WIRELESS CT

Zero-Export | Wireless Communication | Real-Time

SUN-SMART-CTU2-L

SUN-SMART-CTU2-WL



- Single- & Three-Phase
- LoRa / RS485 / Wi-Fi&BT Communication*
- DIN-Rail Mounting
- Remote Monitoring
- Zero-Export Control
- Millisecond-Level Upload
- Bidirectional Metering
- Ultra-High Precision
- 5-Year Warranty

*LoRa and RS485 are used with hybrid inverters, Wi-Fi and Bluetooth are used with microinverters.

Why Choose Us?

01

Dual-Communication Modes

Supports both wireless LoRa and wired RS485 communication, meeting diverse installation scenarios and user needs.



02

Wireless LoRa Communication

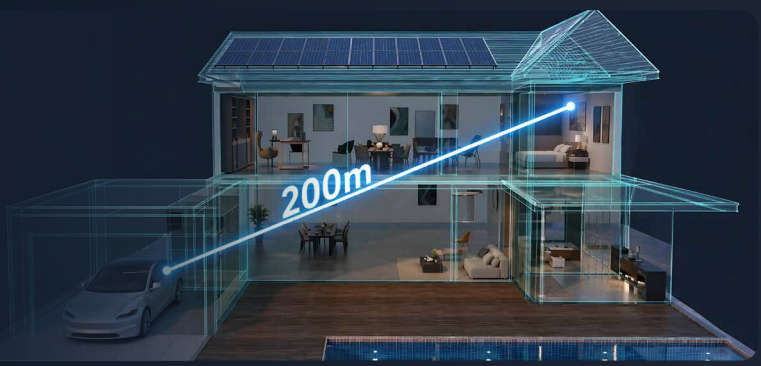
No exposed communication cables, creating a cleaner, safer living environment—ideal for retrofit projects and older residential properties.



03

Stable and Reliable Communication

Up to 200 m communication range with robust anti-interference performance and wall-penetrating capability—ensuring reliable communication across the whole home.



04

Lower Cost & Quick Installation

No extra communication wiring, drilling or conduit installation— saving installation time and labor costs.



05

Integrated Deye Smart Ecosystem

Works with hybrid inverter, smart TX, smart plugs, smart switches and EV charger for coordinated smart energy management.



Deye Wireless CT



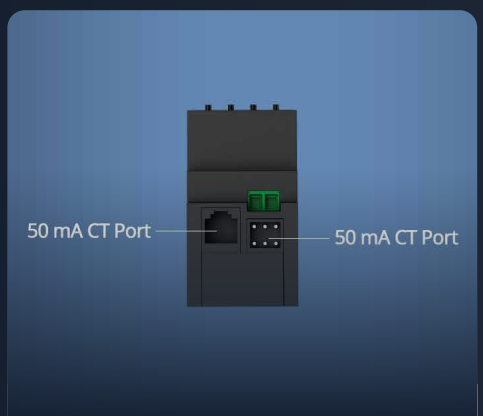
Zero-Export Control

Ensures grid compliance and safety, safeguards the inverter, battery, and grid-connected devices.



Bidirectional Metering

Accurately measures energy import and export data, enabling fast and accurate zero-export control.



Dual-point Current Sampling*

Dual 50mA CT ports monitor two AC points simultaneously for AC-coupling systems.



100ms Data Upload

Supports faster zero-export response and real-time monitoring.



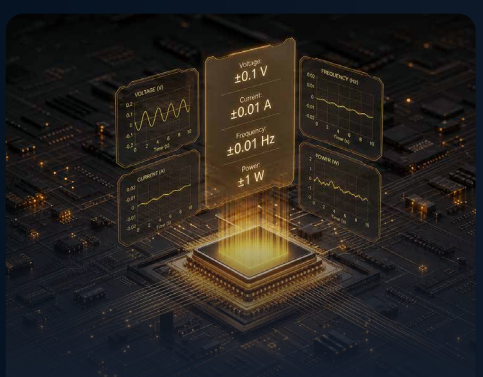
5-Year Warranty

Delivers worry-free, long-term stable operation with lower maintenance costs.



Real-Time Monitoring

Monitors key electrical data** in real time via Deye Cloud or the inverter display.



High Precision

- Voltage: ±0.1 V
- Current: ±0.01 A
- Frequency: ±0.01 Hz
- Power: ±1 W



Superior Safety

UL94 V-0 flame-retardant housing provides excellent fire resistance, low smoke emission, and rapid self-extinguishing performance.



