2009-59 Downconverter, 5.925 - 6.425 GHz

The 2009-59 Downconverter converts a 5.925 - 6.425 GHz signal to 950 - 1450 MHz with a high side local oscillator (LO) (inverted spectrum) for loop-back applications. With low phase noise, this unit down converts “clean” (having only this frequency) 5.925 - 6.425 GHz signals to 950 - 1450 MHz for test purposes. The 5.925 - 6.425 GHz input is mixed with a synthesized local oscillator (LO) signal to 950 - 1450 MHz. The mixer output goes to the output attenuator providing a nominal gain of -35 dB. Connectors are 75 ohm F female for the 950 - 1450 MHz output and 50 ohm N, female for the RF input. Front panel LEDs show DC power is applied (green) and if a PLL alarm occurs (red). DC power is provided by the LNB voltage from the receiver under test or by an external wall mount power supply (options -P and -P4). Option -C has no power supply and is powered by an external power supply like the 2000-01. The 2009 can be mounted on an 1 3/4” X 19” rack mount panel (option -R). Models with option -H operate over an extended -20°C +60°C temperature range.

2009 TEST DOWNCONVERTER

EQUIPMENT SPECIFICATIONS*

Input Characteristics
- Input Impedance/RL: 50 Ω /12 db
- Frequency: 5.925 to 6.425 GHz
- Level: -10 to +15 dBm
- Input 1 dB compression: +20 dBm

Output Characteristics
- Impedance/RL: 75 Ω /12 db
- Frequency: 950 -1450 MHz
- Level: -45 to -20 dBm

Channel Characteristics
- Gain at band center: -35 dB ±2 dB
- Spurious Response: <40 dBc, 950-1450 MHz out
- Spectrum Sense: Inverting
- Frequency Response: ± 2 dB, 950 -1450 MHz; ± 0.5 dB, any 10 MHz increment

Synthesizer Characteristics
- LO Frequency: 7.375 GHz
- Frequency Accuracy: ±2.5 ppm max

<table>
<thead>
<tr>
<th>Phase Noise @ Freq</th>
<th>100Hz</th>
<th>1kHz</th>
<th>10kHz</th>
<th>100kHz</th>
<th>1MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>dB/Hz</td>
<td>-65</td>
<td>-80</td>
<td>-85</td>
<td>-100</td>
<td>-110</td>
</tr>
</tbody>
</table>

Indicators
- DC Power: Green LED
- Alarm: Red LED

Other
- RF In Connector: Type-N (female)
- RF Out Connector: Type-F (female)
- Size, Bench Top: 4.7" wide X 1.75" high X 6.5" deep
- Size, Rack Mount (-R): 19 inch standard chassis 1.75”high x 7.0” deep (optional)
- Power: +16 to +20 VDC, 250 ma on RF Out

Options
- -H: Operates over an extended -20°C to 60°C temp range
- -P: 115 VAC Wall Power Supply
- -P4: 100-240± 10% VAC Wall Power Supply
- -R: 1RU Rack Mounting
- -C: Power Supply not included. Requires Cross 2000-01 Power Supply

*+10°C to +40°C; 2000 meters max elevation; 80% max humidity; Specifications subject to change without notice