2116-6T4 Block Translator, 5.845 - 6.425 GHz to 3.62 - 4.20 GHz

The 2116-6T4 Block Translator converts 5.845 - 6.425 GHz to 3.62 - 4.20 GHz with a local oscillator at 2.225 GHz. Front panel LEDs provide indication of external 10 MHz (yellow), PLL alarm (red), and DC power (green). The gain is -30 dB to Output #1 and -50 to Output #2. Connectors are N-type female for RF and BNC female for the external reference input and reference output. A three-way switch controls which 10 MHz reference is being used. In the INT position, the internal reference is used, in the EXT position, the external reference is used, and in the AUTO position, the internal reference is used unless a +3 dBm ± 3 dB, 10 MHz reference signal is connected to the external reference input. The 2116 is powered by a 90-260 VAC power supply, and housed in a 1 3/4" X 19" X 14" rack mount chassis.

Front Panel

EQUIPMENT SPECIFICATIONS*

Input Characteristics
Impedance/Return Loss  50Ω/15 dB
Frequency  5.845 to 6.425 GHz
Input Level range  -10 to -30 dBm
Input 1 dB compression  0 dBm

Output Characteristics
Impedance/Return Loss  50Ω /15 dB
Frequency  3.62 to 4.20 GHz
Output Level Range (#1)  -40 to -60 dBm
Output Level Range (#2)  -60 to -80 dBm

Channel Characteristics
Gain  -30 dB ±2 dB (Output #1); -50 dB ±2 dB (Output #2)
Input/Output Isolation  60 dB, min
Intermodulation  < -50 dBC for two carriers each at -10 dBm
Frequency Response  ± 1.5 dB, over frequency band; ± 0.5 dB, 40 MHz BW
Frequency Sense  Non-inverting

LO Characteristics
LO Frequency  2.225 GHz
Frequency Accuracy  ± 0.01 ppm max over temp internal reference; ext. ref. input
10 MHz In/Out Level  +3 dBm ± 3 dB

<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>-70</td>
<td>-80</td>
<td>-90</td>
<td>-100</td>
<td>-110</td>
</tr>
</tbody>
</table>

Controls, Indicators
Power  Green LED
PLL Alarm  Red LED, External contact closure
Ext 10 MHz  Yellow LED, indicates external 10 MHz reference selected (rear panel DPDT switch)
10 MHz Reference  3-way Switch (selects INTERNAL, EXTERNAL, or AUTO mode)

Other
RF Connectors  N-type (female)
10 MHz Connectors  BNC (female), 50Ω/75Ω
Alarm Connector  DB9 (female) - NO or NC contact closure on Alarm
Size  19 inch standard chassis 1.75" high X 14" deep
Power  90 - 260 VAC, 47 - 63 Hz, 45 watts max.

*10°C to 40°C; Specifications subject to change without notice

Available Options
Connectors/Impedance
SS - 50Ω SMA (RF)