



EUROSATCOM
VSATECH ASSOCIÉ

X-BAND BUC 100W

ACTX-X100W-E1-V2

Medium Power Compact GaN Series



The ACTX-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 power efficiency, phase noise, gain stability and linear power according to MIL-STD-188-164C. The ACTX-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 Ka-band VSWR (50 Ω)	< 1.3:1 (external waveguide isolator)
Spectrum inversion	None
Max. input level without damage	+10 dBm
Psat (typ)	50.0 dBm
Plin (min)	48.0 dBm
Gain @ Plin	75 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 MP3)
Attenuation adjustment range	30 dB with 0.25 dB steps
Mute	> 60 dB
Output noise power density	< -80 dBm/Hz (7.25-8.4 GHz)
Power detection accuracy	± 1.0 dB (Psat to Psat -20 dB)
Spurious @ Plin	< -60 dBc
SR @ Plin	< -30 dBc (MIL-STD-188-164C)
TOI @ Plin	< -25 dBc (MIL-STD-188-164C)

LOCAL OSCILLATOR

Output phase noise (IESS-308/309 - 10 dB)

100 Hz	-70 dBc/Hz
1 kHz	-80 dBc/Hz
10 kHz	-90 dBc/Hz
100 kHz	-110 dBc/Hz
External reference	10 MHz
External reference level	0 dBm $\pm$ 5 dB

POWER SUPPLY

AC input voltage	85-265 VAC (47-63 Hz)
Consumption	450 W @ Plin

MECHANICAL SPECIFICATIONS

Size (LxWxH) including isolator	318 x 165 x 145 mm 12.5 x 6.5 x 5.7 in
Weight	6.0 kg 13.2 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 100%
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
M&C (RS232/485)	62IN12E12-14S-4-622
M&C (Ethernet/SNMP)	62IN12E12-8S-4-622 (option)
Power supply	62IN12E12-3P-4-622

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	ACTX-X100W-E1-V2

MP1	48 Vdc
MP2	Internal reference (Auto external on presence)
MP3	Operating temperature -40 °C to +60 °C
MP4	Ethernet interface (TCP/IP)
MP5	SNMP Agent



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