

TEP-0700-IMX7

- The TEP-0700-IMX7 is a low-power consumption HMI based on an NXP i.MX7 Dual core Cortex-A7™ + M4™ processor.
- Features a 7-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.
- 2 RS-232, 2 CAN, 8 GPIO, 2 Gigabit Ethernet and USB interfaces.
- Orderable with single voltage 12V DC, wide voltage 9 - 36V DC or 802.3.at PoE (power over ethernet) options.
- Linux, Yocto, Ubuntu, Android runtime images and full source code available.



Specifications

Core System

| | |
|-----------------|--------------------|
| Processor | NXP i.MX7 Dual |
| Processor Speed | 1.2 Ghz |
| Architecture | ARM Cortex-A7 + M4 |
| PMIC | NXP PF3000 |
| Memory | Up to 2GB DDR3L |
| Storage | 4GB eMMC |

Connectivity

| | |
|---------------------|---------------------------------|
| Network LAN | 2x Realtek RTL8211 |
| Power over Ethernet | PoE function 802.3at (optional) |

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 | 198.5(W)x136.3(H)x51.45(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 | 945 grams |

Mounting Options

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|------------------|--|
| VESA Mounting | 35*75 VESA MIS C. Standard (separate purchase) |
| Surface Mounting | 8 mounting holes |

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) |
|------------------------|---|

Display

| | |
|----------------|--|
| LCD | 7 inch widescreen LCD with LED backlight |
| Resolution | 800 x 480 pixels |
| Luminance | 350 cd/m ² |
| Maximum Colors | 16.7 million |
| Touchscreen | Projective Capacitive (multitouch) |

External Connectors

| | |
|--------------|--|
| Network | 2x RJ45 |
| USB | 1x USB 2.0 Host 1x USB 2.0 OTG (Type-C) |
| CAN Bus | 2x Flex CAN version 2.0B compliant |
| Serial | 2x RS-232 |
| GPIO | 8x GPIO |
| Buttons | 1x Boot Select 1x Reset |
| Indicators | 1x Programmable LED |
| SIM Cardslot | 1x Nano-SIM Card slot |
| SD Cardslot | 1x MicroSD Card slot |

