

Powered by **Polarity**[®]

POLA11590

A Global Leader in Power Solutions



AS 9100:2009 REV C



7kW Low Noise Microwave Tube Test Set

Ideally suited for demanding performance in today's quick turn microwave tube manufacturing environments. Built to operate 24 hours a day, 7 days a week, 365 days a year.

Power Supply

- 7kW Output ,Ek (1KV to 15KV)
- Scalable, 1 to 4 coll (10 to 80%)
- Grid modulator, FE, Heater
- Pulse and CW operation

Built-in protection

- 3 μ s electronic crowbar
- Fast peak/average body fault
- Collector to GND protection
- Output RF arc protection input

Additional Options

- Cathode modulator
- Fast warm-up heater
- High speed grid modulator
- Dual anode

Guaranteed Reliability

- 20 years of proven high voltage system designs.
- Critical components have accumulated more than 1 million hours of operation.

The POLA11590MTTS is specifically designed to meet the tube industries need for flexibility, reliability, and high voltage protection. Whether manufacturing microwave tubes or providing acceptance testing for different customer applications, Polarity has the highest value for any MTTS solution. Polarity offers custom models suited for all types of microwave tube devices (TWT, Klystron, CCTWT, CFA, and Magnetron).

Outstanding thermal design ensures reliable operation to ambient temperatures of +40deg C. The POLA11590MTTS offers a design with industry leading reliability and its design ensures rugged performance that is unmatched.

High efficiency designs meet the demands of today's complex systems and offer the ability to effectively power manage increasingly challenging requirements for microwave tube manufacturing.

Optional features are ultra high frequency grid modulator (1MHz), fast warm-up heater, FE control switch, dual anode supplies, solenoid PS, and ion pump PS.

POLA11590MTTS — Industry Leading Performance — Affordable — Proven Reliability

Performance Specifications :

Electrical

Output Power:	7000W load, depends on depression ratios
Cathode voltage:	0 to 15KV, 20KV option
Helix current:	100mA max, 2A peak
Collectors:	10 to 80% WRTC 1, 2, 3, 4, 5 (optional)
Collector current:	200mA average, 3.5A peak
Grid/FE Modulator: (optional)	Cutoff:-1500V to 0V swing Pulse top: -500V to +500V CW to 100KHz PRF Source and sink capability
Heater Supply:	60W max., 0 to 8VDC @ 8A
Line Input:	208VAC/240VAC, 50-60Hz, 3 PH
Power Consumption:	10000W (max)
Power Factor:	0.75 (min)

Protection

Built-in electronic crowbar, <3us response time
Mechanical crowbar
lw fast average fault
lw peak fault
Eg OC, Htr OC, Ek OV, Ek Arc
All fault PS faults are settable levels

Environmental

Operating Temperature	10deg C to +40deg C
Non-Operating	-20 deg C to +60deg C
Relative Humidity	95%
Altitude	
Operating	4,000 ft
Non-Operating	50,000 ft
Shock	20 g peak , 11 msec , ½ sine
Vibration	2.1 grms, 5Hz to 500Hz
Thermal	Air cooled

Mechanical

Dimensions (W x H x L)	24" Rack Mount (2ea) x 70H x 32" D
Weight	1600 lbs

Interface

Remote	Local Control— Touch Screen RS-485 (option)
Settable faults	OV,OC,UV,UC—All Power Supplies

High Voltage Output options

Potted connector
Flying leads
Breakout box

