



5W Fanless DBS-Band Block Up Converter

KEY FEATURES

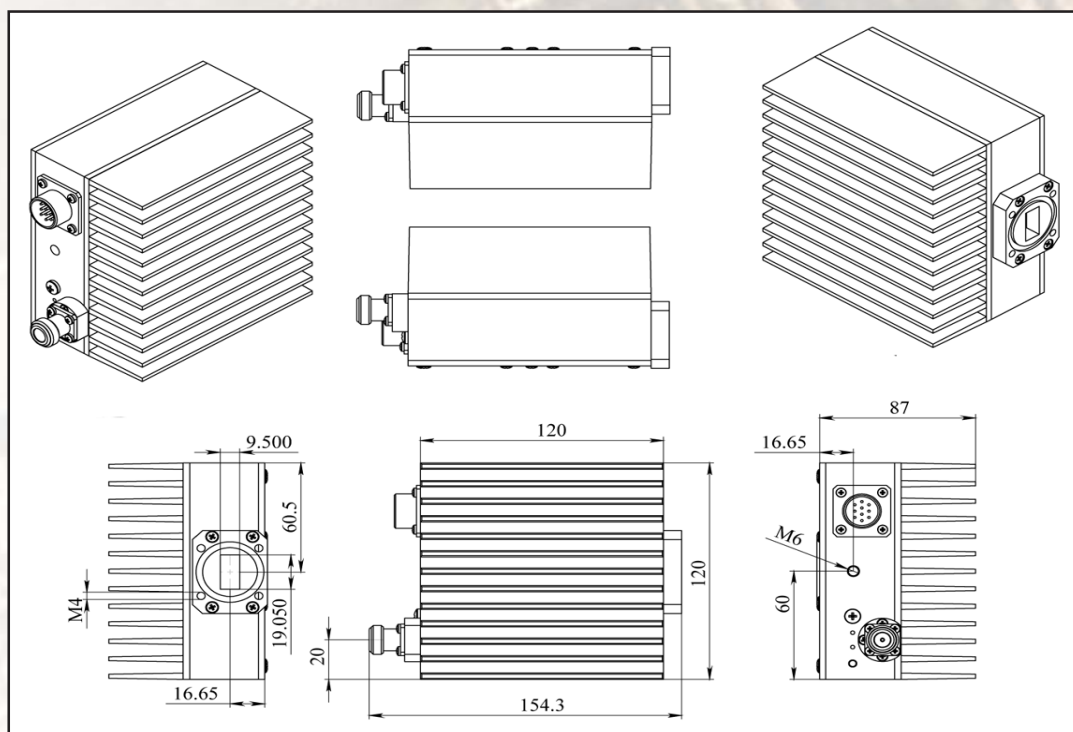
- ◆ Output frequency 17.3 - 18.1 GHz or 18.1 - 18.4 GHz
- ◆ Based on GaN technology which enables high efficiency, low energy consumption and high reliability
- ◆ Extreme P-Out GaN linearity
- ◆ Auto-ranging power 15-30 VDC
- ◆ Incomparable low power consumption (49W max)
- ◆ Digital temperature compensation
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485, FSK, Ethernet (optional)
- ◆ Internal 10MHz high stability 10^{-8} reference (optional)
- ◆ RoHS Compliant
- ◆ Three-year warranty

ABA5DBS / ABA5DBSF



This smallest and lightest fanless 5W L-To DBS-Band Block Up Converter is based on GaN technology. Incomparable low power consumption 49W, Field-Exchangeable connector and auto-ranging (24 VDC) powering feature makes this unit universal for any Ku-Band application. M&C (FSK) capability enables troubleshooting, monitoring and controlling the BUC.

Mechanical Drawing





5W Fanless DBS-Band Block Up Converter

TECHNICAL SPECIFICATIONS

RF frequency	17.4 – 18.1GHz, or 18.1 – 18.4GHz
Local Oscillator	16.35 GHz or 16.95 GHz (OPTIONAL)
IF frequency	950 to 1,750 MHz & 1150 to 1450 MHz
Output power	5W (+37 dBm min)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+15~+30 VDC via IF cable, 49 W max
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-62 G
Gain	62 dB typ
IMD3 (two tones)	-26 dBc max 2 signal 5MHz apart at P-LINEAR
L.O. leakage	-45 dBm max
Spurious	-53 dBc max
Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30dBc
TX Gain variation	± 0.5 dB over 40 MHz ± 1.8 dB over full band
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max
Requirement for external reference frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
Phase noise (Exceeds Intelsat's standard IESS308/309)	-53 dBc/Hz max. @ 10 Hz -63 dBc/Hz max. @ 100 Hz -73 dBc/Hz max. @ 1 KHz -83 dBc/Hz max. @ 10 KHz -93 dBc/Hz max. @ 100 KHz -113 dBc/Hz max. @ 1 MHz
Noise power density Transmit Receive	-60 dBm/Hz (max) -150 dBm/Hz (max)
Noise figure	20 dB max
Input V.S.W.R.	2 : 1 max
Output V.S.W.R.	2 : 1 max.
Mute	Shut off the BUC in case of L.O. unlocked
M&C	via Ethernet
Status LED RED GREEN	Summary alarm All OK
Temperature range (ambient) operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
Dimensions & housing	120 (L) x 120 (W) x 87 (H) mm 4.72" (L) x 4.72" (W) x 3.46" (H)
Weight	1.8 kg (4.0 lbs) max