

WISE-2210

Proprietary LPWAN (Sub-G) power over CT Wireless Module

NEW



Features

- Proprietary LPWAN (Sub-G) wireless technology with Less interference with high penetration rate capability
- Power over AI channel design, no extra power wired installation needed.
- High efficiency power charger design via CT (Current transformer, AC 0-100mA)
- Max. 3 AI channels for CT node
- Compact design, suitable for plug and play applications

Introduction

Power over CT with LPWAN technology are ideal for sustainable factory, building applications. Powered by maximum 3 CT (Current Transformer), no extra line cables or batteries are required for switching or for collecting power current information such as pumps, servers, machine tools or presence detection. The private LPWAN network saves resources by using fewer cables and eliminating the need for batteries.

Less interference with high penetration rate

LPWAN, created for machine-to-machine (M2M) and Internet of things (IoT) networks, is not a single technology, but a variety of low-power, wide area network technologies. Compare with traditional mobile network, LPWAN is known as lower cost with higher power efficiency. WISE-2210 is the proprietary LPWAN which provides better connection compare with traditional wireless technology.

Fast build-in your IoT applications

With Power over AI channel design, no wire power installation is needed. WISE-2210 is designing for fast build-in your IoT applications. As for the current transformer, we support power current range from 3-60A to 15-300A for different current measurement applications.

High efficiency power charger design

With Advantech's strong hardware and software design capacity, WISE-2210 allows to transmit the power current measurement data in seconds.

Common Specification

Wireless Communication

- **Frequency Band** NA: 923MHz (920.80-924.40)
EU: 868MHz (865.20-868.80)
JA: 923MHz (920.80-923.20)
- **Transmit Power** Up to +12dBm
- **Data Rate** 625bps / 2.5k bps / 5K bps / 50K bps
- **Topology** Star

General

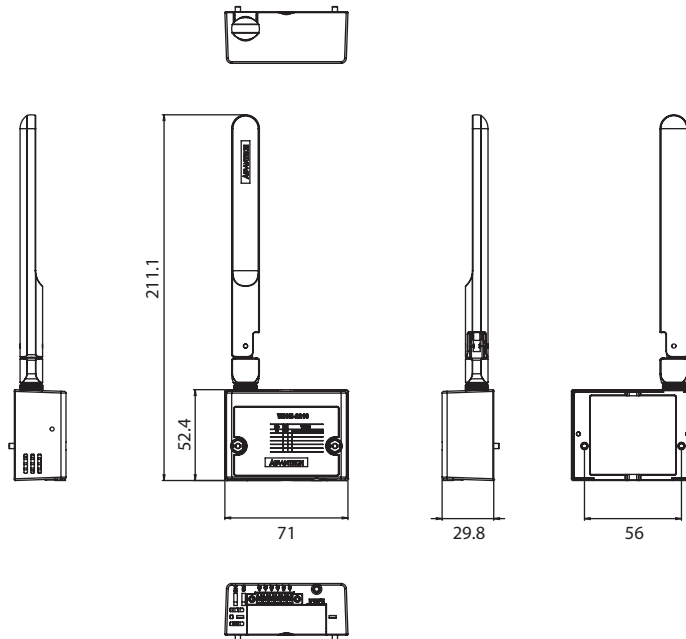
- **Channel** 3 (for CT, 0-100mA, AC)
- **Input Range** 0-100mA, Alternating current
- **Resolution** 12 bits
- **Accuracy** $\pm 0.2\%$ of FSR
- **Drift** 40ppm
- **Power Input** Power source is from AI Channel
- **Configuration Interface** Micro-B USB
- **Mounting** DIN 35 rail, wall, pole
- **Dimension (W x H x D)** 71 x 52 x 30 mm (without Antenna)
- **Certification** CE (RED), FCC, TELEC, NCC

Environment

- **Operating Temperature** -25-70 °C
- **Operating Humidity** 5-95% RH
- **Storage Temperature** -40-85 °C
- **Storage Humidity** 0-95% RH

Dimensions

Unit: mm



WISE-4210-AP

Wireless Communication

- **Frequency Band** NA: 923MHz (920.80-924.40)
EU: 868MHz (865.20-868.80)
JA: 923MHz (920.80-923.20)
- **Transmit Power** Up to +14dBm
- **Receiver Sensitivity** -115dBm using Long-Range Mode
-100dBm at 50kbps
- **Data Rate** 625bps / 2.5k bps / 5K bps / 50K bps
- **Topology** Star
- **Network Capacity** 64 clients

General

- **Ethernet** RJ-45 (for configuration and data query)
- **RS-485** Data+, Data- (for query node data)
- **Messaging Protocol** Modbus/TCP, Modbus/RTU, REST, MQTT
- **Application Protocol** HTTP, HTTPS, SNMP, DHCP
- **Transport Protocol** TCP, UDP
- **Supports RESTful Web API in JSON format**
- Supports Web Server in HTML5

WISE-2210SK-NA

WebAccess/SCADA Start Kit with WISE-2210, Proprietary LPWAN (Sub-G) power over CT Wireless Module. Package includes as follow.

- 1 x WISE-2210
- 1 x WISE-4210-AP
- 1 x WebAccess/SCADA 75 tags license key
- 3 x 5-100A current transformer
- 2 x Antenna
- 2 x Mounting bracket
- 1 x Quick start manual
- 1 x 60w adapter
- 1 x 183cm power cord
- 1 x 70 cm Ethernet cable
- 1 x Screwdriver

Ordering Information

Wireless power over CT Module

- **WISE-2210-NA** LPWAN Wireless power over CT Module - EU/NA

Wireless Starter Kit

- **WISE-2210SK-NA** WISE-2210-NA Starter Kit

Wireless Access Point

- **WISE-4210-APNA** LPWAN Wireless to Ethernet AP – EU/NA

Accessories

- **1750008837-01** 902-928MHz Dipole Antenna for WISE-4210/
WISE-2210/WISE-2211
- **1750008836-01** 863-870MHz Dipole Antenna for WISE-4210/
WISE-2210/WISE-2211

Current Transformer(CT)

P/N	Power Current Range (Primary)	Hole sizing (Primary)	Accuracy	Operating Temperature
96PD-CT241-60A	3-60A	10.0+/-0.2mm	Class 0.5	-20-65°C
96PD-CT248-10A	0-10A	15.7+/-0.3mm	Class 0.5	-20-65°C
96PD-CT248-100A	5-100A	15.7+/-0.3mm	Class 0.5	-40-65°C
96PD-CT24F-200A	10-200A	20.5+/-0.3mm	Class 0.5	-40-85°C
96PD-CT24C-300A	15-300A	35.7+/-0.3mm	Class 0.5	-40-85°C