



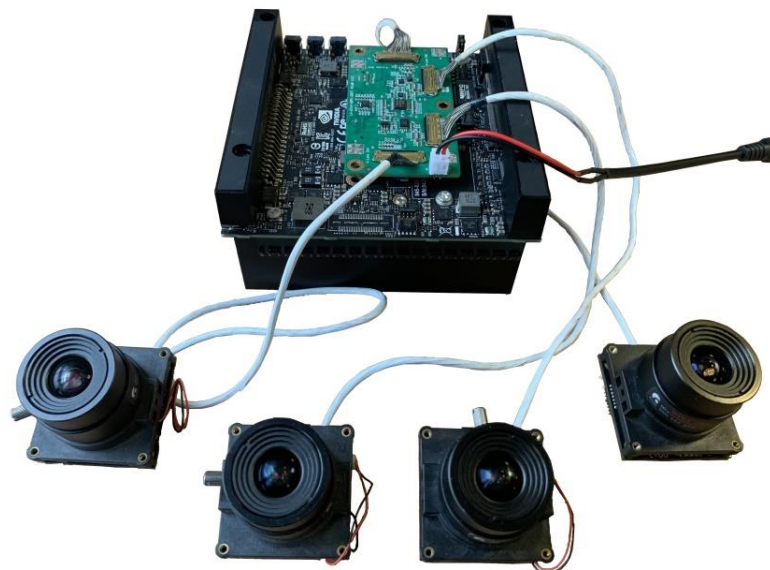
LEOPARD IMAGING INC

# LI-XAVIER-KIT-IMX415CS-X

## Data Sheet

### Key Features

- Compatible with Nvidia® Jetson AGX Xavier™ Developer Kit
- MIPI CSI-2 interface
- Supports up to six cameras
- Two adapter board options
  - LI-JXAV-MIPI-ADPT-4CAM
  - LI-JXAV-MIPI-ADPT-6CAM-FP
- Sony Diagonal 6.43 mm (Type 1/2.8) CMOS Image Sensor IMX415
- Active pixels: 3864 (H) x 2176 (V)
- Color camera
- Length of the I-PEX cable: 300 mm
- Supports multiple length cables
- Connector Part#: 20525-030E-02C
- Allows customization
- Part#:
  - (1 cam) **LI-XAVIER-KIT-IMX415CS**
  - (2 cam) **LI-XAVIER-KIT-IMX415CS-D**
  - (3 cam) **LI-XAVIER-KIT-IMX415CS-T**
  - (4 cam) **LI-XAVIER-KIT-IMX415CS-Q**
  - (6 cam) **LI-XAVIER-KIT-IMX415CS-H**



### Lens Spec

- Model: ES0522F.IR
- Focal Length: 5.0 mm
- Aperture, F/#: 2.2
- Built in 650 nm IR cut filter
- FOV (D/ H / V): 80.6° / 70.6° / 40.6°
- TV Distortion: < -8%

### BOM

Nvidia AGX Xavier Developer Kit not included

| # | Items                                                  | QTY             |
|---|--------------------------------------------------------|-----------------|
| 1 | LI-JXAV-MIPI-ADPT-4CAM or<br>LI-JXAV-MIPI-ADPT-6CAM-FP | 1               |
| 2 | LI-IMX415-MIPI-CS                                      | 1, 2, 3, 4 or 6 |
| 3 | FAW-1233-03 cable                                      | 1, 2, 3, 4 or 6 |

### Applications

- Industrial Applications
- Surveillance cameras



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## LI-XAVIER-KIT-IMX415CS

### BOM

| # | Items                  | QTY |
|---|------------------------|-----|
| 1 | LI-JXAV-MIPI-ADPT-4CAM | 1   |
| 2 | LI-IMX415-MIPI-CS      | 1   |
| 3 | FAW-1233-03 cable      | 1   |



