

IRT Rack Mount 2000W Ku-Band BUC / SSPA

The IRT Intelligent Power Block-Up Converter Series is smaller, lighter and more powerful 2kW Ku-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 2kW Psat in 8RU light compact package.

The IRT 2kW Ku-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.

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 2kW PSAT in 19" Rackmount, 8RU only!
- Superior RF performance:
- o Phase noise 5-8dB better than IESS308/309
- o High Linearity
- o PSAT up to 63 dBm
- o Wide dynamic range of Gain Control
- Switchable LO standard and Extended Ku-Band in one unit
- Redundant Hot Swappable Power Supply
- 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



STSR 2000K

RF Parameters		
RF Frequency Range-Available in/switched:		d: 12.75-13.25GHz 14-14.5GHz 13.75-14.5GHz
IF Frequency Range		950-1450MHz 950-1450MHz 950-1700MHz
LO Frequency		11.8GHz 13.05GHz 12.8GHz
Conversion		Single Conversion; non-inverting
Saturated Power		63dBm/2KW typ
Linear Power		60dBm min/1KW
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 Control		20dB min dynamic range
External Reference Frequency		10MHz multiplexed with IF In
External Reference Required Phase Nolse		-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	-25dBc at P linear
	Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at Plinear
Noise Power Density	Transmit Band	-85dBm/Hz max
	Receive Band	-148dBm/Hz max
Output Spurious:	Non-signal related	-60dBc
	Signal related	-55dBc
Power & Mechanical		
AC Voltage Range		190-265VAC 50-60Hz Auto-Ranging PFC
Power Consumption		11.8KW (at rated power) 10.8KW (at 3 dB back off)
Size		6RU SSPA + 2RU PSU
Weight		90KG
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		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
Redundant Interface		HD15 Connector rear panel

Specifications are subject to change without notice