

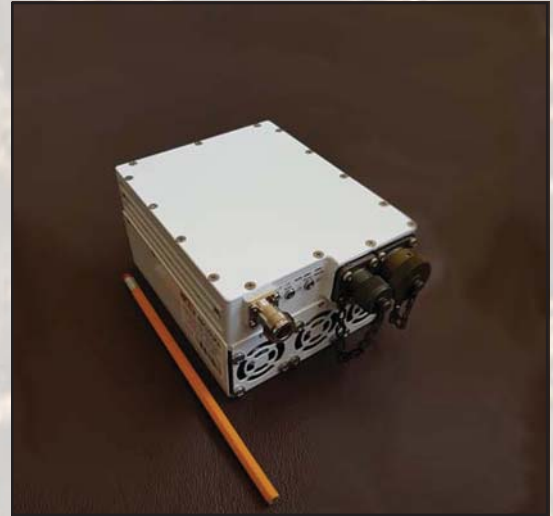


25W Universal Ka-Band (27.5-31.0 GHz) BUC

KEY FEATURES

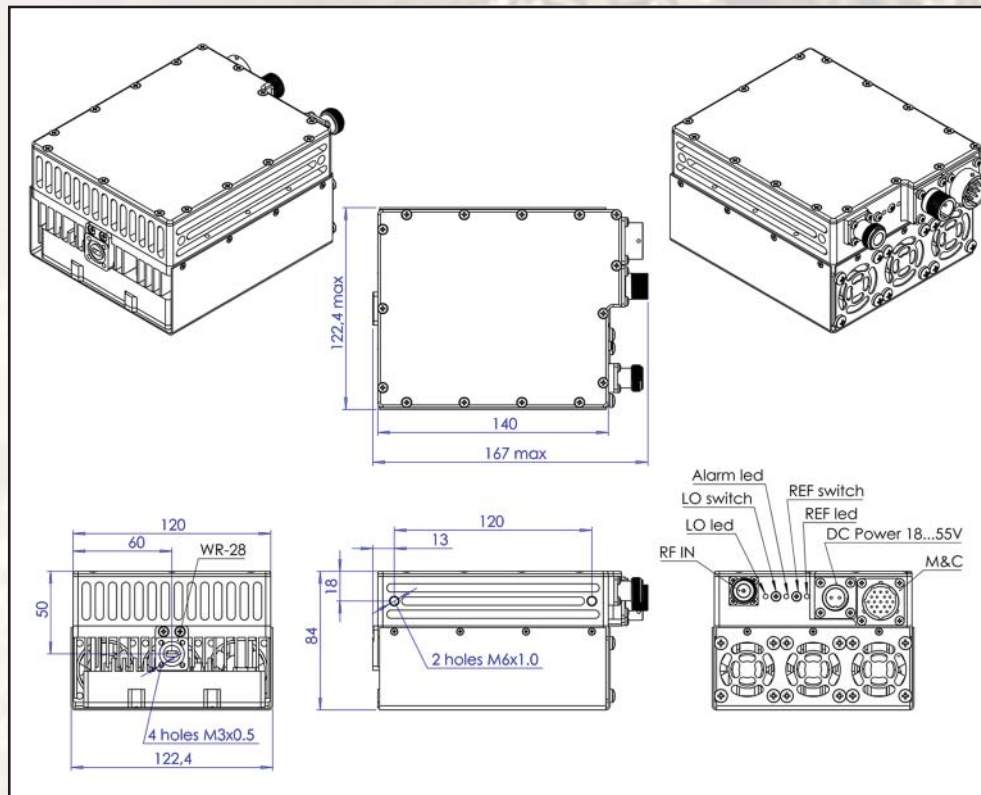
- ◆ Output frequency 27.5-31.0 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Quad L.O. (electronically and manually switchable 26.55, 27.4, 28.05, and 29.05 GHz)
- ◆ Low power consumption (270W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 3) and optional FSK
- ◆ L.O. lock, amplifier and 10MHz LEDs
- ◆ Built-in redundancy option
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference autosensing and controllable (optional)
- ◆ RoHS compliant

ABC25UKA / ABC25UKAF



This unique first ever 25W L-To Full Ka-Band Block Up Converter covers the O3B (27.65-29.1 GHz), Commercial (29.0-30.0 GHz) and Military (30.0-31.0 GHz) frequency bands. M&C (FSK) capability enables trouble shooting, monitoring and controlling the BUC.

Mechanical Drawing





25W Universal Ka-Band (27.5-31.0 GHz) BUC

| TECHNICAL SPECIFICATIONS | | |
|---|-----------------------------------|---|
| RF frequency | | 27.5 - 31.0 GHz |
| Quad local oscillator | | 26.55, 27.4, 28.05 and 29.05 GHz |
| IF frequency | | 950 to 1,950 MHz |
| Output power | | 25W (+43.9 dBm min.), P-Linear 16.1W (+42.06 dBm min.) |
| IF connector | | N-type or F-type (field-exchangeable) |
| Power supply : auto-ranging via MS connector | | +36 VDC ~ +60 VDC, 270W max. |
| Output interface | | WR-28 G |
| Gain | | 65 dB typ. 60 dB min. |
| IMD3 (two tones) | | -25 dBc max. 2 signal 5 MHz apart at P-LINEAR |
| Spurious | | -50 dBc max. |
| Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power) | | -30 dBc |
| Requirement for external reference: | | via IF cable |
| frequency | | 10 MHz (sine-wave) |
| input power | | -5 to +5 dBm @ input port |
| TX Gain variation | | ± 0.5 dB over 40 MHz |
| TX Gain stability over temperature range | | ± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max. |
| Phase noise (Exceeds Intelsat's standard IESS308/309) | | -55 dBc/Hz max. @ 10 Hz |
| | | -65 dBc/Hz max. @ 100 Hz |
| | | -78 dBc/Hz max. @ 1 KHz |
| | | -85 dBc/Hz max. @ 10 KHz |
| | | -95 dBc/Hz max. @ 100 KHz |
| | | -115 dBc/Hz max. @ 1 MHz |
| Noise power density | Transmit Receive | -66 dBm/Hz (max.) -157 dBm/Hz (max.) |
| FSK | | Multiplexed on TX IFL, compatible with Compech and Paradigm |
| M&C Interface | | RS-232 and RS-485, Ethernet (HTTP and SNMP) |
| Noise figure | | 15 dB max. |
| Input V.S.W.R. | | 1.5 : 1 max. |
| Output V.S.W.R. | | 1.5 : 1 max. |
| Mute | | Shut off the HPA if L.O. unlocked |
| Status LED | RED | ALARM |
| | GREEN | SSPA OK |
| | GREEN BLINKING | SSPA MUTED |
| L.O. | GREEN | All OK L.O. 26.55 GHz |
| | GREEN BLINKING | All OK L.O. 27.4 GHz |
| | YELLOW | All OK L.O. 28.05 GHz |
| | YELLOW BLINKING | All OK L.O. 29.05 GHz |
| Status REF LED | GREEN | EXTERNAL 10 MHz DETECTED |
| | GREEN BLINKING | INTERNAL 10 MHz |
| | RED | NO EXTERNAL REFERENCE |
| Temperature range (ambient) | | -40 deg C to +60 deg C |
| operating | | -55 deg C to +85 deg C |
| storage | | |
| Vibration and shock | | Complies with MIL-STD-810E |
| IP rating | | IP67 |
| Dimensions & housing | | 140 (L) x 122.4 (W) x 84 (H) mm 5.5" (L) x 4.8" (W) x 3.3" (H) |
| Weight | | 2.2 kg (4.85 lbs) max. |