Single- & Three-Phase Compatibility

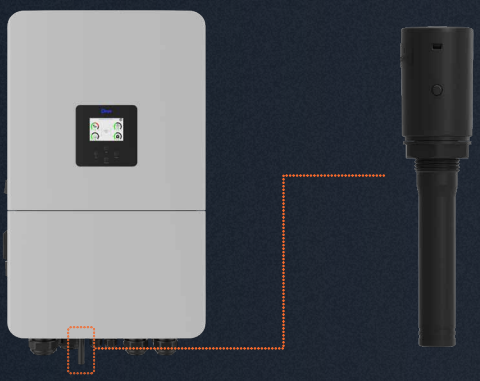
Flexible for residential and small C&I applications, supports L1/N and L1/L2/L3/N systems.

*Dual-point current sampling is available only for CTU2-B-WL model.
**Voltage, Current, Active Power, Reactive Power, Frequency, Power Factor, Energy.

Deye Smart Devices

◎ LoRa Communication Module

The inverter functions as a local smart home hub, enabling direct control of connected smart devices from the inverter display or Deye Cloud—no additional gateway required.



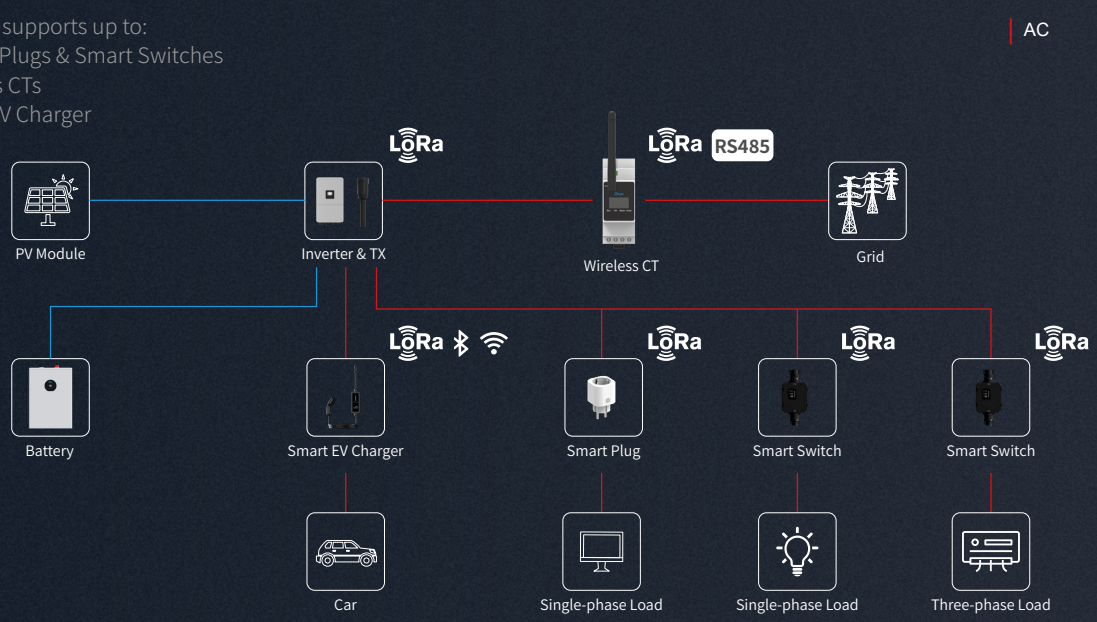
Simply plug the Deye Smart Transmitter (TX) into the Deye hybrid inverter to enable wireless LoRa communication for smart devices.

Hybrid inverter*　　Deye Smart Transmitter (TX)**

*The inverter must be updated to the latest firmware version. Please contact the Deye support team for assistance.
**Smart Transmitter (TX) is sold separately.

◎ Wireless Energy Management System Topology

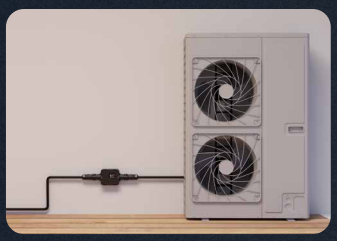
One Smart TX supports up to:
- 10 × Smart Plugs & Smart Switches
- 2 × Wireless CTs
- 1 × Smart EV Charger



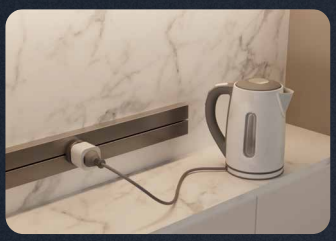
Smart EV Charger: Flexible charging modes including Plug & Play, scheduled charging and solar-only charging to maximize solar self consumption.
Smart Plug: Intelligently controls single-phase loads based on time, SOC, and grid status to maximize solar self-consumption.
Smart Switch: Supports high-power outdoor loads in single- and three-phase systems with the same intelligent control as Smart Plug.



