

TEK3-IMX6UL

- The TEK3-IMX6UL is a cost-optimized general IoT gateway for industrial applications, based on an NXP i.MX6UL core Cortex-A7™ processor.
- 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).
- Linux and Yocto runtime images and full source code available.



Specifications

Core System

Processor	NXP i.MX6 UL
Processor Speed	528 MHz
Architecture	ARM Cortex-A7
PMIC	NXP PF3000
Memory	Up to 1GB DDR3L
Storage	4GB eMMC

Connectivity

Network LAN	2x Micrel KSZ8081RNBCA 10/100 LAN
Power over Ethernet	PoE function 802.3at (optional)

Video

GPU Engine	Image re-sizing / rotation / overlay and CSC Pixel Processing Pipeline
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Power Specifications

Power Input	12V 9-36V (wide power input)
Power Over Ethernet	PoE function 802.3at (optional)
Power Consumption	Depending on Configuration

Operating Systems

Standard Support	Linux Yocto
Extended Support	Commercial Linux

Environmental and Mechanical

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

Mounting Options

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

Modular Expansion Options

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 Connectors

External Display	1x VGA 15-pin D-SUB
Network	2x RJ45
USB	1x USB 2.0 OTG (Type-C) 2x USB 2.0 Host
Serial Port	2x RS-232
GPIO Connector	4x GPIO
Buttons	1x Boot Select 1x Reset
Indicators	4x Programmable LED's
SIM Cardslot	1x Micro-SIM Card slot
SD Cardslot	1x MicroSD Card slot

