

# AUSS MOBILE

## Automated Ultrasonic Scanning System

### The Next-Generation Digital Mobile Scanning Solution

AUSS Mobile is the newest addition to the AUSS product family. A unique and portable C-scan inspection system incorporates ultrasonics, eddy current, and bond testing in a single system. This enables multiple inspections for aircraft production, maintenance, and sustainment programs.



### Features and Capabilities

- Direct replacement for the MAUS V offering enhanced capabilities to meet current data acquisition needs
- Boeing's superior AUSS software architecture is included in a portable modular and affordable package
- Multi-modal design enables the following inspection applications:
  - Ultrasonic sensors / multi-element arrays (32 X 128)
  - Bond Testing - Resonance, Pitch/Catch, and Mechanical Impedance Analysis (MIA)
  - Eddy current sensors / arrays (up to 512 elements)
- High-resolution digital waveform capture and off-line data analysis processing provides unparalleled interpretation capabilities
- Equipped with the latest phased array technology to deliver significant performance and faster inspection speed in highly demanding applications
- Versatile platform allows for a variety of scanning peripherals fulfilling unique customer requirements
- Fully integrated two axis motion system allows for a variety of customizable scanning platforms
- Brings the highest quality scanning and imaging to the inspection cell or any location in the factory or fleet

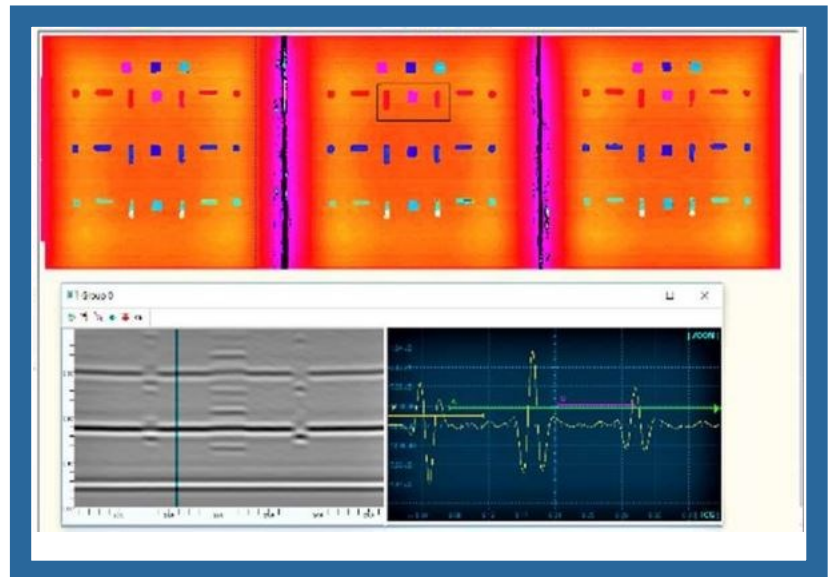
# An Unmatched Solution for Nondestructive Inspection



## Benefits

- Managed system investment:
  - Multiple capabilities packaged in one portable unit
  - Reduces need for multiple unique NDI Systems
- Common AUSS data format enables use of in-service data for Modal Based Engineering
- Common software across all AUSS products minimizes maintenance costs and allows users to be proficient across AUSS platforms

- **Superior C-Scan imaging capability** enables technicians to conduct inspections with comprehensive results
- A, B, C-Scan merged views, true acquired waveform data, multiple gating scenarios, unique algorithms, tools, and refined color palettes
- Highly customized and configurable user interface for highlighting defects or other areas of interest



# AUSS Mobile Specifications



## 1. Power Supply

24 VDC External Power

## 2. Laptop Connection

Gigabit Ethernet

## 3. External Data System

Gigabit Ethernet and External Encoder Trigger

## 4. Auxiliary Equipment Control

Six I/O Connections

## 5. Ultrasonic

Conventional UT, Phased Array, Full Matrix Capture, and Total Focusing Method

## 6. Continuous Wave

Standard 41-Pin Connector for: Resonance, all Eddy Current (EC) Functionality, Mechanical Impedance Analysis (MIA), and Pitch/Catch

## 7. Scanner Control

Motor and Encoder Connection

# AUSS Mobile Specifications

## General

Power: 120-240 VAC 50/60Hz 10A External Supply

Computer Interface: Gigabit Ethernet

Dimensions without handles: 13.75"W, 5.25"H, 11.75"D

Dimensions with handles: 16.75"W, 7.75"H, 14.5"D

Weight: 18 lb. (20 lb. with external power supply)

IP Rating: IP3x

Encoders: 2 Quadrature

## Ultrasonic

Pulser Voltage: 100V

Pulse Width: 20-1000 ns

Maximum PRF: 20 KHz

Pulse Width Resolution: 4 ns

Pulse Type: Negative Square

Pulse Focusing Delay: 0-40  $\mu$ s

## Receiver

Sensitivity: 14 bits

DDF: Up to 64 points

Gain Range: 12-110 dB

Focusing Delay: 50 kHz to 20 MHz

Focusing Delay Resolution: 0-40  $\mu$ s at 100 MHz

## System

Configuration: 32 Channel / 128 Element

Probe Connector: IPEX

Configurations: Pulse/Echo, Through Transmission



## Continuous Wave

Connector: 41-Pin Circular Connector

Output Current: 1A Max.

Frequency Range: 20 Hz to 2 MHz

Generators/Coil Drivers: 2 Fully Independent

Drive Voltage: 0-20 Vpp Single Driver

Eddy Current Array: Up to 128 Coils

Probes Inputs: 8 (128 with Multiplexer)

Data Rate: 40,000 Data Points/sec

A/D Converters: 24-bits

Data Format: 32-bits