2083-0915 Block Translator, 900-1475 to 1500-2075 MHz

**2083-0915 Block Translator** - The 2083-0915 Block Translator converts a 900-1475 MHz block to 1500-2075 MHz block with no spectrum inversion, low group delay and flat frequency response. The 900-1475 MHz input is mixed with synthesized local oscillator (LO) signals, first to 3800 MHz center frequency and finally to the 1500-2075 MHz block output. The maximum input level (MAX IN) can be set for -5 to -25 dBm in 1±1 dB increments. Multifunction switches select the MAX IN 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.

**Input Characteristics**
- Input Impedance/RL: 50Ω /12 dB
- Frequency: 900 - 1475 MHz
- Max Input Level setting: -5 to -25 dBm, in 1±1dB steps
- Input Level Range: 0 to -20 dB below MAX IN setting
- Noise Figure, max.: 15 dB at -5 dBm MAX IN setting

**Output Characteristics**
- Impedance/RL: 50Ω /12 dB
- Frequency: 1500 - 2075 MHz
- Output Composite Level: -5 to -45 dBm (MAX IN -5 to -25)
- Output 1 dB compression: +5 dBm, at max gain

**Channel Characteristics**
- Gain, fixed: 0 ± 1 dB at Fc and MAX IN set to -5 dBm
- Frequency Response: ± 1.5 dB, 575 MHz bandwidth; ± 0.5 dB, any 40 MHz increment
- Spur In-band (NOTE 2): < -50 dBc in band, signal dependent and signal independent; -5 dBm out; See NOTE 1
- Spur Out-band (NOTE 2): < -30 dBc, 0.5- 1.49 GHz and 2.1-2.6 GHz and 0.90-1.475 GHz feed through; -5 dBm out; See NOTE 1
- Frequency Sense: Non-inverting
- Group Delay: < 2ns, band; < 1ns, any 65MHz

**Synthesizer Characteristics**
- Frequency Sense: Non-inverting
- Frequency Range: 900 - 1475 MHz
- Input Characteristics: 0 ± 1 dB at Fc and MAX IN set to -5 dBm
- Frequency Response: ± 1.5 dB, 575 MHz bandwidth; ± 0.5 dB, any 40 MHz increment
- Spur In-band: < -50 dBc in band, signal dependent and signal independent; -5 dBm out; See NOTE 1
- Spur Out-band: < -30 dBc, 0.5- 1.49 GHz and 2.1-2.6 GHz and 0.90-1.475 GHz feed through; -5 dBm out; See NOTE 1
- Frequency Sense: Non-inverting
- Group Delay: < 2ns, band; < 1ns, any 65MHz

**Control, Indicators**
- Fc Translation: Direct readout LCD; manual or remote selection
- MAX IN level: Direct readout LCD; manual or remote selection
- Ext. ref. (Option -E): Direct readout LCD; manual or remote selection
- Power: Green LED; Red LED; Yellow LED
- Remote: RS232C, 9600 baud; RS485, Ethernet Options

**Other**
- RF In/RF Out Connector: BNC (female)
- 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*