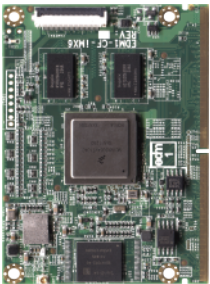


# EDM1-CF-iMX6



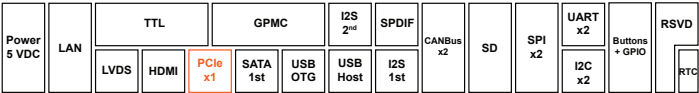
## EDM Type 1 Compact Form Factor Freescale i.MX6 System on Module



ARM Cortex-A9 Freescale i.MX6 scalable single/dual/quadruple 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<br>Freescale i.MX6Quad @1.0GHz<br>Freescale i.MX6Dual @1.0 GHz<br>Freescale i.MX6DualLite @1.0 GHz<br>Freescale i.MX6Solo @1.0 GHz |
| System Memory Storage         | up to 2GB DDR3<br>eMMC / iNAND<br>or optional NAND Flash                                                                                                |
| Debug Interface FPC Connector | JTAG Interface<br>MIPI interface camera<br>MIPI interface DSI display                                                                                   |

### Connectivity

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

### Audio

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Interface Audio Codec | I <sup>2</sup> S (2 channel), S/PDIF on EDM Carrier Board |
|-----------------------|-----------------------------------------------------------|

### Video

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

### I/O

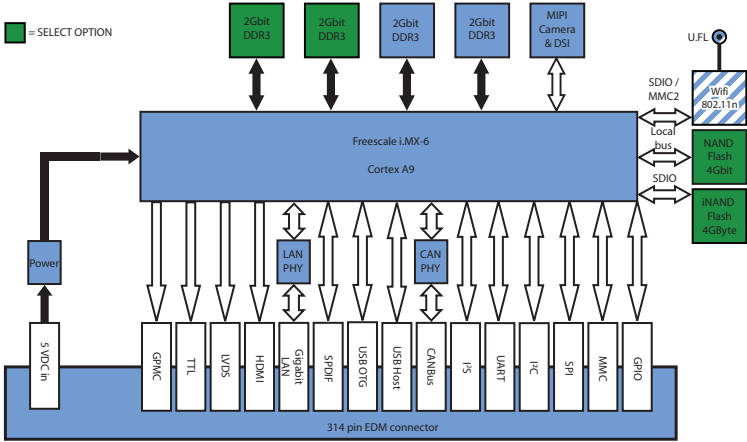
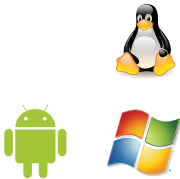
|             |                                                               |
|-------------|---------------------------------------------------------------|
| Storage     | 1x SATA 2.0 (Dual / Quad only)<br>1x SDIO/ MMC<br>1x PCIe 2.0 |
| Expansion   | HDMI v1.4<br>1 channel LVDS 18/24 bit<br>24 bit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

### Power Specifications

|             |       |
|-------------|-------|
| Input Power | 5 VDC |
|-------------|-------|

### Operating Systems

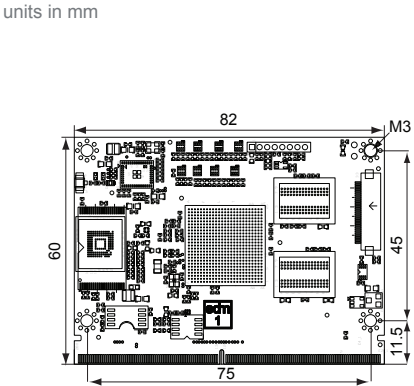
|                  |                                                                |
|------------------|----------------------------------------------------------------|
| Standard Support | Linux<br>Android                                               |
| Extended Support | Commercial Linux<br>Windows Embedded Compact 7<br>Real Time OS |



### Mechanical and Environmental

|                  |                                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------|
| Temperature      | Commercial: 0° to 60° C<br>Extended: -20° to 70° C<br>* Industrial: -40° to 85° C<br>(* = no wifi, no eMMC)<br>10-90% |
| Humidity         | 314 pins MXM3                                                                                                         |
| Module Connector | EDM Compact Form Factor<br>82 x 60 mm<br>(3% x 2% inch)                                                               |
| Form Factor      | >100,000 hours                                                                                                        |
| Dimensions       | 20 grams<br>50G / 25ms<br>20G / 0-600 Hz                                                                              |
| MTBF             |                                                                                                                       |
| Weight           |                                                                                                                       |
| Shock            |                                                                                                                       |
| Vibration        |                                                                                                                       |

### Dimensions



### 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**)  
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-iMX6Q10-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**)  
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**)  
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**)  
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**)

EDM1-CF-iMX6S10-BW-START

EDM1-CF-iMX6U10-BW-START

EDM1-CF-iMX6D10-BW-START

EDM1-CF-iMX6Q10-BW-START

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                                                                                                        |