

PICO-IMX6-EMMC



Main Features

- The PICO-IMX6-EMMC reference design based on the NXP 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, 4.x kernel sourcecode and has recipes for Yocto, Ubuntu and Android 4.3/4.4/5.0/6.1 available.



EDISON

Power	SDIO	I ² S	SPI	PWM
	USB OTG	UART	I ² C	GPIO

EXP-A

LVDS	RGMII
TTL	

EXP-B

CAN	PCIe	HDMI	SATA
I ² C	USB HOST	MIPI	

Specifications

Core System

Processor	NXP i.MX6 Solo/Duallite/Quad
Technology	ARM Cortex-A9 single/dual/quad core @ 1GHz
System Memory	up to 2GB DDR3
Storage	Onboard eMMC (default 4GB)

Connectivity

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

I/O Interface Signalling

Edison I/O	GPIO PWM I ² C I ² S SPI UART USB-OTG SDIO (4-bit)
Additional I/O	Single Channel LVDS 24-bit TTL RGB HDMI 1.4 MIPI CSI Camera MIPI DSI Display PCIe RGMII (gigabit LAN) CAN SATAII(Quad Only) USB Host

Video

GPU 3D	Vivante GC880 35Mtri/s 266Mpxl/s Open GL ES 2.0	Quad Vivante GC2000 200Mtri/s 1000Mpxl/s OpenGL ES 2.0 & Halti, CL EP
GPU 2D (Vector Graphics)	Emulated on GPU 3D	Vivante GC355 300Mpxl/s OpenVG 1.1
GPU 2D (Composition)	Vivante GC320 600Mpxl/s, BLIT	Vivante GC320 600Mpxl/s, BLIT
Video Decode	1080p30 + D1	1080p60 H.264
Video Encode	1080p30 H.264 BP/Dual 720p	1080p30 H.264 BP/Dual 720p

Audio

Interface	I ² S
Audio Codec	On Carrier Board

Power Specifications

Input Power	4.2-5.25V DC
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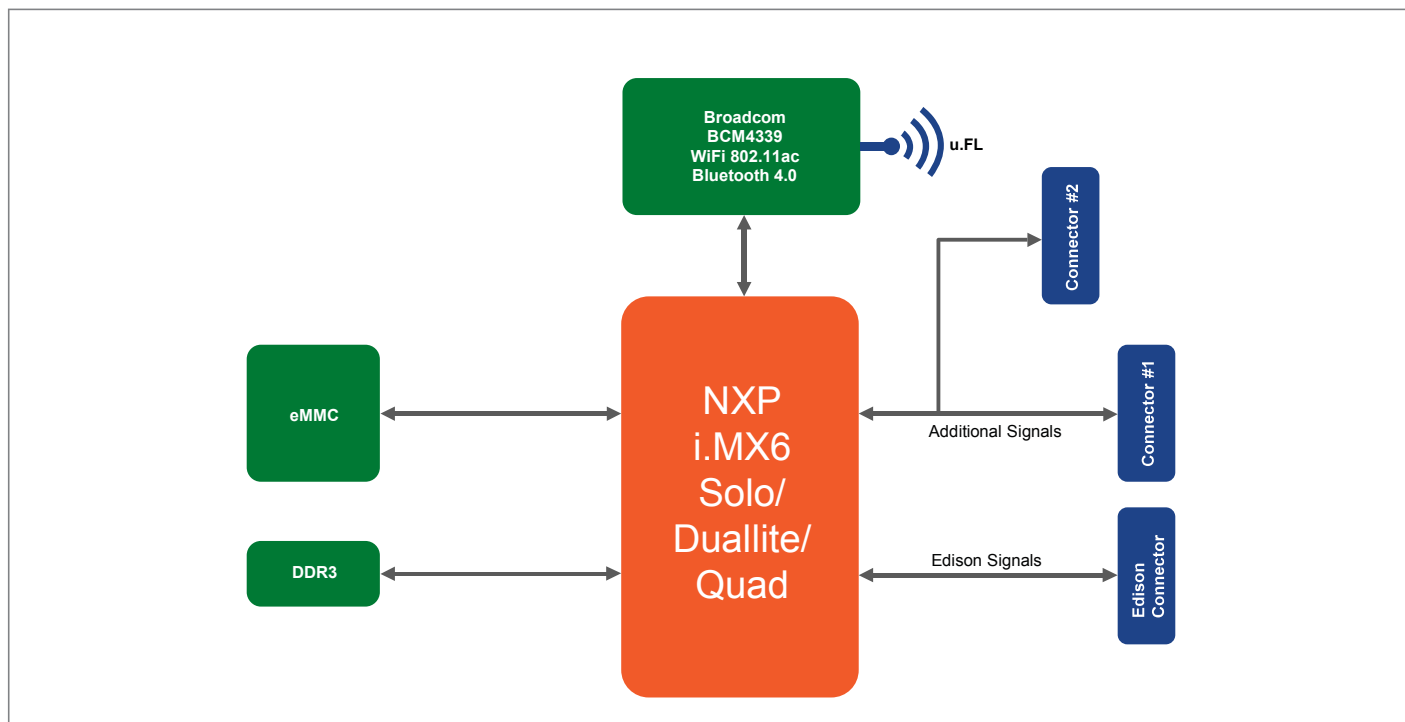
Connectors

