

**Introducing the compact and powerful 400W Outdoor BUC, equipped with cutting-edge Gen III GaN technology, it boasts exceptional RF characteristics, efficiency and reliability for Single or Multicarrier Application.**

The device offers a wide range of monitoring and control capabilities, all easily accessible through Ethernet, serial RS232 and RS485 interfaces and dry contacts. It's the best-in-class solution for any demanding mobile or fixed applications designed for all-outdoor installation. Mounted in the short distance from antenna feed, unit significantly improves the Link Budget. This device does not require the additional air conditioning, or shelter.

### Key Features

- Gen III broadband GaN with no memory effects
- Built-in 1:1 Redundancy, no External Redundancy Controller Required
- High Linearity, efficiency and MTBF
- Internal High-stability 10MHz Reference
- Built-in High Precision true-RMS Output Power Metering
- Web Interface, Telnet, SNMP
- Output Overdrive Protection
- RF Input Overdrive Protection
- Output VSWR Protection
- Thermal shutdown

### Options

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

### Technical Specifications

RF CHARACTERISTICS		
	Appendix-30B-15	Ku/Kx-band
P <sub>Sat</sub> , Rated Output Power	56 dBm / 400 W min	
P <sub>Lin</sub> , Linear Power, as defined by MIL-STD-188-164C	53 dBm / 200 W min	
Small Signal Gain	75 dB min	
Gain Flatness over full frequency range	± 1.5 dB max	
Gain Flatness over any 40 MHz	± 0.5 dB max	
Gain Control	20 dB min dynamic range, 0.1 dB steps	
Gain Stability over full Temperature range	± 1.5 dB max	
RF Frequency range	12.75-13.25 GHz	13.75-14.5 GHz
IF Frequency Range	950-1450 MHz	950-1700 MHz
LO Frequency	11.8 GHz	12.8 GHz/13.05 GHz, selectable
External Reference Frequency	10 MHz, multiplexed with L-band (IF In)	
External Reference Level	0 dBm, ±5 dB	
External Reference SSB Phase Noise, max	-125 dBc/Hz @ 100 Hz; -140 dBc/Hz @ 1 kHz; -155dBc/Hz @ 10 kHz; -165 dBc/Hz @ 100 kHz; -165 dBc/Hz @ 1 MHz;	
Up-Converter SSB Phase Noise, max	-65 dBc/Hz @ 100 Hz; -73 dBc/Hz @ 1 kHz; -83 dBc/Hz @ 10 kHz; -93 dBc/Hz @ 100 kHz; -115 dBc/Hz @ 1MHz	
Integrated Double-Sided Phase Noise	2° RMS max	
Output Spurious: In-band	-65 dBc	
Out-of-band	Complies with ETSI EN 301 428/430 and MIL-STD188-164C	
Harmonics at P <sub>lin</sub>	-60 dBc	
Linearity: IMD measured with 2 equal tones 5 MHz apart	-24 dBc at total Power=P <sub>Lin</sub> -30 dBc at 6 dB total power back-off from P <sub>Sat</sub>	
Spectral Regrowth at P <sub>Lin</sub>	-30 dBc for QPSK/OQPSK MODCODs at 1.0 x Symbol Rate away with 2 Msymbol/sec and 35% Roll-off	
Power		
AC Voltage Range,	208-265VAC, 47Hz-63Hz	
Power Consumption at P <sub>Sat</sub>	2425 KVA	
Power Consumption at P <sub>lin</sub>	2100 KVA	
Power Factor	>95%	
Environmental		
Cooling systems	Forced Air	
Operating (Storage) Temperature	-40°C to +55°C (-55°C to +85°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)	2°C/1000 ft	
Environmental Rating (Ingress Protection)	IP67	
Mean Time Before Failure (MTBF)	>40,000h, as per Telcordia SR 332, Issue 4, Ground Benign	
Interfaces		
IF Input connector	50 Ohm N-type (F); Options: Type F(F) (75 Ohm) or TNC(F) (50 Ohm)	
Input VSWR	1.5:1	
RF Output Connector	WR75 grooved	
Output VSWR	1.3:1	
RF Sample	N-type (F)	
AC Power In	ACS02E16-10P	
M&C Interfaces: Ethernet, Serial RS-242 & RS-485	MS3100A18-19P	
Redundancy	MS3112E14-15P	
Mechanical		
Dimension (LxWxH)	22.25”x 8.9”x 16”	
Weight	105 lb	