



20W Full DBS-Band 17.3 - 18.4 GHz BUC

KEY FEATURES

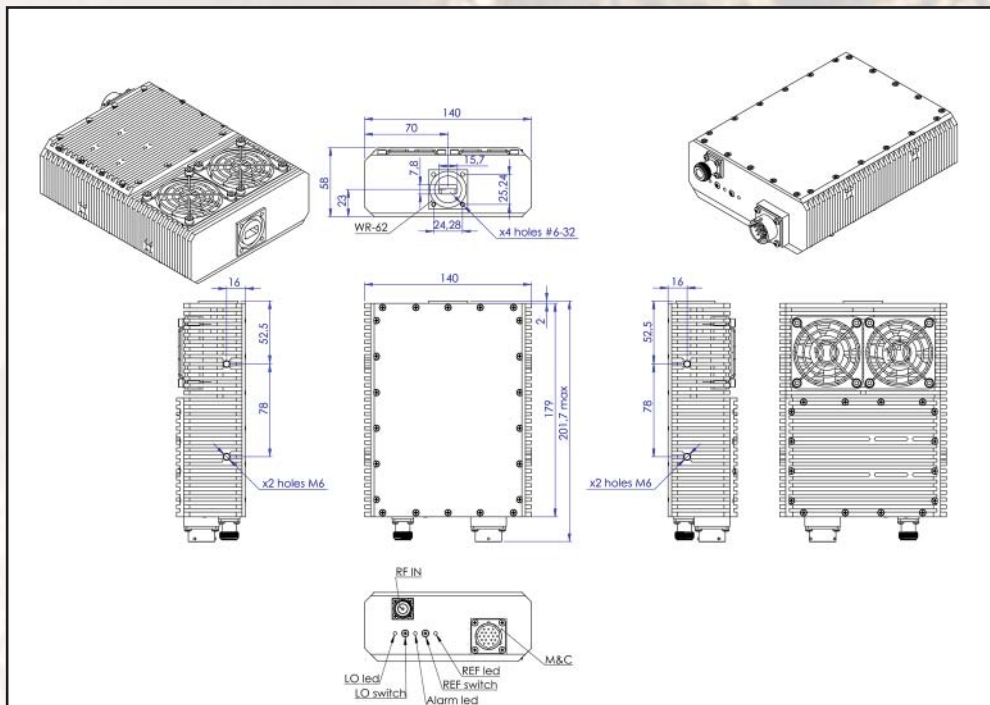
- ◆ Output frequency 17.3-18.4 GHz
- ◆ Double- L.O. (electronically and manually switchable 16.35 and 16.85 GHz)
- ◆ Extreme P-Out GaN linearity
- ◆ Incomparable low power consumption (127W max.)
- ◆ Auto-ranging powering option 15-60 VDC
- ◆ High power efficiency
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Power and lock status LED
- ◆ Autosensing and controlable internal 10MHz reference (optional)
- ◆ M&C-combined RS-232/485, FSK) optional), Ethernet (optional)
- ◆ RoHS compliant

ABE20UDBS / ABE20UDBSF



This unique smallest and lightest 20W 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





20W 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	20W (+43 dBm min.)
Output Linear power	11.8W (+40.71 dBm min.)
IF connector	N-type or F-type
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC via IF connector 127W 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	-66 dBm/Hz (max)
Transmit	-157 dBm/Hz (max)
Receive	
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	Summary alarm
RED	All OK
GREEN	All OK standard L.O. 16.35 GHz
GREEN BLINKING	All OK extended L.O. 16.85 GHz
GREEN	
Temperature range (ambient)	
operating	-40 deg C to +55 deg C
storage	-55 deg C to +85 deg C
Dimensions & housing	179 (L) x 140 (W) x 58 (H) mm 7.04" (L) x 5.5" (W) x 2.28" (H)
Weight	2.37 kg (5.22 lbs) max