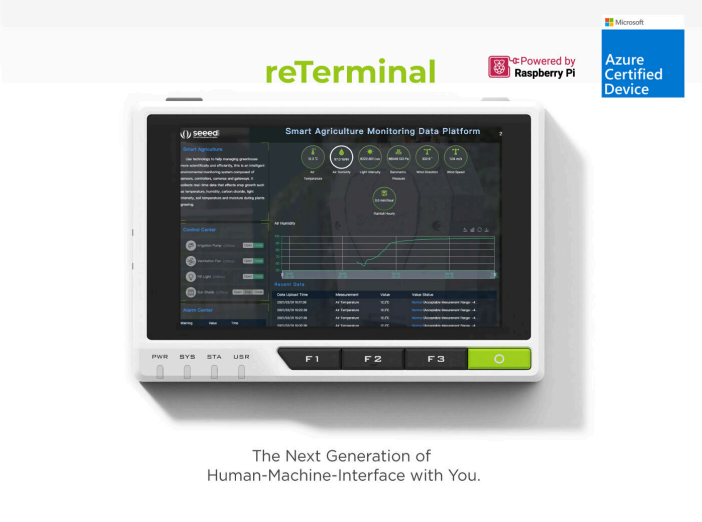
seeed studio

INDUSTRIAL PRODUCT DATASHEET

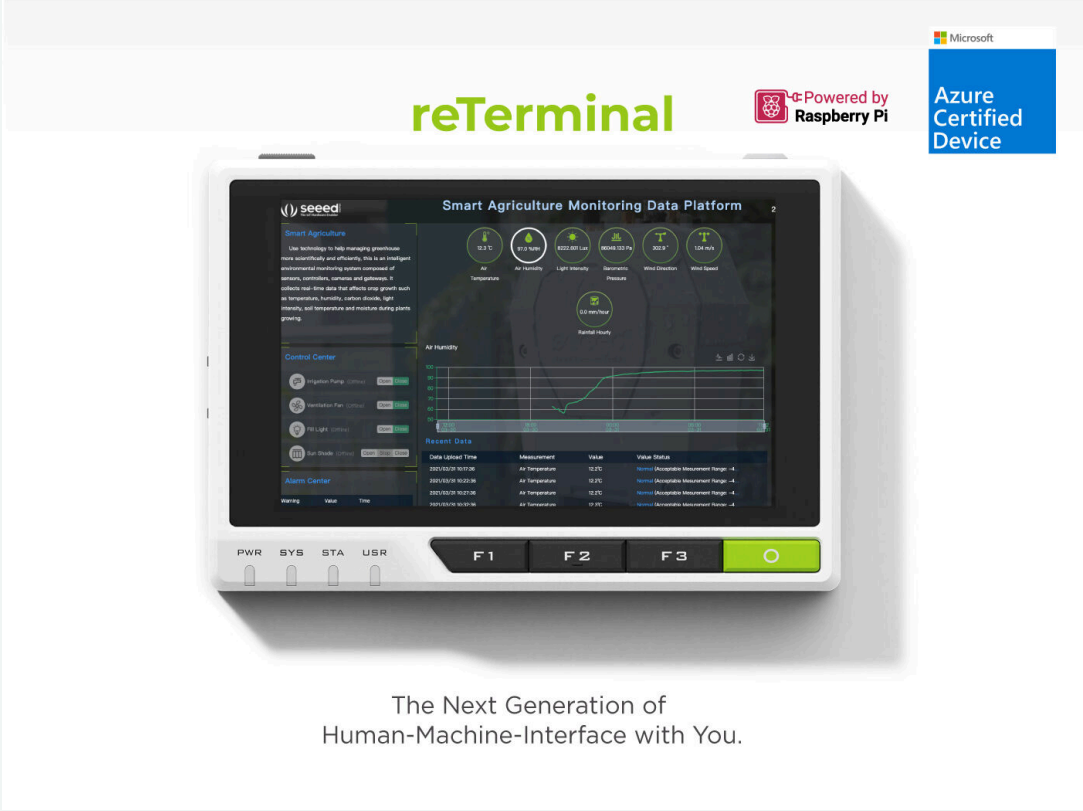
reTerminal CM4104032 - AI, IoT, IIoT Human Machine Interface, All-in-one Board, Modular Design, RPi CM4 32GB powered, IPS multi-touch screen, 2.4GHz/5GHz Wi-Fi & Bluetooth 5.0, rich interfaces

A modular, RPi CM4-powered HMI with an IPS touchscreen, wireless connectivity, and extensive interfaces for AI, IoT, and IIoT applications.

