



EUROSATCOM
VSATECH ASSOCIÉ

SINGLE Ka-BAND BUC 40W

ACTX-Ka40W-Ex-V4

Medium 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)	46.0 dBm
Plin (min)	43.0 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 MP3)
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	250 W @ Plin

MECHANICAL SPECIFICATIONS

Size (LxWxH)	250 x 180 x 165 mm 9.8 x 7.1 x 6.5 in
Weight	8.0 kg 17.6 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	

LO freq.	Standard freq. option
28.550 GHz	ACTX-Ka40W-E2-V4
29.050 GHz	ACTX-Ka40W-E6-V4
29.000 GHz	ACTX-Ka40W-E66-V4

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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