The 3116-66T42 Translator converts 5.845-6.645 GHz to 3.40-4.20 GHz with a 2.445 GHz local oscillator. Front panel LEDs provide indication of Remote operation, PLL Alarm, and DC Power. The RF to RF gain is -20 to -50 dB, adjustable in 0.5 ± 0.5 dB steps. Connectors are N-type female for RF out, RF in and BNC female for external 10 MHz in and 10 MHz out. In AUTO, the 10 MHz reference stays in external if the external level is +3 dBm, ±3 dB. Gain and internal 10 MHz frequency are controlled by the front panel switches or the M&C connector (Ethernet optional). It is powered by a 100-240 ±10% VAC power supply and is in a 1.75” X 19” X 14” rack mount chassis.

EQUIPMENT SPECIFICATIONS*

Input Characteristics
- Impedance/Return Loss: 50Ω/12 dB, 14 dB typ
- Frequency (GHz): 5.845-6.645 GHz
- Input Level range: -30 to -10 dBm
- Input 1 dB compression: 0 dBm, Gmax.

Output Characteristics
- Impedance/Return Loss: 50 Ω/12 dB, 14 dB typ
- Frequency (GHz): 3.40-4.20 GHz
- Output Level Range: -60 to -30 dBm
- Output 1 dB compression: -20 dBm, Gmax.

Channel Characteristics
- Gain, maximum: -20 ±3 dB, at Fc
- Gain Range: -20 to -50 dB; 1±1 dB Steps
- In to Out Isolation, Min.: >40 dBc, >50 typ.
- Spurious, Inband: >20 dBc, Fc±1 GHz, > 40 dBc, Fc±2 GHz
- Spurious, out of band: > 20 dBc at the output; <40 dBm LO out the input;
- Spurious, LO: >50 dBc, Gain=−20
- Frequency Response: ±1.5 dB, 3.40-4.20 GHz out; ± 0.5 dB, 40 MHz BW
- Frequency Sense: Non-inverting

LO Characteristics
- LO Frequency: 2.445 GHz
- Frequency Accuracy: ± 0.01 ppm max over temp internal reference; ext. ref. input

Phase Noise @ F (Hz) >
<table>
<thead>
<tr>
<th>dBc/Hz</th>
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<tbody>
<tr>
<td>100</td>
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<tr>
<td>1K</td>
</tr>
<tr>
<td>10K</td>
</tr>
<tr>
<td>100K</td>
</tr>
<tr>
<td>1M</td>
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<table>
<thead>
<tr>
<th>10 MHz In/Out Level</th>
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<tr>
<td>+3 dBm, ±3 dB</td>
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Controls, Indicators
- Gain, 10M Freq.: Gain and internal 10 MHz frequency, Front Panel Switches or M&C connector (Ethernet Optional).
- PLL Alarm: Red LED, External contact closure
- Power: Green LED
- Remote: RS232C/RS485/422, 9600 baud (Ethernet Optional)

Other
- RF In, Out, Connectors: N-type (female), 50Ω
- 10 MHz connectors: BNC (female), 75 ohms; Works with 50Ω
- Monitor/Control Conn.: RS232C, DB9, Female; Optional Ethernet, RJ45, Female;
- Size: 19 inch, 1RU standard chassis, 1.75” high X 14” deep
- Power: 100-240 ±10% VAC, 47-63 Hz, 30 watts max

Available Options
- W8 - Ethernet; w/Web Browser (WB)
- W18 - Ethernet; w/WB & SNMP
- W28 - Ethernet; w/TCP/IP, Telnet

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

Specifications subject to change without notice