

**This compact and powerful 50W Outdoor BUC, equipped with cutting-edge third generation GaN technology boasts exceptional RF performance, efficiency and reliability for Single or Multicarrier Applications**

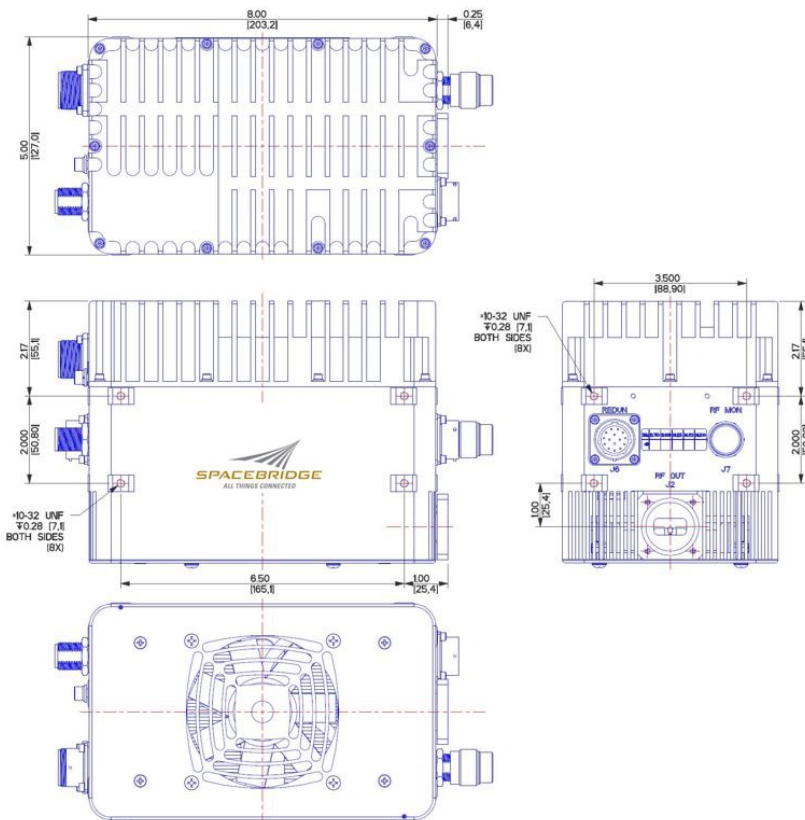
The device offers a wide range of monitoring and control capabilities, all easily accessible through Ethernet, serial and/or analog interfaces and Form-C dry contacts. It's the best-in-class solution for any demanding mobile or fixed application, designed for all-outdoor installations. This device does not require the additional air conditioning, or shelter. Therefore there is no RF loss when installed in a shelter

## Key Features

- Built-in 1:1 Redundancy Controller
- High Linearity, efficiency and MTBF
- Internal High-stability 10MHz Reference
- Built-in High Precision true RMS Power Meter
- Web Interface, Telnet, SNMP support
- Output Overdrive Protection
- Output VSWR Protection
- Thermal shutdown

## Options

- REST API
- Handheld Terminal
- Automatic Output Level Control (ALC)



## Technical Specifications

### RF CHARACTERISTICS

Frequency band	Ku-band Appendix-30B-15	Kx-band
$P_{Sat}$ , Rated Output Power	47 dBm / 50 W min	
$P_{Lin}$ , Linear Power as defined by MIL-STD-188-164C	44 dBm / 25 W min	
Gain	67 dB min, 70 dB typ	
Gain Flatness over full frequency range	$\pm 1.5$ dB max	
Gain Flatness over any 40 MHz	$\pm 0.5$ dB max	
Gain Control	20 dB min dynamic range, 0.1 dB steps	
Gain Stability over full Temperature range	$\pm 1.5$ dB max	
Level stability with ALC	$\pm 0.5$ dB max over full temperature and frequency range	
RF Frequency range	12.75-13.25 GHz	12.75-14.50 GHz
IF Frequency Range	950-1450 MHz	950-1750 MHz
LO Frequency	11.8 GHz	12.8 GHz or 13.05 GHz, selectable
External Reference Frequency	10 MHz sinusoidal, multiplexed with L-band (IF In)	
External Reference Level	-5 dBm to +5 dBm	
External Reference SSB Phase Noise, max	-110 dBc/Hz @ 10 Hz; -125 dBc/Hz @ 100 Hz; -140 dBc/Hz @ 1 kHz; -155 dBc/Hz @ 10 kHz; -165 dBc/Hz @ 100 kHz; -165 dBc/Hz @ 1 MHz;	
BUC SSB Phase Noise, max	-50 dBc/Hz @ 10 Hz; -65 dBc/Hz @ 100 Hz; -80 dBc/Hz @ 1 kHz; -90 dBc/Hz @ 10 kHz; -100 dBc/Hz @ 100 kHz; -115 dBc/Hz @ 1 MHz	
Integrated Double-Sided Phase Noise	2° RMS max	
Output Spurious: In-band	< -65 dBc	
Out-of-band	Complies with ETSI EN 301 428/430 & MIL-STD-188-164C	
Harmonics at $P_{Lin}$	< -60 dBc	
Linearity: IMD measured with 2 equal tones 5 MHz and apart	< -24 dBc at total combined power= $P_{Lin}$ < -30 dBc at 6 dB total power back-off from $P_{Sat}$	
Spectral Regrowth at $P_{Lin}$	< -30 dBc for QPSK/OQPSK MODCODs at 1.0xSymbol Rate away with 35% Roll-off	
Output Noise Power Density	Tx < - 80 dBm/Hz Rx < - 145 dBm/Hz	

### POWER

AC Voltage Range	85-265 VAC
Frequency Range	47 Hz-63 Hz
Power Consumption at $P_{Sat}$	275 W
Power Consumption at $P_{Lin}$	200 W

### ENVIRONMENTAL

Cooling systems	Forced Air
Operating Temperature	-40°C to +60°C
Relative Humidity	100%, up to 4" of rain precipitation/hour
Altitude	10,000 ft (3,000 m) AMSL
Adiabatic Derating (Altitude Temperature Derating Factor)	5°C/1000m
Environmental Rating (Ingress Protection)	IP67
Mean Time Before Failure (MTBF)	>100,000 h, as per Telcordia SR 332, Issue 4

### INTERFACES

IF Input connector	50 Ohm N-type (F)
Input VSWR	1.5:1 max
RF Output Connector	WR75, grooved
Output VSWR	1.3:1 max
RF Sample	N-type (F)
AC Power In	MS3112E12-3P
M&C Interfaces: Ethernet, Serial RS-242 & RS-485, Form-C	MS3100A18-19P
Redundancy	PT02E14-15P

### Mechanical

Dimension (LxWxH)	8"x 5"x 6"
Weight	8 lb