

INDUSTRIAL PRODUCT DATASHEET

reTerminal DM - 10.1" HMI | CM4108064 | Raspberry Pi Rugged Panel PC | Panel Controller

The reTerminal DM - 10.1" HMI | CM4108064 | Raspberry Pi Rugged Panel PC | Panel Controller is a rugged Raspberry Pi CM4-powered HMI/panel PC with IP65 front panel, wide operating temperature, flexible PCIe extensions, hybrid...

SKU

100055964

UPDATED

2026-09-20 06:36:26

PRICE

\$525.90(Excl. VAT)



Overview



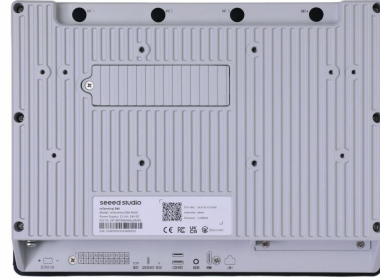
The reTerminal DM - 10.1" HMI | CM4108064 | Raspberry Pi Rugged Panel PC | Panel Controller is a rugged, open-source HMI and panel PC powered by Raspberry Pi CM4, featuring an IP65 front panel, -10~50°C operating temperature, and PCIe extensions for options like NVMe SSD, dual 1000M Ethernet, dual USB 3.0, COM ports RS485/232, and more. It provides hybrid connectivity including 4G LTE, LoRaWAN®, Wi-Fi, BLE, RS485/RS232, CAN bus, 1000M Ethernet, USB, and HDMI, and targets applications such as energy management, building management, MedTech, construction, transportation, agriculture, retail, logistics, and water management.

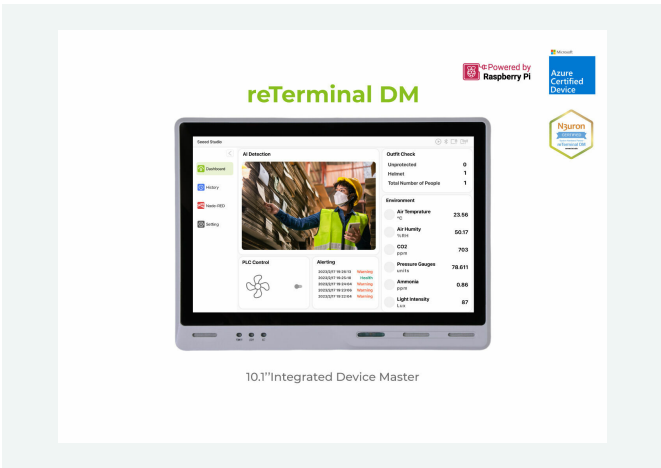
Key Features

- Rugged design for harsh working environment: IP65 front panel, -10~50°C operating temperature
- Open-source design in software and hardware: Powered by Raspberry Pi CM4, easy for customization or derivatives with the PCIe extensions design (flexible for NVME SSD, Dual 1000M Ethernet, Dual USB 3.0, COM Port RS485/232, and more customizations)
- Cost-effective Device Master: HMI, PLC, Panel PC and gateway all-in-one. Perfect for the distributed hub devices
- Low code programming for event-driven applications: Natively integrated Node-RED for flow-based editing and one-click deployment, compatible with all software runs on Raspberry Pi
- Hybrid connectivity: Support 4G LTE, LoRaWAN®, Wi-Fi, BLE, RS485/RS232, CAN bus, 1000M Ethernet, USB, HDMI
- Product Warranty: Two-year warranty

Note: Product Lifetime: at least until 2034 (Based on Raspberry Pi)

Product Gallery





Specification

Basic	
CPU	CM4 Quad-core Cortex-A72@ 1.5GHz
Memory	8GB
Storage	64GB eMMC.M.2 NVMe SSD Slot 2280-M Key (optional)
OS Support	RaspbianSenseCraft Edge OS
Display	
Size	10.1"
Max. Resolution	1280 x 800
Max. Colors	16.7M (8-bit)
Luminance (nit)	400
Viewing Angle (H/V°)	170/170
Backlight Life (hrs)	30000
Touch Type	10-point Capacitive
Pencil Hardness	7H
Video&Audio	
Video	HDMI2.0
Audio	2 x MicrophoneBuzzer3.5mm Audio Jack
Camera	CSI (optional)

