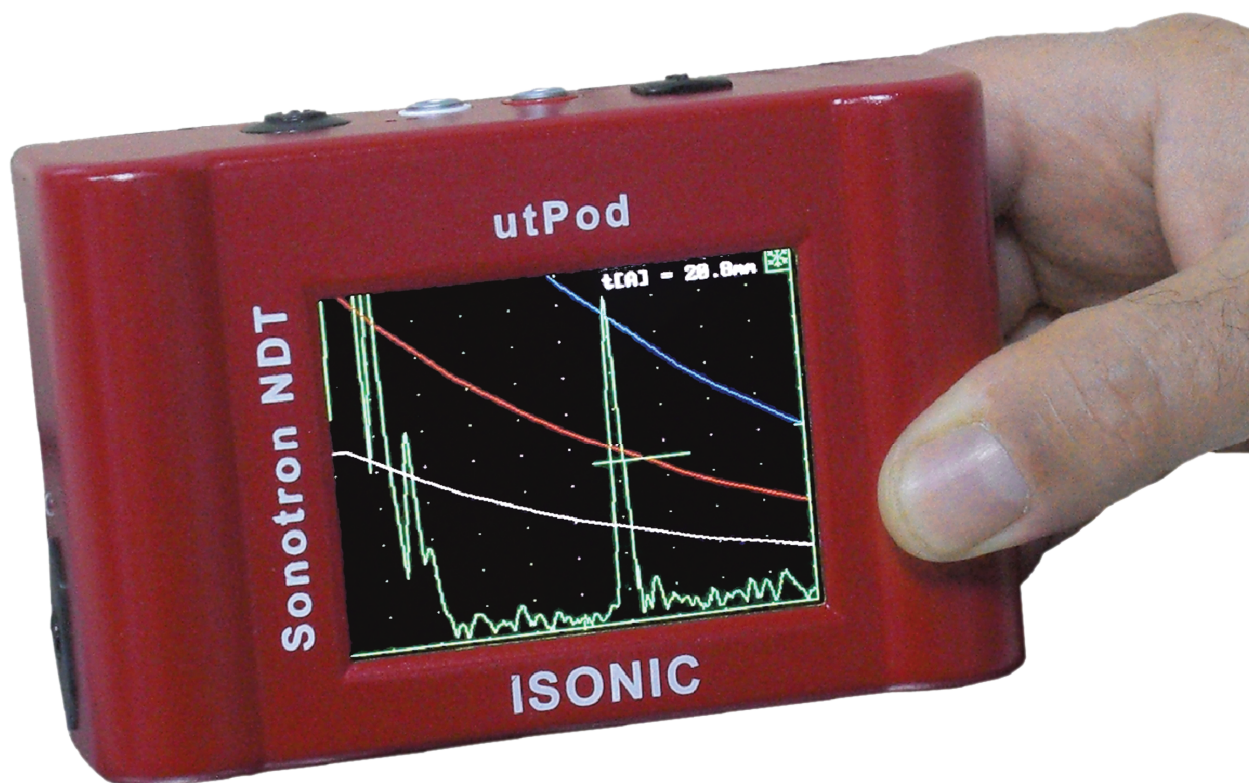


# ISONIC utPod

ULTRA-PORTABLE MULTI-PURPOSE  
ULTRASONIC TESTING INSTRUMENT



PERSONAL **400g** PACK OF ADVANCED  
TECHNOLOGY COMPRISING:

- ✓ Top Performance Flaw Detector
- ✓ All-Functional A-Scan Thickness Gauge
- ✓ Simple Corrosion Gauge
- ✓ Comprehensive Data Logger
- ✓ Fully USB Controllable



**Sonotron NDT**

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# ONE HAND INSPECTION

For the first time operator may hold the instrument and scan the material using one hand only – this makes rope access and similar inspection jobs much safer and reliable



## MINIATURE DIMENSIONS AND LIGHTEST WEIGHT EVER

**ISONIC utPod** delivers full functionality of the top performance ultrasonic detector such as

- Bi-polar square wave pulser with tunable pulse duration and amplitude (up to 300 V pp) and boosted leading / falling edges enhancing ultrasound penetration for various materials characterized either by high or low grain, sound attenuation, and the like
- 100 dB analogue gain / 0.2 ... 25 MHz bandpass / 100 MHz sampling rate
- 32-Taps FIR band pass digital filter with controllable lower and upper frequency limits
- Analogue performance A-Scan with no range limit for RF display mode
- Up to 2 kHz pulse repetition frequency
- Multi-curve DAC, DGS / TCG
- 2 independent gates
- Automatic evaluation including trigonometric functions, thickness and curvature correction, etc
- AWS / API defect evaluation
- And more... (see technical data page)





