

Industrial NB-IoT/LTE-M Wireless I/O Module

Connecting the IoT Ecosystem to Build Up
NB-IoT/LTE-M Device-to-Cloud Services

- ✓ The Future of Smart Cities
- ✓ NB-IoT/LTE-M Device-to-Cloud Solution
- ✓ Cloud Integration Architecture
- ✓ Application
- ✓ Selection Guide



NB-IoT

LTE-M



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NB-IoT/LTE-M: The Future of Smart City IoT!



About NB-IoT/ LTE-M

NB-IoT and LTE-M are new wireless technologies included in the 5G evolution of cellular technology standards defined by the 3rd Generation Partnership Project (3GPP). NB-IoT and LTE-M feature low power consumption and utilize LTE networks based on licensed spectrum bands. These technologies are optimized for connectivity to machines, assets and sensors in order to enable IoT applications.



WISE-4471

WISE-4671



WISE-4671 I/O Module

 Interchangeable Modular I/O Design

 USB Configuration Port

 IP65

 Terminal Block or M12 Connectors

 GPS Location Tracking

 Nano SIM (4FF)

 Solar Rechargeable Battery

AWS

ADVANTECH
WISE-PaaS

CoAP MQTT.ORG

LTE-M

WISE-4471

WISE-4671

About MQTT, CoAP, and Lightweight M2M

WISE-4471/WISE-4671 follows MQTT's publish and subscribe messaging model which is ideal for low bandwidth, high latency, and data limits. Additionally, as an IoT device, WISE-4471/WISE-4671 also supports lightweight protocols such as CoAP, which are suitable for small devices that are unable to communicate efficiently with limited resources. As MQTT and CoAP are popular standards in the market, the data format can raise concern over messaging protocols. Accordingly, WISE-4471/WISE-4671 also supports the LwM2M protocol which has the management interface built on top of CoAP to enable device management operations. There is also the official publication of OMA LwM2M2 Objects and Resources to alleviate data inter-compatibility concerns. LwM2M is a protocol offering flexible and scalable device management with improved time to the market; especially for low power devices with constrained processing and storage capabilities.



USB Configuration Port



Built-In Antenna



IP65 With WISE-S400 series



Nano SIM (3FF)



Terminal Block or M12 Connectors



10-50VDC Power Input

WISE-4471
I/O Module

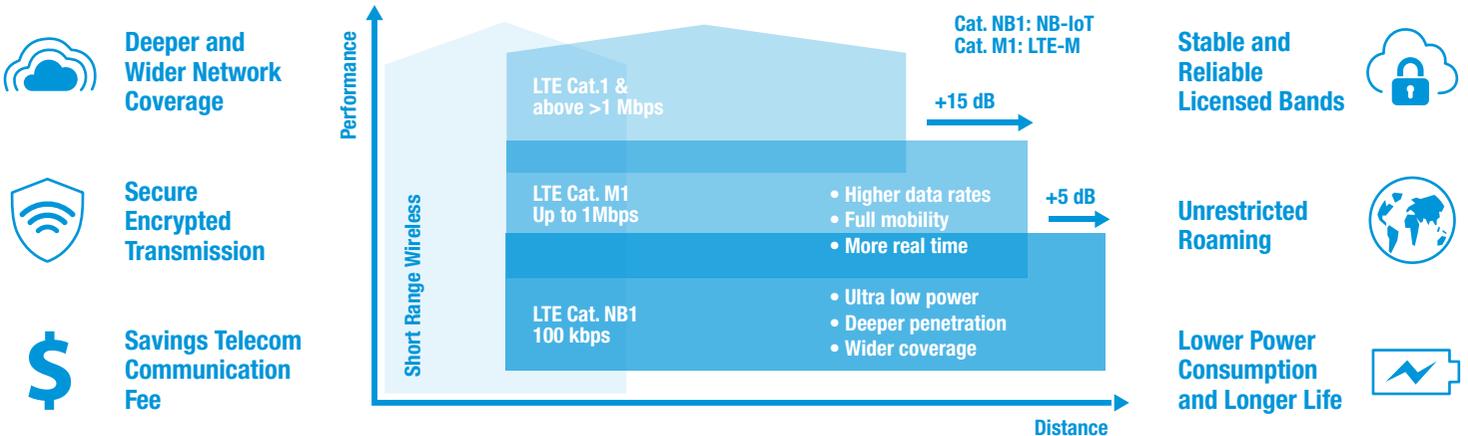


Interchangeable Modular I/O Design



A Stable Choice for Remote Wireless Transmission

Advantech has created a plug-and-play NB-IoT/LTE-M device-to-cloud solution in cooperation with telecom operators and wireless module suppliers. Using WISE-4471/WISE-4671 series wireless I/O module to integrate with the WISE-PaaS industrial IoT platform and mainstream public cloud services. The solution helps with the development of smart cities by obtaining field site data on widely dispersed facilities through NB-IoT/LTE-M and displaying, and analyzing data on cloud platforms.



