

ITAR FREE Ka-BAND SSPA 16W

SSPA-290-310-011

29 GHz - 31 GHz



Description

This ITAR-FREE Ka-Band Solid State Power Amplifier (SSPA) is designed to meet the extended Ka-Band Satcom bands and is ideally suited for airborne or SWaP applications where size weight and power are critical.

The unit produces over 10 W of Linear power over the full 2 GHz bandwidth from 29 to 31 GHz. Internal monitor and control includes over temperature alarm and transmit enable function.

With a total weight of 1.36 lbs and approx size of 5" x 3.6" x 0.96" the unit is ideal for todays integrated light weight Ka-Band terminals.

Other Products

Low Noise Block Converters (Ku & X-Band)
Block Up Converters (Ku & X-Band)
Low Noise Amplifiers (Ku & K-Band)
Solid State Power Amplifiers (X, Ku & Ka-Band)
Synthesizers (L, C or X-Band)

Features:

Small Size Weight and Power
Includes Forward Power Monitoring
Wide Input Voltage Range
High Speed Blanking
Operates over 29 to 31 GHz
Electronic Gain Control
Internal Built in Test Alarm
Hermetically Sealed
Optimized for Linear Power
ITAR-FREE



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Everywhereyoulook™

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Specifications:

Parameter	Value	Parameter	Value
Operating Frequency Range	29 to 31 GHz	Modulation Defined As:	QPSK/0QPSK, RRC Filter, Alpha = 0.20, 10 Msps.
Operating Temperature Range	-55 to +70 °C	Spectral Regrowth Measured At:	1.0X symbol rate (or 10 MHz offset from center frequency)
Small-Signal Gain Range (Electronically Controlled)	33 dB to 53 dB	Value:	-30 dBc
PLinear	@ +25C +40 dBm (10 W) min @ +70C +39.55 dBm (9 W) min	Noise Figure	12 dB @ Max Gain 18 dB @ Min Gain
P1dB	@ +25C +42.0 dBm (16 W) min @ +70C +41.5 dBm (14 W) min	Noise Power Density (29 - 31 GHz)	-60 dBm/Hz max
DC Power Consumption	100 W max @ Linear Power	Noise Power Density (19.2 - 21.2 GHz)	-140 dBm/Hz max
DC Supply Voltage Range	+20 to +36 VDC	Humidity	100%
RF Input Connector	2.92mm (f)	Size	5" X 3.6" X 0.96"
Output Waveguide Flange	WR-28 with O-ring Groove	Weight	1.36 lbs max
DC Supply & Monitor / Control Connector	25 pin Ni Hermetic Connector		
Tx Enable	<1 mS		
Input VSWR	1.5:1		
Output VSWR	1.7:1		
Spurious	18.3 - 21.2 GHz -60 dBc In-Band -60 dBc		
Harmonics	-20 dBc		
Max RF Input Power	+11 dBm		

