

# ACCVR-XL-Ex-V31

## X-band BDC Cerberus Series indoor 1/3 rack

The ACCVR-XL family of BDCs 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 spur rejection according to MIL-STD-188-164C. The ACCVR-XL 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
- ✘ External and internal reference capabilities (5 & 10 MHz)
- ✘ Redundancy operation available
- ✘ Standard M&C with serial port (RS232/485), Ethernet and SNMPv2
- ✘ Rack frames compatible with 3 bays (1U) and 6 bays (2U)
- ✘ High spur rejection performance



# CERBERUS

Dog of the God Hades, known for his fierceness and his 3 heads, this indomitable dog guarded the gate and entrance to the underworld. That is why our family of indoor rack converters designed for maritime applications offers high performance frequency conversion in a very compact and versatile format.

## Receiver

Input frequency	7.25 to 8.40 GHz
Input X-band VSWR (50 Ω)	< 1.3:1
Output frequency	950 to 1450 MHz
Output L-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	0 dBm
PIdB	> +18 dBm
Spurious signal related @ P <sub>OUT</sub> = 0 dBm	< -65 dBc
Spurious signal independent	< -75 dBm
LO leakage	< -80 dBm
TOI @ 2 carriers 0 dBm each	< -60 dBc
Gain @ min attenuation	35 ± 3 dB
Gain adjustment range	30 dB with 0.2 steps
Gain flatness	±1.0 dB over whole BW ±0.25 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ constant T
Gain variation over temperature	±1.5 dB
Mute	> 60 dB
Noise figure @ min attenuation	< 15 dB
Image rejection	> 60 dB
Input & Output signal monitors	-20 ± 2 dBc

## Local Oscillator

Output phase noise (IESS-308/309 – 10 dB)		
	10 Hz	-50 dBc/Hz
	100 Hz	-70 dBc/Hz
	1 kHz	-80 dBc/Hz
	10 kHz	-90 dBc/Hz
	100 kHz	-100 dBc/Hz
External reference (Auto selection on presence)	5 & 10 MHz	
External reference level	+4 dBm ± 3 dB	
Internal reference stability		
	versus time per day	±1x10 <sup>-9</sup>
	versus temperature	±5x10 <sup>-9</sup>

## Environmental

Storage temperature	-40 °C to +70 °C
Operating temperature	0 °C to +50 °C
Relative humidity	up to 95%
Operating altitude	up to 3000 m
Shock & vibration	MIL-STD-810F Method 514.8 Procedure II
EMC	CE Mark ETSI EN 301 489-1 V.1.9.2

## Mechanical

Size (LxWxH)	508 x 128 x 38.5 mm 20.0 x 5.0 x 1.5 in
Weight	2.0 kg 4.4 lbs
Compatible rack frames	ACRC-V31 (3 bays over 1U) ACRC-V62 (6 bays over 2U)

## Interfaces

All mating connectors provided

RX input & monitor (X-band)	Type SMA(F) 50 Ω
RX output & monitor (L-band)	Type SMA(F) 50 Ω
LO monitor & Ext. Ref. input	Type SMA(F) 50 Ω
M&C (RS-232/485)	D-Sub9
M&C (Redundancy)	D-Sub9
M&C (Ethernet/SNMPv2)	RJ-45
Power supply	IEC 320
Front panel	Keyboard & display

## Power Supply

AC input voltage	85-265 V <sub>AC</sub> (47-63 Hz)
Consumption	25 W

## Order information

Part-number	Input	Output	LO frequency
ACCVR-XL-EI-V31	7.25 - 7.75 GHz	950 - 1450 MHz	6.300 GHz
ACCVR-XL-E5-V31	7.90 - 8.40 GHz	950 - 1450 MHz	6.950 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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