

AIR 110

Ultrasonic Module



WiFi AIR 110 embedded in a drone



WiFi AIR 110 Interfacing with Tablet Computer

OVERVIEW

The AIR 110 system is a WiFi-enabled, portable ultrasonic (UT) system with data acquisition, imaging, and analysis capabilities. The versatile wireless system offers A, B, and C-Scan views, seamlessly interfacing with MISTRAS UTWin and Euroscan software.

The AIR 110 integrates with any tablet or mobile phone, and is compatible with Windows, and Android. Ready to work in pulse echo or through-transmission mode, this module has a standard range of 100ft / 30m (up to 330ft / 100m with no interference), two encoder inputs, and a battery life of eight hours.

INDUSTRIAL APPLICATIONS

Amongst others, the AIR 110 is a perfect tool to conduct UT inspections in aerospace, transportation, pipeline, laboratory, and training facilities.

The versatile, portable AIR 110 is designed for a variety of industrial applications requiring real-time ultrasonic data acquisition. The system is constructed to be deployable, opening up a wide range of field applications through its mobile interfacing and light-weight, wireless design.

These capabilities make the AIR 110 ideal as a tool for rope access inspections, as they allow operators to safely, wirelessly relay data from at-height locations back to a host computer, tablet, or phone. Other applications include:

- Flaw detection
- Thickness measurements
- Tube and Pipe inspections
- Manual Rail Track inspections
- In-plant inspections
- OEM applications

FEATURES

- Ultrasonic real-time streaming
- Interface with X-Y or R- θ scanners
- Compact, rugged, lightweight design
- DLL and software development available (Android only)

PULSER:

Type: Square
 Voltage: 30-280 V
 Width of square: 20-400 ns
 Resolution of width: 5 ns
 Fall time: 4.8 ns
 Rise time: 5.2 ns
 PRF: 10 kHz max

RECEIVER:

Amplification: 0-.88 dB
 Averaging: 2, 4, 8, 16
 Noise: 21nv / Hz
 Linearity of TGC: 40 dB/us
 Resolution of TGC: 10 ns
 Number of TGC points: 256
 Bandwidth to @ -3dB: 22 MHz

DIGITIZATION:

Resolution: 8, 12 bits
 Frequency: 25-50-100 MHz

FILTER:

Digital: Digital
 Coefficients: 32 for 2.5, 5, 10 MHz

ENCODERS:

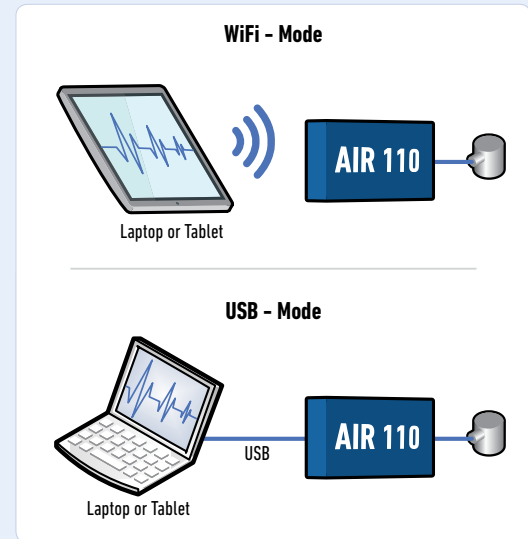
Number: 2

POWER SUPPLY:

Battery: 8 hrs (rechargeable via USB)
 Consumption: 2.8 W

MISC:

Dimensions: 120 mm x 70 mm x 38 mm
 Weight: 150g
 Communication: USB or WiFi
 WiFi Range: 100ft / 30m (standard)
 330ft / 100m (no interference)



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