

Parallel Monitoring Board **SVP-01-U**

Overview

SVP-01-U is a parallel image capture board for displaying and recording video signals of the parallel interface. This board can output signals to DisplayPort or USB3.0 (UVC/PC).

Characteristics

- Support parallel input up to 24bit 150MHz
- Output to USB3.0 (UVC) or DisplayPort
- Compatible with parallel output deserializer



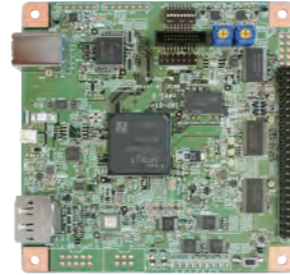
Parallel Image Generator **SVP-01-G**

Overview

SVP-01-G is a parallel image generator board for converting video signals input via USB3.0 or DisplayPort to parallel interface. Output timing such as blanking area and frame rate can be set as desired for flexible camera emulation.

Characteristics

- Support parallel output up to 24bit 150MHz
- Input from USB3.0 (Vendor Class Driver) or DisplayPort
- Compatible with parallel input serializer



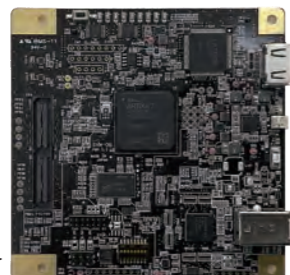
MIPI Monitoring Board **SVM-06**

Overview

SVM-06 is a MIPI image capture board for displaying and recording video signals of the MIPI interface. This board can output signals to HDMI monitors and USB 3.0 (UVC/PC).

Characteristics

- Support MIPI CSI-2 up to 1.5Gbps/lane
- Support Embedded Data Capturing
- Simultaneous output to USB 3.0 (UVC) and DisplayPort
- Compatible with MIPI CSI-2 output deserializer



MIPI Signal Generator **SVO-03-MIPI**

Overview

SVO-03-MIPI is a MIPI signal generator board for converting video signals input via USB3.0 or HDMI to MIPI interface. Output timing such as blanking area and frame rate can be set as desired for flexible camera emulation.

Characteristics

- Support MIPI CSI-2 up to 950Mbps/lane
- Input from USB 3.0 (Vendor Class Driver) or DisplayPort
- Compatible with MIPI CSI-2 input serializer



Image Recorder **SVP-01-V**

Overview

SVP-01-V is a parallel signal recorder board for converting video signals from the parallel interface to USB3.0 (Vendor Class)/PC. This board can also output video to DisplayPort monitors.

Characteristics

- Support up to 24-bit video signal recording and 16-bit general parallel signal capturing
- Output to USB3.0 (Vendor Class Driver) or DisplayPort (Video signal only)
- Best suited for user custom solutions



