Digital ultrasonic plate flaw detector UFD-PAD

UFD-Pad

We pursue the degree of portability in industrial flaw detection and make it simple. The team works hard day and night to develop new flat-panel flaw detector to make flaw detection more simple and convenient and meet the increasingly updated needs of modern flaw detection.





Feature

Keywords: square wave, intelligence, three defense, flat panel, cloud detection, B/C scanning • Dustproof, waterproof and shockproof industrial grade three-proof, suitable for harsh environment

• Smart Flat Ultrasonic Flaw Detector UFD-PAD

- Square wave pulse excitation, optimized electroacoustic matching is more suitable for ultra-thick/ultra-
- thin workpiece inspection
- Ultra-thin smart tablet host, high-sensitivity touch HD screen
- WI-FI wireless IoT properties to help cloud detection
- Integrated XY position encoder for B/C sweep detection system application (optional) A variety of scanners can be widely used in pipes, flats, welds, etc. (optional)



Application

- Nondestructive testing
- Scientific research
- Teaching demonstration



Description

- $_{\odot}$ UFD-pad is our new generation of ultrasonic flaw detectors that transmit and receive ultrasonic waves in a single channel.
- . Its advanced technology makes it unique, and its products can be applied in more fields, such as medical ultrasound imaging, NDT, and also for research and university lectures.
- DAC curves are also available
- 12-bit analog, digital converter with a sampling frequency of 80
- VGA gain range from 0 to 80 dB
- MHz is used to digitize ultrasonic signals.

PARAMETER

Win10 system Support WIFI Support gravity sensing USB interface Mini HDMI interface CPU uses 1.92GHz, 12 core Intel Cherry Trail Z8350 processor

SPECIFICATIONS

Measuring Range 1.0~12000mm Resolution 0.01mm(<100mm) 1mm(>100mm) Velocity 500~20000m/s 20fixed velocities Delay -20~3400us /resolution : 0.1us Probe Delay 0~99us /resolution: 0.01us Auto Calibration Velocity Calibration & Probe Delay Calibration Linear Error Horizontal error < 0.1% Vertical error≤3% Dynamic Range ≥36dB Sensitivity \geq 64dB 200mm Φ 2 flat-bottomed hole Dimension (mm) 240×180×50mm Weight

1.9Kg (including battery pack) Working Environment Temperature: -20℃~70℃ Humidity: 5%~90%

Pulse

Dive Pulse

Negative spikes, high energy/low adjustable Launch Repetition Frequency PFR transmit pulse continuously adjustable Matched Damp 50/150/400Ω

Receiver

Measuring mode Peak/Verge Bandwidth 0.3~1/0.5~4/2~15MHZ Detector Pattern 0~110dB 0/0.1/0.2/0.5/1/2/6/12/ Detector Pattern RF/Full-Wave/Positive/Negative half-wave

Display

LCD TFT Color Display .5 options for variable brightness GUI Theme Simple/Classical/Gray/Bright Screen Update Rate ≥60Hz

Gate

Gate Two Separated Gate A/B Measured value display 5 measured value display area, SA/SB/DA/DB/PA/PB/A%A/A%B/dBtA/ dBtB/dBrA/dBrB/SBA/DBA/PBA/LA/LB Alarm Independent logic gate alarm, alarm hreshold thickness measurement

Storage

Channel Parameters A Scan 2000 Thickness values Wave video 5 min Reference wave 4

Input / Output

Probe connector LEMO or BNC

Regional

Clock Real-time display date/time Language English & Chinese Unit mm/inch

Battery

High-energy lithium batteries, has excellent overcharge and over-discharge protection Battery Monitoring Coulomb energy measurement based on battery monitoring, percentage / time display the remaining battery life Working Hours Can work continuously for more than 10 hours Battery Adapter Input: 100~240V/50~60Hz Output : 9VDC/4A

20

200,00 data

High ranking

U disk storage Storage screen shots/waveform/thickness three data report Gate broadening Gate area of concern for the details of observation and analysis B-scan two-dimensional coding Thickness / contour scanning; grayscale / color palette settings Curve freeze YES Characteristic indicator Sound path measurement wave front and amplitude measurement position indicator CSC Surface Correction According probe angle, diameter of the work-piece thickness and curvature correction for the measured values L ock data set can be locked to avoid accidental deletion of data Screen Saver Standby/Text/off

Equivalent curve

DAC curve

Can record 30 calibration points; Automatic Gain; any order calibration; calibration / edit two modified methods; consider the material attenuation and surface compensation factor; five adjustable gain curve to assess compliance with JIS and API Standards DGS curve large flat-bottomed, flat-bottomed hole, through-hole

Standard

Main engine	1	
Straight / angle probe	e	1
Probe line	1	
Chargers	1	
Battery	1	
Interface Gate		
Intermediate medium for flooding		
situation testing		
Printer		
TP serial printer, print directly screen		
shots/waveform/ thickness of the three		
data report		
Large capacity battery		
More than 20 hours		

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