6–18 GHz Microwave Power Module, ≥200 W

LCMPM-6000-18000-200 amplifies microwave signals over 6–18 GHz with an output of at least 200 W and 62 dB small-signal gain. Power control, monitoring and protection are integrated, with TTL and RS-422 control interfaces.



The supply is 28 V DC ±10%. Maximum power consumption is 850 W, standby consumption is 40 W and warm-up time is 180 s. The conduction-cooled module measures 357 × 180 × 45 mm and weighs 5.4 kg. RF input is SMA female; RF output is WRD650.

RF performance

Parameter	Value	Unit
Operating frequency	6–18	GHz
RF output power	≥200	W
RF input power	−3–+3	dBm
Small-signal gain	62	dB
Second harmonic level	−5 (6 GHz)	dBc
Tuning bandwidth	40	kHz
RF frequency tuning step	1	MHz
Phase consistency	±25	°
Power consistency	±1	dB

State-dependent noise power spectral density

Parameter	Value	Unit
Noise density, amplifier ON	−20	dBm/MHz
Noise density, amplifier OFF	−70	dBm/MHz

Power and control

Parameter	Value	Unit
Operating voltage	28 ±10%	V DC
Maximum power consumption	850	W
Standby power consumption	40	W
Warm-up time	180	s
High-voltage control	TTL High = ON	-
RF control	TTL Low = ON	-

Power and control

Parameter	Value	Unit
Warm-up indicator	TTL High = ON	-
High-voltage indicator	TTL High = ON	-
Alarm indicator	TTL High = ON	-
Dynamic monitoring	Helix current, cathode voltage, power monitoring	-
Control interface	TTL / RS-422	-

Environmental specifications

Parameter	Value	Unit
Operating temperature	−55–+70	°C
Storage temperature	−55–+85	°C
Maximum hot-spot temperature	+90 (Collector plate)	°C
Cooling method	Conduction cooling	-
Altitude	13650	m
Shock	15 g / 11 ms	-
Vibration	10–1000 Hz: 0.04 g^2/Hz; 1000–2000 Hz: −6 dB/oct	-

RF interfaces

Interface	Specification
RF input connector	SMA, female
RF output connector	WRD650
Power connector	JY27656T17F08PN
Control connector	JY27656T15B35P

Mechanical specifications

Parameter	Value	Unit
Dimensions	357 × 180 × 45	mm
Weight	5.4	kg

Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.