



## Super Compact 80W/100W/125W Ku-Band BUC GaN

The STS80/100/125Ku 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.

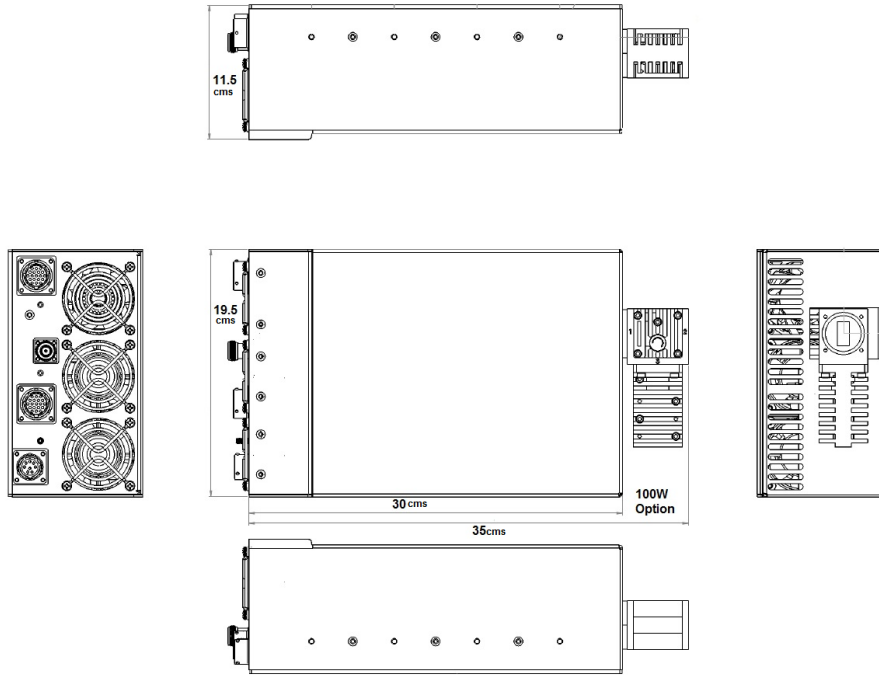
Designed for portable, mobile and VSAT on the move applications. Its small size and weight allows and high thermal efficiency, which makes it a most economical solution for fixed VSAT applications.

### OPTIONS

- Internal 10MHz Reference
- 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
- 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

### FEATURES

- Extremely high power density - Up to 125W Psat in 8Kg 34.5 x 21.5 x 10 cms.
- Superior RF performance:
  - Phase noise 8-10dB better than IESS308/309
  - Psat up to 50dBm
  - Spurious below -60dBc
  - Wide dynamic range of Gain control



Parameter	80W	100W	125W
<b>RF Performance</b>			
RF Frequency Range-Available in/switched:	14-14.5GHz (Std. Ku-Band)		13.75-14.5GHz (Ext. Ku-Band)
IF Frequency Range	950-1450MHz		950-1700MHz
LO Frequency	13.05GHz		12.8GHz
Conversion	Single Conversion; non-inverting		
Saturated Power	49dBm typ	50dBm typ	51dBm typ
Linear Power	46dBm min.	47dBm min.	48dBm 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 over temperature	+/-1.5dB over full temperature range		
Gain Stability over input power	2dB typ 3dB max from 10dB back off to rated power		
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 @ 100 kHz
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz		
Linearity: 2 tone IMD Spectral Re-growth	-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at P <sub>lin</sub> +1dB		
Noise Power Density: Transmit Band / Receive Band	-85dBm/Hz max / -148dBm/Hz max		
Output Spurious: Non-signal related / Signal related	-60dBc / -55dBc		
<b>Power</b>			
AC Voltage Range (48VDC Isolated optional)	90-265VAC 50-60Hz Auto-Ranging PFC		
Power Consumption at rated power	450W typ	580W typ	600W typ
Power Consumption at 3 dB back off	380 W typ	500W typ	520W typ
<b>Mechanical</b>			
Size	34.5 x 21.5 x 10cms		
Weight	8KG		
Cooling	Forced Air		
Operating temperature	-40°C to +55°C		
Relative Humidity	Up to 100% condensing		
<b>Interfaces</b>			
IF Input Connector	N-type female		
RF Output Connector	WR75 grooved		
AC Power In	MS3112E12-3P		
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S		
Redundancy Interface	MS3112E14-19P		