



6W Universal Ka-Band (27.5-31.0 GHz) BUC

KEY FEATURES

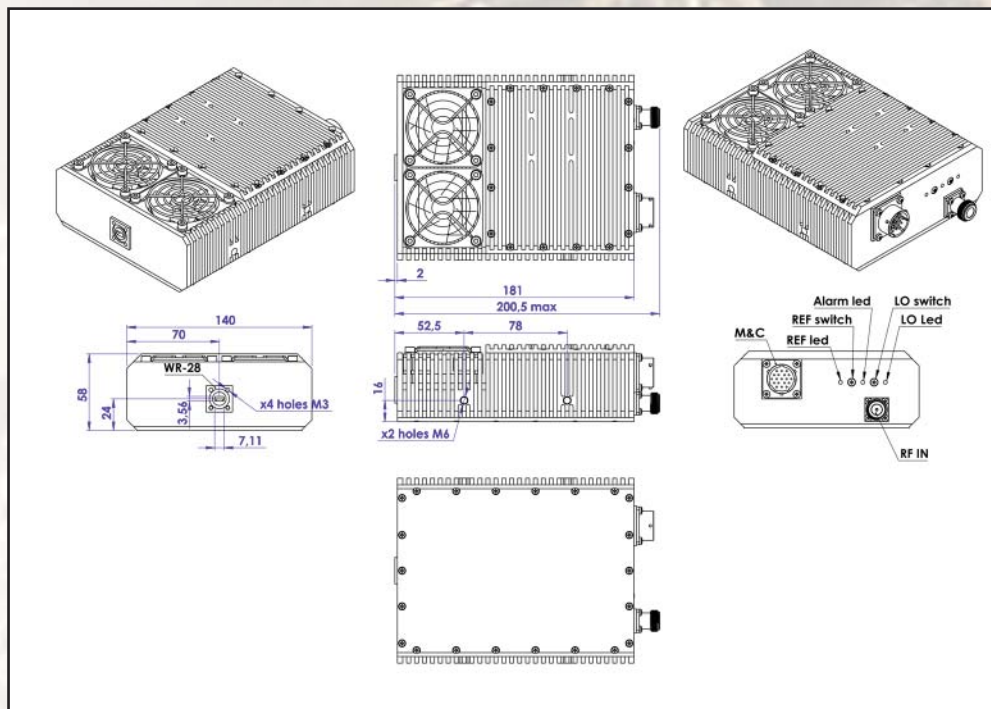
- ◆ Output frequency 27.5-31.0 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Quad L.O. (electronically and manually switchable 26.55, 27.4, 28.05, and 29.05 GHz)
- ◆ Low power consumption (68W max)
- ◆ Advanced M&C - combined RS-232/485 / Ethernet (HTTP and SNMP ver. 2 & 3) / FSK (optional)
- ◆ L.O. lock and amplifier LEDs
- ◆ Built-in redundancy option
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference autosensing and controllable (optional)
- ◆ Special Feature: Chinese GUI (optional)

ABE6UKA / ABE6UKAF



This unique first ever 6W 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. Unit provides 10MHz reference autosensing feature.

Mechanical Drawing





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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	6W (+38 dBm min.), P-Linear 3.86W (+35.87 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	+15 VDC~+60 VDC via IF cable 68W max.
Output interface	WR-28 G
Gain	62 dB typ. 55 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: 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 -65 dBc/Hz max. @ 100 Hz -75 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.)
M&C	RS-232/485 / Ethernet / FSK (optional)
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
L.O.	GREEN GREEN GREEN BLINKING YELLOW YELLOW BLINKING
Internal 10MHz Auto-Detect	GREEN GREEN BLINKING
SSPA MUTED	ENABLED
SSPA OK	ENABLED
All OK L.O. 26.55 GHz	ENABLED
All OK L.O. 27.4 GHz	ENABLED
All OK L.O. 28.05 GHz	ENABLED
All OK L.O. 29.05 GHz	ENABLED
EXTERNAL DETECTED	ENABLED
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
IP rating	IP67
Dimensions & housing	181 (L) x 140 (W) x 58 (H) mm 7.12" (L) x 5.51" (W) x 2.28" (H)
Weight	2.4 kg (5.3 lbs) max.