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.

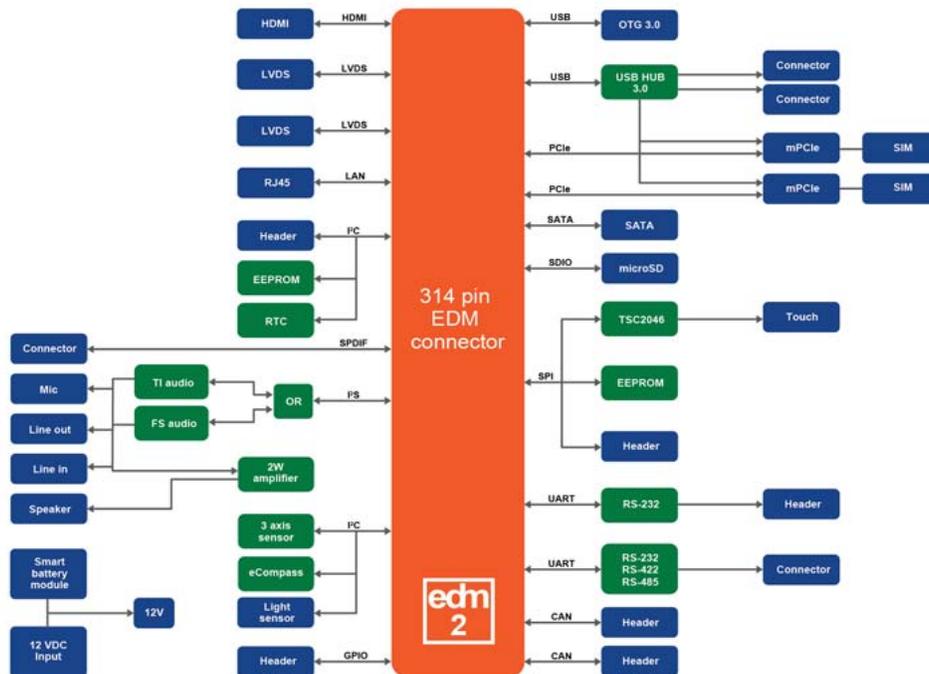Communication by dual PCI Express (with SIM cardslots).

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

Interface Overview

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 Manafacturing pins

Video

Connector	1x HMDI 2 channel LVDS 18/24 bit

Audio

Codec	Jumper selectable: Freescale SGTL5000 (I^2S), TI TLV320AIC23B (I^2S)
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
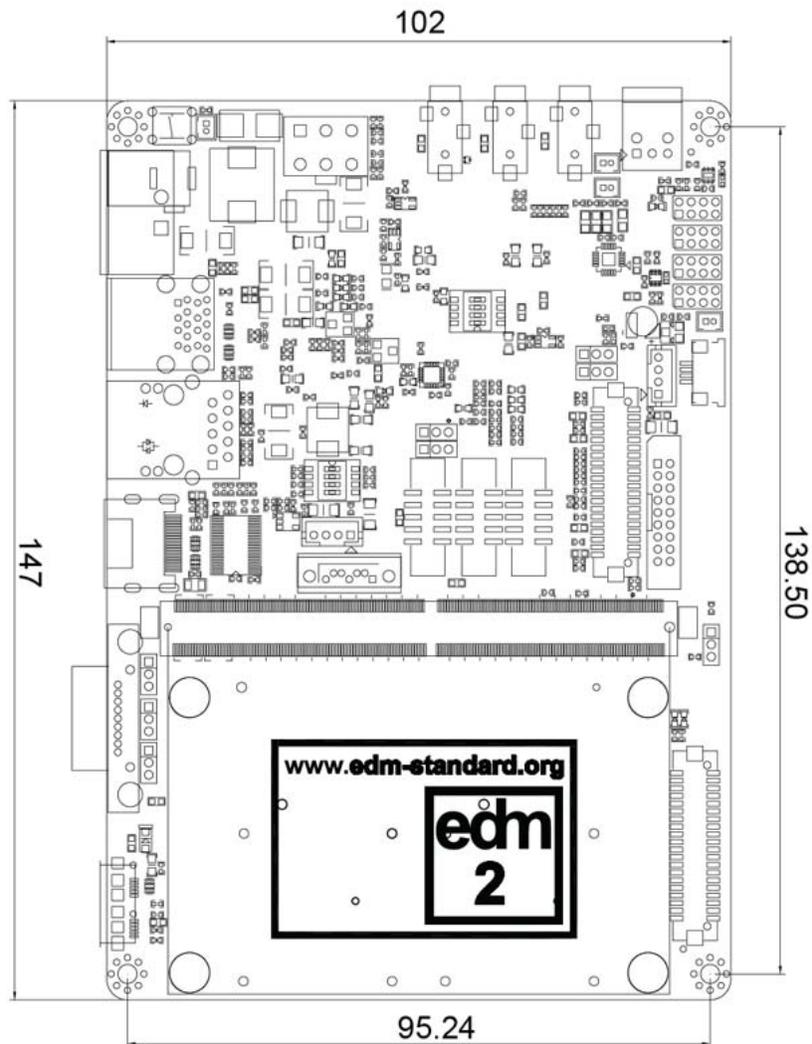
Ordering Information

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