



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)	< 2.0:1
Spectrum inversion	None
Psat (typ)	39.0 dBm
Plin (min)	36.0 dBm
Gain @ Plin	60 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 LP3)
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)
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	20-60 V _{DC}
Consumption	45 W @ Plin

MECHANICAL SPECIFICATIONS

Size (LxWxH)	195 x 135 x 50 mm 7.7 x 5.3 x 2.0 in
Weight	2.0 kg 4.4 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 4500 m

INTERFACES

TX input (L-Band + DC + Ext. Ref.)	Type N(F) 50 Ω
TX output (Ka-Band)	WR28 grooved (PBR 320)
M&C	62IN12E12-14S-4-622

All mating connectors provided

OPTIONS

Ka-band output	L-band input	LO freq.	Standard freq. option
29.5 to 30.0 GHz	950 to 1450 MHz	28.550 GHz	ACTX-Ka8W-E2-V6
30.0 to 31.0 GHz	950 to 1950 MHz	29.050 GHz	ACTX-Ka8W-E6-V6
30.0 to 31.0 GHz	1000 to 2000 MHz	29.000 GHz	ACTX-Ka8W-E66-V6

LP2	Internal reference (Auto external on presence)
LP3	Operating temperature -40 °C to +60 °C
LP4	Ethernet interface (TCP/IP)
LP5	SNMP Agent
LP6	Dedicated power supply connector
LP7	Dedicated ext. ref. connector SMA(F) 50 Ω