SKU	UPDATED	PRICE
110070048	2026-08-06 09:56:52	$295.50(Excl. VAT)



Overview



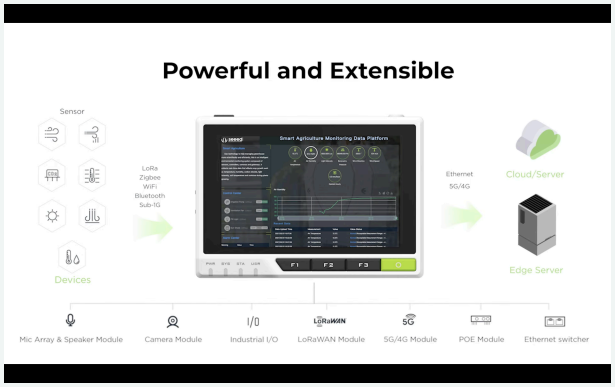
The reTerminal CM4104032 is an all-in-one HMI board powered by the Raspberry Pi CM4 (32GB), featuring a 5-inch IPS multi-touch screen, dual-band Wi-Fi, Bluetooth 5.0, and a pre-installed compatible Linux system. Its modular design includes a high-speed expansion interface, 40-pin GPIO header, and rich interfaces such as USB, Gigabit Ethernet, micro-HDMI, MIPI camera, plus built-in sensors for AI, IoT, and IIoT deployments.

Key Features

- **Raspberry Pi All in One Board:** Powered by RPi CM4 32GB, integrated with IPS multi-touch screen, dual-band Wi-Fi & Bluetooth, pre-installed compatible Linux system
- **Modular Design:** Featuring high-speed expansion interface and 40-Pin Raspberry Pi compatible header, and official Seeed expansion board
- **Rich Interfaces & Components:** Equipped USB Type-A ports, Gigabit Ethernet, micro-HDMI, micro-SD card slot, MIPI camera interface, light sensor, accelerometer, buzzer, RTC and programmable buttons
- **Neat Personal Assistance:** Enjoy yourself in multiple interested Dashboard or AI projects by Seeed and communities while utilizing built-in sensors and components

