

## SATCOM TRANSMITTER

# Up-Converter

## Ku-band Up-Converter UC1410



### TYPICAL SPECIFICATIONS

**[Frequency]**

Input frequency range	950 - 1700 MHz
Output frequency range	13.75 - 14.5 GHz
LO frequency	12.8GHz
Frequency sense	Non-inversion
Frequency accuracy	±0.05ppm max at 0 to 50°C
Frequency stability	±0.005ppm/day max

**[IF input characteristics]**

IF input connector	N-female, SMA-female (50 Ohms)
Input return loss	11dB min

**[RF output characteristics]**

P1dB	+10dBm min
RF output connector	N-female, SMA-female (50 Ohms)
Output return loss	11dB min

**[Front/Rear panel]**

Gain control & monitor	Gain control through buttons on the front panel.
	Display current gain on the front panel.
Front panel indications (LED)	Power status Lock status Gain
Rear panel interface	AC power input RF input External reference input IF output Ethernet port (RJ-45)

**[Transfer characteristics]**

Gain	30dB ±3dB @25°C
Gain adjust	0 - 20 dB, 1dB step
Gain flatness	±1.5dB max
Gain stability	±1.0dB max
Noise figure	15dB max @max gain
LO leakage	-50dBm max
Image rejection	60dB min
Spurious	
Signal dependent	-60dBc max (In-band) -50dBc max (Out-band)
Signal independent	-60dBm max (In-band) -50dBm max (Out-band)
Harmonics	-40dBc max
OIP3	22dBm min
External Reference	10MHz / -5 - +5dBm In presence of external ref signal, the unit shall lock to the external ref automatically
Phase noise	-63dBc/Hz @100Hz -75dBc/Hz @1KHz -83dBc/Hz @10KHz -95dBc/Hz @100KHz

**[Power Requirement]**

Voltage	90 - 250 VAC
Frequency	47 - 63 Hz

**[Mechanical & Environmental]**

Physical size	1RU, 19 inch rack mountable
Operating temperature	0 to +50 °C

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### OUTLINE DRAWING

3xN-type Connector

