 10 Amp. 250VAC.+ Ground line filter
N.2 Feed-thru “N” connectors	
N.1 feed-thru fibre optic penetration for 1 couples.	

Options

W/ Inspection window with shielded polycarbonate glass 200mm. Diam
Feed-through panels, pipes connector
multi holes feed-thru fibre optic penetration for 1 or 6 couples.
DB/ DB9 or DB25 filtered feed-through
Honey-comb air vents, Exhaust fan Kit
Line Filter 25A three phases (RST+Neutral+Ground)
L/ 50W halogen quartz lamp
Customized solutions available upon request

* data subject to variations without notice