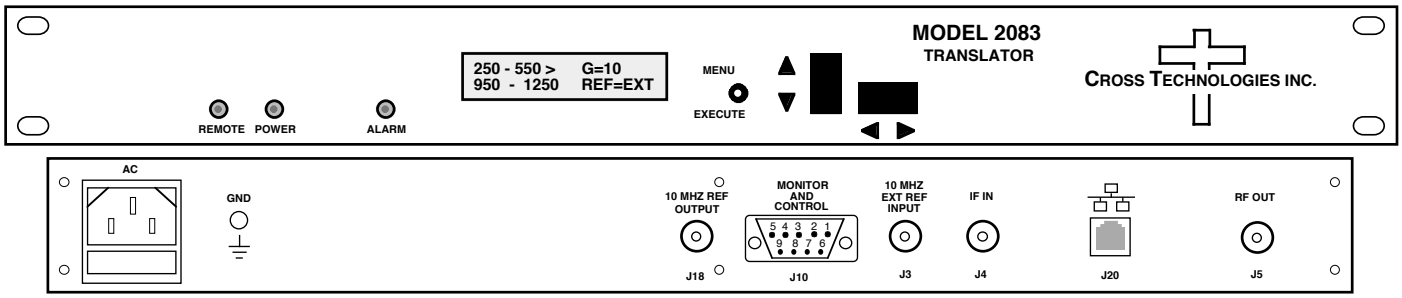
CROSS TECHNOLOGIES, INC.

DATA SHEET

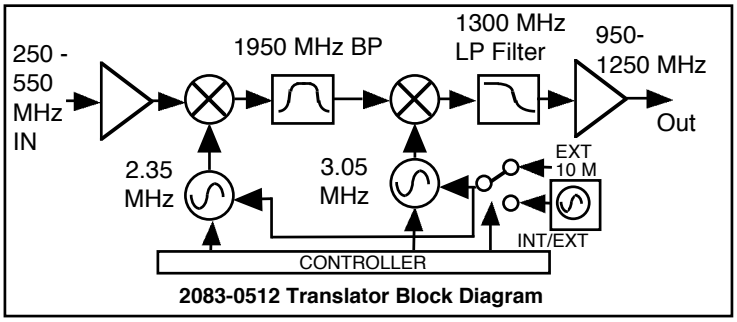
07/15/15 REV. 0

2083-0512 Block UHF to L Translator, Fixed Frequency

2083-0512 Block UHF to L Translator - The 2083-0512 Block UHF to L Translator converts a 250-550 MHz block to 950-1250 MHz block with no spectrum inversion, low group delay and flat frequency response. The 250-550 MHz input is mixed with synthesized local oscillator (LO) signals, first to 1950 MHz center frequency and finally to the 950-1250 MHz block output. Multi-function switches select the gain and internal or external 10 MHz. The input frequency band, output frequency band, internal or external reference, and gain (0 to +20 dB, selectable in 1 dB steps) settings appear on the LCD display. Front panel LEDs provide indication of DC power (green), PLL alarm (red), and remote operation (yellow). Remote operation allows setting the overall gain and 10 MHz reference. Connectors are BNC female for RF input and output and for the external 10 MHz reference (+3± 3 dBm in). It is powered by a 100-240 ±10% VAC, 47-63 HZ input power supply and in a 1 3/4" X 19" X 16" rack mount chassis.



2083-0512 Front and Rear Panels (Shown withoptional Ethernet)



2083-0512 Translator Block Diagram

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL	50Ω /12 dB
Frequency,	**250 – 550 MHz**
Input Level	**-30 to -10 dBm**
Input, max. no damage	+15 dBm

Output Characteristics

Impedance/RL	50Ω/12 dB
Frequency	**950 – 1250 MHz**
Output Level, Range	**-30 to -10 dBm**
Output 1 dB compression	0 dBm

Channel Characteristics

Gain **at F_C**	**0 to +20 ± 2 dB**, selectable in **1 ±1 dB steps**
Frequency Response	**± 1.5dB,** 300 MHz bandwidth; ± 0.5 dB, **any 40** MHz increment
Spurious, In band	**>45 dBC signal dependent or independent at -10 dBm out**
Spurious, Out of band	**<-50 dBm, 0.5 - 0.94 and 1.26 - 2.0 GHz**
Frequency Sense	Non-inverting

Synthesizer Characteristics

Frequency Accuracy	± 1.0 ppm max over temp (±0.01 ppm, option-H)
Reference	10 MHz Internal; Internal/External
Frequency Step	None, fixed frequency translation

Phase Noise @ F (Hz) >	*100*	*1K*	*10K*	*100K*	*1M*
dBC/Hz	***-65***	***-70***	*-80*	*-95*	*-110*

10 MHz Level (In or Out)	3 dBm, ± 3 dB, 75 ohms

Controls, Indicators

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

Other

RF In/RF Out Connector	BNC (female), 50Ω
10 MHz Conn. (In & Out)	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

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

B - 75Ω BNC (RF), 75Ω BNC (IF)
C - 50Ω BNC (RF), 75Ω BNC (IF)

Contact Cross for other options

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