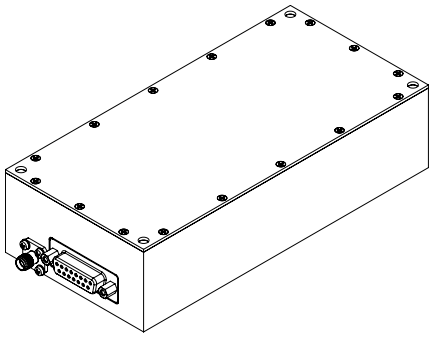
HFPA100
100W HF AMPLIFIER MODULE

DS v3.0 6/23

FEATURES

- Minimum 100W RF Power (P1dB)
- Operates on HF Band
- Analog Readings
  - Forward Power
  - Reflected Power
  - Temperature
  - Current
- High Reflected Shut down
- High Temperature Shut down



Applications

Medical Devices
Science
Industrial Applications

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter		Specification	Notes
Operating Frequency Range		0.5 - 20 MHz	
Power Output		100 Watt Min P1dB	CW
Gain		>27 dB	
Power Gain Flatness		3.0 dB p-p Max	
Input Return Loss		-10 dB Max	50 Ohm
Harmonics	H2	-40 dBc Typ	80W, CW 10MHz
	H3	-28 dBc Typ	80W, CW 10MHz
Spurious		-60 dBc Typ	Non-harmonics
2-Tone Intermodulation IMD3		-30dBc Typ	44dBm/Tone, Δ = 1kHz , 10Mhz
Operating Voltage		45 – 52VDC 48V Typ	
Power Consumption		200 Watt Max	At rated Pout Efficiency >52%
Max Input Power		25 dBm	<10 Sec without damage
Max Output SWR		2:1 Full performance	5:1 no damage
Enable /Dis		TTL logic	Enable = Low, Open
Temperature monitor		T = (Vt (mV)-1000)/20	Analog Vt =20mV/°C +1000
Current monitor		I = Vc(mV)*2	Analog 5mV / 10mA
Monitoring		FWD,REF,TEMP,CURRENT	Analog 1kΩ
Protection		TEMP,SWR	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Ambient Temperature	0 to +50 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

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MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions L x W x H	165 x 80 x 41.5 mm	Enclosure
Weight	650g	
RF Connectors In/Out	SMA/SMA	
I/O Connectors	D SUB15	
DC IN Connectors	D SUB15	
Metals	Aluminum CNC	

CONNECTORS PIN OUT

Pin	Function	Description
1,2,9,10	DC IN +48V Positive	in
3,5,11,15	DC IN MAIN GND Negative	in
4	Forward Power	Analog out
6	Reflected Power	Analog out
12	Temperature monitor	Analog out
13	Current monitor	Analog out
14	Dis/Enable Amplifier	Low =Ena
7	Fault Output –High Temperature Act=Low	open collector
8	Fault Output –High Reflected Power Act=high	

MECHANICAL OUTLINE mm