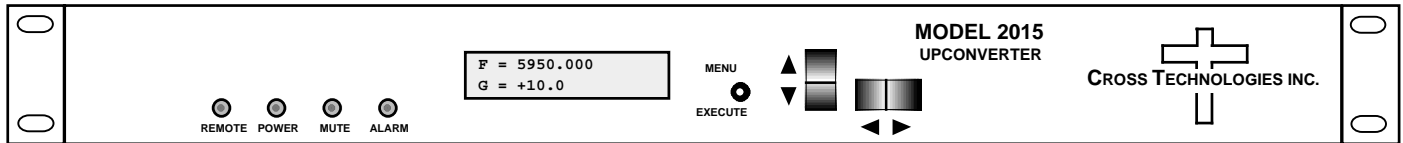


2015-58 Upconverter, 5.85 - 6.425 GHz

The 2015-58 Upconverter converts 70 ± 18 MHz to 5.85 to 6.425 GHz in 125 kHz steps with low group delay and flat frequency response. Synthesized local oscillators (LO) provide low phase noise and ± 0.01 ppm stability frequency selection. Push button switches select the RF frequency, gain, and other parameters. Front panel LEDs provide indication of DC power (green), remote operation (yellow), PLL alarm (red), or the TX carrier is muted (yellow). Variable attenuators for the IF input and RF output provide a gain range of **+0 to +30 dB** as adjusted by the front panel 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 input and 10MHz reference input and output, and Type N female for the RF output (other connector configurations available). The 2015-58 is powered by a $100\text{-}240 \pm 10\%$ VAC power supply; and housed in a 1.75" X 19" X 16" rack mount chassis.



Front Panel

EQUIPMENT SPECIFICATIONS*

Input Characteristics (IF)

Impedance/Return Loss **75Ω /20 dB typ., 18 dB min.**
 Frequency **70 ± 18 MHz**
 Input Level **-35 to -10 dBm**
Noise Figure 20 dB typ; 25 dB max., +30 Gain

Output Characteristics (RF)

Impedance/Return Loss **50Ω/20 dB Typ, 18 dB min.**
 Frequency **5.85 to 6.425 GHz**
 Output level **-20 to 0 dBm**
 Output 1 dB compression **+10 dBm**

Channel Characteristics

Gain range (adjustable) **+0 to +30 dB, 0.5 ±0.5 dB steps**
 Spurious Response **<-50 dBC**
 Frequency Response **±1.5 dB, 5.85-6.425 GHz ; ± 0.5 dB, 36 MHz BW**
 Group Delay, max **0.015 ns/MHz² parabolic; 0.05 ns/MHz linear, 1 ns ripple**
 Frequency Sense **Non-inverting**

Synthesizer Characteristics

Frequency Stability **± 0.01 ppm internal reference; external reference input**
 Frequency Step **125 kHz minimum**
 10 MHz In/Out Level **3 dBm ± 3 dB**

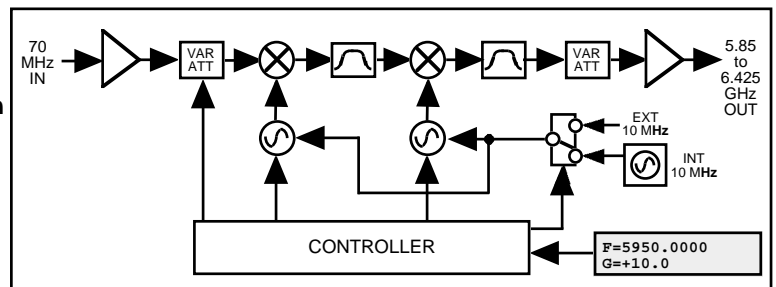
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-70	-75	-80	-95	-105

Controls, Indicators

Freq/Gain Selection **direct readout LCD; pushbutton switches or remote selection**
 Pwr; Alarm; Rem; Mute **Green LED; Red LED; Yellow LED; Yellow LED**
 Remote **RS232C, 9600 baud; RS485/422 or Ethernet optional**

Other

RF Connector **Type N (female), 50Ω**
 IF Connector **BNC (female), 75Ω**
 10 MHz Connectors **BNC (female), 75Ω, works with 50 ohms**
 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 maximum**



Block Diagram

Available Options

W7 - RF/IF Monitor Ports (Front)
 W31 - Ext. Temp 0C to +50C
 X1005 - 1 kHz frequency step
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
 M - 50Ω Type N (RF), 50Ω BNC (IF)

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