

# PA900

## Precision Multi-Channel Harmonic Power Analyzer



World Class Accuracy & Bandwidth  
Easy-to-Use Touchscreen Operation  
All the Data you need at a Price you can Afford

Introducing the new Vitrek PA900 Precision Harmonic Power Analyzer, a refreshingly easy-to-use high performance power analyzer that won't break your budget. The PA900 delivers multi-channel, high-accuracy, wideband performance - to tackle the toughest energy measurement applications. Trust Vitrek to deliver world class power measurement capability at a price that is surprisingly affordable.



## **The Vitrek PA900 Harmonic Power Analyzer**

### **Precision Power combines with Ease of Use & Affordability**

Introducing the new Vitrek PA900 Precision Harmonic Power Analyzer, a refreshingly easy to use high performance power analyzer that won't break your budget. The PA900 delivers multi-channel, high-accuracy, wideband performance - required by engineering professionals to tackle the toughest energy measurement applications. Vitrek's Power Touch™ user interface with built-in Virtual Power Analyzers™ (VPAs) and user customized power results screen makes it simple to do even the most complex precision measurements. Trust Vitrek to deliver best-in-class power measurement at a price that is surprisingly affordable.

### **Proven World Class Innovation**

The Vitrek PA900 boasts an impressive array of precision power measurement capabilities. This is due in large to Vitrek's exceptionally talented engineering design team, which is headed up by world renown power measurement scientist, Paul Withers – chief engineer of Vitrek Corporation, founder of Xitron Technologies Inc. and pioneer in the use of digital signal processing for precision power measurement. The PA900 combines world class innovation with Vitrek's proven quality manufacturing system to deliver confidence in every measurement you make – day after day and year after year.

### **Modular Design means Flexibility**

The PA900 uses a modular design approach to provide the level of performance you need at a price that is easy on your wallet. You can choose from 1 to 4 channels of power measurement in one of 3 different power modules – depending on your need for high precision, wideband performance or computational capability. As a result, you get the performance you need without paying extra for things that you don't need.

The S type power module provides economical high performance power measurement with a basic 0.1% accuracy and bandwidth to 1 MHz. The A type ultra-precision module offers a basic 0.025% accuracy with 1 MHz bandwidth, while the E type module offers the same high accuracy performance as the A type, plus the added convenience of built-in EN61000 compliance measurements. For the ultimate in wideband capability the W type power module provides precision power measurement at bandwidths approaching 5MHz.

To provide an even greater level of measurement flexibility, each of the 4 types of power modules can be fitted with one of 3 different current input cards. The D current input card offers dual shunts with measurement capability from 100uA up to 20A rms. The H current input card offers direct high current measurement up to 30A rms. While the X current input card allows for a wide range of current scaling devices, such as external CT's, current transducers and shunts.

### **Higher Performance Lower Cost**

As more focus is being placed on innovative energy delivery systems and higher efficiency energy consumption devices – the need for accurate and precise power measurement has never been greater. The PA900 High Performance Power Analyzer shatters price/performance barriers – providing true, precision energy consumption and efficiency measurement at a fraction of the cost of other power measurement equipment. Compare the performance and capabilities of the Vitrek PA900 to power analyzers costing twice as much – feature for feature the PA900 outperforms competitive units.

## Large Hi-Resolution Touch Screen

Vitrek's Power Touch™ user interface means a much faster learning curve, with no fumbling for cursors or searching through rows of control buttons. Everything you need is on the screen, so you'll be making precise power measurements while the other guys are still pressing buttons and scratching their heads. And with the large 7" screen you can view power, voltage and current waveforms, multi-phase voltage and current vectors, data logging results and harmonics bar charts - all in beautiful color at the touch of a fingertip.

## Efficiency and Asynchronous Measurement

The PA900 features built-in Virtual Power Analyzers™ (VPAs) which gives you the unique capability to do multi-channel asynchronous measurements with one instrument. For example, in solar power conversion testing - the PA900 can do 3 stage efficiency measurements "In-Middle-Out" with a single analyzer. No other power analyzer has this capability without resorting to interconnecting multiple units. Vitrek's VPA asynchronous measurement technology simplifies other applications, such as lamp ballast efficiency measurement – which is accomplished with just one analyzer, saving you both time and money.

## Highest Crest Factor, Faster Readings

Peak loads and turn-on surges can produce enormous crest factors, with Vitrek's Dyna-Range™ technology the PA900 is fully specified for crest factors up to 30:1. Typical power analyzers can have up to 9 ranges which actually defeats the ability to measure a high crest factor waveforms. When it comes to capturing dynamic waveforms, time is of the essence. That is why the PA900 provides up to 100 measurements per second and it does so with full precision – unlike the others which top out at a maximum rate of 50 readings per second and come with a significant reduction in accuracy.

## Truly Custom Results Screens

Out of the box, the PA900 offers a wide variety of measurement results screens. However, with our free screen maker application it is easier than ever to set up a totally customized results screen. Pick the data you want displayed, add your own words - in any font size or color and display up to 57 measurements on a single screen. Download as many custom screens as you like and select just the right one with a tap on the screen.

## Features

- Large, Hi-Resolution Color Display shows all the data you want with an easy-to-use touchscreen user interface
- Modular design lets you choose the type and number of Power Measurement Channel Cards for your PA900
- The S Card provides 0.1% basic Accuracy with 1 MHz class bandwidth for an extremely economical price
- The A Card offers world class 0.03% Accuracy with 1MHz class bandwidth at a very reasonable cost
- The W Card delivers 5 MHz class bandwidth and a 0.1% basic accuracy
- All Channel Cards are available with one of 3 Current inputs: Dual Shunt, High Current and External Current Transducer Input
- Up to 3 Different Virtual Power Analyzers™ may be configured for three phase measurements or input/output efficiency tests
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