

Vehicle HMI & Edge AI · 5G & Wi-Fi 6 Connectivity



MDT600 Mobile Data Terminal

· ITxPT

· 6 TOPS NPU

· 5G & Wi-Fi 6

· IP65

1. Product Overview

The InHand MDT600 is a rugged, ITxPT-compliant multi-application driver terminal for connected public transport and commercial vehicles—central HMI for ITS and fleet systems.

Features and Advantages:

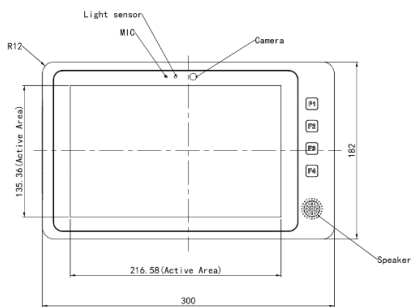
- **Multi-application fusion:** Dispatch, ticketing, navigation, and fleet apps on one device
- **Edge intelligence:** 6 TOPS NPU for ADAS, DMS, and multi-camera analytics
- **High-speed connectivity:** 5G/4G (optional), Wi-Fi 6, Bluetooth 5.0, multi-constellation GNSS
- **Vehicle-grade design:** 10.1" display, IP65 & IK08, 9–48 VDC, –30 °C ~ +70 °C
- **Open platform:** Android 14 or Linux; ITxPT-aligned for integrators

Core Technical Specifications

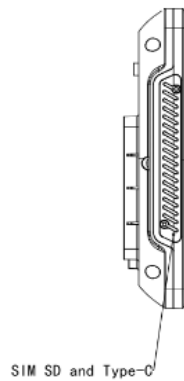
Technical Item	Specification
Cellular	5G/4G or non-cellular (per SKU)
Wireless / Positioning	Wi-Fi 6 (AP/STA); Bluetooth 5.0; multi-constellation GNSS
Network & Security	IPv4/IPv6; NAT; IPSec/L2TP, OpenVPN
System / Standards	Android 14 / Linux; ITxPT-aligned
AI / Display	6 TOPS NPU; 10.1" 1280×800 G+G touch
CPU / Storage	A72+A53 up to 2.0 GHz; 8 GB LPDDR4; 256 GB UFS (default)
Interfaces	M12 GbE; CAN/RS232/485, DI/DO; USB-C; up to 8×AHD
SIM	2 × Nano-SIM; eSIM optional

Technical Item	Specification
Power	9–48 VDC
Dimensions / Mount	300 × 182 × 38 mm; VESA 75 × 75 mm
Environment / Protection	–30 °C ~ +70 °C op.; –40 °C ~ +85 °C stg.; IP65, IK08
Certification	CE, E-Mark, UKCA, FCC (*in progress)

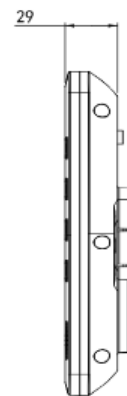
2. Product Dimensions



Front view



Interface Dimensions



Side view

Note:

1. All dimensions are in millimeters (mm).
2. All dimensions are approximate, **for reference only**.
3. Drawings **shall not be used for production** without released engineering data.
4. Subject to manufacturing tolerances.
5. Subject to change without notice.

3. Hardware Specifications

Category/Parameter	Specification
Processing Platform	
CPU	Quad-Core Cortex-A72 + Quad-Core Cortex-A53, up to 2.0 GHz
GPU & NPU	ARM Mali-G52 MC3 GPU; 6 TOPS INT8 NPU
RAM	8 GB LPDDR4
Storage	256 GB UFS (default)
Connectivity & Wireless	
Cellular	5G/4G or non-cellular SKUs
Wi-Fi	Wi-Fi 6, AP/STA
Bluetooth	Bluetooth 5.0
GNSS	GPS L1 C/A / L5; Galileo E1 / E5a; BDS B1I / B2a; GLONASS L1
IMU	6-axis gyroscope
Display & Interaction	
Resolution	1280 × 800 (16:9), 262K colors, ambient light sensor
Viewing angle	30°–150° (V/H)
Display size	10.1", 60 Hz refresh
Touch	G+G multi-touch
Speaker	Built-in 8 Ω / 1 W (waterproof)