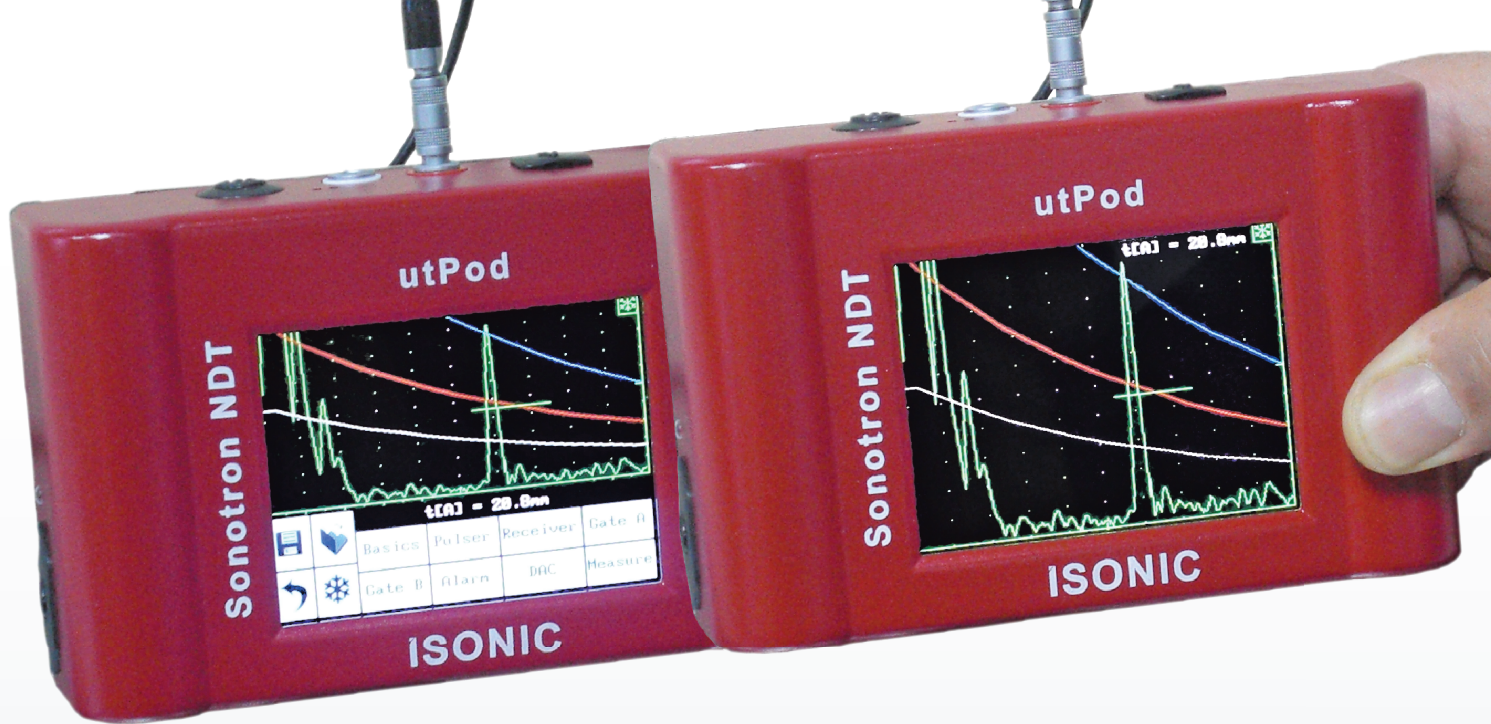
## TOUCH CONTROL

ISONIC utPod is controlled through highly intuitive user interface provided on the high definition sun readable touch screen



## ALL-FUNCTIONAL THICKNESS GAUGE AND SIMPLE CORROSION GAUGE

- Dual / Single element probe operation
- Automatic gain / initial pulse control
- 100 MHz sampling rate
- Multiple back wall echo technique with delay line single element probe for high precision measurements
- Pure Digital Display
- Digital Display Combined with A-Scan
- Min/Max
- Differential
- Variety of calibration and zeroing techniques
- Ultrasound velocity gauge



## ZOOM A-SCAN

Simple double click on the A-Scan expands it to the full screen area / returns to the combined A-Scan / Control Menu View

