The Vitrek PA900 Harmonic Power Analyzer: Precision + Ease of Use = Affordability

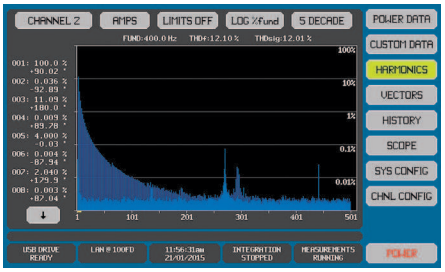
The new Vitrek PA900 boasts an impressive array of precision power measurement capabilities, yet its color touchscreen user interface is refreshingly easy to use. The accuracy of the PA900 is truly world class—surpassing rival instruments costing triple the price. And when it comes to speed and bandwidth—the PA900 tops the charts with 100 full precision readings per second and measurement bandwidths sufficient to handle 5 MHZ waveforms. For tackling tough power factor, low phase angle and high crest factor loads—the PA900 is unbeatable. Offering full performance for crest factors as high as 30:1 - the PA900 places the advantage of superior power measurement capability squarely in the palm of your hands or if you prefer—at the tip of your finger.

The Best Solution for the Toughest Power Measurement Applications

Energy is one of our most precious resources. Design engineers are under constant pressure to increase efficiency and reduce excess product power consumption down to the last mW. Challenging programs like LED and HID lighting, solar panel energy output, efficiency testing on inverters and PWM motor drive systems on electric vehicles—all require fast, precise, reliable power measurement. The unequalled performance of the Vitrek PA900 gives you the competitive advantage—the ability to accurately capture the waveforms and power data you need to squeeze the last drop of extra energy out of your project.

Harmonics Screen

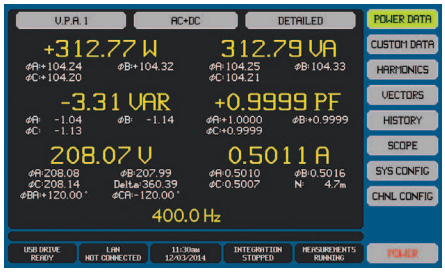
To meet advanced power harmonics To meet advanced power harmonics requirements, the PA900 displays up to 500 harmonics even at aviation power frequencies. The chart can be set to show linear, relative linear, logarithmic or relative logarithmic amplitudes



Additionally, eight harmonics can be selected for numeric display of amplitude and phase by touching the harmonic bar of interest. The user may also import harmonic limits, which when enabled will show out of tolerance harmonics in red above the limit line.

Power Data Screen

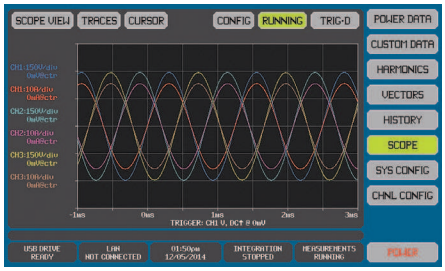
The power data screen, available with one touch, displays V, A, W, VA, VAR and PF data for any selected channel or group of channels known as a Virtual Power Analyzer™ (VPA). Up to three different VPAs can exist in in a single PA900. In addition to the primary data, peak readings, phase, CF and other parameters are also available. Integrated



data results (WHr) can also be controlled and viewed from the power data screen. For users with unique data requirements, custom data screens can be built with a spreadsheet application and downloaded to the PA900 via interface or USB drive.

Scope Screen

Scope view offers waveform acquisition and analysis similar to a digital scope. Up to six signals can be displayed, each having user selectable scaling, offset and color. Timebase, trigger and trigger position are



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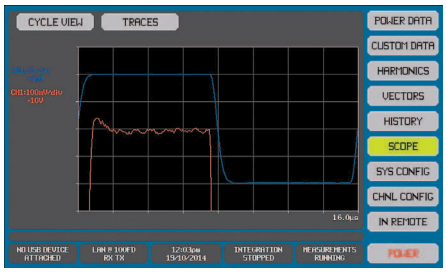
all user selectable. However, with amplitude accuracies as high as 0.03% - you are unlikely to find any other scope with this high level of precision.

Cycle View

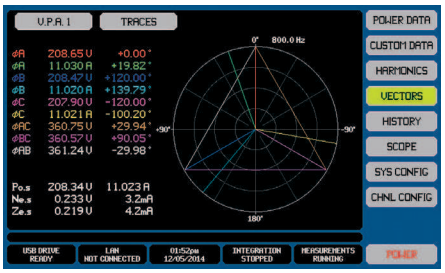
The cycle view represents a single cycle of the voltage and or current periodic waveforms. The above waveforms represent



a full 10V square wave in blue and a 50:1 zoomed in view in red. Since the user sets amplitude and scaling - the result is an almost unlimited ability to amplitude zoom to expose fine detail. The sampling is forced to be asynchronous to higher order harmonics which leads to an effective sampling rate of 384MSPS.

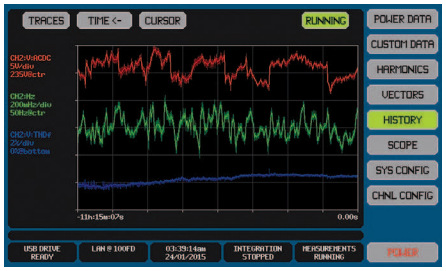
Vector Screen

A polar chart graphically displays the fundamental voltage and current vectors for the selected channel or VPA. For multi-phase VPAs, the inter-phase voltages and non-measured neutral phase vectors are displayed. The user may enable the display of and select the color of each vector up to a maximum of 10.



History Screen

The PA900 automatically maintains a continuous historical record of all non-harmonic measurement results and selected harmonics. Up to four user selectable parameters can be graphically displayed



using the HISTORY screen. The user can display the entire recorded period up to 397 days or zoom in as far as 1/64th of the total span. This provides an almost unlimited ability to amplitude zoom and includes a cursor which may be moved throughout the period with a touch of the screen.

Modular Design means Flexibility

The PA900 uses a modular design approach to provide the performance you need at a price that meets your budget. A single PA900 mainframe holds up to 4 Channels of power measurement in any combination of three different Channel types.

- The S type Channel card provides economical, high performance power measurement with a basic 0.1% accuracy and enough bandwidth to handle waveforms up to 1 MHz.
- The A type ultra-precision Channel card offers a two year accuracy rating of 0.03% of reading and bandwidth up to 1 MHz.
- The W type Wideband Channel card performs precision power measurements on the toughest real world waveforms, with sampling speed fast enough to tame waveforms up to 5Mhz

And speaking of flexibility, each of the above Channel cards is available with your choice of three different current input options. The D current input option uses an auto-ranging Dual Shunt system to deliver precision current measurement from as low as 0.1micro-amp resolution on the 1 amp range up to 20 amps rms on the high range. For higher current measurements, the H current input option operates from 10 micro-amp resolution up to 30 amps rms. The X input current option is designed to provide optimum compatibility with a wide range of external shunts and current transducers. Vitrek makes it easy for you to configure a harmonic power analyzer that is perfect for your application.

For complete specifications visit www.vitrek.com