Option Boards ※build-to-order

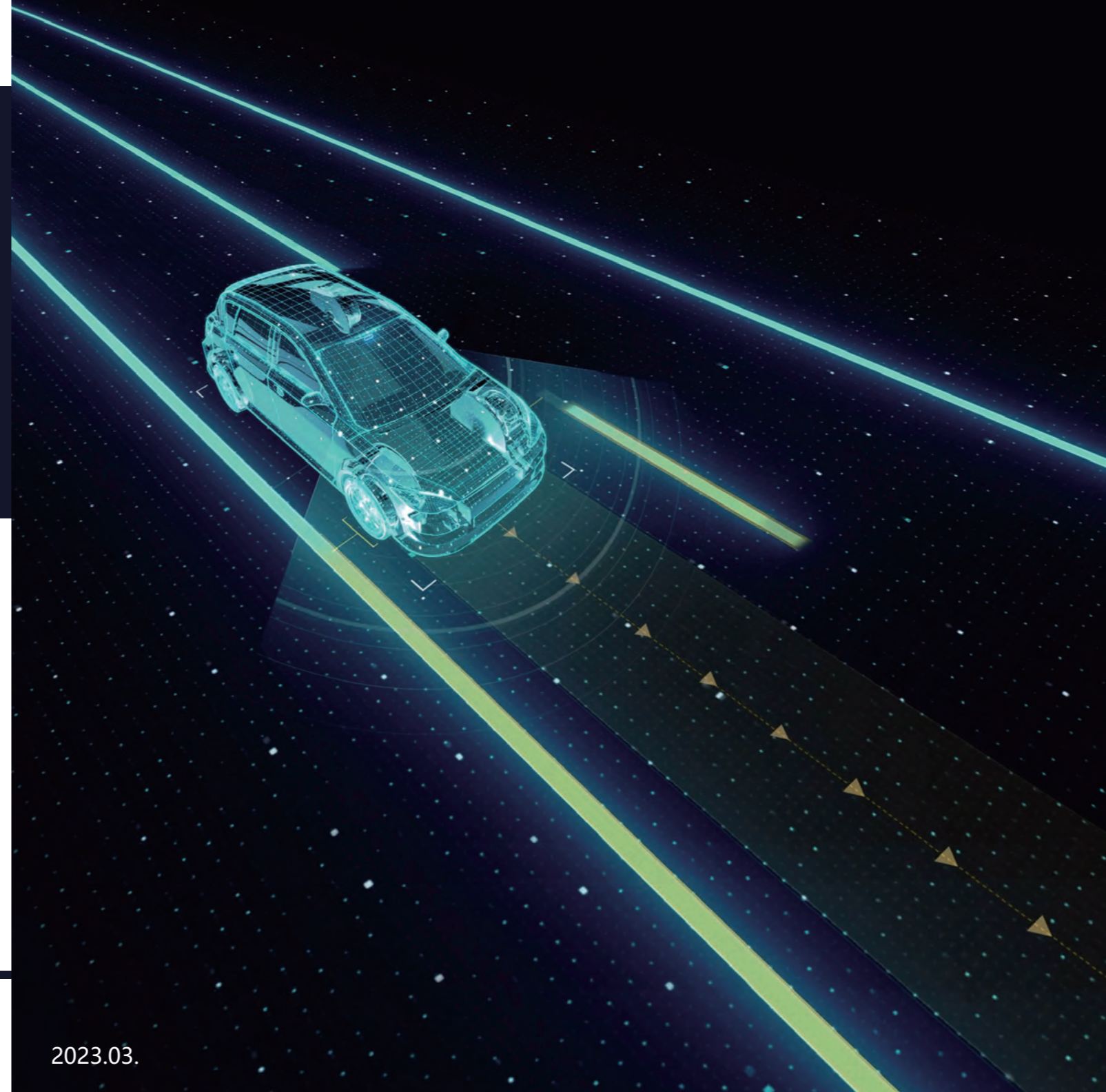
- Serializer Board *GMSL2, FPD-LinkIII, GVIF2 etc.
- Deserializer Board *GMSL2, FPD-LinkIII, GVIF2 etc.
- GW5 Series Development Board : GW5 Board
- Connection Board for Jetson nano : NV011-D
- Connection Board for OmniVision MIPI Image Sensors : NV011-V



