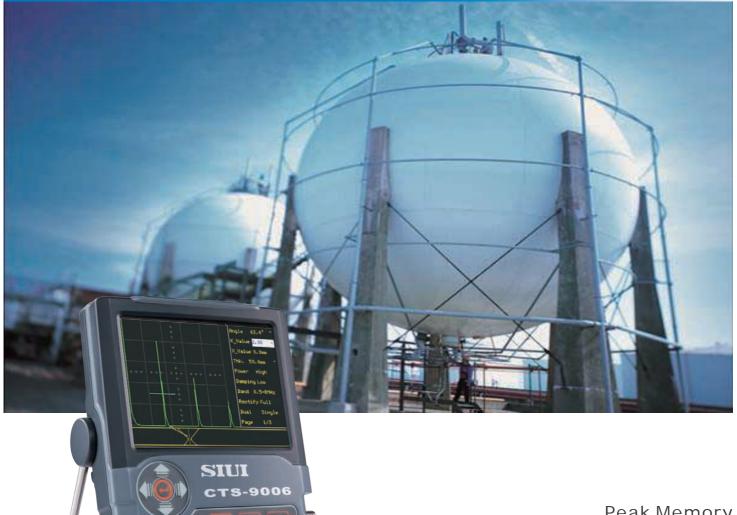
CTS-9006

Digital Ultrasonic Flaw Detector



Peak Memory
Auto Calibration
Weld Groove Profile
Abundant Options

CTS-9006

Portable, Easy-to-Use, Reliable

—New Generation General-Purpose Digital Flaw Detector

Compact & Portable:The whole unit weight (battery included) is approx. 1.2kg, suitable for aloft and field work.

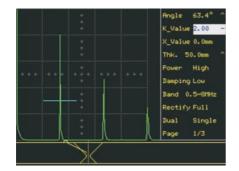
Easy to Use: There are just a few concisely-defined keys, easy to be operated with only one hand.

Environmental Protection: This system is designed based on IP65 standard, suitable for complex industrial flaw detection environment.

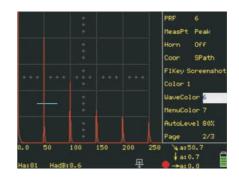
Super-low Consumption: The configured Li-polymer battery can support up to 7-hour continuous operation.

Strong Performance: High resolution and penetration, achieving precise flaw detection from thin plates to large forged pieces.

Superior Features



Weld groove profile function



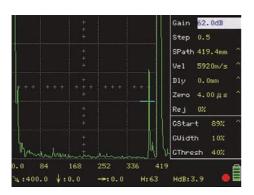
Up to 11 kinds of waveform colors for selection

- Max. sampling rate 240MHz; Measurement resolution 0.1mm.
- Operating frequency range: 0.5~10MHz.
- 20 ~ 2000Hz PRF (step: 20Hz): avoid reverberation signals during flaw detection.
- The AGC (auto gain control) function, together with peak echo and image freeze function, help quickly identify the flaw highest echo, enabling efficient flaw detection.
- The AVG/DGS curve can make three curves of different equivalent values with one known flat-bottom hole or large flat-bottom echo.
- The DAC curve works with echo compare function, making echo quantification of different distances and amplitudes more convenient.
- The 5.7" color TFT LCD of wide viewing angle, high brightness and high definition delivers every clear detail.
- Peak memory function facilitates quick scanning and measurement on workpieces.
- Probe angle (K value) measuring function.
- Three different color schemes can meet the requirements of different application environments and habits.
- Up to 300 sets of curve and waveform can be saved for various workpieces and flaw detection standards.
- Support up to 9 kinds of language.
- AWS D1.1/D1.5, API and TCG functions are optional.

^{*} EN-12668-1 and ASTM E317-1 compliant

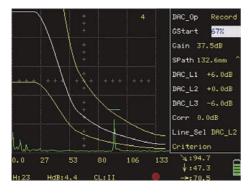
Application Examples

Detection on Large Forged Pieces



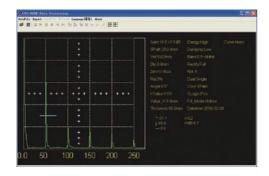
- The large detection range and high sensitivity surplus meet the requirements of detection on large forged pieces or coarse crystal materials.
- ullet This picture shows an echo from a 400mm Φ 2 flat-bottom forged test block.