## LI-XAVIER-KIT-IMX415CS-D

### BOM

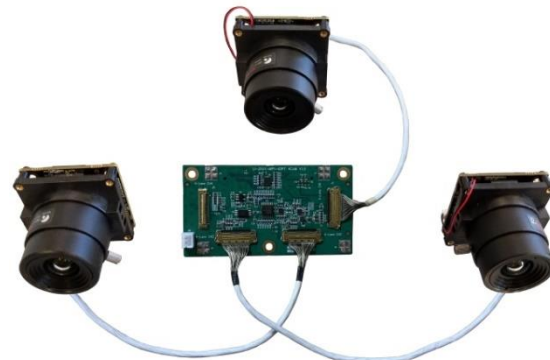
| # | Items                  | QTY |
|---|------------------------|-----|
| 1 | LI-JXAV-MIPI-ADPT-4CAM | 1   |
| 2 | LI-IMX415-MIPI-CS      | 2   |
| 3 | FAW-1233-03 cable      | 2   |



## LI-XAVIER-KIT-IMX415CS-T

### BOM

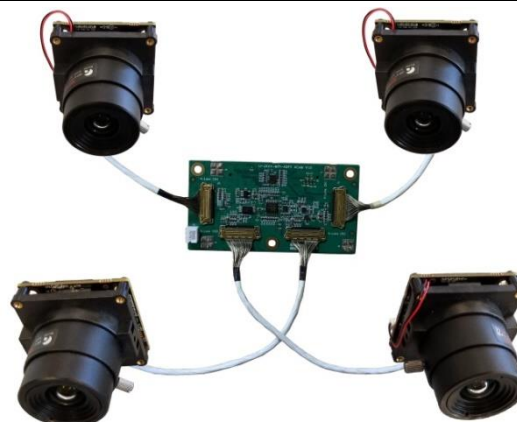
| # | Items                  | QTY |
|---|------------------------|-----|
| 1 | LI-JXAV-MIPI-ADPT-4CAM | 1   |
| 2 | LI-IMX415-MIPI-CS      | 3   |
| 3 | FAW-1233-03 cable      | 3   |



## LI-XAVIER-KIT-IMX415CS-Q

### BOM

| # | Items                  | QTY |
|---|------------------------|-----|
| 1 | LI-JXAV-MIPI-ADPT-4CAM | 1   |
| 2 | LI-IMX415-MIPI-CS      | 4   |
| 3 | FAW-1233-03 cable      | 4   |



