

NV072-A
(MIPI-Uni-Sp)
Hardware Specification

Rev. 2

NetVision Co., Ltd.

Revision History

Rev.	Date	Description	Author
Rev. 1	2026/06/02	Initial release (Translated from Japanese Rev.2)	Kimura
Rev. 2	2026/10/08	Translated from Japanese Rev.4	Kimura

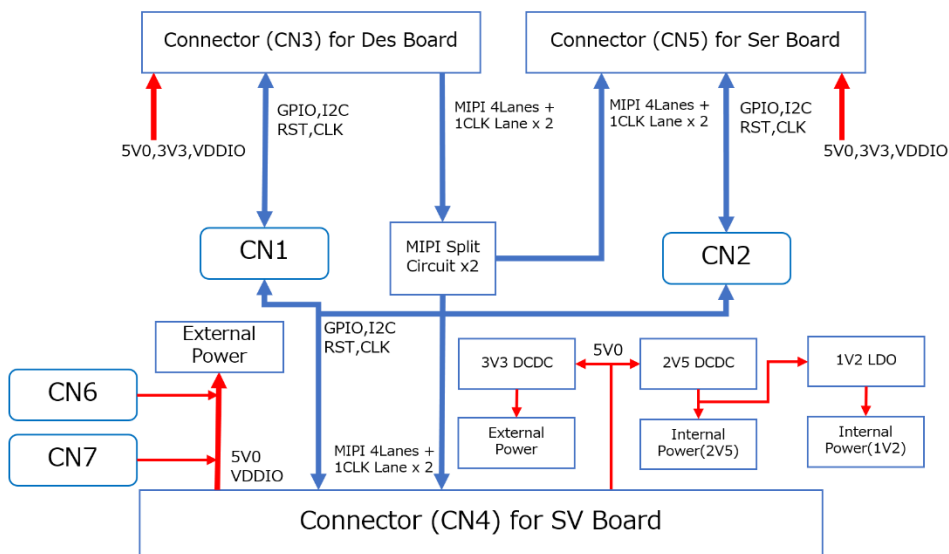
Index

1.	Overview	2
2.	Board Layout	3
2.1	Connector Placement	3
2.2	Board Photos	4
3.	Details	4
3.1	Connector List	4
3.2	Connector Details	5
3.3	Spec	9
3.4	MIPI Branching Circuit on the Extension Port	9
3.5	SerDes Board Connection	9
3.6	Power Supply from the SV Board	9
3.7	Standalone Operation Settings	9
4.	Main Specifications	10

1. Overview

This document is the hardware specification for the NV072-A MIPI-Uni-Sp. The NV072-A board (hereafter referred to as "this board") receives MIPI CSI-2 signals input from the SAMTEC connector, splits them into two paths on the on-board circuit, and outputs them to each connector. By connecting to an SV board, you can monitor the captured image and output the MIPI CSI-2 signal to the target.

