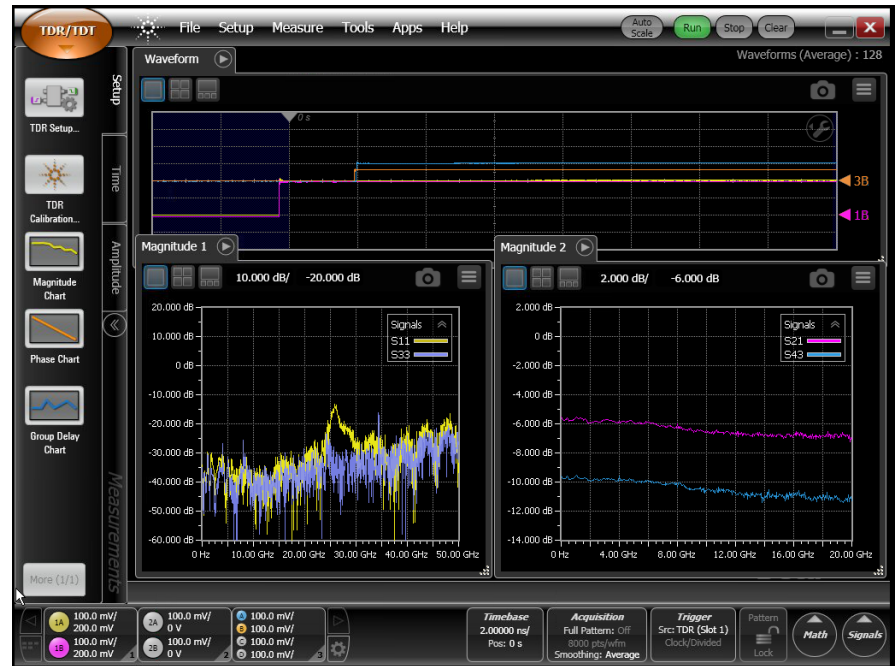




86100D-202 S-Parameter Software for 86100D DCA-X Oscilloscopes

Data Sheet



Complete characterization to 50 GHz – Done simply

Powerful and intuitive application that lets you:

- Save time in characterizing multiple lanes and devices
- Simultaneously correlate time and frequency domains
- Obtain S-parameters for HCB/MCB's, devices, and de-embedding of channels
- Simultaneously view differential, common mode and mixed mode parameters

The demand for greater transfer of voice, data and video over networks and the increasing demand by users for higher productivity have dramatically increased the need for higher speed signals. These signals place a greater burden on the physical channel and have stimulated the need for differential channels in serial data transfers. New and existing industry standards such as IEEE 802.3, OIF CEI and SFF-8000 series increasingly call for the use of S-parameters to ensure system element verification and interoperability.

Agilent has significantly updated the 86100D-202 software, offering an even easier-to-use application within the FlexDCA interface. Option 202 takes full advantage of the new N1055A TDR modules with the industry's fastest and cleanest steps.

Anticipate ___Accelerate ___Achieve



Agilent Technologies

Complete S-parameters – Obtained quickly

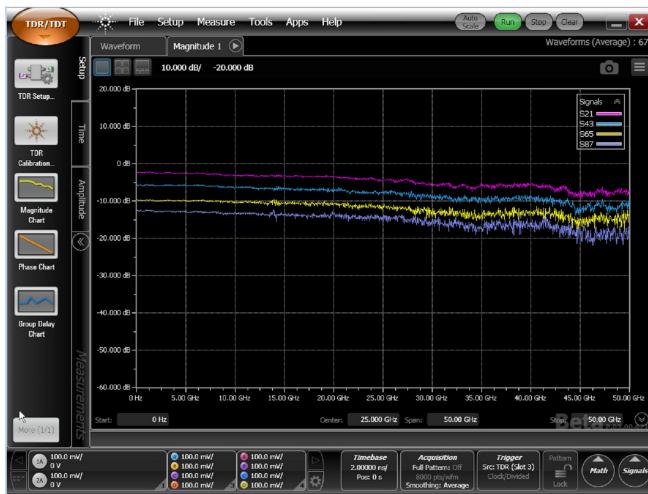
Select industry-leading hardware

Configure your oscilloscope with one to four N1055A TDR modules, enabling full characterization of up to four differential lanes. The fast and clean TDR step enables parameter verification to 50 GHz.