Category/Parameter	Specification
Microphone	Built-in
Interfaces & Expansion	
Ethernet	1 × M12 X-coded 1000 Mbps
SIM	2 × 4FF Nano-SIM
Buttons	4 × backlit
NFC	ISO14443A/B, ISO15693; NFC Forum T1T/T2T/T4T/T5T
Fingerprint	Capacitive module
USB	1 × USB Type-C
Cameras	1 × built-in 5 MP; 8 × external AHD via 26-pin interface
Expansion	1 × M.2 SATA SSD (up to 4 TB)
SD	1 × Micro SD (up to 256 GB)
Audio / Mic	L, R, GND, Mic-in on 26-pin multi-function interface
CAN	1 × CAN 2.0 on 26-pin multi-function interface
I/O & Serial	1 × RS232/RS485, 5 × DI, 4 × DO on 26-pin multi-function interface
Mechanical & Environment	
Mounting	VESA 75 × 75 mm
Dimensions (W × D × H)	300 × 182 × 38 mm
Operating temperature	-30 °C ~ +70 °C

Category/Parameter	Specification
Storage temperature	–40 °C ~ +85 °C
Humidity	95% RH @ 60 °C (non-condensing)
Protection	IP65
Impact	IK08
Power & Compliance	
Input	9–48 VDC wide-range
Connector	VIN+, VIN–, IGT on 26-pin multi-function interface
Automotive / transport	EN 61373; EN 45545-2; ISO 16750-1/2; ECE R10; ECE R118
Certification*	CE, E-Mark, UKCA, FCC (*in progress)

4. Software Specifications

Category/Parameter	Specification
Operating System	
Platform	Android 14 or Linux
Network Features	
IP protocols	IPv4 / IPv6
Network services	NAT, routing, IPSec/L2TP VPN, OpenVPN, etc.
Cellular	5G/4G (per SKU)
Wi-Fi	Wi-Fi 6, AP/STA
Bluetooth	Bluetooth 5.0

Category/Parameter	Specification
Positioning	Multi-constellation GNSS
Intelligent Edge	
ADAS / DMS	ADAS and driver-monitoring applications
Video analytics	Real-time multi-camera analytics
Multi-app	Dispatch, ticketing, navigation, fleet management
Platform	
Standards	ITxPT-aligned
Openness	Third-party apps and custom integration

5. Ordering Information

Model Code

Model code: MDT600-<W>-<M>

<W>: Type & Module (cellular variant)

<M>: Storage tier (256 GB / 512 GB / 1 TB)

Product Models

Model	Region	<W>: Type & Module	<M>: Storage
MDT600-NRQ5-<M>	Global	Cellular 5G	Optional 256GB / 512GB / 1TB
MDT600-FQ09-<M>	Global	Cellular CAT6	Optional 256GB / 512GB / 1TB

MDT600-EN00-<M>	Global	No cellular	Optional 256GB / 512GB / 1TB
-----------------	--------	-------------	------------------------------

Example: MDT600-FQ09-512GB — 256 GB UFS by default, plus up to 512 GB M.2 SSD when configured.

Accessories

Order Code	Description
AANT040013	GNSS FAKRA antenna — GPS L1 1575.42 MHz & BDS 1561.098 MHz & GLONASS 1602 MHz; 2000 mm cable
AETH050002	M12 X-coded to RJ45 cable, 1000 mm
SCAB000601	MDT600 multi-function cable — 26-pin waterproof, audio, pull cord, 1000 mm
SCAB000600	MDT600 camera test cable — 26-pin waterproof, pull cord, 1000 mm
SMDM060045	DSM camera — AHD 1080P PAL, 1920×1080, IR, M12, DC 12 V, -30~70 °C (see datasheet for full spec)
SMDM060044	ADAS camera — AHD 1080P PAL, 1920×1080, M12, DC 12 V, -20~70 °C
SMDM060043	Panoramic camera IN-813-A200H — AHD 1080P PAL, 360°, M12, DC 12 V, -20~70 °C

6. Contact Us

- **Website:** [InHand Networks](https://www.inhandnetworks.com)
- **Copyright:** © InHand Networks. All rights reserved.

Note: Features marked * are in progress or subject to certification/regional approval.