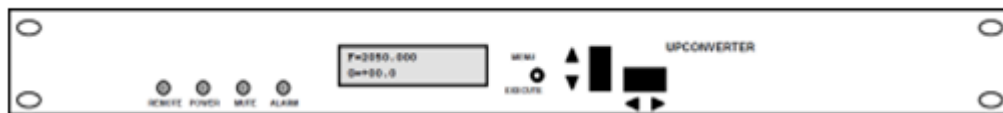


Up Converter, UHF Band

250-750MHz, 70MHz-t6

RUC-IF-70M to UHFBand-250-750M-t6



Our UpConverter converts 70 ± 18 MHz to 250 to 750 MHz in 1 KHz, 10 KHz, 100 KHz, or 125 KHz steps (user selectable) with low group delay and flat frequency response.

Synthesized local oscillators (LO) provide 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 pushbutton 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 and optional external 10MHz reference input and output, and Type F (female) for the RF output.

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	75	Ω
Return Loss	18	dB
Frequency	70 ± 18	MHz
Input Level	-40 to -10	dBm
Output Characteristics (RF)		
Impedance	75	Ω
Return Loss	10dB	
Frequency	250 to 750	MHz
Output level	0 to -20	dBm
Output 1 dB compression	+5 dBm	
Channel Characteristics		
Gain range (adjustable)	-10 to +30	dB
Frequency Response	± 1.5 ± 0.5	dB dB
	250-750MHz 36 MHz BW	
Spurious Response , in band	< -50	dBc
2 nd Harmonic	< 40	dB
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, 50/75 Ω (option E)	

Up Converter, IF-70M to UHF Band-250-750MHz RUC-IF-70M to UHF Band-250-750M-t6

Phase Noise @ Freq	100Hz	1kHz	10kHz	100kHz	1MHz
dBc/Hz	-75	-85	-90	-110	-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 (RS422/485/option Q, Ethernet/Opt-W*; W18)
Other	
RF Connectors	Typr F (female)
IF, 10MHz Connectors	BNC (female)
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

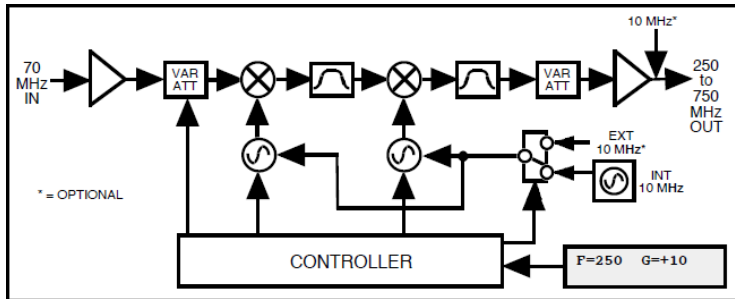
*10°C to 40°C; Specifications subject to change without notice

Available Options

- E - External 10 MHz ref input & output w/ RF Insertion
- Q - RS485 Remote Interface
- Z - Attenuator 0.1 dB on Upconverter
- W8 - Ethernet; w/Web Browser(WB)
- W18 - Ethernet; w/WB & SNMP
- W17 - IF Test/Monitor Ports

Connectors/Impedance

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



Block Diagram