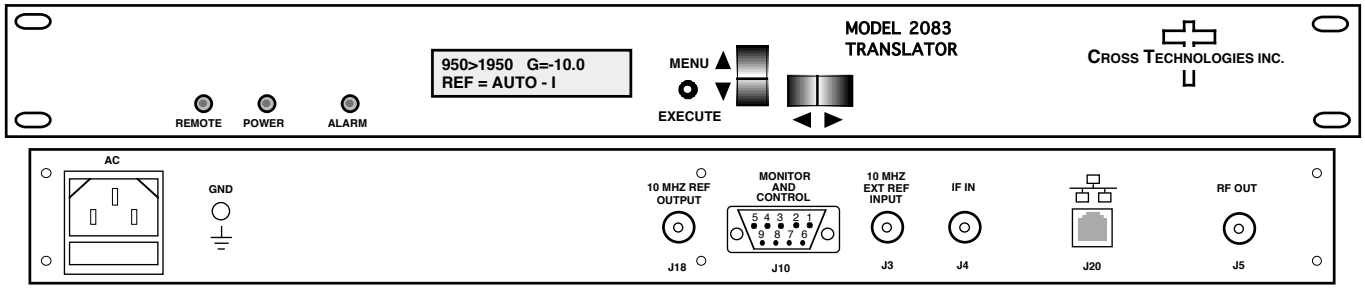
CROSS TECHNOLOGIES, INC.

DATA SHEET

6/22/20 REV. 0

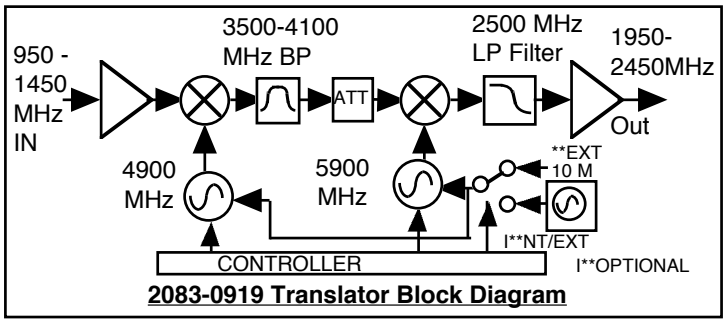
2083-0919 Block Translator, 950-1450 to 1950-2450 MHz

2083-0919 Block Translator - The 2083-0919 Block Translator converts a 950-1450 MHz block to 1950-2450 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 3700 MHz center frequency and finally to the **1950-2450 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.



2083-0919 Front and Rear Panels (Shown with optional Ethernet and option E)

EQUIPMENT SPECIFICATIONS*



2083-0919 Translator Block Diagram

Input Characteristics

Input Impedance/RL	**50Ω** /12 dB
Frequency	950 - 1450 MHz
Input **Composite** Level	**-20 to 0 dBm**
Input, max. no damage	+15 dBm

Output Characteristics

Impedance/RL	**50Ω**/12 dB
Frequency	1950 - 2450 MHz
Output **Composite** Level	**-20 to 0 dBm**
Output 1 dB compression	+10 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; 0 dBm out; See NOTE 1**
Spurious, out of band	**< -30 dBC, 0.5- 1.94 GHz and 2.46-3.2 GHz; 0 dBm out; See NOTE 1**
Frequency Sense	Non-inverting

NOTE 1: dBc is relative to the COMPOSITE Output Level

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)**, 50Ω, See option chart**
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.

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

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
W828 - W8 +W18 +W28

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

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