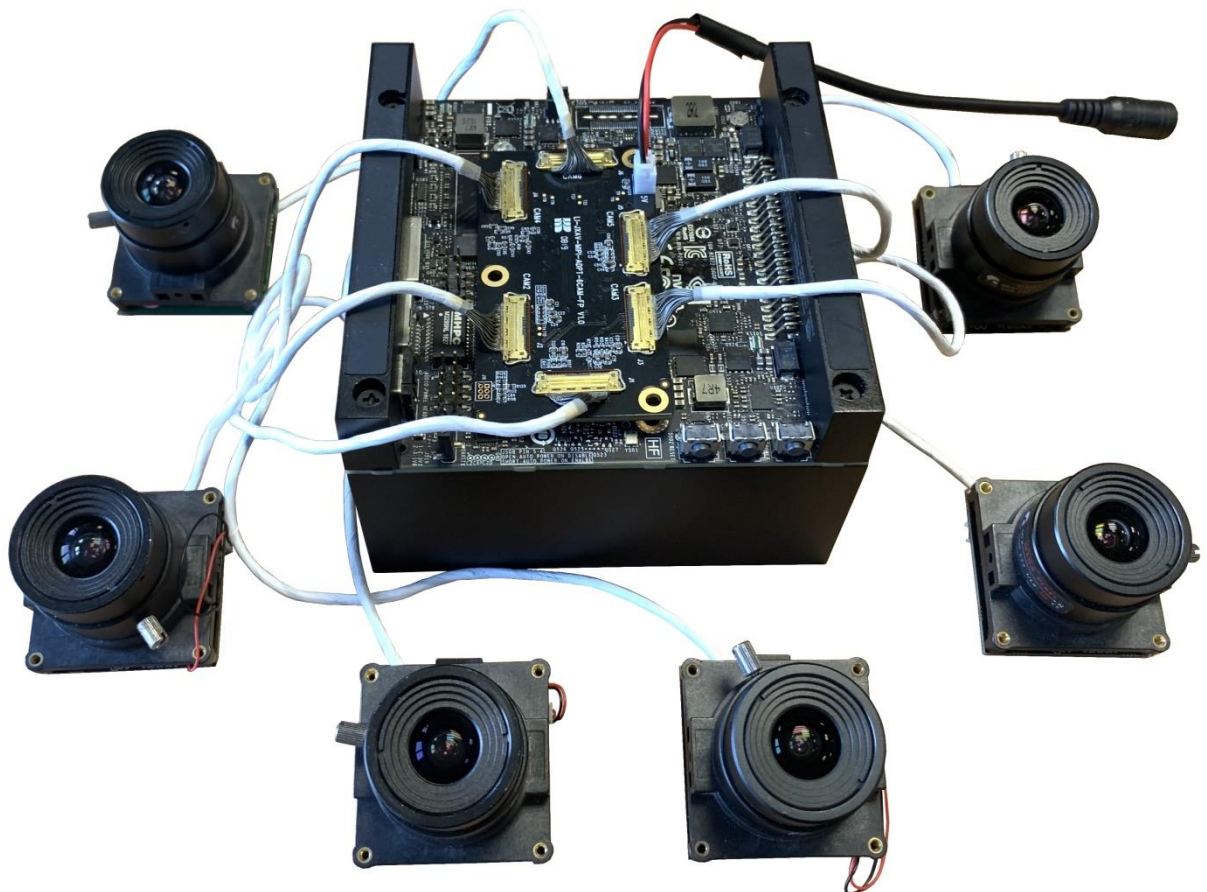
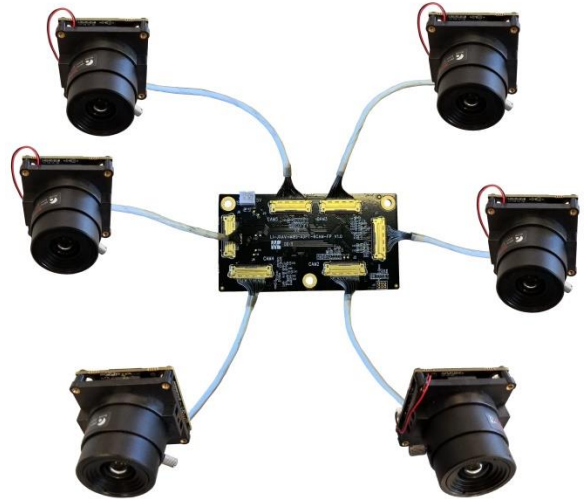
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## LI-XAVIER-KIT-IMX415CS-H

### BOM

| # | Items                     | QTY |
|---|---------------------------|-----|
| 1 | LI-JXAV-MIPI-ADPT-6CAM-FP | 1   |
| 2 | LI-IMX415-MIPI-CS         | 6   |
| 3 | FAW-1233-03 cable         | 6   |

