



25W Full DBS-Band 17.3 - 18.4 GHz BUC

KEY FEATURES

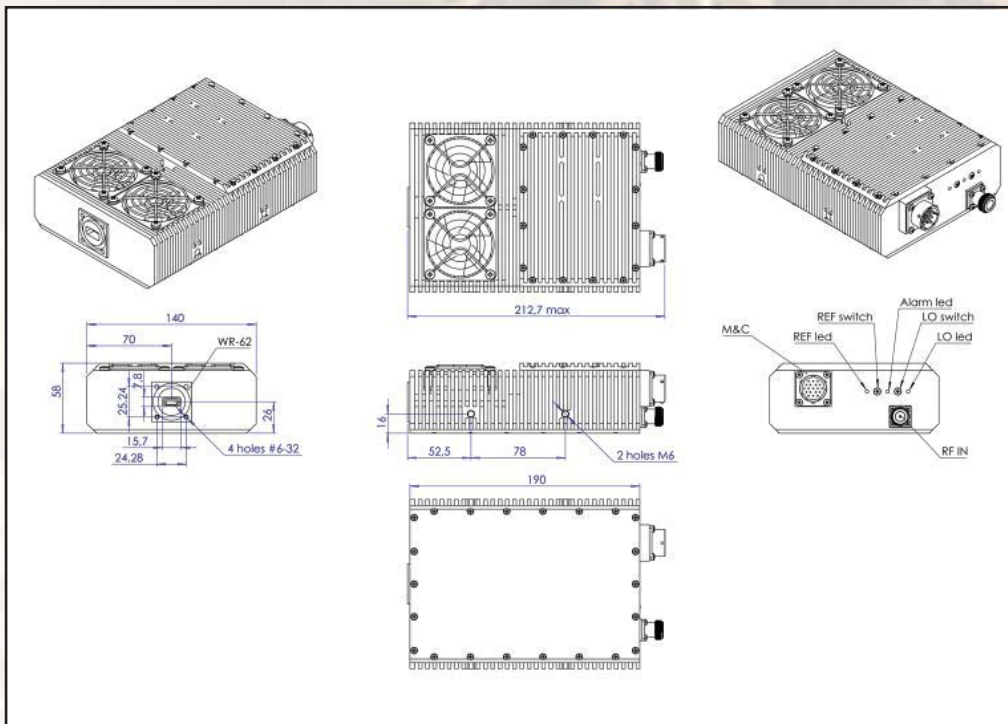
- ◆ Output frequency 17.3-18.4 GHz
- ◆ Double L.O. (electronically and manually switchable 16.35 and 16.85 GHz)
- ◆ Extreme P-Out GaN linearity
- ◆ Incomparable low power consumption (136W max.)
- ◆ Auto-ranging powering option 15-60 VDC
- ◆ High power efficiency
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED
- ◆ Autosensing and controllable internal 10MHz reference (optional)
- ◆ M&C-combined RS-232/485, FSK, Ethernet (optional)
- ◆ RoHS compliant

ABE25UDBS / ABE25UDBSF



This unique smallest and lightest 25W L-To DBS-Band Block Up Converter covers the full DBS-Band frequencies (17.3-18.4 GHz). M&C (FSK) capability enables trouble shooting, monitoring and controlling the BUC. Internal 10MHz reference option enables using the BUC with the modems without 10MHz reference.

Mechanical Drawing





25W Full DBS-Band 17.3 - 18.4 BUC

| TECHNICAL SPECIFICATIONS | |
|--|---|
| RF frequency | 17.3 to 18.4 GHz |
| Dual local oscillator | 16.35 and 16.85 GHz |
| IF frequency for L.O. 16.35 GHz | 950 to 1,700 MHz |
| IF frequency for L.O. 16.85 GHz | 950 to 1550 MHz |
| Output power | 25W (+44 dBm min.) |
| Output Linear power | 13.1W (+41.1 dBm min.) |
| IF connector | N-type or F-type |
| Power supply : auto-ranging via IF connector | +15 VDC ~ +60 VDC via IF connector 136W max. |
| Output interface | WR-62 Grooved |
| Gain | 68 dB typ. |
| IMD3 (two tones) | -25 dBc max. 2 signal 5 MHz apart at P-LINEAR |
| Spurious | |
| In Band (320 KHz) | -60 dBc max. |
| In Band (Full Span) | -55 dBc max. |
| Out of Band (3 GHz Span) | -55 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: frequency input power | via IF cable 10 MHz (sine-wave) -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 |
| | -66 dBc/Hz max. @ 100 Hz |
| | -77 dBc/Hz max. @ 1 KHz |
| | -86 dBc/Hz max. @ 10 KHz |
| | -95 dBc/Hz max. @ 100 KHz |
| Noise power density | |
| Transmit | -66 dBm/Hz (max.) |
| Receive | -157 dBm/Hz (max.) |
| M&C | RS-232. RS-485 and Ethernet (WEB and SNMP) |
| FSK | Multiplexed on TX IFL, compatible with Comtech and Paradise |
| 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 | |
| Amplifier | RED |
| L.O. | GREEN |
| 10MHz | GREEN GREEN blinking GREEN GREEN blinking RED |
| Summary alarm | Summary alarm |
| All OK | All OK |
| All OK standard L.O. 16.85 GHz | All OK standard L.O. 16.85 GHz |
| All OK extended L.O. 16.35 GHz | All OK extended L.O. 16.35 GHz |
| External 10MHz reference | External 10MHz reference |
| Internal 10MHz reference | Internal 10MHz reference |
| No 10MHz reference detected | No 10MHz reference detected |
| Temperature range (ambient) | |
| operating | -40 deg C to +55 deg C |
| storage | -55 deg C to +85 deg C |
| IP rating | IP67 |
| Dimensions & housing | 190 (L) x 140 (W) x 58 (H) mm 7.48" (L) x 5.5" (W) x 2.28" (H) |
| Weight | 2.53 kg (5.6 lbs) max. |