DAKOTA ULTRASONICS

MMX-7 v2.0

Multi-Mode Thickness Gauge

- Powered by a 100MHz DSP platform using FPGA technology.
- 1/8" VGA grayscale display (240 x 160 pixels). Screen Refresh rate of 25 Hz.
- Manual or AGC gain, depending on measure mode selected (50 dB gain range).
- Linear time dependent gain (TDG). built built into each transducer type.
- Display veiws: Large Digits or B-Scan (cross section).
- Measure modes: (P-E) pulse-echo (flaws & pits) and (E-E) echo-echo (thru-paint).
- Dual element style transducers.
- Memory: 4 gigabyte internal SD card.
- Windows® PC & OSX interface software.
- USB-C connectivity.

SOUND SOLUTIONS

MMX-7 SPECIFICATIONS

Physical

Weight:
13.5 ounces (with batteries).

Size:
2.5 W x 6.5 H x 1.24 D inches
(63.5 W x 165 H x 31.5 D mm).

Operating Temperature:
-14˚ to 140˚F (-10˚ to 60˚C).

Keyboard:
Membrane switch with twelve tactile keys.

Case:
Extruded aluminum body with nickel-plated aluminum end caps (gasket sealed).

Display:
1/8in VGA grayscale display (240 x 160 pixels); viewable area 2.4 x 1.8in (62 x 5.7mm); EL backlit (on/off/auto invert).

Ultrasonic Specifications

Measurement Modes:
Pulse-Echo (flaws, pits).
Echo-Echo (thru-paint).

Pulser:
150 volt square wave pulser.

Receiver:
Manual or AGC gain control with 50dB range, depending on mode selected.

Timing:
Precision TCXO timing with single shot 100 MHz 8 bit ultra low power digitizer.

Display

Display Views:

Large Digits: Standard thickness view; Digit Height: 0.700 in (17.78 mm).

B-Scan: Time based cross section view. Display speed variable (10 to 200 readings per second).

Scan Bar: Speed 10 Hz. Viewable in B-Scan and Large Digit views.

Bar Graph: Indicates stability of measurement. Viewable in B-Scan and Large Digit views.

Power Source

Line Power: USB-C to PC or power outlet.

Batteries:

Three AA cells. Alkaline - 35 hrs, Nicad - 10 hrs and NI-MH - 35hrs.

Auto power off if idle 5 minutes.

Battery status icon.

Measuring

Range:

Pulse-Echo Mode (P-E) - (Pit & Flaw Detection) measures from 0.025 in. to 100 ft. (0.63 mm to 30.48 M).

Echo-Echo Mode (E-E) - (Thru Paint & Coatings) measures from 0.100 to 6.0 in (2.54 to 152.4 mm). Range will vary +/- depending on the coating.

Resolution: +/- .001 inches (0.01 mm).

Velocity Range:
0.0122 to 0.7300 inches/µs
309.88 to 18542 meters/sec

Single and Two point calibration option, or selection of basic material types.

Units: English & Metric

Transducer

Transducer Types:

Dual Element (1 to 10 MHz).

Locking quick disconnect LEMO "00" connectors.

Standard 4 foot cable.

Custom transducers and cable lengths available for special applications.

Memory

Data Structure:

Grid (alpha numeric)

Screen Capture:

Bitmap graphic capture for quick documentation (.tif).

OBSTRUCT to indicate inaccessible locations.

Capacity:

4 Gb internal SD card.

Data Output:

USB-C 1.1 PC & OSX connectivity.

Features:

Setups:

64 custom user-definable setups; Factory setups can be edited.

Selectable Transducers:

Selectable transducer types with built-in dual path error correction for improved linearity.

Alarm Mode:

Set Hi and Lo tolerances with audible beeper and visual LEDs.

Scan Mode:

Takes 250 readings per second and displays the minimum reading found when the transducer is removed.

Certification

Factory calibration traceable to NIST & MIL-STD-45662A.

Warranty

2 year limited

CE approved

MADE IN THE USA

Distributed By:

Stone Tucker Instruments Inc.
AB: (587) 758-8367
ON: (905) 688-5800
info@stone-tucker.com
www.stone-tucker.com

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DAKOTA ULTRASONICS
1500 Green Hills Road, #107
Scotts Valley, CA 95066
Ph: (831) 431-9722
Fax: (831) 431-9723
Website: www.dakotaultrasonics.com
Email: info@dakotaultrasonics.com