



Venable Instruments is pleased to introduce the next generation of precision measurement solutions for power supply design.

The Venable **Model 6305** Frequency Response Analyzer combines the latest analog and digital technology with advanced DSP to provide versatile test and analysis functions. This single, comprehensive hardware and software system performs many sophisticated test functions and boasts an expanded bandwidth of **10µHz to 5, 20 or 40MHz** along with 2 input channels protected to 600 Vpk.

Venable's renowned K-Factor based software, is now known as **Stability Analysis™** v5.1. The **6305** is your most complete, accurate and easy to use system for phase/gain and impedance measurements. Operating through the industry standard IEEE-488 interface, the Venable system imports/exports to MATLAB™ and Excel™ and saves Bode/Impedance Plots in .jpeg for use in presentation graphics software or .ven file format for number crunching off-line.

Venable Instruments incorporates the latest CPLD technology to unleash the power of a dedicated processor, performing all data acquisition and analysis functions. A separate processor handles all the communication functions. Optimum performance derives from the use of storage within the CPLD, which enables synchronous buffering between the processor and the analog hardware. The **6305** performs simultaneous analysis on both input channels, reliably capturing all data. This truly versatile instrument, complete with its wide range of applications is available to you packaged in a tough, yet portable case, weighing just 12 pounds. Engineers and scientists now have the speed and technology for production, R&D Labs, academia, or field operations bundled into one compact and affordable system, the Venable **Model 6305**.

Venable, a pioneer in stability analysis for over 30 years, continues to support the test and measurement customers with cutting edge instruments and analysis software.



"World Leader in Stability Analysis Systems and Engineering"

Description:

Generator:

Frequency Range:	10µHz to 5, 20 or 40MHz (sine wave) 10µHz to 1MHz (square wave)
AC Amplitude	1mV to 10V
DC Bias	±10V, 10mV Steps
Modes:	Single Frequency, sine sweep, and linear sweep steps
Log Sweep	0.1 – 2000 Steps per decade 10µHz – 5MHz step
Output Amplitude	Dynamically adjust output to maintain a constant input level through Venable software servo
Compression:	Switchable 50 ohms/2 ohms
Output Impedance:	Single-ended floating
Output configuration:	600V
Isolation from Chassis Ground:	

Analyzer:

Measurement frequency range:	10µHz to 5, 20 or 40MHz
Input Configuration:	Single-ended floating (600V)
Input impedance selectable:	50 ohms or 1 Meg ohm (default)
Measurement Accuracy:	± 0.03dB + .1dB/MHz; ± 0.4deg + 1deg/MHz
Measurement Technique	Narrowband DFT
Delay Time:	0-100 sec
Integration Time:	20msec to 100ksec
Integration Cycles:	1-9999 cycles
Input coupling:	DC, automatic DC offset cancellation
Input Range:	10mV to 500Vpk Full Scale in 11 ranges, Auto-ranging
Dynamic Range:	120 dB
CMRR/IMRR:	120 dB
Max. Input	±500Vpk
Max Input Withstand Voltage	±600Vpk
Over-range alarms	LED indicator

System:

PC Interface:	IEEE-488 standard interface for Windows in USB 2.0
Auxiliary Output:	12Vdc/400mA 4.8W for accessories
Application software:	Venable Stability Analysis™ v5 for WinXP/7, 8 & 10
Real time display update	Each point is plotted as acquired
Data Analysis:	Gain margin, phase margin, impedance; Components: R, L, C, Z
Power Requirements:	90 to 264Vac, 48 to 62Hz, 30VA
Weight/Dimensions	12 Lbs. - 17"x10"x3.5"



Front View



Back View



Rack Mount View

"World Leader in Stability Analysis Systems and Engineering"