Super Compact 40W-60W Ku-Band BUC 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, embedded WG circulator, 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 direct feed horn mounting, which makes it a most economical solution for fixed VSAT applications.

Options

- Internal 10MHz Reference clock
- Switchable LO - Standard and Extended in one unit
- True RMS detector - Output power measurement
- Antenna mounting kit
- Built in auto-ranging AC power supply

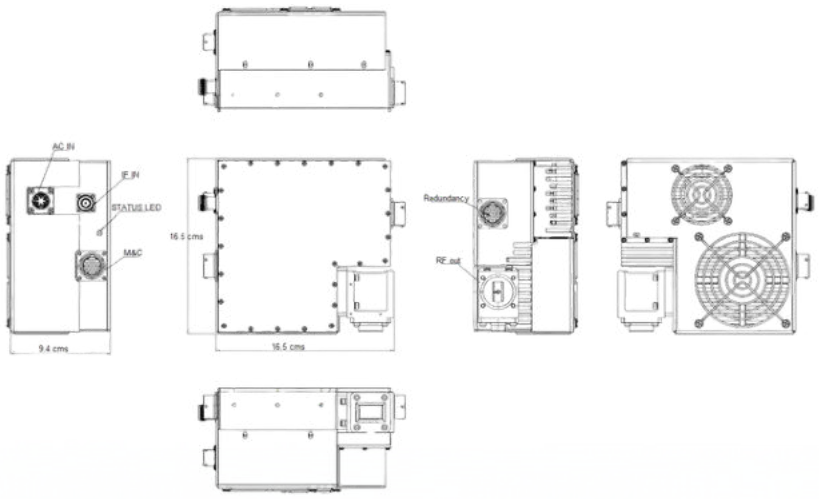
Features

- Up to 60W Output Power in this super compact lightweight package 2.5Kg 16.5 x 16.5 x 9.4 cms.
- Only 290W Power consumption at 60W output
- 200W power consumption at 3dB back off
- RF Monitor Port Optional
- Superior RF performance:

o Phase noise 6dB better than IESS308/309
o High Linearity
o Spurious below-60dBc
o Wide dynamic range of Gain Control

- RF overdrive protection
- Output power measurement
- Built-in WG Circulator provides full output VSWR protection
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP optional
- 48VDC isolated power supply
- Redundant ready with no external controller
- Field upgradeable software
- Status LED

Outline



RF Parameters				
		40W	50W	60W
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		46dBm min	47dBm min	48dBm min
Linear Power		43dBm min	44dBm min	45dBm min
Conversion Gain		72dB min, 75dB 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		
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	-25dBc at 3dB total power back off from rated power -30dBc at 6dB total power back off from rated power		
	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	-140dBm/Hz max		
Output Spurious:	Non-signal related	-60dBc		
	Signal related	-55dBc		

Power & Mechanical			
48VDC / 28VDC Voltage Range	36-72VDC Isolated / 24-75VDC Isolated (optional)		
AC Voltage Range (optional)	90-265VAC 50-60Hz Auto-Ranging		
Power Consumption DC power in/AC power in	225W typ. / 160W typ. 250W typ. / 180W typ.	280W typ. / 220W typ. 260W typ. / 200W typ.	290W typ. / 230W typ. 270W typ. / 210W typ.
Size	16.5 x 16.5 x 9.4 cms		
Weight	2.5KG		
Cooling	Forced Air		
Operating Temperature / Relative Humidity	-40°C to +55°C / Up to 100% condensing		

Interfaces	
IF Input Connector	N-type Female
RF Output Connector	WR75 grooved
AC Power In	MS3112E10-8P
RS485 – Ethernet – SNMPv3	MS3112E14-19S