Open TEM cells

These open TEM cells (tri-plate cells) are well suited for immunity testing of small objects according to international and automotive standards (IEC 61967-2, SAE J1113-25 J1752-3) or for biological experiments. The advantage of these TEM cells is that they are open. This enables an easy access to control the device under test. Applications are for instance the immunity testing of watches, phones or PCB's. In comparison with other closed TEM cells, the price is lower. The field rapidly decreases outside the open TEM cells (about 33 dB at 1 meter) which makes it possible to use an open TEM cell in ordinary facilities. Another interesting application is the calibration of field probes because the field inside the TEM cell is known with high precision. TEM cells are the most precise structures for field calibration.







SPECIFICATIONS				
Туре	TEM220	TEM500	TEM1000	TEM3000
Frequency range	DC - 220 MHz	DC - 500 MHz	DC - 1 GHz	DC - 3 GHz
Height under the septum	364 mm	147 mm	73 mm	25 mm
Usable test area under septum	860 x 900 mm	415 x 424 mm	220 x 210 mm	110 x 71 mm
Max. input power	1.5 kW	1 kW	750 W	400 W
Maximum field	800 V/m	1.5 kV/m	2.6 kV/m	5.6 kV/m
Field for a 25 W amplifier	105 V/m	215 V/m	470 V/m	1'400 V/m
Overall dimensions (L x W x H)	180 x 160 x 77 cm	97 x 81 x 32 cm	54 x 45 x 16.8 cm	40 x 18 x 6 cm
Weight	70 kg	12 kg	3.5 kg	1.5 kg
Input return Loss	>14 dB	>20 dB	>20 dB	>20 dB up to 1 GHz >14 dB up to 2 GHz >10 dB up to 3 GHz
Connectors	Ν 50 Ω			
Cell impedance	50 Ω ±2.5 Ω			
Wave impedance	377 Ω			

Ordering information

TYPE	DESCRIPTION
TEM220	Open TEM cell, DC - 220 MHz, plate height: 33 cm, 800 V/m
TEM500	Open TEM cell, DC - 500 MHz, plate height : 14.7 cm, 1.5 kV/m
TEM1000	Open TEM cell, DC - 1 GHz, plate height : 7.3 cm, 2.6 kV/m
TEM1000-FIX	Open TEM cell, DC - 1 GHz, plate height : 7.3 cm, 2.6 kV/m, including fixture for IC Test PCB according to SAE J1752-3 and IEC 61967-2
TEM3000	Open TEM cell, DC - 3 GHz, plate height : 2.5 cm, 5.6 kV/m
TEM3000-FIX	Open TEM cell, DC - 3 GHz, plate height : 2.5 cm, 5.6 kV/m, including fixture for IC Test PCB according to SAE J1752-3 and IEC 61967-2

Optional accessories

TYPE	DESCRIPTION
TEM-FB	Filter box including 21 signal filters