

PICO-NYMPH-IMX6

- NXP i.MX6 DualLite / Quad applications processor
- Performance scalable Cortex-A9 processor
- Built-in powerful GPU capable for dual-display applications at Full-HD resolutions
- Linux Mainline Support
- Certified Wi-Fi 5 and Bluetooth



Specifications

Core System

Processor	NXP i.MX6 DualLite NXP i.MX6 Quad
Processor Speed	1.0 Ghz
Architecture	ARM Cortex-A9
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	UART Interface by Through-hole

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 HDMI LVDS LAN MIPI CSI MIPI DSI PCIe USB HOST	USB OTG SDIO CAN UART SPI I ² C PWM GPIO
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Video

GPU Engine	Vivante GC880 (DualLite) Vivante GC2000 (Quad)
Video Decode	1080p30 + D1 (DualLite) 1080p60 H.264 (Quad)
Video Encode	BP/Dual 720p

Audio

Audio Codec	NXP SGTL5000
Audio Connectors	CTIA compliant 3.5mm audio jack

Power Specifications

Power Input	12V DC +/-5%
Power Consumption	Depending on Configuration
Power Connector	2-pin Micro-Fit 3.0

Operation Systems

Standard Support	Linux Yocto Android Ubuntu
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Environmental and Mechanical

Enclosure Material	Metal
Dimensions	104 (W) x 90 (H) x 36.9 (D) mm
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Shock	15G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +60° C
Vibration	1 Grms random 5-500Hz hr/axis
Weight	280 grams

External Connectors

External Display	1x HDMI 1x VGA 15-pin D-SUB
Network	1x RJ45
USB	1x USB 2.0 Host 1x USB 2.0 OTG (Type-C)
SIM Cardslot	1x Micro-SIM cardslot
SD Cardslot	1x MicroSD Card Slot

