

Hermetically Sealed Low Noise Amplifier 4GHz~8GHz



Note: The photo is for illustration purposes only.
Please refer to outline drawing

Features

- Gain: 22dB Typical
- Noise Figure: 1.4dB Typical
- P1dB Output Power: +17.5dBm Typical
- Supply Voltage: +10V

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

Electrical Specifications, $T_A = +25^{\circ}\text{C}$, $V_{CC} = +10\text{V}$

Parameter	Min.	Typ.	Max.	Units
Frequency Range	4		8	GHz
Gain	20	22		dB
Gain Flatness		± 1.0		dB
Gain Variation Over Temperature ($-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$)		± 1.5		dB
Noise Figure		1.4	2.0	dB
Input VSWR		1.5		: 1
Output VSWR		2.0		: 1
Output 1dB Compression Point (P1dB)	15	17		dBm
Saturated Output Power (Psat)		20		dBm
Output Third Order Intercept (OIP3)		28		dBm
Supply Current ($V_{CC}=+10\text{V}$)		75		mA
Isolation S12		-25		dB
Weight	/			ounces
Impedance	50			Ohms
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Package Sealing	Hermetically Sealed (Laser Sealed)			

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Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	+37dBm(Pulsed,10%DC,10us PW,25°C)

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +10V biasing
Power OFF Procedure	
Step 1	Turn off +10V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

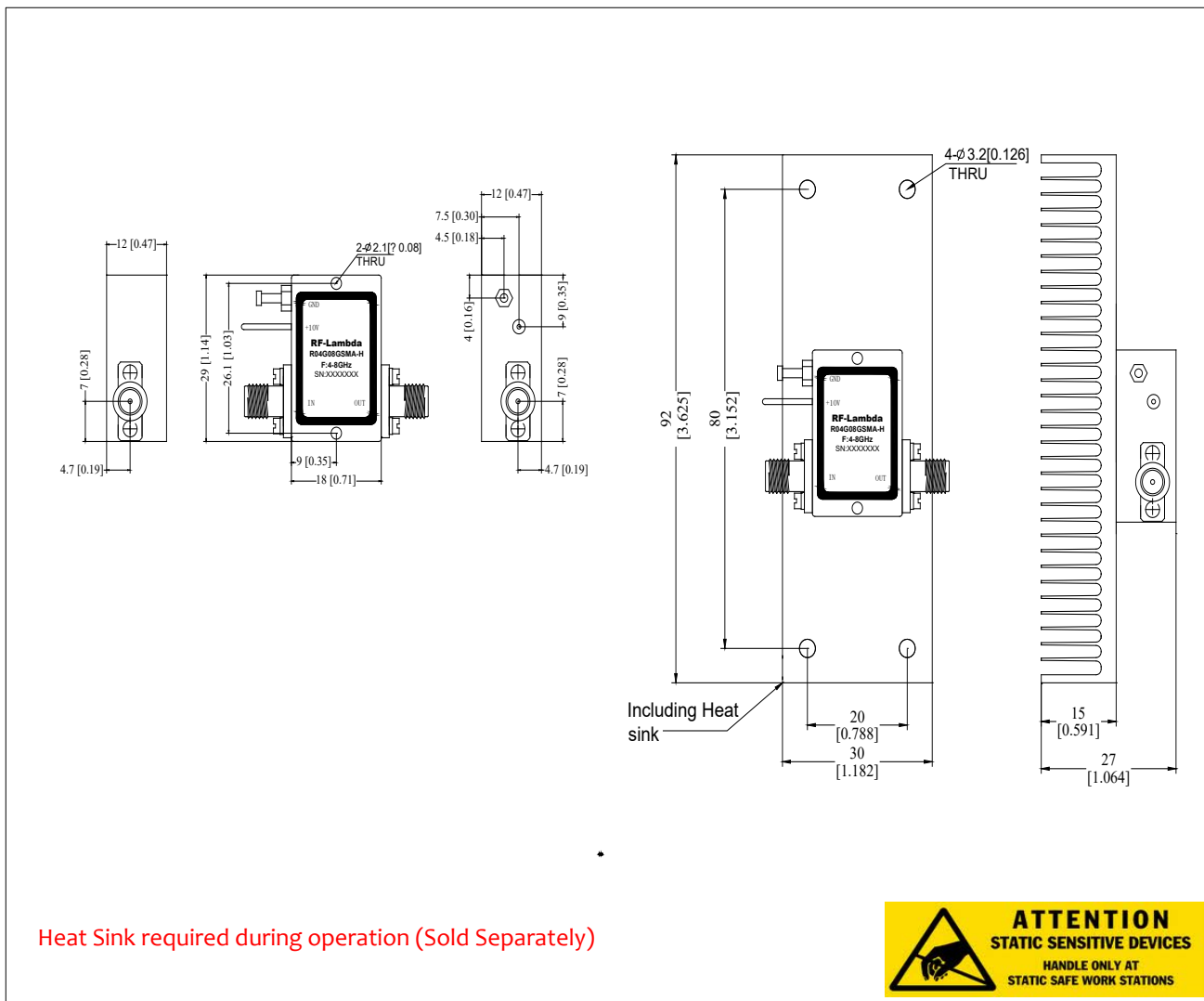
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

Outline Drawing:

All Dimensions in mm [inches]

Housing Tolerances ± 0.1 [0.004]



Ordering Information

Part No.	Description
R04Go8GSMA-H	4-8GHz Low Noise Amplifier

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