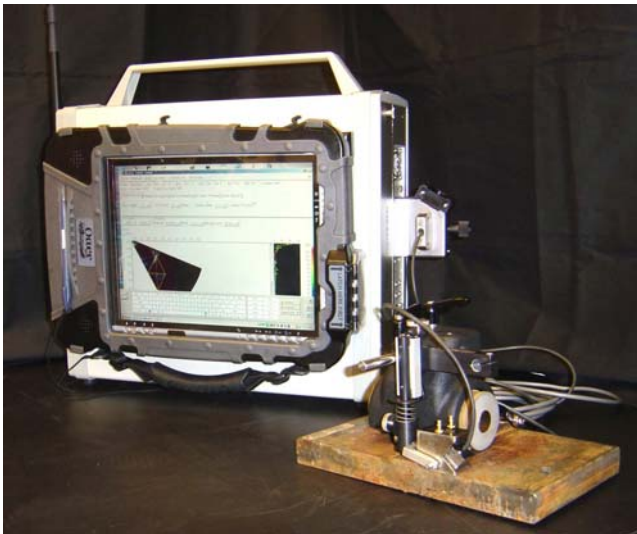


IntraSpect™ Portable Phased Array

IntraSpect Portable Phased Array system, manufactured by WesDyne AMDATA, consists of a battery operated phased array acquisition system and ruggedized tablet computer running standard IntraSpect software. A wireless network can be used between the phased array unit and the tablet PC to enhance flexibility. The tablet PC is a full featured computer that performs the acquisition, analysis and storage of the data. A field proven encoded manual scanner is supplied with the system for manipulation of the probe on the inspection surface. The system hardware is capable of operating up to four data sets with any combination of phased array, TOFD or conventional UT probes.



Phased Array System Features

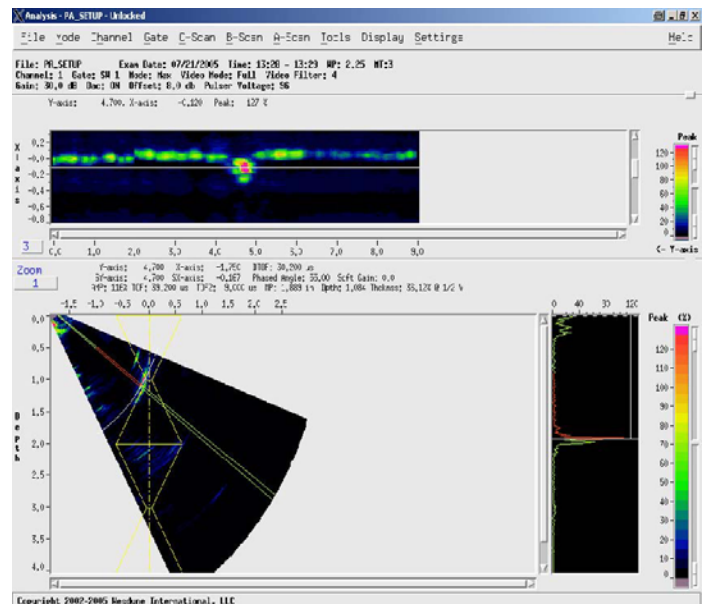
- Number of elements in system 128 Maximum
- Number of elements to fire as one group 32
- Maximum Number of focal laws 520
- Controllable features per firing sequence
- Delay per element step size 5 nanoseconds
- Pulser Voltage 12V, 48V, 96V, tunable square wave
- 4 data sets of phased array or conventional ultrasonics
- User selectable A/D rate: 20, 125, 50, and 100 MHz

Receiver Section Features:

- Frequency Response: 0.15 MHz to 16 MHz
- Dynamic Range: 94 dB in 0.5 dB increments
- High pass Filters: 1 to 10 MHz in 1 MHz steps
- DAC Dynamic Range: 40 dB

