



EUROSATCOM
VSATECH ASSOCIÉ

SINGLE / DUAL Ka-BAND BUC 20W

ACTX-Ka20W-Ex-V4

Medium Power Compact 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)	43.0 dBm
Plin (min)	40.0 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	< -85 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

DC input voltage	48 Vdc
Consumption	150 W @ Plin

MECHANICAL SPECIFICATIONS

Size (LxWxH)	200 x 130 x 100 mm 7.9 x 5.1 x 3.9 in
Weight	3.5 kg 7.7 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	D38999/20FC35SN
Power supply	D38999/20FB98PN

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		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-Ka20W-E2-V4	
29.000 GHz		ACTX-Ka20W-E66-V4	
28.000 GHz 29.000 GHz		ACTX-Ka20W-E31-V4	

MP1	85-265 VAC (47-63 Hz) 200 x 130 x 110 mm
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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