

FARO® Cobalt Array Imager

Metrology-grade, Smart Sensor

FARO



Choose between the **5MP Cobalt** or the **9MP Cobalt**. The 9MP version improves the resolution and the ability to capture features on edges and surfaces.

MULTIPLE IMAGER ARRAYS: Enables simultaneous operation of multiple Cobalt units for increased productivity

ON-BOARD PROCESSING: Delivers fast, reliable performance, ease of integration, and multi-imager configurations

HIGH RESOLUTION: Choose between the 5MP Cobalt or the 9MP Cobalt. The 9MP version has improved resolution which enhances the ability to capture features on edges and surfaces

HIGH DYNAMIC RANGE: Easily handles complex parts with both dark and light surfaces, different colors, textures, and reflectivity

AUTOMATIC EXPOSURE: Applies optimal exposure settings to ensure the best possible data in all situations

STEREO CAMERAS: Enable high accuracy, stability and self-monitoring

ENHANCED STEREO MODE: Maximizes coverage area in each scan and shortens inspection time

INTERCHANGEABLE LENSES: Provide flexibility for multiple fields of view

BLUE LIGHT TECHNOLOGY: Enhances the ability to measure dark and reflective surfaces in variable lighting conditions

The FARO Cobalt Array Imager is a metrology-grade, non-contact scanner which utilizes blue light technology to capture millions of high resolution 3D coordinate measurements in seconds. It is versatile - supporting a wide variety of deployment options including multi-imager array, tripod, rotary table, robot and industrial inspection cells. The Cobalt delivers fast and consistent measurements for dimensional inspection and reverse engineering applications on parts, assemblies, and tools. The Cobalt Imager is equipped with dedicated on-board processors – an industry first. The smart sensor allows unique multi-imager array configurations which expand the 3D scan area to deliver rapid, automated and comprehensive inspection. The actionable data is then displayed as a simple go/no-go result or an easy-to-read dimensional deviation color map. An unlimited number of 3D imagers can be placed in array configurations virtually anywhere in a manufacturing process – all scanning simultaneously and controlled by a single computer.

INDUSTRIES AND APPLICATIONS

Automotive: Automated quality control and assembly verification, Sheet metal inspection, Tool & die inspection and reverse engineering

Machining, Metalworking & Assembly: Casting and machined part inspection, Automated quality control, Mold and die inspection and reverse engineering

Aerospace: Automated quality control and assembly verification, Composite tooling, Wing skin and fuselage panel inspection and reverse engineering

BENEFITS

- Dramatically reduce inspection cycle times using multiple imager arrays
- Increases productivity by automating measurement workflows
- Easy to configure and integrate within the production environment
- Measurement accuracy ensured by self-monitoring
- Easy set-up and transport
- Real-time 3D data for statistical process control (SPC) without slowing production
- High-end performance at an affordable price
- Worldwide service and support from regional FARO locations

PERFORMANCE SPECIFICATIONS

Model	Field of View (mm)	Point Spacing (mm/inch)	Measurement Volume (mm/inch)			Standoff Distance (mm/inch)	Accuracy*
			Width	Height	Depth		
5MP	250	0.155 / 0.006	260 / 10.2	200 / 7.9	90 / 3.5	505 / 19.9	0.027mm
	500	0.255 / 0.010	500 / 19.7	350 / 13.8	300 / 11.8	320 / 12.6	0.050mm
9MP	250	0.082 / 0.003	260 / 10.2	200 / 7.9	90 / 3.5	515 / 20.3	0.027mm
	500	0.175 / 0.007	500 / 19.7	350 / 13.8	300 / 11.8	315 / 12.4	0.050mm

*Calibration per VDI/VDE 2634 part 2

GENERAL SPECIFICATIONS

Exposure time: 2 seconds
 Mounting: Any orientation /
 Universal mount customizable
 to specific applications

Data Handling and Control

Output: STL, ASCII
 Connectivity:
 • Ethernet - PC or Network
 • USB - Rotary Stage

Cameras

Resolution: 5 megapixel and
 9 megapixel models

Projector

Technology: Digital projection
 Light source: Blue LED

Features

- On-Board Processing
- Small Form Factor
- Light weight
- Automatic Exposure
- Fast Data Acquisition
- High Dynamic Range
- Stereo Cameras
- Enhanced Stereo Mode
- Interchangeable Lenses (Optional)
- High Resolution
- Blue Light Technology
- Field Compensation
- Self Monitoring
- Stability Tracking

Deployment Options

- Multiple Imager Array
- Manual Operation
- Robot Integration
- Custom Automation

Accessories

- Tripod
- Rotary Table
- Photogrammetry

Software Compatibility

- FARO CAM2 Measure 10
- Third-Party Software Plug-ins
- Software Development Kit (SDK)

HARDWARE SPECIFICATIONS

Power supply voltage: 100 - 240 VAC
 Power consumption: 75 W
 Ambient temperature: 10° - 40°C / 50° - 104°F
 Humidity: 0-95% (non condensing)
 Weight: 5kg / 11lb
 Size: 440 x 210 x 80mm / 17.3 x 8.3 x 3.2 inches

Certifications:

NRTL listed, MET-C listed
 Complies with EC directive: 2004/108/EC Electrical Equipment
 CEMarking; 2011/65/EU -RoHS2
 Conforms to the following standards: EN 61010-1:2010; EN 61326-1:2013;
 EN 55011:2009/A1:2010; FCC Part 15 Subpart C



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