

PICO-IMX7



Main Features

- The PICO-IMX7 design based on the NXP i.MX7 multi-market applications processor is designed to enable secure and portable applications within the Internet of Things.
- Pin-compatible with the Intel Edison for sensors and low-speed I/O, but also adds additional expansion possibilities for multimedia and connectivity, that can easily be expanded and implemented for IoT designs.
- Wi-Fi and Bluetooth communication interface.

android
things



yocto
PROJECT



EDISON

Power 3.3~4.5V	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.MX7 Solo NXP i.MX7 Dual
Architecture	ARM Cortex-A7 + M4
PMIC	NXP PF3000
Memory	up to 2GB DDR3L
Storage	eMMC (4GB Default) MicroSD Cardslot (optional)
Board-to-Board Connector	Edison compatible connector PICO 70-pin Hirose connectors
System on Module	PICO System on Module

Connectivity

Network LAN	RGMII
Wi-Fi/Bluetooth	Qualcomm QCA9377 802.11 a/b/g/n/ac + BT 5 (BR+EDR+BLE)
Antenna	MHF4 connector (optional)

Signaling

I/O	RGB TTL	SDIO
	MIPI CSI	CAN
	MIPI DSI	UART
	RGMII	SPI
	PCIe	I ² C
	USB	PWM
	USB OTG	GPIO
	I ² S	

Video

Graphic Engine	Image re-sizing / rotation / overlay and CSC Pixel Processing Pipeline
Camera	MIPI CSI (2 lanes)

Audio

Audio Codec	On carrier board
Audio Interface	I ² S (2 channel)

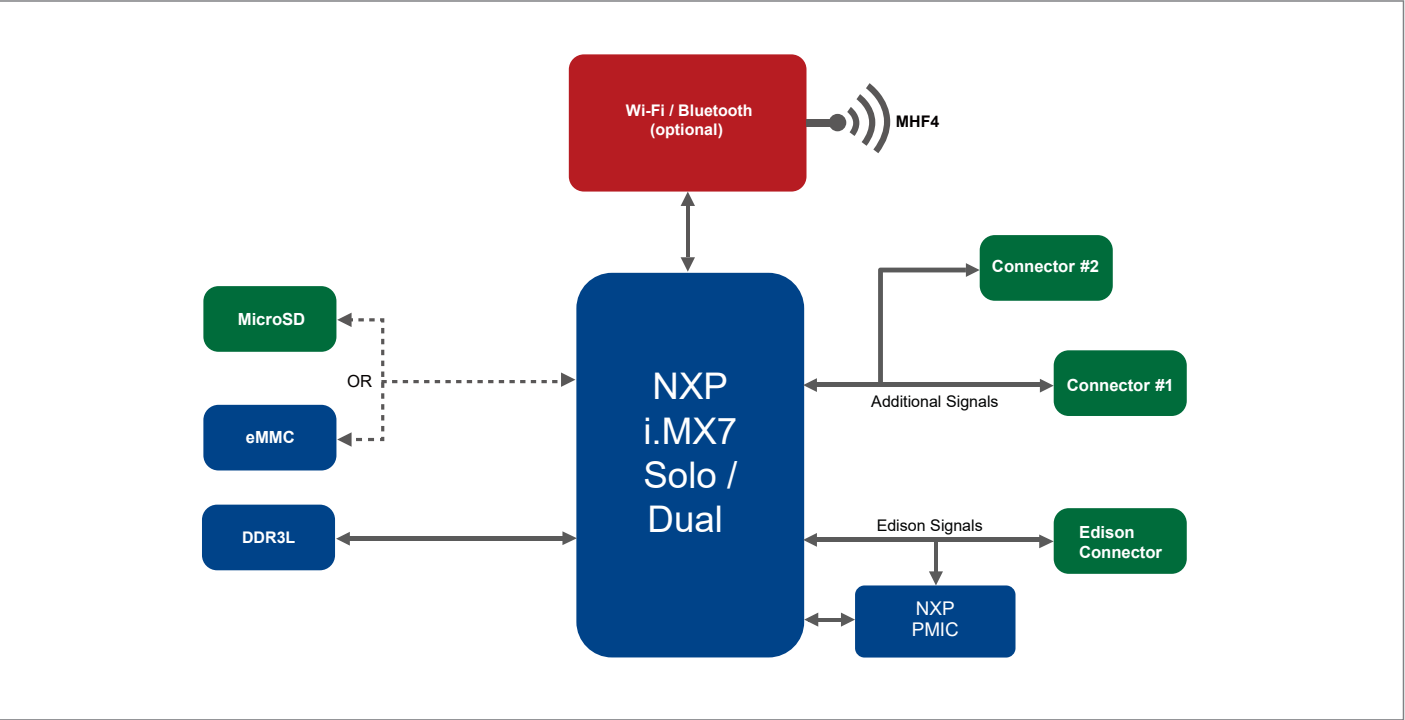
Power Specifications

Power Input	4.2-5.25V DC
Power Consumption	Depending on Configuration

Operation Systems

Standard Support	Android Things Linux Yocto Ubuntu Android
Extended Support	Commercial Linux

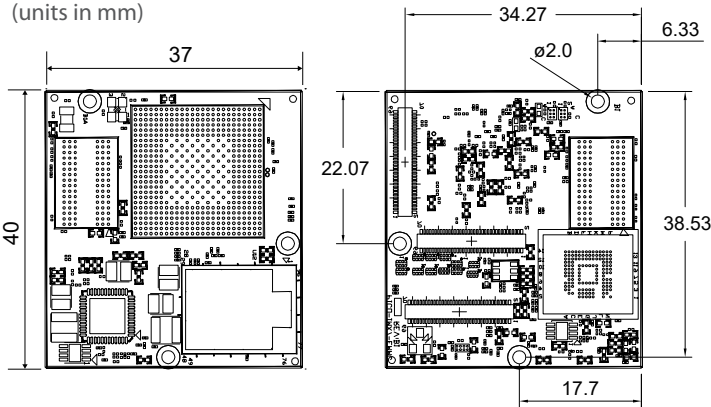
Block Diagram



Environmental and Mechanical

Dimensions	37 x 40 mm / 1 3⁄8 x 1 5⁄8 inch
Form Factor	PICO Compute Module
Weight	8 grams
Temperature	Commercial: 0° to +60° C Extended: -20° to +70° C
Relative Humidity	10 to 90 %
MTBF	>100 000 Hours
Shock	50G/25ms
Vibration	20G/0-600Hz
Certification	Compliant with CE / FCC / RoHS / REACH directives

Dimensions
(units in mm)



Order Information Example:

PICO-IMX7x-xx-Rxx-xxx-xxxx-xx-xxxx

	Code	Description
Processor	IMX7S IMX7D	NXP i.MX7Solo NXP i.MX7Dual
Processor Speed	08 10 12	800MHz 1.0GHz 1.2GHz
Memory	R05 R10	512MB DDR3L 1GB DDR3L
Storage	MSD E04 E08 EXX	MicroSD Cardslot eMMC 4GB eMMC 8GB eMMC other capacity
Wi-Fi / Bluetooth	- 9377	- Qualcomm QCA9377 802.11a/b/g/n/ac (2.4 + 5GHz) + Bluetooth 5
Temperature Range	- TE	Commercial Temperature range (0° to +60° C)(Default) Extended Temperature range (-20° to +70° C)
Custom ID	XXXX	Custom Part number ID for customized software loader and special component (BOM)

* Feel free to contact us for customization requests.

Mouser Electronics

Authorized Distributor

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