



RealSense™ Product Family

D500 Series

Specification Update

Revision 001

July 2025

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Revision History

| Revision Number | Description | Revision Date | Comment |
|-----------------|---------------------------------|---------------|---------------|
| 001 | Firmware 7.56.19918.835 Release | May 2025 | First D555 FW |

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1 Preface

This document lists the firmware versions supporting the RealSense™ Product family D500 Series.

1.1 Terminology

Errata are design defects or errors. These may cause behavior to deviate from published specifications.

Specification Changes are new or modified specifications introduced in published firmware versions.

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2 Summary Table of Changes

The following tables indicate the errata and specification changes which apply to the RealSense Products may fix some of the errata in a future release of the component and account for the other outstanding issues through documentation or specification changes as noted.

2.1 Codes Used in Summary Tables

Status

| | |
|---------|--|
| Open: | In engineering assessment |
| Fixed: | This erratum has been previously fixed |
| No Fix: | There are no plans to fix this erratum |

Table 2-1. Errata Summary Table

| Number | Status | Errata |
|------------|--------|---|
| | Open | USB is supported for debug and production line or HW Sync. |
| RSDEV-2744 | Open | External HW Sync is supported on HW, SW support is missing. Refer to Appendix |
| RSDEV-3192 | Open | Calibration Data is missing from Viewer |
| RSDEV-3293 | Open | RGB-Depth UV mapping impact by thermal loop |
| RSDEV-3188 | Open | ~0.5pixel UV movement to the right for both X and Y axis |

Table 2-2. Specification Updates

| Number | Specification Changes |
|-------------------------|--|
| Firmware 7.56.19918.835 | First FW version supporting RealSense™ camera D555. Note, this FW is installed in the camera and cannot be downloaded. |
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3 Errata

3.1 Open

| | |
|---------------------|---|
| RSDEV-3192 | Calibration Data is missing from Viewer |
| Problem: | The Viewer is missing the display and restore calibration data for D555 |
| Implication: | Cannot restore calibration data to default |
| Workaround: | Contact customer support if needed to enable via command line, or wait for the next release |
| Status: | Refer the <i>Summary Tables of Changes</i> |

| | |
|---------------------|--|
| RSDEV-3293 | RGB-Depth UV mapping impact by thermal loop |
| Problem: | RGB-Depth UV mapping pixel error is higher when Thermal Loop (TL) is enabled |
| Implication: | UV mapping between RGB and depth is less accurate |
| Workaround: | Disable TL, which affects the Z-accuracy at high ambient temperature |
| Status: | Refer the <i>Summary Tables of Changes</i> |

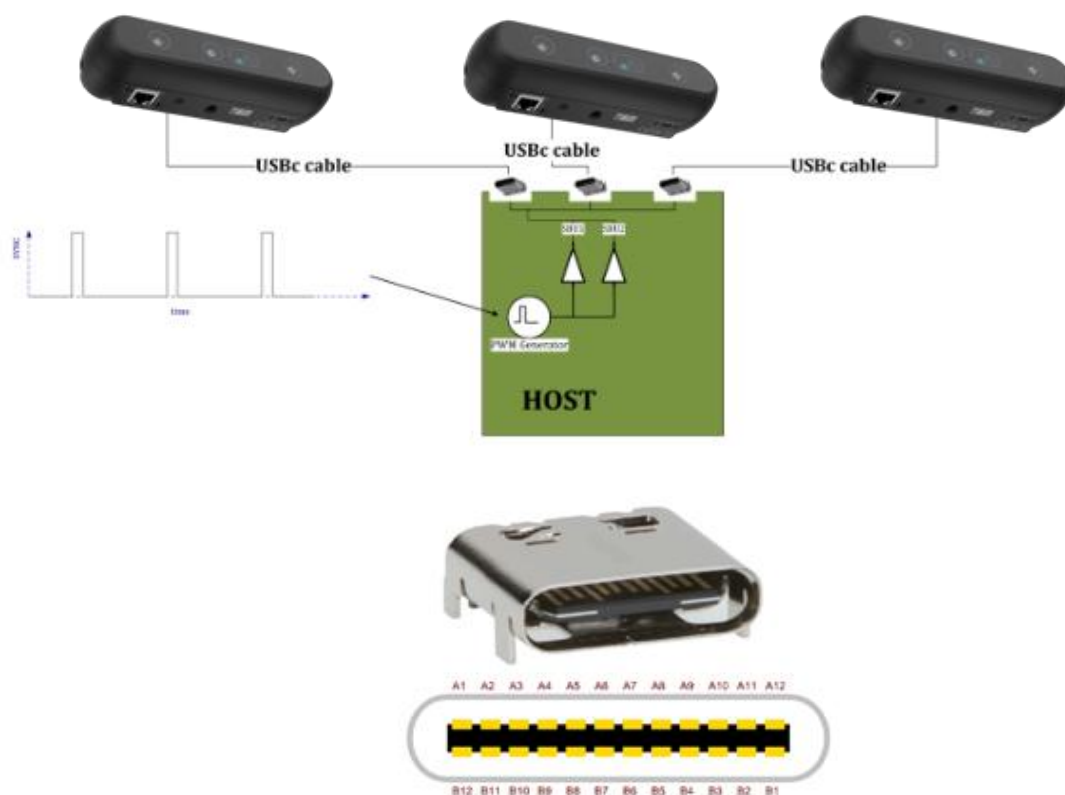
| | |
|---------------------|---|
| RSDEV-3188 | ~0.5pixel UV movement to the right for both X and Y axis |
| Problem: | The calibration conventions in D555 differs from D4xx. In D4xx devices the origin of the pixel is the upper left corner, while in D555 it is the center of the pixel. |
| Implication: | Texture map misalignment by 0.5 pixel horizontally and vertically in registered depth and texture PointCloud scenarios |
| Workaround: | None. Users can use external tools/libraries for Texture Mapping |
| Status: | Refer the <i>Summary Tables of Changes</i> |

3.2 Fixed

| | |
|---------------------|--|
| | |
| Problem: | |
| Implication: | |
| Status: | Refer the <i>Summary Tables of Changes</i> |

4 Appendix

4.1 External HW Sync



- Multiple cameras can be connected to one host and will be able to stream asynchronously independent data
- The cameras can be hardware synchronized (HW sync) so they capture at exactly the same time and rate
- The host will be the synchronization master, and the cameras will be working in slave mode
- An SDK API will be used to configure the cameras in slave mode
- The main difference between the D400 (Vision Processor V1 and V3) HW sync and D555:
 - D400 cameras HW sync use the 9pin aux connector—pins 5 (SYNC) and pins 9 (Ground)
 - D555 will use the USB type C connector 2 SB (sideband) pins, requiring connecting a USB type C connector on the host side as well
- Note: The RGB color sensor is synchronized with the depth sensors (left and right) when they stream at the same FPS