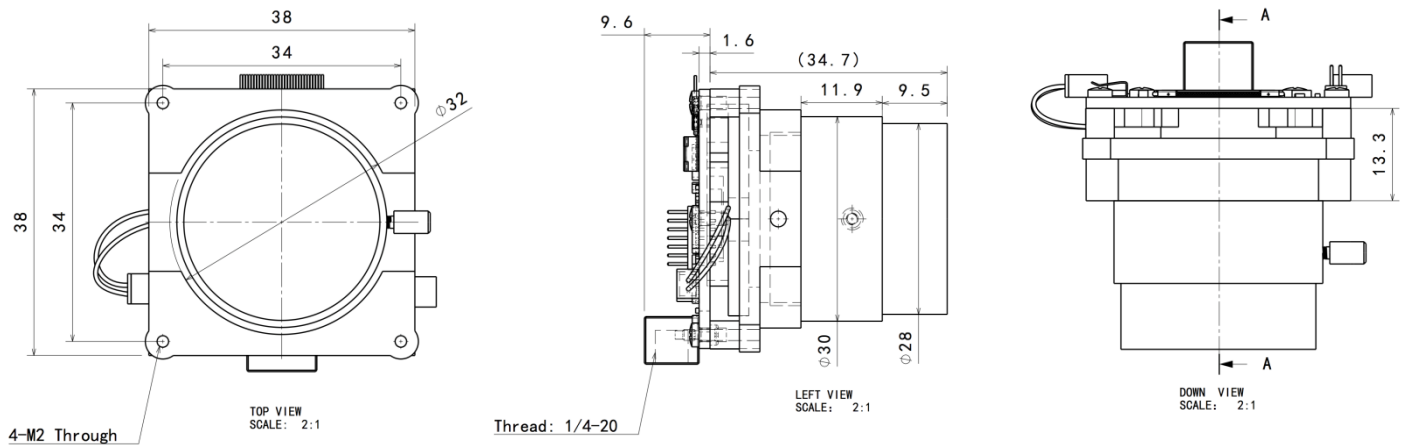


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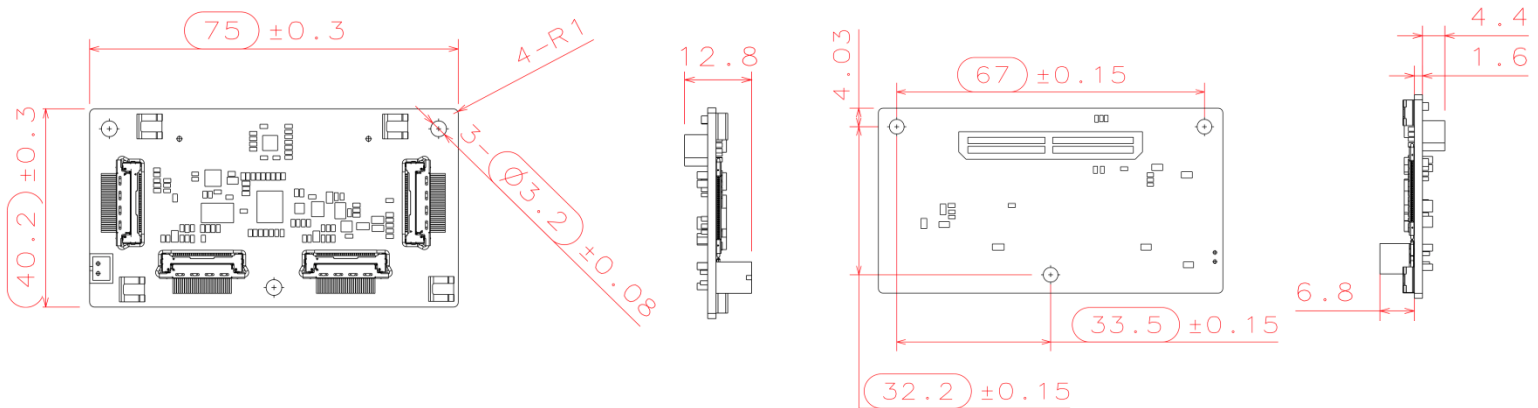
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# Dimensions

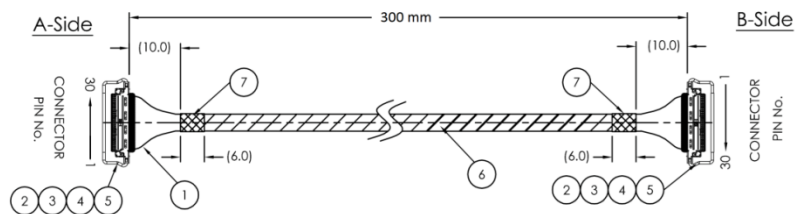
## LI-IMX415-MIPI-CS



## LI-JXAV-MIPI-ADPT-4CAM



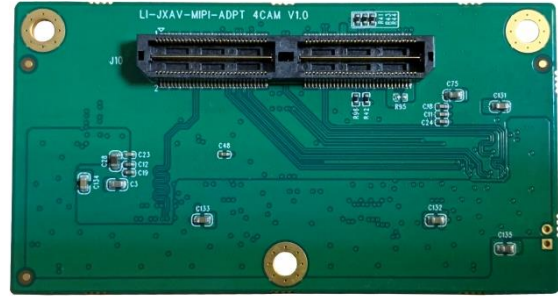
## FAW-1233-03



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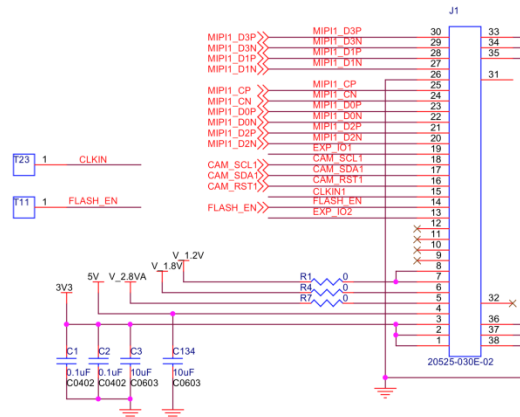
# LI-JXAV-MIPI-ADPT-4CAM



