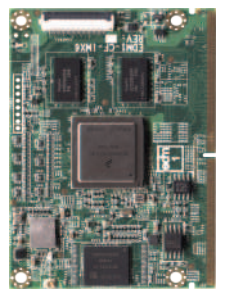


EDM1-CF-iMX6



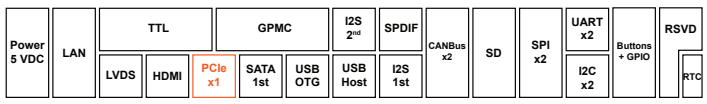
EDM Type 1 Compact Form Factor Freescale i.MX6 System on Module



ARM Cortex-A9 Freescale i.MX6 scalable single/dual/quad core EDM type 1 compact System-on-Module

Communication by gigabit LAN, WiFi 802.11 b/g/n and Bluetooth v.4.0

Targeting multimedia applications with LVDS, TTL, HDMI, S/PDIF, I²S, MIPI camera and display.



Core System

Signalling CPU
EDM Type 1 compliant
Freescale i.MX6Quad @1.0GHz
Freescale i.MX6Dual @1.0 GHz
Freescale i.MX6DualLite @1.0 GHz
Freescale i.MX6Solo @1.0 GHz

System Memory Storage
up to 2GB DDR3
eMMC / iNAND
or optional NAND Flash

Debug Interface
FPC Connector
JTAG Interface
MIPI interface camera
MIPI interface DSI display

Connectivity

Network
Wireless LAN
Atheros AR8031 Gigabit LAN
Broadcom BCM4330
802.11 b/g/n @ 2.4 Ghz
Bluetooth v. 4.0

Audio

Interface
Audio Codec
I²S (2 channel), S/PDIF
on EDM Carrier Board

Video

| GPU 3D | Solo / DualLite | Dual / Quad |
|-----------------------------|---|--|
| | Vivante GC880 35Mtri/s 266Mpxl/s Open GL ES 2.0 | Vivante GC2000 200Mtri/s 1000Mpxl/s, OpenGL ES 2.0 & Haulti, CL EP |
| GPU 2D (Vector Graphics) | emulated on GPU 3D | Vivante GC355 300Mpxl/s, OpenVG 1.1 |
| GPU 2D (Composition) | Vivante GC320 600Mpxl/s, BLIT | Vivante GC320 600Mpxl/s, BLIT |
| Video Decode | 1080p30 + D1 | 1080p60 H.264 |
| Video Encode | 1080p30 H.264 BP/ Dual 720p | 1080p30 H.264 BP/ Dual 720p |

I/O

Storage
1x SATA 2.0 (Dual / Quad only)
1x SDIO / MMC
Expansion
1x PCIe 2.0
Display
HDMI v1.4
1 channel LVDS 18/24 bit
24 bit RGB TTL
USB
USB Host 2.0
USB OTG 2.0
CAN Bus
2x Flex CAN
version 2.0B compliant
Serial Port
2x UART
Other
SPI, I²C, GPIO, Local Bus

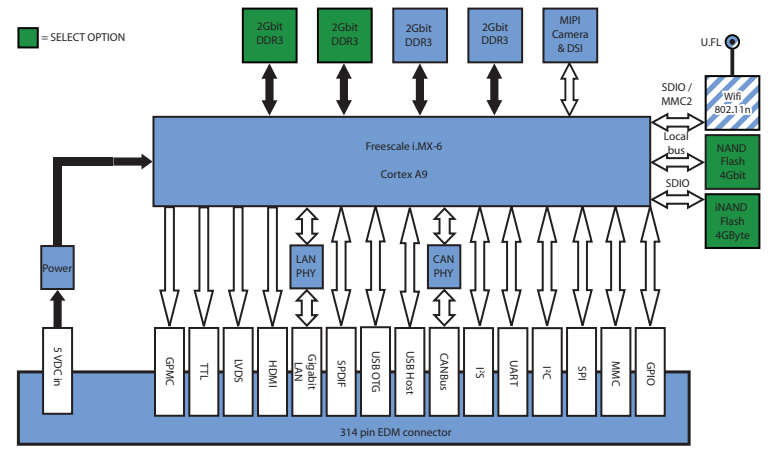
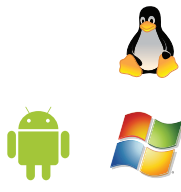
Power Specifications

