

SATCOM TRANSMITTER

Up-Converter

L-band Up-Converter

UC1300



TYPICAL SPECIFICATIONS

[Frequency]

Input frequency range	52 - 88 MHz (IF bandwidth 36MHz)
Output frequency range	950 - 1750 MHz
External Reference	5/10MHz, +3dBm In presence of external ref., lock to the External ref. automatically
Conversion	Dual, No inversion
Frequency step size	1 KHz
Frequency stability	±1x10 ⁻⁹ /Day (Time) ±1x10 ⁻⁸ /Day (Temp)

[IF input characteristics]

IF input damage level	+10dBm min
IF input connector	BNC-female (50 Ohms)
Input return Loss	22dB min

[RF output characteristics]

Output P1dB	+10dBm
Spurious	
Non-carrier	-70dBm
Carrier	-60dBc @0dBm output
Intermodulation	-60dBc @-10dBm output SCL
Carrier Mute	-60dBc
RF output connector	N-female (50 Ohms)
Output return Loss	19dB min

[Front/Rear Panel]

Remote control (Rear Panel)	TCP/IP (LAN) Serial (RS-232)
Front Panel Indications (LED)	Power On, Mute On/Off, Local/Remote, Faults & Stored faults
Test points (Front Panel)	
RF sample	SMA-female or N-female, -20dBc ±2dB
IF sample	BNC-female, -20dBc ±2dB

[Transfer characteristics]

Gain	30dB min
Gain adjust	0 - 30 dB, 0.25dB step
Gain stability	±0.25dB/Day (Constant temperature)
Gain flatness	±0.5dB max over 36MHz
Gain slope	0.05dB/MHz
AM to PM conversion	0.1 Deg/dB @ -5dBm output
Group delay	
Linear	0.03ns/MHz
Parabolic	0.01ns/MHz ²
Ripple	1.0ns peak-to-peak
Phase noise	-77dBc/Hz max @100Hz -82dBc/Hz max @1KHz -90dBc/Hz max @10KHz -102dBc/Hz max @100KHz -110dBc/Hz max @1MHz

[Power]

Voltage	90 - 250 VAC
Frequency	47 - 63 Hz

[Environmental]

Temperature	0 - 50 Deg. C
Altitude	8,000 feet above MSL
Humidity	0 - 95% relative
Physical size	1RU, 19 inch rack mountable

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OUTLINE DRAWING

