

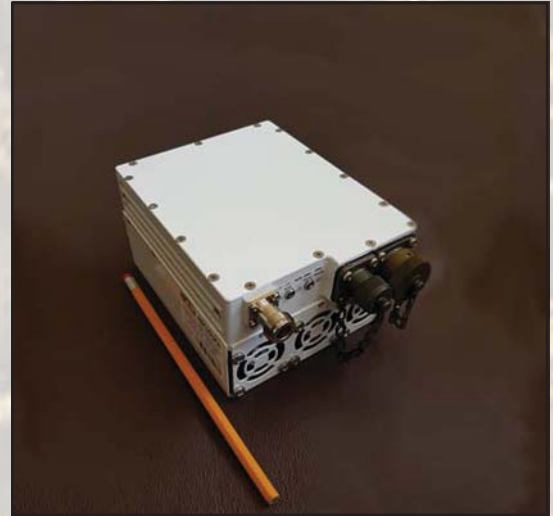


40W Universal Ka-Band (27.5-31.0 GHz) BUC

KEY FEATURES

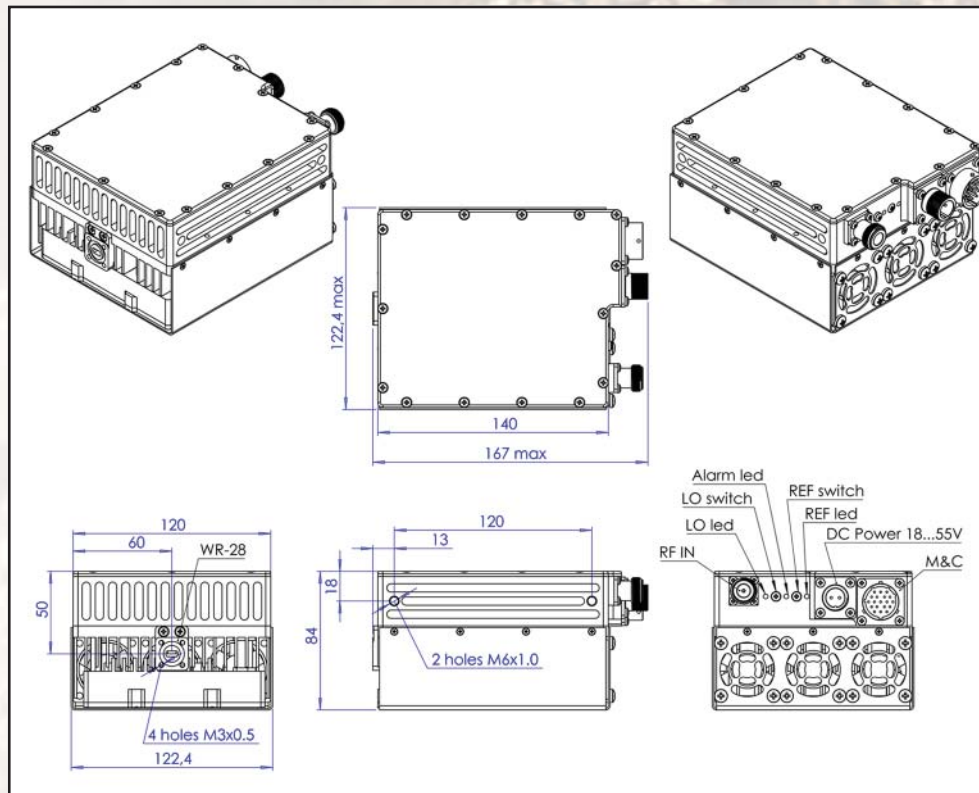
- ◆ Output frequency 27.5-31.0 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ Quad- L.O. (electronically and manually switchable 26.55, 27.4, 28.05, and 29.05 GHz)
- ◆ Low power consumption (340W max)
- ◆ M&C - combined RS-232/485, FSK and Ethernet control (HTTP and SNMP)
- ◆ L.O. lock, amplifier and 10MHz LEDs
- ◆ Built-in redundancy option
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference autosensing and controlable (optional)
- ◆ RoHS compliant

ABC40UKA / ABC40UKAF



This unique first ever 40W 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





40W 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	40W (+46 dBm min.), P-Linear 22.7W (+43.5 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via MS connector	+36 VDC ~ +60 VDC, 340W 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 -78 dBc/Hz max. @ 1 KHz -85 dBc/Hz max. @ 10 KHz -94 dBc/Hz max @ 100 KHz -112 dBc/Hz max @ 1 MHz
Noise power density	Transmit Receive
	-66 dBm/Hz (max) -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)
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 GREEN GREEN BLINKING
L.O.	GREEN GREEN BLINKING YELLOW YELLOW BLINKING
Status REF LED	GREEN GREEN BLINKING RED
	ALARM SSPA OK SSPA MUTED All OK L.O. 26.55 GHz All OK L.O. 27.4 GHz All OK L.O. 28.05 GHz All OK L.O. 29.05 GHz EXTERNAL 10 MHz DETECTED INTERNAL 10 MHz NO EXTERNAL REFERENCE
Temperature range (ambient)	
operating	-40 deg C to +60 deg C
storage	-55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
Dimensions & housing	140 (L) x 122.4 (W) x 84 (H) mm
	5.5" (L) x 4.8" (W) x 3.3" (H)
Weight	2.2 kg (4.85 lbs) max