## Interfaces

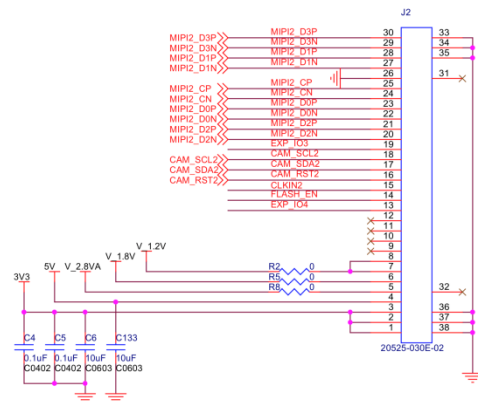
### Interface J1

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-03 (300 mm)



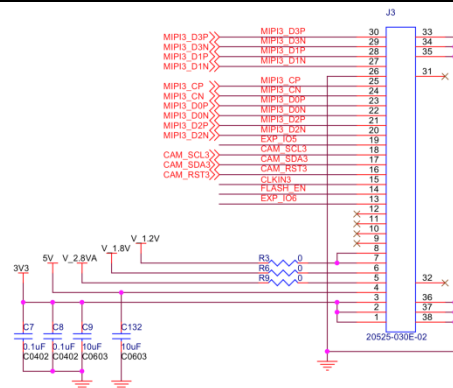
### Interface J2

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-03 (300 mm)



### Interface J3

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-03 (300 mm)

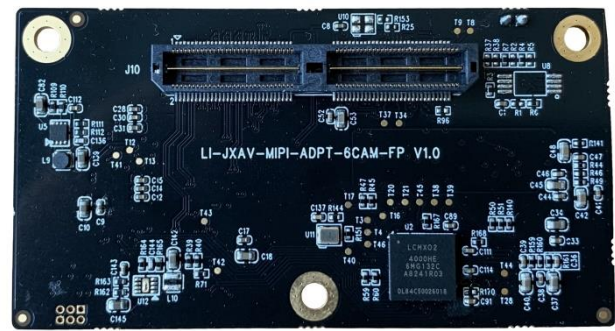


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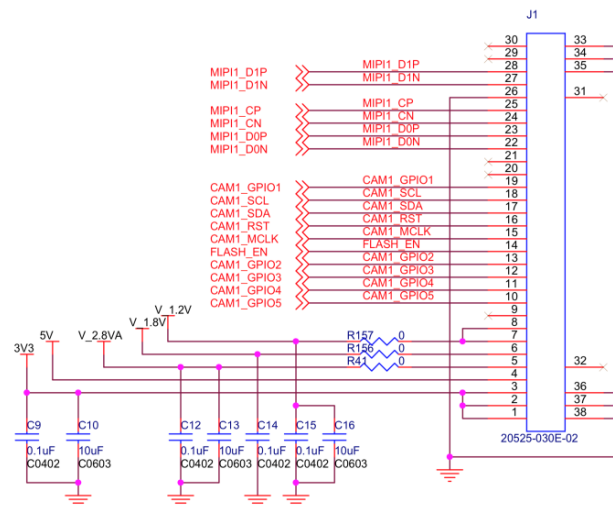
# LI-JXAV-MIPI-ADPT-6CAM-FP



