

TEK3-IMX6

- The TEK3-IMX6 is a scalable system based on an NXP i.MX6 Solo, DualLite, or Quad multicore Cortex-A9™ processor for kiosk and self-ordering applications.
- Edge-computing ready with internal mini-PCIe expansion + SIM Card slot for LTE/5G cloud connectivity.
- Ruggedized all-aluminum heat-dissipating fanless box PC with DIN-30 and side rail mounting.
- Orderable with single voltage 12V DC, wide voltage 9 - 36V DC or 802.3at PoE (power over ethernet) options and GPIO, UART, CAN interfaces (optional galvanic isolated). HDMI and VGA video support.
- Linux, Yocto, Ubuntu, Android runtime images and full source code available.



Specifications

Core System

Processor	NXP i.MX6 Solo NXP i.MX6 DualLite NXP i.MX6 Quad
Architecture	ARM Cortex-A9
PMIC	NXP MMPF0100
Memory	Up to 2GB DDR3
Storage	4GB eMMC MicroSD Card slot

Connectivity

Network LAN	1x Atheros AR8035 Gigabit LAN
Power over Ethernet	PoE function 802.3at (optional)

Video

GPU Engine	Vivante GC2000 (Quad) Vivante GC355 (Quad) Vivante GC880 (Solo/DualLite)
Video Decode	1080p30 + D1 (Solo/DualLite) 1080p60 H.264 (Quad)
Video Encode	1080p30 H.264 BP/Dual 720p

Audio

Audio Codec	NXP SGTL5000
Audio Connectors	1x 3.5mm jack Microphone 1x 3.5mm jack Stereo Audio in 1x 3.5mm jack Stereo Audio out

Power Specifications

Power Input	DC Voltage input (12V/24V/9~36VDC)
Power Over Ethernet	PoE function 802.3at (optional)
Power Connector	2-pin Micro-Fit 3.0
Power Consumption	Depending on Configuration

Operating Systems

Standard Support	Linux Yocto Android Ubuntu
Extended Support	Commercial Linux

Enclosure Material	Anodized Aluminium
Dimensions	168 (W) x 109 (H) x 55 (D) mm
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Shock	30G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +50° C
Storage Temperature	Commercial: 0° to +50° C
Vibration	3 Grms random 5-500Hz hr/axis
Weight	705 grams

Surface Mounting	4 mounting holes
DIN Mounting	30mm DIN Rail Standard (DIN bracket separate purchase)

Power Expansion Module	TXR-P1-1030V-LAN1 (9-36V 5A) TXR-P1-12V-LAN1 (12V 3A) TXR-P1-12V-POE1 (12V 3A) or (PoE 802.3at)
I/O Expansion Module	TXB-I2-GS2-GC2-GG8 (Galvanic Isolated 2x RS-232 + 2x CAN + 8x GPIO) TXB-I2-S2-C2-G8 (2x RS-232 + 2x CAN + 8x GPIO)

External Display	1x HDMI 1x VGA 15-pin D-SUB
Network	1x RJ45
USB	1x USB 2.0 OTG (Type-C) 2x USB 2.0 Host
Buttons	1x Boot Select 1x Reset
Indicators	4x Programmable LED's
SIM Cardslot	1x Micro-SIM Card slot
SD Cardslot	1x MicroSD Card slot

