Manuals+ — User Manuals Simplified.

CM4 Display Pi Terminal

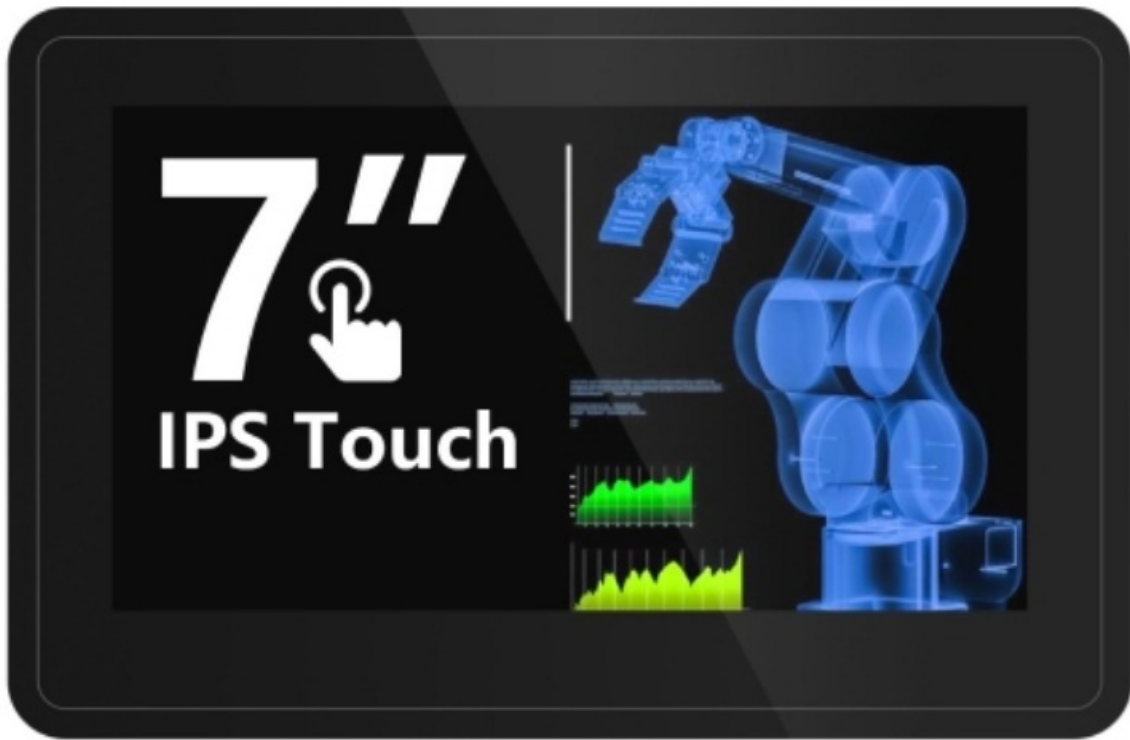# ELECROW CM4 Display Pi Terminal User Manual

