



### Super Compact 8W / 10W / 20W Ka-Band BUC

The STS8/10/20Ka Band series offers superior performance 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 clock
- Antenna Mounting Kit
- Built in auto-ranging AC power supply
- Switchable LO option - Commercial and Military Ka-Band in one unit
- DC via IF optional
- 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
- 48VDC Isolated power supply
- Ideal for feed horn mounting
- Low power consumption

#### FEATURES

- Up to 20W power in this super compact and lightweight package - 2.5Kg 20 x 16.5 x 11.5 cms.
- Superior RF performance:
  - Phase noise 3dB better than IESS308/309
  - Rated power up 43dBm
  - Spurious below -60dBc
  - Wide dynamic range of Gain control
- Integrated L-Band to Ka-Band upconverter

Parameter	8W (GaAs Powered)	10W (GaAs Powered)	20W (GaN Powered)
<b>RF Performance</b>			
RF Frequency Range-Available in/switched:	28 -29GHz / 29-30GHz / 30 -31GHz		
IF Frequency Range	950-1950MHz		
LO Frequency (Switchable)	27.05GHz / 28.05GHz / 29.05GHz		
Conversion	Single Conversion; non-inverting		
Linear Power	37dBm min	38dBm min	40dBm min
Output Power at 1dB compression point	39dBm min	40dBm min	N/A
Saturated Power	40dBm typ	41dBm typ	43dBm typ
Conversion Gain	62dB typ		65dB typ
Gain Flatness	+/-1.5dB typ +/-2dB max over full band; +/-1dB max over any 40MHz		
Gain Stability	+/-2dB 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 @ 100 kHz
Up-Converter Phase Noise	-63dBc/Hz @ 100Hz; -73dBc/Hz @ 1kHz; -83dBc/Hz @ 10kHz -93dBc/Hz @ 100kHz -110dBc/Hz @ 1MHz		
Linearity: 2 tone IMD Spectral Re-growth	-23dBc at Plinear -26dBc for QPSK at 1.5xsymbol rate at Plinear		
Noise Power Density: Transmit Band Receive Band	-85dBm/Hz max -148dBm/Hz max		
Output Spurious: Non-signal related Signal related	-60dBc -55dBc		
I/P VSWR	1.5:1		
O/P VSWR	1.3:1		
AM/PM conversion @ Plinear	2 Deg/dB		
<b>Power</b>			
VDC Voltage Range	+18 ~ +75VDC Isolated		
Power Consumption	110W typ	120W typ	180W typ
<b>Mechanical</b>			
Size	20 x 14 x 10 cms		23 x 14 x 10 cms
Weight	3.5Kgs		4Kgs
Cooling	Forced Air		
Operating temperature	-40°C to +60°C		
Relative Humidity	Up to 100% condensing		
<b>Interfaces</b>			
IF Input Connector	N-type female		
RF Output Connector	WR28 grooved		
DC Power In	MS3112E12-3P		
RS485-RS232-Ethernet-SNMP	MS3112E14-19S		