

PICO-PI-IMX7

- NXP i.MX 7 applications processor
- Cortex-M4 co-processor
- Low Power Dual core Cortex-A7 1 GHz processor
- Certified Wi-Fi 5 and Bluetooth LE



Specifications

Core System

Processor	NXP i.MX7 Dual
Architecture	ARM Cortex-A7 + M4
PMIC	NXP PF3000
Memory	Up to 1GB DDR3L
Storage	16GB eMMC (default)
Board-to-Board Connector	PICO 70-pin Hirose connectors
System on Module	PICO SOM
Debug Interface	Micro USB debug

Connectivity

Network LAN	1x Realtek RTL8211
Wi-Fi	Qualcomm Atheros QCA9377 Wi-Fi 5 – 802.11 a/b/g/n/ac
Bluetooth	Qualcomm Atheros QCA9377 Bluetooth
Antenna	MHF4 connector

Signaling

I/O	RS232	I ² S
	RGB TTL	UART
	LAN	SPI
	MIPI CSI	I ² C
	MIPI DSI	PWM
	USB	GPIO
	USB OTG	

Video

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

Audio

Audio Codec	NXP SGT5000
Audio Interface	I ² S (2 channel)
Audio Connectors	CTIA compliant 3.5mm audio jack

Power Specifications

Power Input	5V DC +/-5%
Power Consumption	Depending on Configuration
Power Connector	USB OTG (Type-C)

Operation Systems

Standard Support	Linux Yocto Android Ubuntu
Extended Support	Commercial Linux

Environmental and Mechanical

Dimensions	85 (W) x 56 (H) x 19.4 (D) mm
Relative Humidity	10 to 90 %
MTBF	100,000+ Hours
Shock	15G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +60° C
Vibration	1 Grms random 5-500Hz hr/axis
Weight	43 grams

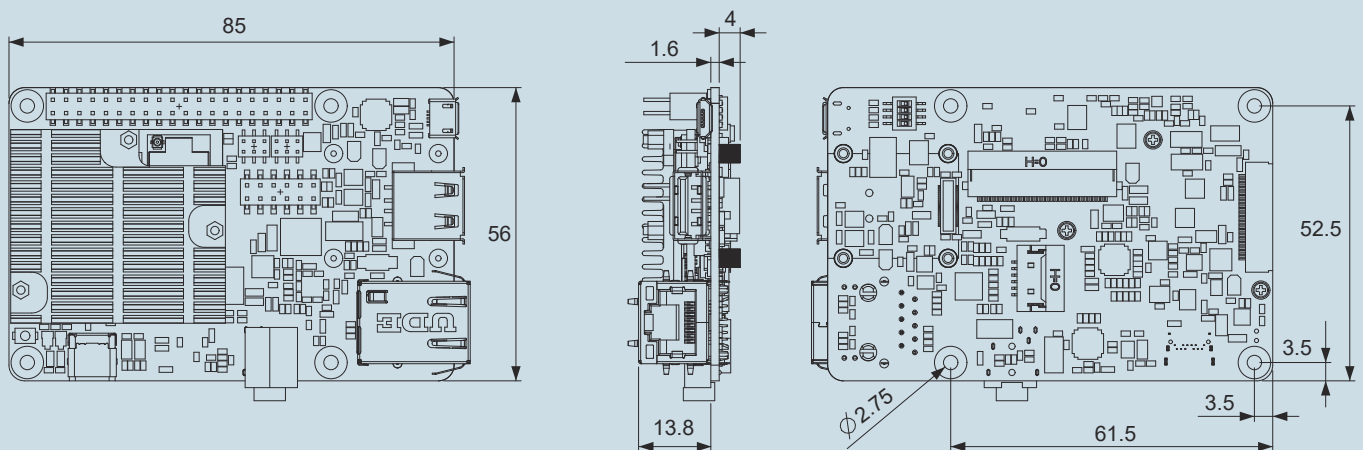
External Connectors

Network	1x RJ45
USB	1x USB 2.0 Host 1x USB 2.0 OTG (Type-C)
Buttons	1x Reset

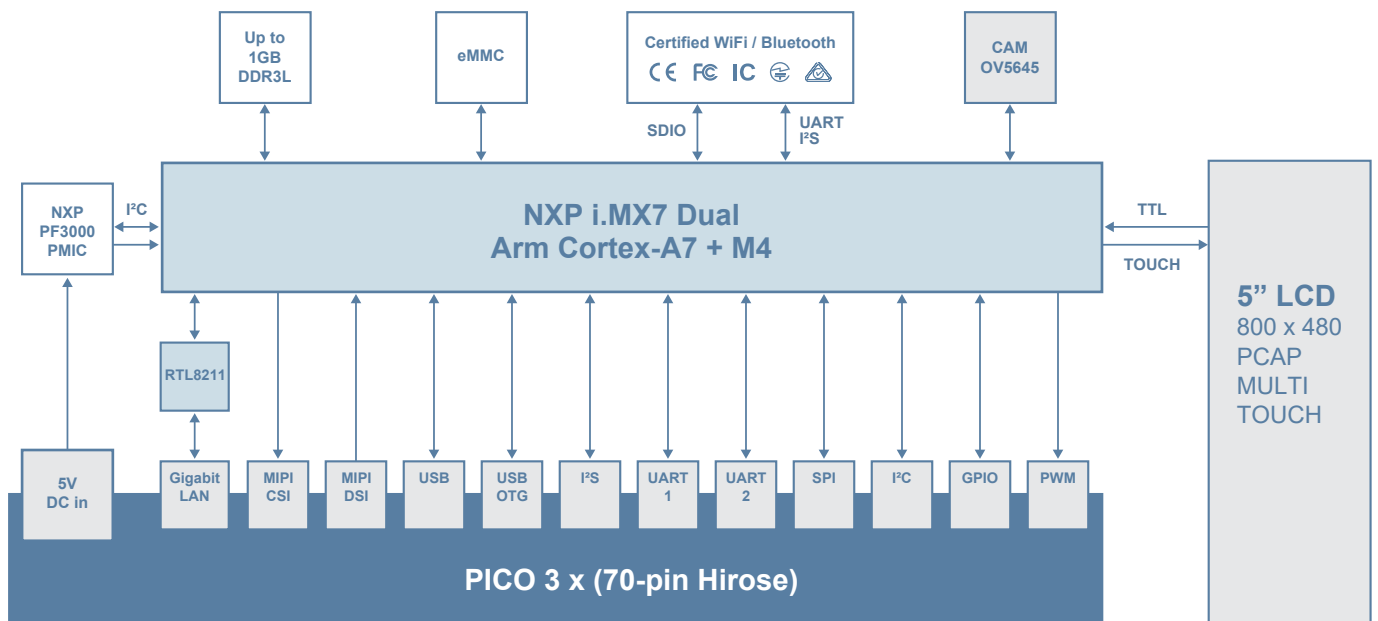
Certification and Compliance

USA	FCC ID: 2AKZA-QCA9377
Canada	IC: 22364-QCA9377
European Union	EN 300 328 v2.2.2 EN 301 893 v2.1.1 EN 55032 / EN 55024
Japan	TELEC: 201-180629
Australia/New Zealand	RCM Compliant
Bluetooth Logo	QDID 150839 (Bluetooth 4.2) QDID 193238 (Bluetooth 5)
Certification	Compliant with RoHS / REACH directives

Dimensions (units in mm)



Block Diagram



Ordering Information

PICO-PI-IMX7-DEV

Development Kit based around NXP i.MX7 Dual applications processor including camera module, 5 inch PCAP display, antenna and cable set.

