



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) .....	50.0 dBm
Plin (min) .....	47.0 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 V <sub>AC</sub> (47-63 Hz)
Consumption .....	650 W typ @ Plin

### MECHANICAL SPECIFICATIONS

Size (LxWxH) .....	340 x 220 x 165 mm 13.4 x 8.7 x 6.5 in
Weight .....	14.0 kg 30.9 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 (as option)
Power supply .....	62IN12E12-3P-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-Ka100W-E2-V3
30.0 to 31.0 GHz	950 to 1950 MHz	29.050 GHz	ACTX-Ka100W-E6-V3
30.0 to 31.0 GHz	1000 to 2000 MHz	29.000 GHz	ACTX-Ka100W-E66-V3
29.0 to 30.0 GHz	1000 to 2000 MHz	28.000 GHz	ACTX-Ka100W-E31-V3
30.0 to 31.0 GHz		29.000 GHz	

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