STS40/50K

Antenna Mount SSPA

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

The STS40/50Ku 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

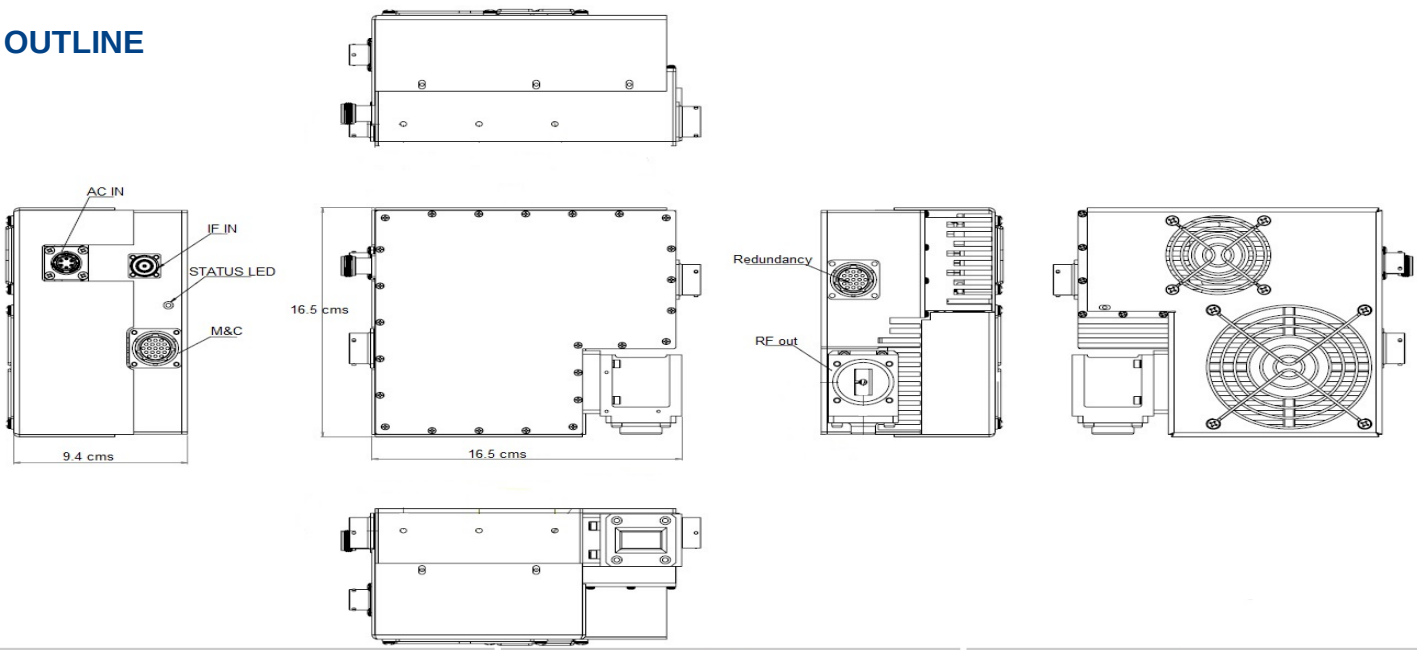
- Internal 10MHz Reference clock
- Switchable LO - Standard and Extended in one unit
- True RMS detector - Output power measurement
- Antenna mounting kit
- Built in auto-ranging AC power supply

FEATURES

- 50W Output Power in this super compact lightweight package 2.5Kg 16.5 x 16.5 x 9.4 cms.
- Only 280W Power consumption at 50W 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
RF Performance		
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	
Rated Power	46dBm nominal	47dBm nominal
Linear Power	43dBm min	44dBm 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	-24dBc 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 1.5xsymbol rate at 3dB 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		
48V DC Voltage Range	36-72VDC Isolated	
AC Voltage Range (optional)	90-265VAC 50-60Hz auto-ranging	
Power Consumption DC power In	225W at rated power; 160W at 3dB back off	260W at rated power; 200W at 3dB back off
AC power In	250W at rated power; 180W at 3dB back off	280W at rated power; 220W at 3dB back off
Mechanical		
Size	16.5 x 16.5 x 9.4 cms	
Weight	2.5kg	
Cooling	Forced Air	
Operating temperature	-40°C to +60°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
DC Isolated	DC1	DC1
AC Auto-ranging	AC1	AC1