GMSL Deserializer Board



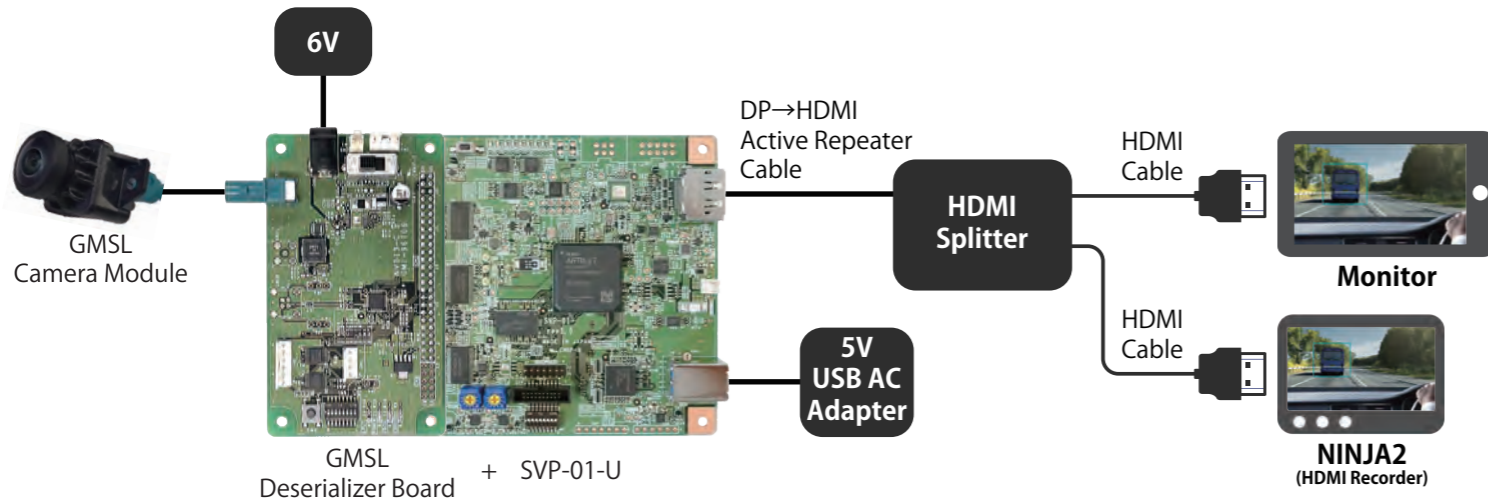
GW5 Board



CASE 1 GMSL Camera Image Output to HDMI Monitor/Recorder

Parallel Monitoring Board SVP-01-U can output automotive camera images such as GMSL, FPD-LinkIII to HDMI or USB3.0 by using with our deserializer boards. As shown below, GMSL camera images are displayed on an HDMI monitor and NINJA2 (HDMI recorder) without a PC.

With I2C auto-setting function for an image sensor and a deserializer, camera images can be displayed just by turning on the power.

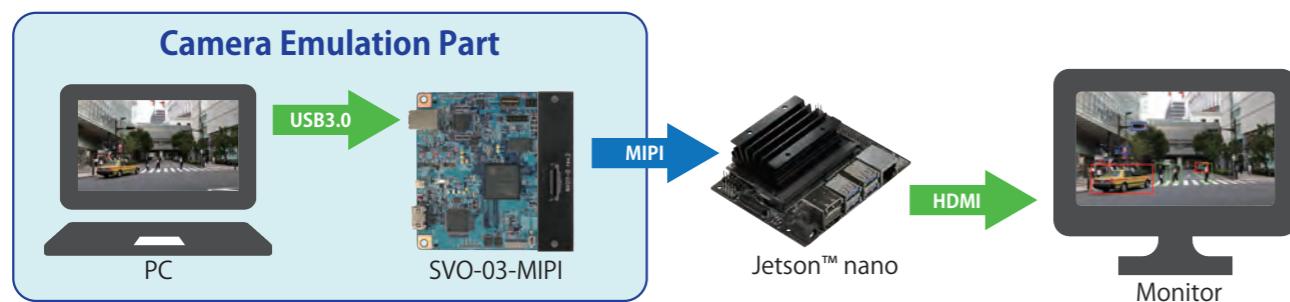


SVP-01-U can capture various camera images by changing the initial settings file and the deserializer board. It can also be used as a logger of automotive camera images while driving. I2C control is supported with an application when connected with a PC, allowing sensor/SerDes register to read/write easily. It makes ideal as a camera inspection jig.

CASE 2 Raspberry Pi Camera Emulation SVO-03-MIPI + Jetson Nano Video Input

MIPI Generator SVO-03-MIPI can input video to Jetson Nano instead of a Raspberry Pi camera and check the video on a monitor connected to Jetson Nano. You will find that the board can be used universally as a video source in place of a MIPI camera.

Uncompressed AVI file is supported as a video source. Video streamer application is provided free of charge.

