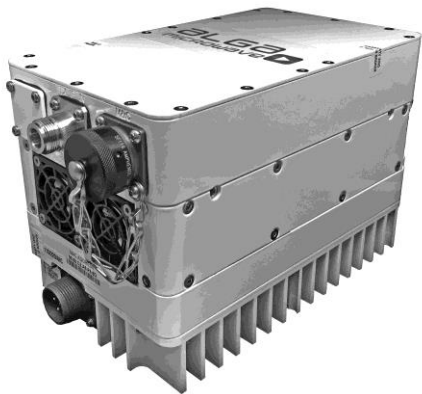
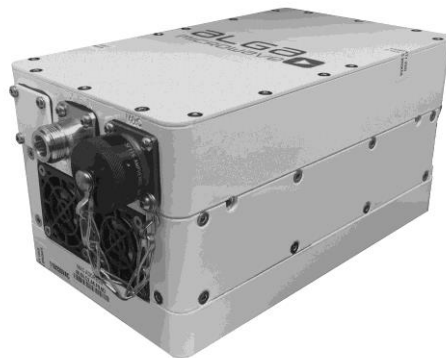


50 W GaN Compact X-BAND BUC

DATASHEET

ALGA LOW COST COMPACT X-BAND BUC

The Alga low cost Compact X-band BUC is built for VSAT stabilized platforms and mobile stations, while also offering benefits for fixed site and offshore applications. Weighing less than 7.5 lbs, makes it ideal for feed mounting.



(Above pictures showing optional AC module)

- From 50 W of available Power
- From 25 W of Linear power
- Built-in Telemetry for critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- WEB interface, SNMP monitoring, RS 485, RS232, Ethernet and dry-contacts M&C Interface
- 1:1 switching logic built into the BUC eliminating expensive external controller (Optional)
- IP65 rated housing and Fan (weather proof construction)

COST EFFECTIVE SOLUTION FOR THE FUTURE

SALES@ALGA.CA | WWW.ALGA.CA | 1-514-694-8666



Compact X-BAND BUC Specifications

| ELECTRICAL CHARACTERISTICS | | | | | |
|-------------------------------------|--|------------------------|------------------------------------|-----------------|-----------------|
| | 50W GaN | | | | |
| RF Output at P1 dB | N/A | | | | |
| RF Output at P Sat | 47 dBm | | | | |
| RF Output at P Lin | 44 dBm | | | | |
| Output Frequency Range | 7.9 – 8.4 GHz | | | | |
| Input Frequency Range | 950 - 1450 MHz | | | | |
| Local Oscillator Frequency | 6.95 GHz | | | | |
| Gain Stability Over Temperature | ± 2 dB nominal; ± 2.0 dB max | | | | |
| Gain Variation at fixed temperature | ± 2.0 dB over full band; ± 0.5 dB over 40 MHz | | | | |
| Linear Gain | 60 dB nominal | | | | |
| Gain Control | 20 dB Nominal In 0.5 dB Steps | | | | |
| Output VSWR | 1.50:1 | | | | |
| Intermodulation | -25 dBc, with 2 equal carriers at 3dB total power back off from rated P1dB | | | | |
| 10 MHz Reference | 0 dBm ± 5.0 dB | | | | |
| | @ 100 Hz | @ 1 KHz | @ 10 KHz | @ 100 KHz | @ 1 MHz |
| 10 MHz Phase Noise Requirement | | -140 dBc/Hz max | -150 dBc/Hz max | -155 dBc/Hz max | |
| Local Oscillator Phase Noise | -63 dBc/Hz max | -73 dBc/Hz max | -83 dBc/Hz max | -93 dBc/Hz max | -103 dBc/Hz max |
| Output Spurious | -55 dBc max. | | | | |
| Input Impedance | 50 Ohms | | | | |
| Input VSWR | 1.50:1 | | | | |
| Power consumption (at rated power) | 250 W | | | | |
| Power requirement | +18 to +36 VDC or +36 to +72 VDC | | | | |
| INTERFACE | | | | | |
| Output Interface | Waveguide, WR112G (Grooved) | | | | |
| Input Interface | N-Type Female, 50 Ohms | | | | |
| Connectors | DC: MS3102R14S-9P | M&C: MS3112E14-19P | Redundancy: 3112E14-15P (Optional) | | |
| MECHANICAL | | | | | |
| Cooling | Forced Air | | | | |
| Dimensions (L x W x H) | 7.5 x 4.72 x 4.5 in (190 x 120 x 114 mm) | | | | |
| Weight | 7.5 lbs (3.4 kg) | | | | |
| ENVIRONMENTAL | | | | | |
| | Temperature Range (ambient) | Humidity | Altitude | | |
| | -40°C to + 55°C (operating); -40°C to + 75°C (storage) | 0 to 100% (condensing) | 10,000 ft ASL | | |

ORDERING INFORMATION To place an order, build your specific X-BAND BUC by specifying the following in your ordering number:

Ordering Number: **ALTX – 798447G – 60 – 16 – 4CC – XXXX**

| AAAA: Band | BBY: RF Power Level | CC: DC Supply | XXXX: Options |
|-------------------|----------------------------|--------------------------------------|--|
| 7984 X Band | 47G (50 W GaN) | 24 (18 – 36 VDC) 48 (36 – 72 VDC) | 1050 M&C 1051 M&C and Redundant Ready |

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