

ACTX-Ka50W-Ex-V8

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 whole BW ±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 - 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 / 50 MHz | |
| External reference level | 0 dBm ± 5 dB | |

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) |

Power Supply

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|--------------------|-----------------------------------|
| AC input voltage | 85-265 V _{AC} (47-63 Hz) |
| Consumption @ Plin | 300 W |

Interfaces

All mating connectors provided

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|-------------------------------|------------------------|
| 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 |

Order information

| Part-number | Input | Output | LO frequency |
|-------------------|-----------------|--|--|
| 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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