## “GOOSE NECK” FIXTURE

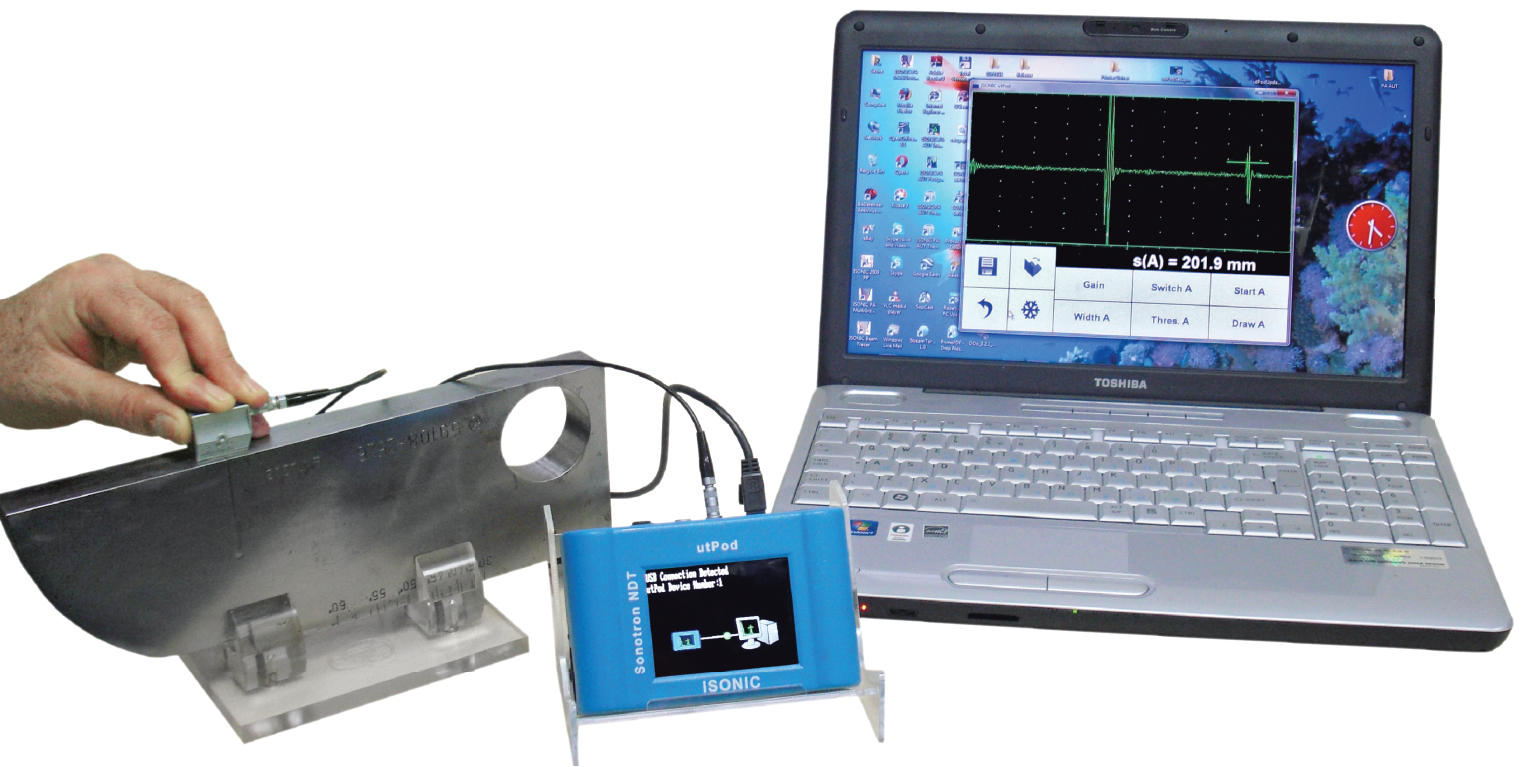
This optional adaptor has been designed to ensure positioning of the instrument on any surface and allows the operator to optimize the instrument location and viewing angle freeing both hands for probe manipulation, holding onto ladders, etc











## CONNECTION TO THE COMPUTER

On connection to the computer via USB port ISONIC utPod is recognized automatically and becomes fully controllable by mouse and keyboard. This allows performing of instrument operation enjoying comfort of friendly graphic interface and live A-Scan on the computer screen provided by ISONIC utPod for PC software. This extremely useful utility delivered with every ISONIC utPod unit at no additional cost carries a number of important features such as transfer data and setup files to / from the instrument, data logger files processing, generating of editable comprehensive inspection reports in MS Word® format, hard copy print, etc

