150W / 200W Ku-Band GaN BUC / SSPA

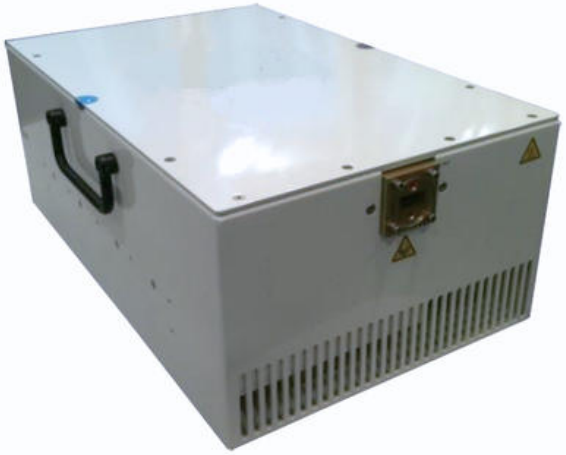
The IRT Ku-Band SSPA series is powered by GaN technology and is one of the smallest, lightweight efficient units available today.

With best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analogue interfaces.

Designed for portable, mobile and VSAT on the move applications. Its small size and weight allows and high thermal efficiency, which makes it a most economical solution for fixed VSAT applications.

Options

- Internal 10MHz Reference
- Available in both standard and extended Ku-Band
- Automated Level Control (ALC) option
- Antenna Mounting Kit
- Switchable LO option - Standard and Extended Ku-Band in one unit



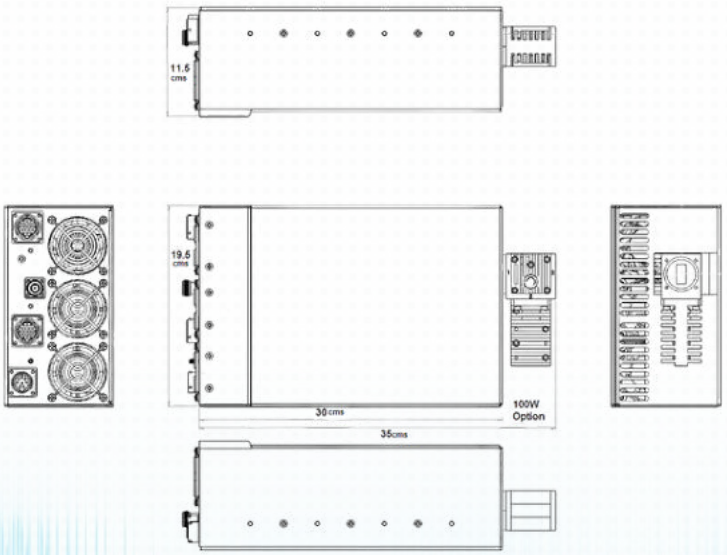
Features

- Extremely high power density - Up to 200W Psat in 12.5Kg, 39.5 x 25.5 x 16 cms.
- Superior RF performance:

o Phase noise 8-10dB better than IESS308/309
o Psat up to 54dBm
o Spurious below –60dBc
o Wide dynamic range of Gain control

- RF overdrive protection
- Status LED
- Input and Output True RMS power detection
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP optional
- Redundant ready with no external controller required
- Field upgradeable software

Outline



RF Parameters			
		150W	200W
RF Frequency Range-Available in/switched:		14-14.5GHz 13.75-14.5GHz	
IF Frequency Rage		950-1450MHz 950-1700MHz	
LO Frequency		13.05GHz 12.8GHz	
Conversion		Single Conversion; non-inverting	
Saturated Power		52dBm min	53dBm min
Linear Power		49dBm min	50dBm min
Conversion Gain		75dB min, 77dB typ	
Gain Flatness		+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz	
Gain Stability		+/-1.5dB over full temperature range 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 Noise		-130dBc/Hz @100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100kHz	
Up-Converter Phase Noise		70dBc/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 2dB back off from rated power	
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	90-265VAC 50-60Hz Auto-Ranging PFC	
Power Consumption at rated power	850W typ	1000W typ
Power Consumption at 3dB back off	650W typ	750W typ
48VDC Isolated optional	40-72VDC Isolated	
Size / Weight	39 x 22.5 x 11cms / 12KGs	
Cooling	Forced Air	
Operating Temperature / Relative Humidity	-40°C to +55°C / Up to 100% condensing	

Interfaces	
IF Input Connector / RF Sample	N-type Female / N-type Female
RF Output Connector	WR75 grooved
AC Power In	MS3112E12-3P
M&C Interface-Serial, Analog, Ethernet	MS3112E14-19S
Redundancy Interface	MS3112E14-19P

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