

IRT Rack Mount SSPA

The IRT Rack Mount Block-Up Converter Series is smaller, lighter and more powerful 50W-500W Ku-Band and 100W-800W C-Band Rack Mount BUC / SSPA.

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.

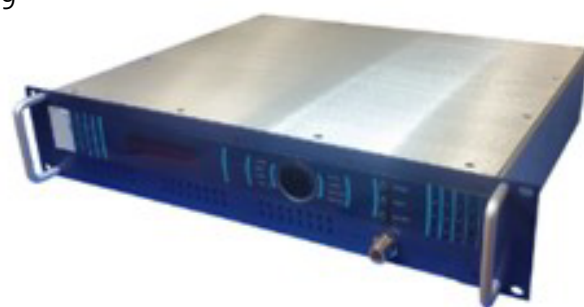
The new series powered by GaN technology 50W -800W BUC/SSPA are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology the new 50W - 500W Rack Mount BUC / SSPA has truly outstanding power density - up to 500W Ku-Band Psat in 5RU and up to 400W C-Band Psat in 4RU light compact package. The 50W - 800W Rack Mount BUC / SSPA 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.

Options

- Internal 10MHz reference (BUC)
- 10MHz reference auxiliary output (BUC)
- Input and Output RF sample ports
- Automatic Level Control (ALC)

Features

- Extremely high power density - up to 800W C-Band
- PSAT in 19" Rackmount, 6RU only!
- Extremely high power density - up to 500W Ku-Band PSAT in 19" Rackmount, 5RU only!
- Superior RF performance:
 - o Phase noise 5-8dB better than IESS308/309
 - o High Linearity
 - o PSAT up to 57 dBm Ku-Band and up to 59dBm in C-Band
 - o Wide dynamic range of Gain Control
- RF Overdrive Protection
- 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



RF Parameters		
	C-Band	Ku-Band
RF Frequency Ranges-Available in/switched	5.85-6.425GHz (other options available)	14-14.5GHz 13.75-14.50GHz
IF Frequency Range (BUC)	950-1525MHz (other options available)	950-1700MHz
LO Frequency C/Ku	4.9GHz/12.8GHz Single Conversion; non-inverting	
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	+/-1.0dB over full temperature range	
Gain Control	20dB min dynamic range	
Up-Converter Phase Noise	-68dBc/Hz@ 100Hz -80dBc/Hz@ 1kHz -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz	
Linearity:	2 tone IMD	-24dBc max at Plinear
	Spectral Re-growth	-30dBc for QPSK at 1 x symbol rate at P linear
Output Spurious:	Non-signal related	-65dBc
	Signal related	-60dBc

Power & Mechanical	
AC Voltage Range	190-265VAC 50-60Hz Auto-Ranging PFC
Cooling	Forced Air
Operating Temperature / Relative Humidity	0°C to +50°C / Up to 99% condensing

Interfaces	
IF Input Connector	N-type female rear panel
RF Output Connector	CPR137/ WR75 grooved rear panel
RF Sample	N-type female front panel
AC Power In	NEMA Connector rear panel
M&C Interface-Serial, Analog, Ethernet	DSUB Connectors, RJ45 rear panel

Part Number	Prated (dBm / W)	Plinear (dBm / W)	P Cons at Prated	P Cons at Plin	RU
C-Band					
STSR100CC1	50 / 100	47 / 50	400W	320W	3RU
STSR200CC1	53 / 200	50 / 100	1000W	750W	3RU
STSR250CC1	54 / 250	51 / 125	1600W	1350W	4RU
STSR300CC1	55 / 300	52 / 150	1800W	1600W	4RU
STSR400CC1	56 / 400	53 / 200	2000W	1800W	4RU
STSR800CC1	59 / 800	56 / 400	4000W	3200W	6RU
Ku-Band					
STSR50KU1	47 / 50	44 / 25	300W	260W	2RU
STSR100KU1	50 / 100	47 / 50	600W	520W	3RU
STSR125KU1	51 / 125	48 / 60	650W	540W	3RU
STSR200KU1	53 / 200	50 / 100	1100W	800W	4RU
STSR250KU1	54 / 250	51 / 125	1500W	1200W	5RU
STSR300KU1	55 / 300	52 / 150	2000W	1700W	5RU
STSR400KU1	56 / 400	53 / 200	2300W	2000W	5RU
STSR500KU1	57 / 500	54 / 250	2500W	2200W	5RU