

HXPA1291G-20W Power Amplifier

1. Description

ID	Items	Specifications
1-1	Type	Power Amplifier
1-2	Frequency Range	6GHz ~ 18GHz
1-3	Gain	$\geq 50\text{dB}$
1-4	Gain Flatness	$\leq \pm 3.0\text{dB}$
1-5	Saturated Output Power(Psat)	43dBm Typical
1-6	Output 1dB Compression Point(P1dB)	/
1-7	Input VSWR	≤ 2.0
1-8	Isolation S12	$\geq 70\text{dB}$
1-9	Spurious	$\leq -60\text{dBc}$
1-10	Harmonics	-12dBc Typical
1-11	Noise Figure	$\leq 4.0\text{dB}$
1-12	Impedance	50 Ω
1-13	Input/Output Connectors	SMA-F
1-14	Control Connector	DB9-Male
1-15	DC Power Supply	+28V/ $\leq 3.5\text{A}$
1-16	Efficiency@Psat	25% Typical

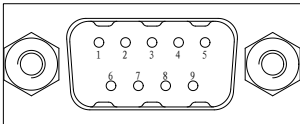
2. Absolute Maximum Ratings

ID	Parameter	Rating
2-1	Operating Voltage	+28V ~ +30V
2-2	RF Input Power	$\leq 5\text{dBm}$
2-3	Include voltage protection, current protection and temperature protection	

3. Environmental Specifications

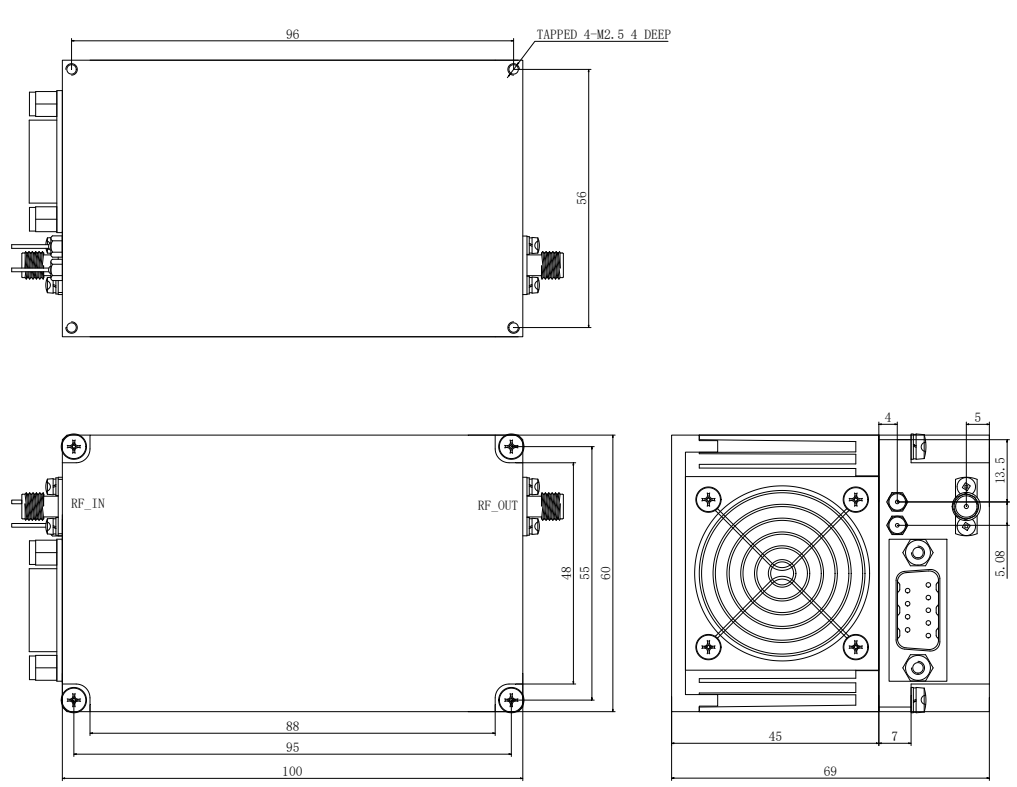
ID	Items	Specifications
3-1	Application Environment	CW/PL
3-2	Operational Temperature	-40°C ~ +70°C
3-3	Storage Temperature	-55°C ~ +85°C

4. Interface

ID	Items	Specifications
4-1	Control Connector	DB9-Male
		

4-2	NO	Specifications
	1,2,3,4	28V/DC
	5,6,7,8	GND
	9	TTL(0V=OFF/3.3V ~ 5V=ON)

5. Outline Drawing

ID	Items	Specifications
5-1	Outline Drawing	Unit: mm
Tolerances: $\pm 0.5\text{mm}$  The drawing includes three views: a top view showing a rectangular shape with dimensions 96mm (width) and 56mm (height), and a note 'TAPPED 4-M2.5 4 DEEP'; a side view showing a rectangular shape with dimensions 88mm (width), 95mm (height), and 100mm (depth), and labels 'RF_IN' and 'RF_OUT'; and a front view showing a circular fan-like structure with dimensions 45mm (width), 69mm (height), and 7mm (depth), and labels '4', '5', '13.5', and '5.08'.		
5-2	Material	Aluminum
5-3	Finish	Aluminum conductive coating
5-4	Weight	160g

6. Attention

6-1	Avoid damage amplifier, should be take the ESD protection during use .
6-2	Avoid using amplifier in extreme temperature, humidity, or corrosive environments.
6-3	Good grounding can reduce EMI and RFI.
6-4	Adding an isolator to the RF_OUT port can avoid damage amplifier by power reflection.
6-5	Ensure proper heat sinking of the power amplifier to preclude damage caused by excessive temperature rise during prolonged operation.
6-6	All specifications are subject to change without notice at any time.