Interface / Expansion / Power, USB TO RS232 / RS485 / UART/ CAN

Industrial Isolated USB To RS485/422 Converter, Original FT4232HL Chip, Supports USB To 2-Ch RS485 + 2-Ch RS485/422

SKU   25970
Part No.   USB TO 4CH RS485/422
Brand   Waveshare

$32.⁹⁹

| 1 | ADD TO CART |

Price	Quantity
$32.39	2+ Contact

$32.09   3+

$31.97   4+

Related Products:

DESCRIPTION   **PACKAGE CONTENT**

Industrial Isolated USB To RS485/422 Converter, Original FT4232HL Chip, Supports USB To 2-Ch RS485 + 2-Ch RS485/422,
Wall-Mount & Rail-Mount Support

Industrial USB To 4-Ch RS485/422 Converter

USB To 4-Ch RS485   or   USB To 2-Ch RS422 + 2-Ch RS485

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FT4232HL | Stable Transmission | Multiple Devices Applicable | Multi-OS Compatible

Features At A Glance

- Adopts original FT4232HL chip, fast communicating, stable and reliable, better compatibility
- Supports USB to 4-ch multi-functional serial port, convenient for expanding or debugging various

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industrial serial port devices

- Supports USB to 2-ch isolated RS485/422 + 2-ch isolated RS485

- Onboard unibody power supply isolation, provides stable isolated voltage, needs no extra power supply for the isolated terminal

- Onboard unibody digital isolation, allows signal isolation, high reliability, strong anti-interference, low power consumption

- Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightningproof & ESD protection

- Onboard self-recovery fuse and protection diodes, ensures the current/voltage stable outputs, provides over-current/over-voltage proof, improves shock proof performance

- Fully automatic transceiver circuit with no delay, ensures fast and stable communication between the USB port and different interfaces, without interfering with each other

- 9 LEDs for indicating the power and transceiver status

- High quality USB-B connectors, smoothly plug/pull

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- Industrial grade metal case, supports wall-mount and rail-mount installation, solid and beautiful, easy to install

Specifications

PRODUCT TYPE	Industrial digital isolated converter	
USB	Operating voltage	5V
	Connector	USB-B
	Protection	200mA self-recovery fuse, isolated output

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ISOLATED RS485/422	Connector	Screw terminal
	Direction control	Hardware automatic control
	Protection	TVS diode, surge protection & ESD protection, power isolation and signal isolation
	Resistor	Onboard reserved 120R matching resistor, NC by default, enabled via jumper
	Transmission mode	Point-to-multipoints (485 mode: up to 32 nodes, it is recommended to use repeaters for 16 nodes or more； 422 mode: up to 256 nodes, it is recommended to use repeaters for 16 nodes or more)
	Baud rate	300bps ~ 921600bps

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	Protection	TVS diode, surge protection & ESD protection, power isolation and signal isolation
	Resistor	Onboard reserved 120R matching resistor, NC by default, enabled via jumper
	Transmission mode	Point-to-multipoints (485 mode up to 32 nodes, it is recommended to use repeaters for 16 nodes or more)
	Baud rate	300bps ~ 921600bps
INDICATORS	PWR	Red power indicator, light up when there is USB connection and voltage is detected
	TX1~TX4	TX indicator, light up when the USB port sends data
	RX1~RX4	RX indicator, light up when the device ports send data back
OPERATING ENVIRONMENT	Temperature range	-40 ~ 85℃
	Humidity range	5%RH~95%RH

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| OPERATING SYSTEM	Mac, Linux, Android, Windows 11 / 10 / 8.1 / 8 / 7