## Interfaces

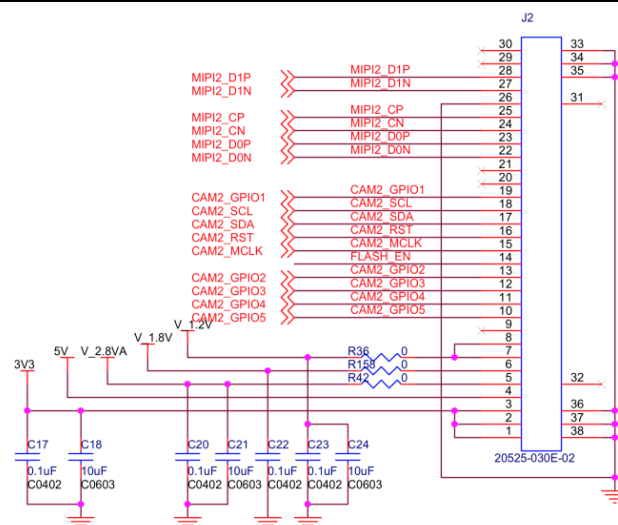
### Interface J1 (Camera Channel 1)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-xx



### Interface J2 (Camera Channel 2)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-xx

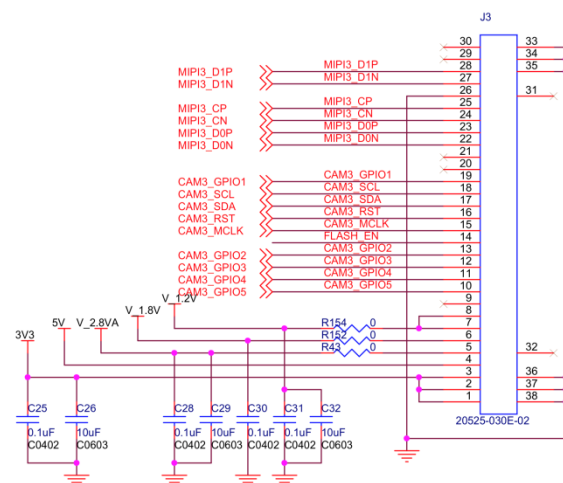


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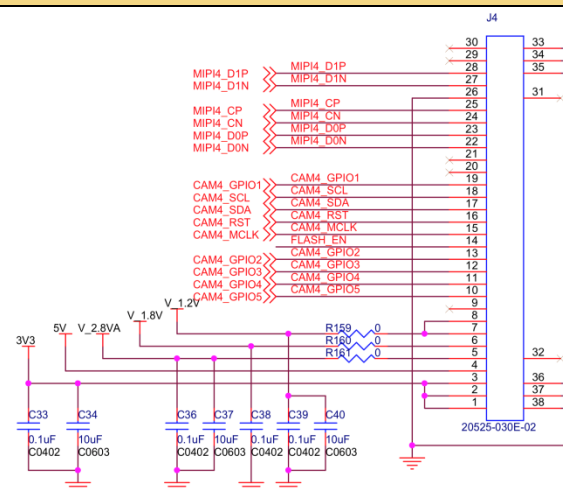
### Interface J3 (Camera Channel 3)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable:  
FAW-1233-xx



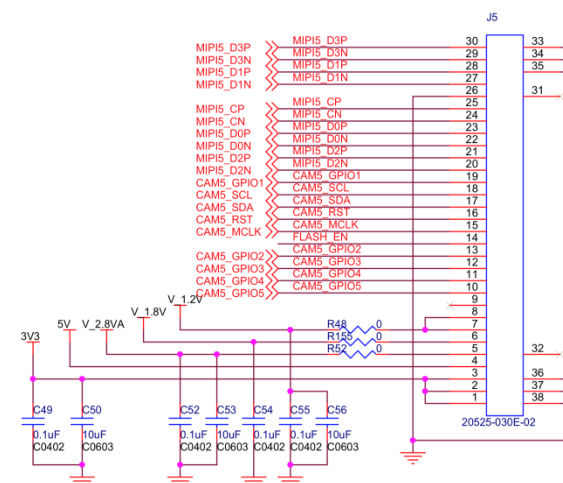
### Interface J4 (Camera Channel 4)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable:  
FAW-1233-xx



