



Low Noise Amplifier 20GHz~43.5GHz

Features

- Gain: 45dB Typical
- Noise Figure: 3.0dB Typical
- P1dB Output Power: +22dBm Typical
- Supply Voltage: +12V / 280mA



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	26		40	20		43.5	GHz
Gain	35	42		30	40		dB
Gain Flatness		±3.0			±7.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.25			±1.5		dB
Noise Figure		3.0			3.5		dB
Input VSWR		1.8			2.0		: 1
Output VSWR		1.8			2.0		: 1
Output 1dB Compression Point (P1dB)	18	22		12	21		dBm
Saturated Output Power (Psat)		23.5			23.5		dBm
Output Third Order Intercept (OIP3)		25			25		dBm
Supply Current (Idd) (Vcc=+12V)		280	350		280	350	mA
Isolation S12		-55			-55		dB

Weight	1.45 ounces(Max.)	Impedance	50ohms
Input /Output Connectors	2.92mm-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	-1dBm

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	-40°C~+85°C
Storage Temperature	-50°C~+105°C
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)

Tolerances $\pm 0.1(0.004)$ (Excl heatsink)

Heat Sink required during operation(Sold Separately)