Basic Function

Supports USB To 4-Ch Multi-Functional Serial Port, Convenient For Expanding Or Debugging Various Industrial Serial Port Devices; Supports USB To 2-Ch Isolated RS485/422 + 2-Ch Isolated RS485
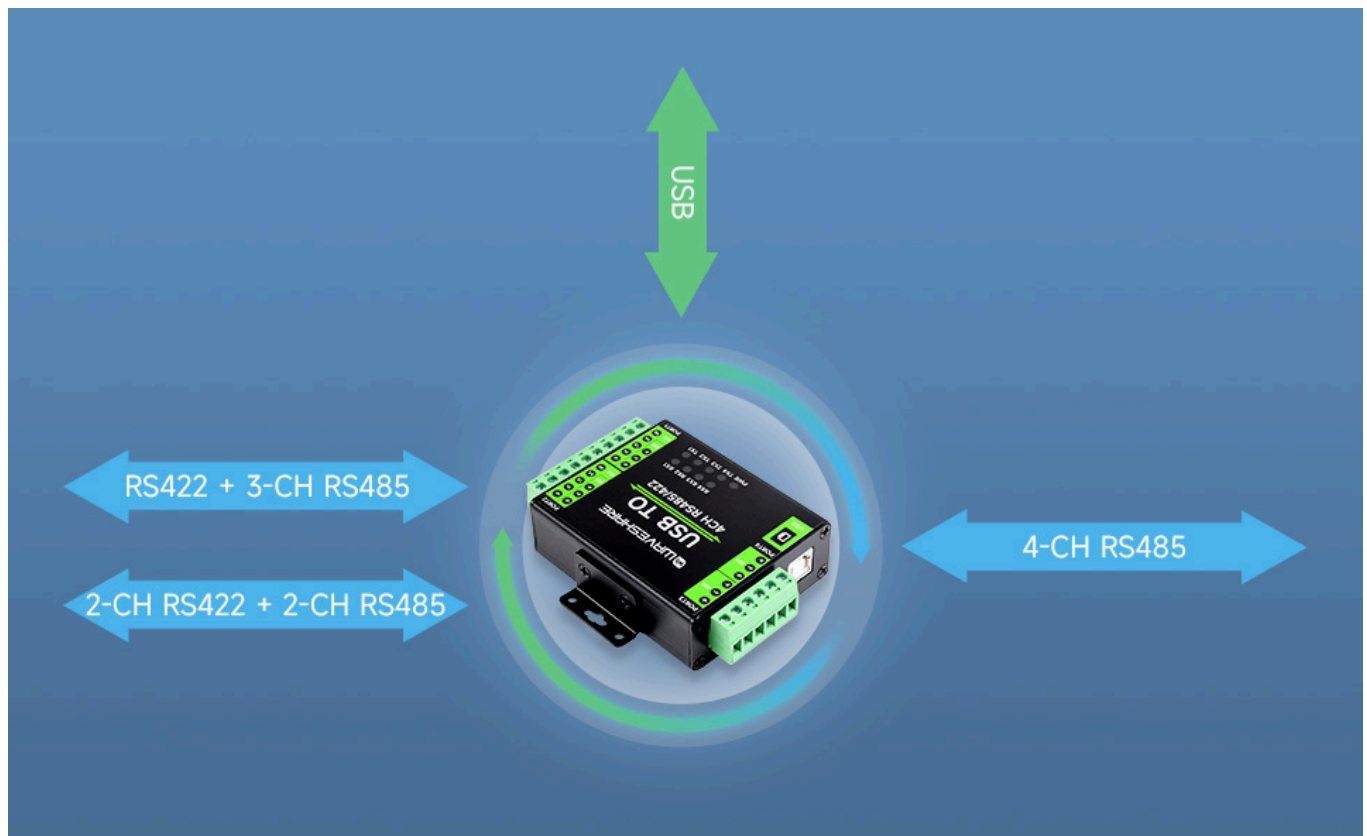
Original Industrial Grade Chip

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Onboard Original FT4232HL Chip,