Input Power 5 VDC

Operating Systems

Standard Support
Linux
Android

Extended Support
Commercial Linux
Windows Embedded Compact 7
Real Time OS



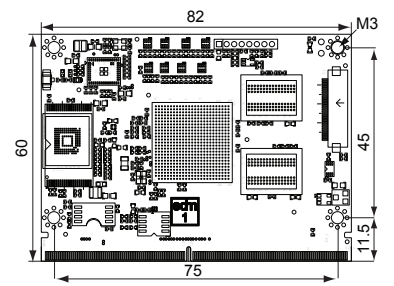
Mechanical and Environmental

Temperature
Commercial: 0° to 60° C
Extended: -20° to 70° C
* Industrial: -40° to 85° C
(* = no wifi, no eMMC)
10-90%

Humidity
Module Connector
Form Factor
Dimensions
314 pins MXM3
EDM Compact Form Factor
82 x 60 mm
(3 1/8 x 2 3/8 inch)
>100,000 hours
Weight
20 grams
Shock
50G / 25ms
Vibration
20G / 0-600 Hz

Dimensions

units in mm



Ordering Information

| | |
|---------------------------|--|
| EDM1-CF-iMX6Q10-BW | Freescale i.MX6 Quad core EDM Compact Type 1 with WiFi and Bluetooth |
| EDM1-CF-iMX6Q10 | Freescale i.MX6 Quad core EDM Compact Type 1 |
| EDM1-CF-iMX6D10-BW | Freescale i.MX6 Dual core EDM Compact Type 1 with WiFi and Bluetooth |
| EDM1-CF-iMX6D10 | Freescale i.MX6 Dual core EDM Compact Type 1 |
| EDM1-CF-iMX6U10-BW | Freescale i.MX6 DualLite core EDM Compact Type 1 with WiFi and Bluetooth |
| EDM1-CF-iMX6U10 | Freescale i.MX6 DualLite core EDM Compact Type 1 |
| EDM1-CF-iMX6S10-BW | Freescale i.MX6 Single core EDM Compact Type 1 with WiFi and Bluetooth |
| EDM1-CF-iMX6S10 | Freescale i.MX6 Single core EDM Compact Type 1 |

Optional Accessories

| | |
|-----------------------|---|
| EDM-C-Bracket | EDM compact Carrier Board mount bracket |
| HSP-EDM-C-10W | EDM passive heatsink |
| HS-EDM-CF-iMX6 | EDM-CF-i.MX6 compatible heatspreader |

Feel free to contact us for custom tailored Carrier Board request for your projects.



Start Kits

| | |
|---|---|
| EDM1-CF-iMX6S10-START EDM1-CF-iMX6U10-START EDM1-CF-iMX6D10-START | EDM Compact Type 1 Freescale i.MX6 Solo 1Ghz + 512MB RAM + 4GB iNAND + Gigabit LAN + 2 CAN (EDM1-CF-iMX6S10-R512-Ni4G-L-2C) EDM Compact Type 1 Freescale i.MX6 Duallite 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN (EDM1-CF-iMX6U10-R1GB-Ni4G-L-2C) EDM Compact Type 1 Freescale i.MX6 Dual 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA & EDM Compact passive heatsink (EDM1-CF-iMX6D10-R1GB-Ni4G-L-S-2C + EDM-HS-CP12-20-05-01) |
| EDM1-CF-iMX6Q10-START | EDM Compact Type 1 Freescale i.MX6 Quad 1Ghz + 2GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA & EDM Compact passive heatsink (EDM1-CF-iMX6Q10-R2GB-Ni4G-L-S-2C + EDM-HS-CP12-20-05-01) |
| EDM1-CF-iMX6S10-BW-START | EDM Compact Type 1 Freescale i.MX6 Solo 1Ghz + 512MB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + 802.11bgn + Bluetooth 4.0 & EDM antenna kit (EDM1-CF-iMX6S10-R512-Ni4G-BW-L-2C + EDM-ANT-P150-A138-045D-2450-BK) |
| EDM1-CF-iMX6U10-BW-START | EDM Compact Type 1 Freescale i.MX6 Duallite 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + 802.11bgn + Bluetooth 4.0 & EDM antenna kit (EDM1-CF-iMX6U10-R1GB-Ni4G-BW-L-2C + EDM-ANT-P150-A138-045D-2450-BK) |
| EDM1-CF-iMX6D10-BW-START | EDM Compact Type 1 Freescale i.MX6 Dual 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA + 802.11bgn + Bluetooth 4.0 & EDM antenna kit & EDM Compact passive heatsink (EDM1-CF-iMX6D10-R1GB-Ni4G-BW-L-S-2C + EDM-ANT-P150-A138-045D-2450-BK + EDM-HS-CP12-20-05-01) |
| EDM1-CF-iMX6Q10-BW-START | EDM Compact Type 1 Freescale i.MX6 Quad 1Ghz + 2GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA + 802.11bgn + Bluetooth 4.0 & EDM antenna kit & EDM Compact passive heatsink (EDM1-CF-iMX6Q10-R2GB-Ni4G-BW-L-S-2C + EDM-ANT-P150-A138-045D-2450-BK + EDM-HS-CP12-20-05-01) |