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

Product Gallery



















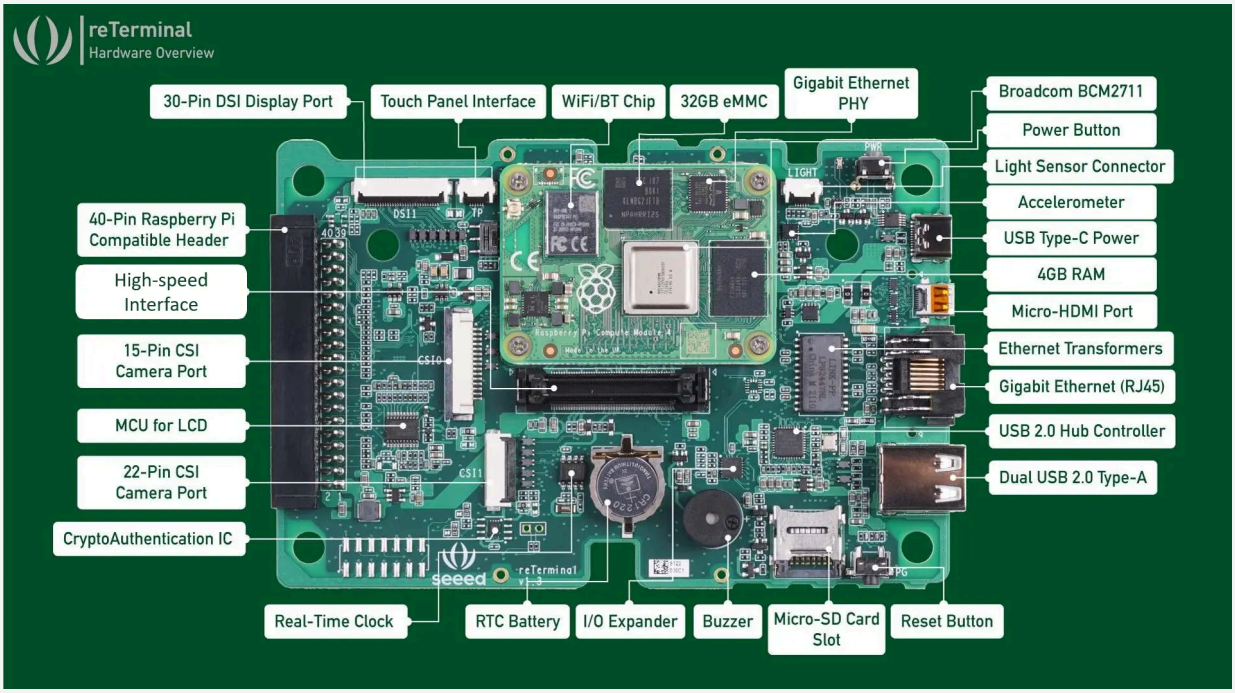


Specification

Specification		Details
Platform	Processor	Broadcom BCM2711 quad-core Cortex-A72 (ARM v8)
	Frequency	64-bit SoC @ 1.5GHz
Memory	Capacity	4GB
	Technology	LPDDR4 with on-die ECC
eMMC	Capacity	32GB
Wireless	Wi-Fi	2.4GHz and 5.0GHz IEEE 802.11b/g/n/ac
	Bluetooth	Bluetooth 5.0, BLE
Display	LCD	5-inch 720x1280 LCD
	Touch Panel	Capacitive touch panel (support multi-touch)
Video	HDMI	1 x Micro HDMI output (up to 4Kp60 supported)
	CSI	1 x 2-lane MIPI CSI camera interface
	Multimedia	H.265 (4Kp60 decode)
		H.264 (1080p60 decode,1080p30 encode)
		OpenGL ES 3.0 graphics

Built-In Modules	Real-Time Clock	NXP Semiconductors PCF8563T
		Low backup current; typical 0.25μA at VDD = 3.0 V and Temperature = 25 ℃
	Accelerometer	STMicroelectronics LIS3DHTR
		16-bit, ±2g/±4g/±8g/±16g dynamically selectable full scale
	Encryption	Microchip ATECC608A
		Secure Hardware-Based Key Storage, Asymmetric Sign, Verify, Key Agreement
	Light Sensor	Levelek LTR-303ALS-01
		Digital light sensor
	Internal IO Expansion	Microchip MCP23008-E
	Buzzer	≥85dB @10cm 2700±300Hz
External I/O	GPIOs	Up to 5 × UART
		Up to 5 × I2C
		Up to 5 × SPI
		1 × SDIO interface
		1 × DPI (Parallel RGB Display)
		1 × PCM
		1 × PWM channel
		Up to 3× GPCLK outputs
	Vertical expansion interface	1 × PCIe 1-lane Host, Gen 2 (5Gbps)
		1 × USB 2.0 port (highspeed)
		26 x GPIOs
		POE
Power	Voltage	5V DC
	Current	3A(Minimum)
Temperature	Operating Temperature	0 - 70°C(For the LCD Screen: 0 - 60°C)
Mechanical	Dimensions	140mm x 95mm x 21mm
	Weight	285g
Certification	Certificates	CE, FCC, TELEC(211-210815)

Hardware Overview



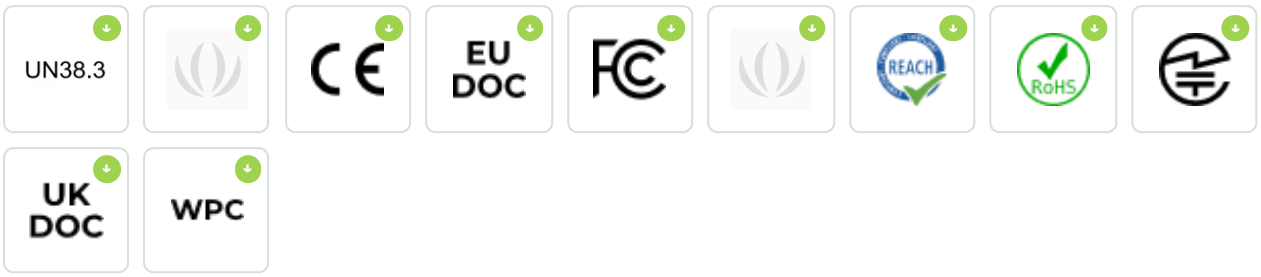
Applications

- **Grafana for reTerminal**
- **Robot Arm, Like a Doctor**
- **Getting started with TensorFlow Lite**
- **Flutter for reTerminal**
- **キーワード検索**

Part List

reTerminal CM4104032	x 1
Screw driver	x 1

Compliance & Logistics



HSCODE	8471419000
USHSCODE	8517180050
UPC	
EUHSCODE	8471707000
COO	CHINA

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Resource Links

- https://www.seeedstudio.com/ReTerminal-with-CM4-p-4904.html
- reTerminal 3D print file
- HRS connector datasheet for high-speed expansion interface
- Datasheet
- Seeed's Raspberry Pi-based Success Cases
- SeeedRasperryPiFlyer

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com