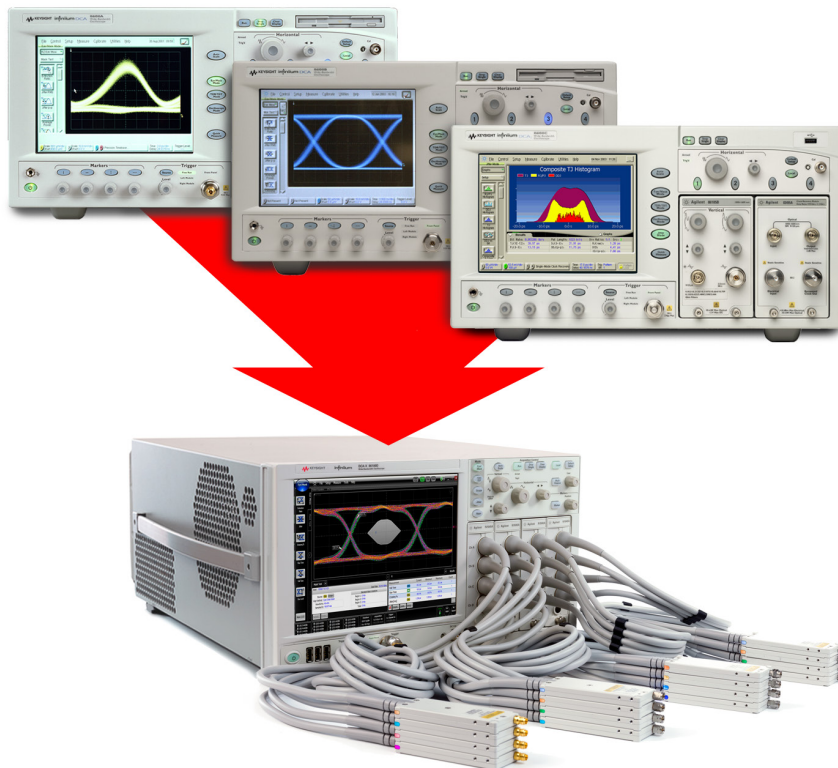# Why Upgrade to the 86100D DCA-X?

86100D DCA-X versus 86100A/B/C Oscilloscopes

Get state-of-the art measurements while protecting past investments in Keysight's DCA family

Keysight Technologies, Inc. offers solutions to protect your investments in the DCA family while continuously improving measurement capabilities, test throughput and ease-of use. The 86100D Infiniium DCA-X Wide-Bandwidth Oscilloscope Mainframe is the latest mainframe that provides 100% backward compatibility to all older modules (i.e., modules sold for the 54750A, 83480A, 86100A/B/C mainframes). At the same time, it is also forward-compatible with high-channel count mini-modules, external hardware (such as N4877A clock recovery), and future modules yet to be announced or developed.
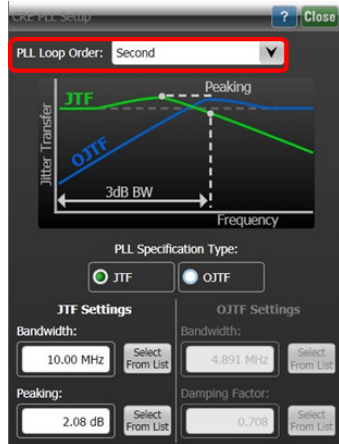

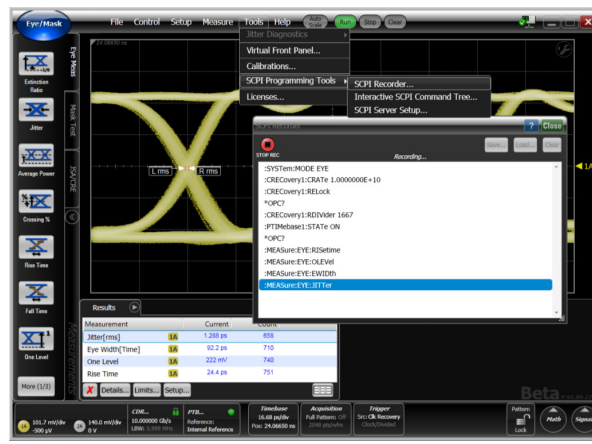### The 86100D DCA-X with the FlexDCA user interface adds many capabilities:

- Acquires up to 16 waveforms in parallel
- Live TDR/TDT and S-parameter measurements for up to 16 single-ended (8 differential) ports
- Directly supports differential measurements
- Supports automated hardware deskew for selected modules
- Optional internal precision timebase frees the module bay for more channels and increases trigger bandwidth to 32 GHz
- Extensive signal processing library (math functions, filters, embedding/de-embedding, equalizers, FFT)
- Measures up to 64 parameters (any waveform, any combination)
- Regions allow measurements to be made on only parts of the waveform
- Support for external hardware (e.g., standalone CDR)
- Compliance applications (OIF-CEI 3.0, SFF-8431, IEEE 802.3 KR/CR/nAUI)
- Fixed or transportable software licenses are available for advanced analysis packages
- Windows 7 OS lets FlexDCA acquire up to 256 M samples for a single waveform

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Enhanced productivity

The DCA-X's Productivity Package (Option 500) targets the needs of optical manufacturing. It increases throughput by testing more efficiently, more intelligently, and multiple devices with just one mainframe. For details, see Techniques to Reduce Manufacturing Cost-of-Test of Optical Transmitters (Keysight literature number 5990-9609EN).

Make compliant jitter measurements with easy-to-setup clock recovery emulation.

Shorten test automation with the built-in SCPI recorder and online Programmer's Guide.

Three-Year Warranty
www.keysight.com/find/ThreeYearWarranty
Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans
www.keysight.com/find/AssurancePlans
Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

Perform calibrated impedance and S-parameter measurements on up to 16 channels in real time

Accurate characterization of today's high-speed connectors, cables, interconnects, printed circuit boards (PCB) and IC packages are performed using both impedance (time-domain) and S-parameter (frequency-domain) measurements.

The new N1055A 35/50 GHz TDR/TDT remote head module for the 86100D DCA-X oscilloscope provides:

- Highest resolution TDR/TDT measurements
  - Up to 8 ps TDR edge speed (10-90%, with calibration)
  - 35 GHz and 50 GHz receiver bandwidth options (upgradable)
  - Single-ended and differential testing (including True-Mode stimulus)

- Fast and accurate multi-port S-parameters
  - Up to 16 ports per 86100D DCA-X mainframe
  - 2- and 4-channel remote head options (upgradable)
  - Ultra-thin remote heads support probing applications and ensure optimal signal fidelity

- World's easiest-to-use 35/50 GHz solution
  - Supports Electronic Calibration (ECal) DC-67 GHz for easy calibration
  - Results displayed in real time with no external software required
  - Integrated Electrostatic Discharge (ESD) protection in remote head
  - Perform oscilloscope, eye/mask, and jitter mode measurements too

For more information, visit www.keysight.com/find/N1055A.

Ask your local representative about current trade-in offers toward purchasing a new DCA mainframe or module. You may save 5 to 25% (actual values depend on the old and new configurations). For further details, visit http://savings.tm.keysight.com/index.cgi?ALIAS=T-WW-8F-002&User:LANGUAGE=en.

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