



Features

- Robust M12 & FAKRA connectors with rich I/O interface
- Dual SIM sockets support WWAN redundancy
- Onboard isolated CAN 2.0A / 2.0B / CAN-FD
- Full car battery Ignition power control
- Two removable 2.5" device bay for SSD storage
- Rich I/O interfaces for wireless, SSD, GPS, WWAN and add-on card expansion
- Wide-range voltage GPIO interface
- 1x USB Type-C Alternate mode with PD 60W
- Fanless and ruggedized design

Specifications

System Mainboard	MBT-7101V
CPU Type	13th Gen Intel® Core U-Series Processor
Processor Speed	Up to 3.0GHz
Memory	2x 8GB DDR5-5200 SO-DIMM (dual-Channel)
Front Panel External I/O	2x USB 3.2 Gen2 stack Type-A connector 2x External accessible SIM socket 1x USB Type-C connector with screw-lock 2x Removable 2.5" SSD device bay 1x 3.5mm green color audio for Line-out 1x 3.5mm pink color audio for MIC-in 1x Reset button 1x 10-pin terminal block for isolated digital I/O 6x FAKRA antenna holes (optional SMA type) 6x Light-pipe for status LED indicators (2x programmable)
Rear Panel External I/O	2x M12 X-code 8P female for 2.5 GbE LAN1/LAN2 2x USB 2.0 Type-A connector 1x 3-pin terminal block for DC-input 1x DisplayPort output 1x DVI-D connector, 1x VGA connector 1x 6-pin terminal block for 2 x isolated CAN bus 2x DB9M for COM#1 (RS232/422/485) / COM#2 (RS232 only) 1x Removable blade fuse holder 4x Light-pipe for LAN status LED indicators 1x PCI-E (x4) slot 1x M3 with washer screw hole for grounding connection
Storage	1x M.2 2280 M-Key socket for NVMe SSD (PCI-E x4 [Gen.4]) 2 x 2.5" removable device bay for SSD
Expansion slots	1x M.2 2230 E-Key socket for WLAN & BT connection (PCI-E + USB2.0 + SMBus). 1x M.2 3042/52 B-Key socket for WWAN (4G/5G) connection (PCI-E + USB3.2 + SMBus). 1x M.2 2280 M-Key socket for NVMe SSD / Hailo AI module (PCI-E x4 [Gen.4]) 1x Mini PCI-E full-size socket for MVB/CAN FD module (PCI-E + USB2.0 + SMBus) 1x Mini PCI-E half-size socket (USB 2.0)
Power Supply	DC-input 9V ~ 36V
Construction	Aluminum
Chassis Color	Silver & Blue
Mounting	Wall mount
Dimensions	256.0 (W) x 182.0 (D) x 97.3 (H) mm 10.08" (W) x 7.17" (D) x 3.83" (H)

Operating Temperature	-40°C ~ 70°C (-40°F ~ 158°F) (w/o FAN & SSD) -20°C ~ 55°C (-4°F ~ 131°F) (w/ PCI-E card)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Relative Humidity	10 ~ 95% RH @45°C (non-condensing)
Vibration	Operating/Non-operating (SSD): 2,26 Grms (5~500 Hz) / MIL-STD-810G, composite wheeled condition (Z-axis only)
Shock	Operating: Sawtooth: 20G, 11msec (Z-axis) / MIL-STD-810G, Non-operating: Sawtooth: 40G, 11 msec (Z-axis) / MIL-STD-810G
Certified	E-Mark-24 CE (EN 62368-1/EN55032/EN55035), FCC Class-A

Ordering Information

MPT-7100V	MPT-7100V with MBT-7101V, 13th Gen Intel® Core™ i7-1365URE Processor w/ 2x 8GB DDR5-5200, 2x SSD bay, No PSU, No storage (RoHS)
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Dimensions

