

3.5" Form Factor Carrier Board for EDM Type 1 System-on-Modules





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.

Power 5 VDC	LAN		TTL		GPM	С	I ² S 2 nd	SPDIF	CANBus x2 SD	CD.	SPI	UART x2	Buttons	RSVD	
		LVDS	нрмі	PCIe x2	SATA 1st	USB OTG	USB Host	I ² S 1 st		x2	I ² C x2	+ GPIO	RTC		

Core System

System on Module EDM Type 1 compliant

Video

Display 1x HMDI

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 (I2S), TI TLV320AIC23B (I2S)

1x 3.5 mm jack Stereo Audio in Connector

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 Light Sensor Compass Real Time Clock

ST Microelectronics LIS331DLH Intersil ISL29023IROZ-T7 Freescale MAG3110FCR1 Maxim integrated DS1337+

Expansion an Connectivity

Expansion Slots 2x mini-PCle + 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

2x CAN Bus

1x UART (RS-232)

1x UART (RS-232/422/485) 2x SPI (shared with EEPROM) 2x I2C (shared with EEPROM)

8x GPIO Local Bus

Reserved / manufacturing pins

Power Specifications

Input Power 12 VDC

or Smart Battery



RS-232 RS-422 RS-485 314 pin EDM connector microSD HDMI LVDS

12 VDC Input

Mechanical and Environmental

Temperature Commercial 0° to 60° C

Extended -20° to 70° C Industrial: -40° to 85° C

10-90%

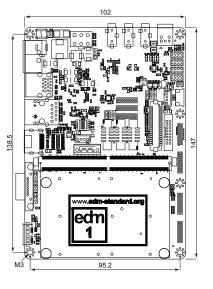
Humidity Module Connector 314 pins MXM3 Form Factor 3.5" Form Factor Dimensions 147 x 102 mm $(5\frac{3}{4} \times 4 \text{ inch})$ MTBF >100,000 hours

Weight 115 grams Shock 50G / 25ms Vibration 20G / 0-600 Hz



Dimensions

units in mm



Ordering Information

EDM1-FAIRY-START EDM1-FAIRY

EDM Type 1 Evaluation Board including Cablekit and Adaptor 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.