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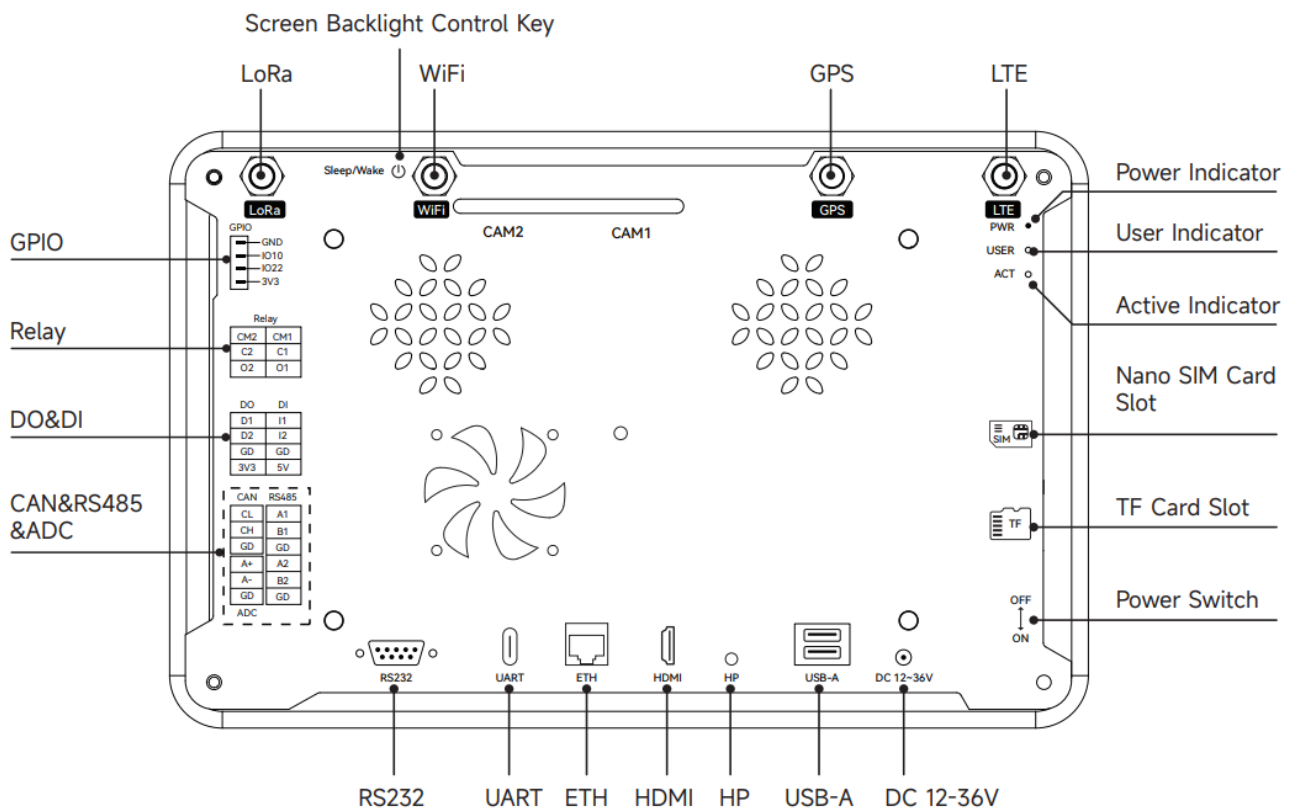
ELECROW CM4 Display Pi Terminal

Overview

CM4 Display is a multi-functional embedded industrial control device designed based on the Raspberry Pi platform. Equipped with a 7-inch capacitive screen, it has multiple industrial interfaces and supports multiple wireless communication protocols. By using the CM4 as the main controller, it quickly handles real-time control tasks and monitors ongoing operations. Its industrial design allows it to withstand harsh environments. The CM4 Display integrates with Node-RED, which compatible with the software running on the Raspberry Pi and pre-installed Rasbian system. Using an all-in-one design, it boasts a robust open-source ecosystem tailored for various industry applications.

Interface

Note: The acrylic case needs to be purchased separately

Screen Backlight Control Key

LoRa WiFi GPS LTE

Sleep/Wake

LoRa WiFi CAM2 CAM1 GPS LTE

Power Indicator

GPIO PWR User Indicator
GPIO USER
GND ACT Active Indicator
IO10
IO22
3V3

Relay Nano SIM Card Slot
Relay SIM
CM2 CM1
C2 C1 TF Card Slot
O2 O1 TF

DO&DI OFF Power Switch
DO DI ON
D1 I1
D2 I2
GD GD
3V3 5V

CAN&RS485 &ADC
CAN RS485
CL A1
CH B1
GD GD
A+ A2
A- B2
GD GD
ADC

RS232 UART ETH HDMI HP USB-A DC 12~36V

RS232 UART ETH HDMI HP USB-A DC 12-36V

Pin and Indicator Definition

	Relay		
COM2	CM2	CM1	COM1
NC2	C2	C1	NC1
NO2	O2	O1	NO1

	DO	DI	
DO1	D1	I1	DI1
DO2	D2	I2	DI2
GNDO	GD	GD	GNDI
3.3V	3V3	5V	5V

	CAN	RS485	
CANL	CL	A1	485A1+
CANH	CH	B1	485B1-
GND	GD	GD	485GND
ADC+	A+	A2	485A2+
ADC-	A-	B2	485B2-
GND	GD	GD	485GND
	ADC		

