



IRT Rack Mount 1800W C-Band SSPA / SSPB

The IRT 1800W C-Band Rack Mount SSPA/SSPB is 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.

The new IRT powered by GaN technology 1800W BUC/SSPA Series are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology this series has truly outstanding power density up to 1800W C-Band Psat in 10RU light compact package.

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. Redundant truly hot swappable power supply gives even higher overall reliability.

Options

- Internal 10MHz reference (BUC)
- 10MHz reference auxiliary output option (BUC)
- Input and Output RF Sample port
- Automatic Level Control (ALC)



Features

- Extremely high power density up to 1800W C-Band PSAT in 19" rackmount, 10RU only!
- Superior RF performance:
- o Phase noise 5-8dB better than IESS308/309
- o High Linearity
- o PSAT up to 62.5 dBm
- o 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 1800C

RF Parameters						
		Std. C-Band	Ext. C-Band			
RF Frequency Range		5.850-6.425GHz	5.850-6.725GHz			
IF Frequency Range (BUC)		950-1525MHz	950-1825MHz			
LO Frequency C		4.9GHz; Single Conversion; non-inverting				
Saturated Power		62.5dBm/1800W typ				
Linear Power		59.5dBm min				
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 at P linear				
	Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at Plinear				
Output Spurious:	Non-signal related	-65dBc				
	Signal related	-60dBc				

Power & Mechanical				
AC Voltage Range	190-265VAC 50-60Hz Auto-Ranging PFC			
Size	10RU			
Weight	89KG			
Cooling	Forced Air			
Operating Temperature / Relative Humidity	0°C to +50°C / 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, Ethernet	DSUB Connectors. RJ45 rear panel			

Part Number	Prated (dBm / W)	Plinear (dBm / W)	P Cons at Prated	P Cons at Plin
STS1800 CC1* - OPT xx**	62.5 / 1800	59.5 / 900	7500W	6800W

* Use CC2 for Ext. C-Band

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

Specifications are subject to change without notice