ACORDE Space & Defence RF EXPERTS

ACCVR-KuL-Ex-V31

Ku-band BDC Cerberus Series indoor 1/3 rack

The ACCVR-KuL family of BDCs is designed for the most challenging Ku-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-KuL 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	10.7 to 12.75 GHz
Input Ku-band VSWR (50 Ω)	< 1.3:1
Output frequency	950 to 2000 MHz
Output L-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	0 dBm
P1dB	> +18 dBm
Spurious signal related @ P_{OUT} = 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 – 5 dB)		
	10 Hz	-45 dBc/Hz
	100 Hz	-65 dBc/Hz
	1 kHz	-75 dBc/Hz
	10 kHz	-85 dBc/Hz
	100 kHz	-95 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	$\pm 1 \times 10^{-9}$
	versus temperature	$\pm 5 \times 10^{-9}$

Enviromental

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 (Ku-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 voltaje	85-265 V_{AC} (47-63 Hz)
Consumption	25 W

Order information

Part-number	Input	Output	LO frequency
ACCVR-KuL-E6-V31	10.70 – 11.70 GHz 11.70 – 12.75 GHz	950 - 1950 MHz 950 - 2000 MHz	9.750 GHz 10.750 GHz
ACCVR-KuL-E7-V31	10.70 – 11.70 GHz	950 - 1950 MHz	9.750 GHz
ACCVR-KuL-E8-V31	11.70 – 12.75 GHz	950 - 2000 MHz	10.750 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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