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A Global Leader in Power Solutions



AS 9100:2009 REV C

POL500KW-SP



500KW Peak S Band Transmitter

Pulsed TWT Power Amplifier

Ideally suited for demanding performance in next generation radar systems. This high efficiency water cooled Klystron is ideal for laboratory testing environments.

RF Performance

- Frequency: 2.45GHz, 200MHz BW
- RF Output Power: 500kW-pulse/CW
- Gain: 65dB typical
- Temperature range: -40C to +50C

Built-in protection

- Output arc detector (option)
- Input isolator
- Reverse power detection
- High speed fault detection

Additional Options

- Airborne packaging
- High speed cathode modulator
- Liquid cooled
- CPU interface

Guaranteed Reliability

- Military proven high viscosity coatings and encapsulates for harsh environments
- Critical component designs have accumulated more than 1 million hours of operation.
- Data logging and analysis for cost effective maintenance

Outstanding thermal design ensures reliable operation to ambient temperatures of +50deg C. The POL500KW-SP offers a design with industry leading reliability and its power supply design ensures rugged performance that is unmatched. High efficiency multi-collector designs meet the demands of today's complex ground mobile and airborne pulsed microwave power systems.

Optional features : A proven control protocol provides serial RS232/422/485, ethernet, and advanced user friendly communication to provide data logging for cost effective maintenance and trouble shooting.

POL500KW-SP — Industry Leading Performance — Affordable — Proven Reliability

Performance Specifications : POL500KW-SP

Electrical

Frequency	2.45GHz
Instantaneous BW	200MHz
Output Power TWT Flange	500KW peak (87 dBm)
Duty	.001% to 100% max.
Input RF	0dbm minimum
Gain	87dB
Spurious	>50dB, switching freq
Modulation Frequency	Single shot to 1KHz
Modulation Pulse Width	1us to 100ms
Maximum Duty	100%, with additional PS
Sync Capability	25KHz
Input VSWR	1.3:1 max
Output VSWR	1.3:1 max
Input Voltage	480VAC, 3 phase
HV Power Supply	Includes high speed electronic crowbar to protect Klystron from internal arcs.
Interface	RS-232 /422/485 Ethernet

Environmental

Operating Temperature	-10 deg C to +40deg C
Non- Operating	-20deg C to +50deg C
Relative Humidity	95% non-condensing
Altitude	
Operating	50,000 ft
Non-Operating	70,000 ft
Shock Vibration	30 g peak , 11 msec , ½ sine 2.1 grms , 5Hz to 500Hz
Thermal	Liquid cooled

Mechanical

RF Input	SMA, female
RF Output	WR 430
RF Output Monitor	SMA , female 70dB coupling (nom)
Dimensions (W x H x L)	7" x 8" x 12"
Weight	10,500 lbs
Moun	

Mechanical Outline

