imperium

ACOUSTOCAM SERIES™

IMPERIUM ACOUSTOCAM™ SYSTEM SPECIFICATIONS

INTUITIVEFLEXIBLEINSTANTSIMPLE

Imperium AcoustoCam™ System Specifications

AcoustoCam™Functional

Aspect/Function	Description	I/O
Operating System	Microsoft Windows XP Embedded (Standard system) Microsoft Windows XP (Remote NDI system)	
Internal Memory	500 Megabytes 2 Gigabytes Flash (Standard system) 80 Gigabyte Hard Drive (Remote NDI system)	
Processor	Intel Celeron 1.6 Gigahertz	
VGA Controller	VGA 600H x 800W TFT LCD	(1) 15-pin HD D-sub, F
Ethernet	100 Base T	(1) RJ45, F jack
Wireless	802.11 a/b/g (Remote NDI system)	(1) 4.25" antenna
Wi-fi	CM9-GP Mini-PCI WiFi Module (Remote NDI system)	
USB	USB 2.0	(2) USB jacks
LCD	6.75"W x 5.25"H, 8.5" (21.3 cm) diagonal screen	Touch, stylus
Application SW	AcoustoVision V1.2.1 Build 8	(1) Touchscreen

AcoustoCam™Power

Operation	110/240 VAC, 50/60 Hertz	I/O
Power transformer	Size: 6.7" W x 2.4" H x 1.35" D (16.8 x 6 x 3.38 cm)Weight: 1.5 lbs. (0.7 kg) with cords; UL, CE, TUV, CCC mark	DC out: 3.5' (105 cm) cord, 4-pin DIN,F locking connector
AC Power cord	6' (180 cm), 18 AWG 3 SVT, Black	Supply: NEMA 5-15PEquip: IEC-60320-C5
Battery	14.4 volt Li Ion; ETL, CE, FCC mark Size: 5.9" W x 3.0" H x 0.85" D (14.8 x 7.5 x 2.1 cm)	(1) proprietary conn.

Cable, Camera	8.0′ (240 cm), PVC sheath; pulser and signal conductors	(1) 26pin HD D-sub, M (1) BNC coaxial M

AcoustoCam™ElectroMechanical

Aspect/Function	Description	I/O
Controller	9.7″W x 9.0″H x 4.5″D (24.6W x 22.8H x 11.4D [cm]	(1) Momentary switch (1) BNC coaxial, F(1) 26 pin HD D-sub, F (2) SMB, F (1) 15 pin HD D-sub, F (2) USB, F (1) RJ45, F (1) 4 pin DIN, covered
Fans	(4) 1.6″ x 1.6″ (40 x 40 mm) axial fans, 5.3 CFM each	
Handle	Multi-position push-button adjustment, ABS plastic	
Weight	4.0 lbs. (0.6 Kg) [Less power transformer and cords]	
Construction	Aluminum, powder coated; EMI and watertight design	

AcoustoCam™ Pulser

Aspect/Function	Description
Pulses per burst	Or multi-tone burst: square wave up to 20 pulses
Pulser voltage	Continuous up to 1000 volts AC
Pulse repetition frequency	250 hertz
Pulser rise time	Less than 15 nanoseconds
A-scan rectification	None, Half, None
Acoustic velocity	41 stored materials and editable library of material types
Gate Start and Width	0.0 mm to full range, 10 nanoseconds / 0.01 mm
Match gates	C-scan and A-scan

Transducer frequency	1.00, 2.25, 5.00 and 7.50 Megahertz

AcoustoCam™System

Aspect/Function	**Description**
Field of view	1.0" x 1.0" (2.5 x 2.5 cm) instantaneous
Imaging ASIC array	DAV-6 (Digital Acoustic Video) and chip version
Array elements	120 x 120 (14,400 pixels)
Pixel size	100 micron
C-scan video rate	30 frames per second
Output format	RS170
Spatial resolution	X,Y plane: 600 microns (0.7 mm) @ 5 Megahertz
Depth precision	10 nanoseconds / 0.01 mm
Dynamic range	70 Db instantaneous 256-gray scale, shades user adjustable
X,Y size of defect	Visual calibrated grid and point-to-point 'freeze' sizing
Image capture type	A-scan and C-scan
Image capture	JPEG, internal; download via USB; up to 1 gigabyte
Video capture	MPEG-3, internal; download via USB; up to 1 gigabyte
Ultrasonic modes	Longitudinal

Imperium AcoustoCam™ System Specifications

AcoustoCam™i600 Camera

Aspect/Function	Description
Acoustic lenses	3 aspherical F-1 lenses, manual hand movement
Focus limit	2.0" (5 cm) composites; 1.0" (2.5 cm) aluminum and steel
Weight	1.25 lbs. (0.6 Kg)
Construction	Internal containment - polycarbonate weldment; surface membrane - polyurethane film; enclosure and focus grip - urethane; internal silicone shock absorption

AcoustoCam™ Transducers

Aspect/Function	Description
Acoustic lenses	3 aspherical F-1 lenses, manual hand movement
Focus limit	2.0" (5 cm) composites; 1.0" (2.5 cm) aluminum and steel
Weight	1.25 lbs. (0.6 Kg)
Construction	Internal containment - polycarbonate weldment; surface membrane - polyurethane film; enclosure and focus grip - urethane; internal silicone shock absorption