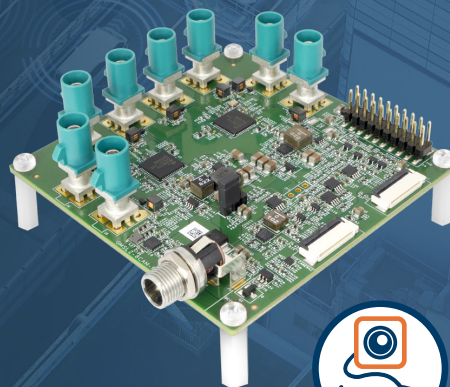# TechNexion
INNOVATORS OF TECHNOLOGY

VL-GM2-8CAM-RPI22

- Easily connect up-to 8 GMSL2 cameras to Nvidia Orin, NXP i.MX95 or Renesas platforms
- Supports Frame-sync / Time-Sync protocol
- Readily available Software driver + VizionSDK
- Ideal for AMR, Robotics, UAV, and automotive applications

VizionSDK   **VizionViewer™**

Information

Deserializer	MAX96724
Frame Sync Support	Sync mode / non-Sync mode support

Interface

Support Camera Quantity	Up to 8 Cameras
Camera Connector	FAKRA SMB Jack Z-Code
DIO Connector	22 Pin Standardized Connector
	20-Pin Expansion

Power Specifications

Power Connector	DC Jack
Power Input	10V~30V DC
Power Consumption	Depending on Configuration

Software Support

Platform Support	NVIDIA Jetson Orin Nano / NX
Operation Systems	Linux
SDK	VizionViewer™ / VizionSDK

Environmental and Mechanical

Dimension	79 x 80 mm
Weight	64 grams
Operating Temperature	-30°C to +70°C

Commercial Information

Brand	TechNexion
Country of Origin	Taiwan
HTSN	8473.30.1180
ECCN	EAR99
REACH / RoHS	YES

Dimensions (units in mm)

80.00
74.00
79.00
73.00
1.60
18.85
2.65

4x ø3.20
4x ø5.5 (Pad)

2x 2FPDHM-03 -222-A01(MW297)

DC JACK

8x 59S10M-40MT5 (ROSENBERGER)

