

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.

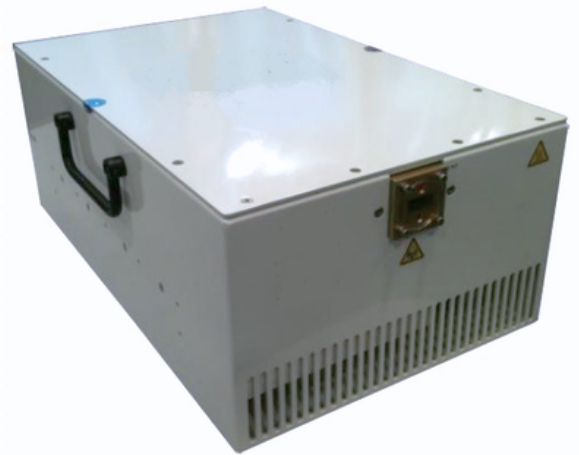
Designed for portable, mobile and VSAT on the move applications. Its small size and weight allows and high thermal efficiency, which makes it a most economical solution for fixed VSAT applications.

Options

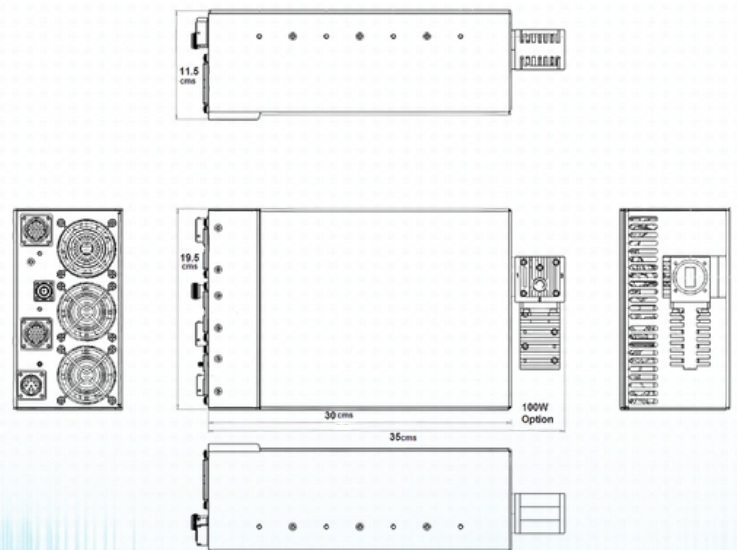
- Internal 10MHz Reference
- Available in both standard and extended Ku-Band
- Automated Level Control (ALC) option
- Antenna Mounting Kit
- Switchable LO option - Standard and Extended Ku-Band in one unit

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 Range	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	