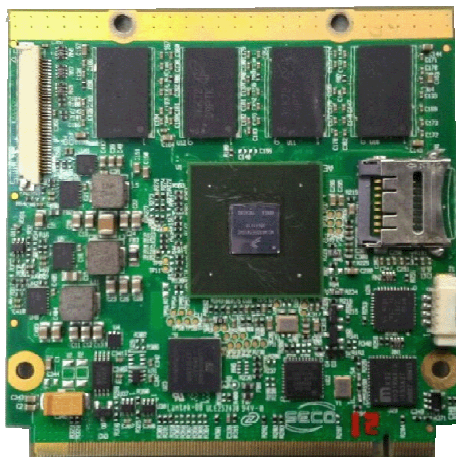


Q7

The i.MX6 module is available in an industry standard Q7 form factor, and integrates an ARM Cortex A9 Dual or Quad 1 GHz Freescale i.MX6 series ultra low power SoC and I/O devices to make a complete system. Operating systems currently supported are Android Version 4.4.2 (KitKat), Version 4.2.2 (Jellybean), and Linux. The Freescale i.MX6 supports 2D, 3D graphics acceleration, and has a full HD 1080P video decoding encoding hardware engine. 24V wide range power input



iMx6 QSeven SOM

- Freescale ARM Cortex-A9 i.MX6 Dual/Quad 1 GHz
- Onboard DDR3 512MB to 2GB DDR3 memory / 8 GB Flash
- Wide range power input 5V~24V
- OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Full HD 1080p video decode and HD 1080p video encode hardware engine
- 1x PCIe 2.0, 1x USB 2.0, 1x USB OTG2.0, (5x USB 2.0 with on-board USB hub) 1x SATA II, 2x I2C, 1x I2S, 1x Camera, 1x HDMI, 1x LVDS display, 2x CANbus, Multiple GPIO, 1x System bus, SPI
- Connectivity options for WiFi, Bluetooth, Fingerprint readers, barcode readers, multiple SIMcard modules
- Ethernet switches with PoE support
- S-Video, VGA and CVBS apart from HDMI

Multiple carrier boards offering a variety of connectivity options for WiFi, Bluetooth, Fingerprint readers, barcode readers, multiple SIMcard modules, Ethernet switches with PoE support, S-Video, VGA and CVBS apart from HDMI with different peripherals are available for easy integration and hardware design reference. Android and Linux BSP utility and reference code is also provided for

Feature	Sub-feature	Specification
Form Factor		Q7
Processor		Freescale ARM Cortex-A9 i.MX6 Dual or Quad
Memory Technology	DDR3	2 GB DDR3 1066 Mhz
	Flash	4/8 GB eMMC flash
	SD Card	8/16/32 GB micro SD card
Graphics	LVDS	24-bit 1366x768
	HDMI	1920x1080
	RGB	24-bit 2048x1536
	VGA	
Graphics Engine		2 IPU's. OpenGL ES 2.0 for 3D, BitBlit for 2D and OpenVG 1.1
Hardware Video Codec		Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP
Ethernet		10/100/1000 GE
RTC		Yes
Watchdog Timer		256-level timer interval, from 0 ~ 128 sec
PCIe		1x PCIe 2.0 (Master or Slave)
SATA		SATA II
USB		1 USB 2.0, 1 USB OTG (or 5 USB 2.0 via USB Hub)
Audio		I2S or AC97 (Mic and Stereo speakers plus Headset)
SDIO		One
Serial Ports		3 UARTs 4-wire (Additional UARTs available via carrier board)
SPI		2
CAN		2 CANbus 2.0
I2C		4
Camera		1 CSI-2 4-lane or parallel MIPI
Touch Panel		I2C or USB Capacitive Multi-touch
Environmental		0 to 60C Commercial or -45C to 85C Industrial
Operating System		Android 4.4.2 (KitKat), Android 4.2.2 (Jellybean), Linux Ubuntu (3.05 or 3.10)

**Ordering Information
Part Number 2010-0002-00**

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