



Super Compact 16W / 20W / 25W Ku-Band BUC

The STS16/20/25Ku 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.

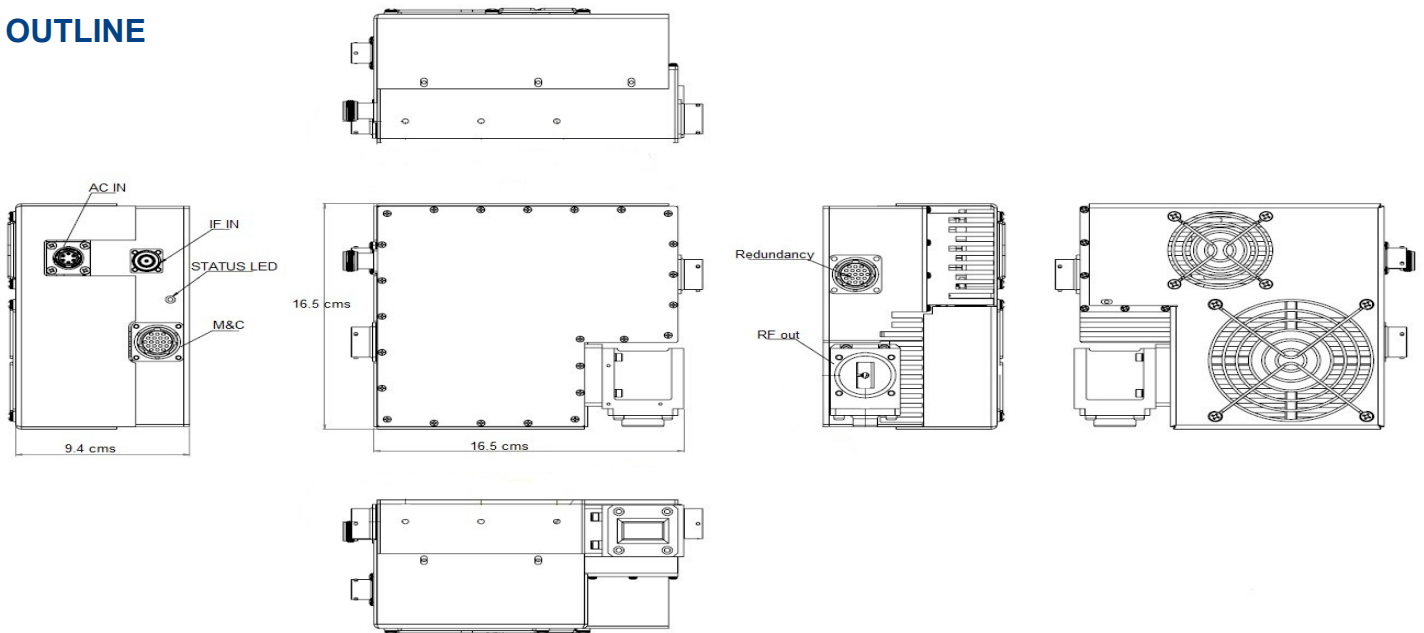
OPTIONS

- Internal 10MHz Reference clock
- Available in both standard and extended Ku-Band
- Antenna Mounting Kit
- Built in auto-ranging AC power supply
- Switchable LO option - Standard and Extended Ku-Band in one unit
- Lo Ku Band option (see page 3)
- Integrated L-Band to Ku-Band upconverter
- Built in WG Circulator provides full output VSWR protection
- Output power measurement - True RMS detector
- 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 25W P1dB in this super compact and lightweight package - 2.5Kg 16.5 x 16.5 x 9.5 cms.
- Superior RF performance:
 - Phase noise 6dB better than IESS308/309
 - P1dB of 44dBm min
 - Spurious below -60dBc
 - Wide dynamic range of Gain control

OUTLINE



| Parameter | 16W | 20W | 25W |
|---|--|-------------------|--------------------|
| 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 | | |
| Output Power at 1dB compression point | 42dBm min | 43dBm min | 44dBm min |
| Saturated Power | 43dBm typ | 44dBm typ | 45dBm typ |
| 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 |
| 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 P1dB -30dBc for QPSK at 1.5xsymbol rate at 2dB back off from P1dB | | |
| 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/AC power in | 135W/150W | 160W/180W | 200W/180W |
| Mechanical | | | |
| Size | 16.5 x 16.5 x 9.5 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 | 16W | 20W | 25W |
| DC Isolated | DC1 | DC1 | DC1 |
| AC Auto-ranging | AC1 | AC1 | AC1 |

LO Ku Band Option

| Parameter | 16W | 20W | 25W |
|--|--|-------------------|---|
| RF Performance | | | |
| RF Frequency Range | 12.75-13.25GHz | | |
| IF Frequency Range | 950-1450MHz | | |
| LO Frequency | 11.8GHz | | |
| Conversion | Single Conversion; non-inverting | | |
| Output Power at 1dB compression point | 42dBm min | 43dBm min | 44dBm min |
| Saturated Power | 43dBm typ | 44dBm typ | 45dBm typ |
| 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 reference from Modem's 10Mhz reference out over IFL cable | | |
| 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 P1dB -30dBc for QPSK at 1.5xsymbol rate at 2dB back off from P1dB | | |
| Noise Power Density: Transmit Band / Receive Band | -85dBm/Hz max / -140dBm/Hz max | | |
| Output Spurious: Non-signal related / Signal related | -60dBc / -55dBc | | |
| VSWR | 1.5:1 max | | |
| RF level off feature | RF signal must be Shut-Off if lost the PLL | | |
| Ext. reference input level: | -5 dBm ÷ +5 dBm | | |
| Power | | | |
| 48V DC Voltage Range | 36-72VDC Isolated via Separate Port or via L band Cable | | |
| AC Voltage Range (optional) | 90-265VAC 50-60Hz Auto-Ranging | | |
| Power Consumption DC power in/AC power in | 135W/150W | 160W/180W | 200W/180W |
| Mechanical | | | |
| Size | 6.5" x 7.6" x 4.2" | | |
| Weight | 7.5lbs | | |
| 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 | | |