

Rack Mount GaN Powered BUC



The SpacePath Communications Intelligent Power Block-Up Converter Series is smaller, lighter and more powerful 400W/600W C-Band Rack Mount BUC. This series allows significant size and weight reduction and at the same time substantially improves thermal efficiency, which leads to higher reliability and longer MTBF.

Using patent pending Z-combining method and advanced GaN technology, this series has truly outstanding power density - up to 600W Psat in 5RU light compact package.

SpacePath Communications 400W/600W C-Band Rack Mount BUC 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. Redundant truly hot swappable power supply gives even higher overall reliability.

SpacePath Communications offers 3 years warranty for this product line!

Options

- Input and Output RF sample ports
- Automatic Level Control (ALC)
- Available in different frequency options

Features

- Extremely high power density - up to 600W PSAT in 19" Rackmount, 5RU only!
- Superior RF performance:
 - High Linearity
 - PSAT up to 58 dBm
 - Wide dynamic range of Gain control

- RF Overdrive Protection
- Field upgradable software
- Redundant Hot Swappable Power Supply
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP
- User friendly front panel with menu driven display
- Redundant Ready - No external redundancy controller required
- Built-in power metering
- Full VSWR protection

STSR Series 400W-600W C-Band Rack Mount BUC Specification

Parameter	C-Band				
RF Performance					
RF Frequency Range-Available:	5.85-6.425GHz (other options available)				
VSWR	1.3:1				
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 Control	20dB min dynamic range				
AM-PM Conversion	1°/dB max. @ PLinear				
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at PLinear -30dBc for QPSK at 1.5xsymbol rate at PLinear				
Noise Power Density: Transmit Band Receive Band	-70dBm/Hz max -145dBm/Hz max				
Output Spurious: Non-signal related Signal related	-65dBc -60dBc				
Harmonics @P Linear	-55dBc				
Group delay	Linear: ±0.03 ns/MHz max. Parabolic: ±0.003 ns/MHz ² max. Ripple: 1.0 ns peak-peak max.				
Power					
AC Voltage Range	190-265VAC 50-60Hz auto-ranging PFC				
Environmental					
Cooling	Forced Air				
Operating temperature	0°C to +55°C				
Relative Humidity	Up to 99% non-condensing				
Interfaces					
IF Input Connector	N-type female rear panel				
RF Output Connector	CPR137 grooved rear panel				
RF Sample	N-type female front panel				
AC Power In	NEMA Connector rear panel				
M&C Interface-Serial, Analog and Ethernet	DSUB Connectors, RJ45 rear panel				
IRT Part Number	Prated(dBm/W)	Plinear (dBm/W)	P Cons at Prated	P Cons at Plin	RU
C-BAND					
STSR 400C	56/400	53/200	2000W	1800W	5RU
STSR 500C	57/500	54/250	2500W	2200W	5RU
STSR 600C	58/600	55/300	3000W	2800W	5RU

Specifications are subject to change without notice