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## Portable Ultrasonic Flaw Detector MFD620C



### KEY FEATURES

MFD620C Portable Ultrasonic Flaw Detector with hi-resolution color TFT LCD display. The background color and the wave color can be selectable according to the environment.

LCD brightness can be manually set. Continue working for over 8 hours with high performance lithium-ion battery module (with large capacity lithium-ion battery option), easy to be dismantled and the battery module can be charged independently outside the device. It is light and portable, easily to be taken by one hand; easy operation; superior reliability guarantees long lifetime.

## RANGE

0~6000mm (at steel velocity); range selectable in fixed steps or continuously variable.

## PULSER

Spike excitation with low, middle and high choices of the pulse energy.

Pulse Repetition Rate: manually adjustable from 10 to 1000 Hz.

Pulse width: Adjustable in a certain range to match different probes.

Damping: 200  $\Omega$  , 300  $\Omega$  , 400  $\Omega$  , 500  $\Omega$  , 600  $\Omega$  selectable to meet different resolution and sensitivity needs.

Probe working mode: Single element, dual element and through transmission;

## RECEIVER

Real-time sampling at 160MHz high speed, enough to record the defect information.

Rectification: Positive half wave, negative half wave, full wave, and RF :

DB Step: 0dB, 0.1 dB, 2dB, 6dB step value as well as auto-gain mode

## ALARM

Alarm with sound and light

## MEMORY

Total 1000 configuration channels, all instrument operating parameters plus DAC/AVG curve can be stored; stored configuration data can be easily previewed and recalled for quick, repeatable instrument setup. Total 1000 datasets store all instrument operating parameters plus A-scan. All the configuration channels and datasets can be transferred to PC via USB port.

## FUNCTIONS

Peak Hold:

Automatically searches the peak wave inside the gate and holds it on the display.

Equivalent diameter calculation: find out the peak echo and calculate its equivalent diameter.

Continuous Record: Record the display continuously and save it to the memory inside the instrument.

Defect Localization: Localize the defect position, including the distance, the depth and its plane projection distance.

Defect Sizing: Calculate the defect size

Defect Evaluation: Evaluate the defect by echo envelope.

DAC: Distance Amplitude Correction

AVG: Distance Gain Size curve function

Crack measure: Measure and calculate the crack depth

B-SCAN: Display the cross-section of the test block.

## REAL-TIME CLOCK

Real time clock for tracking the time.

## COMMUNICATION

USB2.0 high-speed communication port

## SPECIFICATIONS

Channels: 1000 channels

Range: (0 ~ 6000) mm in steel

Bandwidth: (0.5 ~ 15) MHz

Material Velocity: (1000 ~ 15000) m / s

Dynamic Range:  $\geq 36$ dB

Vertical linear error:  $\leq 2.5\%$

Horizontal linear error:  $\leq 0.1\%$

Resolution:  $> 40$ dB (5P14)

Sensitivity Leavings: 65dB (flat-bottomed deep hole 200mm $\Phi$ 2)

Rejection: (0 to 80)% Linear

Noise level:  $\leq 8\%$

Power supply: DC 9V; lithium batteries work for 8 hours or more

Ambient temperature: (-20 ~ 50) °C

Relative Humidity: (20 ~ 95)% RH

Overall dimensions: 250 × 170 × 60(mm)

Weight: 1.8kg (Main unit with battery)

### MFD650C Standard Configuration

No.	Item	Quantity
1	Main Body	1
2	Straight Beam Probe	1
3	Angle Probe	1
4	Machine-probe Cable	1

5	Battery Module	1
6	Power Adapter (Charger)	1
7	Support Pillar	1
8	Manual	1
9	Instrument Case	1