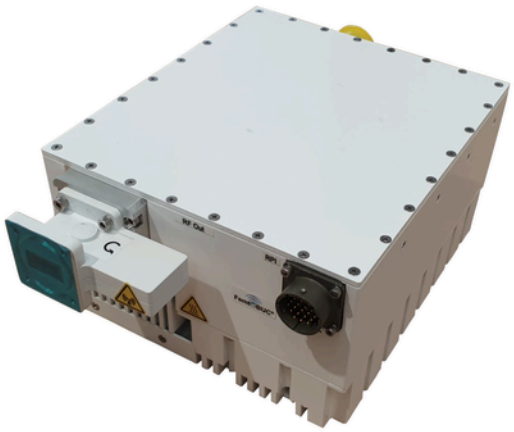
IRT Super Compact 100W Ku-Band GaN BUC / SSPA

The IRT 100W BUC / SSPB / SSPA powered by GaN technology super compact series are revolutionary in size, weight and power density. This series offers superior performance in an extremely compact package that can fit in your palm! Weighing at only 4.5KG, our feature-rich GaN unit is exceptionally powerful for its size: up to 100W Psat. Built in DC or AC power supply provides the customer with the simplest and least expensive plug-into-the wall solution.

IRT GaN super compact features best in class RF characteristics, embedded WG circulator, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. This series remarkably small size and low power consumption results in better heat extraction that leads to overall system size and cost reduction making it the ideal candidate 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 / Autosense 10MHz reference
- True RMS detector
- Antenna Mounting kit



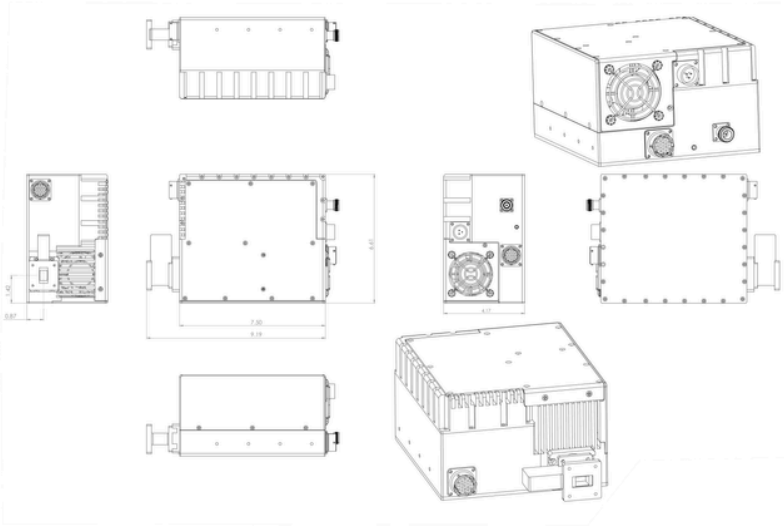
Features

- Up to 100W PSAT Output power in this super-compact light weight package 19x16.75x10.5cms
- Only 500W power consumption at 100W output
- 400W power consumption at 3dB back off
- Switchable LO—Standard and Extended Ku-Band in one unit
- Superior RF performance:

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

- RF overdrive protection
- Status LED
- Built in WG Circulator provides full output VSWR Protection
- Configuration via RS-232 serial console, packet protocol RS-485 and User friendly Ethernet HTTP based GUI and SNMP support
- Redundancy Ready—No external redundancy controller required
- Field replaceable fans
- Field upgradable software

Outline



RF Parameters		
		100W
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		50dBm typ
Linear Power		47dBm 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		-120dBc/Hz @100Hz -130dBc/Hz @ 1kHz -140dBc/Hz @ 10kHz -150dBc/Hz @ 100kHz
Up-Converter Phase Noise		-60dBc/Hz@ 10Hz -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 Voltage Range	36-72VDC Isolated
AC Voltage Range (optional)	90-265VAC 50-60Hz Auto-Ranging PFC
Power Consumption (@ Psat / @ Plin)	DC power In - 500W typ. / 470W typ. AC power In - 470W typ. / 450W typ.
Size	19 x 16.75 x 10.5 cms
Weight	4.5KGs
Cooling	Forced Air
Operating Temperature / Relative Humidity	-40°C to +55°C / Up to 100% condensing

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Options	
Transmit Key Line	Transmit Key Line (iDirect X7 compatible)
Low Ku-Band RF Output	12.75-13.25GHz (20W-50W Output Power Only)
EIRP Power Indication	Using an Antenna Gain and IFL Calculation

Interfaces	
IF Input Connector	N-type Female
RF Output Connector	WR75 grooved
AC Power In	MS3112E12-3P
RS485 – Ethernet – SNMPv3	MS3112E14-19S

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