



SpacePath Communications STS1000C series offers the World's Smallest, Lightest, Powerful and Linear GaAs Powered 1000W C-Band SSPA / BUC available on the market today.

This series allows significant high power Solid State Power Amplifier / Block Up Converter size and weight reduction and at the same time substantially improves thermal efficiency, which leads to higher reliability and longer MTBF. That's why SpacePath Communications offers 3 years warranty for this product line!

Using patent pending Z-combining method and advanced GaAs technology this new SpacePath Communications 1000W C-Band SSPA/ SSPB / BUC has truly outstanding power density - up to 1000W Psat in this super compact 58x38x30cm package weighing 72KG.

This series features best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces.

1000W C-Band series remarkably compact size and high thermal efficiency results in overall system size and cost reduction making it the ideal candidate for mobile and fixed applications.

Options

- Internal / Autosense 10MHz Reference
- Automated Level Control (ALC)
- BUC or SSPA
- Antenna Mounting Kit
- External Rackmount Remote M&C Panel
- Switchable LO - Standard and Full C-Band in one Unit

Features

- Extremely High Power Density—Up to 1000W PSAT in 58x38x30cms
- Available in Standard and Full C-Band
- RF Overdrive Protection

- Superior RF Performance
 - Phase noise 8-10dB better than IESS308/309
 - P1dB up to 58dBm
 - Spurious below -60dBc
 - Wide dynamic range of Gain Control
 - High Linearity
- Configuration via RS-232 serial console, packet protocol RS-485—User friendly HTTP based GUI and SNMP
- Redundant Ready— No External Redundancy Controller Required
- Status LED
- Field Upgradable Software
- Input and Output True RMS Power Detection

1000W C Band Block-Up-Converter GaAs Specification

Parameter	1000W
RF Performance	
RF Frequency Range-Available in/switched:	5.850-6.425GHz
IF Frequency Range	950-1525MHz
LO Frequency	4.9 GHz
Conversion	Single Conversion; non-inverting
Output power P1dB	59dBm / 800W typ.
Output power Psat	60dBm / 1000W typ.
Conversion Gain	75dB min, 77dB typ.
Gain Flatness	+/-1dB typ. +/-1.5dB max over full band; +/-0.5dB max over any 40MHz
Gain Stability over temperature	+/-1.5dB over full temperature range
Gain Stability over input power	3dB typ. 4dB max from 10dB back off to rated power
Gain Adjust, dB	20 dB in 0.1 dB steps
NOISE POWER Transmit Band , dBm/Hz	-70 dBm/Hz
External Reference Frequency	10MHz multiplexed with IF In
External Reference Required Phase Noise	-130dBc/Hz @ 100Hz; -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100 kHz
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at 3 dB BO combined power from P1dB; -30dBc for QPSK at 1.5xsymbol
Output Spurious: Non-signal related	-60dBc
Signal related	-55dBc
Power	
AC Voltage Range	190-265VAC 50-60Hz Auto-Ranging PFC
Power Consumption at rated power	4000W
Power Consumption at 3 dB back off	3500W
Mechanical	
Size	58x38x30cms
Weight	72KG
Cooling	Forced Air
Operating temperature	-50°C to +55°C
Relative Humidity	Up to 100% condensing
Interfaces	
IF Input Connector	N-type female
RF Output Connector	WR137 grooved
RF MONITOR PORT	N-type female
AC Power In	MS3112E12-3P
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S
Redundant Interface	MS3112E14-19P