

EDM2-ELF - Carrier Board for EDM Type 2 Compact Module

Key Features

Develop your mobile embedded device quickly with the Elf 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).

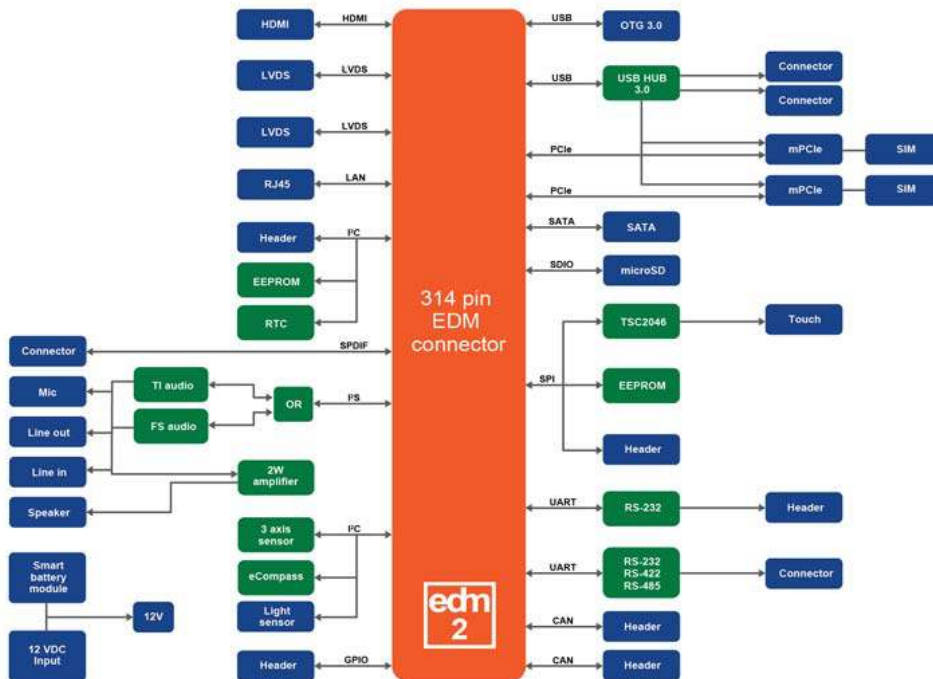
Dual CAN Bus, Dual UART, USB and 8 GPIO's for Industrial control.



Interface Overview

| | | | | | | | | | | | | | | |
|----------------|-----|------|------|------------|-------------------------|------------|-------------|-------------------------------------|--------------|----|-----------|------------------------|-------------------|------|
| Power 5 VDC | LAN | LVDS | HDMI | PCIe x4 | SATA 2 nd | LPC | HDA | SPDIF | CANBus x2 | SD | SPI x2 | UART x2 | Buttons + GPIO | RSVD |
| | | LVDS | HDMI | PCIe x2 | SATA 1 st | USB OTG | USB Host | I ² S 1 st | | | | I ² C x2 | | RTC |

Block Diagram



Specifications

System on Module EDM Type 2 compact form factor

Expansion

Expansion Slots 2x mini-PCIe + SIM cardslot
(for 3G communication)

I/O Interfaces

Connector 1x SATA
1x micro SD cardslot (SDIO)
1x Gigabit LAN
2x USB 3.0 Host
1x micro USB 3.0 / 2.0 OTG
1x UART (RS-232/422/485)

Header 2x CAN Bus
1x UART (RS-232)
2x SPI
8x GPIO
2x I2C
Manufacturing pins

Video

Connector 1x HDMI
2 channel LVDS 18/24 bit

Audio

Codec Jumper selectable:
Freescale SGTL5000 (I²S),
TI TLV320AIC23B (I²S)

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

Touch

Controller TSC2046 (4 wire by SPI)

Connector 4 wire touch panel

Sensors

3-axis Movement ST Microelectronics LIS331DLH

Light Sensor Intersil ISL29023IROZ-T7

Compass Freescale MAG3110FCR1

Real Time Clock Maxim integrated DS1337+

Power Specifications

Input Power Requirements 12 VDC +/- 5%

Battery

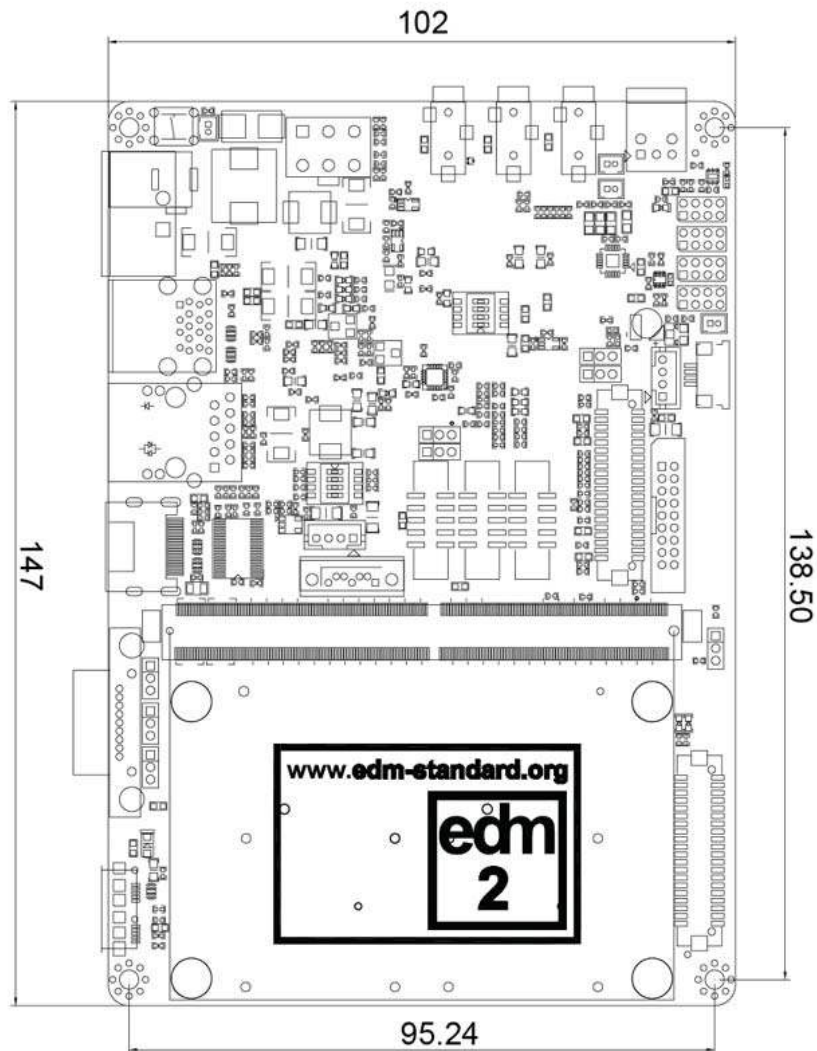
Smart battery connector

Environmental and Mechanical

| | |
|------------------|--|
| 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 5¾ x 4 inch |
| MTBF | >100,000 hours |
| Weight | 115 grams |
| Shock | 50G / 25ms |
| Vibration | 20G / 0-600 Hz |
| Certification | Compliant with CE, FCC, RoHS, REACH directives |

Dimensional Drawing

All dimensions are in mm



Ordering Information

EDM2-ELF

3.5 inch form factor Elf carrier board for EDM type 2 system-on-modules

EDM2-ELF-START

Elf EDM type 2 evaluation board including cablekit and adaptor