Helius™

Smart lidar for smart machines

SENSOR INTELLIGENCE

Helius is a plug-and-play Smart Lidar system combining 3D sensing with edge computing. Integrating Cepton's high resolution sensors and a powerful edge computer running built-in Helius™ perception software, the system outputs real-time 3D object detection, tracking and classification data.

ADANCED TECHNOLOGY

With a proprietary MMT™ lidar architecture, Cepton's Vista sensors deliver industry-leading resolution in all lighting conditions for accurate object and behavior classification. The edge computer processes data locally for low-bandwidth data output.

SEAMLESS INTEGRATION

The Helius hardware unit is front facing and free of rotation for simple integration. It supports multi-sensor fusion for seamless tracking without loss of object identity between sensors. The browser-based software enables real-time monitoring and event zone creation without installations of additional software.

ANONYMIZED DATA

Helius' game-changing anonymized scanning allows for maximized protection of data privacy. It processes scanned data directly at its location and highlights only potential threats.

*The Helius system includes pre-installed Helius software.

SPECIFICATIONS – LIDAR SENSORS

Product	Vista-P60/P90
Max Detection Range	200m at 30% reflectivity
FOV (HxV)	60º x 22º / 90º x 27º
Operating Voltage	10V-15V
Power Consumption	12W (typical)
Operating Temperature	-40°C ~ +85°C
Environmental Protection	IP67
Laser Safety	Class-1 eye safe
Time Synchronization	GPS (PPS), Ethernet (PTP 802.1AS)
Size (WxHxD)	102 x 58 x 101 mm (without connector)
Weight	0.9 kg

Specifications are subject to change without notice.

SPECIFICATIONS – EDGE COMPUTERS

Product	Helius Node	Helius ProNode
Number of Supported Sensors	Up to 3	Up to 6
CPU	HMP Dual Denver 2/2 MB L2 + Quad ARM® A57/2 MB L2	Intel Core i5-8500T 2.1GHz
GPU	NVIDIA® Pascal™, 256 CUDA cores	Integrated Intel
System Memory	1 x 8GB 128-bit LPDDR4@1866 MHz onboard	2 x 8GB SO-DIMM DDR4 2666 – Wide Temp
System I/O Outlet	1 x HDMI 2.0 with 4K2K supported 2 x 10/100/1000 Mbps Ethernet (NVIDIA® + Intel® i210-IT) 1 x USB 2.0 4 x SMA-type antenna connector	1 x HDMI 2.0 / DVI-I / DP supported 2 x 10/100/1000 Mbps Ethernet 8 x PoE+ Ethernet 2 x USB 3.1 6 x USB 3.0
Storage	Onboard 32GB eMMC (via Jetson™ TX2) 1 x M.2 Key M 2280 with PCIe x4 Gen2 for NVMe SSD (optional)	1 x 64GB mSATA SSD – Wide Temp
Wireless Module	802.11ac WLAN, Bluetooth onboard with N Jack type antennas	Optional
Power Supply	12 VDC/2A	24VDC/5A
Operating Temperature	-30°C ~ +60°C	-40°C ~ +70°C
Humidity	10% to 95%, non-condensing	10% to 95%, non-condensing
Certifications	CE, FCC Class A	EMC: CE, FCC Class A Safety: LVD (EN60950-1) Railway: EN50155, EN50121-3-2 In-vehicle: E-Mark (E13, No. 10R-0515210)
Dimensions (WxHxD)	141.6 x 55 x 106 mm	242 x 77 x 173 mm
Net Weight	0.8 kg	3.6 kg
OS Support	Linux Ubuntu 16.04, 18.04	Linux Ubuntu 16.04, 18.04, Windows 10

Specifications are subject to change without notice. Full data sheets are available upon request.

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