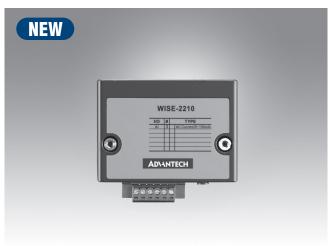
# **WISE-2210**

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



# **Features**

- Proprietary LPWAN (Sub-G) wireless technology with Less interference with high penetration rate capability
- Power over Al channel design, no extra power wired installation needed.
- High efficiency power charger design via CT (Current transformer, AC 0~100mA)
- Max. 3 Al 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 Al 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

# 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 11 bits Accuracy  $\pm~0.2~\%$  of FSR Drift 40ppm

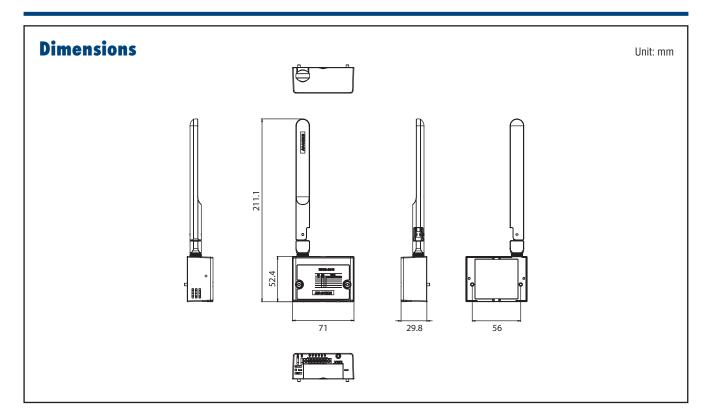
Power Input Power source is from Al Channel

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 -40~85 °C **Storage Temperature Storage Humidity** 0~95% RH



# **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 StarNetwork Capacity 64 clients

#### General

Ethernet
RS-485
Messaging Protocol
RJ-45 (for configuration and data query)
Data+, Data- (for query node data)
Modbus/TCP, Modbus/RTU, REST, MQTT

Application Protocol HTTP, HTTPS, SNTP, DHCP

Transport Protocol TCP, UDP

Supports RESTful Web API in JSON format

Supports Web Server in HTML5

# WISE2210NA2001-T

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
WISE2210JA2001-T
LPWAN Wireless power over CT Module - EU/NA
LPWAN Wireless power over CT Module - JA

#### Wireless Starter Kit

WISE2210NA2001-T 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-CT248-100A	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

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