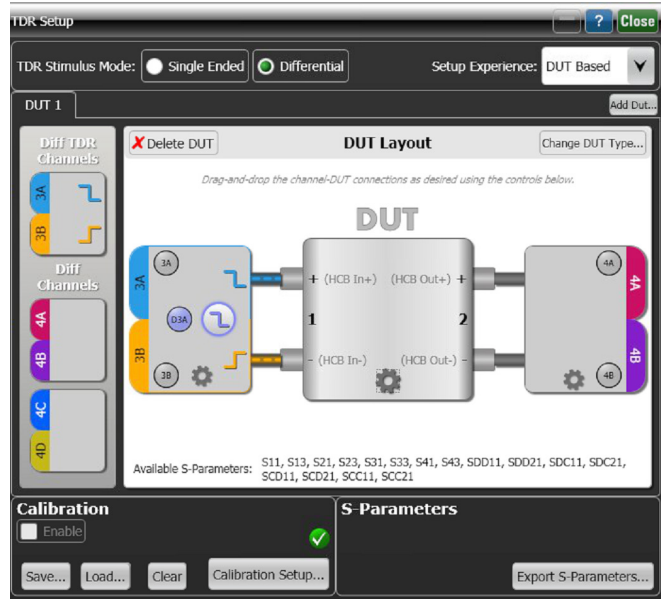
Enjoy multi-lane analysis

Most new standards employ at least four differential lanes, which means more measurements need to be taken. With Option 202, full characterization and comparison of lanes is no longer time-consuming as you view differential lane performance side-by-side. Save your results in .s2p, .s4p and other formats. Note the simultaneous measurement of insertion loss for four lanes.



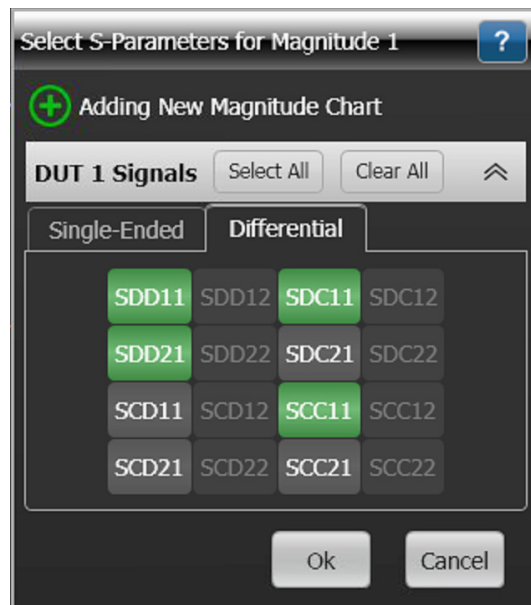
Configure measurements with intuitive interface

Choose single-ended or differential devices, then drag and drop the stimulus and response channels onto the device. Change the polarity of the stimulus steps and customize the name of each port to reflect your lane configuration. Note the extensive list of available S-parameters.



Create multiple magnitude charts

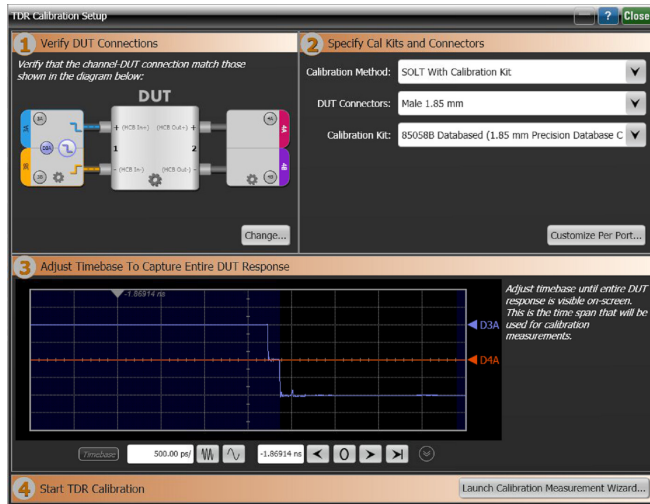
You may choose one or all available S-parameters for one or more magnitude charts. These may be for single-ended or differential signals and differential, common mode or mixed mode parameters.



Multi-Lane, differential or single lane – Characterized accurately

Employ the calibration wizard

All settings to perform a thorough calibration are available on one screen. You'll see the chosen DUT connection and be able to modify your setup. A wide choice of calibration methods allows you to use the best solution for your device. Select 3.5 mm, 2.92 mm, 2.4 mm or 1.85 mm connectors and the appropriate calibration kit. Adjust the waveform, and you're ready to calibrate.



Choose from wide range of calibration hardware

The 86100D-202 software uses several common network analyzer calibration kits, the N4694A electronic calibration unit or the N1024A TDR calibration kit. Using these kits assures you the most accurate reflection and transmission measurements for characterizing your channels or lanes.



Choose from comprehensive hardware and software

Agilent offers a wide range of electrical plug-in modules for the 86100D Digital Communications Analyzer. To obtain the highest performance and broadest frequency coverage for S-parameters, the N1055A Option 050 is the optimal choice. For full 2-port differential measurements on one lane, a single N1055A with 4 ports covers all the S-parameters. You may install more modules for multiple lanes or additional devices to reduce your overall test times. The response channel can be the same TDR module, another TDR module or another receiver plug-in module.

Recommended hardware and software products		
Oscilloscope mainframe	86100D DCA-X 86100D-ETR extended trigger	
Plug-in modules	Stimulus N1055A Option 035/050 54754A	Response N1055A Option 035/050 N1045A / 54754A 86112A / 86117A
Software	86100D-202 S-parameter analysis	
Calibration hardware	85033D/E, 85052B/C/D, 85056A/D/K, 85058B/BP/E/EP calibration kits N4694A ECal module / N1024A TDR calibration kit	



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