Wireless CT



Smart Switch



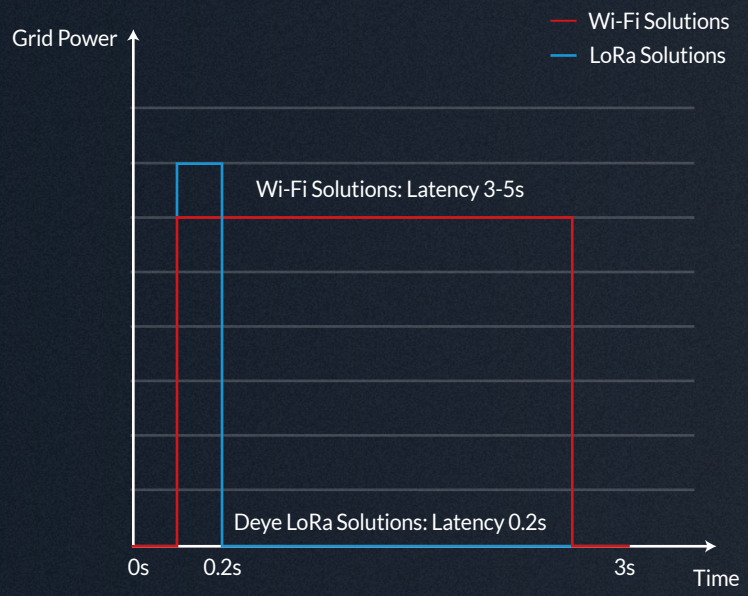
Smart Plug



Smart EV Charger

Zero-Export Solution

◎ Zero-Export Solution



Traditional Wi-Fi Solution

- Typical response latency: **3–5 s**
- Causes unintended power export to the grid
- Raises risk of utility penalty charge

15x Faster

Deye LoRa Solution

- Ultra-fast response: **0.2 s**
- Faster zero-export response
- Enhanced grid code compliance

◎ Why LoRa

Advantages of LoRa over RS485

- No extra communication wiring & no drilling, easy deployment.
- Reduced labor & installation costs.



Advantages of LoRa over Wi-Fi

- Superior anti-interference performance and wall-penetrating capability .
- Stable long-range wireless transmission.
- One gateway for Smart CT, Smart Plugs, Smart Switches & EV Charger.
- Ultra-low latency for reliable zero-export control.

Technical Data

Model	SUN-SMART-CTU2-L	SUN-SMART-CTU2-WL	SUN-SMART-CTU2-B-WL
Electrical parameters			
Connection Type	L1/N(single phase)，L1/L2/L3/N(three phase)，L1/L2/N(split phase)		
CT(Rated Secondary Output)	50mA/5A	50mA/5A	50mA/50mA
Operation Voltage	85~300Va.c.(L-N)		
Rated Frequency/Range	50Hz(45Hz-55Hz)/60Hz(55Hz-65Hz)		
Self Consumption Power	≤2W		
AC voltage withstand	4KV/1min		
Accuracy			
Voltage	±0.1V		
Current	±0.01A		
Frequency	±0.01Hz		
Power	±1W		
Communication and Display			
Communication Interface*	LoRa/RS485	LoRa/RS485/Wi-Fi&BT	
LoRa Communication Distance	≈200m(Barrier-free)		
Display	LCD		
Display Data	Voltage, Current, Active Power, Reactive Power, Frequency, Power Factor, Energy		
General Data			
Operation Temperature	-40 to +60°C		
Operation Humidity	0-75%		
Ingress Protection(IP) Rating	IP20		
Altitude	≤3000		
Mounting	DIN-Rail Mounting		
Size	36x94x64mm		
Weight	0.12kg		
Warranty	5 Years		
Certification standards	RCM, IEC 61010-1, CE, FCC		
Lora Data			
Frequency Range	920MHz-928MHz		
Antenna	Adhesive Mount Antenna/ Suction Cup Antenna		
Antenna Gain	-0.13/1.60dBi		
Wi-Fi Data			
Frequency Range	/	2412MHz-2462MHz	
Antenna	/	Adhesive Mount Antenna/ Suction Cup Antenna	
Antenna Gain	/	2.59/2.39dBi	

*LoRa & RS485 are compatible with hybrid inverters; Wi-Fi & Bluetooth are compatible with microinverters.

