



WR42 Low Noise Amplifier 18GHz ~ 26.5GHz

Features

- Gain: 60dB Typical
- Noise Figure: 3.0dB Typical
- P1dB Output Power: +15dB m Typical
- Supply Voltage: +12V
- 50 Ohm Matched

Typical Applications

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



WR42 Low Noise Amplifier 18GHz ~ 26.5GHz

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

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	18		26.5				GHz
Gain	50	60					dB
Gain Flatness		±2.5					dB
Gain Variation Over Temperature(-45 ~ +85)		±1.5					dB
Noise Figure		2.5	4.0				dB
Input VSWR		2.5					: 1
Output VSWR		2.5					: 1
Output Power for 1 dB Compression (P1dB)	12	16					dBm
Saturated Output Power (Psat)		18					dBm
Output Third Order Intercept (IP3)		26					dBm
Isolation S12		-70					dB
Supply Current (Idd) (Vcc=+12V)		260	350				mA
Weight	/						ounces
Impedance	50						Ohms
Input / Output Connectors	WR42						
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 (+12v)	-45dBm

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

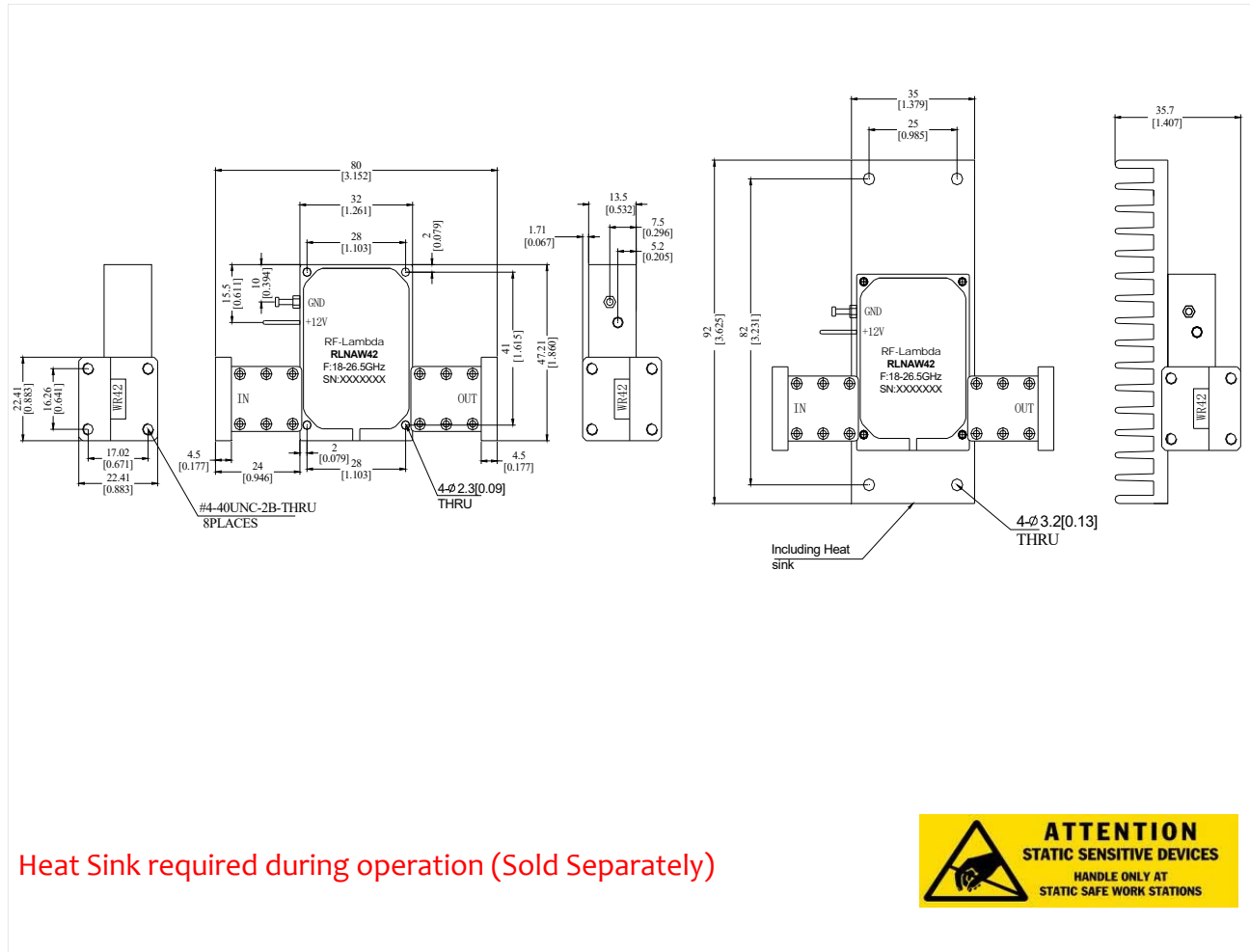
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C,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

WR42 Low Noise Amplifier 18GHz ~ 26.5GHz



Outline Drawing:

All Dimensions in mm [inches]



Ordering Information

Part No.	ECCN	Description
RLNAW42	EAR99	18-26.5GHz WR42 Low Noise Amplifier

Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information.

RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.

WR42 Low Noise Amplifier 18GHz ~ 26.5GHz