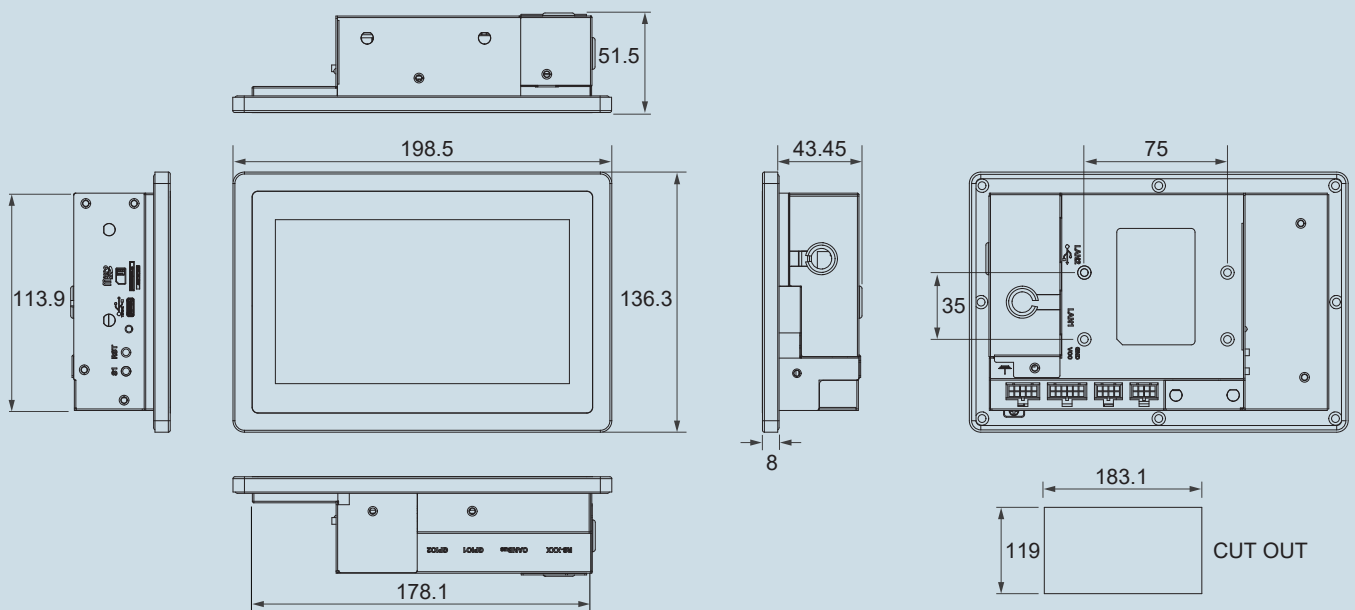
Expansion Interfaces

| | |
|-----------------|-------------------------------|
| Expansion Slots | 1x M.2 Slot with SIM Cardslot |
|-----------------|-------------------------------|

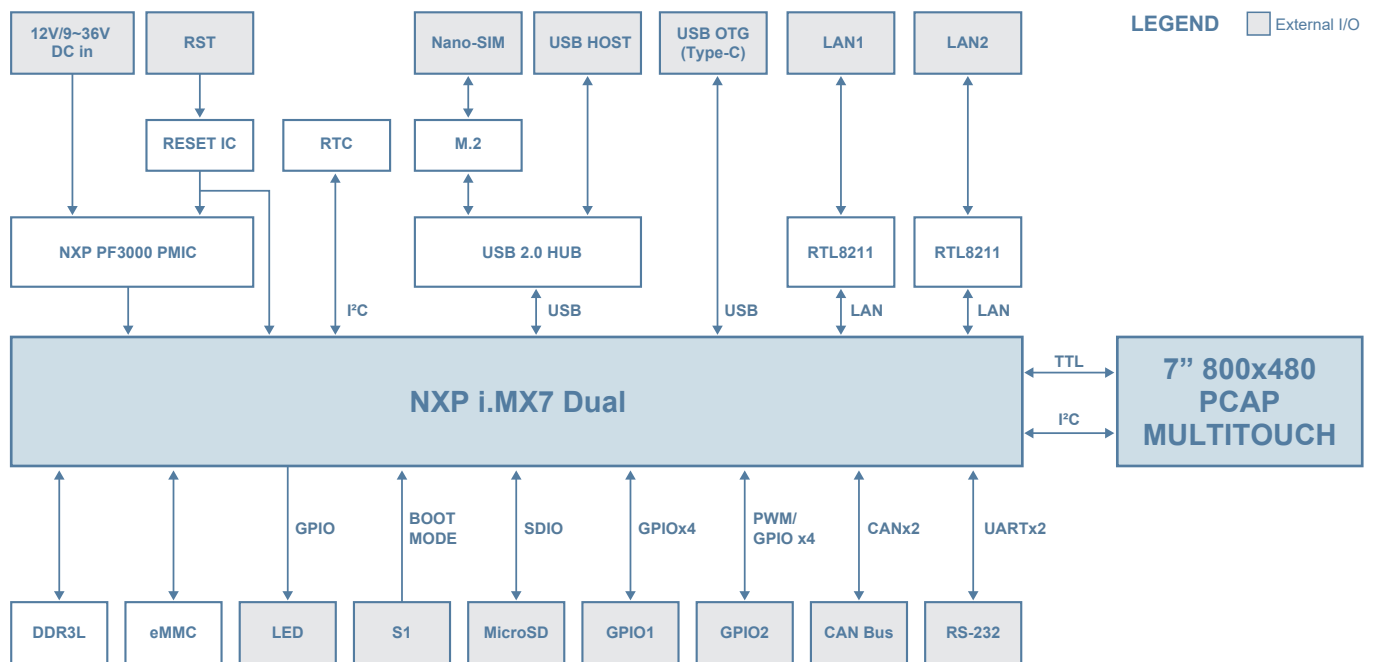
Certification and Compliance

| | |
|---------------|---|
| Certification | Compliant with CE / FCC / RoHS / REACH directives |
|---------------|---|

Dimensions (units in mm)



Block Diagram



Order Information

TEP0700-IMX7x-Rxx-Exx-Lxxx-xxxx-xxxx

| | Code | Description |
|-----------------|-------|--|
| Processor | IMX7D | NXP i.MX7 Dual |
| Memory | R05 | 512MHz DDR3L |
| | R10 | 1GB DDR3L |
| | R20 | 2GB DDR3L |
| 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) |
| Custom ID | XXXX | Custom Part number ID for customized Software loader and special component (BOM) |