Block Diagram

22 Pin RPI Connector CAM1

MIPI CSI-2
GPIO
I2C

MAX96724
GMSL2 Port A

A1
A2
A3
A4

22 Pin RPI Connector CAM2

MIPI CSI-2
GPIO
I2C

MAX96724
GMSL2 Port B

B1
B2
B3
B4

Jumper
J9

20 Pin Expansion Header

5V/2A
12V

GPIO
I2C

12V/3A

DC Jack
10-30V / 3A
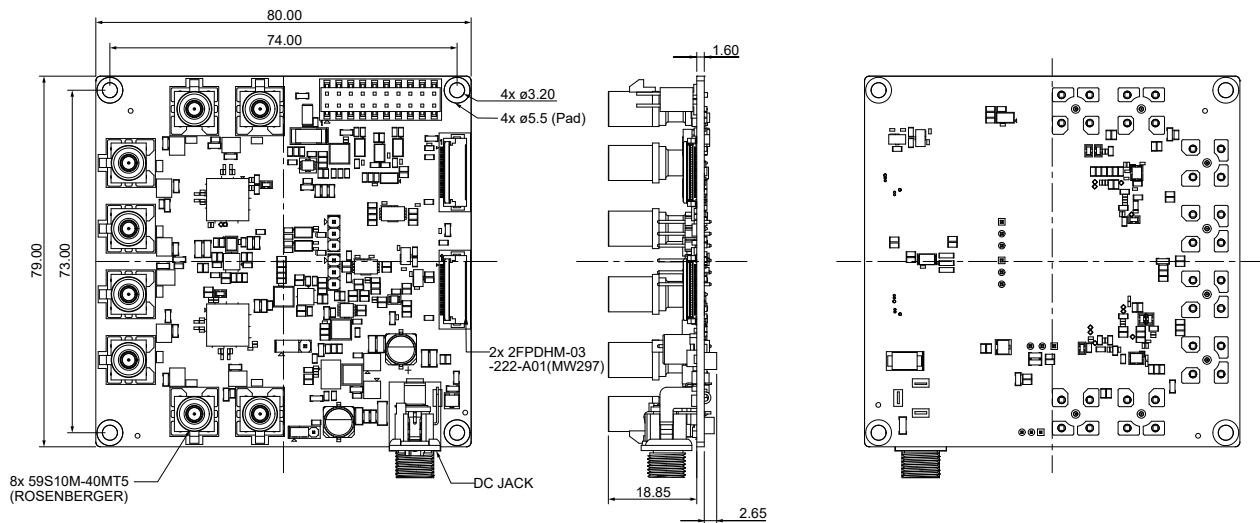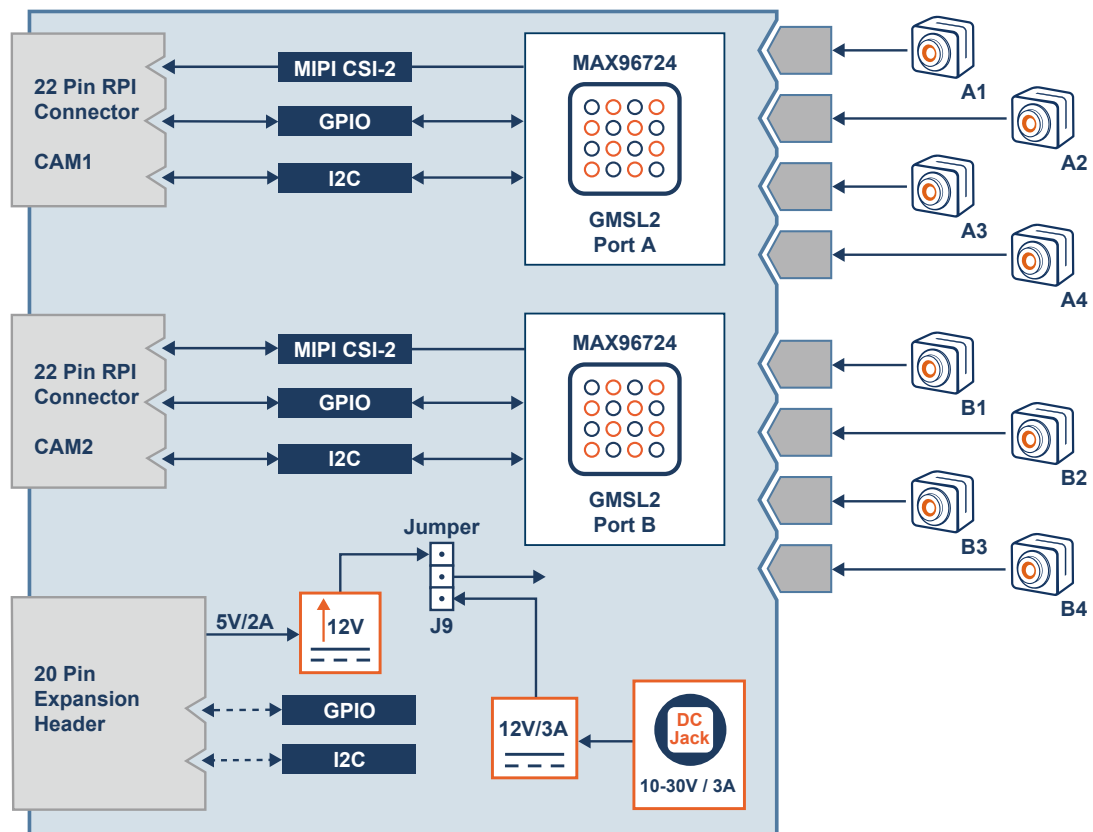
20 Pin Expansion Header Pinout
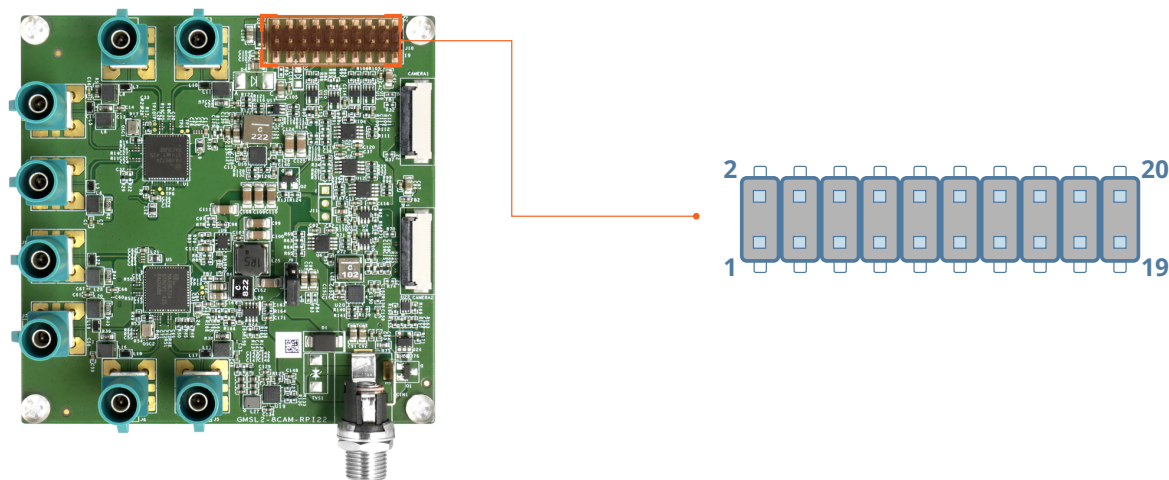
No.	Name	Voltage	Description
01	NC	NC	Reserved
02	5V0	5V0	5V power input *Note 1
03	NC	NC	Reserved
04	5V0	5V0	5V power input *Note 1
05	NC	NC	Reserved
06	GND	GND	Ground
07	EVK_PDB1	3V3	GPIO, Active low, device is powered down
08	NC	NC	Reserved
09	GND	GND	Ground
10	NC	NC	Reserved
11	EVK_INTB1	3V3	GPIO, Activelow, Interrupt Output pin
12	EVK_INTB2	3V3	GPIO, Active-low, Interrupt Output pin
13	EVK_PDB2	3V3	GPIO, Active low, device is powered down
14	GND	GND	Ground
15	CSI_VIO_SEL	3V3	GPIO, Default High
16	NC	NC	Reserved
17	NC	NC	Reserved
18	NC	NC	Reserved
19	FRAME_SYNC	3V3	GPIO, FRAME SYNC (PWM)
20	GND	GND	Ground

