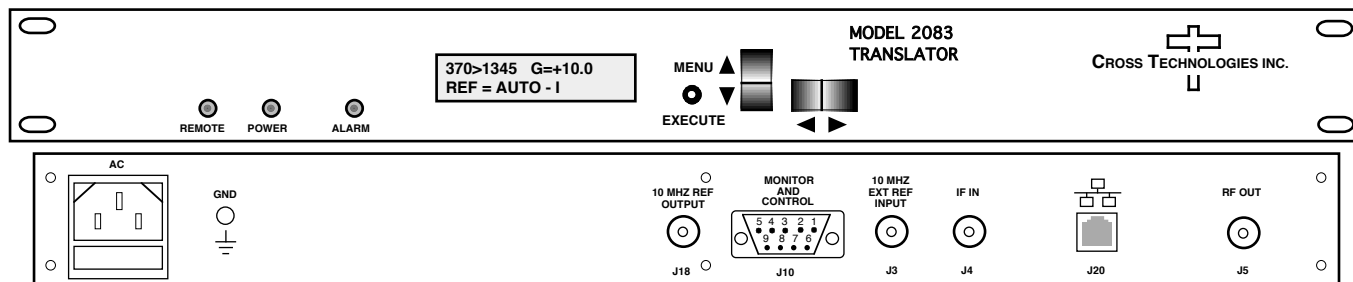


2083-0514 Block 370 ± 150 to 1345 ± 150 Translator, Fixed Frequency

2083-0514 Block 370 ± 150 to 1345 ± 150 Translator - The 2083-0514 Block 370 ± 150 to 1345 ± 150 Translator converts a 370 ± 150 MHz block to 1345 ± 150 MHz block with no spectrum inversion, low group delay and flat frequency response. The 370 ± 150 MHz input is mixed with synthesized local oscillator (LO) signals, first to 3100 MHz center frequency and finally to the 1345 ± 150 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 0.5 $\pm$ 0.5 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 $\pm$ 3 dBm in). It is powered by a 100-240 $\pm$ 10% VAC, 47-63 Hz input power supply and in a 1 3/4" X 19" X 16" rack mount chassis.



2083-0514 Front and Rear Panels (Shown with optional Ethernet)

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL 50 Ω /15 dB
Frequency, 370 ± 150 MHz
Input Level -30 to -10 dBm
Noise Figure +18 dB, max., Fc, Gmax

Output Characteristics

Impedance/RL 50 Ω /15 dB
Frequency 1345 ± 150 MHz
Output Level, Range -25 to -5 dBm
Output 1 dB compr. +5 dBm, Fc, Gmax

Channel Characteristics

Gain at Fc 0 to +20 $\pm$ 2 dB, selectable in 0.5 $\pm$ 0.5 dB steps
Frequency Response $\pm$ 1.5dB, Fc ± 150 MHz; $\pm$ 0.5 dB, Fc ± 80 MHz; Gmax
Spurious, In band >50 dBc signal dependent or independent at -5 dBm out, Gmax
Spurious, Out of band <-50 dBm, 0.5 - 1.195 and 1.495 - 2.0 GHz, Gmax
Frequency Sense Non-inverting

Synthesizer Characteristics

Frequency Accuracy $\pm$ 1.0 ppm max over temp ($\pm$ 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	10M
dBc/Hz	-60	-70	-80	-90	-100	-110

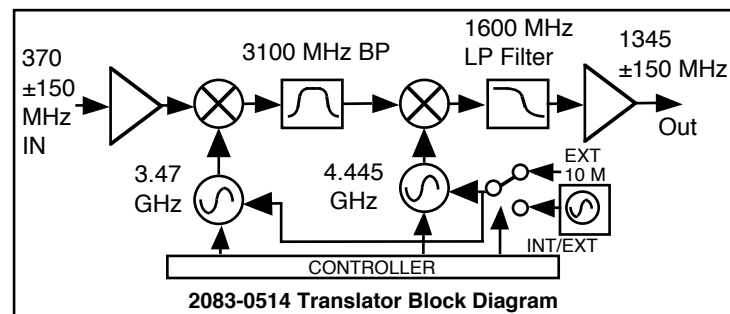
10 MHz Level (In or Out) 3 dBm, $\pm$ 3 dB, 50 ohms

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 Conn. BNC (female), 50 Ω
10 MHz Conn. (In & Out) BNC (female), **50 Ω**
Alarm/Remote Conn. 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

H - High Stability ($\pm$ 0.01ppm) Internal Ref
W31 0 to +50 degrees C operation

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. - 50 Ω BNC (RF IN), 50 Ω BNC (RF OUT)
NN - 50 Ω N (RF IN), 50 Ω N (RF OUT)
SS - 50 Ω SMA (RF IN), 50 Ω SMA (RF OUT)

Contact Cross for other options

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