

TEP-1010-IMX6

- The TEP-1010-IMX6 is a scalable multimedia HMI based on an NXP i.MX6 Solo, DualLite, or Quad multicore Cortex-A9™ processor supporting 2D/3D graphic applications.
- Features a 10.1-inch widescreen ratio multitouch PCAP touch screen with LED backlight and brushed aluminum front bezel.
- Edge-computing ready with internal mini-PCIe expansion + SIM Card slot for LTE/5G cloud connectivity.
- 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 secondary display 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

Connectivity

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

Video

GPU Engine	Vivante GC2000 (Quad) Vivante GC320 (2D Composition) 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 SCTL5000
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	Available with 12V 9-36V (wide power input)
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

Environmental and Mechanical

Enclosure Material	Metal
Front Bezel	Brushed Anodized Aluminium
IP Rating	IP65 Front
Dimensions	263.46 (W) x 182.1 (H) x 75 (D) mm
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Shock	15G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +50°C
Vibration	1 Grms random 5-500Hz hr/axis
Weight	1900 grams

Mounting Options

Rear Mounting	7 mounting clips required (included)
VESA Mounting	100*100 VESA MIS-D Standard (separate purchase)
Surface Mounting	10 mounting holes

Modular Expansion Options

Power Expansion Module	TXB-P1-1030V-LAN1 (9-36V 5A) TXB-P1-12V-LAN1 (12V 3A) TXB-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)

Display

LCD	10.1 inch widescreen LCD with LED backlight
Resolution	1280 x 800 pixels
Luminance	350 cd/m ²
Maximum Colors	16.7 million
Touchscreen	Projective Capacitive (multitouch)

External Connectors

External Display	1 x HDMI 1 x VGA 15-pin D-SUB
Network	1 x RJ45
USB	1x USB 2.0 OTG (Type-C) 4x USB 2.0 Host
CAN Bus	2 x Flex CAN version 2.0B compliant
Serial Port	2x RS-232
GPIO Connector	8x GPIO
Buttons	1 x Boot Select 1 x Reset
Indicators	1x Programmable LED
SIM Cardslot	1x Micro-SIM cardslot
SD Cardslot	1 x MicroSD Card slot

