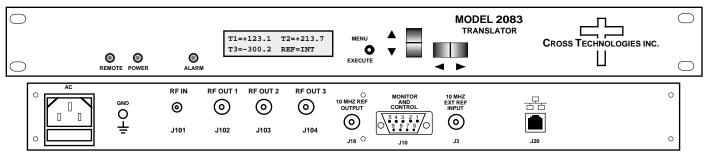


DATA SHEET

5/21/14 REV. 0

2083-13-1518 Block Translator, 3 Channel, 950-1450 MHz to 600-1800 MHz

2083-13-1518 Block Translator, 3 Channel - The 2083-13-1518 Block Translator, 3 Channel, converts a single 950-1450 block input to three independently tuned 500 MHz block outputs in the 600-1800 MHz range (-350 to +350 MHz translation in 100 kHz steps) with no spectrum inversion, low group delay and flat frequency response. The 950-1450 MHz input is translated to a 500 MHz block in the 600-1800 MHz range using dual conversion. The gain is 0 ±3dB at Fc. Multifunction switches select the translation frequency of each channel 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 SMA female for the RF input, type F female for the RF output and BNC female for the external 10 MHz reference input and 10 MHz reference output. The 10 MHz output connector contains either the internal or external 10 MHz reference signal. The unit is powered by a 100-240 ± 10% VAC power supply, and housed in a 1.75" X 19" X 16" 1RU chassis.



2083-13-1518 Block Translator, 3 Channel front and rear panels (shown with Ethernet option)

Block Diagram

2083-13-1518 Translator

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL **50 Ω /**12 dB Frequency 950-1450 MHz -10 to -20 dBm Input Level Input, max. no damage +10 dBm

Output Characteristics (each Channel) Impedance/RL 75 Ω/10 dB

Frequency (500 MHz band) 600-1800 MHz range Output Level -10 to -20 dBm

Output 1 dB compression 0 dBm

Channel Characteristics

0 dB, **± 3 dB, Fixed** Gain, at Fc

Frequency Response ± 2.0 dB, 500 MHz bandwidth; ± 0.5 dB, 36 MHz increment

Spurious, Inband < -45 (-50 typ) dBC in band, (in the selected 500 MHz band in the 600-1800 MHz range)

1450

Spurious, 0.6- 1.45 GHz < -45 dBm; < -45 (-50 typ) dBC, 0.95-1.45 GHz feed through rejection < -45 dBm, 250 MHz above and below the selected 500 MHz band Spurious, out of band Frequency Sense Non-inverting

Synthesizer Characteristics

Frequency Accuracy ±0.01 ppm Frequency Step 100 kHz; -350 to + 350 MHz Translation adjustment

NOTE 1: dBc is relative to the COMPOSITE Output Level

8 300 GHz BP

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

10 MHz Level (In or Out)

3 dBm, \pm 3 dB, (75 Ω works with 50 or 75 ohms)

Controls, Indicators

Frequency Translation Setting Shown on LCD Display

Gain

Direct readout LCD; manual or remote selection Green LED; Red LED; Yellow LED

Power; Alarm: Remote Remote

RS232C, 9600 baud, RS485, Ethernet, optional

Other

Size

Power

RF In/RF Out Connector 10 MHz Connectors Alarm/Remote Connector

SMA (Female)/Type F (female)

BNC (female), 75Ω , works with 50 or 75 ohms DB9 (female) - NO or NC contact closure on alarm 19 inch standard chassis 1.75" High X 16.0" Deep 100-240 (±10%) VAC, 47-63 Hz, 30 watts max.

MHz OUT 1.5 GHz LF 9.15 to 9.85 EXT10 M CONTROLLER INT/EXT

SAME AS CH 1

SAME AS CH 1

CH 3 600 -1800

CH 2 600 -1800

CH 1 600 -1800

MHz OUT

Available Options

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 - 75 Ω BNC (RF In), 75 Ω BNC (RF Out) D - 50Ω BNC (RF In), 50Ω BNC (RF Out) **Contact Cross for other options**

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