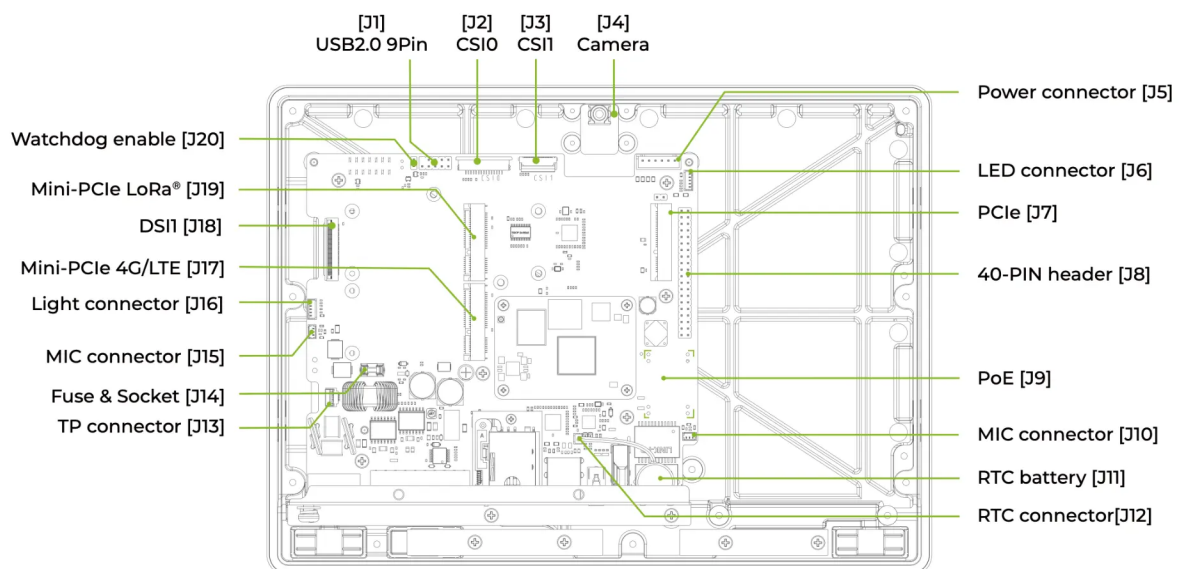
Interfaces	
Ethernet	1 x 10/100/1000 Mbps 2 x 10/100/1000 Mbps (optional)
USB	2 x USB-A 2.0 Host
RS485	1 x RS485 > Terminal Block 1 x RS485 > DB9 (optional)
RS232	1 x RS232 > Terminal Block 1 x RS232 > DB9 (optional)
CAN	1 x CAN-BUS > Terminal Block
DI	4 x DI > Terminal Block
DO	4 x DO > Terminal Block
40pin GPIO	Inside
Wireless Communication	
Wi-Fi	On-chip Wi-Fi
BLE	On-chip BLE
LoRa®	Mini-PCle for LoRaWAN® (optional)
Cellular	Mini-PCle for 4G (optional)
Power	
Input	2-pin Terminal Block
PoE	12.95W PoE (optional)
Power Range	12~24V DC
Power Consumption	6W Typ. 9W Max.
Power Switch	NO
Reboot Switch	YES
Environment	
Ingress Protection	IP65 Front Panel
Operating Temperature	-10~50 °C
Storage Temperature	-20~70 °C
Humidity (Operating)	10~95% RH
Mechanical	
Dimension (W x H x D)	259.4 x 191 x 42.2 mm
Enclosure	Die-cast Aluminum Alloy
Mounting	Panel, VESA, DIN-rail
Weight (Net)	1.8Kg
Vibration Resistance	5 Grms random vibration (5 ~ 500Hz) during operation, IEC60068-2-64
Shock Resistance	Operating 50 G peak(11ms duration), IEC 60068-2-27
Certification	
CE, FCC, UCKA, RoHS, TELEC, REACH	
EMC	
ESD	EN61000-4-2, Level 3
EFT	EN61000-4-4, Level 2
Surge	EN61000-4-5, Level 2
Others	
RTC	High Accuracy RTC (with a CR2032 battery)
Hardware WatchDog	1~255s

Security		ATECC608A
Warranty		2 Years
Heat Dissipation		Fanless

Hardware Overview



- | | | | |
|-------------------|----------------|--------------|---|
| ① Microphone | ⑤ Microphone | ⑨ USB Device | ⑬ 1000M Ethernet |
| ② LED Indicator | ⑥ Power In | ⑩ USB Host | ⑭ PCIe Flexible for Customizations and Commercial Derivatives |
| ③ IR Light Sensor | ⑦ RS485/232/IO | ⑪ Audio | ⑮ 4 Reserved Antennas Ports for Wireless Possibilities |
| ④ Buzzer | ⑧ Boot Switch | ⑫ HDMI | ⑯ SSD Slot |



Applications

- **Energy Management:** Monitor grids, monitor and maintain solar panels.
- **Building Management:** Central control panel for BAS, individual room control panels.
- **MedTech:** Medical device control panel, patient monitoring station.
- **Construction:** BIM, Monitor sites, control heavy machinery.
- **Transportation:** Monitor vehicle health, control ticketing systems (buses, trains).
- **Agriculture:** Control irrigation systems, monitor greenhouse conditions.
- **Retail:** Display digital signage, control self-checkout kiosks.
- **Logistics:** Track inventory movement, manage warehouse operations.
- **Water Management:** Monitor water treatment plants, control water distribution.

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Compliance & Logistics

HSCODE	8471419000
USHSCODE	8517180050
UPC	
EUHSCODE	8471707000
COO	

Resource Links

- <https://www.seeedstudio.com/reTerminal-DM-CM4108064-p-6957.html>
- [reTerminal DM Datasheet](#)
- [reTerminal DM User Manual](#)
- [PoE Datasheet](#)
- [reTerminal DM Azure IoT Edge](#)
- [Seeed's Raspberry Pi-based Success Cases](#)
- [reTerminal DM EMC Test Report](#)
- [reTerminal DM Vibration and Shock Test Report](#)
- [reTerminal DM CE Certificate](#)
- [reTerminal DM FCC Certificate](#)
- [reTerminal DM Structural Design File.stp](#)
- [reTerminal DM Schematic Design & PCB Design & Gerber Files](#)
- [Seeed Raspberry Pi Flyer](#)

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