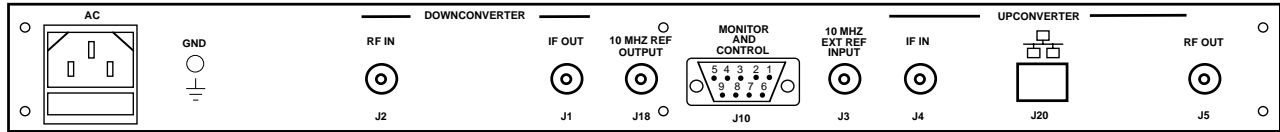
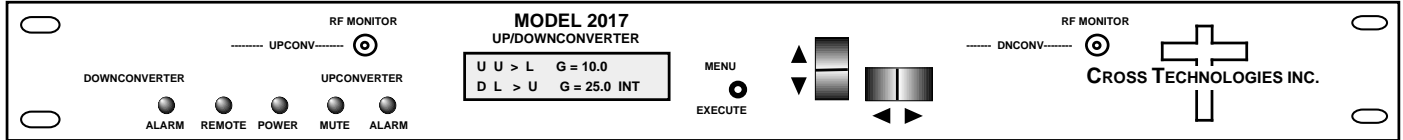


2017-14 Up/Downconverter, UHF, L-BAND

The 2017-14 UHF, L-band Up/Downconverter converts **0.2-0.4 GHz to 1.2-1.4 GHz (Up)** and **1.2-1.4 GHz to 0.2-0.4 GHz (Down)**. Multi-function switches select the gain (0 to +30 dB range for the upconverter and downconverter), and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), remote operation (yellow), and Upconverter mute (yellow). Remote operation allows selection of gain and external 10 MHz Reference (**OPTION E1**). Gain settings appear on the LCD display. Standard connectors are BNC female, 75Ω for UHF and the optional external reference input and output (**OPTION E1**), and Type F female for L-band. A high stability (**±0.01 ppm** **OPTION H**) option is also available. It is powered by a 100-240 ±10% VAC power supply and housed in a 1.75" X 19" X 16" 1RU chassis.



Front and Rear Panel (Shown with options E, W78, W8)

SPECIFICATIONS* (SHOWN FOR OPTION M CONNECTORS)		
Input Characteristics	UP, UHF to L	DOWN, L to UHF
Impedance/Return Loss	50Ω/14 dB	50Ω/14 dB
Frequency	0.2 to 0.4 GHz	1.2 - 1.4 GHz
Noise Figure, Max.	20 dB @ max gain	15 dB @ max gain
Input Level range	-40 to -25 dBm	-50 to -30 dBm
Output Characteristics		
Impedance/Return Loss	50 Ω /14 dB	50 Ω /14 dB
Frequency (GHz)	1.2 - 1.4 GHz	0.2 - 0.4
Output Level Range	-15 to 0 dBm	-20 to 0 dBm
1 dB comp, max gain	+10 dBm	+10 dBm
Mon. Level (OPT W78)	-20 dBC OUT	+10 dB IN
Mute @ 0 dBm out	>60 dB	N/A
Channel Characteristics		
Gain, max. at Fc	+30 ±3 dB	+30 ±3 dB
Gain, range, 0.5dB steps	+30 to 0 dB	+30 to 0 dB
Image Rejection	> 55 dB, min	> 50 dB, min
Spurious, Inband, sig. rel.	<-55 dBC, 0dBm	<-50 dBC, 0dBm
Spurious, Inband, sig. ind.	<-60 dBm	<-60 dBm
Spurious, Out of band	<-55dBm	<-45dBm
Intermod - 2 carriers 4MHz	<-50 dBC	<-50 dBC
Frequency Resp. band	±2 dB	±2 dB
Frequency Resp. 40 MHz	± 0.5 dB	± 0.5 dB
Frequency Sense	Non-inverting	Non-inverting
Downconverter 2nd Harm		
≥ -40 dBC @ max. input level		.2-.4 GHz out

Synthesizer Characteristics

Frequency Accuracy	± 1.0 ppm internal reference (±0.01 ppm, option H)					
Frequency Step	NONE, Fixed frequency					
Phase Noise @ Freq	100 Hz	1kHz	10kHz	100kHz	1 MHz	
	dBC/Hz	-75	-80	-85	-100	-110

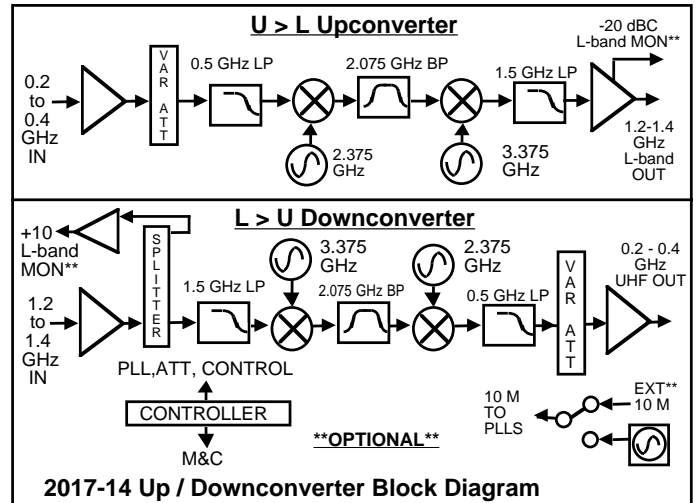
10 MHz In/Out Level 3 dBm ± 3 dB, 75 ohms (**option E1**)

Controls, Indicators

Gain Selection direct readout LCD; pushbutton switches or remote selection
 Power; Alarm; Remote Green LED; Red LED; Yellow LED
 Remote RS232C, 9600 baud ; (**RS485, option Q, Ethernet, optional**)

Other

RF/IF (UHF) Connector Type F (female)/BNC (female)
 10 MHz Connectors BNC (female), 50Ω/75Ω
 Alarm/Remote Connector DB9 - 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, 47-63 Hz, 45 watts max



- Available Options**
- E1 - External 10 MHz ref/AUTO Sw.
 - H - High Stability (±0.01 ppm) int. ref.
 - W78 - RF/RF Monitor Ports (Front)
 - W31 - Ext. Temp 0C to +50C
- Remote M&C Interfaces:**
- Q - RS485/422
 - W8 - Ethernet; w/Web Browser (WB)
 - W18 - Ethernet; w/WB & SNMP
 - W28 - Ethernet; w/TCP/IP, Telnet
- Connectors/Impedance**
- B - 75Ω BNC (RF), 75Ω BNC (IF)
 - C - 50Ω BNC (RF), 75Ω BNC (IF)
 - D - 50Ω BNC (RF), 50Ω BNC (IF)
 - J - 75Ω F-type (RF), 50Ω BNC (IF)
 - N - 50Ω N-type (RF), 75Ω BNC (IF)
 - M - 50Ω N-type (RF), 50Ω BNC (IF)
 - S- SMA, 50Ω (RF), 50Ω BNC (IF)

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