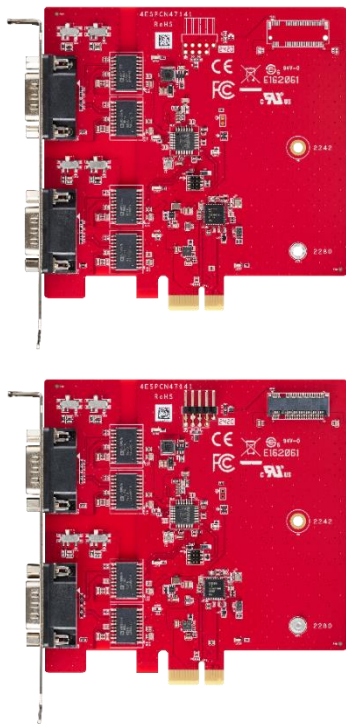


# CONNECTING INTELLIGENCE NETWORKING



## ESPC-F4S3

### PCIe to Four Isolated CAN FD Module

#### HIGHLIGHT FEATURES

- Baud rate up to 5 / 10 / 20 / 50 / 100 / 125 / 250 / 500 (Default) / 800 / 1000K
- Data rate up to 2 / 4 / 5Mbps (\*Notes)
- CAN2.0 up to 7,800 frame/s (RX baud rate 1M, EID, 8byte data)
- CANFD up to 6,000 frame/s (RX baud rate 1M, data rate 5M, EID, 64byte data)
- Supports CAN message acceptance filter, listen-only mode
- Keeps configuration after hardware reboot
- Additional driver to support Linux SocketCAN
- Termination resistor enabled / disabled by jumper
- Optional M.2 slot to expand 2-4 more CAN ports by installing EGUC series
- Complaint with ISO 11898-2:2016 (CAN FD)
- Complaint with EN61000-4-2 (ESD) Air-15kV, Contact-8kV
- Complies with IEC 60950-1 : 2005 + A1 : 2009 + A2 : 2013 2.5kV HiPOT protection
- Industrial temperature (-40°C to 85°C) support

