

## EDM1-FAIRY-IMX6

- Evaluation Kit System based on NXP i.MX6 Quad / DualLite applications processor
- 2GB DDR3 RAM + 16GB EMMC + Carrier Board for EDM1-IMX6 + QCA9377 802.11AC + BT 5.0
- 1x HDMI , 1x PCIe , 2x USB2.0 , 1x SDIO, 2x CAN BUS, 2x UART



## Specifications

### Core System

|                  |                                      |
|------------------|--------------------------------------|
| Processor        | NXP i.MX6 DualLite<br>NXP i.MX6 Quad |
| Processor Speed  | 1.0 Ghz                              |
| Architecture     | ARM Cortex-A9                        |
| PMIC             | NXP MMPF0100                         |
| Memory           | Up to 2GB DDR3                       |
| Storage          | 16GB eMMC (default)                  |
| System on Module | EDM SOM                              |
| Debug Interface  | JTAG Interface by Through-hole       |

### Connectivity

|             |                                                         |
|-------------|---------------------------------------------------------|
| Network LAN | 1x Realtek RTL8211                                      |
| Wi-Fi       | Qualcomm Atheros QCA9377<br>Wi-Fi 5 – 802.11 a/b/g/n/ac |
| Bluetooth   | Qualcomm Atheros QCA9377<br>Bluetooth                   |
| Antenna     | MHF4 connector                                          |

### Signaling

|     |                                                                     |                                                                                        |
|-----|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| I/O | RS232<br>HDMI<br>LVDS<br>RGB TTL<br>LAN<br>PCIe<br>SATA<br>USB HOST | USB OTG<br>I <sup>2</sup> S<br>SPDIF<br>SDIO<br>CAN<br>SPI<br>I <sup>2</sup> C<br>GPIO |
|-----|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|

### Video

|              |                                                   |
|--------------|---------------------------------------------------|
| GPU Engine   | Vivante GC880 (DualLite)<br>Vivante GC2000 (Quad) |
| Video decode | 1080p30 + D1 (DualLite)<br>1080p60 H.264 (Quad)   |
| Video encode | BP/Dual 720p                                      |

### Audio

|                  |                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------|
| Audio Codec      | NXP SGT5000<br>TI TLV320AIC23B                                                                                  |
| Audio Connectors | 1x 3.5mm jack Microphone<br>1x 3.5mm jack Stereo Audio in<br>1x 3.5mm jack Stereo Audio out<br>S/PDIF (optical) |

## Power Specifications

|                   |                                           |
|-------------------|-------------------------------------------|
| Power Input       | 12V DC +/-5%                              |
| Power Consumption | Depending on Configuration                |
| Power Connector   | 2-pin 5.08mm Terminal Block<br>2EHDRM-02P |

## Operation Systems

|                  |                                     |
|------------------|-------------------------------------|
| Standard Support | Linux<br>Yocto<br>Android<br>Ubuntu |
|------------------|-------------------------------------|

## Environmental and Mechanical

|                       |                               |
|-----------------------|-------------------------------|
| Enclosure Material    | Metal                         |
| Dimensions            | 161 (W) x 110 (H) x 40 (D) mm |
| Relative Humidity     | 10 to 90 %                    |
| MTBF                  | 50,000 Hours                  |
| Shock                 | 15G half-sine 11 ms duration  |
| Operation Temperature | Commercial: 0° to +60° C      |
| Vibration             | 1 Grms random 5-500Hz hr/axis |
| Weight                | 510 grams                     |

## External Connectors

|                  |                                            |
|------------------|--------------------------------------------|
| External Display | 1x HDMI                                    |
| Network          | 1x RJ45                                    |
| USB              | 1x USB 2.0 Host<br>1x USB 2.0 OTG (Type-C) |
| Serial Port      | 1x RS-232/422/485                          |
| SD Cardslot      | 1x MicroSD Card Slot                       |