Standard Partnumbers

| | |
|--|--|
| EDM1-CF-iMX6S10-R512-Ni4G-L-2C EDM1-CF-iMX6U10-R1GB-Ni4G-L-2C EDM1-CF-iMX6D10-R1GB-Ni4G-L-S-2C EDM1-CF-iMX6Q10-R2GB-Ni4G-L-S-2C | EDM Compact Type 1 Freescale i.MX6 Solo 1Ghz + 512MB RAM + 4GB iNAND + Gigabit LAN + 2 CAN EDM Compact Type 1 Freescale i.MX6 Duallite 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN EDM Compact Type 1 Freescale i.MX6 Dual 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA EDM Compact Type 1 Freescale i.MX6 Quad 1Ghz + 2GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA |
| EDM1-CF-iMX6S10-R512-Ni4G-BW-L-2C EDM1-CF-iMX6U10-R1GB-Ni4G-BW-L-2C EDM1-CF-iMX6D10-R1GB-Ni4G-BW-L-S-2C EDM1-CF-iMX6Q10-R2GB-Ni4G-BW-L-S-2C | EDM Compact Type 1 Freescale i.MX6 Solo 1Ghz + 512MB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + 802.11bgn + Bluetooth 4.0 EDM Compact Type 1 Freescale i.MX6 Duallite 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + 802.11bgn + Bluetooth 4.0 EDM Compact Type 1 Freescale i.MX6 Dual 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA + 802.11bgn + Bluetooth 4.0 EDM Compact Type 1 Freescale i.MX6 Quad 1Ghz + 2GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA + 802.11bgn + Bluetooth 4.0 |

Optional Accessories

| | |
|---|--|
| EDM-ANT-P150-A138-045D-2450-BK EDM-HS-CP12-20-05-01 EDMCONNECTORKIT | EDM antenna kit containing U.FL to SMA patch cable + 4.5 dB, 2.4/5 GHz, black color antenna. EDM Compact 12 mm passive heatsink + 20*20 mm thermopad with 0.5 mm thickness for Lidded Freescale CPUs + mylar. 10 EDM AS0B821-S78B-7H connectors + 40 standoff's + 40 screws. |
|---|--|

How to create a Custom Partnumber (MOQ's apply)

| | |
|---|--|
| EDM-CF1-IMX6Q10-R1GB-Ni4G-BW-L-S-2C-TE-xxxx | |
| EDM | Embedded Design Module |
| EDM Type | Pin definition of EDM Type 1 or Type 2 |
| Formfactor of Module | C = Compact; S = Standard; X = Extended |
| Chipvendor | F = Freescale |
| CPU type | for example : i.MX6 |
| CPU cores | S = Single core; U = DualLite; D = Dualcore; Q = Quadcore |
| CPU speed | 10 = 1GHz; 08 = 800MHz |
| Memory | R512 = 512MB; R1GB = 1GB; R2GB = 2GB |
| Storage | Ni4G = iNAND 4GB; N512 = 512 NAND Flash (iNAND is only possible in Commercial and Extended temperature. For Industrial Temperature only NAND Flash is possible. |
| Wireless LAN | None = no wireless communication; W = WiFi; BW = Bluetooth + WiFi (only available in commercial and extended temperature) |
| Network LAN | None = no Ethernet; L = 1000Gbps Ethernet LAN |
| SATA | None = no SATA; S = SATA (only on i.MX6 Dual or i.MX6 Quad) |
| CANbus | None = no CANbus; 1C = 1 CANbus; 2C = 2 CANbus |
| Temperature | None = Commercial Temp (0~60C); TE = Extended Temp (-20~70C); TI = Industrial Temp (-40~85C); TEC = Extended Temperature Certified; TIC = Industrial Temperature Certified |
| Customer ID code | xxxx = special order code for custom softwrae loading or BOM option |