



M9302A PXI Local Oscillator

Industries and applications

- Aerospace and defense
- Wireless communications
- Radar and wideband signal capture

Product description

The Agilent M9302A PXI Local Oscillator (LO) is a VCO-based 3 GHz to 10 GHz LO optimized for fast settling time to allow for fast frequency down conversion applications. The fast switching time and low phase noise of this LO make it an ideal component of a microwave vector signal analyzer.

Main features and benefits

Product features	Your benefit
Frequency range	3 GHz to 10 GHz
0.1 Hz tuning resolution	Greater frequency accuracy
1 ms settling time	Speeds up your test time
Multiple programmatic interfaces	Easy integration into existing test environments and reduced development time
PXI form-factor	Conforms to Modular Open Systems Approach (MOSA)

Chassis slot compatibility: cPCI (J1), PXI-1, PXIe Hybrid



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Specifications and characteristics

Hardware	
Size	2 slot 3U
Phase noise	-115 dBc/Hz at 10 GHz, 10 kHz offset
Frequency switching speed	1 ms, 500 μ s, typical
Power	+16 dBm \pm 2 dB
Frequency output	REF OUT: 10 MHz, (nominal) REF 1 OUT: 100 MHz, (nominal) REF 2 OUT: 100 MHz, (nominal)
Amplitude	REF OUT: 0 dBm \pm 3 dB (at 25 $^{\circ}$ C \pm 5 $^{\circ}$ C) REF 1 OUT: 0 dBm \pm 3 dB (at 25 $^{\circ}$ C \pm 5 $^{\circ}$ C) REF 2 OUT: 0 dBm \pm 3 dB (at 25 $^{\circ}$ C \pm 5 $^{\circ}$ C)
Frequency temperature stability	\pm 0.5 ppm (over 0 $^{\circ}$ C to 50 $^{\circ}$ C)
Aging (after 30 days of operation)	\pm 1.0 ppm/year



Software information

The M9302A PXI Local Oscillator is supplied with a comprehensive portfolio of module drivers, documentation, examples, and software tools to help you quickly develop test systems with your software platform of choice.

A soft front panel interface is provided to monitor and control the PXI Local Oscillator with the following functions:

- Enabling LO
- Setting LO frequency and band switch frequency
- Enabling 10 MHz and 100 MHz REF signals
- Monitoring hardware status

Supported operating systems	Microsoft Windows XP (32-bit), Microsoft Windows Vista (32/64-bit), Microsoft Windows 7 (32/64-bit)
Standard compliant drivers	IVI-COM, IVI-C, LabVIEW, MATLAB
Supported application development environments (ADE)	Visual Studio (VB.NET, C#, C/C++), VEE, LabVIEW, LabWindows/CVI, MATLAB
Agilent IO Libraries	Includes: VISA Libraries, Agilent Connection Expert, IO Monitor

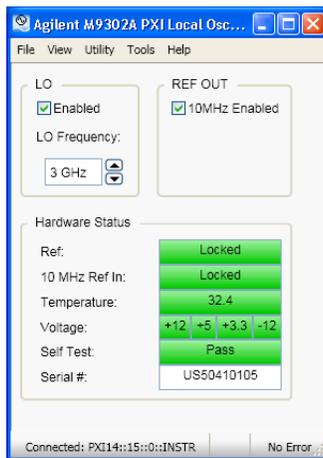


Figure 1. Agilent M9302A PXI Local Oscillator, software interface.

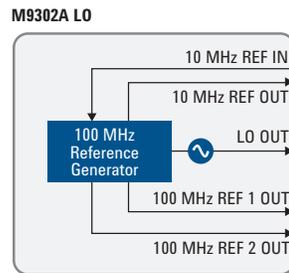


Figure 2. Simplified block diagram of the M9302A PXI Local Oscillator.

Ordering information

Typical product configuration	
Model	Description
M9302A	PXI Local Oscillator: 3 GHz to 10 GHz
Related products	
M9202A	PXIe IF Digitizer: 12-bit, 2 GS/s
M9360A	PXI Attenuator/Preselector: 100 kHz to 26.5 GHz
M9361A	PXI Downconverter: 2.75 MHz to 26.5 GHz
M9351A	PXI Downconverter: 50 MHz to 2.9 GHz
M9392A	PXI Vector Signal Analyzer: 50 MHz to 26.5 GHz
M9018A	PXIe 18 slot chassis
M9036A	PXIe Embedded Controller
Accessories	
Software, example programs, and product information on CD	
Cables	



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