

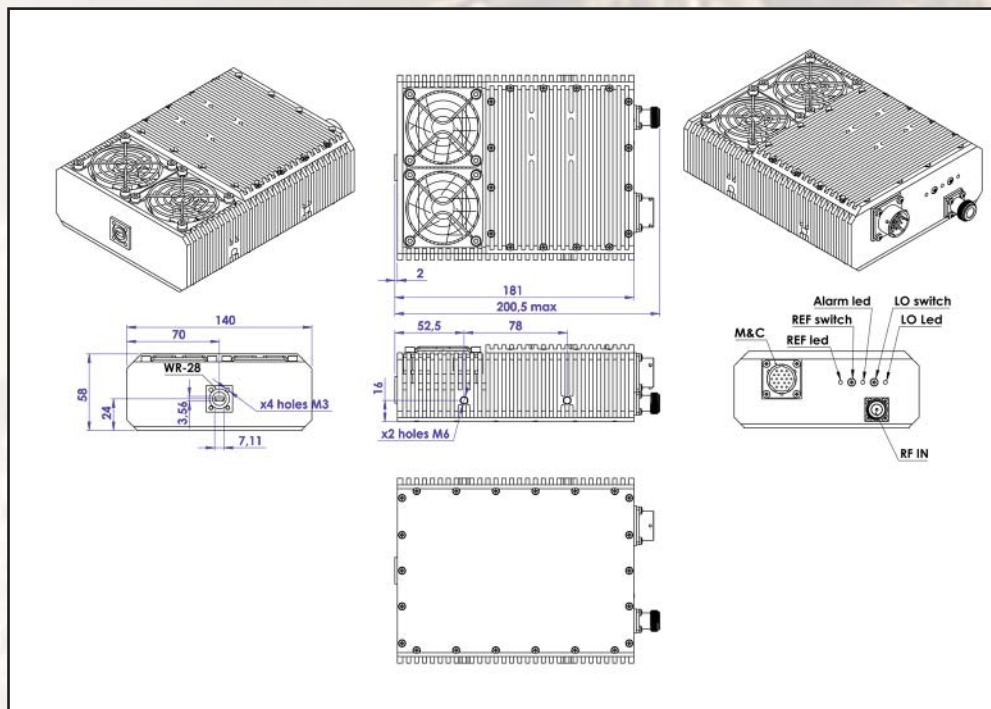


10W Universal Ka-Band (27.5-31.0 GHz) BUC

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 (110W max)
- ◆ M&C - combined RS-232/485, FSK and Ethernet control (HTTP and SNMP)
- ◆ 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)
- ◆ RoHS compliant

Mechanical Drawing



ABE10UKA / ABE10UKAF



This unique first ever 10W 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.



10W Universal Ka-Band (27.5-31.0 GHz) BUC

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	10W (+40 dBm min.)	
IF connector	N-type or F-type (field-exchangeable)	
Power supply : auto-ranging via IF connector	+15 VDC ~ +60 VDC, 110W max.	
Output interface	WR-28 G	
Gain	65 dB typ. 60 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	-66 dBm/Hz (max)
	Receive	-157 dBm/Hz (max)
FSK	Multiplexed on TX IFL, compatible with Compech and Paradigm	
M&C Interface	RS-232 and RS-485, Ethernet (HTTP and SNMP)	
Noise figure	15 dB max	
Input V.S.W.R.	2 : 1 max	
Output V.S.W.R.	2 : 1 max.	
Mute	Shut off the HPA if L.O. unlocked	
Status LED	RED	SSPA MUTED
	GREEN	SSPA OK
L.O.	GREEN	All OK L.O. 26.55 GHz
	GREEN BLINKING	All OK L.O. 27.4 GHz
	YELLOW	All OK L.O. 28.05 GHz
	YELLOW BLINKING	All OK L.O. 29.05 GHz
Internal 10MHz Auto-Detect	GREEN	EXTERNAL DETECTED
	GREEN BLINKING	ENABLED
Temperature range (ambient)		
operating	-40 deg C to +55 deg C	
storage	-55 deg C to +85 deg C	
Vibration and shock	Complies with MIL-STD-810E	
Dimensions & housing	181 (L) x 140 (W) x 58 (H) mm	
	7.2" (L) x 5.6" (W) x 2.3" (H)	
Weight	1.9 kg (4.1 lbs) max	