#### SPECIFICATIONS

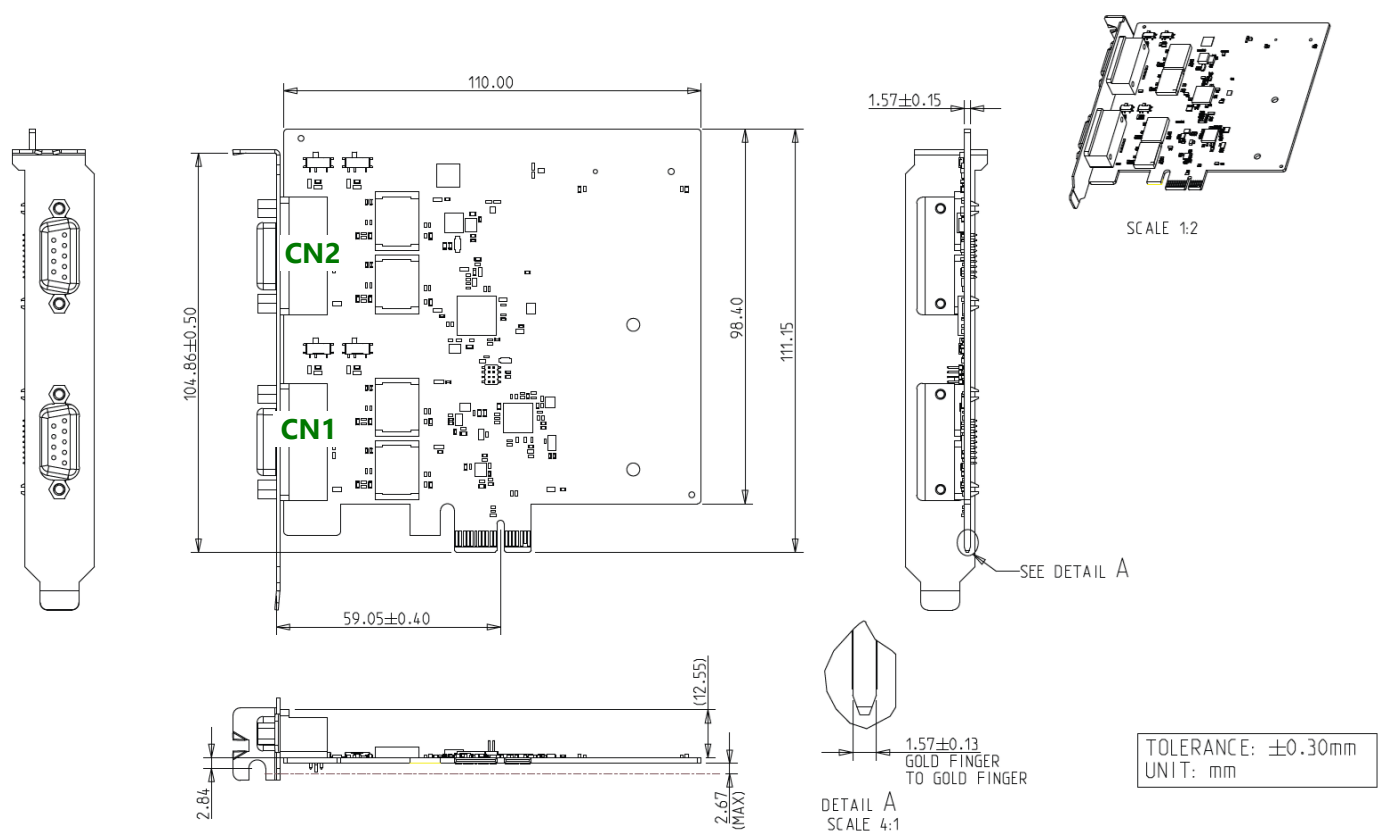
|                          |                                                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Name               | ESPC-F4S3                                                                                                                                                                |
| Module Type              | PCIe to Four Isolated CAN FD                                                                                                                                             |
| Form Factor              | Standard PCIe                                                                                                                                                            |
| Function                 | CAN FD                                                                                                                                                                   |
| Input I/F                | PCI Express 2.0 x1                                                                                                                                                       |
| Output I/F               | CAN FD                                                                                                                                                                   |
| Output Port              | 4                                                                                                                                                                        |
| Output Connector         | DB-9                                                                                                                                                                     |
| Max. Power Consumption   | 3.3 W (3.3V, 1000mA)                                                                                                                                                     |
| Dimension (W x L x H/mm) | 111.15 x 110 x 16.79                                                                                                                                                     |
| Temperature              | Operation : W/T -40°C ~ 85°C (Ta)<br>Storage : -55°C ~ 95°C (Ta)                                                                                                         |
| Vibration                | 5G@[7~2000Hz]                                                                                                                                                            |
| Shock                    | 50G@0.5ms                                                                                                                                                                |
| OS Support               | Windows : 10 (32 / 64bit), and above version<br>Linux : Kernel 2.6 and above (Native CDC-ACM driver), Kernel 2.6.38 and above (SocketCAN Driver), 32 / 64bit             |
| Warranty                 | 3 Years                                                                                                                                                                  |
| Notes                    | *Data rate limitation : <ul style="list-style-type: none"><li>• 2M supports normal rate 100k and above.</li><li>• 4M / 5M supports normal rate 250K and above.</li></ul> |

ORDER INFO.

| P/N          | Description                                 |
|--------------|---------------------------------------------|
| ESPC-F4S3-W1 | PCIe to Four Isolated CAN FD                |
| ESPC-F4S3-W2 | PCIe to Four Isolated CAN FD, with M.2 Slot |

