



STS500/1000TR Troposcatter GaN Powered BUC / SSPA

The SpacePath Communications 500W to 1000W Troposcatter series are very compact, lightweight and extremely powerful. Weighing only 34KG at 500W and 57KG at 1000W output power, this series is the most powerful and feature rich for its size.

Smaller, lighter and more Powerful, this series allows significant high power BUC / SSPA 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 GaN technology this new SpacePath Communications 1000W Tropo SSPA/SSPB / BUC has truly outstanding power density - up to 1000W Psat in this super compact 58x38x30cm package weighing only 49KG.

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.

The 1000W Tropo 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

Features

- Extremely High Power Density—500W PSAT in 45x34x26cms & 1000W PSAT in 58x38x30cms
- RF Overdrive Protection
- Input and Output True RMS Power Detection

- Superior RF Performance
 - Phase noise 8-10dB better than IESS308/309
 - Psat up to 60dBm
 - 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

500W to 1000W Troposcatter Block-Up-Converter GaN Specification

Parameter						
RF Performance						
RF Frequency Range	4.4-5.0GHz					
IF Frequency Range	950-1550MHz					
LO Frequency	3.45GHz					
Conversion	Single Conversion; Non-Inverting					
Conversion Gain	75dB min., 78dB 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 Control	20dB min dynamic range					
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 P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear+1dB					
Output Return Loss	-19dB max					
Output Spurious: Non-signal related	-60dBc					
Signal related	-55dBc					
Power						
AC Voltage Range	180-265VAC 50-60Hz; PFC					
Environmental						
Cooling	Forced Air					
Operating temperature	-40°C to +55°C					
Storage Temperature	-50°C to +75°C					
Relative Humidity	Up to 100% condensing					
Interfaces						
IF Input Connector	N-type female					
RF Output Connector	CPR187 grooved					
RF Sample	N-type female					
AC Power In	3 pin MS style					
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S					
Redundant Interface	MS3112E14-19P					
SpacePath Part Number	Prated(dBm/W)	Plinear(dBm/W)	P Cons at Prated	P Cons at Plin	Size	Weight
STS500TR1-OPTxx*	57/500	54/250	2600W	2100W	45 x 34 x 26cms	75lbs/34kg
STS1000TR1-OPTxx*	60/1000	57/500	3750W	3200W	58 x 38 x 30cms	125lbs/57kg

* xx To be replace by 2 digit code based on configuration

Specifications are subject to change without notice