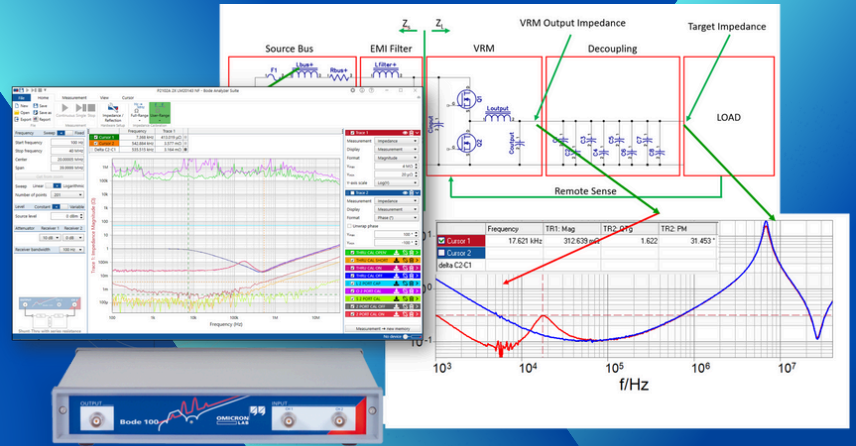




Bode 100 Vector Network Analyzer

1 Hz to 50 MHz



Transmission/Reflection

Measure S-parameters of cables, filters, amplifiers, antennas, and more.



Complex Impedance

Analyze passive electronic components and active electronic circuits.



Resonance Frequency

Detect even very narrow, high-Q resonance peaks of piezo elements or RFID and NFC transponders



Stability Analysis

Analyze electronic control systems such as power supplies. Generate Bode diagrams & Nyquist plots.



Frequency Response

Measure the complex transfer function (Gain/Phase) of active and passive electronic systems.



Automated Measurements

Integrate the Bode 100 into measurement setups via its versatile Automation Interface.



“We solve the world’s most challenging power supply issues.”

The Bode 100 consists of hardware and software. The high-quality hardware ensures accurate measurement results in the wide frequency range from 1 Hz to 50 MHz. Its portable and compact design enables you to test wherever you want. Due to the versatile system design, the Bode 100 works as three devices in one:

1. Vector Network Analyzer

The vector network analyzer function of the Bode 100 allows you to measure:

- Swept S-parameters in the 50 Ω system
- Reflection coefficient and return loss
- Insertion loss of filters
- Group delay characteristics
- Influence of termination on amplifiers



2. Frequency Response Analyzer

The Bode 100 serves as a Gain/Phase meter and is ideally suited to measure:

- Transfer functions of electronic circuits
- Stability of control systems such as DC/DC converters or voltage regulators
- Power Supply Rejection Ratio (PSRR) respectively Audio Susceptibility

Your benefits:

- One device for multiple applications
- Accurate measurement results
- Simple setup - fast results
- Easy data processing
- Automated measurements

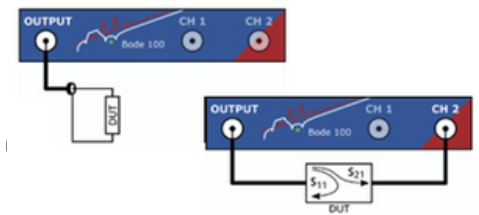
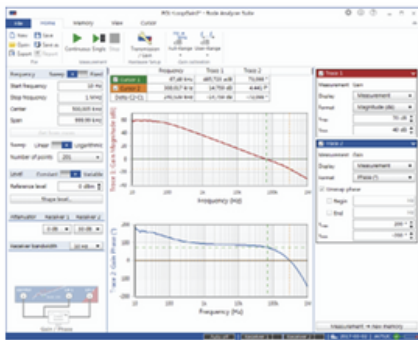
3. Impedance Analyzer

The Bode 100 offers you a high variety of impedance measurement possibilities to easily analyze:

- Electromagnetic devices such as transformers and inductors
- Capacitors and their parasitic
- Ultrasonic and piezo electric components
- Very high Q-circuits such as quartz crystals and oscillators
- Input impedance and output impedance of electronic circuits
- Resonance frequency of RFID, NFC and wireless power systems
- Impedance of power delivery networks (PDN) Smart Measurement Solutions® Smart Measurement Solutions® 2022-08-10_Bode_Brochure_V8-2208.indd 2

Software: Bode Analyzer Suite (BAS)

You can fully control the Bode 100 via the Bode Analyzer Suite (BAS). The BAS is an easy-to-use, intuitive user interface included in the Bode 100 delivery. It allows you to control the Bode 100 hardware from your Windows PC. The BAS helps you to measure and analyze your device under test. In addition, it has great functions to save, document, and share your measurement results.



Measurement Modes

The BAS offers pre-defined measurement modes for quick configuration of the Bode 100 hardware. Impedance measurements from mΩ to MΩ are supported in Shunt-Thru and Series-Thru configurations.

Analysis

To understand and optimize your system under test, the BAS offers all kind of chart formats, like Smith, Polar, Nyquist and Bode plots. You can extract all required results and parameters from your measurements using a great variety of analysis features & manipulate your data using mathematical expressions.

Documentation

The BAS helps you to easily extract the measurement results for your documentation. You can share and archive your results by:

- Exporting CSV, Excel, or Touchstone files.
- Copying and pasting the results, charts, and settings into your documents.
- Generating a PDF report containing all measurement graphs and device settings.
- Save your entire measurement including the device settings to a *.bode3 file which can be viewed on any Windows PC having the Bode Analyzer Suite 3.X installed.

Integration & Automation

Easily automate your Bode 100 measurements via the Bode Automation Interface 3.X using:

- OLE-compliant controllers such as VBA (e.g. Excel), Matlab
- Programming languages like Visual Basic, C#, C++ or any other COM+ compatible system/language
- LabVIEW 2015 or newer

Accessories



B-SMC

Impedance fixture for SMD components

Order number: P0005759



B-WIC

Impedance fixture for SMD components

Order number: P0005760



B-AMP 12

Amplifier to increase output power

Order number: P0005772



PML 1110 Probe

Passive 10:1 Bode 100

Order numbers:
10:1 Probe PML 1110 B1666600



Carrying Case

Order number: P0005759

Injectors

Signal Injectors provide the interface between your test equipment and the device under test. They are essential for obtaining high resolution and high fidelity power supply, voltage regulator and Power Distribution Network (PDN) measurements.



J2100A/J2101A 1-5MHz/10-45MHz Injection Transformers

J2100A supports PFC regulators & most power supplies

J2101A supports off-line power supplies and voltage regulators



J2102A/J2113A Common Mode Transformer/Diff. Amplifier

Attenuate the effects of low frequency ground loops.



J2110A DC-45MHz Solid State Voltage Regulator, Bode Box

Supports impedance and gain/phase measurement



J2111A/J2112A DC-40MHz Solid State Current Injector

Supports impedance and gain/phase measurement



J2120A Line Injector

Measure PSRR, ripple rejection and conducted susceptibility