MECHANICAL DRAWING

ESPC-F4S3-W1

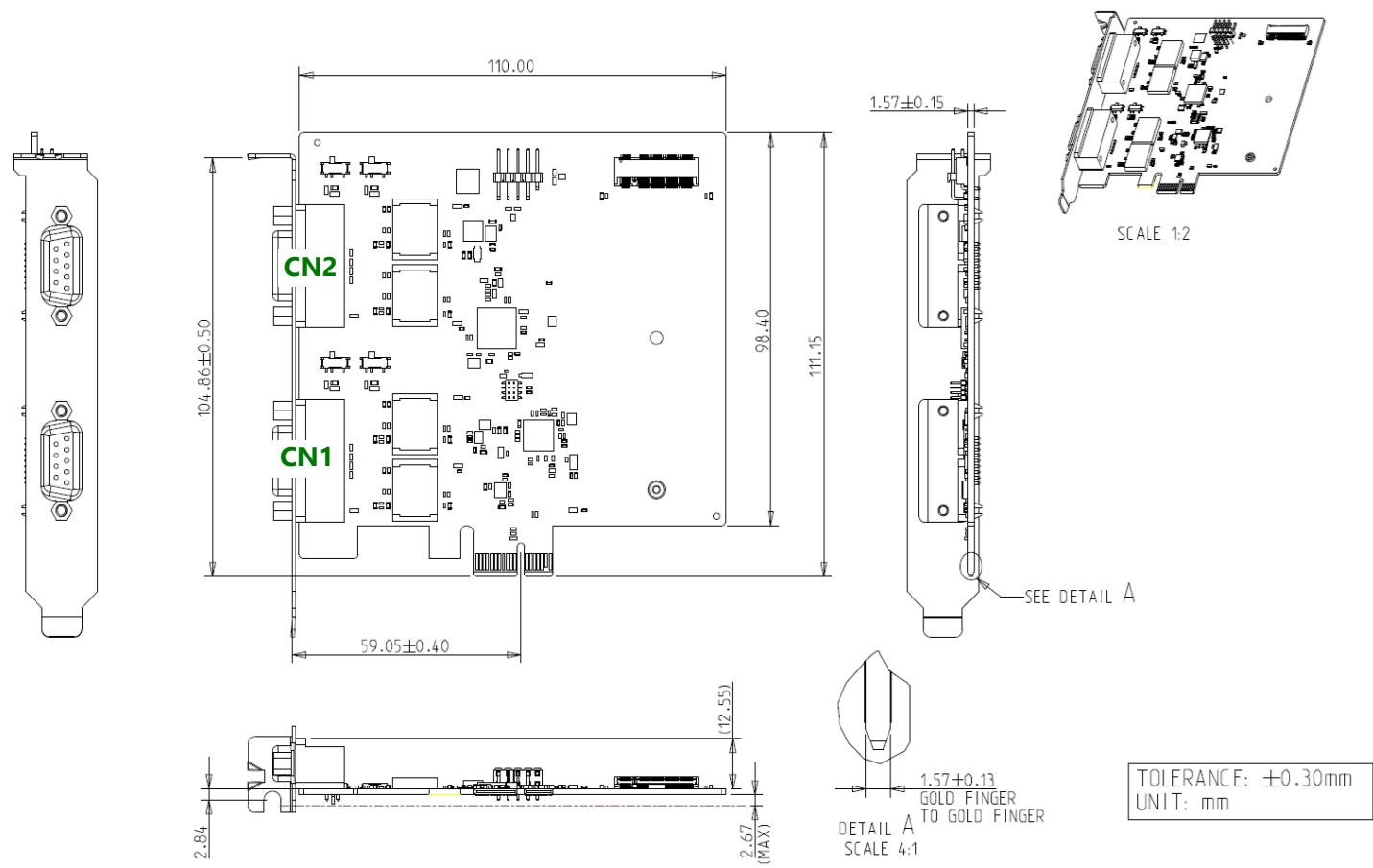


PIN DEFINE

| CAN DB9 Connector<br>Pin Define (CN1) |               | CAN DB9 Connector<br>Pin Define (CN2) |               |
|---------------------------------------|---------------|---------------------------------------|---------------|
| 1                                     | NC            | 1                                     | NC            |
| 2                                     | CAN0-L        | 2                                     | CAN1L         |
| 3                                     | GND           | 3                                     | GND           |
| 4                                     | CAN2-H        | 4                                     | CAN3-H        |
| 5                                     | Shielding GND | 5                                     | Shielding GND |
| 6                                     | GND           | 6                                     | GND           |
| 7                                     | CAN0-H        | 7                                     | CAN1-H        |
| 8                                     | CAN2-L        | 8                                     | CAN3-L        |
| 9                                     | NC            | 9                                     | NC            |

MECHANICAL DRAWING

ESPC-F4S3-W2



PIN DEFINE

| CAN DB9 Connector<br>Pin Define (CN1) |               |
|---------------------------------------|---------------|
| 1                                     | NC            |
| 2                                     | CAN0-L        |
| 3                                     | GND           |
| 4                                     | CAN2-H        |
| 5                                     | Shielding GND |
| 6                                     | GND           |
| 7                                     | CAN0-H        |
| 8                                     | CAN2-L        |
| 9                                     | NC            |

| CAN DB9 Connector<br>Pin Define (CN2) |               |
|---------------------------------------|---------------|
| 1                                     | NC            |
| 2                                     | CAN1L         |
| 3                                     | GND           |
| 4                                     | CAN3-H        |
| 5                                     | Shielding GND |
| 6                                     | GND           |
| 7                                     | CAN1-H        |
| 8                                     | CAN3-L        |
| 9                                     | NC            |

| External USB Pin Define<br>(For M.2 Slot) |     |
|-------------------------------------------|-----|
| 1                                         | NC  |
| 2                                         | NC  |
| 3                                         | D1- |
| 4                                         | D2- |
| 5                                         | D1+ |
| 6                                         | D2+ |
| 7                                         | GND |
| 8                                         | GND |
| 10                                        | NC  |

## COMBINATION WITH EGUC-F2S3 / F4S3

Install EGUC-F2S3 / F4S3 on M.2 slot (USB interface) can expand 2-4 more CAN ports.

Must connect a USB cable (not included) into the 9-pin USB header to provide USB 2.0 signal for the M.2 slot.

