



### WR28 Low Noise Amplifier 26.5GHz ~ 40GHz

#### Features

- Gain: 48dB Typical
- Noise Figure: 3.5dB Typical
- P1dB Output Power: +21dB m Typical
- Supply Voltage: +12V
- 50 Ohm Matched

#### Typical Applications

- Wireless Infrastructure
- RF Microwave & VSAT
- Military & Aerospace
- Test Instrument
- Fiber Optics



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Electrical Specifications,  $T_A = +25\text{ }^\circ\text{C}$ ,  $V_{CC} = +12\text{V}$

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	26.5		32	32		40	GHz
Gain	45	48		40	45		dB
Gain Flatness		±2.0			±3.0		dB
Gain Variation Over Temperature(-45 ~ +85)		±1.5			±1.5		dB
Noise Figure		3.0	4.5		3.4	4.5	dB
Input VSWR		2.2			2.5		: 1
Output VSWR		2.2			2.5		: 1
Output Power for 1 dB Compression (P1dB)	18	21		16	20		dBm
Saturated Output Power (Psat)		23			21		dBm
Output Third Order Intercept (IP3)		30			28		dBm
Isolation S12		-60			-60		dB
Supply Current (Idd) (Vcc=+12V)		420	500		420	500	mA
Weight	/						ounces
Impedance	50						Ohms
Input / Output Connectors	WR28						
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness						
	Option: Gold 80 micron; Nickel 180 micron thickness						
Material	copper						
Package Sealing	Epoxy Sealing						



### Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	-20dBm

### Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

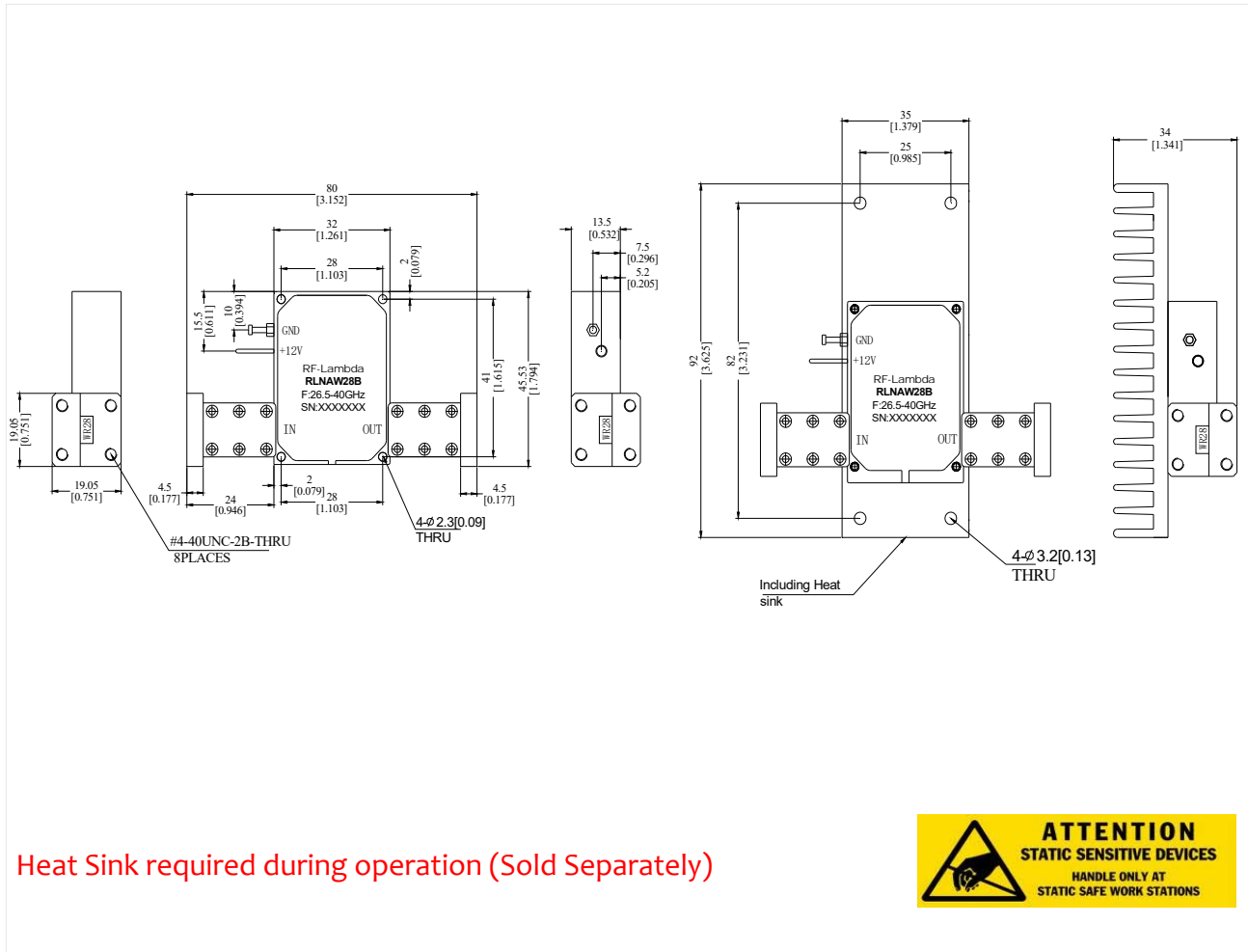
### Environmental Specifications

Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions



### Outline Drawing:

All Dimensions in mm [inches]



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### Ordering Information

Part No.	ECCN	Description
RLNAW28B	EAR99	26.5-40GHz WR28 Low Noise Amplifier

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