Veritium™

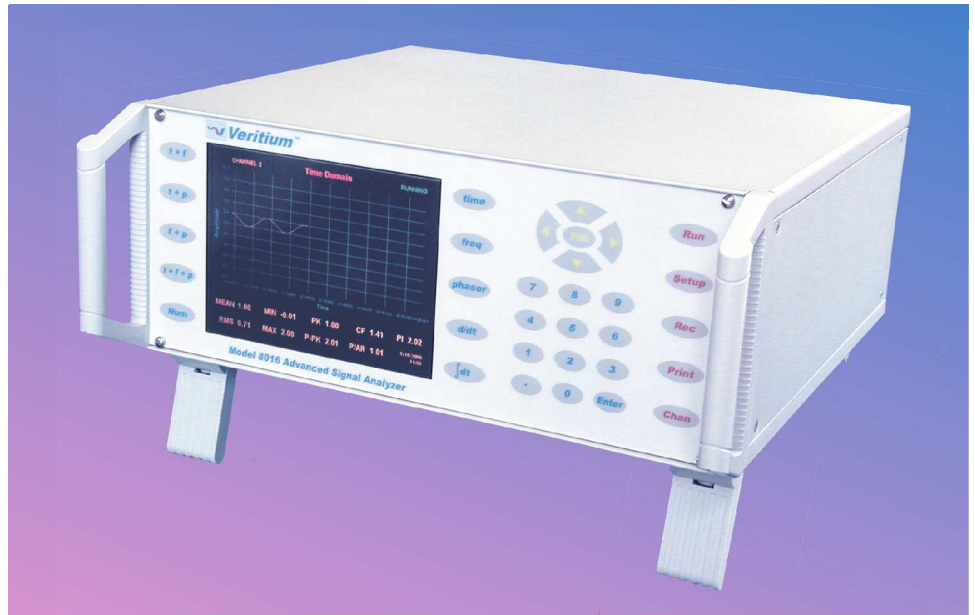# Model 8016

Advanced Signal Analyzer

Features & Benefits

Multi Domain Display

Comprehensive Analysis Tools

8 Analog Input Channels

6.5" Active-Matrix
Color VGA LCD Display

S-Video & Composite
Video NTSC/PAL Outputs

Analog VGA Output

Dual USB

10/100Base-T Ethernet

100 Gigabyte Hard Disk Storage

Data Acquisition Subsystem

Remote Viewing and Control

Open Windows XP® Platform

Universal AC Power Input

Compact and Lightweight

Robust Construction

Keyboard, Interface Cables,
Mouse, and Mouse Pad Included

The Model 8016 represents the industry's first multi-domain real-time signal analyzer which allows users to visualize signals in the time, frequency, and phasor domains. A signal may be displayed in a single domain or the user may select from several split-screen modes to enable comparative analysis between domains.

The instrument's front and rear panel layouts are clear, logical, and non-intimidating to the first time user. The platform is based on the Microsoft Windows XP® Operating System and intuitive Graphical User Interface. This minimizes the amount of time required to master system operation and provides maximum software stability. A mouse and keyboard may be attached for added flexibility but the system is fully functional in a standalone configuration via the front panel keys.

Although a dedicated signal analyzer, other applications such as MS Word® or Excel®, MATLAB® and LabVIEW® can be installed on the instrument to accomplish local documentation or signal analysis. Provisions for connection to external networks, peripherals, and video displays further enhance the system's versatility. An eight channel data acquisition and storage sub-system is also included. In data acquisition mode, all eight signals are stored onto an internal hard disk drive for post-processing or archival use. Stored data may be easily retrieved via the system's integral USB or Ethernet connections.

The instrument is robust in construction and meets or exceeds all applicable US and EU electrical safety and environmental standards.

FUNCTIONS	DESCRIPTION
Time Domain	**Oscilloscope Display with Amplitude versus Time Plot** Mean, Min (Minimum), Max (Maximum), RMS (Root Mean Square), PPK (Peak-to-Peak), P/AR (Peak-to-Average Ratio), CF (Crest Factor – Peak to RMS Ratio), PI (Pulsatility Index), HR (Heart Rate), d/dt (First Derivative), ∫dt (Integral over user selected time interval)
Frequency Domain	**Spectrum Analyzer Display with Amplitude versus Frequency Plot** Spectrum of all frequency components and corresponding amplitudes, Mean, Min (Minimum), Max (Maximum), RMS (Root Mean Square), PPK (Peak-to-Peak), P/AR (Peak-to-Average Ratio), CF (Crest Factor – Peak to RMS Ratio), PI (Pulsatility Index), HR (Heart Rate)
Phasor Domain	**Phasor Display with Amplitude, Frequency, and Phase relative to Reference Plot** Signal Component Amplitudes, Frequencies, and Phases Relative to Reference Component, Mean, Min (Minimum), Max (Maximum), RMS (Root Mean Square), PPK (Peak-to-Peak), P/AR (Peak-to-Average Ratio), CF (Crest Factor – Peak to RMS Ratio), PI (Pulsatility Index), HR (Heart Rate)

VERTICAL	DESCRIPTION
Analog Inputs	8 channels with BNC type connectors
Input Impedance	10 Meg Ohm 20 pF
Polarity	Single-Ended, Unipolar, 0 to 5 VDC, 0 to 10 VDC Single-Ended, Bipolar, -5 to +5 VDC, -10 to +10 VDC Maximum Input Voltage, ±30 VDC
Sampling Rate	User Specified 100 Hz to 1000 Hz
Sampling Resolution	16 bit
Windowing Functions	Blackman, Blackman-Harris, Blackman-Nuttal, Exact Blackman, Flat Top, Hamming, Hanning, Kaiser Triangle, Uniform (None)
Filter Type	None, Bessel, Butterworth, Chebychev
Filter Mode	Low Pass, High Pass, Band Pass, Band Reject
Filter Cutoff	User Specified Hz
Filter Order	1 to 8

SYSTEM	DESCRIPTION
External Connections	8 BNC Analog Inputs 2 USB 1.1 Compliant 1 802.3xx 10/100BASE-T Fast Ethernet 1 Analog VGA 1 S-Video (NTSC or PAL configurable) 1 Composite Video (NTSC or PAL configurable)
Display Type	6.5" Active Matrix Color LCD 640 x 480 Pixel Resolution
Serial Connectivity	2 USB 1.1 Compliant 1 802.3xx 10/100BASE-T Fast Ethernet
Operating System	Microsoft Windows XP®
Data Storage	100 Gigabyte Hard Disk Drive
Input Devices	Front Panel Keys, External Mouse, External Keyboard
Power Input	IEC-320 Power Input Connector 90-264 VAC 47-63 Hz Single Phase 40 Watts Maximum 1 Amp Fuses
Dimensions	6.25"h x 13.75"w x 14.25"d (160mm x 350mm x 362mm) with protrusions
Weight	8.8 lbs. (4 Kg)
Environmental	Operating Temperature 0 – 60ºC (32 – 140 ºF) Operating Humidity 0-90% Relative Humidity, Non-condensing
Supplied Accessories	Mouse, two button Mouse Pad, non-skid rubber backed Keyboard, with replaceable protective membrane Power Cord, 10 ft. shielded, with hospital-grade plug Operator's Manual Handles for portability Tilt-Up Feet for viewing convenience