



FEI-Elcom Tech

SATUC-2001

WIDE IF BANDWIDTH UPCONVERTER



FREQUENCY RANGE:
18.5, 19.2, 20.0 and 20.7 GHz

FEATURES

- Very High Dynamic Range
- Excellent Phase Noise Performance
- Wide Bandwidth Up to 804 MHz for IF input
- Exceptional Phase Linearity
- Parabolic, Cubic and Ripple 8° max
- Ethernet 10/100 BaseT control
- 1U 19" Rack

APPLICATIONS

- ELINT
- SATCOM
- Radar Warning Receivers (RWR)



SPECIFICATIONS AT 25° C

FREQUENCY

Output Frequencies:	18.5, 19.2, 20.0 and 20.7 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 -60 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: +/- 402 MHz centered at 8.0 GHz
Input to Output Gain: +15 dB to +22 dB

IF Signal Monitor: -15 dBc nom
Impedance: 50 ohms
Input Return Loss: 17 dB
Phase Linearity over +/- 402MHz BW
Parabolic 8° max
Cubic 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", 1U (1.75" H X 22" D X 17" W)
Weight: 20 Pounds

REAR PANEL CONNECTORS

LO Monitor SMA F
RF Filter Outputs K Female
RF Inputs K Female
Test Input K Female
Output Monitor: K Female
RF Output: 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.

FOR ADDITIONAL INFORMATION PLEASE CONTACT

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