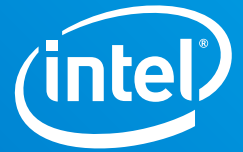


# PRODUCT BRIEF

Intel® RealSense™ Depth Camera D455



# Twice the range. Better performance.

Introducing the latest addition to the family, the Intel® RealSense™ Depth Camera D455.



## New Depth Camera

The D455 is the fourth in the D400 series, designed from feedback and knowledge gained from over 10 years of stereo camera development. Intel RealSense stereo cameras deliver excellent depth information in a variety of use cases. Stereo cameras work equally well indoors and outdoors, making them the ideal for robotics, drones, and more. Existing customers will find it easy to switch to the D455 using our Intel® RealSense™ SDK 2.0 with virtually zero development time.

## Longer Range

The D455 extends the distance between the depth sensors to 95 mm which improves the depth (Z) error\* to less than 2% at 4 m. The D455 improves on the design of the D435i with several changes. The wider baseline provides better accuracy at the same range of the D415/D435/D435i. To improve the correspondence between the depth and RGB images, the RGB sensor includes a global shutter to match the depth and both have an 86° field of view.

## Feature Complete

The camera also integrates an IMU to allow your application to refine its depth awareness in any situation where the camera moves. Depth calculations are done on the internal vision processor saving the host processor for other tasks. The D455 is powered via a USB 3.1 connection and has a similar power consumption to the D435i.

## Perfect for many Different Uses

The D455 provides accuracy and flexibility for a variety of use cases. The longer range and better accuracy allow for more reaction time for collision avoidance and object detection in robotics. Patient monitoring is improved since the D455 covers a bigger area of the scene and gives greater accuracy. Volumetric scanning can be real-time with multiple cameras from a greater distance. Anywhere you use Intel RealSense cameras today, consider improving the performance of your application with the Intel RealSense depth camera D455.

## Build once, Deploy to any Device

With many different depth products joining the Intel RealSense family, we recognized that our customers would always want to be able to easily upgrade from one generation or product line to the next. The SDK 2.0 is designed to allow seamless transitions between our cameras.

The D455 uses our open source Intel RealSense SDK 2.0 which is platform independent, supporting Windows, Linux, Android and MacOS. This includes wrappers for many common platforms, languages and engines, including Python, ROS, C/C++, C#, Unity, Unreal, OpenNI and NodeJS.

### INTEL® REALSENSE™ DEPTH CAMERA D455 FEATURES AT A GLANCE

FEATURES	Specifications
Depth FOV (H × V)	86°±3° × 57°±3°
Depth resolution	Up to 1280 × 720 depth resolution with Global Shutter
Depth frame rate	Up to 90 frames per second
RGB frame rate	Up to 90 frames per second
RGB resolution	Up to 1280 × 800 RGB resolution with Global Shutter
RGB FOV (H × V)	86° ±3° × 57° ±3°
Inertial measurement unit	Bosch BMI055*
Recommended Range	From 0.4 to 6 m
Connection type	USB-C** 3.1 Gen 1
Dimensions	124 mm × 26 mm × 29 mm
Mounting	Two M3 × 0.5 mounting points, and one 1/4-20 UNC thread mounting point
Use environment	Indoor/Outdoor



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\*Please see the Intel RealSenseDepth Camera D455 datasheet for further details on operating conditions and performance data

\*\*Other names and brands may be claimed as the property of others.