



EUROSATCOM
VSATECH ASSOCIÉ

MINI BUC X-BAND 20W

ACMB-X20W-E1-V3

Medium Power Compact GaAs Series

The ACMB-X family of BUCs is designed for the most challenging X-band professional & military satellite communication systems (ground, SOTP, SOTM, maritime, etc.). Latest technology is applied to obtain the best linearity, phase noise, gain stability and linear power according to MIL-STD-188-164C. The ACMB-X family is a high reliability solution designed for harsh environmental conditions, with every single production unit fully tested in an environmental chamber and delivered with a complete factory acceptance test report.



TRANSMITTER SPECIFICATIONS

Input frequency	950 to 1450 MHz
Input L-Band VSWR (50 Ω)	< 1.5:1
Output frequency	7.9 to 8.4 GHz
Output X-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	0 dBm
P1dB (min)	43.0 dBm
Gain	60 dB min
Gain flatness	±1.5 dB over whole BW ±0.5 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ const. temp.
Gain variation over temperature	±1.5 dB (±2.0 dB option LP3)
Attenuation adjustment range	30 dB with 0.5 dB steps
Mute	> 50 dB
Noise figure	≤ 15 dB @ max. gain
Output noise power density	< -100 dBm/Hz (7.25-7.75 GHz)
Spurious @ P1dB	< -60 dBc
Harmonics @ P1dB	< -50 dBc
TOI @ P1dB - 3 dB	< -25 dBc (2 tones Δ=5 MHz)
Sample port	-40 dBc ± 2 dB

LOCAL OSCILLATOR

Output phase noise (IESS-308/309 - 8 dB)

100 Hz	-70 dBc/Hz
1 kHz	-78 dBc/Hz
10 kHz	-88 dBc/Hz
100 kHz	-110 dBc/Hz
External reference	10 MHz
External reference level	0 dBm ± 5 dB

POWER SUPPLY

DC input voltage	48 Vdc
Consumption	180 W @ P1dB

MECHANICAL SPECIFICATIONS

	DC supply	AC supply
Size (LxWxH)	281 x 160 x 85 mm 11 x 6.3 x 3.3 in	302 x 160 x 85 mm 11.9 x 6.3 x 3.3 in
Weight	4.3 kg 9.5 lbs	4.6 kg 10.1 lbs
Finish	RAL 9003 (White)	

ENVIRONMENTAL SPECIFICATIONS

Storage temperature	-40 °C to +85 °C
Operating temperature	-20 °C to +60 °C
Relative humidity	up to 95%
Operating altitude	up to 3000 m

INTERFACES

TX input (L-Band + Ext. Ref.)	Type N(F) 50 Ω
TX output (X-Band)	WR112 CPRG flange
Output sample (X-Band)	Type SMA(F) 50 Ω
M&C (RS232/485)	62IN12E12-14S-4-622
M&C (Ethernet/SNMP)	62IN12E12-8S-4-622 (as option)
DC Power supply	62IN12E12-8P-4-622
AC Power supply	62IN12E12-3P-4-622 (as option)

All mating connectors provided

OPTIONS

X-band output	L-band input
7.9 to 8.4 GHz	950 to 1450 MHz
LO freq.	Standard freq. option
6.950 GHz	ACMB-X20W-E1-V3

LP1	85-265 VAC (47-63 Hz)
LP2	Internal reference (Auto external on presence)
LP3	Operating temperature -40 °C to +60 °C
LP4	Ethernet interface (TCP/IP)
LP5	SNMP Agent
LP6	24 Vdc



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