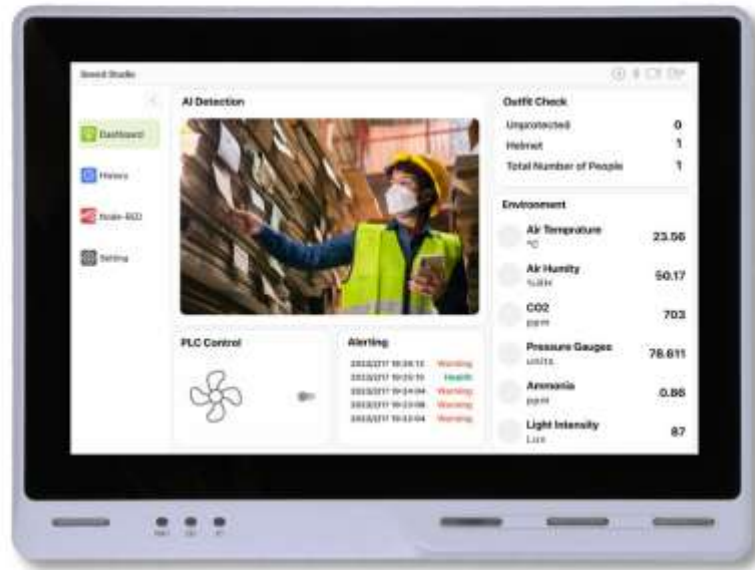


## DM with Camera & PoE - All-in-one, Node-RED Integrated reTerminal DM

reTerminal DM

Powered by  
Raspberry Pi



10.1" Integrated Device Master



## PRODUCT DESCRIPTION

reTerminal DM is a Panel PC, HMI, PLC, IIoT Gateway all-in-one device powered by Raspberry Pi CM4, with 10.1" IP65 front panel and rich industrial interfaces, and natively integrated with Node-RED and supports Raspberry Pi-based software ecosystem. This advanced version integrates a camera and a PoE module, designed for much wider applications.

It is equipped with rich scalability and hybrid connectivity, supporting CAN bus, RS485, RS232, Gigabit Ethernet port, and other interfaces, as well as powerful wireless communication capabilities such as 4G, LoRa®, WiFi, and BLE.

It's equipped with a large screen, strict industrial protection levels, and rich industrial interfaces, designed as the advanced version of [reTerminal](#).

## 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), integrated camera and a PoE module
- 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®, WiFi, BLE, RS485/RS232, CAN bus, 1000M Ethernet, USB, HDMI

## APPLICATION

reTerminal DM is an integrated device master that can function as an HMI/PLC/Gateway/Panel PC all-in-one device, working in the edge layer of the IOT architecture, unifying data flow, and managing onsite devices, reducing the big gap between legacy systems and modern IT infrastructures in various application scenarios. It can downlink to the edge devices

- Edge controllers, coordinating legacy machines by talking unlimited protocols and flexible software.
- Gateways and environmental sensors, connecting to the IT infrastructure to provide a new frontier of data to adapt to changes.



- AI boxes, offer better insights and are able to handle multi streams with easy setups. By combining them with AI and automation, many more operations will be industrialized.

And uplink to the cloud and application end with its hybrid connectivity capabilities.

## SPECIFICATIONS

### PRODUCT MODEL

Model	reTerminal DM
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### BASIC

CPU	CM4 - Quad-core Cortex-A72@ 1.5GHz
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Memory	8GB
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Storage	32GB eMMC M.2 NVMe SSD Slot 2280-M Key (optional)
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OS Support	Raspberry Pi OS SenseCraft Edge OS
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### DISPLAY

Size	10.1"
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Max. Resolution	1280 x 800
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Max. Colors	16.7M (8-bit)
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Luminance (nit)	400
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Viewing Angle (H/V°)	170/170
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Backlight Life (hrs)	30000
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Touch Type	10-point Capacitive
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Pencil Hardness	7H
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## VIDEO & AUDIO

Video	HDMI 2.0
Audio	Microphone x 2 Buzzer 3.5mm Audio Jack
Camera	Connector: CSI Chip type: Sony IMX219 Resolution for image: 3280x2464 Resolution for video: 1080p30, 720p60 and 640x480p90 Size: 25mm x 23mm x 9mm

## INTERFACE

Ethernet	1 x 10/100/1000 Mbps 2 x 10/100/1000 Mbps ( <a href="#">requires extension board</a> )
USB	2 x USB-A 2.0 Host 2 x USB 3.0 ( <a href="#">requires extension board</a> )
RS485	1 x RS-485 > Terminal Block 1 x RS-485 > DB9 (optional)
RS232	1 x RS-232 > Terminal Block 1 x RS-232 > DB9 (optional)
CAN	1 x CAN-BUS > Terminal Block
DI	4x DI > Terminal Block
DO	4x DO > Terminal Block
40-pin GPIO	Inside

## WIRELESS COMMUNICATION

WiFi	On-chip WiFi (requires <a href="#">Raspberry Pi CM4 Antenna Kit</a> )
Bluetooth	On-chip BLE

## WIRELESS COMMUNICATION

LoRa	Mini-PCle for LoRaWAN (requires LoRaWAN <u>antenna</u> and <u>module</u> )
Cellular	Mini-PCle for 4G (requires <u>antenna</u> and <u>module</u> )

## POWER

Input	2-pin Terminal Block
PoE	12.95W PoE
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

Dimensions (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



## 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
Hardware WatchDog	1~255s
Security	ATECC608A
Warranty	2 Years
Heat dissipation	Fanless