

250W-500W Ku-Band GaN BUC / SSPA

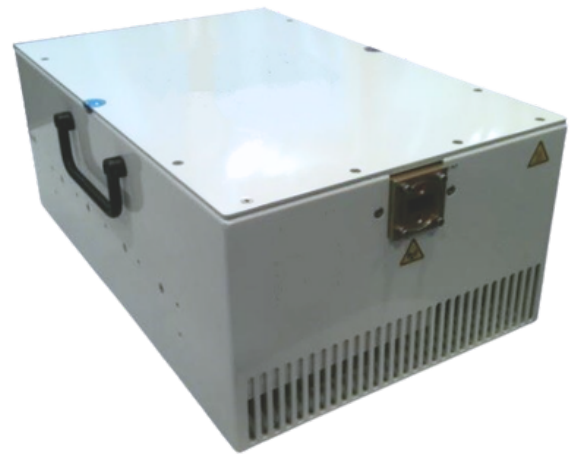
The STS250/300/400/500 Ku Band series is powered by GaN technology and is one of the smallest, lightweight efficient units available today.

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

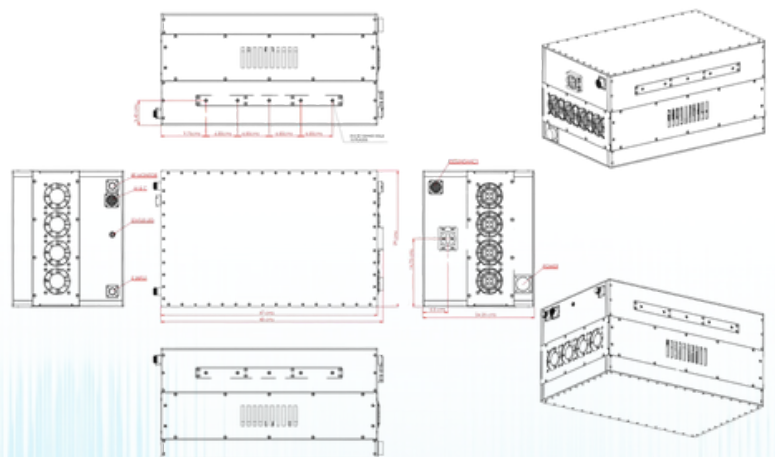
- Internal 10MHz Reference
- BUC or SSPA optional
- Automated Level Control (ALC) option
- Antenna Mounting Kit
- Switchable LO option - Standard and Extended Ku-Band in one unit
- External Rackmount Remote M&C Panel



Features

- Extremely high power density - Up to 500W Psat in 34Kg, 48 x 29 x 24.25 cms.
- Superior RF performance:
 - o Phase noise 8-10dB better than IESS308/309
 - o Psat up to 56 dBm
 - o Spurious below -60dBc
 - o High Linearity
 - o Wide dynamic range of Gain control
 - RF overdrive protection
 - 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
 - Status LED
 - Field replaceable detachable power supply

Outline





RF Parameters				
	250W	300W	400W	500W
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	54dBm min	55dBm min	56dBm min	57dBm min
Linear Power	51dBm min	52dBm min	53dBm min	54dBm 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			
Gain Control	20dB min dynamic range			
External Reference Frequency	10MHz 0dBm +/-5dB 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	-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 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	-60dBc		
Power & Mechanical				
AC Voltage Range	190-265VAC 50-60Hz Auto-Ranging PFC			
Power Consumption at rated power	1700W	2000W	2300W	2500W
Power Consumption at 3dB back off	1400W	1700W	2000W	2300W
Size / Weight / Cooling	48 x 29 x 24.25cms / 34KG / 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	MS3112E12-3P			
M&C Interface-Serial, Analog, Ethernet	MS3112E14-19S			
Redundancy Interface	MS3112E14-19P			

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
 Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.