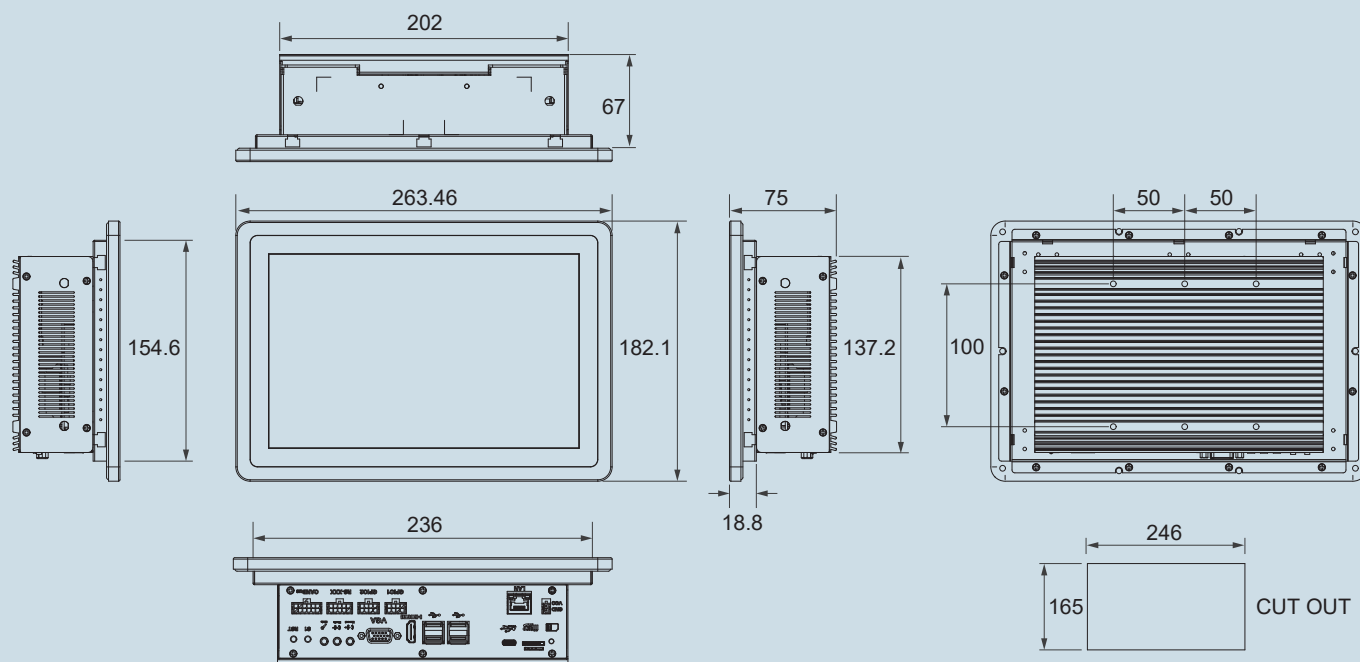
Expansion Interfaces

Expansion Slots	2x M.2 slot 2x mini-PCIe with SIM cardslot
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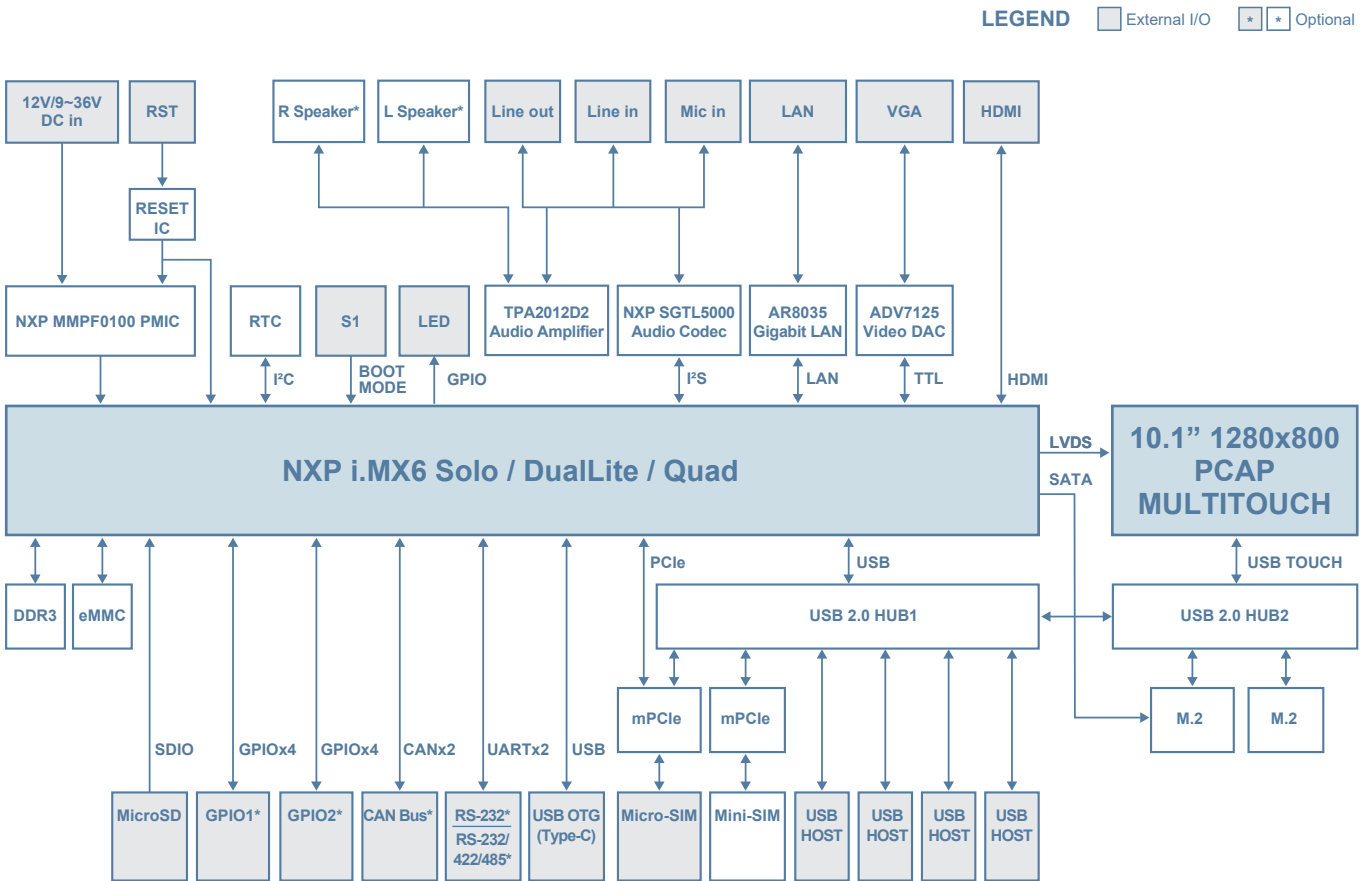
Certification and Compliance

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



Block Diagram



Order Information

TEP1010-IMX6x-Rxx-Exx-Lxxx-Xxxx-xxx-xxxx-xxxx

	Code	Description
Processor	IMX6S	NXP i.MX6 Solo
	IMX6U	NXP i.MX6 DualLite
	IMX6Q	NXP i.MX6 Quad
Memory	R05	512MHz 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)
Internal Speaker	-	-
	SPK	2x 2W/8Ω Stereo Speaker
Custom ID	XXXX	Custom Part number ID for customized Software loader and special component (BOM)