

## HDMI to Mipi CSI-2 Bridge

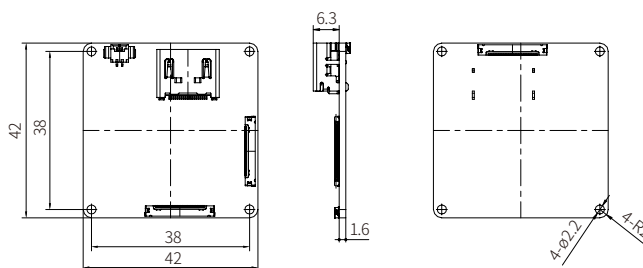
# ACE-HMST642-HM

- HDMI to Mipi CSI-2 Bridge(4 Lane@up to 2GHz)
- 2160p@30fps, 1080p@30/60fps, 720p@30/60fps
- 2x Mipi CSI-2 (4 Lanes)
- Jetson Nano, Xavier NX Development Platform
- Physical Board Size : 42 x 42 mm

# ACE-HMST642-HM



## • Dimensions



## Pin assignment

### • J301

| J301(External Power) /<br>Molex : 53261-0271 |                  |
|--|------------------|
| 1  | Power IN: +12VDC |
| 2  | GND              |

### • J201

| J201(HDMI) /<br>51U019S-30SIN-AR (Input) |         |
|--|---------|
| 1  | TMDS2+  |
| 2  | GND     |
| 3  | TMDS2-  |
| 4  | TMDS1+  |
| 5  | GND     |
| 6  | TMDS1-  |
| 7  | TMDS0+  |
| 8  | GND     |
| 9  | TMDS0-  |
| 10                                       | TMDS+   |
| 11                                       | GND     |
| 12                                       | TMDS-   |
| 13                                       | CEC     |
| 14                                       | NC      |
| 15                                       | DDC_SCL |
| 16                                       | DDC_SDA |
| 17                                       | GND     |
| 18                                       | +5VDC   |
| 19                                       | HPD     |

### • J202

| J202(Micro Co-Axial) /<br>KEL Co.USL00-30L-A (Input) |                    |
|--|--------------------|
| 1  | POWER IN: +12VDC   |
| 2  | POWER IN: +12VDC   |
| 3  | GND                |
| 4  | GND                |
| 5  | I2C_SCL(3.3V)/NC   |
| 6  | I2C_SDA(3.3V)/NC   |
| 7  | GND                |
| 8  | Uart_TXD(5V)       |
| 9  | Uart_RXD(5V)       |
| 10   | GND                |
| 11   | GND                |
| 12   | 1_HDMI(TMDS_D2+)   |
| 13   | 2_HDMI(GND)        |
| 14   | 3_HDMI(TMDS_D2-)   |
| 15   | 4_HDMI(TMDS_D1+)   |
| 16   | 5_HDMI(GND)        |
| 17   | 6_HDMI(TMDS_D1-)   |
| 18   | 7_HDMI(TMDS_D0+)   |
| 19   | 8_HDMI(GND)        |
| 20   | 9_HDMI(TMDS_D0-)   |
| 21   | 10_HDMI(TMDS_CLK+) |
| 22   | 11_HDMI(GND)       |
| 23   | 12_HDMI(TMDS_CLK-) |
| 24   | 13_HDMI(CEC)       |
| 25   | 14_HDMI(NC)        |
| 26   | 15_HDMI(DDC_SCL)   |
| 27   | 16_HDMI(DDC_SDA)   |
| 28   | 17_HDMI(DDC_GND)   |
| 29   | 18_HDMI(VCC_5V)    |
| 30   | 19_HDMI(HPD)       |

### • J204

| J204(Micro Co-Axial) /<br>KEL Co.USL00-30L-A (Output 1)-Default |                    |
|---|--------------------|
| 1   | POWER IN: +12VDC   |
| 2   | POWER IN: +12VDC   |
| 3   | GND                |
| 4   | GND                |
| 5   | INTIO(GPIO)        |
| 6   | GND                |
| 7   | MIPI_D0_P(Port-1)  |
| 8   | MIPI_D0_N(Port-1)  |
| 9   | GND                |
| 10  | MIPI_D1_P(Port-1)  |
| 11  | MIPI_D1_N(Port-1)  |
| 12  | GND                |
| 13  | MIPI_CLK_P(Port-1) |
| 14  | MIPI_CLK_N(Port-1) |
| 15  | GND                |
| 16  | MIPI_D2_P(Port-1)  |
| 17  | MIPI_D2_N(Port-1)  |
| 18  | GND                |
| 19  | MIPI_D3_P(Port-1)  |
| 20  | MIPI_D3_N(Port-1)  |
| 21  | GND                |
| 22  | I2C_SCL(3.3V)      |
| 23  | I2C_SDA(3.3V)      |
| 24  | GND                |
| 25  | Uart_TX(3.3V)      |
| 26  | Uart_RX(3.3V)      |
| 27  | Reset(GPIO)        |
| 28  | GND                |
| 29  | DET_HDMI(GPIO)     |
| 30  | CEC_HDMI(GPIO)     |

### • J206

| J206(Micro Co-Axial) / KEL Co.USL00-30L-A (Output 2) |                   |    |                    |    |                |
|--|-------------------|----|--------------------|----|----------------|
| 1  | POWER IN: +12VDC  | 11 | MIPI_D1_N(Port-2)  | 21 | GND            |
| 2  | POWER IN: +12VDC  | 12 | GND                | 22 | I2C_SCL(3.3V)  |
| 3  | GND               | 13 | MIPI_CLK_P(Port-2) | 23 | I2C_SDA(3.3V)  |
| 4  | GND               | 14 | MIPI_CLK_N(Port-2) | 24 | GND            |
| 5  | NC(GPIO)          | 15 | GND                | 25 | Uart_TX(3.3V)  |
| 6  | GND               | 16 | MIPI_D2_P(Port-2)  | 26 | Uart_RX(3.3V)  |
| 7  | MIPI_D0_P(Port-2) | 17 | MIPI_D2_N(Port-2)  | 27 | Reset(GPIO)    |
| 8  | MIPI_D0_N(Port-2) | 18 | GND                | 28 | GND            |
| 9  | GND               | 19 | MIPI_D3_P(Port-2)  | 29 | DET_HDMI(GPIO) |
| 10   | MIPI_D1_P(Port-2) | 20 | MIPI_D3_N(Port-2)  | 30 | CEC_HDMI(GPIO) |