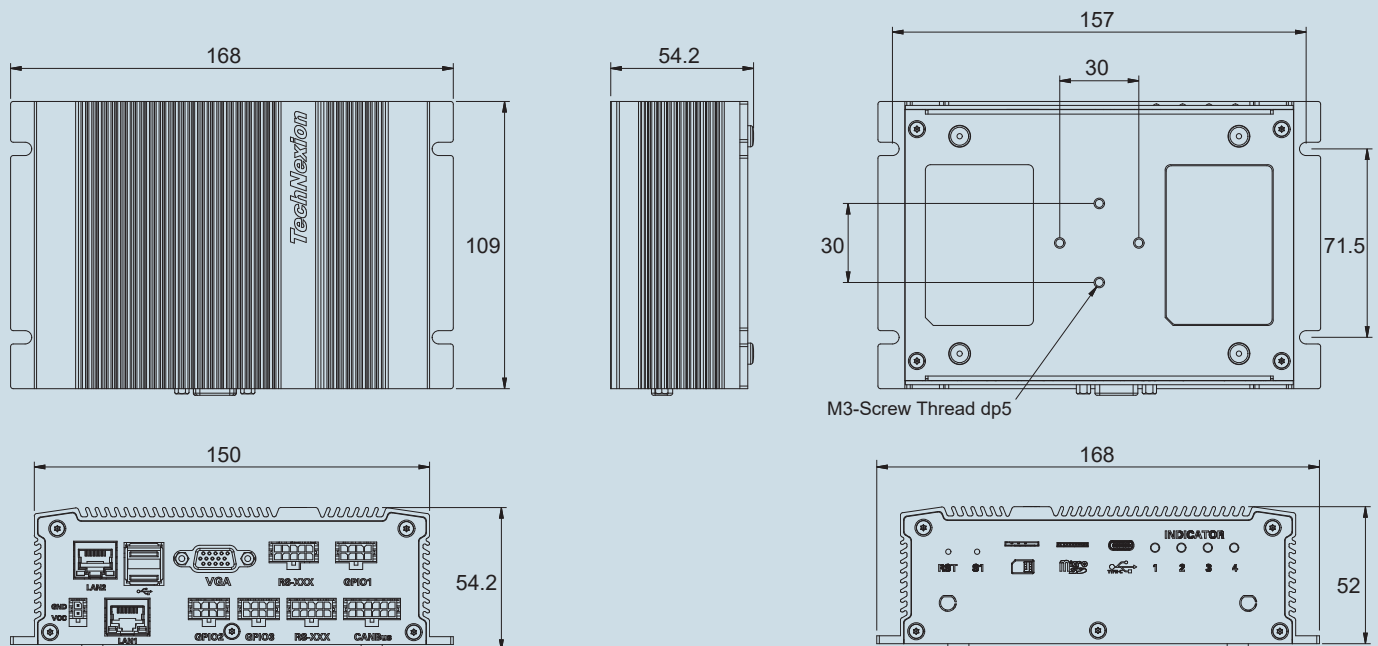
Expansion Interfaces

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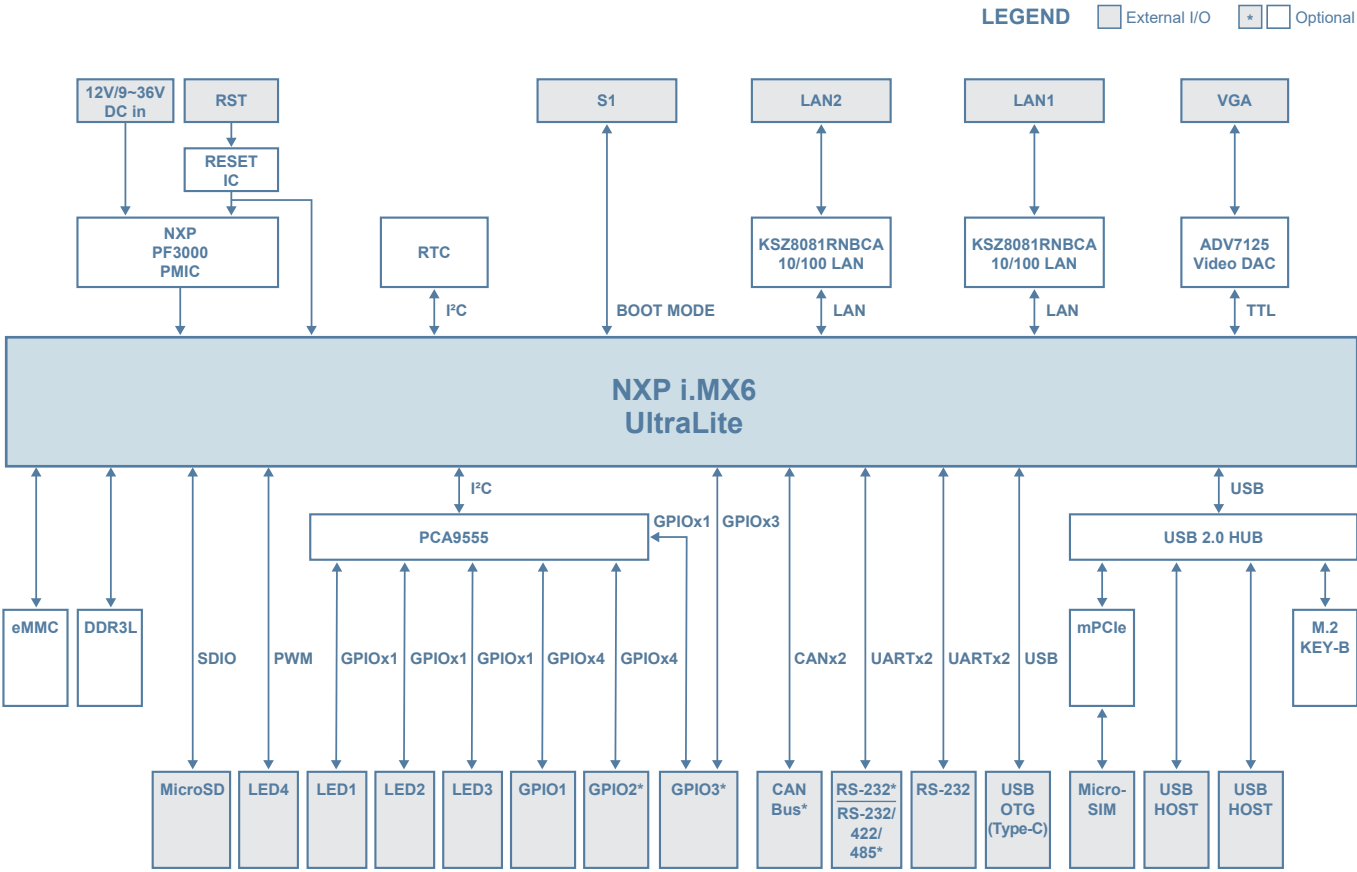
Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives
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Dimensions (units in mm)



Block Diagram



Order Information

TEK3-IMX6G-05-Rxx-Exx-x-Lxxx-xxxx-xx-xxxx

	Code	Description
Processor	IMX6G	NXP i.MX6 UltraLite
Processor Speed	05	528MHz
Memory	R05	512MB DDR3L
Storage	E04	eMMC capacity E04 = 4GB / E16 = 16GB / E32 = 32GB / E64 = 64GB
Electrical Isolation	-	-
	G	Galvanic Isolated
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 range (0° to 60°C)
	TE	Extended Temperature range (-20° to +50°C)
Custom ID	XXXX	Custom Part number ID for customized Software loader and special component (BOM)