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Q-Band LNA (without Isolator)

Description

Our new Q-Band low noise amplifier (LNA) from Orbital Research provides bandwidth of 5.0 GHz for commercial and military SATCOM applications.

Designed primarily for satellite teleports and gateways, telemetry, tracking and command applications (TT&C), and airborne terminals, this wideband amplifier offers exceptional performance and data throughput.

Features

- High gain
- Low noise figure < 2.5 dB for excellent signal to noise ratios
- Superb gain flatness
- Excellent VSWR performance
- Ultra wideband frequency

Applications

The Orbital Q-Band LNA can be used for both military and commercial satellite communication applications, including large earth stations, LEO and SATCOM-on-the-Move (SOTM) applications.

ISO 9001:2015-certified QMS

Specifications

FREQUENCY RANGE	
RF Frequency Band (GHz)	37.5 to 42.5 GHz
Bandwidth MHz	5000
Noise Figure	2.3 @ 23C

VSWR	
Input	2.0:1
Output	2.0:1typical

GAIN	
Gain (dB)	40
Flatness	+/- 2dB over whole band
Ripple	+/- 2.5 dB over 1 GHz
Stability	+/- 2.0 dB over temperature

OTHER SPECS	
Image Rejection	> 40 dBc max
1 dB Compression	+5 dB min
OIP3	+15 dBm min
Overdrive Power Level (Non- Damaging)	-20 dBm

ENVIRONMENTAL	
Operating Temp	-40°C to +60°C
Non-Operating Temp Range	-40C to +80C
Humidity	100% condensing
MTBF	> 125,000 hours
Standards	MIL-STD-810F for vibration, IP67, RoHS and REACH

POWER	
Current Draw	85 mA at 12 VDC
Input Voltage Range	+12 to +24 VDC

MECHANICAL	
Weight (grams)	400
Length (mm)	145
Width (mm)	70
Depth (mm)	40
Input Connector	WR-22
Output Connector	WR-22

RoHS COMPLIANT

intertek

CE

v.240311