Simplicity | Capability | Reliability

16:64PR | 16:128PR | MULTISCAN
32:64PR | 32:128PR | UT-TOFD 2PR

Simplicity | Capability | Reliability
Smart Portable Phased Array Solution
Rethink Your Standard.

Multiscan Solution

Retaining the best features of the established veo line, the new VEO+ is designed to meet the needs of today and tomorrow, making the VEO+ a smart and future proof asset for your business. Key design elements considered in the development of the VEO+ are user and performance focused. Based on a superior and innovative digital technology, four available PA configuration (16:64PR, 32:64PR, 16:128PR or 32:128PR) are offered as software options. Upgradeability in the field when needed!

Superior Digital Technology

The VEO+ electronic & software is powered by a new architecture offering superior data throughput and unsurpassed computational capacity to deliver fast and accurate results in the most demanding conditions. It allows inspectors to easily create high resolution volumetric scans and record very precise data sets with exceptional measurement precision.

These performances come from an impressive 32 channel PA beamformer providing exceptional SNR, enhanced digital signal processing and the legendary Sonatest ActiveEdge® pulser technology. Thanks to its Linux® 64-bit operating system and its fast 128GB SSD memory capacity, data file size is not a concern for VEO+. Data compression is yet another feature allowing one to record huge amounts of information in more manageable data file size.

Connectivity

- **Wi-Fi**
- **Ethernet**
- **SSD Storage 128Gb**
- **USB**
- **VGA**

TRAINING & PRESENTATION

NETWORK FILES TRANSFER

COMPLETE REMOTE CONTROL
Onboard Live 3D Scanplan

The Veo+ embedded modeling tools support multiple probes and scans, enabling quick and efficient set up of inspection plans. Choose from a range of weld geometries, render and visualise probes on the part, at precise locations, representing reality with high fidelity. Then add sound paths, with skips, allowing to assess and ensure proper coverage as planned in the scan plan.

The VEO+ embedded modelling tools are invaluable assets and a reference for the inspection report, communicating inspection results more completely and more clearly, as well as providing precious information to increase users’ level of expertise. This feature makes the VEO+ a choice of excellence for serious NDT schools looking to provide the best academic training to future inspectors.

Remote Control Solution

Using Sonatest’s UTLink software application, VEO+ can be fully used and controlled remotely, via a simple network connection. As VEO+ now offers WiFi along with its fast GB Ethernet port, the possibilities are practically unlimited. What about getting real-time advice from an expert sitting anywhere in the world? Absolutely!

- Available for Windows 7, 8 and 10
- Easy installation with quick connection procedure
- Very simple user interface (virtual instrument!)
- Instrument auto-detection (works for VEO+ & Prisma)

Advanced Analysis

UT Studio software application, which comes as part of the Veo+ package, is used to manage inspection configurations, perform data analysis and build precise reports. Veo+ data files are easily transferred via a network or a USB data key to the PC. Then, thanks to a comprehensive, right click / drag and drop user interface, one can create new data views, customize colour palettes, add and modify gates and measurement parameters, generate extended reports and much more. In no time, you will be able to accomplish amazing things and get the job done.

Rugged

The VEO+ enclosure has also been designed to withstand the toughest of environments and has been successfully tested in the field for 5 years.
Power & Precision

- Complex geometry parts
- Deep penetration
- Attenuative special alloys
- High-Res. weld inspection

Software Upgrade

- Standard weld inspection
- FAST corrosion mapping
- FAST composite inspection
- Multi-Scan apps

Performance
Versatility

- Heavy thickness weld inspection (S-Scan & L-Scan)
- 2x 64E probes
- 4x 32E probes
- 6x 16E probes

128 Channels Multi-scan

- Standard weld inspection
- Large & fast corrosion map
- Large & fast composite map
- Multi-Scan apps. (128 ch.)

Productivity
## Specification

### General
- Multiscan Quantity: Up to 6 scans
- Pulses / Receivers: 32:128PR
- Gain Range: 80dB
- Sampling Frequency: 125MHz @ 12 bits (processing 16 bits)
- System Bandwidth: 50 000 Hz
- Max Pulse Rate Frequency: 100-500 ActiveEdge©
- Pulse Voltage: Constant : Depth, Path or Offset
- Focussing Mode: up to 0.1°
- S-Scan Resolution: 1 element or double resolution
- L-Scan Resolution: Up to 1024 beams
- Max PA Beams (focal laws): Up to 8192 points per A-Scan (sub-sampling available)
- Measurement tools: EXTRACTION BOX, 4 gates/A-Scan, TCG, DAC Split-DAC

### Phased Array (32:128PR)
- Up to 6 scans
- 32:128PR
- 125MHz @ 12 bits (processing 16 bits)
- 0.2 to 23 MHz
- 100-500 ActiveEdge©
- Constant : Depth, Path or Offset
- up to 0.1°
- 1 element or double resolution
- Up to 1024 beams
- 4 gates/A-Scan, TCG, DAC Split-DAC

### UT-TOFD(2PR)
- Up to 2 scans (UT & TOFD)
- 2PR (4 connectors)
- 100dB
- 50/100/200MHz @ 10 bits
- 0.2 to 18 MHz
- 20 000 Hz
- 400-100V ActiveEdge©
- na
- na
- na
- EXTRATION BOX, 4 gates/A-Scan, TCG, DAC Split-DAC

### User Interface & Ports
- PA & UT Connectors: 1 IPEX 128 channels, 4 LEMO 1 or 4 BNC
- Instrument Display: 10.4” wide LED-backlit LCD, enhanced sunlight readable
- Encoder Ports: 1024 x 600
- GPIO Port (TTL): 2 axes : Scan, Index or Clicker (LEMO 1)
- Communication Ports: Start, Stop, Index, Reset, Alarm (s), Trig… (LEMO 1)
- Remote Display Ports: WiFi 802.11n, Ethernet Gigabits & 3 master USB2
- Data Transfer Ports: WiFi, Ethernet or VGA
- Operating time, Enclosure & Environmental: WiFi, Ethernet or USB

### Operating time, Enclosure & Environmental
- Operating Temperature: -10°C to 40°C (14°F to 104°F) storage
- Operating Time: -20°C to 60°C (-4°F to 140°F)
- Power Input: 6.6h (hot swapable batteries)
- Unit Dimensions: 115 x 220 x 335 mm (4.52 x 8.66 x 13.19 in)
- Weight: 454 kg (10 lb) no battery, 460 g (1 lb)/battery
- Environmental Rating: Designed for : IP66, MIL-STD-810G

### Standard Package
- Veo+ 16/64PR BNC
- Veo+ 16/64PR LEMO
- Veo+ 32/64PR BNC
- Veo+ 32/64PR LEMO
- Veo+ 16/64PR BNC
- Veo+ 16/128PR BNC
- Veo+ 32/128PR BNC
- Veo+ 32/128PR BNC

### Software & Options
- CSV Export
- Upgrade PA 32PR
- Upgrade PA 128CH

### Accessories
- 32/32 Y-Splitter I-PEX
- 64/64 Y-Splitter I-PEX
- Phased Array Probes
- TOFD & UT Probes
- Wedge
- Encoders
- *More Accessories Available

## Distributed by:

**Sonatest (Head Office)**
Dickens Road, Old Wolverton
Milton Keynes, MK12 5QO
t: +44 (0)1908 316345
e: sales@sonatest.com

**Sonatest (North America)**
12775 Cogburn, San Antonio
Texas, 78249
t: +1 (210) 697-0335
e: sales@sonatestinc.com

---

Part No: 147406 (Issue 2, May2016)