- Block Diagram of this board

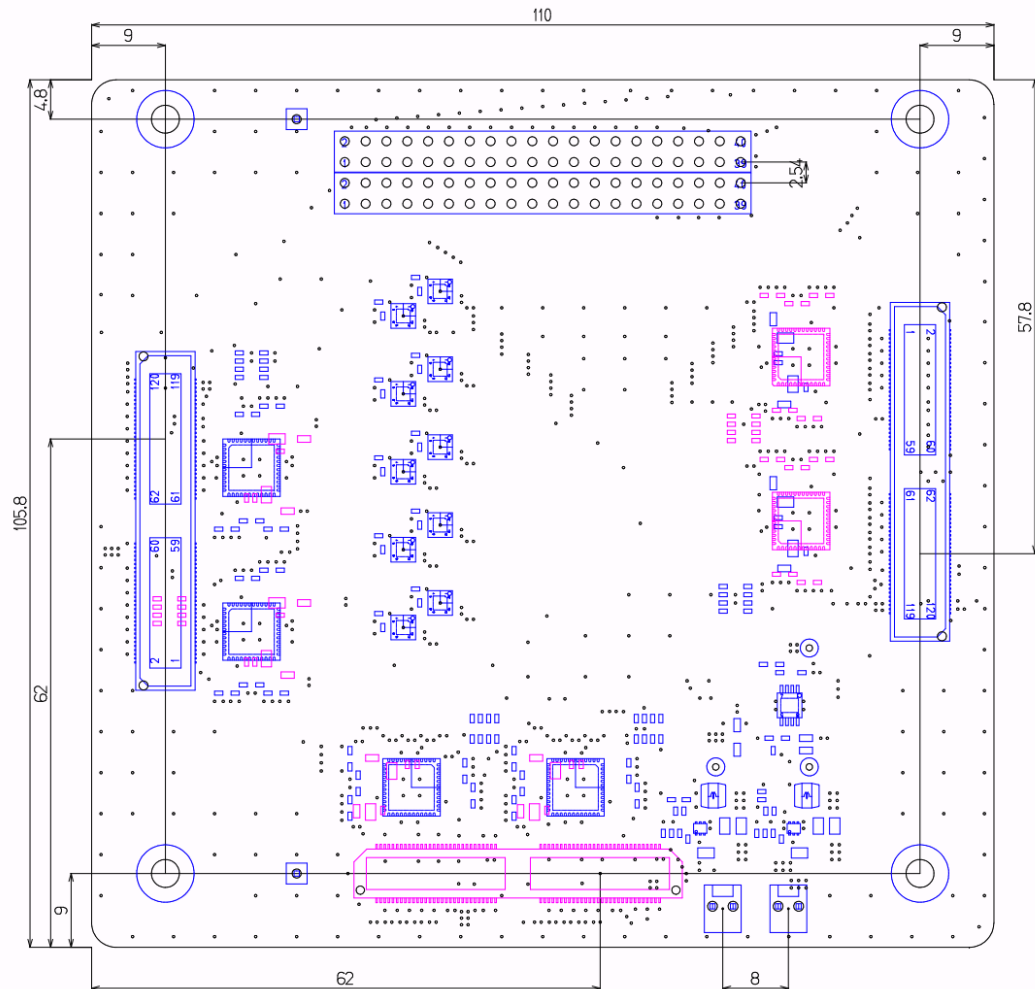


Power for this board is supplied from the video input board through CN4. This board requires three power rails — 3.3V, 2.5V, and 1.2V — which are generated on the board by the DCDC / LDO as shown in the figure above. For standalone operation of this board, power is supplied through CN6/CN7. For details, refer to "Standalone Operation Settings".

