

CTS-808

Multi-Channel
Digital Ultrasonic Flaw Detector



High Performance
Anti-Interference
Real-time Auto Alarm
Ethernet Communication
Remote Control
Flaw Detection Data Management



SIUI



CTS-808

Multi-Channel Digital Ultrasonic Flaw Detector

By working with probe detection and mechanical drive devices, the CTS-808 multi-channel digital ultrasonic flaw detector can achieve automatic ultrasound testing on section steel such as steel tube, steel rod, steel billet and steel plate.



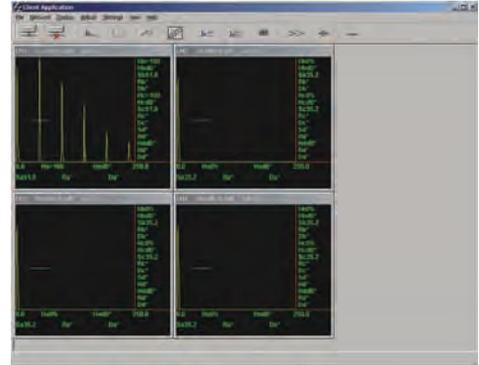
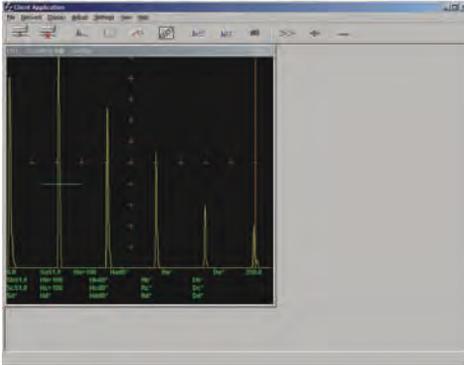
Superior Features

- Multiple testing channels, multi-probe can be connected for testing at the same time.
- High detection sensitivity.
- Each detection channel has three alarm gates: A, B and C. An alarm threshold can be set, and when the echo is higher or lower than the threshold the system will alarm, so as to achieve multi-position and multi-method auto alarm.
- Interface wave tracking function: by tracking the logic relation between gate D and the alarm gates A, B or C, interface wave tracked by alarm gates is assured, which avoids error alarm or lost alarm in immersion testing due to water fluctuation.
- The automatic defect marking function can be set as delay marking or lengthened distance marking, with delay time or lengthened distance variable.
- Relevant alarm times selection: the relevant alarm times can be selected based on the actual situation, so as to avoid error alarm and improve anti-interference capability.
- Variable PRF, max. PRF as high as 2.5 KHz/channel.
- Large memory for saving up to 500 data sets, including echoes, curves, parameters, detection reports, etc.
- USB port for saving system stored data and echoes to a USB disk, as well as easy printout of test reports.
- Large screen and high-brightness color TFT LCD, bringing optimized effect for reading & measurement. Echoes and detection data for up to 4 channels can be displayed at the same time.
- English / Chinese menu for selection, with text prompt during operation.
- LAN Ethernet port of the multi-channel flaw detector for real-time communication with a PC and remote control.
- Special database and powerful data processing function can be found in the PC, which is convenient for data storage, edit, classification, query, printing and transmission.
- In combination of displacement signals of the tested material provided by a mechanical drive device, and flaw echo signals from the flaw detector, displaying flaw position and equivalent flaw size directly.



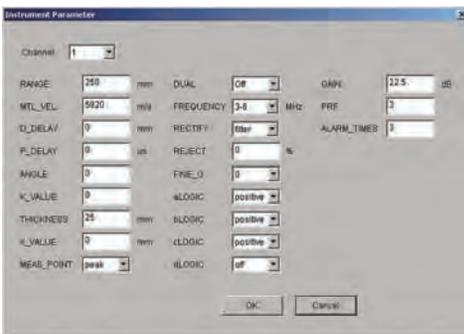
Application Examples

Display Waveform



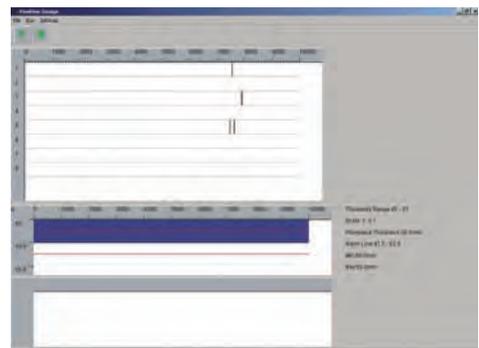
Four channels can be displayed at the same time.

