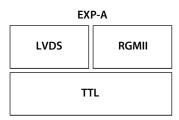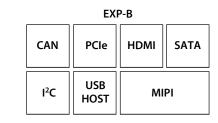# PICO-IMX6-SD

Main Features

- The PICO-IMX6-SD 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-SD 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	I²S	SPI	PWM
	USB OTG	UART	I²C	GPIO

EXP-A

LVDS	RGMII
TTL	

EXP-B

CAN	PCIe	HDMI	SATA
I²C	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	Micro SD cardslot

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
	I²C
	I²S
	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

	Solo/Duallite	Quad
GPU 3D	Vivante GC880	Vivante GC2000
	35Mtri/s 266Mpxl/s	200Mtri/s 1000Mpxl/s
	Open GL ES 2.0	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	Vivante GC320
	600Mpxl/s, BLIT	600Mpxl/s, BLIT
Video Decode	1080p30 + D1	1080p60 H.264
Video Encode	1080p30 H.264	1080p30 H.264
	BP/Dual 720p	BP/Dual 720p

Audio

Interface	I²S
Audio Codec	On Carrier Board

Power Specifications

Input Power	4.2-5.25V DC

Connectors

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

Operation Systems

Standard Support	Linux, Yocto, Android, Ubuntu

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
	1⅜x 1⅝inch
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-SD-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	SD	Micro SD Cardslot
Wireless Networking	-	No
	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	Custom Part number ID for customized software loader and special component (BOM)

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

2016-09. All specifications are subject to change without notice.

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