

P-Board: Hardware MIPI CSI-2 kit for the evaluation and integration of promodules on embedded processing platforms



Features

- Comprehensive hardware kit including:
 - Promodule board with input connector for camera modules and FFC output connector.
 - Ribbon cable to connect directly to embedded processing boards.
- Instant integration onto embedded processing platforms:
 - Native MIPI CSI-2 output and I²C communication interfaces.
 - FFC connector and associated cable provided for direct plug-and-play connection to the platform.
 - Various Linux drivers are available for free download on st.com to make software integration instant.
- A single and reusable solution for integrating all ST BrightSense solutions:
 - A single input connector that supports all ST promodules
 - Plug-and-play input connector to change sensor or lens instantly.
 - Promodule to be ordered separately.

Description

The P-Board is a versatile hardware kit for integrating seamlessly any ST BrightSense image sensor in the form of a promodule on embedded processing platforms. This comprehensive development solution includes a promodule board with MIPI CSI-2 output and a ribbon cable.

Featuring a MIPI CSI-2 output and I²C communication interface, the P-Board is natively compatible with embedded vision platforms. Hardware integration is immediate by plugging the standard FFC cable provided from the P-Board to the embedded processing board. Software integration is just as simple by using the various Linux drivers available for free download in the [Imaging Software](#) section of our website. This combination of hardware and software tools makes the P-Board the ideal development solution for Linux environments.

Relying on an FFC-to-board input connector, the P-Board allows users to integrate turnkey promodules instantly in a plug-and-play approach. The common connector and pinout shared by all ST promodules allow users to use the P-Board with any promodule. This convenient plug-and-play approach offers the opportunity to reuse this affordable kit at any time to integrate various sensor and lens combinations in the form of an evaluation camera module. With the P-Board, benefit from the flexibility to test or integrate various sensors by just plugging and unplugging camera modules.



| Order code | Description |
|----------------|----------------------|
| STEVAL-CAM-M01 | P-Board hardware kit |

Figure 1. Typical setup for using the P-Board on embedded processing platforms

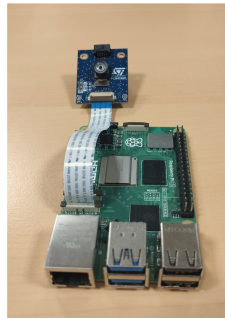


Figure 2. Content of the P-Board deliverable

| Item 1: P-Board | Item 2: FFC cable |
|-----------------|-------------------|
| | |

Table 1. Main technical specifications

| Category | Item | Parameter | Specification |
|-------------------|-----------------|-----------------------------|--|
| Electronics | Board input | Connector type | Board to board/FFC |
| | | Pinout | 30 pins |
| | | Connector reference | BM28B0.6-30DP/2-0.35V by Hirose |
| | | Image input format | MIPI CSI-2 |
| | | Control interface | I ² C |
| | | Compatible evaluation tools | CAM-55G0, CAM-55G1, CAM-56G3, CAM-66GY |
| | Board output | Connector type | FFC |
| | | Pinout | 22 pins |
| | | Connector reference | FH12-24S-0.5SH(55) by Hirose |
| | | Image output format | MIPI CSI-2 (1 or 2 lanes) |
| Control interface | | I ² C | |
| Cable | Cable pinout | 22 pins ⁽¹⁾ | |
| | Cable reference | 687722050002 by Würth | |
| Mechanics | Board | Dimension - L x H x W | 30 x 35 x 11 mm |
| | Cable | Length | 10 cm |

1. Other pinouts (ex: 15 pins) can be supported by plugging different off-the-shelf cables available from various suppliers.

Revision history

Table 2. Document revision history

| Date | Version | Changes |
|-------------|---------|-----------------|
| 11-Jun-2024 | 1 | Initial release |

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