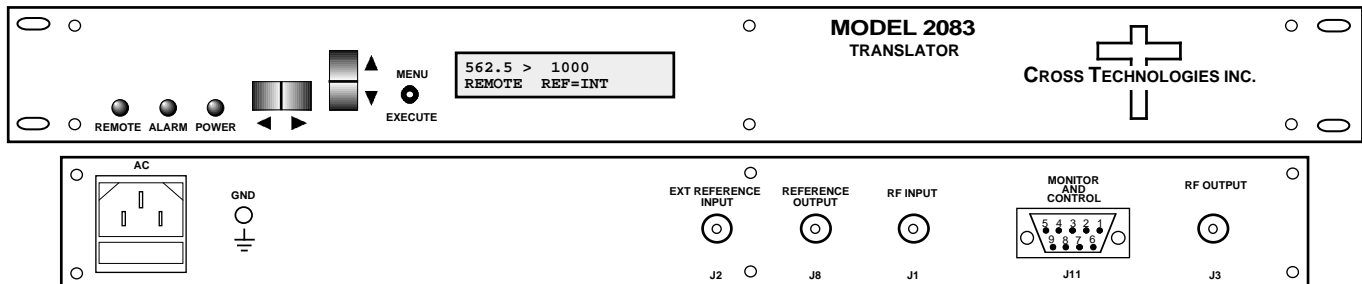


**2083-910 Block Translator, 562.5 or 900 to 1000 MHz**

The 2083-910 Block Translator converts a 562.5 ± 150 MHz or 900 ± 240 MHz bandwidth block to 1000 ± 240 MHz block with no spectrum inversion, low group delay and flat frequency response. The 562.5 or 900 MHz block input is translated to the 1000 MHz block output using dual conversion. The gain is fixed at +10 dB. The selected input band appears on the LCD display and can be selected by the front panel multi-function switches or remotely by external TTL level signals via pins on the DB9 Monitor and Control Connector. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Connectors are 50 ohm 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.



**2083-910 Block Translator Front and Rear (shown with option -E)**

**EQUIPMENT SPECIFICATIONS\***

**Input Characteristics**

Input Impedance/RL 50 Ω /12 dB  
 Frequency, **562.5 ±150 MHz or 900 ±240 MHz selectable**

Input Level -10 to -60 dBm  
 Input, max. no damage +15 dBm

**Output Characteristics**

Impedance/RL 50 Ω /12 dB  
 Frequency **1000 ±240 MHz**  
 Level **0 to -50 dBm**  
 Output 1 dB compression +10 dBm

**Channel Characteristics**

Gain **+10 dBm, ± 2 dB**  
 Frequency Response **± 2.0 dB, 500 MHz bandwidth; ± 0.5 dB, 40 MHz increment**  
**Spurious, Inband < -45 dBC in band, signal dependent or independent; 0.76-1.24 GHz out; See NOTE 1**  
**Spurious, Out of band < -50 dBm; 0.2-0.75 and 1.25-2.0 GHz out; See NOTE 1**  
**Spurious, Feed through < -50 dBC, 0.4-1.15 GHz feed through rejection; See NOTE 1**  
 Group Delay, max. 0.015 ns/MHz<sup>2</sup>, parabolic, 0.03ns/MHz, linear, 1 ns ripple, any 40 MHz BW  
 Frequency Sense Non-inverting

**Synthesizer Characteristics**

Frequency Accuracy **±0.01 ppm**  
 Reference 10 MHz Internal (**External is option -E**)  
 Frequency Step None, Fixed Translations

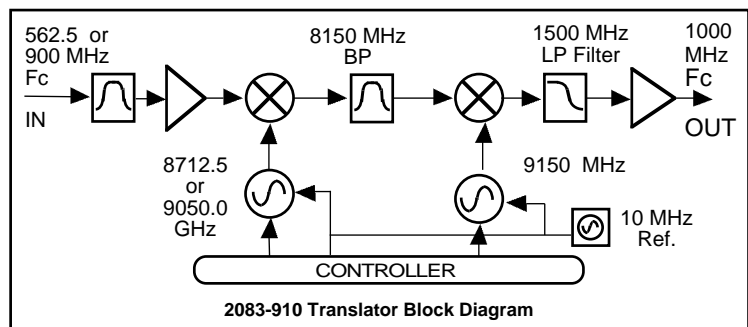
Phase Noise @ F (Hz) >	100	1K	10K	100K	1M
dBC/Hz	-60	-70	-80	-90	-100

**Controls, Indicators**

Frequency Translation Direct readout LCD; manual or remote selection  
 Power; Alarm; Remote Green LED; Red LED; Yellow LED  
 Remote RS232C, 9600 baud ; **TTL selection for Band 1, Band 2**

**Other**

**RF In/RF Out Connector BNC (female), 50 ohm**  
 Alarm/Remote Connector DB9 (female) - NO or NC contact closure on Alarm; **TTL selection for Band 1, Band 2**  
 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:** decreases db for db below -40 dBm in; 20 dB worse at -60 dBm in

**Available Options**

- E** - External 10 MHz Reference in & out
- M&C Interface - RS232 Std.**
- W8** - Ethernet M&C Web Browser Interface
- W18** - Ethernet M&C Web Browser Interface and SNMP
- Connector/Impedance**
- B** - 75Ω BNC (RF In), 75Ω BNC (RF Out)

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