Fast Communication, Stable & Reliable, Better Compatibility
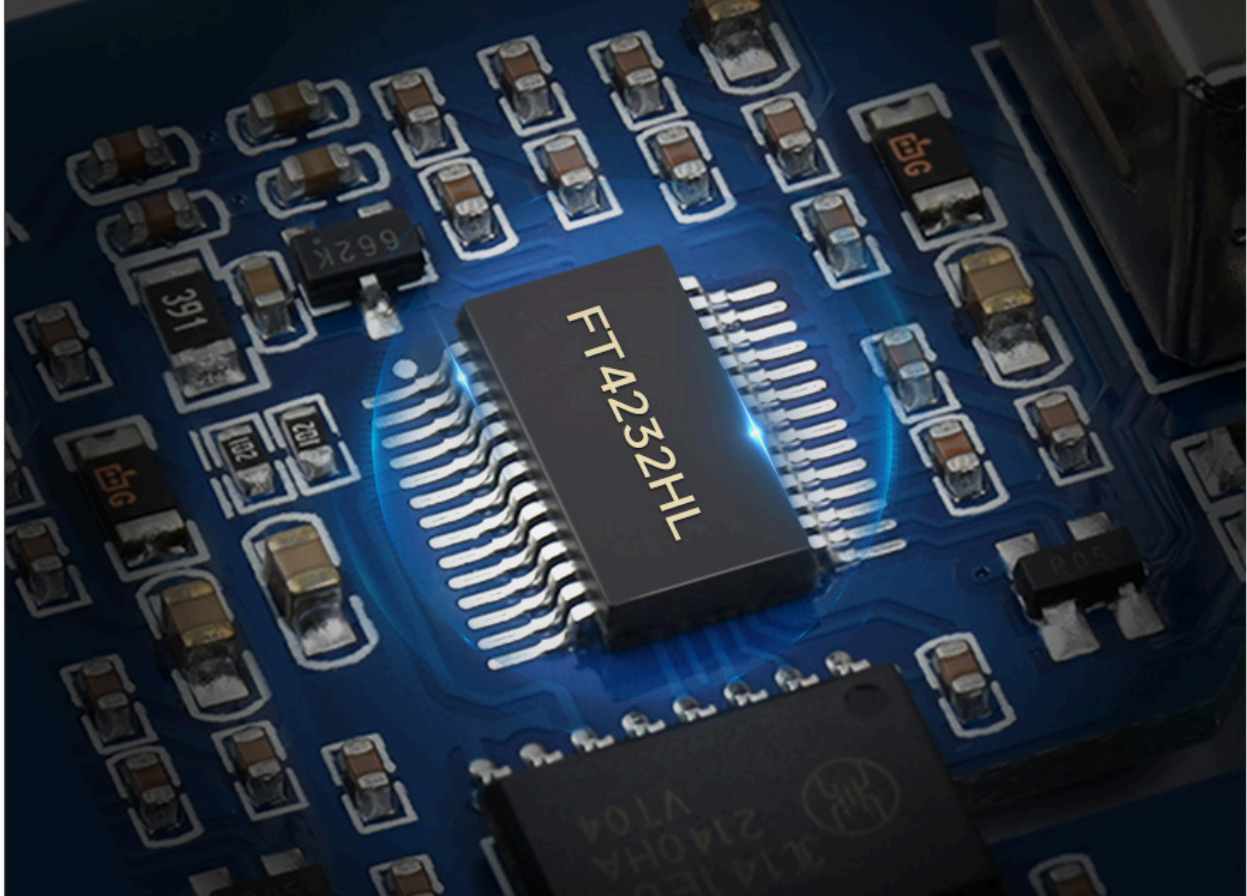
Safer Isolated Design

- Onboard unibody power supply isolation, provides
  stable isolated voltage, needs no extra power supply
  for the isolated terminal

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- Onboard unibody digital isolation, allows signal isolation, high reliability, strong anti-interference, low power consumption

Voltage Isolation

Signal Isolation

High Reliability

Strong Anti-interference

Low Power Consumption

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Multiple Protection, Safe And Stable

Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightningproof & ESD protection. Onboard self-recovery fuse and protection diodes, ensures the current/voltage stable outputs, provides over-current/over-voltage proof, improves shock proof performance.

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Multi System Support

Supports Mac, Linux, Android, Windows 11 / 10 / 8.1 / 8 / 7, Etc.

