



EUROSATCOM
VSATECH ASSOCIÉ

C-BAND DOWNCONVERTER

ACCVR-CL-Ex-V31

Sub-rack series

The ACCVR-CL family of downconverters is designed for the most challenging C-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 spurs rejection according to MIL-STD-188-164C. The ACCVR-CL 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.



RECEIVER SPECIFICATIONS

Input frequency	3.4 to 4.8 GHz (See options)
Input C-Band VSWR (50 Ω)	< 1.3:1
Output frequency	950 to 1750 MHz (See options)
Output L-band VSWR (50 Ω)	< 1.3:1
Max. input level without damage	0 dBm
P1dB	≥ +18 dBm
Spurious signal related	< -65 dBc @ $P_{OUT} = 0$ dBm
Spurious signal independent	< -75 dBm
LO leakage	< -80 dBm
TOI	< -60 dBc (2 carriers 0 dBm each)
Gain	35 ± 3 dB @ min. attenuation
Gain adjustment range	30 dB with 0.2 dB steps
Gain flatness	±1.0 dB over whole BW ±0.25 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ const. temp.
Gain variation over temperature	±1.5 dB
Mute	> 60 dB
Noise figure	< 15 dB @ min. attenuation
Image rejection	> 60 dB
Input & Output signal monitors	-20 ± 2 dBc

LOCAL OSCILLATOR

Output phase noise	
10 Hz	-50 dBc/Hz
100 Hz	-76 dBc/Hz
1 kHz	-82 dBc/Hz
10 kHz	-92 dBc/Hz
100 kHz	-102 dBc/Hz
External reference	5 & 10 MHz
External reference level	+4 dBm ± 3 dB
Internal reference stability	±1x10 ⁻⁹ /day typ ±5x10 ⁻⁹ in the whole temp.

POWER SUPPLY

AC input voltag	85-265 V _{AC} (47-63 Hz)
Consumption	15 W typ

MECHANICAL SPECIFICATIONS

Size (LxWxH)	508 x 128 x 38.5 mm 20 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)

ENVIRONMENTAL SPECIFICATIONS

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-810H Method 514.8 Procedure II
EMC	CE Mark ETSI EN 301 489-1 V1.9.2

INTERFACES

RX input & monitor (C-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 (Main interface RS422/485)	D-Sub9
M&C (Redundancy interface)	D-Sub9
M&C (Ethernet/SNMP interface)	RJ-45
Power supply	IEC 320

All mating connectors provided

OPTIONS

C-band input	L-band output	LO freq.
3.4-4.2 GHz	950-1750 MHz	885 / 11.30 GHz
3.4-4.2 GHz	950-1750 MHz	5.150 GHz
4.5-4.8 GHz	950-1250 MHz	3.550 GHz
Inversion		Standard freq. option
None Yes None		ACCVR-CL-E44-V31 ACCVR-CL-E4-V31 ACCVR-CL-E5-V31



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