



The **ACCVT-LKa family** of upconverters is designed for the most challenging Ka-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 return losses according to **MIL-STD-188-164C**. The ACCVT-LKa 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.

TRANSMITTER SPECIFICATIONS

| | |
|---------------------------------------|--|
| Input frequency | 950 to 2450 MHz |
| Input L-Band VSWR (50 Ω) | < 1.3:1 |
| Output frequency | 27.5 to 30.0 GHz |
| Output Ka-band VSWR (50 Ω) | < 1.3:1 |
| Spectrum inversion | None |
| Max. input level without damage | 0 dBm |
| | |
| P1dB | ≥ +10 dBm |
| OIP3 | ≥ +20 dBm |
| Spurious signal related | < -60 dBc @ P _{OUT} = 0 dBm |
| Spurious signal independent | < -75 dBm |
| | |
| Gain @ mid band | 35 ± 1 dB @ min. attenuation |
| Gain adjustment range | 30 dB with 0.25 dB steps |
| Gain flatness | ±1.0 dB over 1500 MHz ±0.5 dB over 40 MHz |
| Gain stability (24 hours)..... | ±0.25 dB @ const. temp. |
| Gain variation over temperature | ±0.5 dB |
| Positive slope equalizer range | 0 - 9 dB |
| | |
| Mute | > 75 dB |
| Noise figure | < 15 dB @ min. attenuation |
| Group delay | < 1 ns pp over any 80 MHz |
| Inputs/Output sample ports | -10 ± 3 dB |

LOCAL OSCILLATOR

| Output phase noise | Max. | Typ. |
|------------------------------------|--------------|-------------|
| 10 Hz | -50 dBc/Hz | -55 dBc/Hz |
| 100 Hz | -70 dBc/Hz | -75 dBc/Hz |
| 1 kHz | -85 dBc/Hz | -90 dBc/Hz |
| 10 kHz | -90 dBc/Hz | -95 dBc/Hz |
| 100 kHz | -100 dBc/Hz | -105 dBc/Hz |
| 1 MHz | -120 dBc/Hz | -125 dBc/Hz |
| | | |
| Internal reference | 10 MHz | |
| External reference level | 5 dBm ± 5 dB | |
| Internal reference stability | ±2 ppb/day | |

POWER SUPPLY

| | |
|------------------------|---|
| DC input voltage | 15-24 V _{DC} |
| Consumption | 17 W typ steady state 21 W typ warm-up |

MECHANICAL SPECIFICATIONS

| | |
|--------------------|---|
| Size (LxWxH) | 245 x 240 x 45 mm 9.6 x 9.4 x 1.8 in |
| Weight | 3.2 kg 7.0 lbs |
| Finish | RAL 9003 (White) |

ENVIRONMENTAL SPECIFICATIONS

| | |
|-----------------------------|------------------|
| Storage temperature | -40 °C to +85 °C |
| Operating temperature | -30 °C to +60 °C |
| Relative humidity | up to 100% |
| Operating altitude | up to 4500 m |

INTERFACES

| | |
|-------------------------------|---------------------|
| TX inputs (L-Band) | Type N(F) 50 Ω |
| Input samples (L-Band) | Type SMA(F) 50 Ω |
| TX output (Ka-Band) | Type K(F) 50 Ω |
| Output sample (Ka-Band) | Type K(F) 50 Ω |
| External reference | Type SMA(F) 50 Ω |
| M&C (RS232/485) | 62IN12E12-14S-4-622 |
| M&C (Ethernet/SNMP) | RJF22G |
| Power supply & alarm | 62IN12E8-4S-4-622 |

All mating connectors provided

OPTIONS

| Ka-band output | L-band input | LO freq. | Standard freq. option |
|------------------|-----------------|---------------------|-----------------------|
| 27.5 to 29.0 GHz | 950 to 2450 MHz | 26.550 GHz @ Path 1 | ACCVT-LKa-E28-V4 |
| 28.5 to 30.0 GHz | 950 to 2450 MHz | 27.550 GHz @ Path 2 | |