

RADITEK

SSPA 200Watts

Solid State Power Amplifier 4.95-5.05 GHz

200 Watts CW

- Amplifier should be mounted on a heat sink with forced air cooling.



Order Examples: RAMP-M-4.95-5.05-Sf-Nf-30d28V-200Wcw-d16

Description: (SSPA Module, 4.95-5.05GHz, SMA female to N female Connector, 30dB Gain, 28Volt, 200 Watts CW)

Parameter	Specifications	Units
Operating Frequency Range	4.95-5.05	GHz
Gain	30 min	dB
Max Output Power (P1)	200W CW	Watts
Output power flatness	± 0.5dB @ Pin=0dBm (over operating freq. band & operating temperature)	dB
RF input power	0 ± 2 dbm,	dBm
Max i/p power without damage	+10 dBm	dBm
Turn on time	<100	msec
Input and Output VSWR	1.5:1 max (Note: Unit shall accept a load VSWR up to 2.5:1 without damage)	:1
Pulse Width	10 to 30	µ Sec
Duty Cycle	100 max	%
Pulse Repetition Frequency	40 max	KHz
Power variation during RF pulse	< 0.8 dB @ 30 µs pulse width and 40% duty	dB
Phase drift within the	5° max (Linear) pulse (@ peak output)	
RF rise/fall Time	< 50 ns	
Transmit Gating signal (Pritrigger)	Differential pulse which precedes RF by 7µs and ends after 0.8us TTL High – ON, TTL Low -- OFF	
Remote control	RS422 / RS485	
ON OFF isolation	Better than -60	dBc
Harmonics	-20 at P1	dBc
Out of band Spurious levels	-6701 max	dBc
Phase noise	-70 dBc/Hz at 100 Hz from carrier (Input source phase noise <-80 dBc/Hz typ Amplifier should not add noise components more than 10dB)	dBc/Hz
Noise figure	<10	dB
System power supply	+28V (AC voltage option available)	VDC
Input and Output Impedance	50 Ω ±1	Ohms
Operating temperature	-40 to +70	°C
Mechanical Specifications		Units
M&C Interface RS422-DB25	a Forward & Reflected power	f. Voltage & Current of critical modules used in SSPA
	b Output VSWR	G. Forward power monitoring
	c. Duty Cycle	H. Reflected power monitoring
	e Temperature	I. Temperature health
	Protection Against Damage (to be provided)	I. Over Temperature, automatic shutdown (resets when temperature returns to normal)
	II. Over-current (automatic shutdown, requires resetting the unit to clear it)	
	III. Excess VSWR	
	IV. RF input over drive > +10dBm	
Alarms	Over temp. with auto clear; Over-current, with man. clear, VSWR, I/P Over drive	

Solid State Power Amplifier 4.95-5.05 GHz SMA to N Connector, 200 Watts Continuous Power

Mechanical Specifications		Units
Transient Protection	EMI/RFI Filter, Suitable surge protection to be provided	
Type of Package	Module 12" x 7" x 3.5"	Inches
Mounting arrangement	Horizontal	
Cooling	Forced Air	
Weight	<14 Lbs max	Lbs
Interfacing connectors		
Control interface	D38999 SERIES III Circular connector	
RF Input RF Output sample	SMA Female	
RF output	N-Female Panel mount	
DC Line	D38999 SERIES III Circular connector	
Front Panel Control & Indicators	LED indication to be provided for power ON and RF power o/p.	
Finish & Paint	Alodine	
General notes	Power and Signal connectors have mating caps with metallic bead chain.	
Environmental & EMI/EMC	Mil std 461F (Designed to meet but not tested)	

