



The **ACTX-Ka** family of SSPBs 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 V <sub>DC</sub>
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	LO freq.	Standard freq. option
29.5 to 30.0 GHz	950 to 1450 MHz	28.550 GHz	ACTX-Ka20W-E2-V4
30.0 to 31.0 GHz	1000 to 2000 MHz	29.000 GHz	ACTX-Ka20W-E66-V4
29.0 to 30.0 GHz 30.0 to 31.0 GHz	1000 to 2000 MHz	28.000 GHz 29.000 GHz	ACTX-Ka20W-E31-V4

MP1 .....	85-265 V <sub>AC</sub> (47-63 Hz) 200 x 130 x 110 mm
MP2 .....	Internal reference (Auto external on p
MP3 .....	Operating temperature -40 °C to +60 °C
MP4 .....	Ethernet interface (TCP/IP)
MP5 .....	SNMP Agent