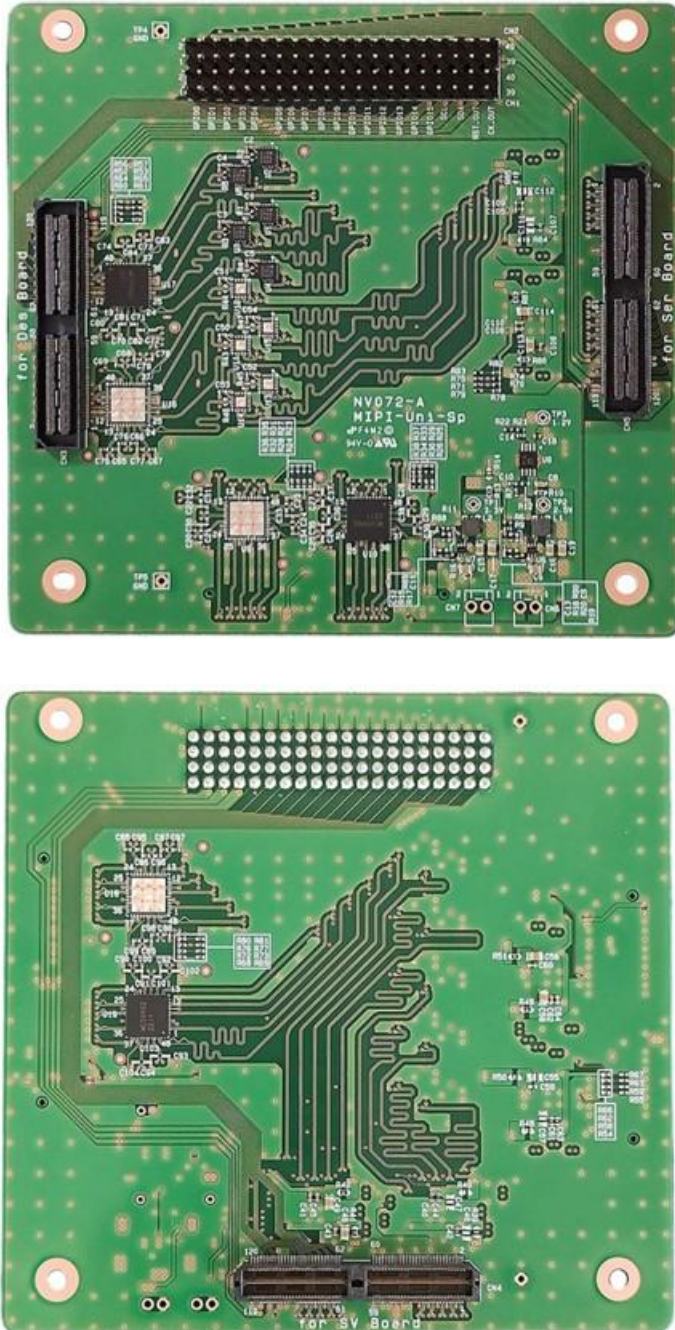
2. Board Layout

2.1 Connector Placement

The figure below shows the placement of the main connectors on this board. For connector pin numbers and pin assignments, refer to "Connector List" and "Connector Details".



2.2 Board Photos



- The photo shows the 1ch branching circuit version.

3. Details

3.1 Connector List

The connectors mounted on this board are listed below.

- Connector List

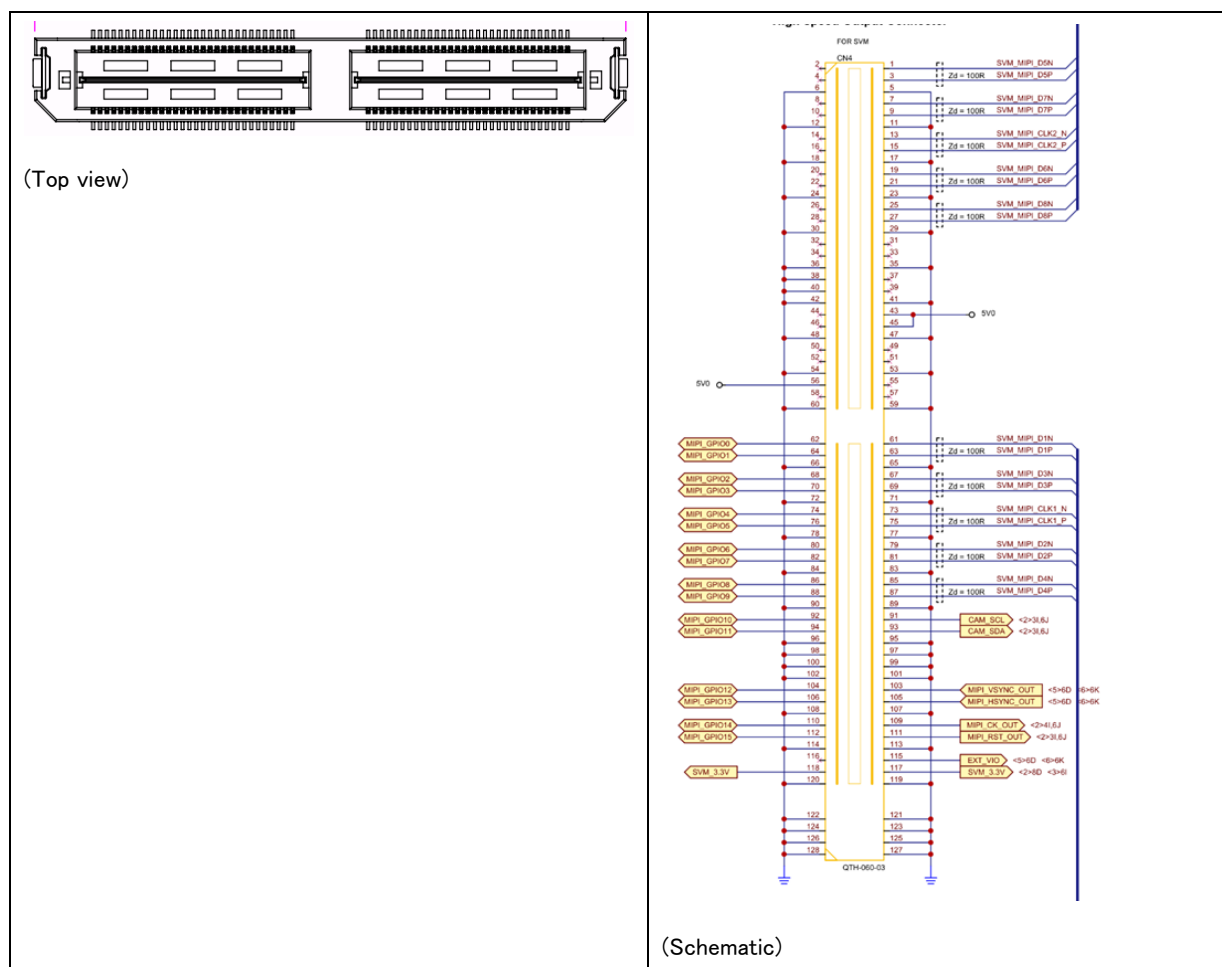
CN#	Mounting	Use	Part Number
CN1		GPIO extension connector 1	PRPC020DAAN-RC
CN2		GPIO extension connector 2	PRPC020DAAN-RC
CN3		Target connector 1 (MIPI signal input)	QSH-060-01-L-D-A
CN4		SV board connector	QTH-060-01-L-D-A
CN5		Target connector 2 (MIPI signal output)	QSH-060-01-L-D-A
CN6	Not mounted	5.0V input connector for standalone operation Do not supply power through this connector while an SV board is connected.	22-04-1021
CN7	Not mounted	VDDIO input connector for standalone operation Do not supply power through this connector while an SV board is connected.	22-04-1021