Expansion Slots	1x M.2 slot 1x mini-PCIe with SIM cardslot
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Certification	Compliant with CE / FCC / RoHS / REACH directives
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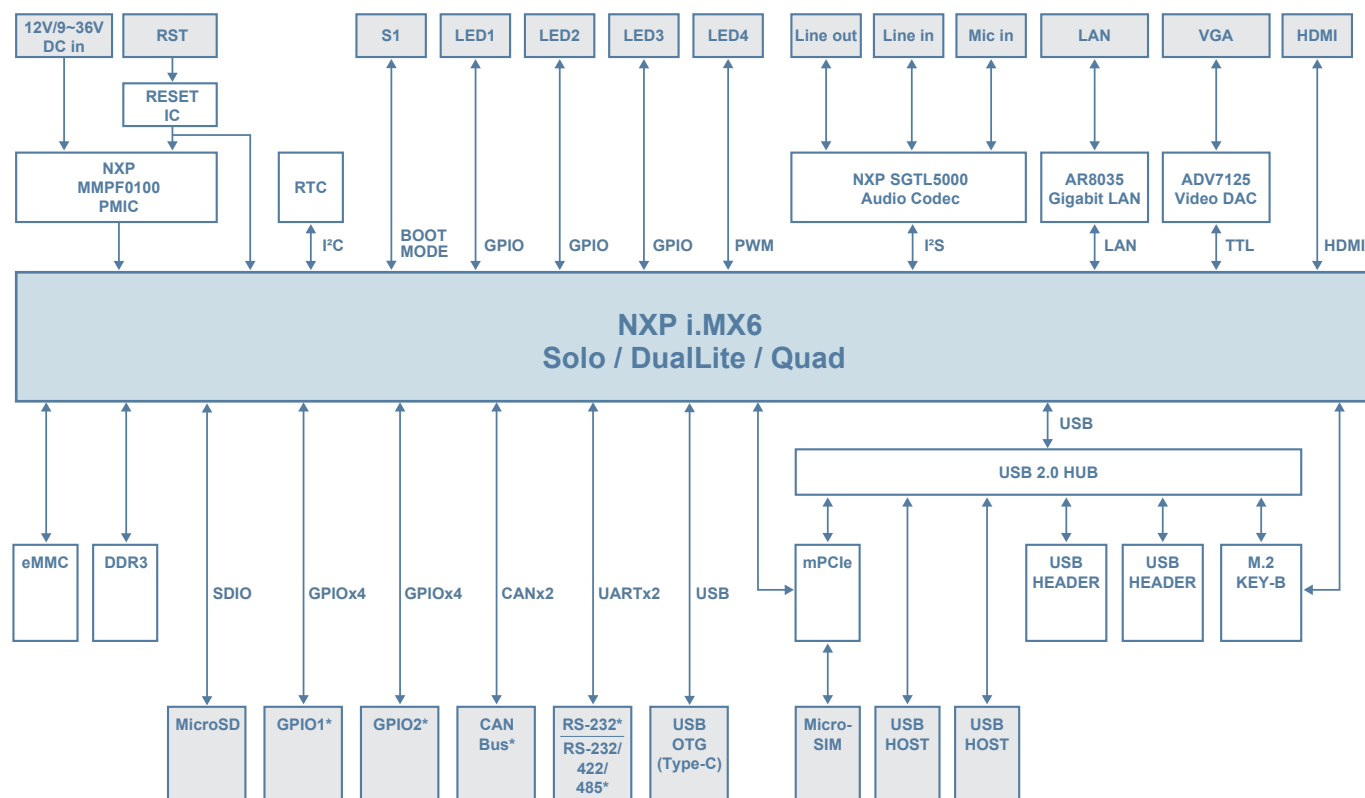
Figure 1: Dimensions of the device. The figure consists of five sub-diagrams showing the front, side, top, bottom, and rear views of the device with their respective dimensions.

- Front View:** Width 168, Height 109.
- Side View:** Depth 54.2.
- Top View:** Width 157, Height 71.5. A 30x30 area is marked.
- Bottom View:** Width 150, Height 54.2. Shows various ports (HDMI, VGA, RS-485, CAN, etc.).
- Rear View:** Width 168, Height 52. Shows a 4-pin indicator and other components.

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Block Diagram

LEGEND External I/O * Optional



Order Information

TEK3-IMX6x-Rxx-Exx-Lxxx-xxxx-xxxx-xx-xxxx

	Code	Description
Processor	IMX6S	NXP i.MX6 Solo
	IMX6U	NXP i.MX6 DualLite
	IMX6Q	NXP i.MX6 Quad
Memory	R05	512 MB DDR3
	R10	1GB DDR3
	R20	2GB DDR3
Storage	E04	eMMC capacity E04 = 4GB / E16 = 16GB / E32 = 32GB / E64 = 64GB
Power Expansion	L112	TXB-P1-12V-LAN1 (12V 3A)
	L130	TXB-P1-1030V-LAN1 (9-36V 5A)
	LPOE	TXB-P1-12V-POE1 (12V 3A) or (PoE 802.3at)
I/O Expansion	-	-
	XS20	2x RS-232 + 2x CAN + 8x GPIO
	XG20	2x RS-232 + 2x CAN + 8x GPIO (Galvanic Isolated)
Temperature Range	-	Commercial Temperature (0° to 50°C)
	TE	Extended Temperature range (-20° to +50°C)
Custom ID	XXXX	Custom Part number ID for customized Software loader and special component (BOM)