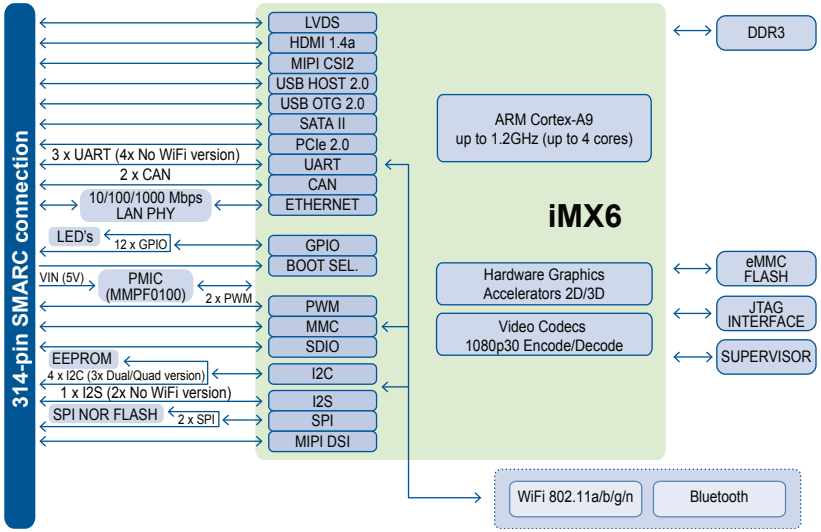
# Critical Link SMARC iMX6 Overview

## Technical Specifications

| | Critical Link SMARC™ iMX6 WIFI | Critical Link SMARC™ iMX6 NO WIFI |
|---|---|---|
| Processor | iMX6 Solo/DualLite/Dual/Quad, by NXP Semiconductors<br>Up to 4 x ARM Cortex-A9 MPCore<br>NEON SIMD Coprocessor<br>Frequency speed up to 1200 MHz (depending on model) | |
| 3D/2D Accelerator | Vivante GC2000,GC880 (depending on model), GC355 and GC320, providing 2D/3D acceleration with OpenGL-ES2.0 and OpenVG 1.1 support | |
| Video | Video acceleration: H.264, H.263, MPEG-2 and MPEG-4 | |
| Memory | RAM: 512 MB, 1 GB or 2 GB DDR3<br>eMMC Flash: 4 GB or 8 GB eMMC | SPI Flash (optional)<br>EEPROM |
| Ethernet | 10/100/1000 Mbps Ethernet PHY Interface | |
| USB 2.0 | 1 x USB 2.0 Host<br>1 x USB 2.0 OTG | |
| Display | 1 x LVDS (4 lanes)<br>1 x HDMI 1.4a (with audio)<br>1 x DSI (2 lanes) | |
| Image Capture Interface | 1 x MIPI CSI2 interfaces (4 lanes Dual/Quad version, 2 lanes Solo/DualLite version) | |
| Wireless | WiFi IEEE 802.11 b/g/n (Access Point: Yes)<br>Bluetooth v4.0 (BLE) | |
| Antenna | 1 x Internal WiFi/Bluetooth antenna<br>1 x U.FL connector for external antenna | |
| Additional Interfaces | 3 x UART<br>4 x I2C<br>1 x MMC<br>1 x I2S<br>2 x SPI<br>1 x PWM<br>2 x CAN<br>1 x SDIO<br>12 x GPIO<br>JTAG Interface<br>1 x SATA II<br>1 x PCIe v2.0 (1 lane) | |
| SW Support | Linux | |
| Power Supply | Power from expansion connectors: From 4,7V to 5,25V | |
| Thermal | Commercial temperature: 0ºC to +60ºC<br>Industrial temperature: -40ºC to +85ºC | |
| Form Factor | 82mm x 50mm | |
| Humidity | 93% relative Humidity at 40ºC, non-condensing (according to IEC 60068-2-78) | |
| MTBF | > 100000 hours | |




## List of Models

| Model | Cores | Frequency (MHz) | WiFi/ Bluetooth | Graphics | RAM Memory | Flash Memory |
|---|---|---|---|---|---|---|
| SMARC™ iMX6 Quad | 4 | 800 | Yes(1) | 3D | 2 GB | 8 GB |
| SMARC™ iMX6 Dual | 2 | 800 | Yes(1) | 3D | 2 GB | 8 GB |
| SMARC™ iMX6 DualLite | 2 | 800 | Yes(1) | 3D | 1 GB | 4 GB |
| SMARC™ iMX6 Solo | 1 | 800 | Yes(1) | 3D | 512 MB | 4 GB |

