

PRODUCT BRIEF

intel REALSENSE™

INTEL® REALSENSE™ DEPTH CAMERA D457

IP65 RATED GMSL/FAKRA. SECURE PERFORMANCE.

New GMSL/FAKRA IP65 Camera

The Intel® RealSense™ Depth Camera D457 is based on our popular longest range D455 camera with 3 global shutter wide Field of View sensors and IMU. D457 integrates the same D450 optical module from D455, along with a new Intel® RealSense™ Vision Processor D4 Board V5, embedding the D4 ASIC with a GMSL serializer and a FAKRA connector. The D457 has an IP65 rated enclosure which is dust tight and protected from projected water.

Perfect for robotic applications

The D457 depth camera adds a GMSL serializer and FAKRA connector to the Intel RealSense camera product line. GMSL/FAKRA is a lower power, lower ESD/EMI noise, lower latency, and a longer cable length interface compared with USB and higher bandwidth compared to Ethernet. For these reasons, this cable and connector standard is preferred for robotic applications. It requires a compatible host platform with a GMSL de-serializer and FAKRA connector. The USB connector is used for production line and debug only.

Supported by SDK 2.0 for Ease of Integration

With many different depth products joining the Intel RealSense family, we recognize that our customers want the ability to easily upgrade from one generation or product line to the next. The D457 is supported with the same cross-platform open-source Intel® RealSense™ SDK 2.0, with a separate kernel driver package for the GMSL serializer. It is tested and verified on leading platforms with GMSL de-serializer and FAKRA connector support.

D457



FEATURES

Use Environment: Indoor/Outdoor

IP Grade: IP65

Depth Technology: Active Stereo

Image Sensor Technology: Global Shutter; 3 μm x 3 μm pixel size

Depth Field of View (FOV), H x V: HD 16:9 87° x 58° ($\pm 3^\circ$)

Depth Output Resolution & Frame rate: Up to 1280 x 720. Up to 90 FPS.

Minimum Depth Distance (Min-Z): 52cm

Ideal Range: 60cm to 6m*

RGB Resolution: Up to 1280 x 800. Up to 60 FPS

RGB Field of View (FOV), H x V: 90° x 65° ($\pm 3^\circ$)

MAJOR COMPONENTS

Camera Module: Intel® RealSense™ Module D450

Vision Processor Board: Intel® RealSense™ Vision Processor Board V5

Interface: GMSL (Gigabit Multimedia Serial Link) Serializer

PHYSICAL

Form Factor: Camera Peripheral

Connectors: FAKRA (USB 3 for debug only)

Length x Height x Depth: 124 mm x 29 mm x 36 mm

* Stereo cameras can see further but accuracy degrades with distance and varies depending on scene and lighting conditions

© Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. Other names and brands may be claimed as the property of others.