

INDUSTRIAL PRODUCT DATASHEET

reTerminal DM - 10.1" HMI | CM4108064 | Raspberry Pi Rugged Panel PC | Panel Controller | with Camera & PoE

Rugged 10.1" Raspberry Pi CM4-powered HMI panel PC with IP65 front panel, open-source design, PCIe extensions, hybrid connectivity, and all-in-one HMI/PLC/panel PC/gateway functionality for industrial and commercial...

SKU

100052854

UPDATED

2026-09-23 01:03:39

PRICE

\$613.90(Excl. VAT)



Overview



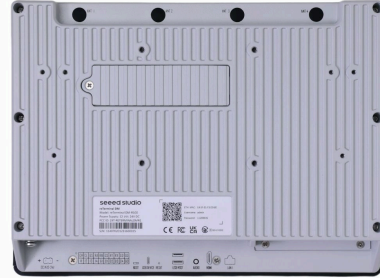
The reTerminal DM is a 10.1" rugged HMI panel PC powered by Raspberry Pi CM4, featuring an IP65 front panel, -10~50°C operating temperature, and open-source hardware/software with PCIe extensions for customizations such as NVMe SSD, dual 1000M Ethernet, dual USB 3.0, RS485/232, and more. It serves as a cost-effective all-in-one HMI, PLC, panel PC, and gateway with hybrid connectivity including 4G LTE, LoRaWAN®, Wi-Fi, BLE, RS485/RS232, CAN bus, 1000M Ethernet, USB, and HDMI, suitable for energy management, building management, MedTech, construction, transportation, agriculture, retail, logistics, and water management applications.

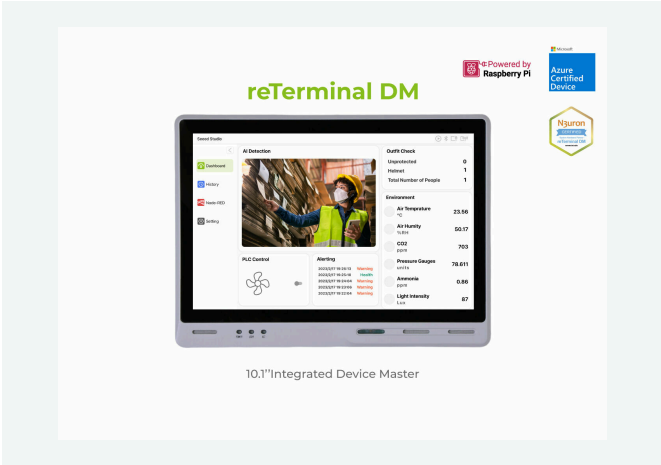
Key Features

- 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 Warrant: 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	
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

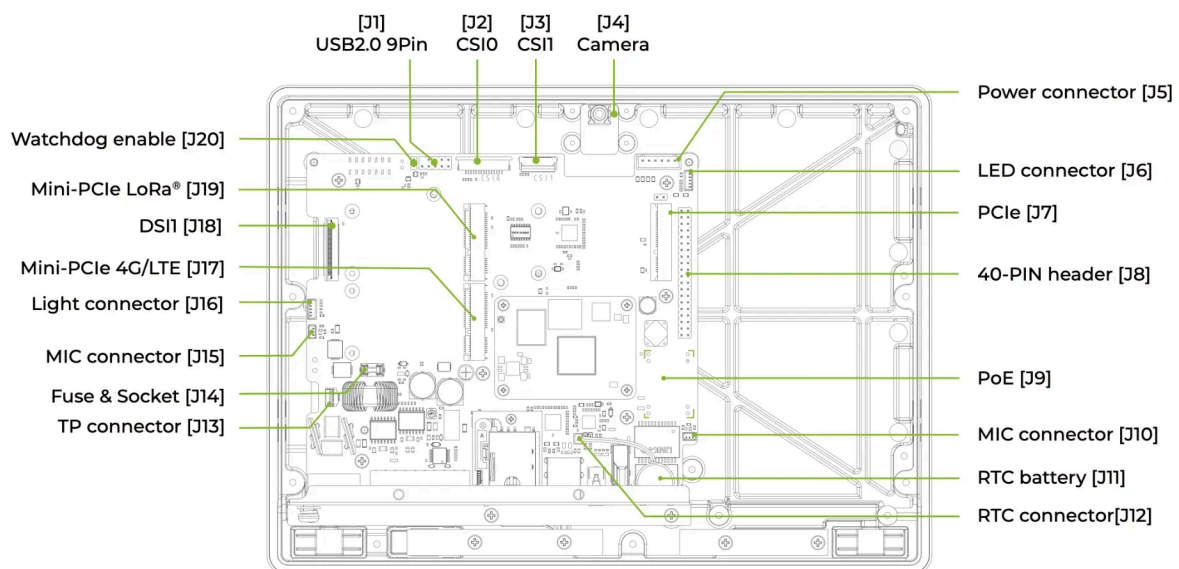
Camera	Connector: CSIChip type: Sony IMX219Resolution for image: 3280x2464Resolution for video: 1080p30, 720p60 and 640x480p90Size: 25mm x 23mm x 9mm	
Interfaces		
Ethernet		
USB		
RS485		
RS232		
CAN	1 x CAN-BUS > Terminal Block	
DI	4x DI > Terminal Block	
DO	4x DO > Terminal Block	
40pin GPIO	Inside	
Wireless Communication		
Wi-Fi		
BLE	On-chip BLE	
LoRa®		
Cellular		
Power		
Input	2-pin Terminal Block	
PoE	12.95W PoE	
Power Range		
Power Consumption		
Power Switch	NO	
Reboot Switch	YES	
Environment		
Ingress Protection		
Operating Temperature	-10~50 °C	
Storage Temperature	-20~70 °C	
Humidity (Operating)	10~95% RH	
Mechanical		
Dimension (W x H x D)		
Enclosure	Die-cast Aluminum Alloy	
Mounting		
Weight (Net)		
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/I/O | 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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Power	
Input	2-pin Terminal Block
PoE	12.95W PoE
Power Range	
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	
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
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Others	
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Hardware WatchDog	1~255s
Security	ATECC608A
Warranty	2 Years
Heat Dissipation	Fanless

Compliance & Logistics

HSCODE	8471419000
USHSCODE	8517180050
UPC	
EUHSCODE	8471707000
COO	

Resource Links

- <https://www.seeedstudio.com/reTerminal-DM-with-Camera-PoE-CM4108064-p-6958.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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