1. Also available without WiFi/Bluetooth function by request. 2. Other RAM / Flash Memory available by request.

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# Critical Link SMARC iMX6 Development Board

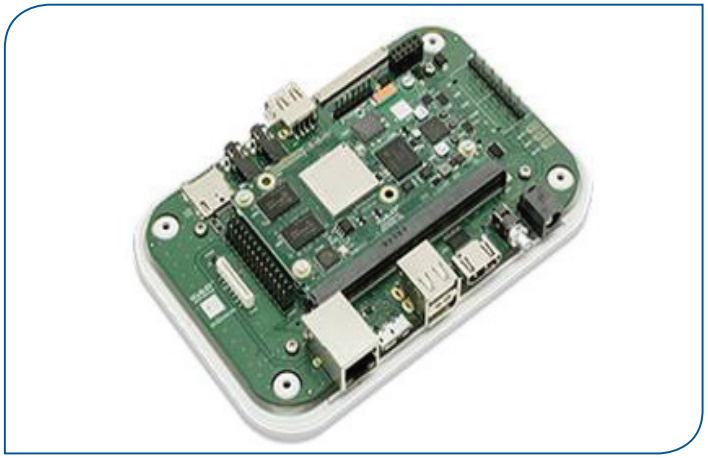
## Applications

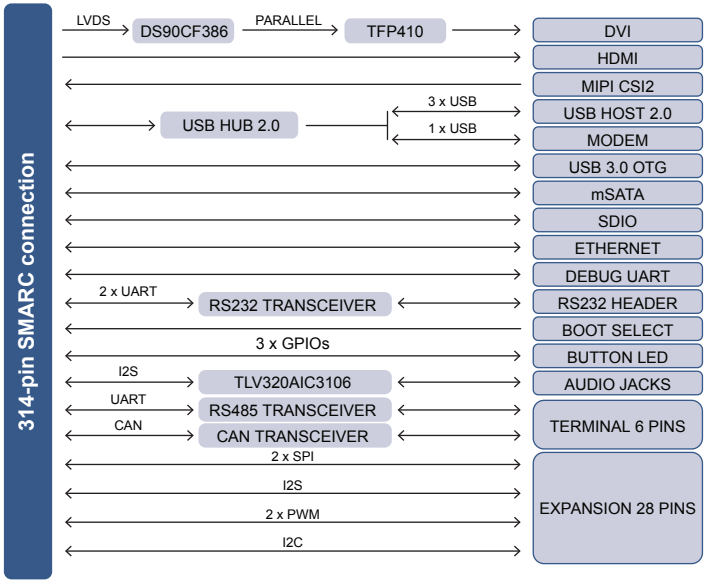
- Portable Data Terminals
- Navigation
- Auto Infotainment
- Gaming
- Medical Imaging
- Home Automation
- Human Interface
- Industrial Control
- Test and Measurement
- Single Board Computers
- Audio and Image Processing

The expansion board is a fully equipped baseboard that accesses the SMARC iMX6 functionalities. It is the fastest way to develop and check the user's final application before building a prototype, saving costs and reducing time to market. This model can be used with all Critical Link iMX6 series modules.

## Technical Specifications

| | |
|---|---|
| Connectors | 1 x SMARC connector<br>+5V Power Supply<br>1 x 10/100/1000Mbps Ethernet PHY Interface<br>1 x HDMI 1.4a output type A receptacle<br>3 x USB 2.0 type A receptacle<br>1 x USB 3.0 type AB receptacle<br>1 x Serial RS232 3V3 expansion header<br>1 x Serial TTL 3V3 debug header<br>1 x Stereo Line mic in mini jack<br>1 x Stereo Line Audio Out mini jack<br>1 x Stereo Line Audio In mini jack<br>1 x DVI connector<br>1 x CSI connector (Rapsberry Pi camera compatible)<br>1 x Terminal 5 pins plug<br>1 x I/O Expansion 28 pins header<br>1 x Modem USB interface<br>1 x mSATA interface<br>1 x Micro-SD connector |
| Features | 1 x Button LED<br>3 x Boot jumpers<br>1 x PWM<br>1 x SPI<br>1 x I2C<br>1 x MMC<br>1 x CAN transceiver<br>1 x RS485<br>2 x RS232<br>1 x Audio codec |
| Dimensions of the Expansion Board (without case) | 142 x 90 mm |
| Case dimensions | 150 x 100 x 30 mm |






**For complete product details visit www.criticallink.com/system_on_modules.**

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