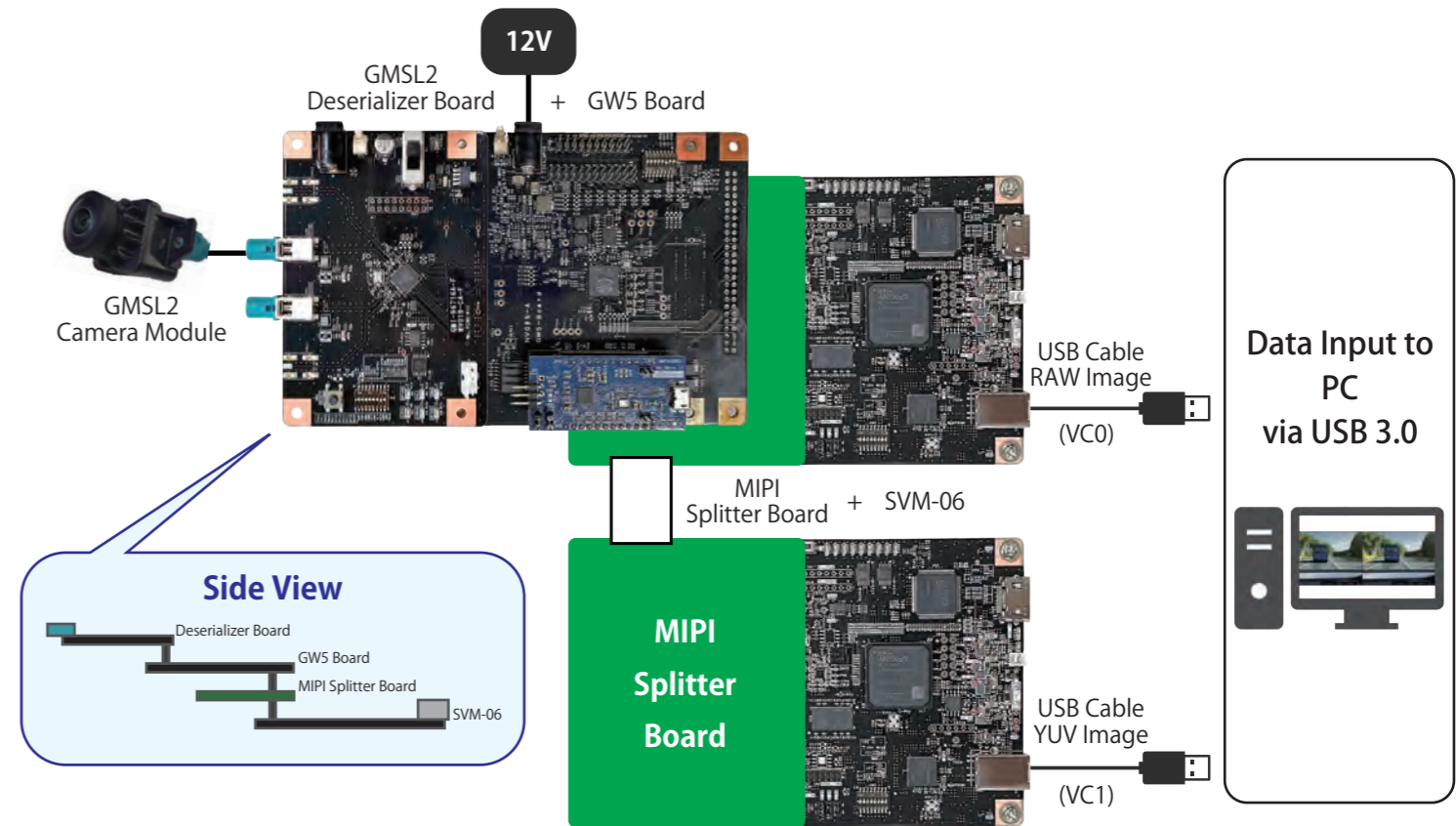


SVO-03-MIPI can emulate a camera. You can use it as an alternative video source for debugging the ISP and the ECU, etc.

CASE 3 5.4MP GMSL2 Camera + GEO Semiconductor GW5410 Output MIPI CSI-2 Virtual Channel Simultaneous Capturing

Using MIPI Monitoring Board SVM-06 with IMX490 and GW5410 allows to display both RAW video and YUV video. Multiple daisy-chain-connected SVM-06 can capture any virtual channel stream selectively and simultaneously.

Two SVM-06 capture RAW(VC0) and YUV(VC1) respectively. Power supply for the camera is connected to the GW5 board. FT4222 module enables GEO apps to access GW5410.



The GW5410 outputs RAW12 and YUV422 8bit data together. Each video is 2880x1860, 30fps and both of RAW and YUV are displayed on one PC.

[About MIPI Signal Split]

