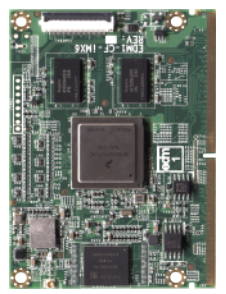


# EDM1-CF-iMX6



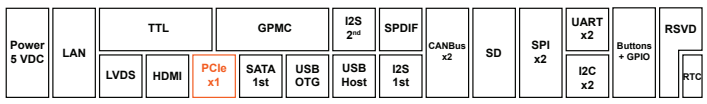
## EDM Type 1 Compact Form Factor Freescale i.MX6 System on Module



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, I<sup>2</sup>S, 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  
I<sup>2</sup>S (2 channel), S/PDIF  
on EDM Carrier Board

### Video

	Solo / DualLite	Dual / Quad
GPU 3D	Vivante GC880 35Mtri/s 266Mpxl/s Open GL ES 2.0	Vivante GC2000 200Mtri/s 1000Mpxl/s, OpenGL ES 2.0 & Haili, 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, I<sup>2</sup>C, GPIO, Local Bus

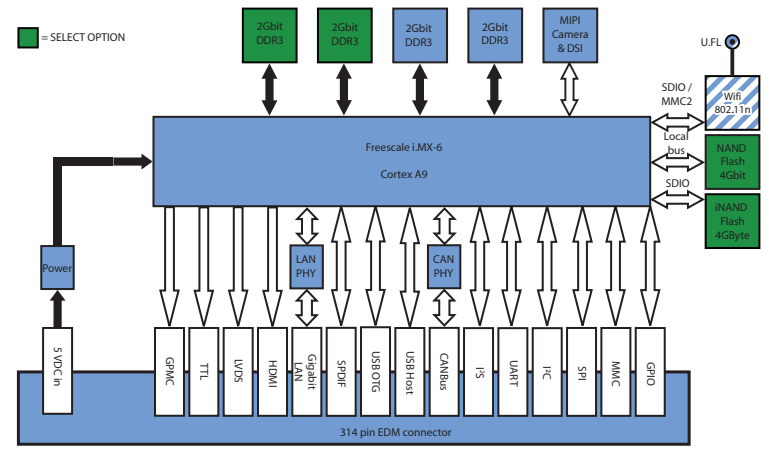
### Power Specifications

Input Power 5 VDC

### Operating Systems

Standard Support  
Linux  
Android

Extended Support  
Commercial Linux  
Windows Embedded Compact 7  
Real Time OS



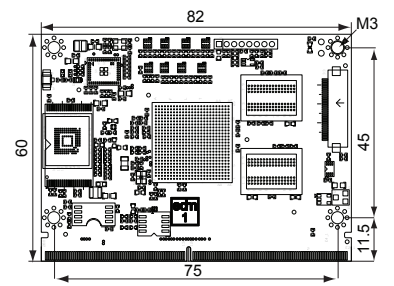
### Mechanical and Environmental

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

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

### Optional Accessories

<b>EDM-C-Bracket</b>	EDM compact Carrier Board mount bracket
<b>HSP-EDM-C-10W</b>	EDM passive heatsink
<b>HS-EDM-CF-iMX6</b>	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 ( <b>EDM1-CF-iMX6S10-R512-Ni4G-L-2C</b> ) EDM Compact Type 1 Freescale i.MX6 Duallite 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN ( <b>EDM1-CF-iMX6U10-R1GB-Ni4G-L-2C</b> ) EDM Compact Type 1 Freescale i.MX6 Dual 1Ghz + 1GB RAM + 4GB iNAND + Gigabit LAN + 2 CAN + SATA & EDM Compact passive heatsink ( <b>EDM1-CF-iMX6D10-R1GB-Ni4G-L-S-2C + EDM-HS-CP12-20-05-01</b> )
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 ( <b>EDM1-CF-iMX6Q10-R2GB-Ni4G-L-S-2C + EDM-HS-CP12-20-05-01</b> )
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 ( <b>EDM1-CF-iMX6S10-R512-Ni4G-BW-L-2C + EDM-ANT-P150-A138-045D-2450-BK</b> )
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 ( <b>EDM1-CF-iMX6U10-R1GB-Ni4G-BW-L-2C + EDM-ANT-P150-A138-045D-2450-BK</b> )
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 ( <b>EDM1-CF-iMX6D10-R1GB-Ni4G-BW-L-S-2C + EDM-ANT-P150-A138-045D-2450-BK + EDM-HS-CP12-20-05-01</b> )
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 ( <b>EDM1-CF-iMX6Q10-R2GB-Ni4G-BW-L-S-2C + EDM-ANT-P150-A138-045D-2450-BK + EDM-HS-CP12-20-05-01</b> )

### 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.
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### 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

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