50W X-Band Block Up Converter

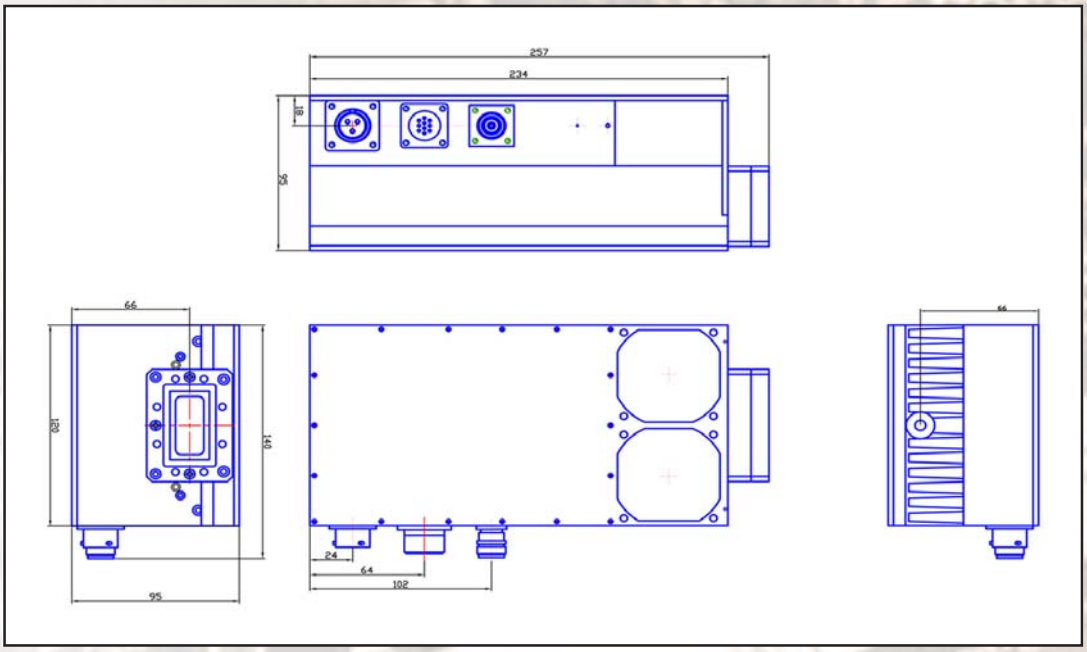
KEY FEATURES

- Smallest package size and weight
- 7.900 - 8.400 GHz output
- High power efficiency (50W min @P1dB)
- L.O. frequency 6.950 GHz
- Field-exchangeable (F/N) IF connector
- 80 - 240 VAC or 38 - 56 VDC auto-ranging power (240W max)
- Internal 10MHz high stability 10^{-8} reference (optional)
- Power and lock status LED
- Advanced M & C interface / FSK (optional)
- RoHS compliant
- Three-year warranty

ABD50X / ABD50XF
ABC50X / ABC50XF

This is a unique X-Band (7.900-8.400 GHz) powered with auto-ranging 80-240 VAC or 38-56 VDC unit, designed for mobile applications. It's light enough to be mounted on a feed horn of most antennas.

Mechanical Drawing



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50W X-Band Block Up Converter

TECHNICAL SPECIFICATIONS	
RF frequency	7.900 to 8.400 GHz
Local oscillator- electronically and manually switchable	6.950GHz
IF frequency	950 to 1,450 MHz
Output power @ P1dB	50W (+47 dBm min.)
IF connector	N-type or F-type
Power supply via MS connector **ABC50X-auto-ranging** **ABD50X-auto-ranging**	 38-56 VDC, 235 W max 80-240 VAC, 240 W max
Output interface	CPR-112G, WR-90G, WR-112G, CPR-137G
Internal 10MHz high stability reference	10^{-8}
IMD3 (3dB back off P1dB)	-28 dBc max
L.O. leakage	-33 dBm max
Requirement for external reference: frequency input power	**via IF cable** 10 MHz (sine-wave) -5 to +5 dBm @ input port
Gain variation over 40 MHz **over 500 MHz** **Over operating temperature**	1.1 dB p_p 1.6 dB p_p 1.2 dB p_p @ fixed frequency
Phase noise	-53 dBc/Hz max. @ 10 Hz -63 dBc/Hz max. @ 100 Hz -73 dBc/Hz max. @ 1 KHz -83 dBc/Hz max. @ 10 KHz -93 dBc/Hz max. @ 100 KHz -113 dBc/Hz max @ 1 MHz
M&C	RS-232 and RS-485
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradise
Spurious level	-50 dBc
Noise figure	20 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 **GREEN** **YELLOW** **RED**	All OK Power On Summary alarm
Temperature range (ambient) operating storage	 -45 deg C to +65 deg C -55 deg C to +85 deg C
Dimensions & housing	257 (L) x 120 (W) x 95 (H) mm 10.2” (L) x 4.8” (W) x 3.8” (H)
Weight	3.5 kg (7.7 lbs) max

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