

SATCOM RECEIVER

Down-Converter

X-band Down-Converter

DC8000



TYPICAL SPECIFICATIONS

[Frequency]

Input frequency range	7700 - 8500 MHz
Output frequency range	720 ±200 MHz (bandwidth 400MHz)
Frequency sense	No inversion
Frequency step size	100 KHz
Frequency stability (Internal reference)	±2x10 ⁻⁸ over temperature

[RF input characteristics]

RF input dynamic range	-70 to -30 dBm
Noise figure	10dB max @Max gain
RF input connector	N-female (50 Ohms)
Input return loss	18dB min

[IF output characteristics]

Output P1dB	+5dBm min
Spurious	-70dBc typ, -60dBc max
IF output connector	N-female (50 Ohms)
Output return loss	20dB typ, 28dB min

[Front/Rear Panel]

Front Panel

Local M&C	Keypad, LCD display, LED
Control parameter	Gain, Frequency, Frequency step
LED indication	Power On, Local/Remote, Fault, Int./Ext. Reference, LO lock status
LCD display	Gain(Attenuation), Frequency

Rear Panel

RF input	N-female (50 Ohms)
IF output	N-female (50 Ohms)
External reference	N-female (50 Ohms)
IF monitor port	-30dBc, N-female (50 Ohms)
Remote M&C	TCP/IP (LAN), Serial (RS-232)

[Transfer characteristics]

Gain	40dB
Gain adjust	0 - 20 dB, 1dB step
Gain stability	1.0dB/Day (Constant temperature)
Gain flatness	±1.0dB over bandwidth
LO leakage	-70dBm max
Image rejection	-65dB in band
External Reference Power level	10MHz -5 - +5dBm

In presence of external ref signal, the unit shall lock to the external ref automatically

Group delay

Linear	0.05ns/MHz
Parabolic	0.015ns/MHz ²
Ripple	1.0ns peak-to-peak

Group delay variation

(Pass band) 2ns max over 320MHz

Phase noise

-72dBc/Hz max @100Hz
-88dBc/Hz max @1KHz
-92dBc/Hz max @10KHz
-94dBc/Hz max @100KHz

[Power]

Voltage	90 - 250 VAC
Frequency	47 - 63 Hz

[Environmental / Dimension]

Temperature	0 - 50 Deg. C
Physical size	1RU, 19 inch rack mountable

SATCOM RECEIVER

OUTLINE DRAWING

