



The SpacePath Communications powered by GaN technology series are *revolutionary in size, weight and power density*. This series offers superior performance in an extremely compact package that can fit in your palm! Weighing at only 3.8KG, our feature-rich GaN SSPA is exceptionally powerful for its size: up to 25W PSAT. Built in power supply provides the customer with the simplest and least expensive plug-into-the wall solution. SpacePath Communications GaN series features best in class RF characteristics, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. This series remarkably small size and low power consumption results in better heat extraction that leads to overall system size and cost reduction making it the ideal candidate for portable, mobile and VSAT on the move applications. Its small size and weight allows direct feed horn mounting, which makes it a most economical solution for fixed VSAT applications.

### Options

- Available in **RUGGEDIZED** version—from -50 to +65 °C ambient temperature
- Internal / Autosense 10MHz reference
- True RMS detector
- Bluetooth M&C Interface
- Built in auto-ranging AC power supply
- Antenna Mounting Kit

### Features

- Up to 25W Output Power in this super compact light weight package 16.5x19x10.5cms
- Only 220W power consumption at 25W output

- Superior RF performance
  - Phase noise 6dB better than IESS308/309
  - High Linearity
  - Wide Dynamic range of Gain Control
- Configuration via packet protocol RS-485—User Friendly HTTP based GUI and SNMP optional
- Redundant ready with no external controller required
- Status LED
- Field Upgradable software
- 48VDC isolated power supply
- 8-25W Power level available in GaN versions
- SSPA or BUC versions available

## 8W - 25W L to DBS-Band Block-Up-Converter Specification

Parameter		
<b>RF Performance</b>		
RF Frequency Ranges-Available in/switched		17.3-18.1GHz 17.3-18.4GHz
IF Frequency Range		950-1750MHz 950-2050MHz
LO Frequency		16.35GHz Single Conversion; non-inverting
Conversion Gain		72dB min, 75dB typ.
Gain Flatness		+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz
Gain Stability		+/-1.5dB over full temperature range
Gain Control		20dB min dynamic range with 0.1dB step
External Reference Frequency		10MHz multiplexed with IF In
External Reference Required Phase Noise		-130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100kHz
Up-Converter Phase Noise		-70dBc/Hz @ 100Hz -80dBc/Hz @ 1kHz -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz
Linearity:	2 tone IMD	-24dBc at Plinear
	Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at Plinear
Noise Power Density:	Transmit Band	-85dBm/Hz max
	Receive Band	-140dBm/Hz max
Output Spurious:	Non-signal related	-60dBc
	Signal related	-55dBc
<b>Power</b>		
48VDC Voltage Range /		36-72VDC Isolated
28VDC Voltage Range (Optional)		24-75VDC Isolated
AC Voltage Range (Optional)		90-265VAC 50-60Hz Auto-Ranging
<b>Mechanical</b>		
Size		16.5x19x10.5cms
Weight		3.8KG
Cooling		Forced Air
Operating temperature		-40°C to +55°C
Relative Humidity		Up to 100% condensing
<b>Interfaces</b>		
IF Input Connector		N-type female
RF Output Connector		WR62 grooved
Power In		MS3112E12-3P
RS485-RS232-Ethernet-SNMP		MS3112E14-19S

SpacePath Part Number	Output Power (W)	P <sub>sat</sub> (dBm)	P1dB (dBm/W)	Plinear (dBm/W)	P Cons at Prated	P Cons at Plin	GaN
STS8DB	8W	39	N/A	36/4	90W	75W	GaN
STS16DB	16W	42	N/A	39/8	135W	110W	GaN
STS25DB	25W	44	N/A	41/12	220W	190W	GaN