Board-to-Board	Edison compatible connector (Hirose 70-pin) Hirose 70-pin connectors
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Operation Systems

Standard Support	Linux, Yocto, Android, Ubuntu
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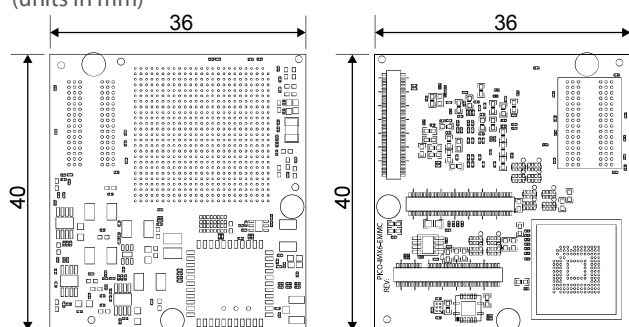
Block Diagram



Environmental and Mechanical

Temperature	Commercial : 0° to 60° C Extended : -20° to 70° C Industrial : -35° to 85° C (no WiFi)
Humidity	10 to 90%
Dimensions	36 x 40 mm 1 3/8 x 1 5/8 inch
MTBF	>100,000 hours
Weight	8 grams
Certification	Compliant with CE, FCC, RoHS, REACH directives

Dimensions (units in mm)



Ordering Information

PICO-IMX6x-xx-Rxxx-NixG-xx-xxx-xxxx

	Code	Description
Processor	IMX6S	i.MX6 Solo
	IMX6U	i.MX6 Duallite
	IMX6Q	i.MX6 Quad
Processor speed	08	800 MHz
	10	1 GHz (Default)
	12	1.2 GHz
Memory	R512	512 MB DDR3
	R1GB	1GB DDR3
	R2GB	2GB DDR3
Storage	NI4G	eMMC capacity in Gigabyte NI4G = 4GB : NI8G = 8GB : NI16G = 16GB NI32G = 32GB : NI64G = 64GB
	-	No
Wireless Networking	BW	802.11ac + Bluetooth 4.0
Temperature Range	-	Commercial Temperature range (0~60° C)(Default)
	TE	Extended Temperature range (-20~70° C)
	TI	Industrial Temperature range (-35~85° C)
	TEC	Certified Extended Temperature range (-20~70° C)
	TIC	Certified Industrial Temperature range (-35~85° C)
	Custom ID	XXXX

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