# SINGLE Ka-BAND SSPA 400W

## ACSH-Ka400W-E59-V2

High Power GaN Series • Preliminary

EUROSATCOM
VSATECH ASSOCIÉ

The ACSH-Ka family of SSPAs 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 ACSH-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/Output frequency | 27.5 to 30.0 GHz |
| Input/Output Ka-band VSWR (50 Ω) | < 1.3:1 |
| Max. output load without damage | 2.0:1 |
| Max. input level without damage | +10 dBm |
| Psat (typ) | 56.0 dBm |
| Plin[1] (min) | 53.0 dBm |
| Plin[2] (min) | 52.0 dBm |
| Gain @ Plin | 70 dB min |
| Gain flatness | ±1.0 dB over 1 GHz |
| | ±0.5 dB over 80 MHz |
| Gain stability (24 hours) | ±0.25 dB @ const. temp. |
| Gain variation over temperature | ±1.5 dB |
| Attenuation adjustment range | 20 dB with 0.1 dB steps |
| Output noise power density | < -75 dBm/Hz (27.5-30.0 GHz) |
| | < -155 dBm/Hz (17.7-20.2 GHz) |
| Power detection accuracy | ±1.0 dB (Psat to Psat – 20 dB) |
| Spurious & Harmonics @ Plin | < -60 dBc |
| SR @ Plin[1] | < -30 dBc (MIL-STD-188-164C) |
| TOI @ Plin[1] | < -25 dBc (MIL-STD-188-164C) |
| NPR @ Plin[2] | < -19 dB |
| AM/PM conversion @ Plin[1] | < 2.0 °/dB |
| Phase noise | < IESS-308/309 – 10 dB |
| Group delay over any 80 MHz | |
| Linear | 0.01 ns/MHz |
| Parabolic | 0.001 ns/MHz$^2$ |
| Ripple | 0.5 ns pp |
| Input monitor | -20 dBc ± 2 dB |
| Output monitor | -50 dBc ± 2 dB |

## POWER SUPPLY

| | |
|---|---|
| AC input voltage | 85-265 VAC (47-63 Hz) |
| Consumption | 2500 W @ Plin[1] (TBC) |

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Size (LxWxH) | 548 x 237 x 267 mm<br>21.6 x 9.3 x 10.5 in |
| Weight | 39.0 kg<br>86.0 lbs |
| Finish | RAL 9003 (White) |

## ENVIRONMENTAL SPECIFICATIONS

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

## INTERFACES

| | |
|---|---|
| TX input (Ka-Band) | K-Type (F) 50 ff |
| TX output (Ka-Band) | WR34 grooved (PBR 260) |
| Input monitor (Ka-band) | K-Type (F) 50 Ω |
| Output monitor (Ka-band) | K-Type (F) 50 Ω |
| M&C (RS232/485) | 62IN12E12-14S-4-622 |
| M&C (Ethernet/SNMP) | 62IN12E12-8S-4-622 |
| Power supply | ACA3102E16-10PBA232 |

*All mating connectors provided*

## OPTIONS

| Ka-band output | Ka-band input |
|---|---|
| 27.5 to 30.0 GHz | 27.5 to 30.0 GHz |

| Standard freq. option |
|---|
| ACCVT-LKa-E28-V4 |

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