AMPLIFIER RESEARCH
160 School House Road, Souderton, PA 18964-9990 USA
Phone 215-723-8181•FAX 215-723-5688

MODEL TC3020A
TEM CELL
500 WATTS CW
DC-375 MHz

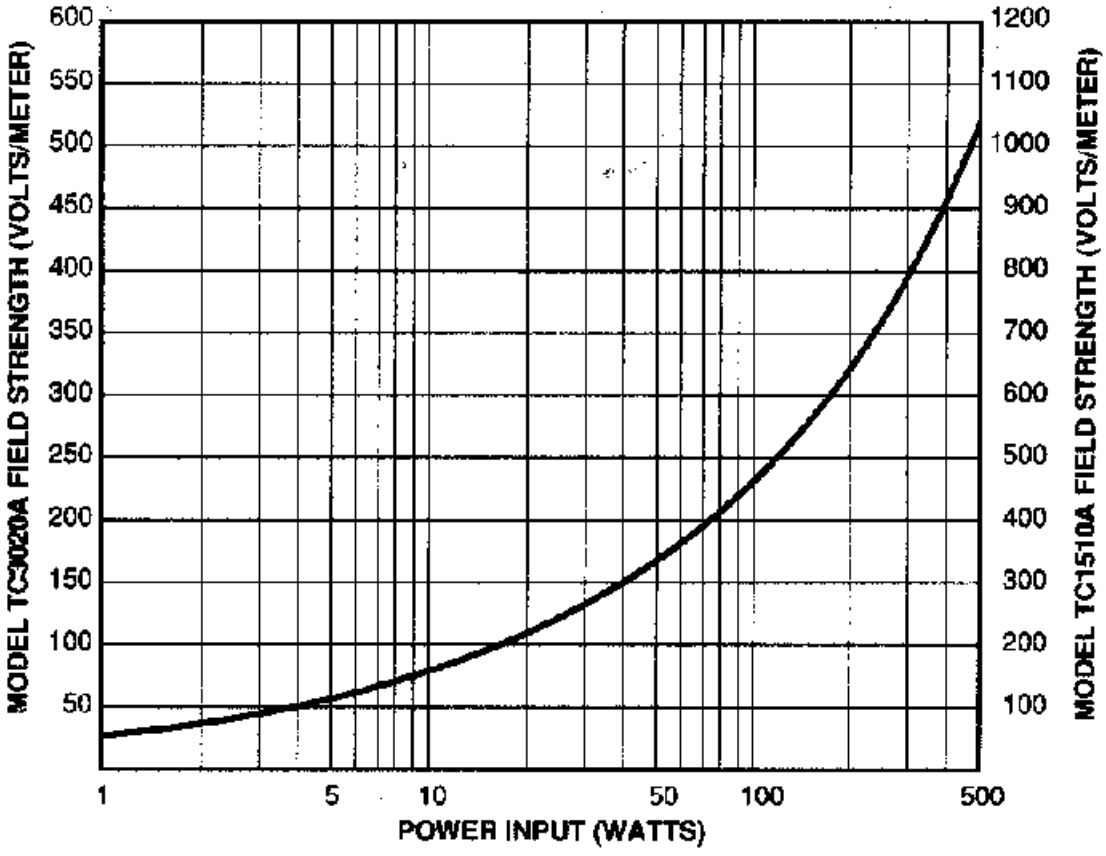
Capable of accepting a test object up to 30 cm wide by 20 cm deep the Model TC3020A is a broadband TEM (transverse electromagnetic mode) cell designed for susceptibility and emissions testing. Because of its highly controllable and measurable characteristics as an EMI and RF test chamber, the Model TC3020A is commonly used to calibrate electromagnetic and radio frequency field strength and power density meters. The dimensions and taper of the TEM cell provide a 50 ohm impedance from end to end. When terminated in 50 ohms, a uniform, high impedance field approaching that of free space is produced throughout the test object location. The Model TC3020A broadband TEM cell incorporates special resonance suppression techniques developed by Amplifier Research to provide over 50% more bandwidth than competing cells with similar test object volume.

The termination load used with the Model TC3020A TEM cell must have a minimum power rating of 500 watts. Our Model LR0500 (a 30 dB, 500 watt attenuator) is recommended as a termination. Use of such an attenuator provides an output which can be used for making power measurements or for providing a leveling reference.

SPECIFICATIONS

SIZE OF DEVICE UNDER TEST	*30.0 x 10.0 x 20.0 cm* *11.8 x 3.9 x 7.9 in*
POWER INPUT, CW	*500 watts maximum*
FREQUENCY RESPONSE	*DC-375 MHz*
IMPEDANCE OF CELL	*50 ohms*
VSWR	*1.2:1 maximum*
ISOLATION AT 1 METER	*>60 dB*
RF CONNECTORS (select from kit provided)	*Type BNC female* *Type TNC female* *Type N female*
I/O CONNECTORS	*1 RF-isolated IEC female ac plug* *1 RF-isolated 25-pin "D" female* *4 BNC female*
CELL DIMENSIONS	
Total width	*211.3 cm (83.2 in)*
Total height	*60.2 cm (23.7 in)*
Total depth	*106.7 cm (42.0 in)*
Septum depth	*72.4 cm (28.5 in)*
ACCESS PORT DIMENSIONS	
Top, outer diameter	*14.2 cm (5.6 in)*
Top, inner diameter	*2.8 cm (1.1 in)*
Side, outer diameter	*14.2 cm (5.6 in)*
Side, inner diameter	*2.8 cm (1.1 in)*
Side (W x H)	*59.9 x 25.4 cm* *(23.6 x 10.0 in)*
WEIGHT	*64 kg (141 lb)*

REV013101


MODEL TC3020A FIELD STRENGTH (VOLTS/METER)
600
550
500
450
400
350
300
250
200
150
100
50
MODEL TC1510A FIELD STRENGTH (VOLTS/METER)
1200
1100
1000
900
800
700
600
500
400
300
200
100
1
5
10
50
100
500
POWER INPUT (WATTS)