

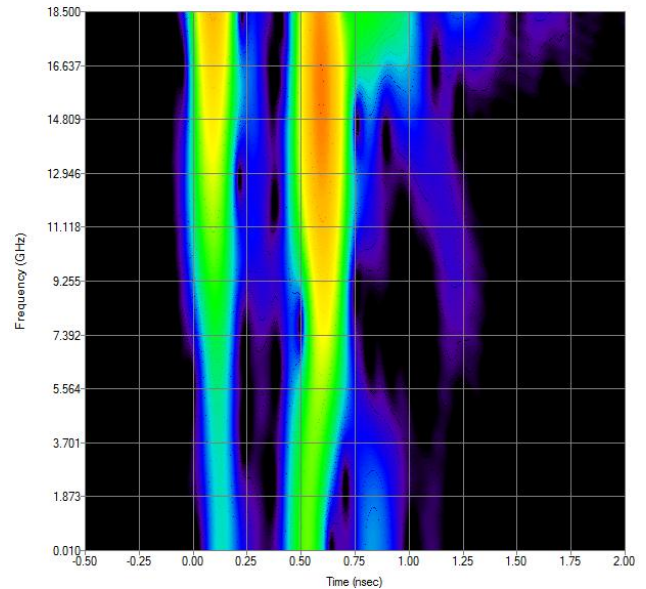
As a premier provider of measurement analysis software, Constant Wave products allow engineers to accurately characterize the performance of a range of RF and microwave components, systems, linear and non-linear devices. See measured data in a new way, where time to insight is shortened dramatically.

Joint Time-Frequency Processing

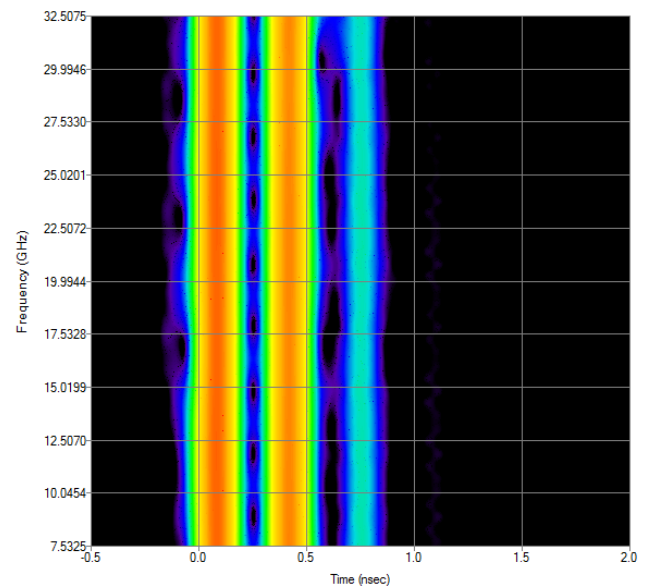
Spectro VNA Pro is powerful PC-based measurement analysis software. Analyzing data captured by a Vector Network Analyzer (VNA) it enables engineers to easily characterize and display the measured S-parameter performance of a device.

Spectro VNA Pro analyzes the measured data and presents it in a new way. Engineers can select and observe the response of the device in the frequency domain, time domain, or in the joint time-frequency domain.

- Achieve increased measurement fidelity by visualizing S-parameters in three dimensions: time, frequency, and magnitude.
- Analyze measurement data parameters fully by using the Spectrogram as a dynamic workspace.
- See the frequency response of each impulse response.
- Simplify measurements of embedded devices in non-coax environments.
- Go beyond the limits of traditional de-embedding methodologies.
- Uncover problems that might otherwise go undetected such as connector and fixture irregularities.



Spectrogram displaying the S11 response of a device displayed in the joint time-frequency domain.



Spectrogram displaying the S11 response of a Beatty Standard in the joint time-frequency domain.

