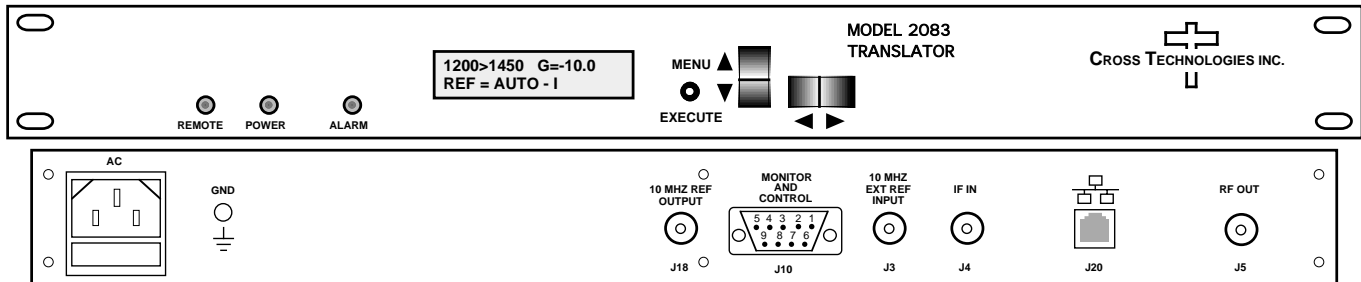


**2083-1012 Block Translator, 950-1450 to 1200-1700 MHz**

**2083-1012 Block Translator** - The 2083-1012 Block Translator converts a 950-1450 MHz block to 1200-1700 MHz block with no spectrum inversion, low group delay and flat frequency response. The 950-1450 MHz input is mixed with synthesized local oscillator (LO) signals, first to 3800 MHz center frequency and finally to the **1200-1700 MHz** block output. The gain can be set for 0 to -20 dB in 0.5±0.5 dB increments. Multifunction switches select the Gain and internal or External (**Option E**) 10 MHz reference which appear on the LCD display and can be adjusted remotely. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Connectors are **BNC female** for RF input and output. The unit is powered by a 100-240 ±10% VAC, 47-63 Hz input power supply and housed in a 1 3/4" X 19" X 16" rack mount chassis.



**2083-1012 Front and Rear Panels (Shown with optional Ethernet and option E)**

**EQUIPMENT SPECIFICATIONS\***

**Input Characteristics**

Input Impedance/RL **50Ω /12 dB**  
 Frequency **950 - 1450 MHz**  
 Input **Composite** Level **-25 to -5 dBm**  
 Input, max. no damage **+15 dBm**

**Output Characteristics**

Impedance/RL **50Ω/12 dB**  
 Frequency **1200 - 1700 MHz**  
 Output **Composite** Level **-25 to -5 dBm**  
 Output 1 dB compression **+5 dBm, at max gain**

**Channel Characteristics**

Gain **0 to -20 dB, ± 1 dB, selectable in 0.5±0.5 dB steps**  
 Frequency Response **± 1.5 dB, 500 MHz bandwidth; ± 0.5 dB, any 40 MHz increment**  
 Spurious, Inband **< -50 dBc in band, signal dependent and signal independent; -5 dBm out; See NOTE 1**  
 Spurious, out of band **< -30 dBc, 0.5- 1.19 GHz and 1.71-2.2 GHz; -5 dBm out; See NOTE 1**  
 Frequency Sense **Non-inverting**

**Synthesizer Characteristics**

Translation; Accuracy **1ppm; Option -H, ±0.01 ppm**  
 Reference **10 MHz Internal; Option -E, Internal/ External selection**  
 Frequency Step **None, fixed frequency**

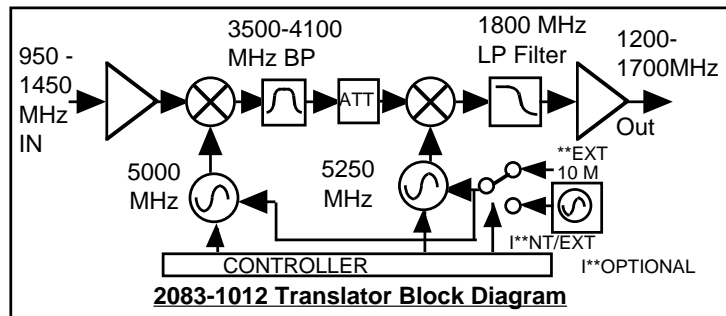
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBc/Hz	-70	-70	-80	-90	-100

**Controls, Indicators**

Fc Translation **Direct readout LCD; manual or remote selection**  
 Gain (MGC) **Direct readout LCD; manual or remote selection**  
 Ext. ref. (Option -E) **Direct readout LCD; manual or remote selection**  
 Power; Alarm; Remote **Green LED; Red LED; Yellow LED**  
 Remote **RS232C, 9600 baud ; RS485, Ethernet Options**

**Other**

RF In/RF Out Connector **BNC (female)**  
 10 MHz Connector **BNC (female), 75Ω, works with 50 or 75 ohms**  
 Alarm/Remote Connector **DB9 (female) - NO or NC contact closure on Alarm**  
 Size **19 inch standard chassis 1.75" High X 16.0" Deep**  
 Power **100-240 (±10%) VAC, 47-63 Hz, 30 watts max.**



**NOTE 1:** dBc is relative to the COMPOSITE Output Level

**Available Options**

E - External 10 MHz Input & Output  
 H - High Stability (±0.01ppm) Internal Ref  
**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  
**Connectors/Impedance**  
 Std. - 50Ω BNC (RF IN), 50Ω BNC (RF OUT)  
 NN - 50Ω N (RF IN), 50Ω N (RF OUT)  
 SS - 50Ω SMA (RF IN), 50Ω SMA (RF OUT)  
**Contact Cross for other options**

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