STS40/50/60K

Antenna Mount SSPA

Super Compact 40W/50W/60W Ku-Band BUC GaN

The STS40/50/60Ku Band 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

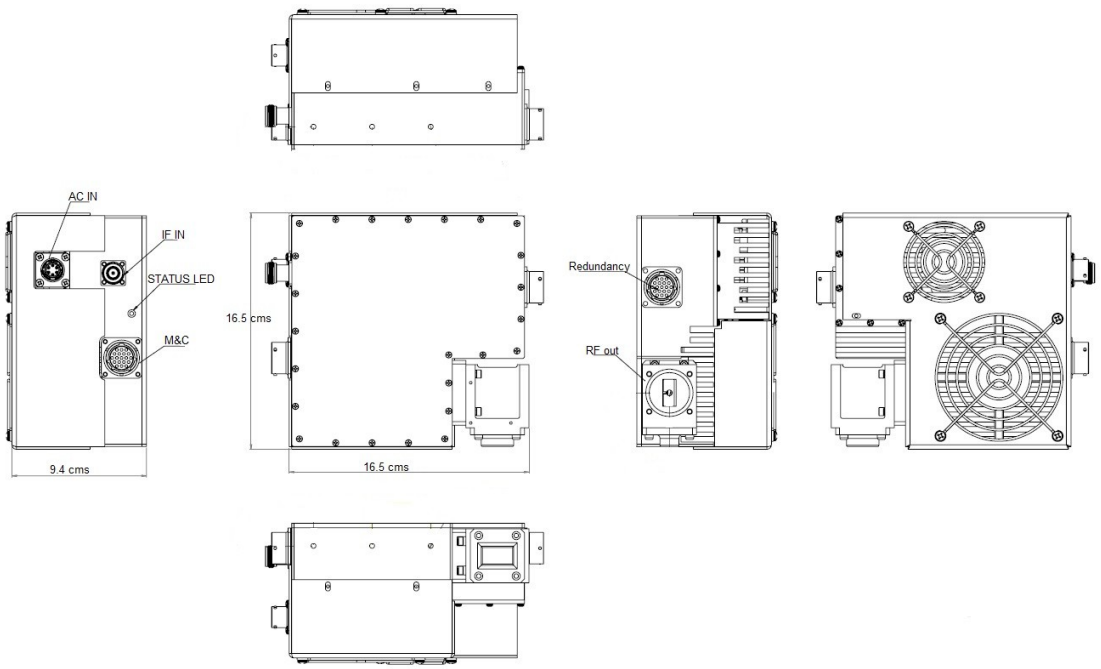
- Internal 10MHz Reference clock
- Switchable LO - Standard and Extended in one unit
- True RMS detector - Output power measurement
- Antenna mounting kit
- Built in auto-ranging AC power supply

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
- Superior RF performance:
  - Phase noise 6dB better than IESS308/309
  - High Linearity
  - Spurious below –60dBc
  - 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

Spacepath Communications Ltd. Unit 4 Bartley Point, Osborn Way, Hook, Hampshire RG27 9GX United Kingdom.
Telephone: +44 (0)1256 760525. e-mail: sales@space-path.com. Internet: www.space-path.com

OUTLINE



Parameter	40W	50W	60W
RF Performance			
RF Frequency Range-Available in/switched:	14-14.5GHz 13.75-14.5GHz		
IF Frequency Range	950-1450MHz 950-1700MHz		
LO Frequency (Switchable)	13.05GHz 12.8GHz		
Conversion	Single Conversion; Non-Inverting		
Saturated Power	46dBm typ.	47dBm typ.	48dBm typ.
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 @ 100 kHz		
Up-Converter Phase Noise	70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz		
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at 3dB total power back off from rated power -30dBc at 6dB total power back off from rated power -30dBc for QPSK at 1.5xsymbol rate at 3dB back off from rated power		
Noise Power Density: Transmit Band Receive Band	-85dBm/Hz max -140dBm/Hz max		
Output Spurious: Non-signal related Signal related	-60dBc -55dBc		
Power			
48VDC Voltage Range / 28VDC Voltage Range (optional)	36-72VDC Isolated / 24-75VDC Isolated (optional)		
AC Voltage Range (optional)	90-265VAC 50-60Hz Auto-Ranging		
Power Consumption DC power In (@ Psat / @ Plin) AC power In (@ Psat / @ Plin)	225W typ. / 160W typ. 250W typ. / 180W typ.	280W typ. / 220W typ. 260W typ. / 200W typ.	290W typ. / 230W typ. 270W typ. / 210W typ.
Mechanical			
Size	16.5 x 16.5 x 9.4cms		
Weight	2.5KG		
Cooling	Forced Air		
Operating temperature	-40°C to +55°C		
Relative Humidity	Up to 100% condensing		
Interfaces			
IF Input Connector	N-type female		
RF Output Connector	WR75 grooved		
AC Power In	MS3112E10-8P		
RS485-RS232-Ethernet-SNMP	MS3112E14-19S		

Part Numbering Information

Power Supply Option	40W	50W	60W
DC Isolated	DC1	DC1	DC1
AC Auto-ranging	AC1	AC1	AC1