



Features

- Fanless and ruggedized design
- Robust M12 connectors for dual GbE, USB and power input
- Dual SIM sockets support WWAN redundancy
- Onboard isolated CAN 2.0A / 2.0B / CAN-FD
- Two removable 2.5" device bay for SSD storage
- Rich I/O interfaces for wireless, SSD, GPS, WWAN and add-on card expansion
- Ignition power control
- Wide-range voltage GPIO interface
- 1x USB Type-C with graphics output for quick setting and diagnostics
- EN50155 (2021) / EN45545-2 certified

Specifications

System Mainboard	MBT-7101R
CPU Type	13th Gen Intel® Core U-Series Processor
Processor Speed	Up to 3.0GHz
Memory	2x 8GB DDR5-4800 SO-DIMM (Dual Channel)
Front Panel External I/O	2x USB3.2 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 digital I/O 8x SMA antenna holes 6x Light-pipe for status LED indicators (2x programmable)
Rear Panel External I/O	2x M12 X-code 8P female for GbE LAN1/LAN2 1x M12 A-code 4P male for DC-input 2x M12 D-code 4P female for USB 2.0 1x DisplayPort output 1x DVI-D connector, 1x VGA connector 1x 6-pin terminal block for 2 x CAN bus master 2x DB9M for COM#1 / COM#2 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]) 2x 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 1x Mini PCI-E half-size socket (USB 2.0) (PCI-E + USB2.0 + SMBus)
Power Supply	DC-input for 24V~110V
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), up to 85°C for 10 minutes according to EN 50155 OT4 -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	Function: 1 m/s ² , 5Hz~150 Hz (EN 61373) Lifetime: 7.9 m/s ² , 5Hz~150 Hz (EN 61373)
Shock	50 m/s ² , 30 msec (EN 61373)
Certified	EN 50155:2021, EN 45545 -2 HL1/2/3 2020 CE (EN 62368-1 / EN55032 / EN55035), FCC Class-A

Ordering Information

MPT-7100R	MPT-7100R with MBT-7101R, 13th Gen Intel® Core™ i7-1365URE Processor w/ 2x 8GB DDR5-4800, 2x SSD bay, No PSU, No storage (RoHS) 24V DC-in
MPT-7100RH	MPT-7100R with MBT-7101R, 13th Gen Intel® Core™ i7-1365URE Processor w/ 2x 8GB DDR5-4800, 2x SSD bay, No PSU, No storage (RoHS) 48/72/110V DC-in