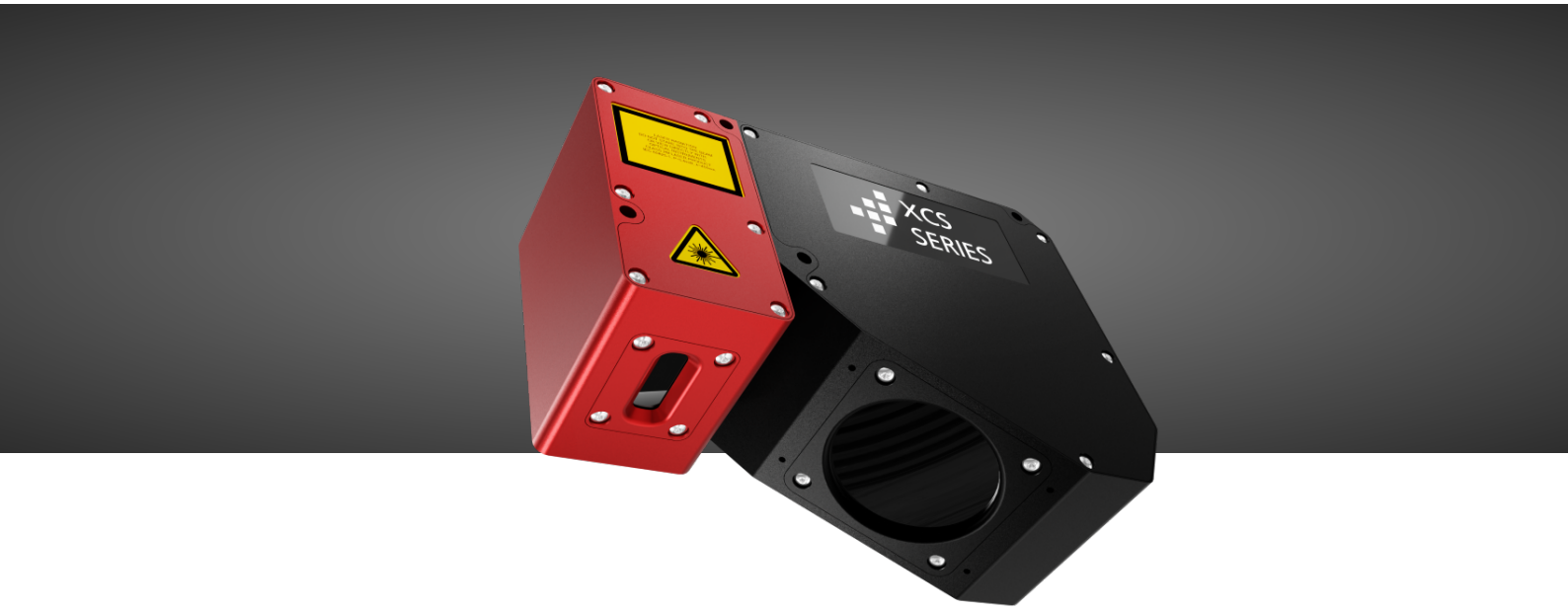
XCS Series DATA SHEET

PN: 602344998, Model: C6-S7-4090-XCS-28-53-146-SX-1G-405-3R



The new 3D sensors of the XCS series are particularly suitable for high-performance applications in the elec tronics industry thanks to their enormous precision and extreme speed. The sensors are characterized by an optimized laser with homogeneous thickness along the laser line, which guarantees precise detection of even the smallest structures. This enables high-precision inspection applications with high repeatability, which is ideal for the inspection of ball grid arrays (BGAs), among other things. The innovative clean beam function protects the laser from external interference and ensures a uniform intensity distribution, which further in creases reliability. The sensor's dual-head option eliminates occlusions and achieves profile speeds of up to 140 kHz with the 3070-WARP version, speeding up data analysis and increasing efficiency.

- **Unique 3D scan results without occlusion due to dual-head option and extremely high resolution**
- **High precision and repeatability thanks to high-quality laser line projection**
- **Two different sensor resolutions available (3070, 4090)**
- **Unrivaled optical resolution for electronic inspection (e.g. BGA inspection) with a field of view of up to 53 mm**
- **Highest inspection speed available with 3070 WARP sensor**

Visit our Website | Contact us | Visit our Product Documentation

AT - Automation Technology GmbH
Hermann-Bössow-Straße 6-8
23843 Bad Oldesloe

AT - Automation Technology, Inc.
380 Main Street, Suite 203
Stoneham, MA 02180

www.at-sensors.com
support@automationtechnology.de
+49 (0)4531 / 88011-42

Model Information

Model Name	C6-S7-4090-XCS-28-53-146-SX-1G-405-3R
Part Number	602344998

General Data

Points per Profile	4096
Triangulation Angle	28 °
Working Distance	146 mm
Laser Safety Class	class3r
Laser Wavelength	405 nm
Laser Output Power	-
Laser Line Width	-
Linearity Z-Axis	0.089 % of calibrated Z-Range
Profile speed with 200-row region	2092 Hz
Maximum profile speed	24875 Hz

Field of View

	Nominal	Near Field	Far Field
Scan Width	53.2 mm	51.3 mm	55.1 mm
X-Resolution	13 µm	12.5 µm	13.5 µm
Z-Resolution	0 µm	-	-

Z-Range

	Full	Near Field	Far Field
Z-Range	10 mm	5 mm	5 mm

Technical Specifications

Interface	Gigabit-Ethernet (1GigE)
Inputs	Encoder A+, A-, B+, B-, Z+, Z- (TTL level) Two freely configurable digital inputs (+5 to +24 VDC)
Outputs	Two freely configurable digital outputs (+5 to +24 VDC)
Power Supply	Sensor supply +10 to +24 VDC (max. +27 VDC) Laser supply +10 to +24 VDC
Housing	Anodized aluminum IP67 certified
Environmental Conditions	Operating temperature: 0 to +40 °C Storage temperature: -20 to +80 °C Relative humidity: 20 to 80 % (non-condensing)
Vibration Resistance	Sinusodial: DIN EN 60068-2-6:2008-10: 2g, 10-150 Hz Random: DIN EN 60068-2-64:2020-09: 7g, 10-500 Hz
Shock Resistance	DIN EN 60068-2-27: 2010-02: 15g, 3ms
Supported Standards	GenICam GigEVision
Firmware Features	RegionTracking, RegionSearch, Multiple Regions, MultiPart, AutoStart, HistoryBuffer, MultiSlope, MultiPeak
Software	SolutionPackage, MetrologyPackage, cxSDK for C, C++, .Net, Python, Matlab, Halcon

AT - Automation Technology GmbH
Hermann-Bössow-Straße 6-8
23843 Bad Oldesloe

AT - Automation Technology, Inc.
380 Main Street, Suite 203
Stoneham, MA 02180

www.at-sensors.com
support@automationtechnology.de
+49 (0)4531 / 88011-42