



20W Universal Ka-Band (27.5 - 31.0 GHz) BUC

KEY FEATURES

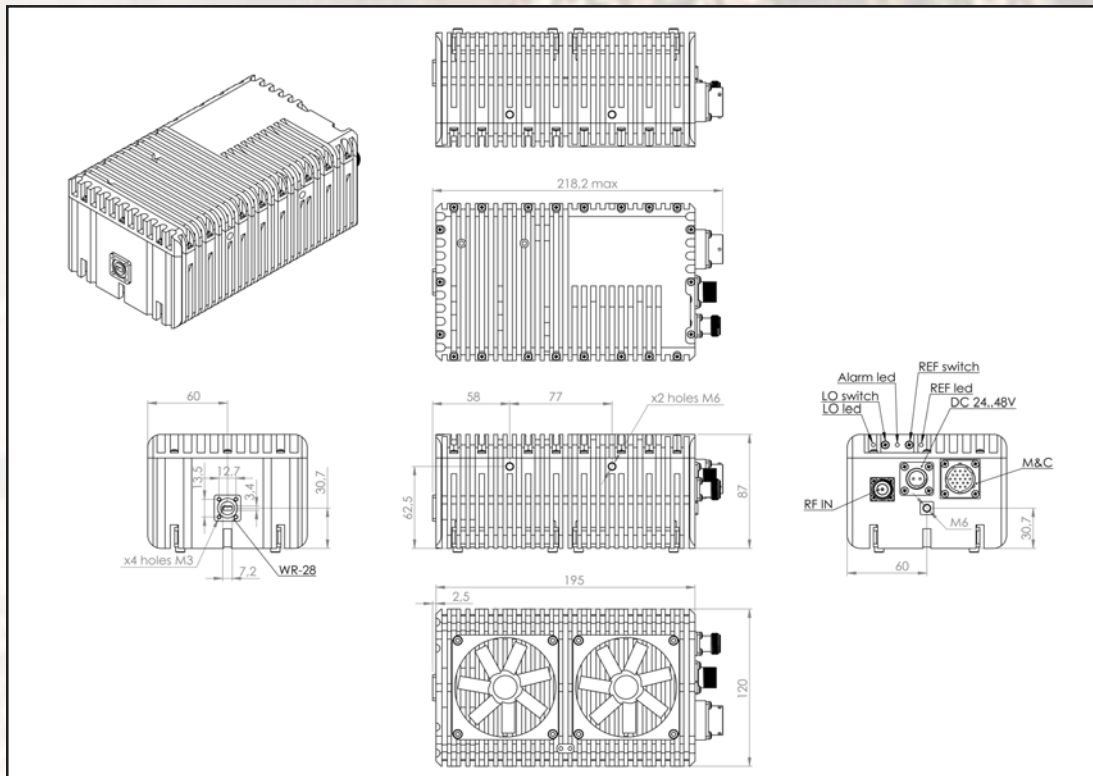
- ◆ Output frequency 27.5-31.0 GHz
- ◆ Quad - L.O. (electronically and manually switchable 26.55, 27.4, 28.05, and 29.05 GHz)
- ◆ Low power consumption (<260W)
- ◆ L.O. lock and amplifier LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz reference, autosensing and controllable (optional)
- ◆ M&C - combined RS-232/485, FSK (optional), Ethernet (optional)
- ◆ RoHS compliant
- ◆ Three-year warrant

ABC20UKA / ABC20UKAF



This unique first ever 20W 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 and FSK capability enables trouble shooting, monitoring and controlling the BUC. Unit provides 10MHz reference autosensing feature.

Mechanical Drawing





20W Universal Ka-Band (27.5-31.0 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	20W (+43 dBm min.)
IF connector	N-type or F-type
Power supply – auto-ranging	+30 VDC~+60 VDC via IF cable 260W max
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-28 Grooved
Gain	65 dB typ. 60 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	-157dBm/Hz (max)
Receive	
M&C	RS-232 and RS-485
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradise
Status LED	SSPA MUTED
RED	SSPA OK
GREEN	All OK L.O. 26.55 GHz
GREEN	All OK L.O. 27.4 GHz
GREEN BLINKING	All OK L.O. 28.05 GHz
YELLOW	All OK L.O. 29.05 GHz
YELLOW BLINKING	EXTERNAL DETECTED
Internal 10 MHz Auto-Detect	ENABLED
GREEN	
GREEN BLINKING	
Input V.S.W.R.	2 : 1 max
Output V.S.W.R.	2 : 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	195 (L) x 120 (W) x 87 (H) mm 7.67" (L) x 4.7" (W) x 3.42" (H)
Weight	2.8 kg (6.17 lbs) max.