



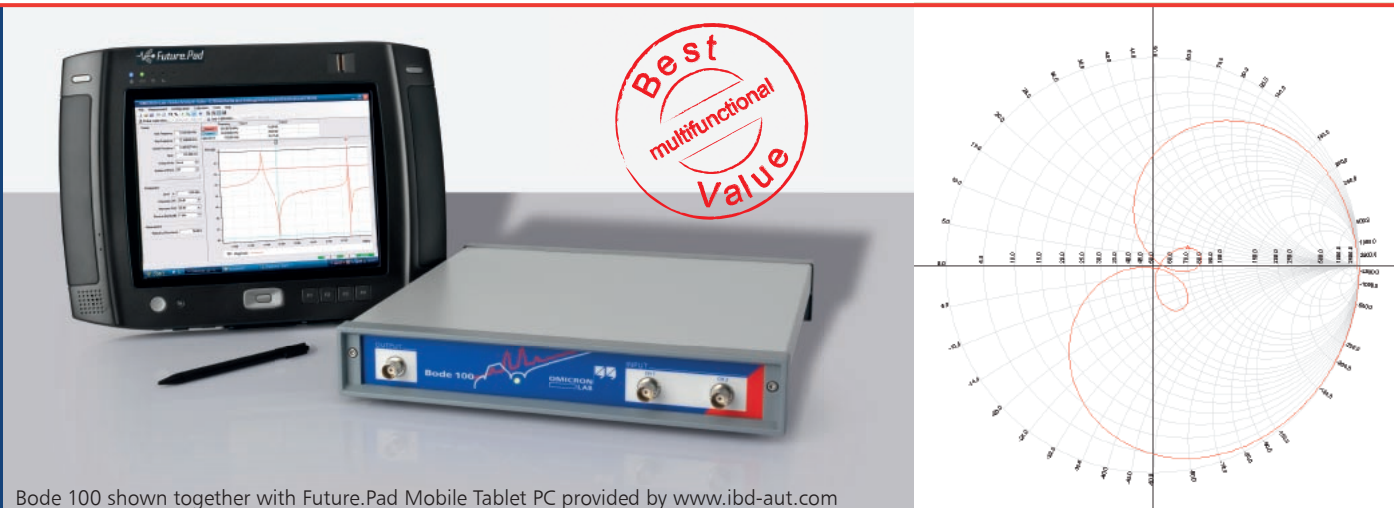
Bode 100

more than just a
PC controlled Vector Network Analyzer

It's amazing what this compact measurement & test instrument can do for you!

Gain Phase Meter
Vector Network Analyzer
Impedance Meter
Sine Wave Generator

Extended Frequency Range
1 Hz - 40 MHz



State of the art Vector Network Analyzer - unbeatable price performance ratio

PC controlled test set - much easier to work with

All test results already on the PC - simplifies documentation

Easy data processing - utilize software such as MATLAB®* or Excel®**

Compact and lightweight design - outstanding portability to test wherever you want

Standardized automation interface - simple integration into automated measurement setups

Standard file formats - effortless data sharing

Bode 100

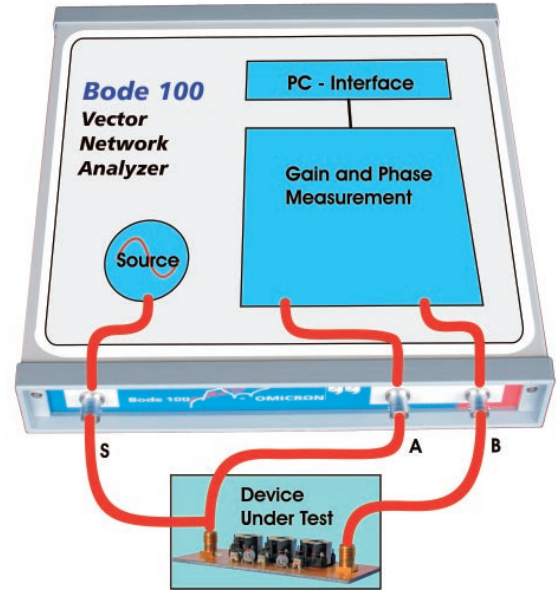
If the wide frequency range from 1 Hz to 40 MHz fits your needs the full beauty of Bode 100 will impress you. With Bode 100 and the included Bode Analyzer Suite you are all set for your daily RF challenges.

With Bode 100 you are ready to measure

- complex gain
- complex impedance and admittance
- reflection coefficient and return loss

and easily analyze

- ultrasonic and piezo electric systems
- stability of control circuits such as DC/DC converters in power supplies
- swept S-parameters of electronic circuits
- group delay characteristics of your DUT
- frequency dependent impedance of high-Q circuits like oscillating crystals
- influence of termination on amplifiers or filters
- reflection and adaptation of antennas
- and much more ...