- The pin assignment of CN4 is compatible with the SV board. For details, refer to the hardware specification or the I/F section of the schematic.
- For pin assignments, refer to the schematic.

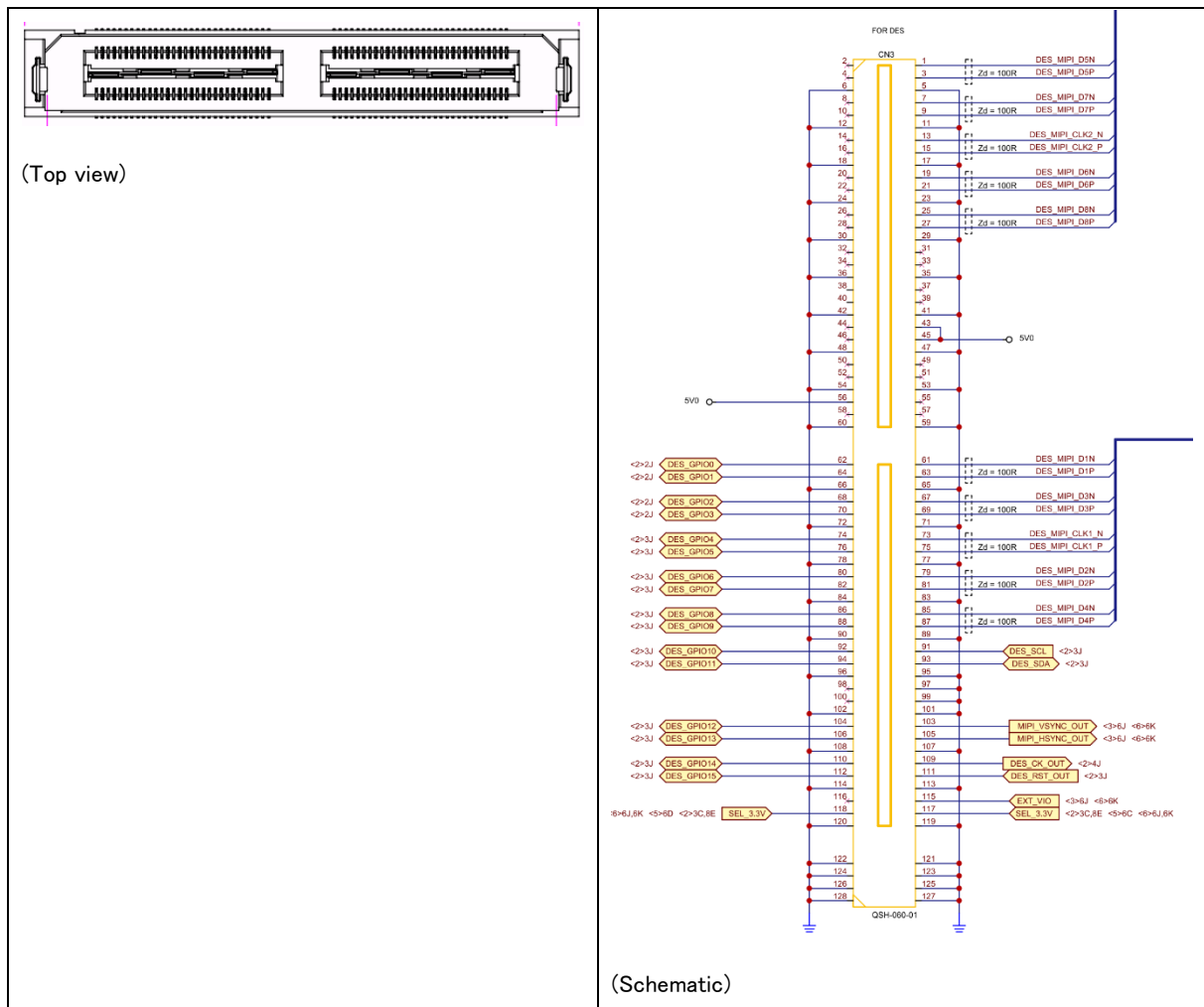
3.2 Connector Details

This section shows the top views (outline) of the connectors on this board and their pin assignments (excerpted from the schematic). For wiring of each connector, refer to the schematic.

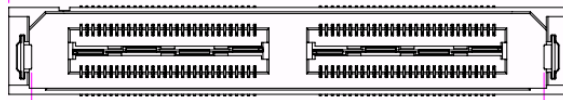
- CN4 (QTH-060-01-L-D-A)



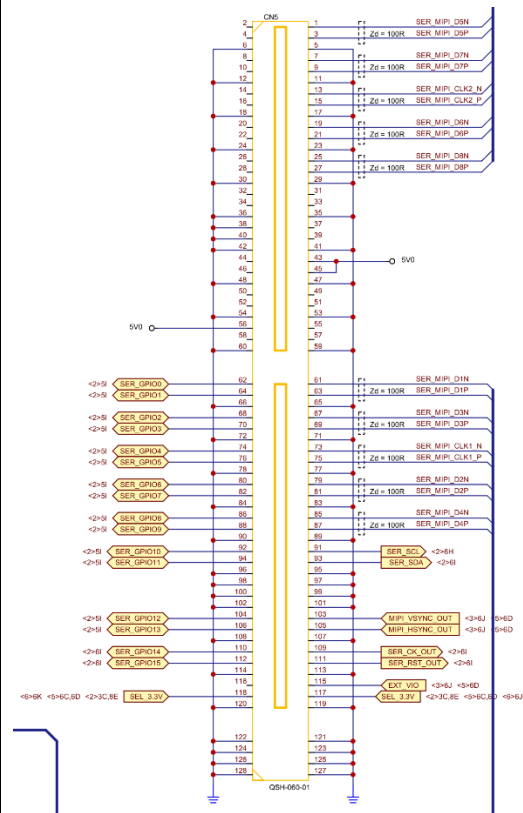
- CN3 (QSH-060-01-L-D-A)



- CN5 (QSH-060-01-L-D-A)

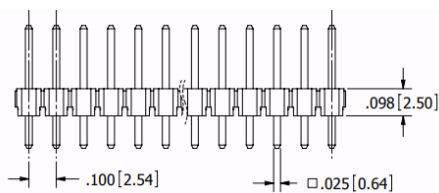


(Top view)

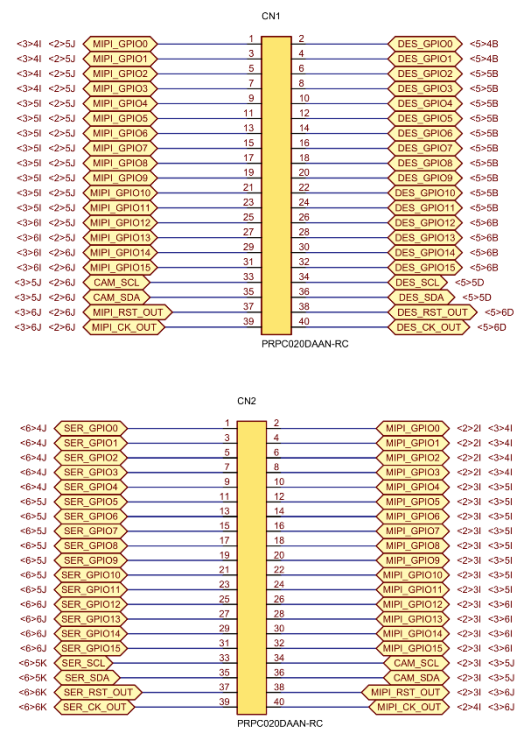


(Schematic)

