



EUROSATCOM
VSATECH ASSOCIÉ

Ku-BAND DOWNCONVERTER

ACCVR-KuL-Ex-V31

Sub-rack series

The ACCVR-KuL family of downconverters 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 spurs 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.



RECEIVER SPECIFICATIONS

Input frequency	10.7 to 12.75 GHz (See options)
Input Ku-Band VSWR (50 Ω)	< 1.3:1
Output frequency	950 to 2000 MHz (See options)
Output L-band VSWR (50 Ω)	< 1.3:1
Max. input level without damage	0 dBm
Spectrum inversion	None
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 0.25 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 (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
Reference mode	Internal (Auto external on presence)
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 voltage	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

Ku-band input	L-band output
10.70 to 11.70 GHz 11.70 to 12.75 GHz 10.70 to 11.70 GHz 11.70 to 12.75 GHz	950 to 1950 MHz 950 to 2000 MHz 950 to 1950 MHz 950 to 2000 MHz
LO freq.	Standard freq. option
9.750 GHz 10.750 GHz 9.750 GHz 10.750 GHz	ACCVR-KuL-E6-V31 ACCVR-KuL-E6-V31 ACCVR-KuL-E7-V31 ACCVR-KuL-E8-V31



EUROSATCOM
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3 avenue du Canada, bât. Zeta, 91940 Les Ulis, France

+33 1 69 18 19 30

www.eurosatcom.eu

sales@eurosatcom.eu