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Aluminium Alloy Enclosure

Aluminium Alloy Enclosure With Sand Blasting And Anodic Oxidation,

Solid And Durable; Wall-Mount & Rail-Mount Support, More Flexible For Industrial Installation

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Pin Definition

PORT 1/2 - RS485/422 Pinout	
PIN	**Description**
⏚	485/422 signal ground
TA	RS422 send differential signal positive RS485 differential signal positive (A+)
TB	RS422 send differential signal negative RS485 differential signal negative (B-)
RA	RS422 receive differential signal positive
RB	RS422 receive differential signal negative

PORT 3/4 - RS485 Pinout	
PIN	**Description**
⏚	485 signal ground
A+	RS485 differential signal positive (A+)
B-	RS485 differential signal negative (B-)

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Product Show

Outline Dimensions
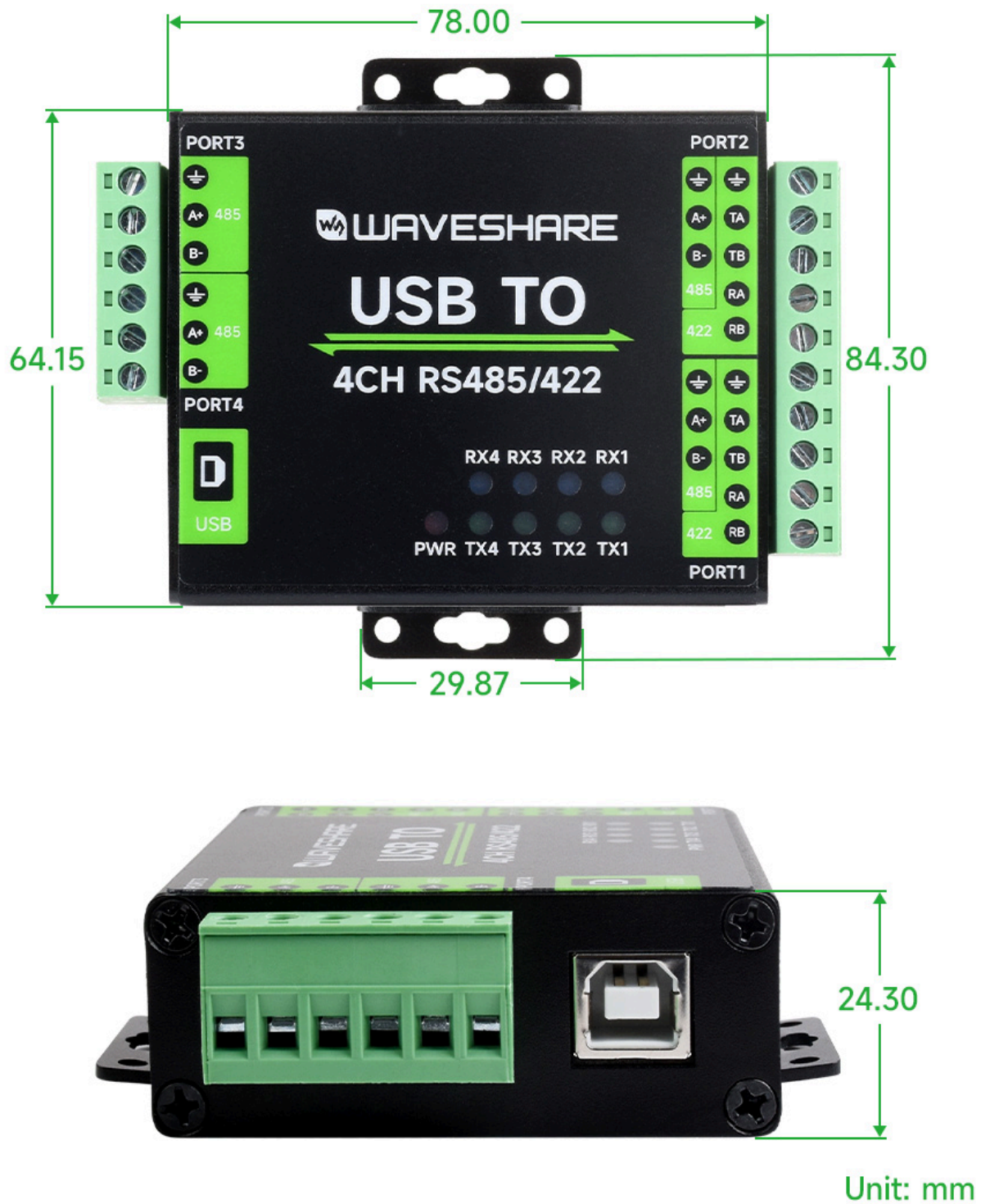
Resources & Services

WAVESHARE ORIGINAL

PROFESSIONAL TECH SUPPORT

RICH RESOURCES MANUAL & DEMO

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User Manual   Circuit Diagram   Example Code   Dev Resources

WIKI: www.waveshare.com/wiki/USB_TO_4CH_RS485/422

* Resources for different product may vary, please check the wiki page to confirm the actually provided resources.

