seeed studio

INDUSTRIAL PRODUCT DATASHEET

reTerminal E10-1 - Expansion Board supports DC Jack/PoE/UPS, Gigabit Ethernet, LTE/4G/5G/LoRaWAN, RS485/232, CAN, SATA 2.0

The reTerminal E10-1 expansion board combines DC Jack/PoE/UPS, Gigabit Ethernet, LTE/4G/5G/LoRaWAN, RS485/232, CAN, SATA 2.0, and onboard audio for agriculture, home, and individual applications.

SKU	UPDATED	PRICE
103060001	2026-10-16 10:58:28	$119.00(Excl. VAT)



Overview



The reTerminal E10-1 is an expansion board featuring alternative charging modes via UPS-18650 dual chargeable battery, DC jack, and PoE; multiple wireless communication with LoRaWAN/LTE/4G/5G antennas; industrial RS-485/RS-232/CAN Bus interfaces; onboard SSD storage via M.2 B KEY SATA 2.0; and audio capability with two microphones and one speaker. It supports agriculture applications such as crop monitoring and insect alarm, home monitoring and security alarm with power-off support, and individual mobile-Human Machine Interaction computers.

Key Features

- Alternative Charging Modes: Supply by UPS-18650 dual chargeable battery, DC jack, and PoE function
- Multiple Wireless Communication: Provide LoRaWAN/LTE/4G/5G all four data transmission abilities with antennas
- Onboard Industrial Interface: Support RS-485, RS-232, and CAN Bus high-speed connection
- Onboard Massive Storage: Available card slot supporting SSD with M.2 B KEY, SATA 2.0
- Onboard Audio Capability: Equip with two microphones and one speaker for expandable AI-powered capabilities

Product Gallery











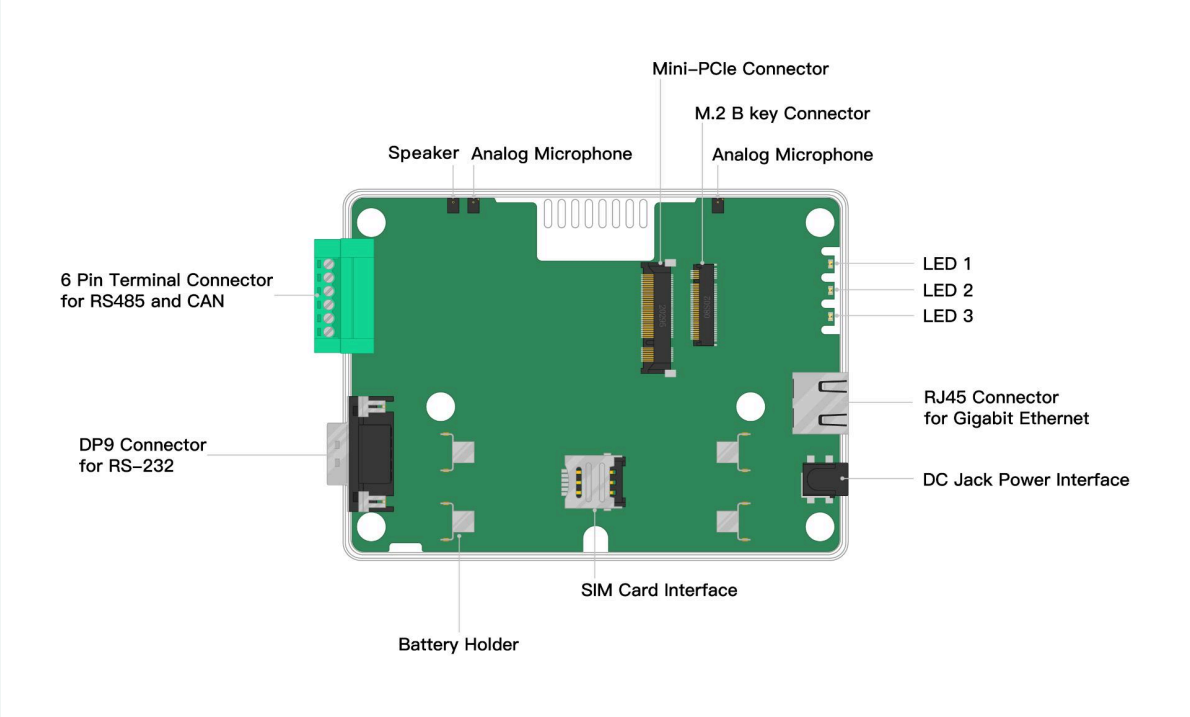
Specification

Specification	Parameter	Remark
Power		

DC Jack	DC 12V @4A	The DC Jack or PoE power supply should be prioritized.
PoE	25W (as powered device).	
UPS	2 x Battery holder for 18650 battery(optional)	The battery will automatically stop charging if it is overheat, and LED2 will flash.
Interface		
1 x RS485	6 Pin Terminal Connector	a maximum communication rate of 256000 baud
1 x RS232	DP9 connector	a maximum communication rate of 256000 baud
1 x CAN	6 Pin Terminal Connector	CAN supports a 500KBps communication rate at common mode and supports the communication rate up to 8Mbps at FD mode.
1 x RJ45	Equips with LAN7800 IC supports PoE module	Ethernet supports maximum gigabit rates, but the LAN7800 driver is required
1 x Connector	100 pins Industrial High-Speed Interface	Connect with reTerminal through 100 pins high-speed interface
Indicators	3 x LEDs	
Components		
Microphone	Two Analog Microphones	
Speaker	8Ω/1W	
Fan	3-Pin Fan	Supports speed control and speed measurement
Antenna holes	4 x Antenna holes	supports multiple wireless communication protocols
Wireless Connection	M.2 solt supports 4G/5G modules and M.2 NVMe SSD	compatible with SIMCOM 8052 5G□Compatible with B key SSD suitable for 2242/2280
	Mini-PCIe slot supports LTE/4G/LoRaWAN modules	compatible with EC25/EC20, LoRaWAN module suggested Seeed WM1302
	SIM card slot supports LTE/4G/5G	The SIM card only supports mini-pcie or M.2 devices at one time and it can be toggled by the switch on the board
Dimension	140mm x 95mm x 30mm	

Accessories Information		
Note	Product Name	Remarks
Power cable	DC 12V @4A	Full power consumption requires a 4A power supply, but sometimes partial 2A/3A power supply can also support
Battery	18650	Panasonic NCR18650B 3.6V 3400mAh recommended
SSD	M.2 SSD 2242/2280	M.2 B key (SATA)
4G module	EC25/EC20	Tested with Quectel (manufacturer)
5G module	SIM8202G	Tested with Simcom (manufacturer)
Wio Module	WM1302 LoRaWAN Gateway Module (USB/SPI) US/EU	WM1302 LoRaWAN Gateway Module(USB) - EU868, based on SX1302 - Seeed Studio

Hardware Overview



Applications

- **Agriculture:** Crop monitoring, insect alarm, LoRa/LTE/5G wireless communication
- **Home:** Home monitoring, security alarm, power-off supported
- **Individual:** Mobile-Human Machine Interaction computer

Part List

reTerminal E10-1 - Expansion Board	x1
Screw Driver	x1

Compliance & Logistics



HSCODE	8543909000
USHSCODE	8543903500
UPC	
EUHSCODE	8543709099
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-E10-1-p-5376.html

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