### Interface J5 (Camera Channel 5)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable:  
FAW-1233-xx

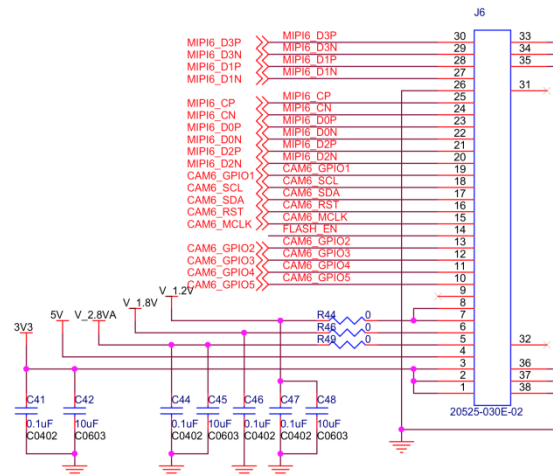


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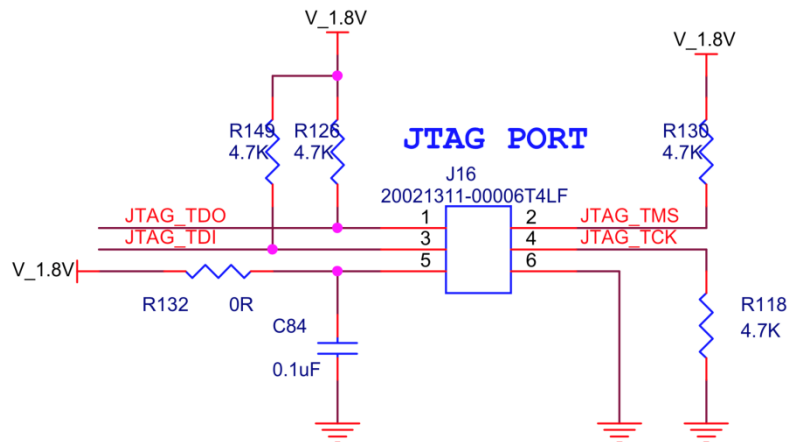
## Interface J6 (Camera Channel 6)

- Part#: 20525-030E-02C
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable:  
FAW-1233-xx



## Interface J16 (FPGA Programming Interface)

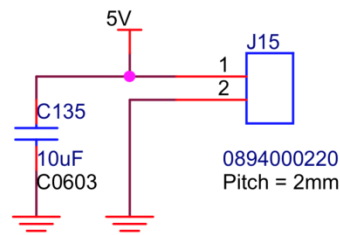
- Part#: 20021311-00006T4LF
- Number of Positions: 6
- Pitch: 0.050" (1.27 mm)
- Number of Rows: 2



