

Digital ultrasonic plate flaw detector

QUAM-PAD

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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 QUAM-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

- 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
≥64dB 200mmφ2 flat-bottomed hole
Dimension (mm) 240×180×50mm
Weight
1.9Kg (including battery pack)
Working Environment
Temperature: -20°C~70°C
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 20
A Scan 2000
Thickness values 200,00 data
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

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
Lock
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 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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