



EUROSATCOM
VSATECH ASSOCIÉ

Ku-BAND UPCONVERTER

ACCVT-LKu-Ex-V31

Sub-rack series

The ACCVT-LKu family of upconverters 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 ACCVT-LKu 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	950 to 1750 MHz (See options)
Input L-Band VSWR (50 Ω)	< 1.3:1
Output frequency	12.75 to 14.5 GHz (See options)
Output C-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	+10 dBm
P1dB	≥ +13 dBm
Spurious signal related	< -65 dBc @ $P_{OUT} = 0$ dBm
Spurious signal independent	< -75 dBm
TOI	< -50 dBc (2 carriers 0 dBm each)
Gain	30 ± 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. 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 V1.9.2

INTERFACES

TX input & monitor (L-band)	Type SMA(F) 50 Ω
TX output & monitor (C-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

L-band input	Ku-band output
950 to 1450 MHz 950 to 1700 MHz 950 to 1450 MHz	14.00 to 14.50 GHz 13.75 to 14.50 GHz 12.75 to 13.25 GHz
LO freq.	Standard freq. options
13.050 GHz 12.800 GHz 11.800 GHz	ACCVT-LKu-E1-V31 ACCVT-LKu-E2-V31 ACCVT-LKu-E4-V31



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