## OTHER IMPORTANT FEATURES

- High Color Resolution QVGA screen – 3.2" Active Matrix LCD with an embedded PICASO-GFX2 graphics controller
- Built-in horn and virtual lamps on the screen to alarm the defect indications
- On-board rechargeable long durability Li-Ion battery







## UT LEVEL I, II TRAINING CLASS IN A SINGLE CASE

- Six units with cables and typical probes
- Direct control from computer through USB port / large screen projection
- Comprehensive Training Syllabus
- Attractive pricing policy



# ISONIC utPod – Technical Data

Operating Modes	Flaw Detector All-Functional A-Scan Thickness Gauge Simple Corrosion Gauge
Initial Pulse Type	Bipolar Square Wave Pulse
Initial Transition	≤ 5 ns (10 – 90 %)
Pulse Amplitude	Smoothly tunable (12 levels) 60 V ... 300 V pp into 50 Ω
Pulse Duration	50...600 ns for each half wave synchronously controllable in 10 ns step
Modes	Single / Dual
PRF	15...2000 Hz controllable in 1 Hz resolution
Gain	0...100 dB controllable in 0.5 dB resolution
Advanced Low Noise Design	81 μV peak to peak input referred to 80 dB gain / 25 MHz bandwidth
Frequency Band	0.2 ... 25 MHz Wide Band
Digital Filter	32-Taps FIR band pass with controllable lower and upper frequency limits
Ultrasound Velocity	300...20000 m/s (11.81...787.4 "/ms) controllable in 1 m/s (0.1 "/ms) resolution
Range	0.5...7000 μs controllable in 0.01 μs resolution
Display Delay	0...3200 μs controllable in 0.01 μs resolution
Probe Angle	0...90° controllable in 1° resolution
Probe Delay	0 to 70 μs controllable in 0.01 μs resolution
Display Modes	RF, Rectified (Full Wave / Negative or Positive Half Wave)
Reject	0...99 % of screen height controllable in 1 % resolution
DAC / TCG	Multi-curve (up to 4) Theoretical – through keying in dB/mm (dB/") factor as used for AWS evaluation, inspection of highly attenuative materials, and the like Experimental – through recording echo amplitudes from variously distanced equal reflectors, up to 40 points 46 dB Dynamic Range, Slope ≤ 120 dB/μs Available for Rectified and RF Display
DGS	Standard Library for 18 probes / expandable
Gates	2 Independent Gates
Gate Start and Width	Controllable over the whole range of A-Scan time base settings in 0.1 mm / 0.001" resolution
Gate Threshold	5...95 % of A-Scan height controllable in 1 % resolution
Signal Evaluation – Digital Readout	19 automatic functions / expandable; curved surface / thickness / skip correction for angle beam probes; material velocity and probe delay auto-calibration for all types of probes; AWS / API evaluation
Freeze	Freeze All / Freeze Peak
Data Storage Capacity	At least 100000 sets including calibration dumps accompanied with A-Scans
Data Logger	1D (linear), 2D (X, Y), 3D (X, Y, Z), or 4D (X, Y, Z, retake) array
Internal Flash Memory	2 Gigabytes
Output	USB – calibration and data files transfer to / from PC, generation of inspection reports in editable format and hard copy / full control by PC
Screen	3.2" High Color Resolution QVGA Sun-Readable Active Matrix LCD with an embedded PICASO-GFX2 graphics controller
Controls	Touch Screen
Power	On-board Li-Ion Rechargeable Battery, 6-10 hours continuous operation depending on mode of use Mains - External AC/DC converter / charger 100-240 VAC, 40-70 Hz
Housing	IP 67 rugged plastic case
Dimensions	130× 84 × 42 mm (5.12"× 3.31" × 1.65")
Weight	400 g (0.88 lbs) – with battery
Hardware Warranty	12 months
Firmware Warranty	Lifetime free update with the latest version available for free access at <a href="http://www.sonotronndt.com/support.htm">www.sonotronndt.com/support.htm</a>
ISONIC utPod for PC Software Warranty	Lifetime free update with the latest version available for free access at <a href="http://www.sonotronndt.com/support.htm">www.sonotronndt.com/support.htm</a>
Available in three colors	Blue, Red, Black