

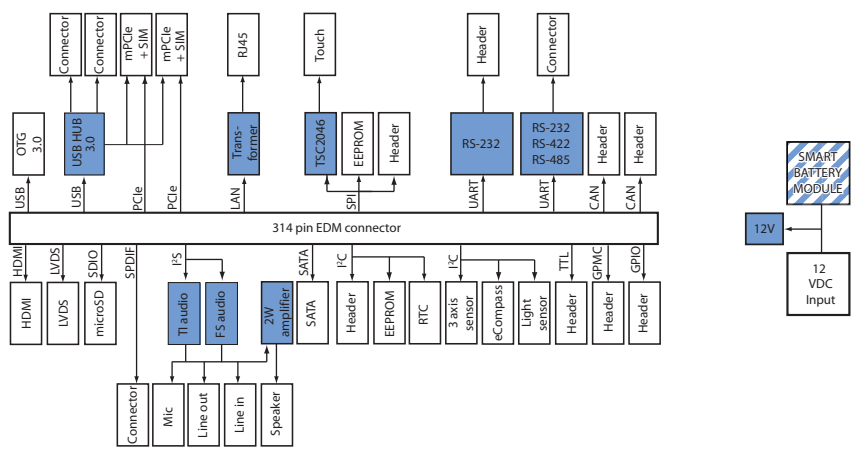
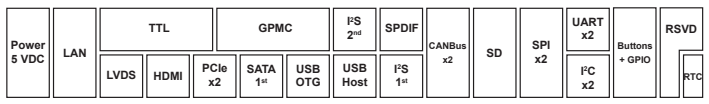


Develop your mobile embedded device quickly with the Fairy EDM Carrier Board which features a variety of sensors and interconnects.

HDMI, TTL and LVDS display interfaces.

Communication by dual PCI Express (with SIM cardslots).

Dual CAN Bus, Dual UART, USB and 8 GPIO's for Industrial control.



### Core System

System on Module EDM Type 1 compliant

### Video

Display 1x HDMI  
1 channel LVDS 18/24 bit  
RGB TTL 24 bit

### Touch

Controller TSC2046 (4 wire by SPI)  
Connector 4 wire touch panel

### Audio

Codec Jumper selectable:  
Freescale SGTL5000 (I<sup>2</sup>S),  
TI TLV320AIC23B (I<sup>2</sup>S)  
Connector 1x 3.5 mm jack Stereo Audio in  
1x 3.5 mm jack Stereo Audio out  
1x 3.5 mm jack Microphone  
S/PDIF  
Speaker 2W amplified speaker connectors

### Sensors

3-axis Movement ST Microelectronics LIS331DLH  
Light Sensor Intersil ISL29023IROZ-T7  
Compass Freescale MAG3110FCR1  
Real Time Clock Maxim integrated DS1337+

### Expansion and Connectivity

Expansion Slots 2x mini-PCIe + SIM cardslot (for 3G communication)  
Ethernet 1x Gigabit LAN  
USB 2x USB 3.0 Host  
1x micro USB 3.0 / 2.0 OTG

### Storage

Connector 1x SATA  
1x micro SD cardslot (SDIO)

### Communication and Control

Header 2x CAN Bus  
1x UART (RS-232)  
1x UART (RS-232/422/485)  
2x SPI (shared with EEPROM)  
2x I<sup>2</sup>C (shared with EEPROM)  
8x GPIO  
Local Bus  
Reserved / manufacturing pins

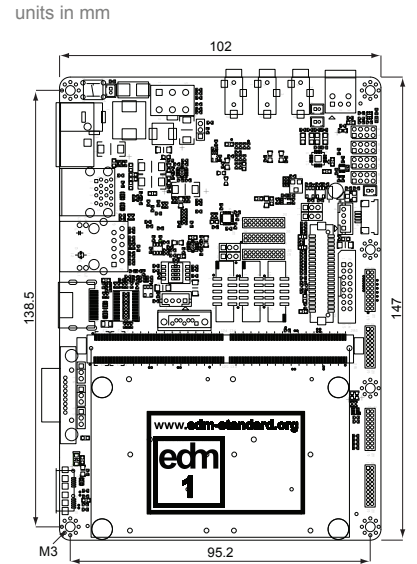
### Power Specifications

Input Power 12 VDC  
or Smart Battery

### Mechanical and Environmental

Temperature Commercial 0° to 60° C  
Extended -20° to 70° C  
Industrial: -40° to 85° C  
Humidity 10-90%  
Module Connector 314 pins MXM3  
Form Factor 3.5" Form Factor  
Dimensions 147 x 102 mm  
(5 7/8 x 4 inch)  
MTBF >100,000 hours  
Weight 115 grams  
Shock 50G / 25ms  
Vibration 20G / 0-600 Hz

### Dimensions



### Ordering Information

EDM1-FAIRY-START EDM Type 1 Evaluation Board including Cablekit and Adaptor  
EDM1-FAIRY 3.5" Form Factor Carrier Board for EDM Type 1 System-on-Modules.

The Fairy design files including schematics and gerber files are available to design your own EDM Carrier Board.