

# PICO-IMX6POP-EMMC



## Main Features

- The PICO-IMX6POP-EMMC design based on the Freescale i.MX6 multimedia processor is a purpose-built, small footprint hardware platform 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.
- ARM Cortex-A9 Freescale i.MX6 scalable dual / quad core System-on-Module
- WiFi 802.11ac and Bluetooth v. 4.0 communication interface



EDISON					EXP-A		EXP-B			
Power 3.3~4.5V	SDIO	I <sup>2</sup> S	SPI	PWM	LVDS	RGMII	CAN	PCIe	HDMI	SATA
	USB OTG	UART	I <sup>2</sup> C	GPIO	TTL		I <sup>2</sup> C	USB HOST	MIPI	

## Specifications

### Core System

CPU	Freescale i.MX6 Dual / Quad (PoP)
Technology	ARM Cortex-A9 dual/quad core @ 1Ghz
PMIC	Freescale MMPF0100
System Memory	up to 2GB LPDDR2
Storage	Onboard eMMC (default 4GB)

### Connectivity

Gigabit Network RGMII	Signals routed to connector
WiFi	Broadcom BCM4339 802.11ac
Bluetooth	Broadcom BCM4339 BT 4.0

### I/O Interface Signalling

Edison I/O @ 1.8V	9x GPIO
	4x PWM
	2x I <sup>2</sup> C
	1x I <sup>2</sup> S
	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
	SATA II
	RGMII (gigabit LAN)
	Flex CAN version 2.0B Compliant
	USB Host

### Video

GPU 3D	Vivante GC2000 200Mtri/s 1000Mpxl/s Open GL ES 2.0 & Halti, CL EP
GPU 2D (Vector Graphics)	Vivante GC355 300Mpxl/s OpenVG 1.1
GPU 2D (Composition)	Vivante GC320 600Mpxl/s, BLIT
Video Decode	1080p60 H.264
Video Encode	1080p30 H.264 BP / Dual 720p

### Audio

Interface	I <sup>2</sup> S (1 channel)
Audio Codec	On Carrier Board

### Power Specifications

Input Power	3.3 ~ 4.5 VDC
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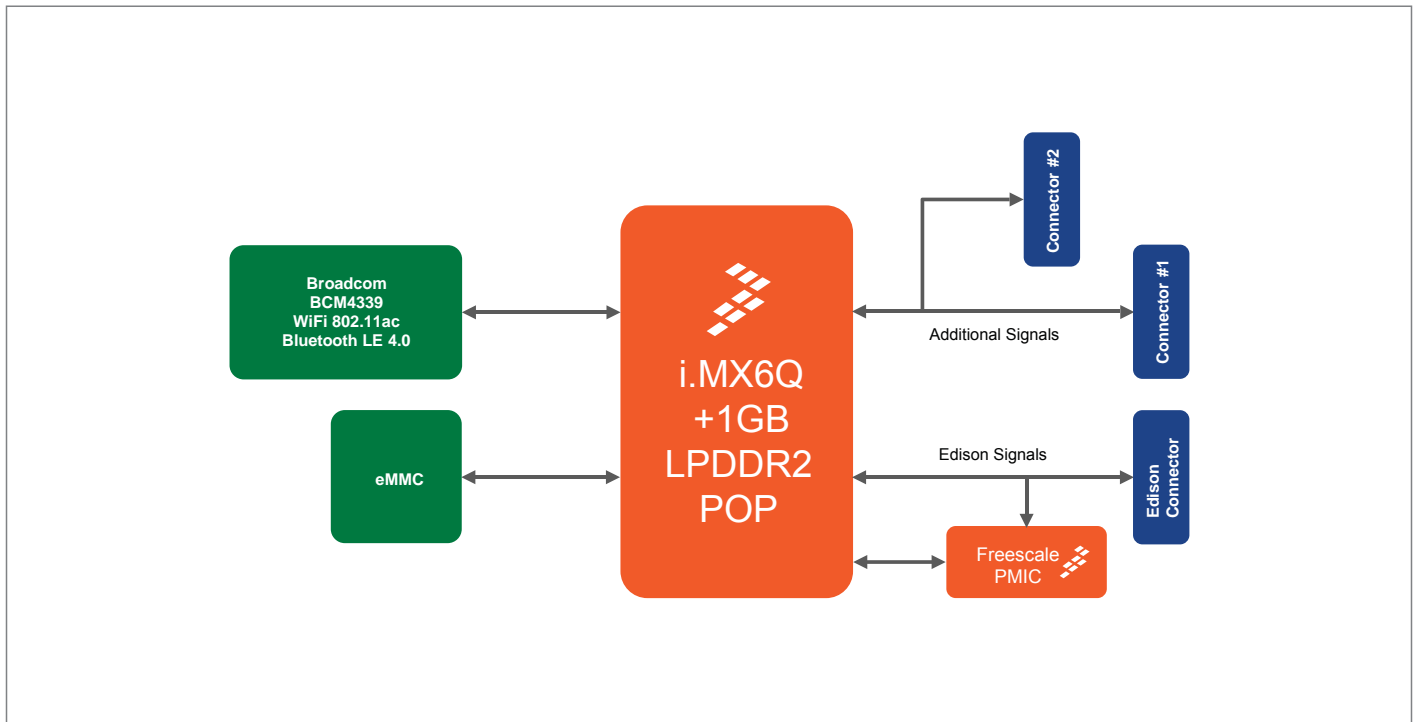
### Connectors

Board-to-Board	1x Edison compatible connector (Hirose 70-pin) 2x Hirose 70-pin connectors
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### Operation Systems

Standard Support	Linux 3.x, Yocto, Android 4.3, Android 4.4, Android 5.0, Ubuntu
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## Block Diagram



## Environmental and Mechanical

Temperature	Commercial : 0° to 60° C Extended : -20° to 70° C Industrial : -40° to 85° C (no WiFi)
Humidity	10 to 90%
Dimensions	36 x 40 mm 1 <sup>3</sup> / <sub>8</sub> x 1 <sup>5</sup> / <sub>8</sub> inch
MTBF	>100,000 hours
Weight	8 grams
Shock	50G / 25ms
Vibration	20G / 0-600 Hz

## Ordering Information

### PICOIMX6QP10R1GBN14GBW

Pico SoM Freescale with i.MX6 Quad PoP + 1GB LPDDR2 + 4GB EMMC + 802.11AC + Bluetooth 4.0

\* Feel free to contact us for custom tailored Carrier Board request for your projects.

## Dimensions

(units in mm)