## Interface J15 (External Power Input Interface)

- Part#: 0894000220
- Number of Positions: 2
- Pitch: 2 mm

### External Input Power

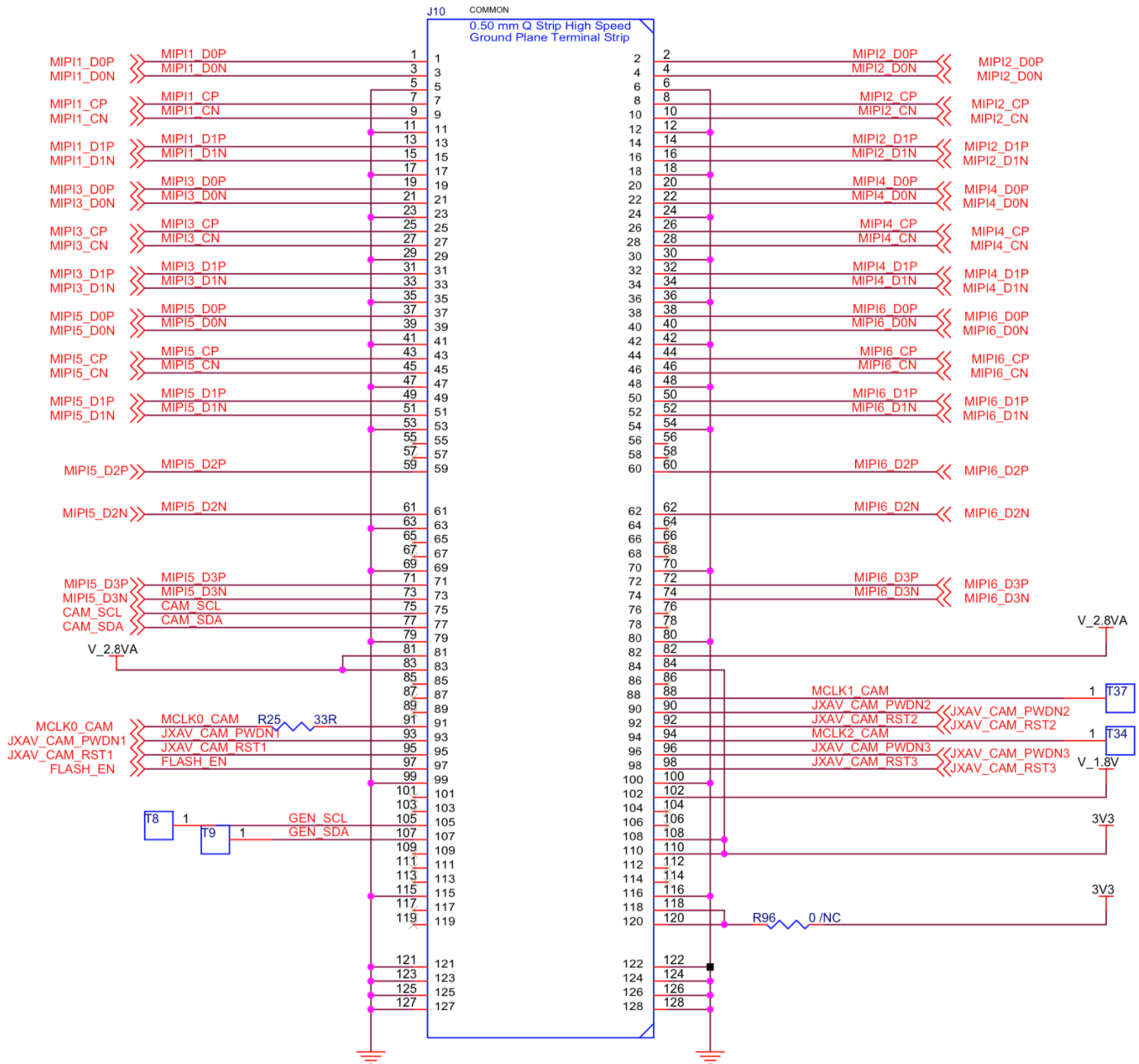


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## Interface J10 (To Xavier)

- Part#: QTH-060-01-L-D-A
- Number of Positions: 120
- Number of Rows: 2
- Pitch: 0.5 mm



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# LI-IMX415-MIPI-CS



| Camera Spec                                                                                                                                                                                            |                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Image sensor                                                                                                                                                                                           | Sony Diagonal 6.43 mm (Type 1/2.8) CMOS Image Sensor IMX415 |
| Optical format                                                                                                                                                                                         | 1/2.8"                                                      |
| Number of active pixels                                                                                                                                                                                | 3864 (H) x 2176 (V)                                         |
| Pixel size                                                                                                                                                                                             | 1.45 x 1.45 $\mu\text{m}$                                   |
| Color or Mono                                                                                                                                                                                          | Color                                                       |
| Interface                                                                                                                                                                                              | MIPI interface                                              |
| Lens mount                                                                                                                                                                                             | CS                                                          |
| Weight                                                                                                                                                                                                 | ~ 58 g                                                      |
| Interfaces                                                                                                                                                                                             |                                                             |
| <b>Interface J4:</b> <ul style="list-style-type: none"> <li>Part#: 20525-030E-02C</li> <li>Number of Positions: 30</li> <li>Pitch: 0.4 mm</li> <li>Mating I-PEX cable: FAW-1233-03 (300 mm)</li> </ul> |                                                             |
| <b>Interface J3:</b> <ul style="list-style-type: none"> <li>Part#: 1734829-2</li> <li>Number of Positions: 2</li> <li>Pitch: 1.25 mm</li> </ul>                                                        |                                                             |
| <b>Interface J6:</b> <ul style="list-style-type: none"> <li>Part#: 1734829-2</li> <li>Number of Positions: 2</li> <li>Pitch: 1.25 mm</li> </ul>                                                        |                                                             |



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## Revision History

| Revision | Description                           | Release Date  |
|----------|---------------------------------------|---------------|
| 1.0      | First release.                        | 02. Feb. 2020 |
| 1.1      | Deleted info quoted from sensor spec. | 26. May. 2022 |



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