PWR ● CM4 Power Indicator

USER ○ User-defined Function Indicator

ACT ○ CM4 Status Indicator

Specification

Specification-1

CM4 Processor

CPU	Broadcom BCM2711, quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
Flash	4GB
Storage	64GB TF Card or SSD (Optional)
System	Raspbian Compatible with Node-RED

Display

Size	7"
Resolution	1024*600
Luminance	450 cd/m2
Touch Type	5-point capacitive touch

Wireless Communication

WiFi	2.4/5.0 GHz on CM4
Bluetooth	BLE 5.0 on CM4
LoRa	Mini-PCIe socket (Optional)
LTE	Mini-PCIe socket (Optional)

Specification-2

Edge Interfaces

2*20Pin Header	Before referencing CM4 resources, please confirm whether the resources have been reused
CAM*2	MIPI CSI camera interface, compatible with all camera specifications of Raspberry Pi
GPIO	GND/GPIO10/GPIO22/3.3V, extend custom functions and connect to the button board to use custom functions
Relay	2*3Pin, control the relay switch through high and low voltage levels
DO&DI	2*4Pin, support two digital input and two digital output channels
CAN&RS485&ADC	2*6Pin, RS485 occupies six pins, CAN occupies three pins, and ADC occupies three pins
RS232	DB9 interface, reserve external industrial non-isolated serial port
UART (Type-C)	USB2.0. USB to UART. Connect to USB device
ETH	RJ45 interface. 10/100/1000Mbps. Used for connecting to Ethernet or other local area networks

Specification-3

Edge Interfaces

HDMI	HDMI2.0. Used for video output. Support video output up to 4K @ 60 fps
HP	3.5mm audio jack. Used for connecting headphone or microphone
USB-A*2	USB-A 2.0. Used for connecting USB devices
DC 12-36V	Used for powering the device
TF Card Slot	64GB TF card. Press the card to insert or eject it from the slot
Nano SIM Card Slot	Insert a Nano SIM card and pair it with a 4G module to provide 4G cellular data communication for the device
2*4Pin Header	Used for expanding the USB interface

Other Interfaces

PoE	Power CM4
Fan	Connect the fan to dissipate heat
SPK*2	Connect the speakers for sound output

Specification-4

Environmental Spec

Front Panel IP Rating	IP65
Operating Temperature	-10~60°C
Storage Temperature	-20-70°C
Relative Humidity	10~90%

Parameters

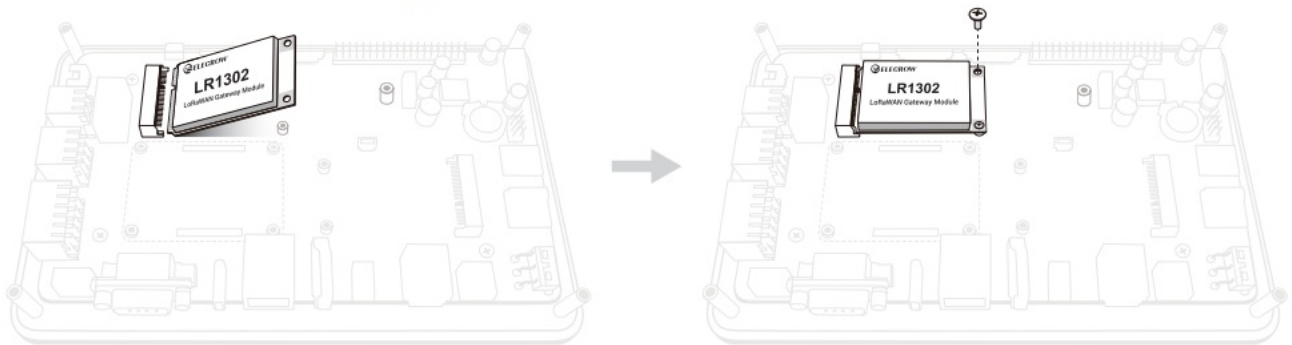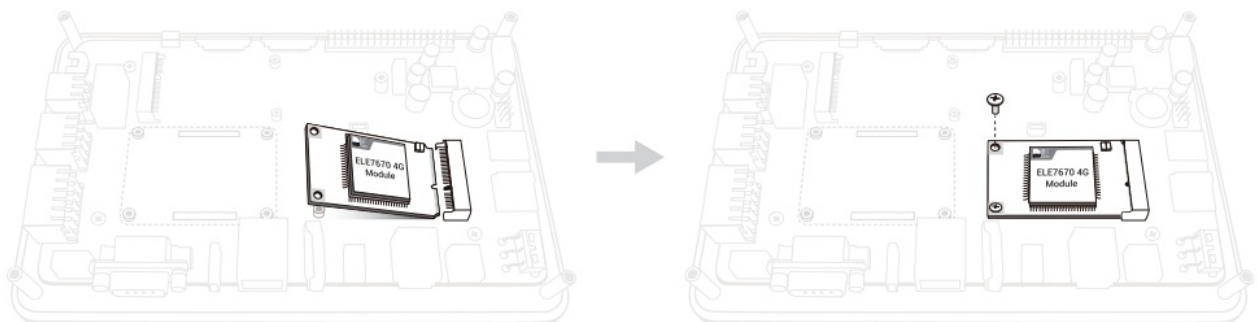|	
Front Glass Thickness	1.8mm
With acrylic case	
Dimension	192*125*46mm
Net Weight	676g
Without acrylic case	
Dimension	182*115*29mm
Net Weight	389g

