

20W Fanless Full C-Band Block Up Converter

KEY FEATURES

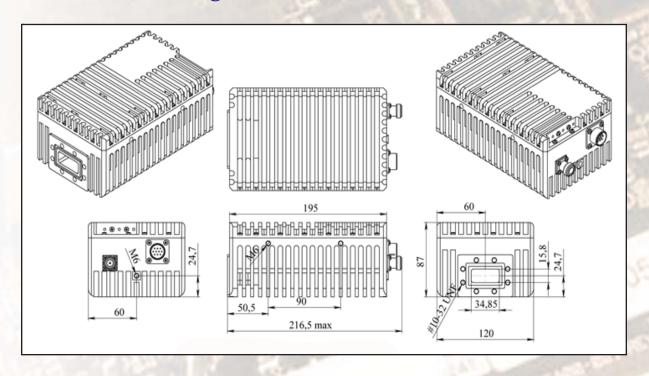
- 5.85 GHz 7.05 GHz output frequency
- Based on GaN technology which enables high efficiency, low power consumption and high reliability
- Double L.O. (electronically and manually switchable 4.9 & 5.5 GHz)
- Incomparable low power consumption (75W @ 43dBm)
- Auto-ranging powering option 15-60VDC
- High power efficiency (20W min over temperature)
- Digital temperature compensation
- Field-exchangeable (F/N) IF connector
- Power and lock status LED
- Advanced M&C RS-232/485, FSK (optional), Ethernet (optional)
- Internal 10MHz high stability 10-8 reference (optional)

ABE20XC / ABE20XCF



This smallest and lightest fanless 20W(min) L-To C-Band Block Up Converter is based on GaN technology. It could be mounted directly on a feed horn. The unit covers all three C-Band sub-bands: Standard (5.85-6.425 GHz), Palapa (6.365-6.725 GHz) and Insat (6.725-7.05 GHz).

Mechanical Drawing





20W Fanless Full C-Band Block Up Converter

TECHNICA	L SPECIFICATIONS
RF frequency	5.850 to 7.05 GHz
Dual local oscillator	4.90 and 5.50 GHz
IF frequency	950 to 1,550 MHz
Output power	20 W (+43 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply : auto-ranging via IF connector	15-60 VDC, 75 W @ 43dBm
Output interface	CPR 137 G
Internal 10MHz high stability reference	10'8
Gain	68 dB nominal
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz apart at P-LINEAR
L.O. leakage	-45 dBm max
Spurious	-53 dBc max
Spectral regrowth	oo abo max
(QPSK at 1.5x and OQPSK at 1.0x symbol rate offset	77.73
with 2dB 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
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	-55 dBc/Hz max. @ 10 Hz
(Exceeds Intelsat's standard IESS308/309)	-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)
M&C Interface	RS-232 and RS-485, Ethernet
	Multiplexed on TX IFL, compatible with Comtech and
FSK	Paradigm
Noise figure	15 dB max
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	Summary alarm
GREEN	All OK
YELLOW	All OK standard L.O. 4.90 GHz
YELLOW blinking	All OK extended L.O. 5.50 GHz
Temperature range (ambient)	PB-3
operating	-40 deg C to +55 deg C
storage	-55 deg C to +85 deg C
Siorage	-00 deg O to +00 deg O
Vibration and shock	Complies with MIL-STD-810E
Dimensions & housing	216.5 (L) x 120 (W) x 87 (H) mm
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Weight	2.76 kg (6.1 lbs) max