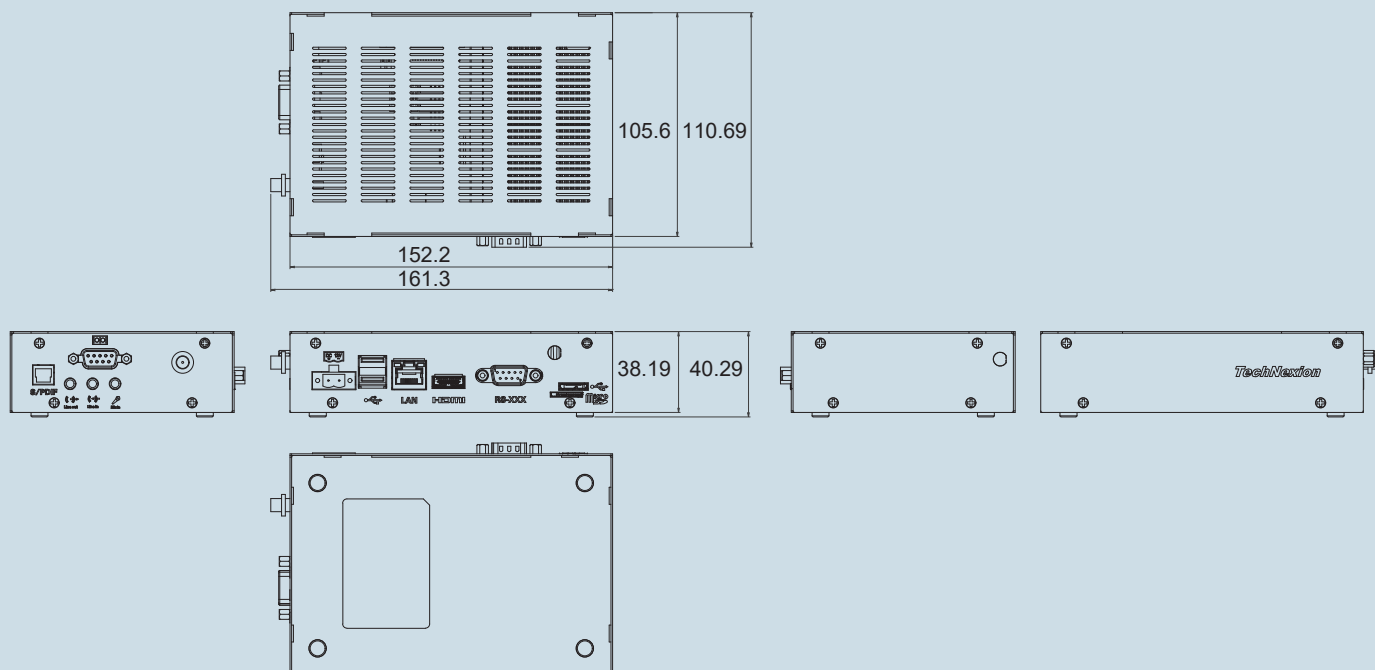
## Expansion Interfaces

|                 |                                |
|-----------------|--------------------------------|
| Expansion Slots | 2x mini-PCIe with SIM cardslot |
|-----------------|--------------------------------|

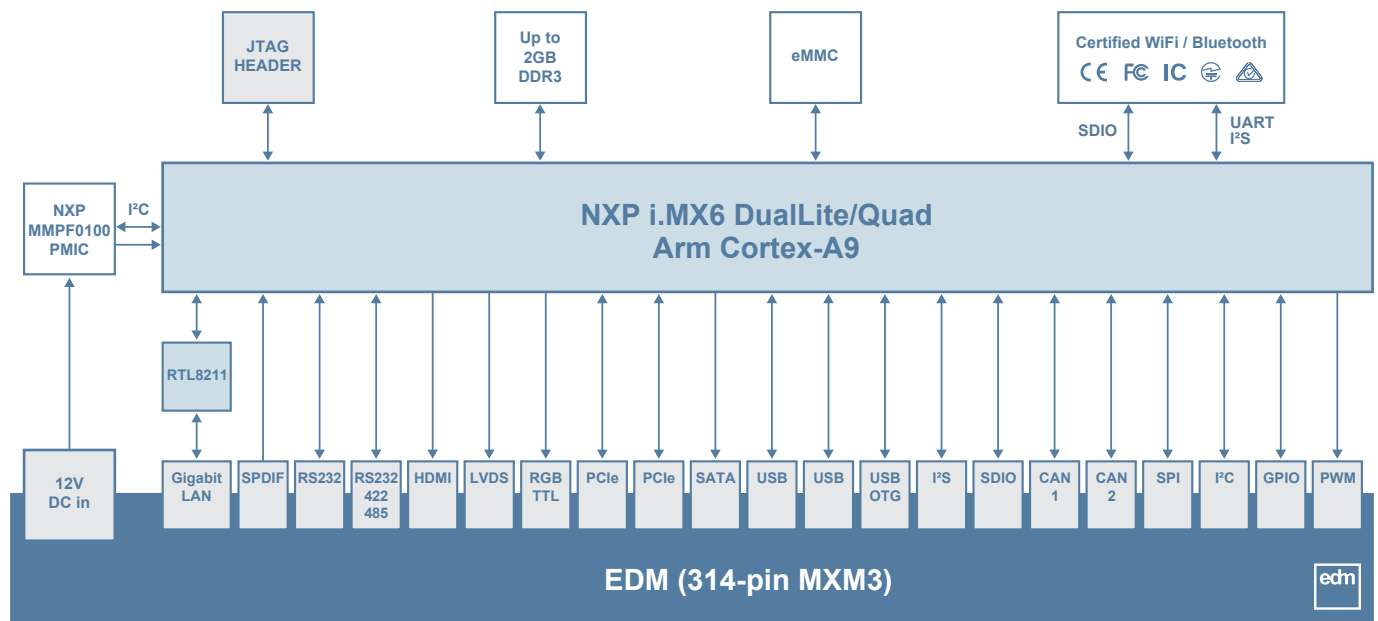
## Certification and Compliance

|                       |                                                               |
|-----------------------|---------------------------------------------------------------|
| USA                   | FCC ID: 2AKZA-QCA9377                                         |
| Canada                | IC: 22364-QCA9377                                             |
| European Union        | EN 300 328 v2.2.2<br>EN 301 893 v2.1.1<br>EN 55032 / EN 55024 |
| Japan                 | TELEC: 201-180629                                             |
| Australia/New Zealand | RCM Compliant                                                 |
| Bluetooth Logo        | QDID 150839 (Bluetooth 4.2)<br>QDID 193238 (Bluetooth 5)      |
| Certification         | Compliant with CE / FCC /<br>RoHS / REACH directives          |

## Dimensions (units in mm)



## Block Diagram



## Ordering Information

### EDM1-FAIRY-IMX6DL-SYSTEM

NXP i.MX6 DualLite Development Board with 2GB DDR3, 16GB eMMC and Wi-Fi + BT wireless connectivity including MHF4 antenna, and female DC Power to terminal block adapter in a convenient assembled metal enclosure.

### EDM1-FAIRY-IMX6DL-SYSTEM

NXP i.MX6 Quad Development Board with 2GB DDR3, 16GB eMMC and Wi-Fi + BT wireless connectivity including MHF4 antenna, and female DC Power to terminal block adapter in a convenient assembled metal enclosure.