Gain phase meter

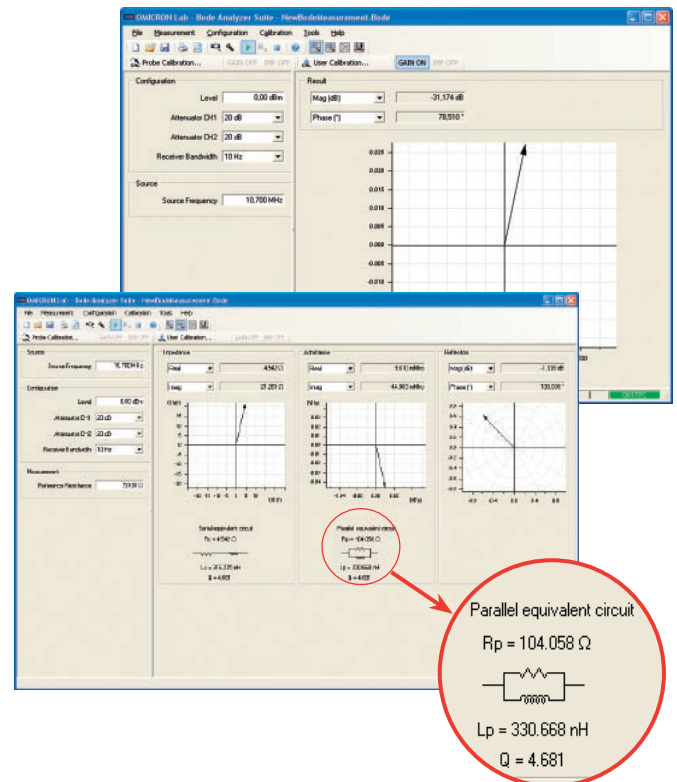
With Bode 100 you can measure the gain and phase of passive and active electronic circuits.

Directly display the measurement result in the format needed and check out the phase shift of a circuit in the complex plane, to get a 'picture' of what the circuit does.

Impedance meter

Bode 100 allows you to measure impedance, admittance and reflection of passive and active electronic circuits. Due to the integrated measurement circuit easy handling is guaranteed - the DUT is simply connected to the source of Bode 100.

You can see the vectors of impedance, admittance and reflection in the complex planes. To simplify the identification of the DUT, the equivalent series circuit and equivalent parallel circuit are displayed.





Vector Network Analyzer

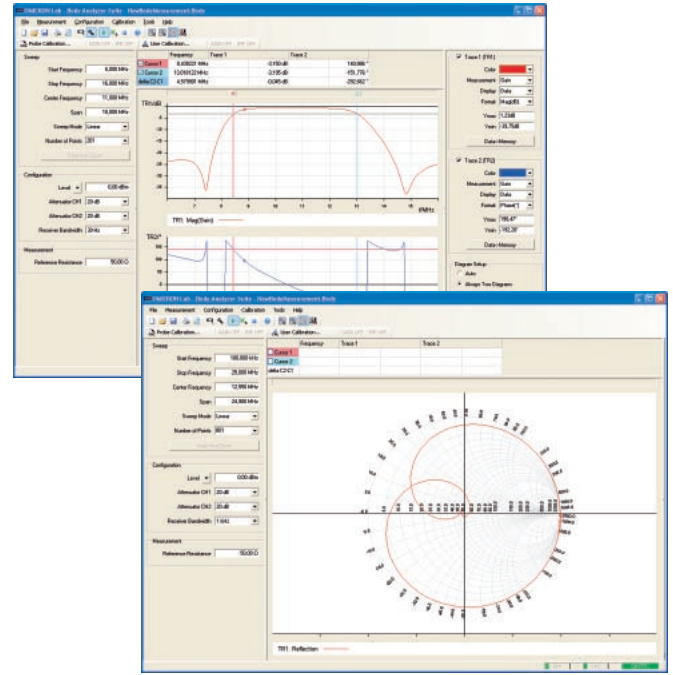
The Vector Network Analyzer function of Bode 100 offers essential support during the design, manufacturing, testing and quality control of active and passive RF circuits.

The Vector Network Analyzer combines the Gain phase meter and Impedance meter modes and displays the measured values as functions of the frequency (sweep measurement).

Due to the high resolution DDS source even extremely small frequency spans are possible. Therefore even measurements of high-Q devices are fully supported.

DUTs that require high input signals for measuring their impedance and reflection behavior can be analyzed in the especially designed External coupler mode. This mode allows the utilization of external directional couplers and amplifiers in the measurement setup.

