

# ACTX-Ka20W-Ex-V4

## Single/Dual Ka-band SSPB 20 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.

- ↘ DC or AC supply operation
- ↘ External and internal reference capabilities
- ↘ Standard M&C with serial port (RS-232/485) with optional Ethernet and SNMPv2
- ↘ High linearity performance and spurs rejection
- ↘ Low power consumption



**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)	43.0 dBm
Plin	> 40.0 dBm
Gain @ Plin	> 65 dB
Gain flatness	±2.0 dB over whole BW ±0.5 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ constant T
Gain variation over temperature	±1.5 dB ±2.0 dB @ option T
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 per MIL-STD-188-164C	< -30 dBc
TOI @ Plin per MIL-STD-188-164C	< -25 dBc

## 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	

## Environmental

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

## Mechanical

Size (LxWxH) DC version	200 x 130 x 100 mm 7.9 x 5.1 x 3.9 in
Size (LxWxH) AC version	200 x 130 x 110 mm 7.9 x 5.1 x 4.3 in
Weight	5.0 kg 11.0 lbs
Finish	RAL 9003 (White)

## Power Supply

DC input voltage	48 V <sub>DC</sub>
Consumption @ Plin	150 W

## 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	D38999/20FC35SN
Power supply	D38999/20FB98PN

## Order information

Part-number	Input	Output	LO frequency
ACTX-Ka20W-E2-V4	950 - 1450 MHz	29.5 - 30.0 GHz	28.550 GHz
ACTX-Ka20W-E6-V4	950 - 1950 MHz	30.0 - 31.0 GHz	29.050 GHz
ACTX-Ka20W-E66-V4	1000 - 2000 MHz	30.0 - 31.0 GHz	29.000 GHz
ACTX-Ka20W-E31-V5	1000 - 2000 MHz	29.0 - 30.0 GHz 30.0 - 31.0 GHz	28.000 GHz 29.000 GHz

## Options

Option A	85-265 V <sub>AC</sub> (47-63 Hz)
Option R	Internal reference (Auto external on presence)
Option T	Operating temperature -40 °C to +60 °C
Option E	Ethernet interface (TCP/IP)
Option S	SNMPv2 agent

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

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