Complete Device De-embedding

Embedded RF and microwave devices are more prevalent in today's designs. Calibration and measurements which were straightforward in the "coax" world, become more complex, time consuming and costly when the devices are soldered on a PC board.

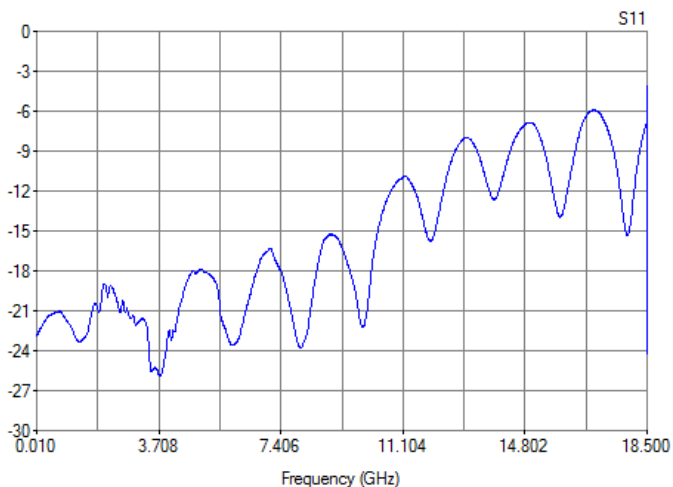
Time Domain Substitution™ (TDS) solves the challenge of de-embedding device S-parameters. TDS is a measurement and post-processing method built on Joint Time-Frequency Processing which eliminates the need for custom calibration kits and complex fixtures at the device. Device characterization is simplified with a mathematical approach that exceeds full calibration accuracy.

- Simplify device de-embedding and characterization by easily moving the reference plane to the device under test (DUT).
- Eliminate measurement trade-offs imposed by conventional de-embedding methods — such as Port Extension or Frequency Gated by Time.
- Eliminate the need for expensive custom calibration kits, fixtures, and probes.
- Achieve more accurate measurements with less uncertainty.
- Reduce the overall cost of test by reducing the test time required.

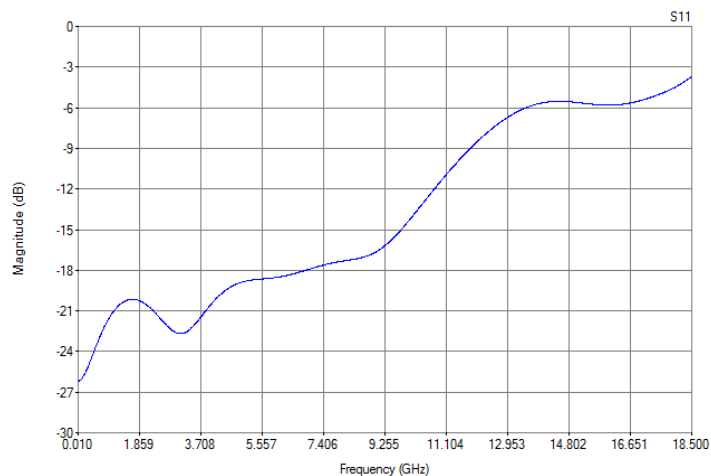
Specifications

VNA Instrument Interfaces Supported (2 port and 4 port)

- Agilent ENA
- Agilent PNA
- Agilent PNA-X
- Anritsu 37000
- Rohde & Schwarz ZVA
- Rohde & Schwarz ZVB



The measured S11 response of a DUT.



The correct S11 response of the DUT after applying Time Domain Substitution.

Data File Compatibility

- S1P, S2P, S3P and S4P files

System Requirements

- Microsoft Windows PC (XP, Vista, or 7)
- Communication Interfaces: LAN, VISA

Find out if Spectro VNA Pro is right for you. Contact us to request a free evaluation copy at sales@constantwave.com or at (719) 331-2442. You'll get access to all of the features and analysis tools for 30 days following installation, with full on-line support.