



EUROSATCOM
VSATECH ASSOCIÉ

SINGLE Ka-BAND BUC 80W

ACTX-Ka80W-Ex-V2

High Power GaN Series

The ACTX-Ka family of BUCs is designed for the most challenging Ka-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-Ka 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 2000 MHz (see options)
Input L-Band VSWR (50 Ω)	< 1.5:1
Output frequency	27.5 to 31.0 GHz (see options)
Output Ka-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	+10 dBm
Psat (typ)	49.0 dBm
Plin (min)	46.0 dBm
Gain @ Plin	65 dB min
Gain flatness	±2.0 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 HP3)
Attenuation adjustment range	30 dB with 0.25 dB steps
Mute	> 60 dB
Output noise power density	< -80 dBm/Hz (27.5-31.0 GHz) < -150 dBm/Hz (17.7-21.2 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 - 5 dB)

100 Hz	-65 dBc/Hz
1 kHz	-75 dBc/Hz
10 kHz	-85 dBc/Hz
100 kHz	-95 dBc/Hz
External reference	10 MHz
External reference level	0 dBm ± 5 dB

POWER SUPPLY

AC input voltage	85-265 VAC (47-63 Hz)
Consumption	600 W @ Plin

MECHANICAL SPECIFICATIONS

Size (LxWxH)	340 x 220 x 155 mm 13.4 x 8.7 x 6.1 in
Weight	12.0 kg 26.5 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 (Ka-Band)	WR28 grooved (PBR 320)
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

Ka-band output	L-band input
29.5 to 30.0 GHz	950 to 1450 MHz
30.0 to 31.0 GHz	950 to 1950 MHz
30.0 to 31.0 GHz	1000 to 2000 MHz
29.0 to 30.0 GHz 30.0 to 31.0 GHz	1000 to 2000 MHz

LO freq.	Standard freq. option
28.550 GHz	ACTX-Ka80W-E2-V2
29.050 GHz	ACTX-Ka80W-E6-V2
29.000 GHz	ACTX-Ka80W-E66-V2
28.000 GHz 29.000 GHz	ACTX-Ka80W-E31-V2

HP1	48 Vdc
HP2	Internal reference (Auto external on presence)
HP3	Operating temperature -40 °C to +60 °C
HP4	Ethernet interface (TCP/IP)
HP5	SNMP Agent



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