DAC Curve



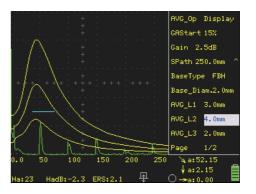
 The DAC curve function brings easier and more convenient flaw evaluation.

Data Storage



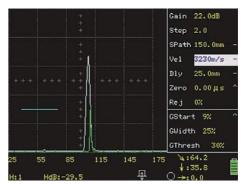
 Detection echoes, curves or parameters may be losslessly stored to a PC via the USB port, facilitating report editing and data management.

AVG/DGS Curve



 Three curves of different equivalent values will be auto created by taking a known flat-bottom hole or large flat-bottom echo for reference.

Peak Memory



 Refresh the highest echo within the screen range automatically, completing flaw positioning quickly.

On-site Application



• CTS-9006 inspect weld.

Specifications

| Function | Unit | Specifications |
|---------------------------------|----------------------|---|
| Testing Index | | |
| Attenuator Error | dB | Every 20dB ±1dB |
| Vertical Linearity Error | % | ≤3 |
| Dynamic Range | dB | ≥32 |
| Horizontal Linearity Error | % | ≤0.5 |
| Pulser | | |
| PRF | Hz | 20~2000Hz, step: 20Hz |
| Damping | | Low /High, $,2$ steps ($1000\Omega/50\Omega$) |
| Receiver | | |
| Operating Frequency Range | MHz | 0.5~10, with steps of 1-4/ 0.5-10 |
| Reject | % | 0~80 |
| Gain Adjustment | dB | 0 ~ 110, with steps of 0.5 / 2 / 6 / 12 |
| Measurement | | |
| Detection Range | mm | 0 ~ 13000 (Longitudinal wave in steel) |
| Display Delay | mm | -10 ~ 1000 (Longitudinal wave in steel) |
| Rectify | | Positive, Negative, Full, Filter |
| Auto Gain | | Enabling the echo amplitude within the gate auto adjusted to a designated amplitude |
| | | Amplitude setup: 40%/ 50%/ 60%/ 70%/ 80%/ 90%/ 100% |
| Angle Measurement | | Measure probe angle |
| Material Velocity | m/s | 400 ~ 15000 |
| Probe Zero | ЦS | 0 ~ 200 |
| Auto Calibration | μο | For calibrating material velocity and probe delay. |
| | | Calibration mode: Velocity and Zero/ Velocity/ Zero |
| DAC Curve | | For making, setting and applying DAC curves, up to 8 curves |
| AVG / DGS Curve | | For making, setting and applying AVG / DGS curves |
| Screenshot | | Print the system screen as an image and output to a USB disk |
| Parameter Output | | Save the screen measurement parameters to a USB disk |
| Peak Memory | | Display waveform envelope |
| Freeze | | Freeze screen waveforms |
| USB Port | | Save the system internal data sets to a USB disk via the USB port |
| Gate | | Jave the system internal data sets to a coordisk via the coorport |
| dato | | Gate Start: 0~109% |
| Gate | | Gate Width: 1~109% |
| duto | | Gate Thresh: 10~90% |
| General Technical Specification | _ | date fillion. 10 0070 |
| Display Screen | T | 5.7" high brightness TFT LCD, 320 x 240 pixels |
| Measure Unit | | Inch/mm |
| Storage | | 300 data sets, including system setup, detection state, echo figures, etc. |
| Otorage | | Up to ten kinds of language for selection, including English, Japanese, French, Spanish, Russian, |
| Language | | German, Polish, Hungarian, Turkish, Portuguese |
| Power Supply | | DC 12V (external power supply); 7.4V (battery) |
| 11, | + | ≥ 7 (Backlight brightness dependent. The brightness will be adjusted automatically according to |
| Battery Operating Time | h | environment temperature.) |
| Operating Temperature | $^{\circ}\mathbb{C}$ | -10~40 |
| IP Code | | IP65 |
| Weight | kg | Approx. 1.2 (including battery) |
| Dimension | mm | 152 × 240 × 52 (W×H×L) |