

ACSR-X400W-E1-V1

X-band SSPA 400W Hercules Series rackmount



The ACSR-X family of SSPAs is designed for the most challenging X-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 ACSR-X 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.

- ✘ AC supply operation
- ✘ High linearity
- ✘ Detachable fans tray
- ✘ M&C with serial port (RS-232/485), Ethernet and SNMPv2
- ✘ Compact rackmount solution
- ✘ Low power consumption

HERCULES

Son of Zeus, Hero of strength and protector of armies, he faces the hardest and most difficult battles thanks to his strength and determination. ACORDE's SSPAs have that strength and power, giving all the power needed for the highest bandwidth and high performance satellite communications covering LEO, MEO and GEO systems.

Transmitter

Input/Output frequency	7.9 to 8.4 GHz
Input X-band VSWR (50 Ω)	< 1.3:1
Output X-band VSWR (50 Ω)	< 1.4:1
Max. input level without damage	+10 dBm
Psat (typ)	56.0 dBm
Plin	> 53.0 dBm
Gain @ Plin	> 70 dB
Gain flatness	±2.0 dB over whole BW ±0.4 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ constant T
Gain variation over temperature	±1.0 dB
Attenuation adjustment range	30 dB with 0.1 dB steps
Output noise power density	< -70 dBm/Hz (7.90-8.40 GHz) < -145 dBm/Hz (7.25-7.75 GHz)
Output noise power density (muted)	< -120 dBm/Hz (7.90-8.40 GHz)
Power detection accuracy	±1.0 dB (Psat to Psat - 20 dB)
Output sample port	-40 dBc ± 2 dB
Spurious @ Plin	< -65 dBc
Harmonics @ Plin	< -60 dBc
Residual AM noise	
	0 - 10 kHz < -50 dBc 10 - 500 kHz < -20*(1.5 + log F _{kHz}) dBc 500 - 1000 kHz < -84 dBc
SR @ Plin per MIL-STD-188-164C	< -30 dBc
TOI @ Plin per MIL-STD-188-164C	< -25 dBc
AM/PM conversión @ Plin	< 25°/dB
Phase noise	< IESS-308/309 - 10 dB
Group delay over 40 MHz	< 1.0 ns pp

Enviromental

Storage temperature	-40 °C to +85 °C
Operating temperature	0 °C to +50 °C
Relative humidity	up to 100%
Operating altitude	up to 3000 m
Vibration	MIL-STD-810E Method 514.4

Mechanical

Size (LxWxH) 19 inch 4U rack	600 x 483 x 177 mm 23.6 x 19.0 x 7.0 in
Weight	32.0 kg 70.5 lbs
Finish	RAL 9003 (White)

Power Supply

AC input voltage	94-264 V _{AC} (47-63 Hz)
Consumption	1600 W @ Plin 2000 W @ Psat

Interfaces

All mating connectors provided

TX input (X-band)	Type N(F) 50 Ω
TX output (X-band)	WR112 flat (CPRF 112)
TX output sample	Type N(F) 50 Ω
M&C (RS-232/485)	5-747905-2
M&C (HW mute)	5-747904-2
M&C (Ethernet/SNMPv2)	RJF21G
Power supply	ACA3102E16-10PBA232
Front panel	Keyboard & display

Order information

Part-number	Input	Output
ACSR-X400W-EI-VI	7.9 - 8.4 GHz	7.9 - 8.4 GHz

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

C/ El Castro 22N, 39011, Santander, Spain		
+34 942 766 44 00	www.acorde.com	sales@acorde.com