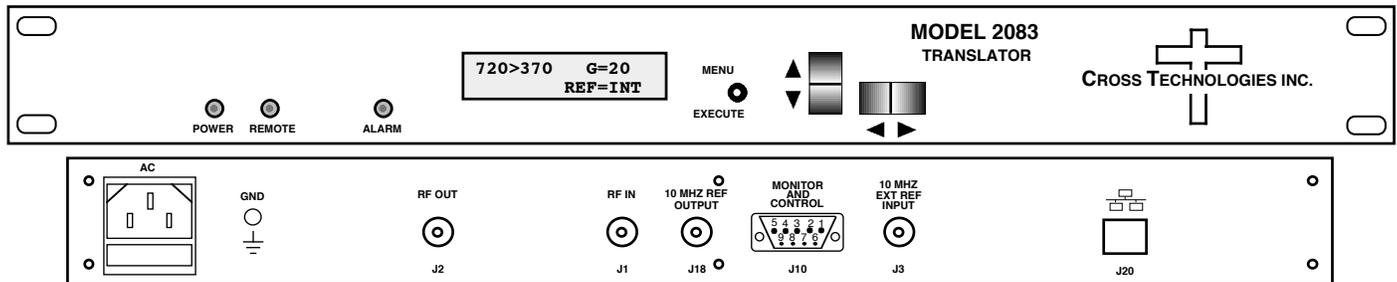


**2083-0703 Translator, 720 MHz to 370 MHz,  $\pm 75$  MHz**

The 2083-0703 Translator converts  $720 \pm 75$  MHz to  $370 \pm 75$  MHz with a high side LO (inverted spectrum). Push button switches select the gain, and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and Remote operation (yellow). Gain is adjustable over a 0 to 20 dB range in  $1 \pm 1$  dB steps locally via front panel switches and remotely via M&C interface. Parameter selection and gain settings appear on the LCD display. Connectors are **Type N** female for RF input and **BNC** for IF (RF Out) and optional external reference input and output. **The external 10 MHz option E** includes a 10 MHz output connector which contains either the internal or external 10 MHz reference signal. It is powered by a  $100\text{-}240 \pm 10\%$  VAC power supply, and in a  $1 \frac{3}{4} \times 19 \times 16$  rack mount chassis.



**2083-0703 Front and Rear Panels (shown with optional external 10 MHz and Ethernet)**

**EQUIPMENT SPECIFICATIONS**

**Input Characteristics (RF)**

Impedance/Return Loss **50  $\Omega$  /12 dB**  
 Frequency **720  $\pm$  75 MHz**  
 Input Level **-50 to -25 dBm**  
**No Damage Input level +15 dBm min.**

**Output Characteristics (IF, RF Out)**

Impedance/Return Loss **50  $\Omega$ /12 dB**  
 Frequency **370  $\pm$  75 MHz**  
 Output level **-30 to -5 dBm**  
 Output 1 dB comp. **+5 dBm at maximum gain, Gmax**

**Channel Characteristics**

Gain range **0.0 to 20.0 dB at Fc,  $1 \pm 1$  dB steps (manually adjustable)**  
 Frequency Response  **$\pm 1.5$  dB, 370  $\pm$  75 MHz out;  $\pm 0.5$  dB, 40 MHz BW**  
 Spurious, In Band **< -40 dBc, 370  $\pm$  75 MHz out, -30 to -5 dBm out,**  
 Spurious, Out of Band **< -40 dBm, 100-294 and 446-600 MHz out; < -30 dBm, 601-1000 MHz out; LO < -20 dBm; all at Gmax**  
 Frequency Sense **Inverting**

**Synthesizer Characteristics**

Frequency Accuracy  **$\pm 1.0$  ppm max over temp ( $\pm 0.01$  ppm, option H)**  
 Frequency Step **None, Fixed tuned**

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-65	-75	-85	-95	-110

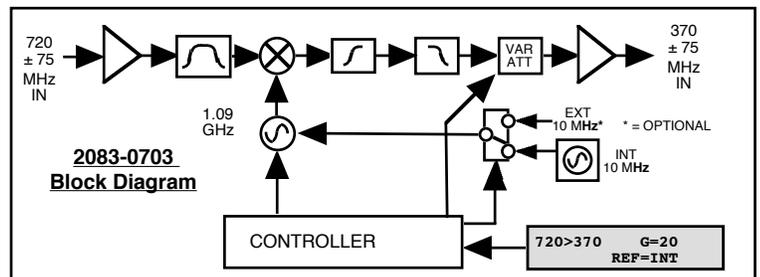
10 MHz Level (In or Out) **3 dBm,  $\pm 3$  dB, 75 ohms (option E)**

**Controls, Indicators**

Gain Selection **Direct readout LCD; manual or remote selection**  
 Power; Alarm; Remote **Green LED; Red LED; Yellow LED;**  
 Remote **RS232C, 9600 baud (RS485, Ethernet Optional)**

**Other**

**RF in Connector Type N (female), 50 $\Omega$**   
**IF (RF out) Connector BNC (female), 50 $\Omega$  IF (RF out)**  
 10 MHz Connectors **BNC (female), 75 $\Omega$ , works with 50 or 75 ohms (option E)**  
 Alarm/Remote Connector **DB9 (female) - NO or NC contact closure on Alarm**  
 Size **19 inch, 1RU standard chassis 1.75" H X 16.0" D**  
 Power **100-240  $\pm 10\%$  VAC, 47-63 Hz, 25 W max.**



**Available Options**

**E - External 10 MHz ref in & out**  
**Comm. Interface/Standard RS232**  
**Q - RS485 Remote Interface**  
**W8 - Ethernet; w/Web Browser (WB)**  
**W18 - Ethernet; w/WB & SNMP**  
**W28 - Ethernet; w/TCP/IP, Telnet**  
**Contact Cross for other options**

\*10°C to 40°C; SpecIF (RF out)ications subject to change without notice.