



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	≥ +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	±1x10 ⁻⁹ /day typ
	±5x10 ⁻⁹ in the whole temp. range

POWER SUPPLY

AC input voltage	85-265 V _{AC} (47-63 Hz)
Consumption	25 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 V.1.9.2

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	LO freq.	Standard freq. option
7.25 to 7.75 GHz	950 to 1450 MHz	6.300 GHz	ACCVR-XL-E1-V31