



The **ACTLT-X 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 ACTLT-X 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 .....	7.9 to 8.4 GHz
Input X-Band VSWR (50 Ω) .....	< 1.3:1
Output frequency .....	7.25 to 7.75 GHz
Output X-band VSWR (50 Ω) .....	< 1.3:1
Spectrum inversion .....	None
Max. input level without damage .....	+10 dBm
Input/Output isolation .....	> 60 dB
Mute .....	> 60 dB
TOI .....	< -50 dBc (2 carriers -5 dBm each)
Conversion losses @ 25 °C .....	25 dB max
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

### LOCAL OSCILLATOR

Output phase noise (IESS-308/309 – 20 dB)	
10 Hz .....	-60 dBc/Hz
100 Hz .....	-80 dBc/Hz
1 kHz .....	-90 dBc/Hz
10 kHz .....	-100 dBc/Hz
100 kHz .....	-110 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 <sup>-9</sup> /day typ ±5x10 <sup>-9</sup> in the whole temp. range

### POWER SUPPLY

AC input voltage .....	85-265 V <sub>AC</sub> (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 V.1.9.2

### INTERFACES

RX input (X-band) .....	Type SMA(F) 50 Ω
RX output (X-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	X-band output	LO freq.	Standard freq. option
7.9 to 8.4 GHz	7.25 to 7.75 GHz	0.650 GHz	ACTLT-X-E1-V31