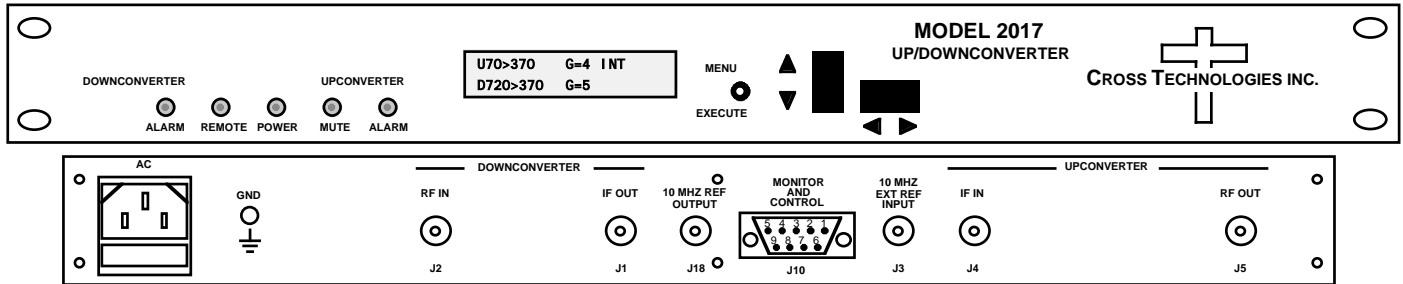


## 2017-370 Up/Downconverter, 70 to 370, 720 to 370 MHz

The **2017-370 Up/Downconverter** converts 70 ±10 MHz to 370 MHz (Up) and 720 ±130 MHz to 370 MHz (Down). Synthesized local oscillators (LO) provide frequency translation. Multi-function push button switches select the gain, external 10 MHz input. Front panel LEDs provide indication of DC power (green), PLL alarm for up and downconverters (red), remote operation (yellow), and Upconverter mute (yellow). Gain can be manually controlled for 5 ± 5 dB range in 1 dB steps for the upconverter and downconverter as adjusted by the front panel multi-function push-button switches. Remote operation allows selection of gain and external 10 MHz. Gain and external 10 MHz input settings appear on the LCD display. Connectors are TNC female for IF and RF and BNC female for the external reference input and output. 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**

### EQUIPMENT SPECIFICATIONS\*

#### -----UPCONVERTER-----

##### Input Characteristics (IF)

Impedance/Return Loss **50Ω/18 dB**  
 Frequency **70 ± 12.5 MHz**  
 Noise Figure, max. 15 dB  
 Level **-19 ± 3 dBm**

##### Output Characteristics (RF)

Impedance/Return Loss **50Ω/18 dB**  
 Frequency **370 ± 12.5 MHz**  
 Level **-15 ± 3 dBm**  
 1dB compression **+0 dBm**

##### Channel Characteristics

Gain range (adjustable) **+5 ± 5 dB, 1dB steps**  
 Frequency Sense Non-inverting

Phase Noise @ F (Hz) >	10	100	1k	10k	100k	1M	10M
Cust. Spec dBC/Hz	65	95	98	98	102	125	130
Cross Spec dBC/Hz	65	<b>90</b>	98	98	102	125	130

#### -----DOWNCONVERTER-----

##### Input Characteristics (RF)

Impedance/Return Loss **50Ω/18 dB**  
 Frequency **720 ± 130 MHz**  
 Noise Figure, max. 15 dB  
 Level **-19 ± 3 dBm**

##### Output Characteristics (IF)

Impedance/Return Loss **50Ω/18 dB**  
 Frequency **370 ± 130 MHz**  
 Level **-15 ± 3 dBm**  
 1dB compression **+0 dBm**

##### Channel Characteristics

Gain range (adjustable) **+5 ± 5 dB, 1dB steps**  
 Image Rejection **> 20 dB, min**  
 Frequency Sense **Non-inverting**

Phase Noise @ F (Hz) >	10	100	1k	10k	100k	1M	10M
Cust. Spec dBC/Hz	65	95	98	98	102	125	130
Cross Spec dBC/Hz	65	<b>87</b>	98	98	102	125	130

#### -----UP and DOWNCONVERTER-----

##### Channel Characteristics, any 25 MHz Bandwidth

Frequency Response **±0.3 dB ±5MHz;**  
**±0.5 dB, ±12.5 MHz BW**  
 Spurious Response **<-30 dBC**  
 Group Delay, ns, max **2.6 ± 9.5 MHz,**  
**3.6 ±11 MHz;7.7 ±15 MHz**

##### Synthesizer Characteristics

Frequency Accuracy **± 0.01 ppm internal reference**  
 Frequency Step **None; Fixed frequency**  
 10 MHz In/Out Level **3 dBm ± 3 dB**

##### Controls, Indicators

10 M Freq/Gain Selection direct readout LCD; pushbutton switches  
 or remote selection  
 Power; Alarm; Remote Green LED; Red LED; Yellow LED  
 Remote RS232C, 9600 baud

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

##### Other

RF Connector TNC (female)  
 IF Connector TNC (female)  
 10 MHz Connectors BNC (female), 50Ω/75Ω  
 Alarm/Remote Connector DB9 - NO or NC closure on Alarm  
 Size 19 inch, 1RU, 1.75" H X 16.0" D  
 Power 100-240 ±10% VAC, 47-63 Hz, 25 W

##### Available Options

Q - RS485 Remote Interface  
 W8 - Ethernet M&C Remote Interface