HEXAGON

Data sheet

HYPERSCAN SR

Key features

HYPERSCAN SR is a short-range optical tracking 3D scanning system designed for customers who need the stability of optical tracking within focused measurement volumes – prioritising fast deployment, mobility and ease of use over extended range.
With a fully embedded wireless architecture – enabling cable-free operation of both scanner and tracker – it supports agile, site-based inspection where power, space and mobility constraints are common. On-device processing, enabled by a proprietary intelligent processing unit, reduces dependence on workstation performance and improves responsiveness in real-world environments.

Flexibility

Fully wireless system
Cable-free operation of both scanner and tracker enables free movement during inspection.

Freedom of movement
Battery-powered wireless connectivity, with hot-swappable batteries, allows continuous scanning without fixed setups.

Lightweight, manoeuvrable design
A compact scanner and tracker make repositioning and transport quick and easy.

Target-free
No targets to place on the part, so setup is faster and you can scan surfaces that do not hold targets well.

Fast deployment
Minimises setup time so inspection can start immediately where the part is located.



Site efficiency

Dynamic real-time tracking
Maintains stable tracking during movement, enabling smooth scanning without interruption.

Stable operation in real environments
Designed to perform reliably in space-constrained or power-limited environments.

Scalable system architecture
Multi-tracker and dual-system configurations are supported to maintain workflow continuity across changing inspection needs

Galaxy LEAP
Shared positioning targets keep successive setups in one continuous coordinate system, so you can scan the whole part step by step.

IP50 rated
Protected against dust, so it keeps performing in real-world conditions, not only a clean lab.

Optimisation

Simple, intuitive workflows
Designed for routine inspection tasks without unnecessary complexity.

Intelligent voice assistant
Simplify user operation with voice control and enable the user to focus on what is needed.

Multi-mode scanning
Switch between standard, fine, single line, edge detection, and hole flash capture modes on one device.

Optional contact probing
Extends the workflow with optional contact measurement for hidden points and alignment tasks, using the same coordinate system.

Automation-ready
Seamlessly integrates with robotic arms or automated systems for unattended scanning with the AUTOMETRIC box and software.

Technical specifications

Models		HYPERSCAN SR
Scanning mode		Standard, single line, fine, edge detection and hole flash capture
Measurement rate		4 000 000 pts/s
Scanning area		Up to 600 × 700 mm
Scanning distance		Up to 4.2 m
Light source		34 blue laser lines + extra single laser line + 17 blue laser lines
Resolution		Up to 0.03 mm
Accuracy (scanner only) [1]		Up to 0.03 mm
Volumetric accuracy [2] (by tracking distance)	at 3.2 m (11.1 m^3)	0.06 mm
	at 4.2 m (25.9 m^3)	0.1 mm
Galaxy LEAP		Supported
Stand-off distance (by scanning mode)	Fine scan	150-250 mm
	Standard and single laser	200-450 mm
	Long range	200-750 mm
Tracker frequency		90 Hz
HYPERSCAN SR main unit	Weight (excluding battery)	1.3 kg
	Dimensions	235 × 203 × 230 mm
	Battery operating time	Up to 1 hour
HYPERTRACK SR main unit	Weight (excluding battery)	2.45 kg
	Dimensions	605 × 110 × 108 mm
	Battery operating time	Up to 2 hours
IP rating		IP50
Part size range (recommended)		0.1-6 m
Connection standard		USB 3.0 | WiFi 6
Working temperature		-10 to 40°C
Working humidity (non-condensing)		10 to 90%
Export formats		.stl, .ply, .obj, .txt, .xyz, .asc, etc., customisable
Compatible software		Hexagon (Inspire, PC-DMIS, DESIGNER, Geomagic, BendingStudio XT) Third-party software (PolyWorks, Metrologic and any other software that can import point clouds or STL file format)

Models	HYPERPROBE (Optional contact probing)
Probe accuracy [3]	0.03 mm
Volumetric accuracy [3]	0.06-0.1 mm
Measurement distance	1-4.2 m
Dimension of the probe	250 × 150 × 98 mm
Weight	0.72 kg
Working temperature	-10 to 40°C
Working humidity	10 to 90%
Connection standard	Bluetooth®
Number of targets	12 targets

Defining accuracy: Having a reliable basis for the stated accuracy of our optical tracking 3D scanner systems is vital. That is why we measure every scanner against our defined Scanner Acceptance Test. Based on VDI/VDE Guideline 2634 Part 3, this Scanner Acceptance Test uses these quality parameters to ensure users have full confidence in the accuracy of their Hexagon optical tracking 3D scanner.

[1] Probing error size [PS]: Local quality parameter. Deviation from the fitted sphere radius to the calibrated radius.
[2] Sphere spacing error [SSE]: Global quality parameter. Deviation from distance of fitted spheres to calibrated distance.
[3] Based on ISO 10360-12

Hexagon is the global leader in measurement technologies. Our precision measurement, positioning, and autonomous solutions transform the world's most vital industries. From aerospace & defence, automotive, construction, general manufacturing, to mining and more, we provide the confidence that customers rely on to build, navigate, and innovate.

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