- CN1/CN2 (PRPC020DAAN-RC)



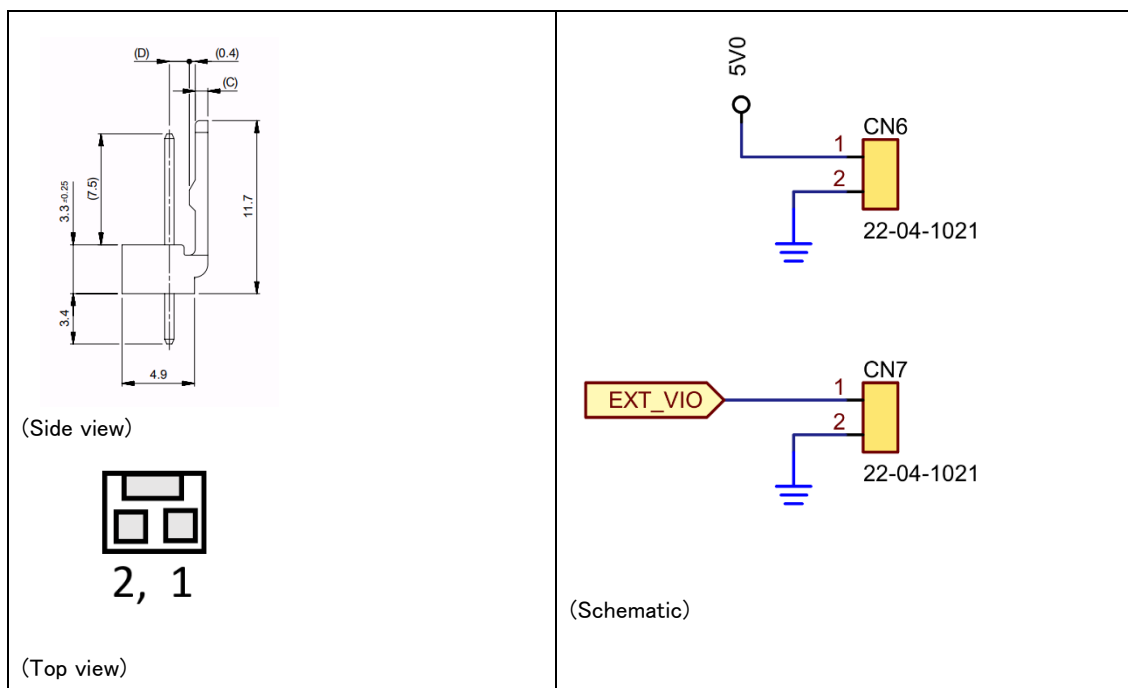
(Side view)



	(Schematic)
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- CN1 and CN2 are each implemented as a 2.54mm pitch pin header.
- By default, the following pins are shorted: CN1 SCL (Pin 33–34) / SDA (Pin 35–36), and CN2 SCL (Pin 33–34) / SDA (Pin 35–36).

▪ CN6/CN7 (22-04-1021)



3.3 Spec

Supports data rates of up to 2.5 Gbps per lane.

3.4 MIPI Branching Circuit on the Extension Port

By default, the branching circuit on the extension port is not mounted.

3.5 SerDes Board Connection

When connecting our SerDes boards, connect a deserializer board to CN3 and a serializer board to CN5.

3.6 Power Supply from the SV Board

When using both the standard-port and the extension-port MIPI signal branches simultaneously, or when using this board with the SVM-06, supply power from CN1 (the external power input connector) on the SV board.

3.7 Standalone Operation Settings

To operate this board in standalone mode, power must be supplied through CN6 and CN7. Supply 5.0V to CN6 and VDDIO (1.8V to 3.3V) to CN7. When power is supplied through CN6 and CN7, do not supply power through CN4. Also, pay attention

to the pin assignments of CN6 and CN7.

4. Main Specifications

Item	Value	Remarks
Board dimensions	110.0 x 105.8 mm	Excludes connectors.
I/O voltage	DC +1.8V to 3.3V	Match the I/O voltage with the target.
Image input	MIPI CSI-2 1-4 Lanes + CLK	Input from CN3.
Image output		Output from CN4 and CN5.

- The specifications above apply only to model NV072-A MIPI-Uni-Sp.
- Hot-plugging is not supported. Do not connect or disconnect connectors while the board is powered ON.
- When connecting our SerDes boards, pay attention to the connector positions.