USB To Serial Port Converter Selection

MODEL	DESCRIPTION	SERIAL PORT CONVERTER
USB TO RS232/485/TTL	USB to single-channel serial port; Adopts FT232RL solution; Industrial grade, with isolation; Wall-mount and desktop support	Single serial port converter: • USB to RS232 • USB to RS485 • USB to TTL

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USB TO RS232/485/TTL (B)	USB to single-channel serial port; Adopts CH343G solution; Industrial grade, with isolation; Wall-mount and desktop support	Single serial port converter: • USB to RS232 • USB to RS485 • USB to TTL
USB TO RS232/485/422/TTL	USB to single-channel serial port; Adopts FT232RNL solution; Industrial grade, with isolation; Wall-mount and rail-mount support	Single serial port converter: • USB to RS232 • USB to RS485 • USB to RS422 • USB to TTL
USB TO UART/I2C/SPI/JTAG	USB to 2-ch serial port; Adopts CH347T solution; Industrial grade, without isolation; Wall-mount and desktop support	Multi-functional serial port converter: • USB to 2-ch TTL • USB to 1-ch TTL + 1-ch I2C + 1-ch SPI • USB to 1-ch TTL + 1-ch JTAG
USB TO 4CH TTL	USB to 4-ch serial port; Adopts CH344 solution; Industrial grade, without isolation; Wall-mount and desktop support	4-ch serial port converter: • USB to 4-ch TTL

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USB TO 4CH RS485	USB to 4-ch serial port; Adopts CH344 solution; Industrial grade, without isolation; Wall-mount and desktop support	4-ch serial port converter: • USB to 4-ch RS485
USB TO 4CH RS485 (B)	USB to 4-ch serial port; Adopts CH344 solution; Industrial grade, with isolation; Wall-mount and desktop support	4-ch serial port converter: • USB to 4-ch RS485
USB TO 4CH RS232/485	USB to 4-ch serial port; Adopts FT4232HL solution; Industrial grade, with isolation; Wall-mount and rail-mount support	4-ch serial port converter: • USB to 4-ch RS232 • USB to 3-ch RS232 + 1-ch RS485 • USB to 2-ch RS232 + 2-ch RS485
USB TO 4CH RS232	USB to 4-ch serial port; Adopts FT4232HL solution; Industrial grade, with isolation; Wall-mount and desktop support	4-ch serial port converter: • USB to 4-ch RS232

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USB TO 4CH RS485/422	USB to 4-ch serial port; Adopts FT4232HL solution; Industrial grade, with isolation; Wall-mount and rail-mount support	4-ch serial port converter: • USB to 4-ch RS485 • USB to 3-ch RS485 + 1-ch RS422 • USB to 2-ch RS485 + 2-ch RS422
USB TO 4CH Serial Converter	USB to 4-ch serial port; Adopts FT4232HL solution; Industrial grade, with isolation; Wall-mount and desktop support	4-ch serial port converter: • USB to 1-ch TTL + 3-ch RS485 • USB to 1-ch TTL + 2-ch RS485 + 1-ch RS232 • USB to 1-ch TTL + 2-ch RS485 + 1-ch RS422 • USB to 1-ch TTL + 2-ch RS485 + 1-ch RS232 + 1-ch RS422 • USB to 2-ch TTL + 2-ch RS485 • USB to 2-ch TTL + 1-ch RS485 + 1-ch RS422 • USB to 2-ch TTL + 1-ch RS422 + 1-ch RS232
USB TO 8CH RS485	USB to 8-ch serial port; Industrial grade, with isolation; Wall-mount and rail-mount support	8-ch serial port converter: • USB to 8-ch RS485

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