Parameter Adjustment

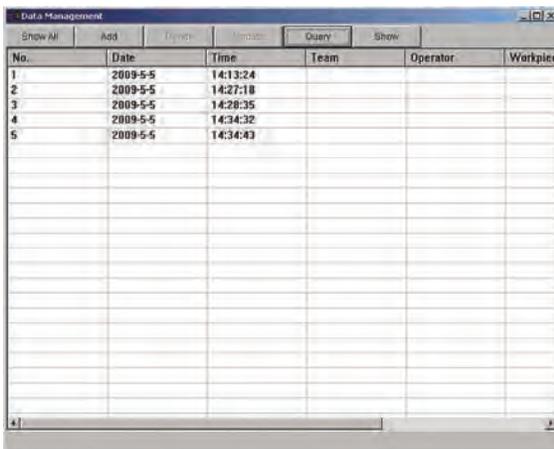


The screenshot shows a dialog box titled 'Instrument Parameter'. It contains various settings for a channel, including RANGE (250 mm), DUAL (Off), GAIN (22.5 dB), MTL_VEL (5020 m/s), FREQUENCY (3.0 MHz), PFE (3), Q_DELAY (0 mm), RECTIFY (Rise), ALARM_TIMER (3), PL_DELAY (0 us), REJECT (0 %), ANGLE (0), FINE_O (0), K_VALUE (0), SLOOC (positive), THICKNESS (25 mm), SLOOC (positive), H_VALUE (0 mm), SLOOC (positive), and MEAL_POINT (para). There are 'OK' and 'Cancel' buttons at the bottom.

Position Image



Data Management



No.	Date	Time	Team	Operator	Workpiece
1	2009-5-5	14:13:24			
2	2009-5-5	14:27:18			
3	2009-5-5	14:28:35			
4	2009-5-5	14:34:32			
5	2009-5-5	14:34:43			

Data Communication

Connect the system with a PC via a network cable. System parameter, download data set, display waveform, thickness measurement diagram and alarm position image can be adjusted on the PC.

It can be used for adding, querying, reviewing and printing records.

Item	Unit	Technical Data
Vertical Linearity Error	%	≤3
Dynamic Range	dB	≥30
Sheet Metal Resolution	mm	≤3 (5C6N probe)
Horizontal Linearity Error	%	≤0.5
Attenuator Error	dB	Every 12dB ± 1dB
Display		8.4" high brightness TFT LCD, 640X480 pixels
Measure Resolution	mm	0.1
Gain Range	dB	0~110
Detect Range	mm	0~1000 (longitudinal wave in steel)
Pulse Shift Range	mm	-10~500 (longitudinal wave in steel)
Material Velocity	m/s	1000~9999
Operating Frequency Range	MHz	1.5~3 / 3~6 for selection
Dual Probe		off / on
Reject	%	0~80 linear reject
Rectify		Negative / Positive / Full
PRF	Hz	10 levels selectable (2.5KHz / Channel when 8 channels at work, but the actual PRF is subject to association with channel number, TR Test, detection range, velocity, pulse shift and probe delay)
Alarm Gate		Four gates for each channel. Gate A, B and C are measurement gates while Gate D is a tracking gate.
Display Switch		Two modes: Single channel and four channels
Alarm Output		Audible and visual alarm (with built-in speaker and panel LED) and configurable alarm output signal port
Spray Gun Output		Four spray gun output ports
Data Memory		500 data sets, including detection state parameters, echo figures, etc.
Freeze		A-scan echo freeze
Automatic Gain		Echo amplitude within Gate A will be automatically adjusted to 80%.
Second Wave Color		The second wave area will be displayed in a different color
Filling		The waveform is displayed in solid form
Detection Sensitivity Surplus	dB	≥60 (2.5Z20N probe)
Far Field Resolution	dB	≥26
Electric Noise Level	%	≤20 (operating frequency range: 1~3MHz) in initialization operation when detection range and gain are set maximum
Dimension	mm	400×400×250 (L×W×H)
AC Power Input Range	V	100~240
Input Power	VA	≤50

SIUI

Shantou Institute of Ultrasonic Instruments Co., Ltd.

Add: #77, Jinsha Road, Shantou 515041, Guangdong, China

Tel: +86-754-88250150 Fax: +86-754-88251499

E-mail: siui@siui.com Website: <http://www.siui.com>

