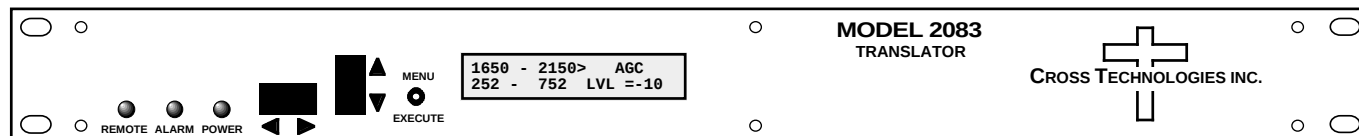


2083-228 Block Translator, 1650-2150 to 250-750 MHz

2083-228 Block Translator - The 2083-228 Block Translator converts a 1650-2150 MHz block (out of a 250-2150 MHz composite spectrum) to 250-750 MHz block with no spectrum inversion, low group delay and flat frequency response. The 1650-2150 MHz input is filtered and translated to the 250-750 MHz block output using dual conversion. The 250-750 MHz block output is **AGC'd to a composite output level that can be set for 0 to -10 dBm (AGC to ± 2 dB of setting) in 1 dB increments. The output translation can be adjusted by ± 10 MHz in 1 MHz increments. In Manual Gain, the gain can be set for +15 to +45 dB, ± 2 dB. Multifunction switches select the AGC'd output level, MGC Gain and the translation frequency 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 **Type F female** for RF input and output. The unit is powered by a 100-240 $\pm 10\%$ VAC, 47-63 HZ input power supply and housed in a 1 3/4" X 19" X 16" rack mount chassis.**



2083-228 Block Translator

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL	75 Ω /12 dB
Frequency,	1650-2150 MHz
Input Composite Level	-25 to -45 dBm
Input, max. no damage	+15 dBm

Output Characteristics

Impedance/RL	75 Ω /12 dB
Frequency	250-750 MHz
AGC'd Comp. Level	0 to -10 dBm
Output 1 dB compression	+10 dBm

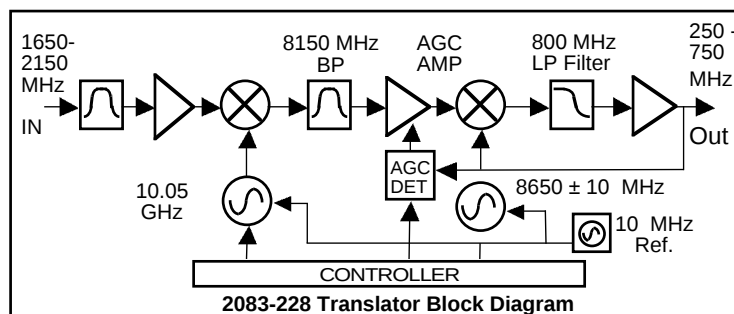
Channel Characteristics

AGC Set; MGC Gain	0 to -10 dBm, ± 1 dB, selectable in 1 dB steps; MGC Gain = +15 to +45 dB, ± 2 dB
AGC Response	5 $\pm$ 2 seconds for 10 dB input level change
Frequency Response	± 2.0 dB, 500 MHz bandwidth; ± 0.5 dB, 36 MHz increment
Spurious, Inband	< -50 dBc in band, signal dependent; < -50 dBm signal independent; see NOTE 1
Spurious, 0.2- 2.2 GHz	< -50 dBm; < -50 dBc, 0.25-2.2 GHz feed through rejection; see NOTE 1
Group Delay, max.	0.015 ns/MHz ² , parabolic, 0.03ns/MHz, linear, 1 ns ripple, 36 MHz BW
Frequency Sense	Non-inverting

Synthesizer Characteristics

Frequency Accuracy	± 0.01 ppm
Reference	10 MHz Internal
Frequency Step	1 MHz; ± 10 MHz Translation adjustment

NOTE 1: dBc is relative to the COMPOSITE Output Level



Controls, Indicators

Frequency Translation	Setting Shown on LCD Display
Level (AGC), Gain (MGC)	Direct readout LCD; manual or remote selection
Power; Alarm: Remote	Green LED; Red LED; Yellow LED
Remote	RS232C, 9600 baud

Other

RF In/RF Out Connector	Type F (female)
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 ($\pm 10\%$) VAC, 47-63 Hz, 30 watts max.

Available Options

E -	External 10 MHz ref input & output
M&C Interface	RS232 Std.
Q -	RS485 Remote Interface
W8 -	Ethernet M&C Web Browser Interface
W18 -	Ethernet M&C Web Browser Interface and SNMP

Connector/Impedance

B -	75 Ω BNC (RF In), 75 Ω BNC (RF Out)
D -	50 Ω BNC (RF In), 50 Ω BNC (RF Out)

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