*Note 1: Power can be supplied by the header or the DC jack by setting the power selection jumper correctly.

Camera Connector Pin Description
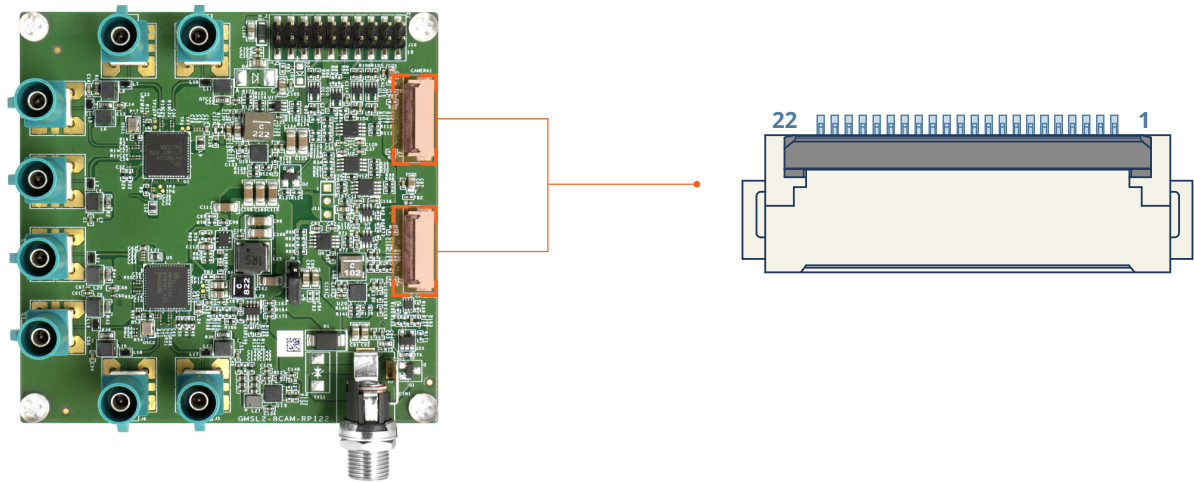
No.	Name	Voltage	Description
01	3V3	3V3	Power
02	I2C_SDA		Two-Wire Serial Data
03	I2C_SCL		Two-Wire Serial Clock
04	GND	GND	Ground
05	Reserved		Reserved
06	CSI_RST		Camera reset Input
07	GND	GND	Ground
08	CSI_CAM_DP3		MIPI Data Lane 3 Positive
09	CSI_CAM_DN3		MIPI Data Lane 3 Negative
10	GND	GND	Ground
11	CSI_CAM_DP2		MIPI Data Lane 2 Positive
12	CSI_CAM_DN2		MIPI Data Lane 2 Negative
13	GND	GND	Ground
14	CSI_CAM_CKP		MIPI Clock Lane Positive
15	CSI_CAM_CKN		MIPI Clock Lane Negative
16	GND	GND	Ground
17	CSI_CAM_DP1		MIPI Clock Lane 1 Positive
18	CSI_CAM_DN1		MIPI Clock Lane 1 Negative
19	GND	GND	Ground
20	CSI_CAM_DP0		MIPI Clock Lane 0 Positive
21	CSI_CAM_DN0		MIPI Clock Lane 0 Negative
22	GND	GND	Ground

Order Information

VL-GM2-8CAM-RPI22-xxxx

Option	Code	Description
Supported Camera	GM2	GMSL2 Camera
Max Camera Channels	8CAM	Supports up to 8 synchronized cameras
DIO Connector	RPI22	22 pin Standardized Connector
Custom ID	xxxx	Custom Part number ID

For customization, please contact your TechNexion sales representative.

Compatibility

Compatible with all VL-GM2 cameras. Easily integrates with VizionSDK for multi-camera sync, image control, and development.

< 2 MP	5 MP	8 MP	10 ~ 20 MP
AR0144 1 MP Global Color	AR0521 5 MP Rolling Color	AR0821 8.3 MP Rolling Color	AR1335 13 MP Rolling Color
AR0145 1 MP Global Mono	AR0522 5 MP Rolling Color/Mono	AR0822 8.3 MP Rolling Color/Mono	
AR0234 2.3 MP Global Color		AR0830 8.3 MP Rolling Color/Mono	
AR0235 2.3 MP Global Mono			

Software Support

Compatible with VizionSDK — a cross-platform C++, Python SDK for Windows and Linux. Enables full control of TechNexion cameras across multiple environments, including Ubuntu, Windows 10/11, NXP i.MX, and NVIDIA Jetson.

VizionSDK

VizionViewer™

Find all Software on
https://www.technexion.com

Software SDK Available

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