

ATE10K30MA

- M1 through M5
- E-Field Generator
- 10kHz-30MHz

Features

Model ATE10K30MA is a high-power electric field generator designed to generate intense E fields over a frequency range of 10 kHz to 30 MHz. It is recommended for use in susceptibility testing.

The ATE10K30MA is small enough to be handled easily in shielded rooms, while being compatible with the high RF output powers available from modern RF amplifiers like the AR RF/

Microwave Instrumentation "A" Series. The field generating elements are removable for convenient storage and transportation. Tripod mounts are provided on two edges of the housing to facilitate vertically and horizontally polarized testing.

The ATE10K30MA consists of two parallel cylindrical field generating elements spaced approximately 1 meter apart. The elements are attached to a rugged dielectric housing. Within the ventilated

housing are low inductance high-power RF terminating resistors and a 50 ohm-to-450 ohm impedance transformer. The transformer is a modern, low-loss design that handles the full power specification over the full frequency range without need for band switching and without saturation. The transformer includes a robust current choke, which decouples the coaxial feed line

Some variations of this model provide a fan option. Forced air cooling requires AC voltage for operation. This is switchable (120/240 VAC, 50/60 Hz) and is factory-set, if specified upon ordering. The forced air cooling option is available for retrofit on existing E-field generators. Contact factory for details.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Specifications

OPERATING RANGE

Withou		ed-air cooling	With forced-air cooling	
Power (watts)	Duty Cycle (percent)	On Time (minutes)	Duty Cycle (percent)	On Time (minutes)
1000	100	continuous	100	continuous
1600	50	7	100	continuous
2000	25	3	100	continuous
3000	Do not use	Do not use	50	5

FREQUENCY RANGE: 10kHz-30MHz

IMPEDANCE: 50 ohms

VSWR: 2.0:1 Max., 10kHz–15 MHz

3.0:1 Max., 15MHz-22 MHz 5.0:1 Max., 22MHz-30MHz

ELECTRIC FIELD INTENSITY: Up to 1000 volts/meter (See graph on reverse)

CONNECTORS: See Model Configurations

SIZE (W x H x D): 188 x 72 x 7.0 cm (74 x 28.3 x 2.5 in)

WEIGHT (MAXIMUM): 17 kg (38 lbs) without forced air cooling option

21 kg (46 lbs) with forced air cooling

MOUNTING PROVISIONS: UNC 1/4-20 tripod thread on 2 faces, optional tripod available

AR RF/Microwave Instrumentation

160 School House Rd Souderton, PA 18964 215-723-8181

For an applications engineer call:800.933.8181

www.arworld.us



Model Configurations and Graphs

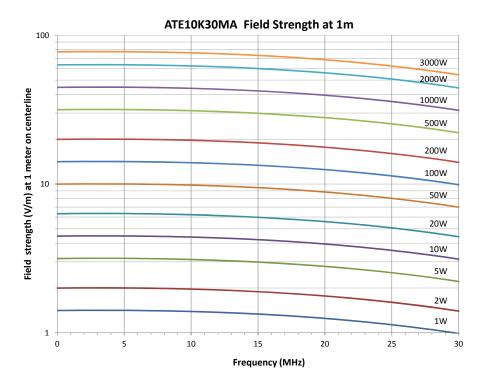
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MODEL CONFIGURATIONS

Model	Connector	Option	Power
ATE10K30MA	Type C (f)	No fan	2000W
ATE10K30MAM1	Type N (f)	No fan	2000W
ATE10K30MAM2	7-16 DIN	Fan	3000W
ATE10K30MAM3	Type C (f)	Fan	3000W
ATE10K30MAM4	SC(f)	Fan	3000W
ATE10K30MAM5	Type N (f)	Fan	3000W

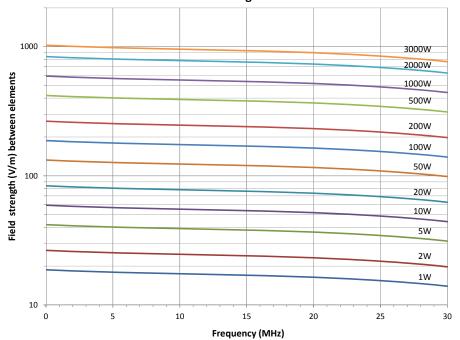


Field strengths shown are typical for free space. Proximity to conductive surfaces and the presence of the device under test will influence actual levels.

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ATE10K30MA Field Strength Between Elements



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CAUTION: HIGH VOLTAGE AND HIGH ELECTRIC FIELDS ARE GENERATED BY THIS UNIT. HUMAN DAMAGE WILL RESULT DUE TO PROXIMITY OR CONTACT. THIS FIELD GENERATOR SHOULD BE USED IN AN ADEQUATELY SHIELDED ROOM. PERSONNEL MUST NOT OCCUPY ROOM WHEN IN USE.