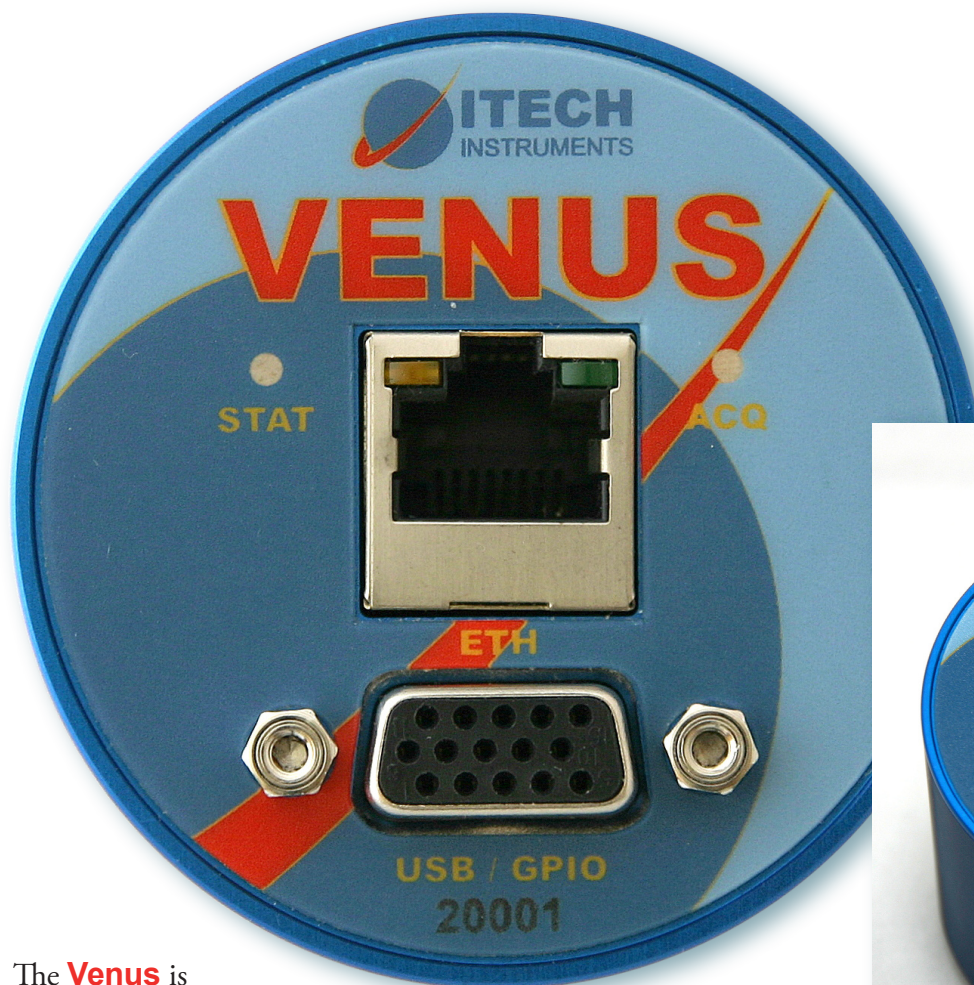


# Venus/E



The **Venus** is a universal digital multichannel analyzer integrated into a photomultiplier base. The **Venus** can be used in the most exacting spectroscopic applications as well as high rate, industrial counting applications. Because of our range of user selectable gain and time constant options, the **Venus** is easily adapted to all of today's choices of scintillator, including NaI, CsI and LaBr.

The **Venus** connects to your PC via Ethernet. The Ethernet bus supplies all communication and power requirements for the Venus.

Along with pulse height analysis, the **Venus** includes a time stamped list mode. In this mode, each event is stored with the time of it's detection in clock units (15,625 ns). Up to 64 **Venus** devices

can be synchronized for coincidence counting.

The **Venus** works with the **InterWinner** nuclear spectroscopy software.

With modern low cost digital electronics, **InterWinner** software and single cable Ethernet communication and power, the **Venus** is the ideal device for research and industrial laboratories, university teaching and radiation safety applications, hospital and other nuclear medicine applications and, of course single or multi-system homeland security functions.

### Physical:

- ▶ Robust aluminum housing
- ▶ Size: 58 mm x 69 mm (diameter x length, without connector)
- ▶ Net weight: 210 g

### Sampling ADC:

- ▶ 12 bits
- ▶ 20-65 MHz sampling frequency, user selectable

### Spectrum size:

- ▶ 256-4096 channels, user selectable
- ▶ 32 bits per channel

### Acquisition modes:

- ▶ PHA mode
- ▶ Time stamped list mode
- ▶ Pulseshape list mode
- ▶ Multispectrum scaling mode

### Gain:

- ▶ Analog coarse gain
- ▶ Digital fine gain
- ▶ Digital stabilizer
- ▶ Detector connection:
- ▶ Standard JEDEC B14A connector

### Digital I/O connector:

- ▶ RJ45 Ethernet connector (100 MBit/s)
- ▶ DB15 HD type connector
- ▶ USB 2.0 (20 MBit/s)

- ▶ 6 programmable digital inputs/outputs (0V/3.3V) for sample changer control, synchronization, gate input, trigger input, single channel analyzer output and other applications

### Maximum count rate:

- ▶ PHA mode: > 1 million counts/s, depending on detector speed
- ▶ List mode: > 200000 counts/s

### High voltage:

- ▶ 0 - 2000 VDC (positive)

### Environment:

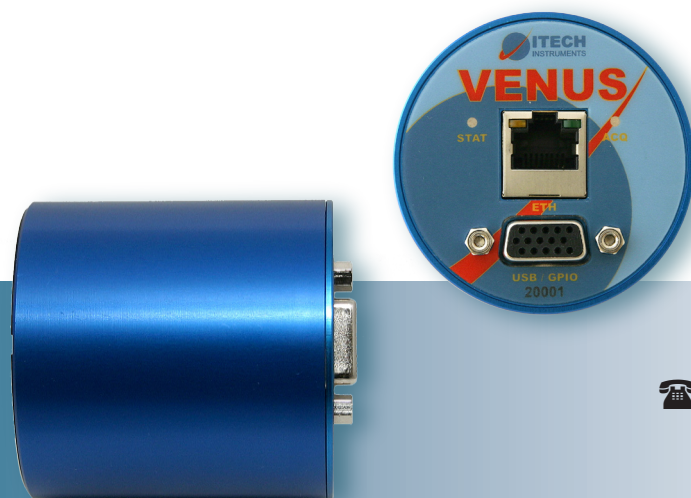
- ▶ Temperature: 0-50 °C
- ▶ Humidity: <80%, non condensing

### Power supply:

- ▶ Using Power over Ethernet (PoE), less than 3 Watt
- ▶ Alternatively over USB, less than 500 mA

### Options:

- ▶ High speed USB interface instead of the Ethernet interface
- ▶ Negative HV instead of positive HV
- ▶ Connector compatible with R6231 preamplifier
- ▶ InterWinner quantitative analysis software



## ITECH INSTRUMENTS

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