

# PICO-IMX6-SD



## Main Features

- The PICO-IMX6-SD 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 single/dual 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 Solo / Duallite
Technology	ARM Cortex-A9 single/dual core @ 1Ghz
System Memory	up to 2GB DDR3
Storage	Micro SD cardslot

### Connectivity

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
	RGMII (gigabit LAN)
	CAN
	USB Host

### 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
Video Decode	600Mpxl/s, BLIT
Video Encode	1080p30 + D1
	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
-------------	---------------

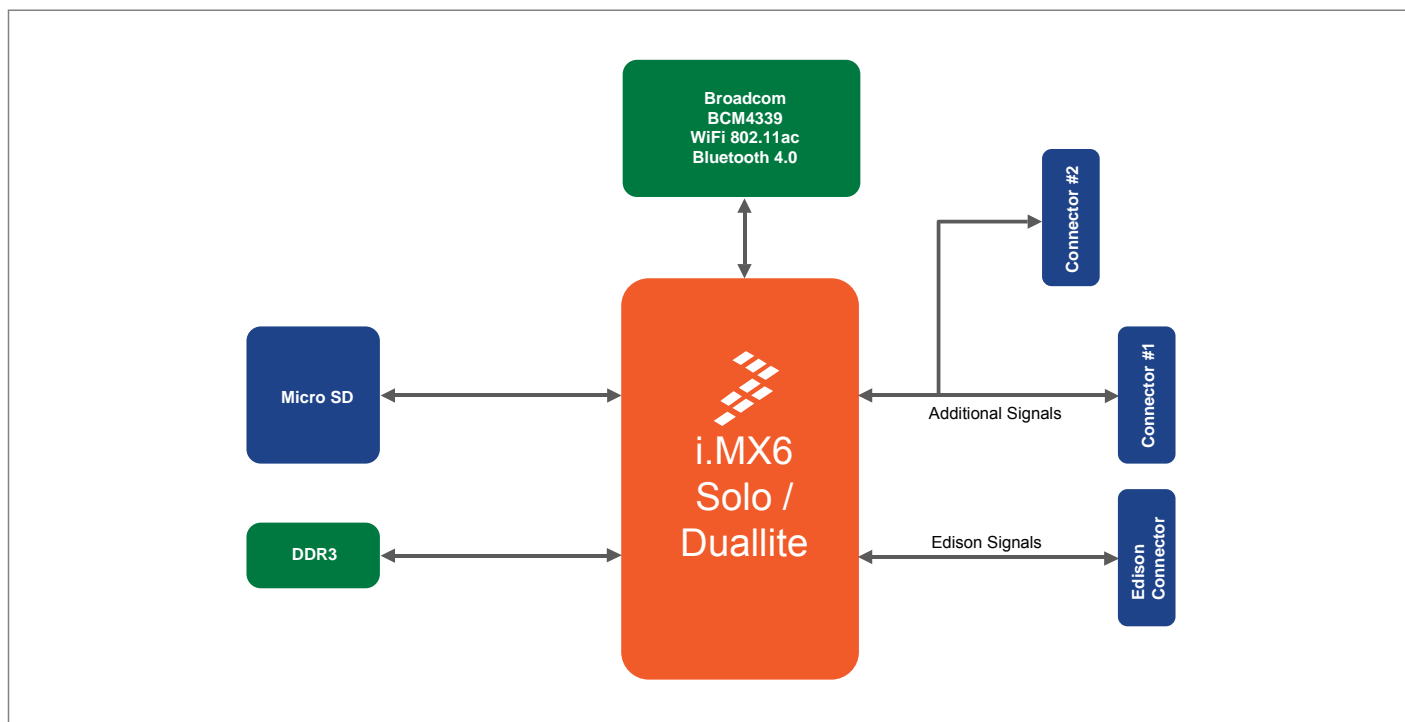
### Connectors

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

### Operation Systems

Standard Support	Linux 3.x, Yocto, Android 4.3, Android 4.4, Android 5.0, Ubuntu
------------------	---

## Block Diagram



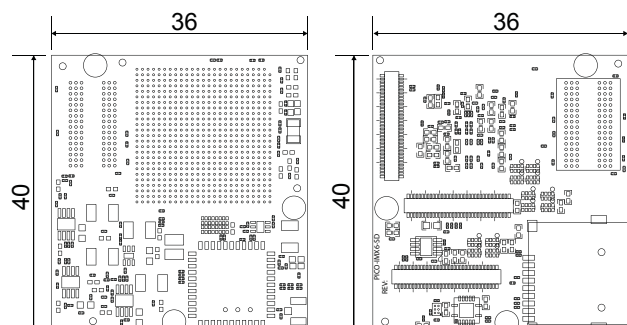
## Environmental and Mechanical

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 3/8 x 1 5/8 inch
MTBF	>100,000 hours
Weight	8 grams
Shock	50G / 25ms
Vibration	20G / 0-600 Hz

## Ordering Information

- PICOIMX6S10R512SD**  
Pico SoM Freescale i.MX6 Solo 1Ghz + 512MB RAM + SD Cardslot
- PICOIMX6S10R512SDBW**  
Pico SoM Freescale i.MX6 Solo 1Ghz + 512MB RAM + SD Cardslot + 802.11AC + Bluetooth 4.0
- PICOIMX6U10R1GBSD**  
Pico SoM Freescale i.MX6 Duallite 1Ghz + 1GB RAM + SD Cardslot
- PICOIMX6U10R1GBSDBW**  
Pico SoM Freescale i.MX6 Duallite 1Ghz + 1GB RAM + SD Cardslot + 802.11AC + Bluetooth 4.0

## Dimensions (units in mm)



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