



SATUC-2002

WIDE IF BANDWIDTH UPCONVERTER



FREQUENCY RANGE:
19.10 and 19.78 GHz

FEATURES

- Very High Dynamic Range
- Excellent Phase Noise Performance
- Wide Bandwidth Up to 1608 MHz for IF input
- Exceptional Phase Linearity
- Parabolic, Cubic and Ripple: 6, 12 and 8° max
- Ethernet 10/100 BaseT control
- 2U 19" Rack

APPLICATIONS

- ELINT
- SATCOM
- Radar Warning Receivers (RWR)



SPECIFICATIONS AT 25° C

FREQUENCY

Output Frequencies:	19.10 and 19.78 GHz
Tuning Speed:	<100 millisecond
Frequency Accuracy vs. Temperature (Internal Ref):	< +/- 0.1 PPM
Long Term Aging (Internal Ref):	< 1 PPM per Year
Phase Noise (Typical) at output:	.

Offset 10 Hz:	-50 dBc/Hz
Offset 100 Hz:	-70 dBc/Hz
Offset 1 KHz:	-100 dBc/Hz
Offset 10 KHz:	-110 dBc/Hz
Offset 100 KHz:	-110 dBc/Hz
Offset 1 MHz:	-130 dBc/Hz
Offset 10 MHz:	-135 dBc/Hz

RF SECTION

Output Return Loss:	17 dB min
Conversion Sense:	Non Inverting

DYNAMIC RANGE

Spurious:	In band -40 dBc max out of band -40dBc max
Image Rejection:	< -60 dB
LO Leakage:	< -60 dBm max at output port
Output IP3:	+20 dBm min
Output P1 dB:	+10 dBm min



WIDEBAND IF INPUT

Center Frequency: 8000 MHz
Bandwidth: +/- 804 MHz centered at 8.0 GHz
Input to Output Gain: +24 dB nom

IF Signal Monitor: -15 dBc nom
Impedance: 50 ohms
Input Return Loss: 17 dB
Phase Linearity over +/- 402MHz BW
Parabolic 6° max
Cubic 12° max
Ripple 8° max

BUILT IN TEST (BIT) CONTROL

Local Manual Control: Rotary Knob to change Frequency Bands
Remote Programming: Ethernet 10/100 base T , RS 422/ RS 485 and RS232

ENVIRONMENTAL

Operating Temp Range: 0° to +50 °C
Non Operating: -30° to +85°C
Relative Humidity: Up to 95%, Non-Condensing
Altitude: 6,000 Feet
Federal Communications Commission (FCC): FCC Class A Compatible
Vibration: Normal Bench Handling
AC Power: 95 to 265 VAC, 47-63 Hz, 100 Watts

MECHANICAL

Size: 19", 2U (3.5" H X 22" D X 17" W)
Weight: 20 Pounds

REAR PANEL CONNECTORS

IF Input SMA F
IF Monitor SMA F
LO Output SMA F
LO Monitor SMA F
RF Output K Female
RF Output Monitor: K Female
Ethernet: RJ 45



ABOUT FEI-ELCOM TECH, Inc

Elcom designs and manufactures instruments and modules in the RF and Microwave frequency spectrum for broadband and narrow band applications in ATE, Aerospace/ Defense, SIGINT and commercial communications. Proprietary technologies include low phase noise fast switching direct analog synthesis, low noise indirect PLL designs, and RF DSP up to 40GHz.

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