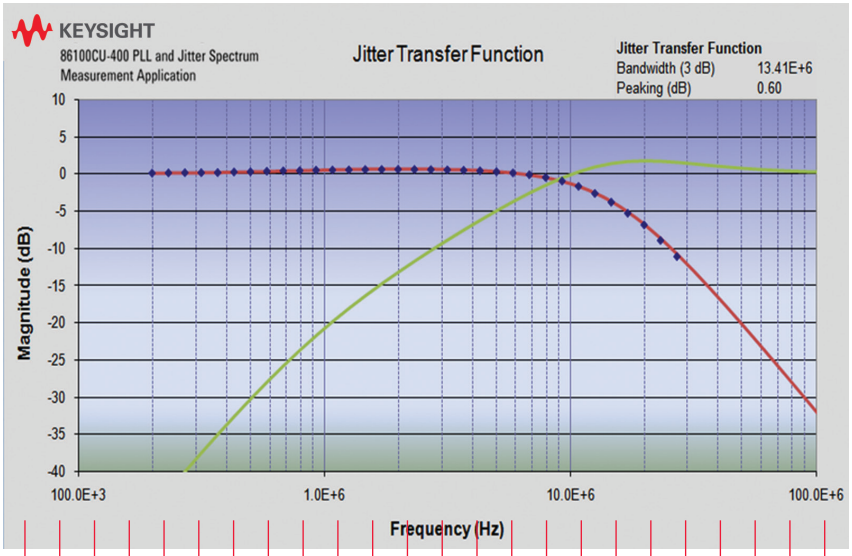
Keysight Technologies
86100CU-400 and Keysight 86100DU PLL and Jitter Spectrum Measurement Software



Expect More from Your Test Equipment

Option 400 for the 86100 Series Infiniium DigitalCommunication Analyzer(DCA-J or DCA-X) is an advanced software application that makes fast, accurate, and repeatable phase locked loop (PLL)/jitter transfer measurements, using a precision jitter source and receiver

Pre-configured setups and automated report generation for:

- PCI Express PLL compliance measurements approved by the PCI-SIG
- SONET/SDH jitter transfer testing
- PCI Express reference clock measurements
- SSC modulation analysis, and more

The Microsoft Office Excel-based application runs on an external PC, or a Keysight Technologies, Inc. 86100C/D DCA, with Microsoft Excel installed.

Fast and accurate phase locked loop (PLL) measurements

Phase locked loops are used in a variety of applications including clock extraction circuits and multiplier/dividers. PLLs are commonly used to manage or create timing across the system and can have a significant impact on the overall jitter performance. Accurate knowledge of PLL performance is essential to a good design.

In a matter of seconds, the system accurately characterizes PLL bandwidths of over 80MHz, a precision measurement that could take an hour or more if performed manually. The software includes an industry-first collision-avoidance technique to ensure the jitter source avoids testing at periodic jitter frequencies inherent in the device, resulting in precise and repeatable PLL measurements.

Flexible configuration to accommodate many device types

The system can also be easily customized for unique PLL applications. Its flexible architecture can test inputs/outputs from 50 Mb/s to 13.5 Gb/s (data signals) or 25 MHz to 6.75 GHz (clock signals).

- Transmitters
- Clock recovery
- Repeaters
- Clock multipliers/dividers

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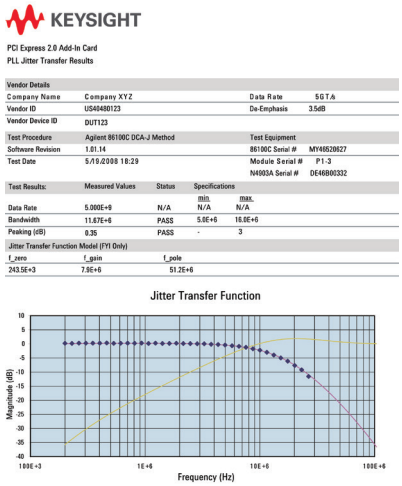
Make sure your device is compliant

The application includes pre-configured setups and automated reports for common standards.

The PCI-SIG has approved the system for PCI Express PLL compliance testing.

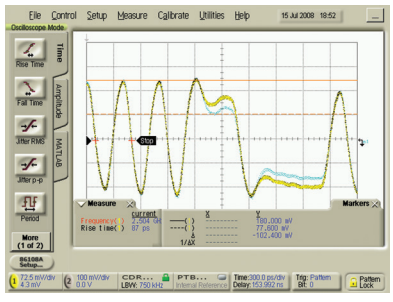


Built-in compliance reports

The reports can also be easily customized for your specific needs.

Simultaneous waveform measurements provide confidence in your results

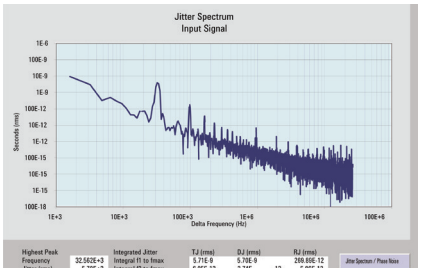
86100 Series DCA, well known for its speed, accuracy, and ease-of-use as a jitter measurement tool, also allows you to observe the device's output waveform while making the PLL measurement. This capability helps ensure you are testing the PLL under the correct setup conditions; such as pre-emphasis levels, data pattern, bias settings and data rate.



More than just a PLL analyzer, the 86100C/D based system allows you to view and make waveform measurements on your signal.

Gain insight into root cause of jitter

In addition to PLL measurements, the Option 400 software provides valuable insight into the root causes of jitter by making jitter spectrum/phase noise measurements on data and clock signals.



The phase noise plot provides valuable insights into the nature of random jitter. Different noise mechanisms have different profiles.

Typical system configurations

Option 400 software operates with an 86100C DCA-J or 86100D DCA-X and a variety of test equipment that is often found in labs and on manufacturing floors. Depending on the device being tested, choose the jitter source and receiver from the list below:

Jitter receiver:

86100C/D DCA configured with any one of:

- 86108A precision waveform analyzer
- 83496B clock recovery module (optical or electrical)
- 83496A clock recovery module with Option UAB (optical or electrical)

Jitter source:

Any one of the following instruments:

- 81150A pulse function, arbitrary noise generator
- J-BERT N4903A high-performance, serial BERT
- N5182A MXG RF vector signal generator
- 33250A function generator controlling pattern generator delay line input

Software:

- Microsoft Office Excel2003 or Excel 2007
- Keysight IO Libraries Suite Rev 15.0

Optional hardware:

- External PC
- PCI-SIG compliance test fixtures
- 82357B USB/GPIB interface USB 2.0

Instrument control is performed using either LAN or GPIB.

Complete test systems start at $48.5K USD.

Download the 86100CU-400 or 86100DU-400 PLL and jitter spectrum measurement software now and use it with a jitter source you already own. You may also contact Keysight for a system that meets your needs and budget.

www.keysight.com/find/jtf

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

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