Installation

Installation-1
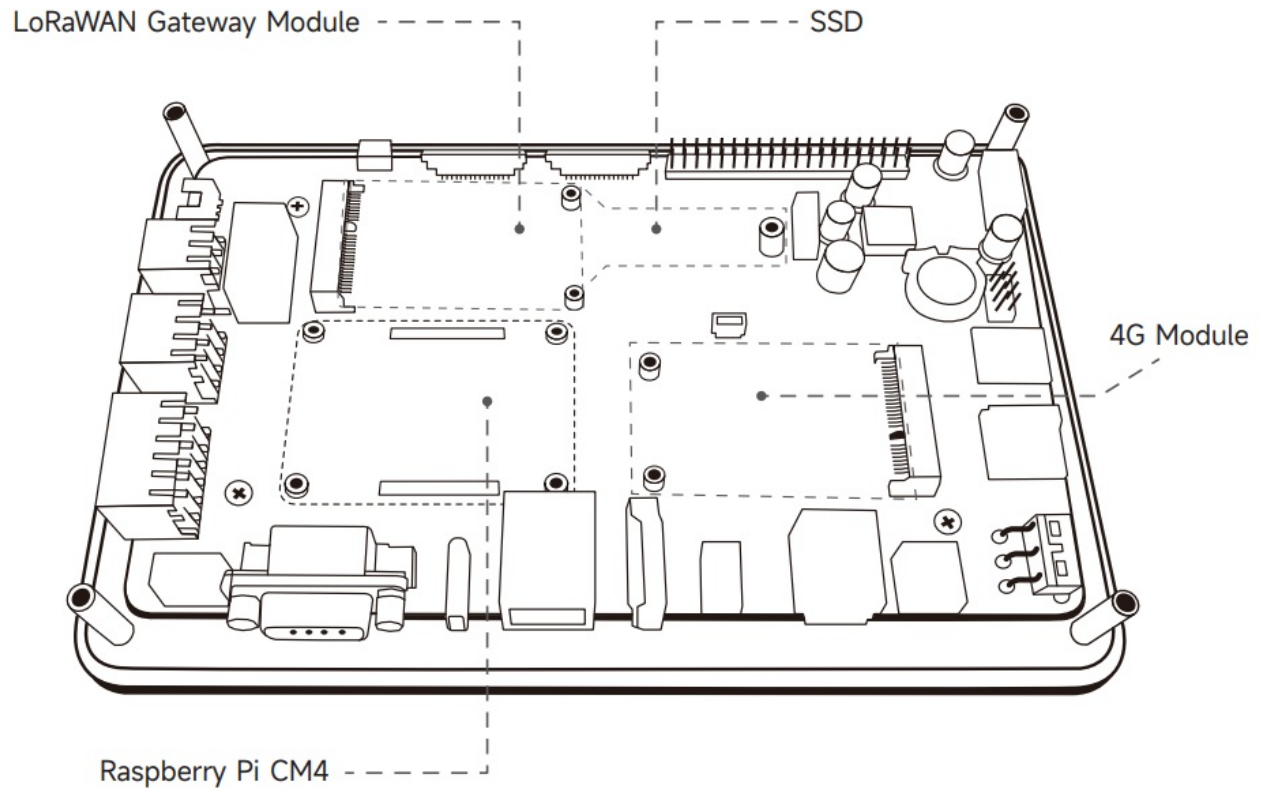
Installation-2
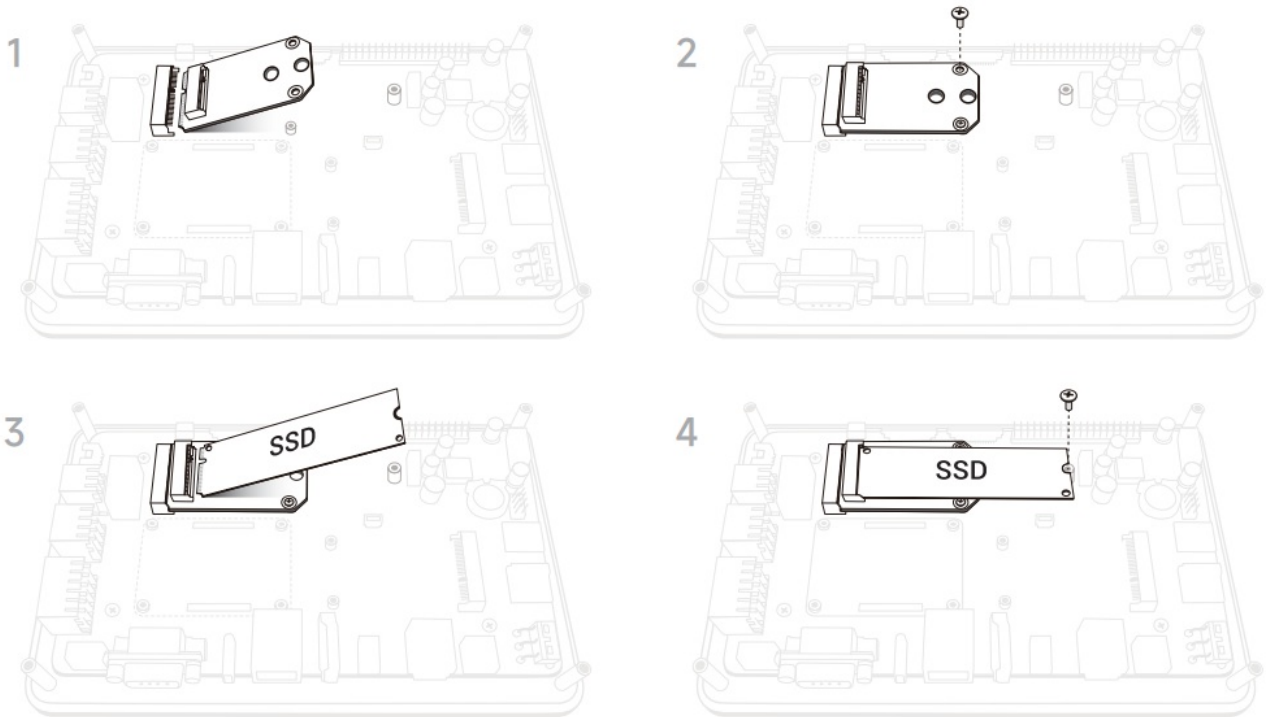
- Installation of LoRaWAN Gateway Module

- Installation of 4G Module

Installation-3

Installation of SSD

Please insert the module at a 45° angle and then tighten the screws to lock it in place.

Package List

Package List *Without Acrylic Case

- CrowPanel-CM4 Display*1 (Optional Acrylic Case)
- Inserted 64GB TF Card*1 (Image File Loaded)
- IPEX to SMA Female Adapter Cable*1
- 2*3Pin Phoenix Type Connector*1
- 2*4Pin Phoenix Type Connector*1
- 2*6Pin Phoenix Type Connector*1
- WiFi External Antenna*1
- 12V-2A Adapter*1
- User Manual*1

Customer Support

you have any questions, customer support is always standing by

- **info@elecrow.com**
- **techsupport@elecrow.com**

For more technical details, please visit the relevant webpage.

Documents / Resources

ELECROW CM4 Display Pi Terminal [pdf] User Manual
CM4 Display Pi Terminal, CM4, Display Pi Terminal, Pi Terminal, Terminal

References

- **User Manual**