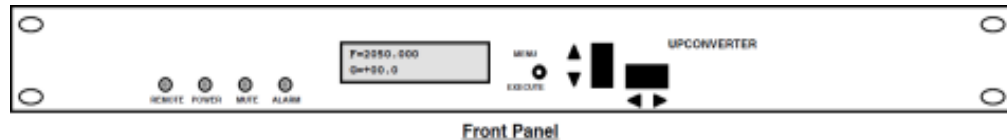


RADITEK

Up Converter, IF-70 MHz to SBand(2.0-2.5GHz), RUC-IF-70M to SBand(2.0-2.5)-t6

SATCOM
IF 70MHz to S Band UC



Our Up Converter converts 70 ± 18 MHz to 2000 to 2500 MHz in 1kHz, 10kHz, 100kHz, or 125kHz steps (user selectable) with low group delay and flat frequency response.

Synthesized local oscillators (LO) provide very low phase noise and ± 0.01 ppm stability, frequency selection.

Multi-function push button switches select the RF frequency, gain, and other parameters.

Front panel LEDs provide indication of DC power (green), PLL alarm (red), remote operation (yellow) or the TX carrier is muted (yellow).

Variable attenuators for the IF input and output provide a gain range of -10 to +30 dB as adjusted by the front panel multi-function push-button switches.

Remote operation allows selection of frequency and gain.

Parameter selection and frequency and gain settings appear on the LCD display.

Connectors are BNC female for IF Input, RF output and the optional external reference input and output.

The External 10 MHz option includes a 10 MHz input and output connector.

The unit is powered by a $100-240 \pm 10\%$ VAC power supply, and housed in a 1 3/4" X 19" X 16" rack mount chassis.

Specifications*		Units
Input Characteristics (IF)		
Impedance	50	Ω
Return Loss	18	dB
Frequency	70 ± 18	MHz
Input Level	-40 to -10	dBm
Output Characteristics (RF)		
Impedance	50	Ω
Return Loss	12dB	
Frequency	2.0 to 2.5	GHz
Output level	-20 to 0	dBm
Output 1 dB compression	+5 dBm	
Channel Characteristics		
Gain range (adjustable)	-10 to +30	dB
Frequency Response		dB
	2.0-2.5 GHz	± 1.5
	36 MHz BW	± 0.5
Spurious Response, in band	< -50	dBc
Group Delay, max	0.01 ns/MHz ² parabolic; 0.03 ns/MHz linear; 1 ns ripple	
Frequency Sense	Non-inverting	
Synthesizer Characteristics		
Frequency Accuracy	± 0.01 ppm internal ref.	
Frequency Step	1kHz, 10kHz, 100kHz, or 125kHz (user selectable)	
10 MHz In/Out Level	3 dBm \pm 3 dB (option E)	

Up Converter, IF-70 MHz to SBand(2.0-2.5GHz), RUC-IF-70M to SBand(2.0-2.5)-t6

Phase Noise @ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
dBC/Hz	-75	-85	-88	-115	-120

Controls, Indicators	
Frequency Selection	direct readout LCD; manual or remote selection
Gain Selection	direct readout LCD; manual or remote selection
Pwr; Alarm; Rem; Mute	Green LED; Red LED; Yellow LED; Yellow LED
Remote	RS232C, 9600 baud (RS485, option Q)
Other	
IF, RF Connectors	BNC (female)
10 MHz Connector	BNC (female), 50Ω /75Ω (option E)
Alarm/Remote Connector	DB9 (female) - NO or NC contact closure on Alarm
Size	19 inch, 1RU standard chassis 1.75"high X 16.0" deep
Power	100-240 ± 10% VAC, 47-63Hz, 45W max

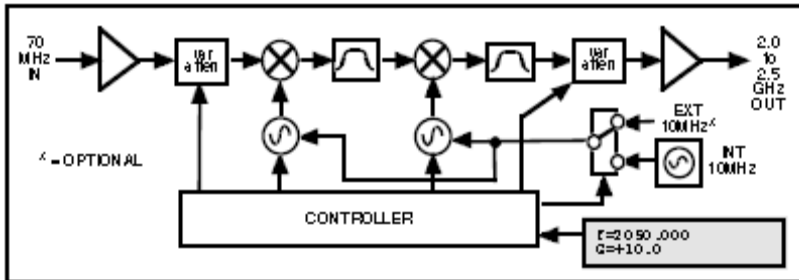
Available Options

E - External 10 MHz ref input & output
 Q - RS485 Remote Interface
 Z - Attenuator 0.1 dB on Upconverter

Connectors/Impedance

B - 75Ω BNC (RF), 75Ω BNC (IF)
 C - 50Ω BNC (RF), 75Ω BNC (IF)
 N - 50Ω N-type (RF), 75Ω BNC (IF)
 M - 50Ω N-type (RF), 50Ω BNC (IF)

*10°C to 40°C; Specifications subject to change without notice



Block Diagram