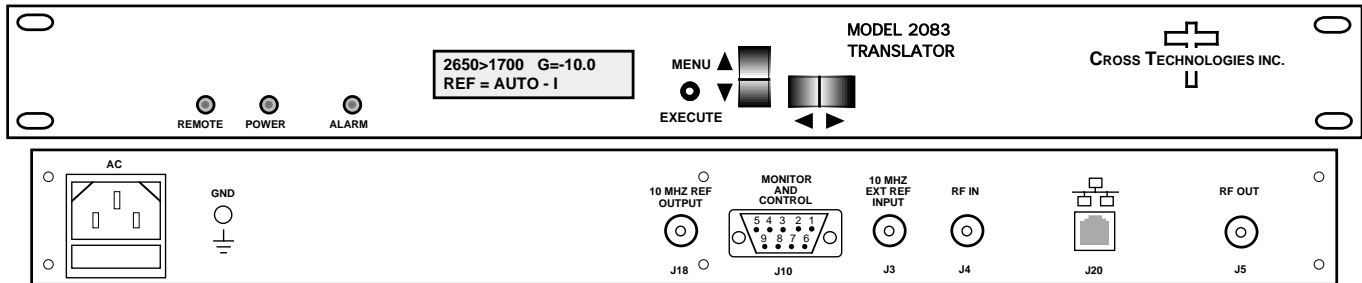


**2083-2717 Block Translator, 2550-2750 to 1600-1800 MHz**

The 2083-2717 Block Translator converts a 2550-2750 MHz block to 1600-1800 MHz block **with or without spectrum inversion (selectable)**, low group delay and flat frequency response. The **2550-2750 MHz** input is mixed with synthesized local oscillator (LO) signals, first to a 400 MHz center frequency and finally to the **1600-1800 MHz** block output. The gain can be set for **0 to -30 dB in 0.5 ± 0.5 dB increments**. The output translation is fixed (Option **X5050 - ±50kHz Fout tuning, 50 Hz steps**). Multifunction switches select Gain and internal or External 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 and 10 MHz input and output. It 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.



**2083-2717 Front and Rear Panels (Shown with optional Ethernet)**

**EQUIPMENT SPECIFICATIONS\***

**Input Characteristics**

Input Impedance/RL **50Ω /14 dB**  
 Frequency **2550 - 2750 MHz**  
 Input Level **-15 to 0 dBm**

**Output Characteristics**

Impedance/RL **50Ω /14 dB**  
 Frequency **1600 - 1800 MHz**  
 Output Level **-30 to -15 dBm**  
 Output 1 dB compression **-5 dBm, at max gain**

**Channel Characteristics**

Gain, max; adjustment **+0 dB ±1 dB, max. gain; 0 to -30 dB gain adjustment in 0.5 ± 0.5 dB Steps**  
 Spurious, Inband **< -55 dBC in band, signal dependent and signal independent; -15 dBm Out**  
 Spurious, out of band **< -50 dBm, 1.15-1.59 GHz and 1.81-2.09 GHz Out**  
 Intermodulation **< -55 dBC for two carriers each at -20 dBm out**  
 Frequency Response **± 2.0 dB, 200 MHz bandwidth; ± 1.0 dB, any 100 MHz bandwidth; ± 0.5 dB, any 20 MHz increment**  
 Frequency Sense **Non-inverting or Inverting, selectable**

**Synthesizer Characteristics**

Translation; Accuracy **± 1ppm; Option H, ±0.01 ppm**  
 Reference **10 MHz Internal; Internal/ External selection**

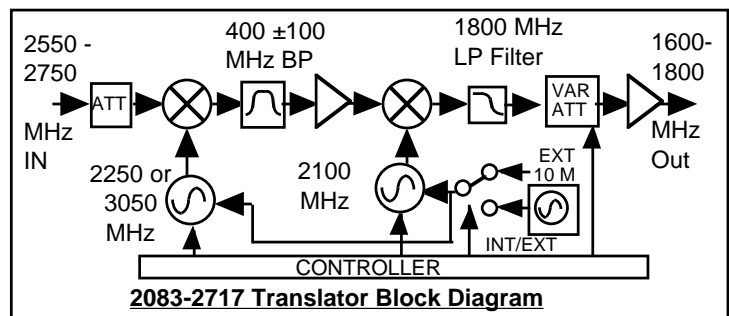
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-70	-80	-80	-95	-100

**Controls, Indicators**

Gain (MGC) Direct readout LCD; manual or remote selection  
 Ext. ref. Direct readout LCD; manual or remote selection  
 Power; Alarm; Remote Green LED; Red LED; Yellow LED  
 Remote RS232C/RS485/422, 9600 baud (Ethernet Optional)

**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.**



**2083-2717 Translator Block Diagram**

**Available Options**

H - High Stability (±0.01ppm) Internal Ref  
**X5050 - ±50kHz Fout tuning, 50 Hz steps**  
**Comm. Interface/Standard RS232**

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