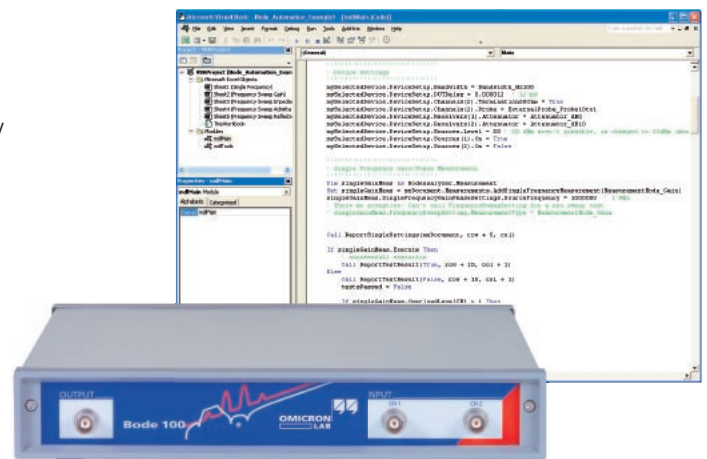
The intuitive user interface of course allows displaying the Bode plots in all useful formats and charts.



Special Features

Data transfer and reporting could not be easier!

- Just click a button and Bode 100 provides you with a print report containing all relevant information.
- Have it your style - simply paste measurement results, charts and equipment settings into your own documents by using Bode 100's extended copy to clipboard functionality.
- Process your measurement results with your favorite tool by exporting all measurement values into a csv file.
- Save your entire equipment set-up (including measurement values). Load saved set-ups to simply reproduce your measurements. Share stored set-ups with you colleagues and analyze the data offline on any PC.



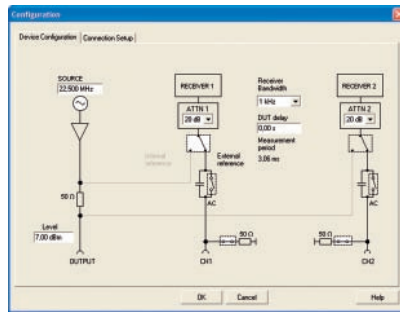
Reduce your workload - automate your measurements!

- Use OLE compatible controllers such as VBA (e.g. Excel[®]), LabVIEW[®], MATLAB[®], ...
- Program your own applications with languages like VB2005[®], C#[®], Visual C++[®], ...

Configuration windows

Bode 100 allows quick equipment setup via the Bode Analyzer Suite:

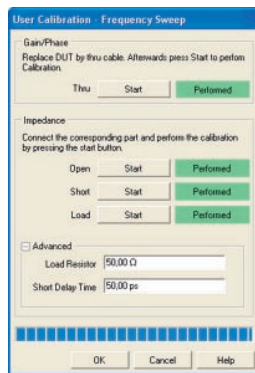
- Choose between 50 Ω and high impedance measurement inputs.
- Set generator/source frequency and power
- Choose attenuators from 0 dB to 40 dB



Calibration of test setup

Bode 100 offers two calibration methods to compensate test cables and probes.

- User Calibration: Ensures highest accuracy of measured gain phase and impedance/reflection.
- Probe Calibration: Full frequency range calibration allows changes of frequency settings without re-calibration.



Delivery includes

- Bode 100 Vector Network Analyzer
- Bode Analyzer Suite (on CD)
- Manual (English)
- Wide range power supply
- USB cable
- 4 x BNC cable 50 Ω (m – m)
- 1 x BNC T adapter (f – f – f)
- 1 x BNC straight adapter (f – f)
- 1 x BNC 50 Ω load (m)
- 1 x BNC short circuit (m)
- Test objects: quartz filter and IF filter on a PCB



Technical Data

Frequency range: 1 Hz to 40 MHz (extended)
10 Hz to 40 MHz (standard)

Source Output

Output impedance: 50 Ω
Wave form: Sinusoidal signal
Signal level: -27 dBm to 13 dBm (at 50 Ω load)
Connector: BNC

Inputs: CH1, CH2

Input impedance: 50 Ω or
1 M Ω // 50 pF selectable

Receiver bandwidth: 1 Hz to 3 kHz

Input attenuator: 0dB, 10dB, 20dB, 30dB, 40dB

Input sensitivity: 100 mV full scale
(for input attenuator 0 dB)

Dynamic range: > 100 dB
(at 10 Hz receiver bandwidth)

Gain error: < 0.1 dB (calibrated)

Phase error: < 0.5° (calibrated)

Connector: BNC

PC requirements

Interface: USB 1.1 or 2.0

PC operating system: Windows® 2000, Windows® XP or Windows® Vista

Processor: Pentium 500 MHz (minimum)
Pentium 1 GHz or higher (recommended)

Memory: 256 MB RAM or higher

Drive: CD-ROM

General

Weight Bode 100: < 2 kg / 4.4 lbs

Weight Accessories: < 0.5 kg / 1.1 lbs

Dimensions: 26 x 5 x 26.5 cm
10.25" x 2" x 10.5"

DC power supply: 10 V to 24 V / 10 W

AC power adapter: 100 V to 240 V / 47 - 63 Hz

Product specifications and descriptions in this document are subject to change without notice.

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