

X-BAND DOWNCONVERTER

ACCVR-XL-E1-V31

Sub-rack series

The ACCVR-XL family of downconverters 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 spurs 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.



RECEIVER SPECIFICATIONS

Input frequency	7.25 to 7.75 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
P1dB	$\geq +18$ 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 (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
Reference mode	Internal (Auto external on presence)
External reference	5 & 10 MHz
External reference level	+4 dBm ± 3 dB
Internal reference stability	$\pm 1 \times 10^{-9}$ /day typ $\pm 5 \times 10^{-9}$ in the whole temp. range

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

INTERFACES

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 (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

X-band input	L-band output
7.25 to 7.75 GHz	950 to 1450 MHz
LO freq.	Standard freq. options
6.300 GHz	ACCVR-XL-E1-V31

