



**LEOPARD**  
IMAGING

# LI-PCIEFG-GMSL2



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## INTRODUCTION

The LI-PCIEFG-GMSL2 is the latest generation of video grabber and playback system which mainly consists of SX proFRAME 3.0 Base Board, SX proFRAME 3.0 Camera Adapter interfaces and Maxim MAX9296A deserializers. It can connect up to 8 cameras.

## TECHNICAL FEATURES

Camera Adapter Interfaces	<p>2 x SX proFRAME 3.0 Camera Adapter interfaces, each with:</p> <ul style="list-style-type: none"> <li>• 4 x CSI-2 interfaces (4 lanes), each up to 10 Gbit/s, total 40 Gbit/s or 23 x LVDS data lanes, each up to 1.6 Gbit/s, total 36.8 Gbit/s</li> <li>• 4 x I2C interface (1MBaud) to de-/serializer chips</li> <li>• 1 x I2C interface to internal devices (EEPROM, PoC, ...)</li> <li>• 8 to 24 VDC supply for Power over Coax (PoC)</li> <li>• FSYNC trigger, interrupt, reference clock and other GPIO signals</li> </ul>
DeSerializer	Maxim MAX9296A
FPGA	Xilinx Zynq UltraScale+ ZU4CG MPSoC (FBVB900)
Processing Subsystem (PS)	Dual-core ARM® Cortex™-A53 MPCore™ up to 1.3GHz
PCIe interface	PCIe X8 Gen3 (64 Gbit/s, ~51 Gbit/s netto) to backplane
Max Connected Camera QTY	8
Connector	FAKRA Z TYPE
Operating Temp	-20°C ~ +85°C
Weight	~ 191 g
Size (With Camera Adapter)	175.26 (L) x 106.68 (W) x 19.45 (D) mm
Part#	LI-PCIEFG-GMSL2

## APPLICATIONS



Automotive



Medical



Industrial

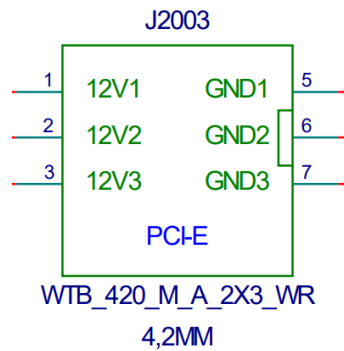
- Video data capture
- Video data replay
- Hardware in the Loop (HiL), e.g. for ADAS / AD ECU validation
- Realtime video processing



## INTERFACE J2003 (12V EXT)

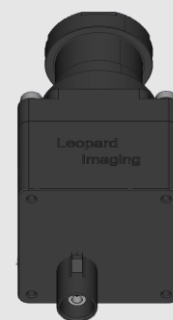
- Part#: 0455580003
- Number of Positions: 6
- Number of Rows: 2
- Pitch: 4.20 mm
- Pin Assignment:

Pin No.	Name
1	12V1
2	12V2
3	12V3
5	GND1
6	GND2
7	GND3



## SUPPORTED CAMERAS

Camera Module	Frame Rate
LI-IMX490-GW5400-GMSL2	25 fps @ 2880 x 1860
LI-AR0820-GW5400-GMSL2	30 fps @ 3840 x 2160
LI-AR0231-AP0200-GMSL2	30 fps @ 1920 x 1020
LI-AR0233-GW5200-GMSL2	30 fps @ 1920 x 1080
LI-AR0233-NVP2650-GMSL2	30 fps @ 1920 x 1080
LI-AR0239-GW5400-GMSL2	30 fps @ 1920 x 1080
Other YUV GMSL2 modules	...



- REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	17 Mar 2022

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