

PRODUCT SPECIFICATION SHEET

MODEL NO: PC-0455-15-1
ITEM NAME: 20 kW Oscillator
DATE: Feb 13, 2002

Frequency (tunable)	1000 MHz to 1100 MHz
Peak RF power	20 kW minimum
Pulse width range	.5 μ sec to 5 μ sec
RF output rise time	.120 μ sec, maximum
RF output fall time	.150 μ sec, maximum
RF output pulse width Variation over frequency	\pm 20 nanoseconds
Harmonics	greater than 35 dBc
Duty cycle	.002, maximum
RF output protection	to be isolator protected by an integral ferrite isolator
Frequency tuning	0.25-inch shaft with two flats (90°)
RF output connector	HN Female
Grid connector	BNC Female
Heater connector/ voltage	terminal strip / adjustable 5.0 to 6.5 V
Plate connector/ voltage, current	12-inch length from cavity body. adjustable 3500 v to 4500 v @ 30 A peak
RF Stability	
Long term	\pm 0.25 percent frequency drift in an 8-hour period at 90% duty after 10-minute warm-up over specified temperature
Short term	1 MHz maximum over any 30-sec. period after a 10-minute warm-up

Cooling	forced air-cooled, 30-CFM at sea level, pressure drop 0.5 inches. provided by integral cooling fan.
Temperature	
Operational	+55°c to -30°c
Non-operational	+65°c to -40°c
Humidity	95% at 30°c including condensation caused by temperature changes.
Fungus	the cavity shall provide no nutrients in material, coating, or containment form to support fungal growth.
Orientation	units must perform in any orientation.
Altitude	
Operational	10,000 ft.
Non-operational	35,000 ft. (no damage)
Salt Fog	the cavity oscillator shall be resistive to salt fog atmosphere.
Vibration	guaranteed to meet the requirement but no testing required. The cavity oscillator shall withstand vibration induced during vehicular transport such as might be sustained when installed within or upon a military vehicle over all types of roads and cross country terrain per figure 1 & figure 2.
Tube life	1000 hours or one year, whichever comes first. <i>Replacement of the tube and set up of the cavity is not recommended for field service. Spare cavity to be purchased and stocked.</i>

Note: *Operational characteristics depend upon grid modulator, customer supplied.*