



4W Universal Ka-Band (27.5 - 31 GHz) BUC

KEY FEATURES

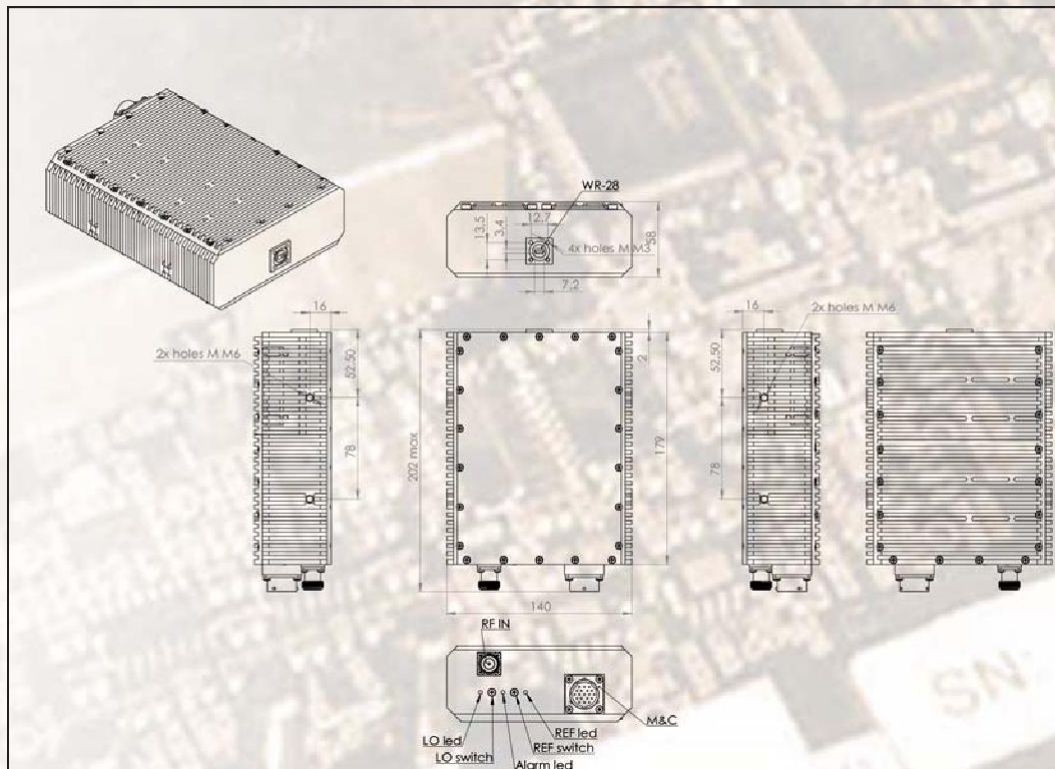
- ◆ Output frequency 27.5-31GHz
- ◆ Quad - L.O. (electronically and manually switchable 26.55, 27.4, 28.05, and 29.05GHz)
- ◆ Low power consumption (<39W)
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz reference, autosensing and controllable (optional)
- ◆ M&C - combined RS-232/485, FSK (optional), Ethernet (optional)
- ◆ RoHS compliant
- ◆ Three-year warranty

ABE4UKA / ABE4UKAF



This fan-less and unique first ever 4W L-To Full Ka-Band Block Up Converter covers the O3B (27.65-29.1GHz), Commercial (29-30GHz) and Military (30-31GHz) frequency bands. M&C (FSK) capability enables trouble shooting, monitoring and controlling the BUC. Unit provides 10MHz reference autosensing feature.

Mechanical Drawing





4W Universal Ka-Band (27.5-31 GHz) BUC

TECHNICAL SPECIFICATIONS

RF frequency	27.5-31.0 GHz
Quad L.O.	26.55, 27.4, 28.05 GHz and 29.05 GHz
IF frequency	950 to 1,950 MHz
Output power	4W (+36 dBm min) 2W (+33 dBm min) P linear
IF connector	N-type or F-type
Power supply – auto-ranging	+15 VDC~+60 VDC via IF cable 39W max
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-28 Grooved
Gain	70 dB typ. 65 dB min.
TX Gain variation	± 0.5 dB over 40MHz ± 1.8 dB over full band
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max.
IMD3 (two tones)	-25 dBc max. 2 signal 5MHz apart at P-LINEAR
Spurious	-55dBc max.
Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 3dB back-off from rated output power)	-30dBc
Requirement for external reference	via IF cable
frequency	10 MHz (sine-wave)
input power	-5 to +5 dBm @ input port
Phase noise	-55 dBc/Hz max. @ 10 Hz -65 dBc/Hz max. @ 100 Hz -75 dBc/Hz max. @ 1 KHz -85 dBc/Hz max. @ 10 KHz -95 dBc/Hz max. @ 100 KHz
Noise power density	-66dBm/Hz (max)
Transmit Receive	-157dBm/Hz (max)
M&C and Ethernet	RS-232/RS-485 and Ethernet (HTTP & SNMP)
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradise
Status LED	RED
L.O.	GREEN/GREEN BLINKING
	GREEN
	GREEN BLINKING
	YELLOW
	YELLOW BLINKING
Internal 10 MHz Auto-Detect	GREEN
	GREEN BLINKING
Input V.S.W.R.	1.5 : 1 max
Output V.S.W.R.	1.5 : 1 max.
Mute	Shut off the BUC if L.O. unlocked
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 7.0" (L) x 5.5" (W) x 2.28" (H)
Weight	1.99 kg (4.4 lbs) max.