



50W Full Ku-Band Block Up Converter

KEY FEATURES

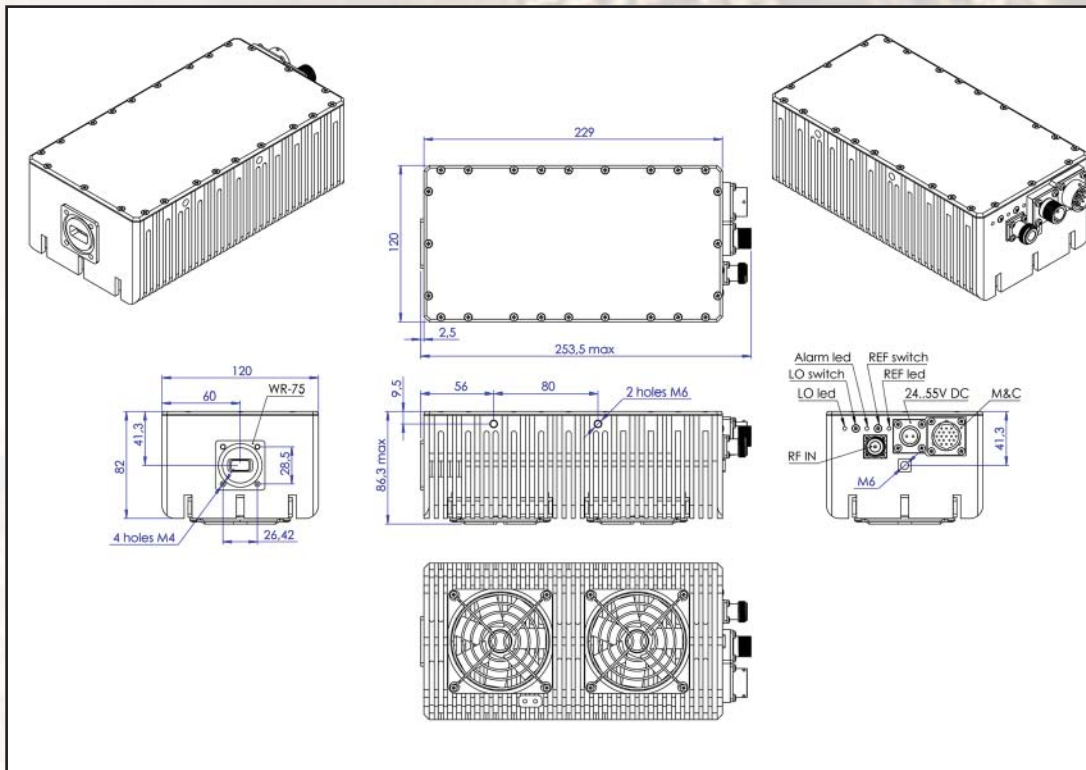
- ◆ Output frequency 12.75-14.50 GHz
- ◆ Double- L.O. (switchable 11.80 & 12.80GHz)
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability
- ◆ Incomparable low power consumption (276W max.)
- ◆ Auto-ranging powering option 24 - 60 VDC
- ◆ Digital temperature compensation
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Amplifier, L.O. and 10 MHz Reference Status LEDs
- ◆ M&C - combined RS-232/485/Ethernet (HTTP and SNMP) and optional FSK
- ◆ RoHS compliant

ABEF50KX / ABEF50KXF



This smallest and lightest 50W Full L-To Ku-Band Block Up Converter is based on GaN technology. Incomparable low power consumption, double L.O., field-exchangeable connector, auto-sensing and controllable internal 10 MHz reference make this unit universal for any Ku-Band application. DC Built-in power and consumes less than 276W.

Mechanical Drawing





50W Full Ku-Band Block Up Converter

TECHNICAL SPECIFICATIONS		
RF frequency		12.75 to 13.50 GHz 13.75 to 14.50 GHz
Dual local oscillator		11.80 GHz and 12.80 GHz
IF frequency		950 to 1,950 MHz
Output power		50W (+47 dBm min.) 25W (+44 dBm min.) P-Linear
IF connector		N-type or F-type (field-exchangeable)
Power supply auto-ranging		24 ~ 60 VDC via MS connector, 276W max.
Output interface		WR-75G
Gain		72 dB typ.
IMD3 (two tones)		-26 dBc max. 2 signal 5 MHz apart at P-LINEAR
L.O. leakage		-45 dBm max
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 ± 1.8 dB over full band
TX Gain stability over temperature range		± 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	-80 dBm/Hz (max) -125 dBm/Hz (max)
Noise figure		15 dB max
Input V.S.W.R.		2 : 1 max
Output V.S.W.R.		2 : 1 max.
M&C		RS-232 and RS-485, Ethernet (HTTP and SNMP), FSK
Mute		Shut off the HPA if L.O. unlocked
Status LED Amplifier L.O. 10MHz	RED GREEN YELLOW YELLOW blinking GREEN GREEN blinking RED	Summary alarm All OK All OK standard L.O. 12.80 GHz All OK extended L.O. 11.80 GHz External 10MHz reference Internal 10MHz reference No 10MHz reference detected
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
Dimensions & housing		235 (L) x 120 (W) x 85 (H) mm 9.25" (L) x 4.72" (W) x 3.34" (H)
Weight		3.35 kg (7.3 lbs) max