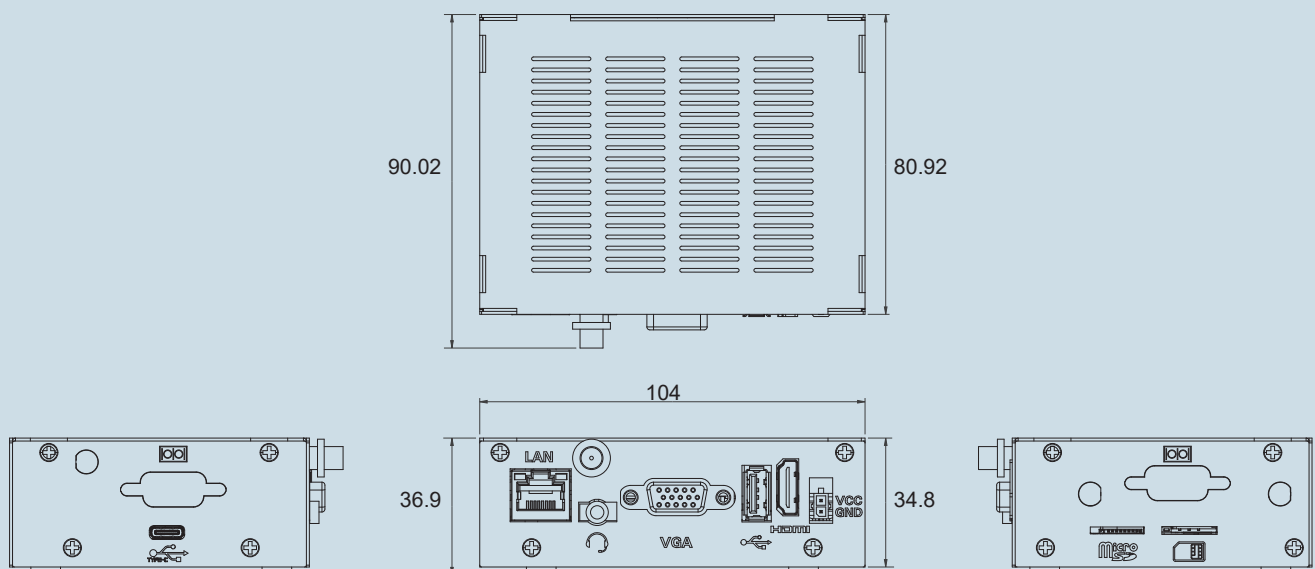
Expansion Interfaces

Expansion Slots	1x M.2 slot (USB signals only) 1x mini-PCIe with SIM cardslot
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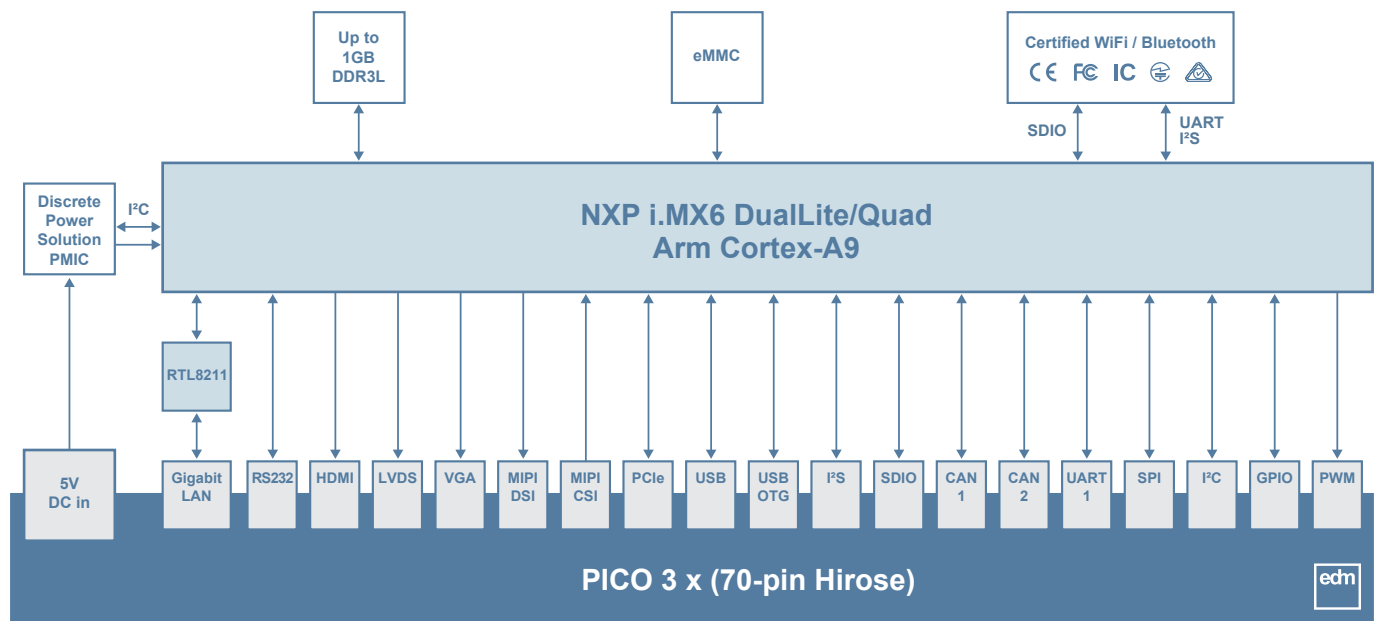
Certification and Compliance

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-NYMPH-IMX6DL-SYSTEM

NXP i.MX6 DualLite Development Board with 1GB DDR3, 8GB eMMC and Wi-Fi + BT wireless connectivity including MHF4 antenna, USB Type-C and Micro USB cables, and 2-pin Micro-Fit 3.0 DC power latch cable.

PICO-NYMPH-IMX6Q-SYSTEM

NXP i.MX6 Quad Development Board with 1GB DDR3, 8GB eMMC and Wi-Fi + BT wireless connectivity including MHF4 antenna, USB Type-C and Micro USB cables, and 2-pin Micro-Fit 3.0 DC power latch cable.

