

SATCOM TRANSMITTER

Up-Converter

Ku-band Up-Converter

UC1400


TYPICAL SPECIFICATIONS
[Frequency]

Input frequency range	50 - 90 MHz
Output frequency range	12.75 - 14.50 GHz
Conversion	Dual Conversion without Inversion
Frequency step size	1 KHz
Frequency stability	±1x10 ⁻⁹ /Day (Time) ±1x10 ⁻⁸ /Day (Temp)

[IF input characteristics]

IF input damage level	+10dBm Typical
Noise figure	14dB max @0dB attenuation
IF input connector	BNC-female (50 Ohms)
Input return Loss	20dB min

[RF output characteristics]

Output P1dB	+9dBm
Spurious	
Non-carrier	-70dBm
Carrier	-60dBc @0dBm output
Intermodulation	-36dBc (2 Carriers) @0dBm output SCL
Carrier Mute	-60dBc
RF output connector	N-female (50 Ohms)
Output return Loss	18dB 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
IF sample	BNC-female, -20dBc

[Transfer characteristics]

Gain	30dB
Gain adjust	0 - 20 dB, 0.25dB step
Gain stability	±0.3dB/Day (Constant temperature)
Gain flatness	±0.3dB over 40MHz
Gain slope	0.05dB/MHz
AM to PM conversion	0.1 Deg/dB @ -5dBm output
External Reference Power level	5MHz ±2.5Hz /10MHz ±5Hz -5 - +5dBm
In presence of external ref signal, the unit shall lock to the external ref automatically	
Group delay	
Linear	0.03ns/MHz
Parabolic	0.01ns/MHz ²
Ripple	1.0ns peak-to-peak
Phase noise	-68dBc/Hz max @100Hz -78dBc/Hz max @1KHz -88dBc/Hz max @10KHz -96dBc/Hz max @100KHz -107dBc/Hz max @1MHz

[Power]

Voltage	90 - 250 VAC, with ON/OFF switch
Frequency	47 - 63 Hz
Dissipation	60Watts

[Environmental]

Temperature	0 - 50 Deg. C
Altitude	10,000 feet above MSL
Humidity	0 - 95% relative
Physical size	1RU, 19 inch rack mountable

SATCOM TRANSMITTER

OUTLINE DRAWING

