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 with optional Ethernet)

#### 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 Fc: 0 to +20 ± 2 dB, selectable in 1 ±1 dB steps
- Frequency Response: ± 1.5 dB, 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

<table>
<thead>
<tr>
<th>Phase Noise @ F (Hz) &gt;</th>
<th>100</th>
<th>1K</th>
<th>10K</th>
<th>100K</th>
<th>1M</th>
</tr>
</thead>
<tbody>
<tr>
<td>dBC/Hz</td>
<td>-65</td>
<td>-70</td>
<td>-80</td>
<td>-95</td>
<td>-110</td>
</tr>
</tbody>
</table>

- 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.

### 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

**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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