Data Analysis Standard Features

- Data Acquisition and Data Analysis on Windows XP tablet or laptop PC
- Simultaneous C-scan, Sector-B-Scan, and A-scan Display
- Color Maps, Gates, and Variable Range can be altered for the graphic displays. Time-of-Flight and Amplitude Based Statistics Functions
- Time-of-Flight Tip Diffraction (TOFD) Display
- Fast Fourier Transform (FFT) Function
- Weld Overlay Function
- RF or Video acquisition and display modes



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SPECIFICATION: WesDyne AMDATA IntraSpect™ Portable Phased Array Acquisition & Analysis System

Host Computer

- **Tough Book PC**

Data Acquisition Standard Features

ARRAY PHASING SYSTEM ELECTRONICS

The IntraSpect Portable phasing system is comprised of a self contained pulser/receiver and A/D.

- **Number of elements in system 128 Base**
- **Max Number of elements to fire as one group 32**
- **Max Number of group firing sequences 520**
- **Controllable features per firing sequence**
- **Delay per element 0 - 5 microseconds in 5 nanosecond steps**
- **Gain per element 0 to 40dB in 0.04 dB steps of analog gain**
- **User defined Start element, End element, Group size, Step size**
- **Amplifier Bandwidth 0.15 - 16 MHz**
- **Max PRF 20 kHz (free run)**
- **Digitization resolution 400 MHz**
- **Pulser Section Features:**
 - Pulser voltage 12, 48 and 96 volts
 - Variable width square wave
 - Pulser damping 220 Ohms
- **Low-Pass Filters**
- **Receiver Section Features**
 - Frequency Response: 0.15 to 16 MHz
 - Gain Range: 0 to 94 dB, 0.1 dB Increments
 - High Pass Filters: 1 to 10 MHz in 1 MHz steps
- **Data Acquisition Section Features**
 - Adjustable Digitization Rate Selectable of 20, 25, 50 and 100 MHz
 - 50MHz A/D Conversion
 - Max gate width 16K points
- **Hardware DAC Section Features**
 - Dynamic Range: 40 dB
 - Maximum Slew Rate: 1 dB/μsec
 - Maximum Number of Operator Selected Points: 16
- **Data Recording Modes**
 - Full RF Wave Data Collection/Storage Mode
 - Hardware Based, Positive, Negative, or Full Wave (Selectable) Video Detection Data Collection/Storage Mode
 - Peak Amplitude/Time-of-flight Data Collection/Storage Mode
 - Pulse-Echo, Through Transmission, or Pitch-Catch, Modes
- **Permanent Storage of Test Setups**
- **Complete Digital Computer Control**
- **Interactive Graphics Emulate Conventional Ultrasonic Instruments**

Data Analysis Standard Features

- **Complete Data Acquisition and Data Analysis**
- **Multi-tasking Operation**
- **Simultaneous C-scan, Sector –B-Scan, and A-scan Display**
- **Scaleable Screen Size**
- **C-scan Display**
 - Four Software Flaw Gates, One Interface Gate, and One Tracking Gate per Channel
 - Color Maps, Gates, and Variable Range can be altered for C-scan Display
 - Time-of-Flight and Amplitude Based Statistics Functions
 - ASCII data conversion
 - Hysteresis Correction Function
 - Histogram Function
 - C-Scan Annotation Function
 - Auto Analysis Defect Sizing Function
- **Sector B-scan Display**
 - Zoom Function
 - Sector B-scan, B and B-prime Mode Displays
 - Color and Gray Scale Mode Displays
 - Time-of-Flight Tip Diffraction (TOFD) Display
 - Fast Fourier Transform (FFT) Function
 - Weld Overlay Function
 - Calibrated Depth Measurement Function
 - Curvature Correction Function
 - Time Base Display Selectable as TOF, Metal Path, or Depth
- **A-scan Display**
 - Zoom Function
 - RF or Video Display Mode
 - Time Base Display Selectable as TOF, Metal Path, or Depth
- **TIFF Data Conversion Function**
- **Volumetric Projection Analysis**

Included Accessories

- **Color Printer**
- **Appropriate Application Software License, Standard Package for IntraSpect Ultrasonic Imaging System**

Available Alternative Features

- **Automated Scanner Kit**



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