Deye Cloud

All-in-one Energy & Device Management Platform

- Unlock significant savings
- Individual Add-on for dynamic tariff
- Intelligent charging/discharging strategies
- Tailored solution to deye devices
- Real-time equipment monitoring
- Best energy scheduling solutions by Deye Copilot algorithm
- 24/7 AI Assistant support



Smarten Up Your Home Energy

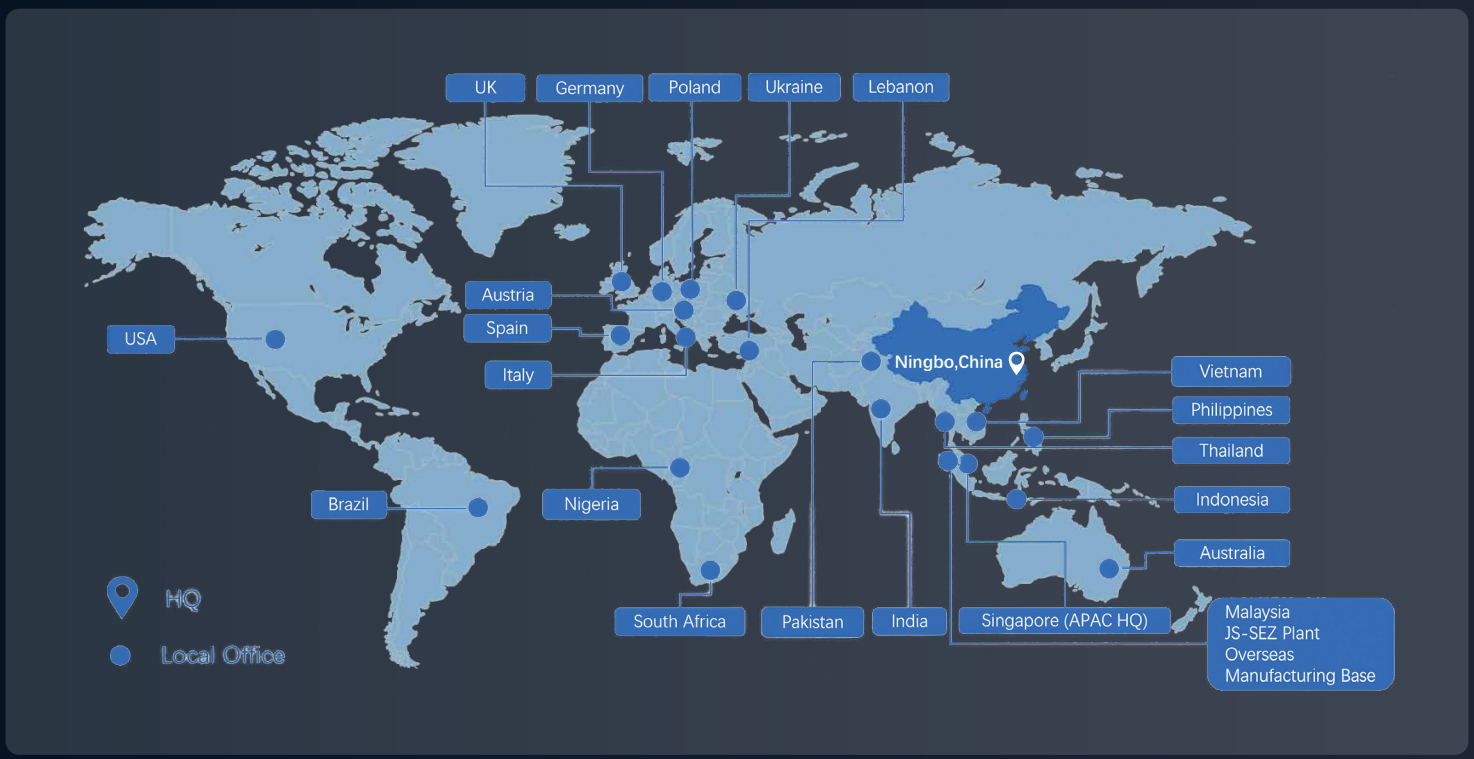
Download Deye Cloud APP to join us!
Embrace a seamless, effortless energy experience that's both eco-friendly and budget-friendly with our intelligent assistant

APP & Web	Cloud-edge Collaboration	Accelerated Connection	Localized Data Centers	Deye Copilot	AI Assistant
Manage your energy effortlessly	Faster and more efficient	Optimized for speed and performance	Ensure data sovereignty and compliance in EU & US	AI-powered energy analysis and control	24/7 support, fast, efficient, in your language

About Deye

Founded in 2000 (Stock Code: 605117.SH), Deye is a globally leading provider of photovoltaic (PV) inverter and energy storage system solutions. Deye has built an integrated value chain spanning R&D, design, production, sales and service, supported by modern intelligent manufacturing bases in Ningbo, Jiaxing and Johor, Malaysia, equipped with comprehensive production and testing facilities.

Through years of dedicated innovation, Deye has developed industry-leading R&D capabilities and scale advantages, delivering integrated solar PV and energy storage solutions for residential, commercial, industrial and utility-scale applications. Recognized for outstanding performance and reliability, Deye has established a global sales network covering over 160 countries and regions.



Information is subject to change without notice. Please scan the QR code or contact Deye representative for the latest updates.

Scan for More Information

Official Website

Business Card

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