PICO-IMX6-EMMC

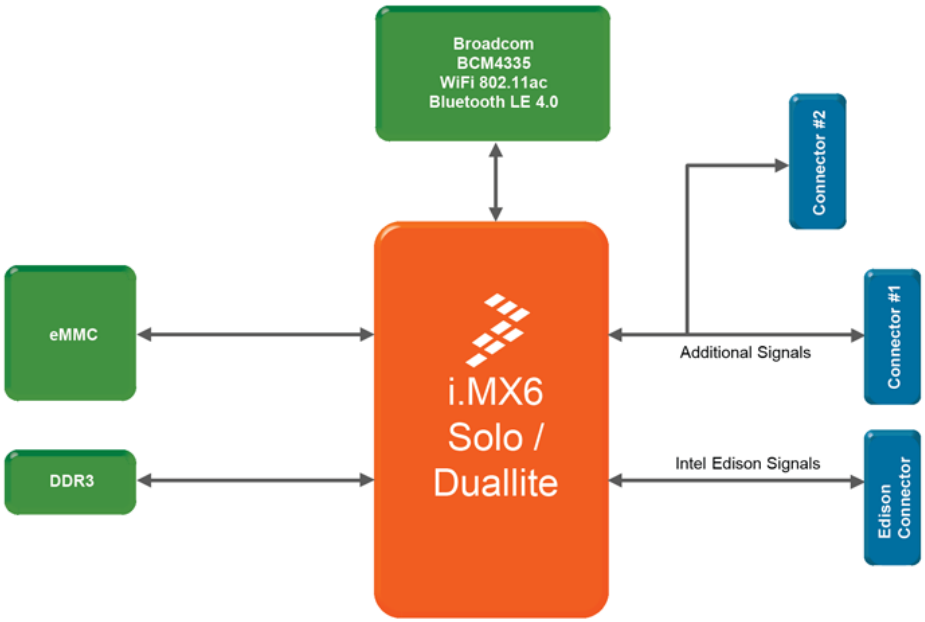
Key Features

The PICO-IMX6-EMMC reference design based on the Freescale i.MX6 multimedia processor is a purpose-built, small footprint hardware platform equipped with a wide array of high-speed connectivity engineered to support IoT endpoints, wearable applications, appliances, drones or industrial mobile terminals.

The affordable reference design is compatible with Intel Edison baseboards and adds a number of additional high-speed signals such as PCIe, RGMII LAN, USB as well as 24 bit TTL Display, LVDS, HDMI and MIPI CSI Camera and MIPI DSI Display options.

The PICO-IMX6-EMMC combines outstanding detailed documentation and design files to integrate the module into your designs with support for Linux 3.x kernel sourcecode and has recipes for Yocto, Ubuntu and Android 4.3/4.4/5.0 available.

PICO-IMX6-EMMC Block Diagram



Specifications

Processor	Freescale i.MX6 Solo / Duallite
Technology	ARM Cortex-A9 single/dual core @ 1Ghz
System Memory	512MB or 1GB DDR3
Storage	onboard eMMC (default 4GB)
Operation System	Linux 3.x, Yocto, Android 4.3, Android 4.4, Android 5.0, Ubuntu

Connectivity

Gigabit Network RGMII	Signals routed to board-to-board connector

Wireless LAN	Broadcom BCM4335 802.11ac
Bluetooth	Broadcom BCM4335 Bluetooth v. 4.0

Connectors

Board-to-Board	1x Intel Edison compatible connector (Hirose 70-pin) 2x Hirose 70-pin connectors

I/O Interface Signalling

Edison I/O @ 1.8V	9x GPIO 4x PWM 2x I²C 1x I²S 1x SPI 2x UART USB-OTG SDIO (4-bit)
Additional I/O @ 3.3V	Single Channel LVDS 24-bit TTL RGB HDMI 1.4 MIPI CSI Camera MIPI DSI Display PCIe RGMII (gigabit LAN) Flex CAN version 2.0B Compliant

Video

GPU 3D	Vivante GC880 35Mtri/s 266Mpxl/s Open GL ES 2.0
GPU 2D (Vector Graphics)	Emulated on GPU 3D
GPU 2D (Composition)	Vivante GC320 600Mpxl/s, BLIT
Video Decode	1080p30 + D1
Video Encode	1080p30 H.264 BP / Dual 720p

Audio

Interface	I²S (1 channel)
Audio Codec	On Carrier Board

Power Specifications

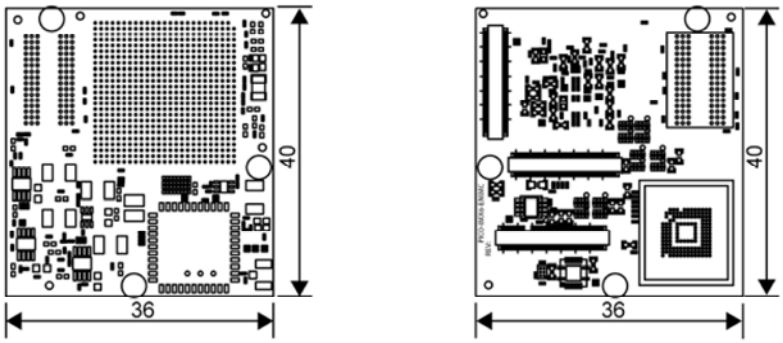
Input Power Requirements	3.3 ~ 4.5 VDC

Environmental and Mechanical

Temperature	Commercial : 0° to 60° C Extended : -20° to 70° C Industrial : -40° to 85° C (no WiFi possible)
Humidity	10 - 90%
Dimensions	36 x 40 mm 1⅜ x 1⅝ inch
Weight	8 grams
Certification	Compliant with CE, FCC, RoHS, REACh directives

Dimensional Drawing

All dimensions are in mm



Ordering Information

PICOIMX6S10R512NI4GBW
PICO-IMX6-SD Module with i.MX6 Solo Processor, 512MB DDR, 4GB eMMC and WiFi / Bluetooth
PICOIMX6U10R1GBNI4GBW
PICO-IMX6-SD Module with i.MX6 Duallite Processor, 1GB DDR, 4GB eMMC Flash and WiFi / Bluetooth