

# ACTX-Ka50W-Ex-V8

Single/Dual/Full Ka-band SSPB 50 W Zeus Series

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.

- ↘ Extended temperature range -40 °C to +60 °C
- ↘ Internal reference with automatic external (10/50 MHz) selection on presence
- ↘ M&C with serial port (RS-232/485), Ethernet (HTTPS, SSH) and SNMPv3
- ↘ OpenBMIP standard compatible
- ↘ External led indicator



## ZEUS

The king of the Gods. God of the sky and thunder watches over and governs the Universe, like our line of SSPBs, a reference in the world market, with an excellent SWAP ratio for different frequency bands and output powers.

## Transmitter

Input frequency	950 to 2000 MHz
Input L-band VSWR (50 Ω)	< 1.5:1
Output frequency	27.5 to 31.0 GHz
Output Ka-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	+10 dBm
Psat (typ)	47.0 dBm
Plin	> 44.0 dBm
Gain @ Plin	> 65 dB
Gain flatness	±2.0 dB over 1000 MHz ±1.5 dB over 500 MHz ±0.5 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ constant T
Gain variation over temperature	±1.5 dB
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 per MIL-STD-188-164C	< -30 dBc
TOI @ Plin per MIL-STD-188-164C	< -25 dBc

## Local Oscillator

Output phase noise (IESS-308/309 - 10 dB)		
	100 Hz	-70 dBc/Hz
	1 kHz	-80 dBc/Hz
	10 kHz	-90 dBc/Hz
	100 kHz	-95 dBc/Hz
External reference (Auto selection on presence)	10 / 50 MHz	
External reference level	0 dBm ± 5 dB	
Internal reference stability	±2 ppb/day	

## Environmental

Storage temperature	-40 °C to +85 °C
Operating temperature	-40 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 3000 m

## Mechanical

Size (LxWxH)	190 x 140 x 125 mm 7.5 x 5.5 x 4.9 in
Weight	5.0 kg 11.0 lbs
Finish	RAL 9003 (White) by default RAL 1019 (Sand) by request NATO Green by request

## Interfaces

All mating connectors provided

TX input (L-band + Ext. Ref.)	Type N(F) 50 Ω
TX output (Ka-band)	WR28 grooved (PBR 320)
M&C (RS-232/485)	62INI2E12-14S-4-622
M&C (Ethernet/SNMPv3/OpenBMP)	62INI2E12-8S-4-622
Power supply	62INI2E12-3P-4-622

## Power Supply

AC input voltage	85-265 V <sub>AC</sub> (47-63 Hz)
Consumption @ Plin	300 W

## Order information

Part-number	Input	Output	LO frequency
ACTX-Ka50W-E2-V8	950 - 1450 MHz	29.50 - 30.00 GHz	28.550 GHz
ACTX-Ka50W-E6-V8	950 - 1950 MHz	30.00 - 31.00 GHz	29.050 GHz
ACTX-Ka50W-E66-V8	1000 - 2000 MHz	30.00 - 31.00 GHz	29.000 GHz
ACTX-Ka50W-E31-V8	1000 - 2000 MHz	29.00 - 30.00 GHz 30.00 - 31.00 GHz	28.000 GHz 29.000 GHz
ACTX-Ka50W-E70-V8	950 - 1950 MHz	27.50 - 28.50 GHz 28.25 - 29.25 GHz 29.00 - 30.00 GHz 30.00 - 31.00 GHz	26.550 GHz 27.300 GHz 28.050 GHz 29.050 GHz
ACTX-Ka50W-E71-V8	1000 - 2000 MHz	27.50 - 28.50 GHz 28.25 - 29.25 GHz 29.00 - 30.00 GHz 30.00 - 31.00 GHz	26.500 GHz 27.250 GHz 28.000 GHz 29.000 GHz

Any other frequency band or custom specification available under request. Please, contact factory. Specifications are subject to change without notice.

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