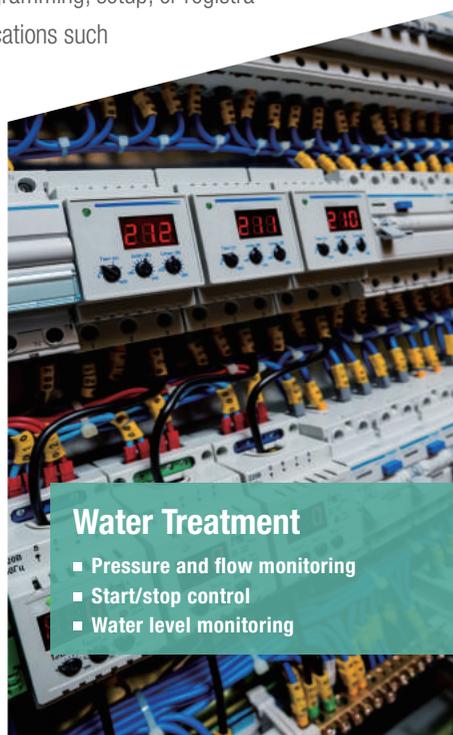
Upgrade Legacy Equipment through Cloud Management

WISE-4471/WISE-4671 series NB-IoT/LTE-M wireless I/O module is suitable for data collection from widely distributed stations. No complicated programming, setup, or registration are required for a fast introduction into IoT applications such as smart cities, smart water/electricity meters, and remote facility management.



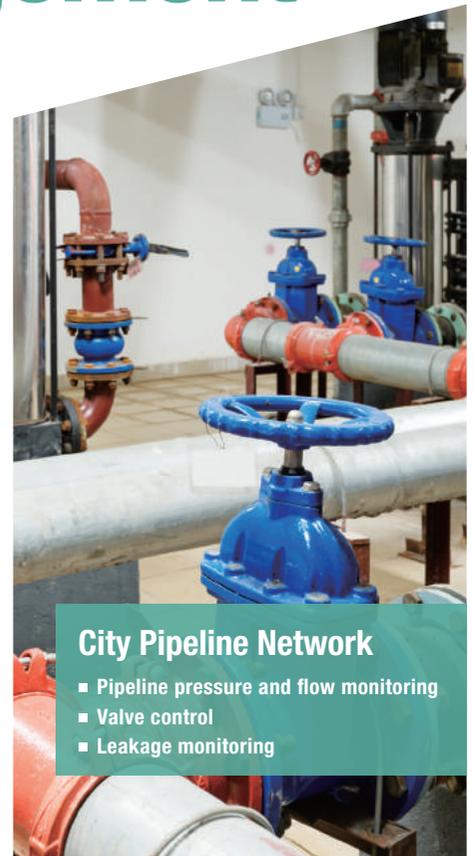
Smart Meter

- Remote fee calculation
- Remote power cut and restoration
- Load management



Water Treatment

- Pressure and flow monitoring
- Start/stop control
- Water level monitoring



City Pipeline Network

- Pipeline pressure and flow monitoring
- Valve control
- Leakage monitoring

WISE-4471 Series

Industrial Cat. NB1/Cat. M1 Wireless I/O Module



Industrial Cat. NB1/Cat. M1 Wireless I/O Module

	Model Name	WISE-4471-UA
	Standard	3GPP, Release 13
	Band	B2,3,4,5,8,12,13,20,28
	SIM Type	Micro SIM/3FF
	Function	Wireless Board
	Power Input	10~50Vdc External Power
	Configuration Interface	Micro-B USB

I/O Module

	Model Name	WISE-S214-A	WISE-S250-A	WISE-S251-A	WISE-S472-A	WISE-S200 WISE-S400
	Spec	4AI & 4DI	6DI, 2DO&1RS-485	6DI&1RS-485	1DI&2RS-485 * IP65/M12 Connectors	Upon Customization Request *MOQ required

WISE-4671 Series

Advanced Industrial Cat. NB1/Cat. M1 Wireless I/O Module



Advanced Industrial Cat. NB1/Cat. M1 Wireless I/O Module

	Model Name	WISE-4671-UA
	Standard	3GPP, Release 13
	Band	B2,3,4,5,6,12,13,18,20,26,28
	SIM Type	Nano SIM/4FF
	Function	Wireless Board
	Positioning	GPS / Galileo / BeiDou / GLONASS
	Power Input	4000 Lithium Rechargeable Battery 10~50Vdc External Power 17~21Vdc Solar Panel
Configuration Interface	Micro-B USB	

IP65 I/O Module

	Model Name	WISE-S614-A	WISE-S615-A	WISE-S617-A	WISE-S672-A	WISE-S600
	Spec	4AI & 4DI	RTD	2AI, 2DI, 1DO & 1RS-485	6DI, 1RS-485 & 1RS-485/232	Upon Customization Request *MOQ required

Accessories

Part Number	Description
1654011516-01	M12, A-code, 8 Pin, male
1655005903-01	M12, A-code, 4 Pin, female
1700028162-01	M12, A-code, 4 pin, female with 1M cable
1700028163-01	M12, A-code, 8 Pin, male with 1M cable

Regional Service & Customization Centers

China	Kunshan 86-512-5777-5666	Taiwan	Taipei 886-2-2792-7818	Netherlands	Eindhoven 31-40-267-7000	Poland	Warsaw 00800-2426-8080	USA	Milpitas, CA 1-408-519-3898
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Worldwide Offices

Greater China

China	
Toll Free	800-810-0345
Beijing	86-10-6298-4346
Shanghai	86-21-3632-1616
Shenzhen	86-755-8212-4222
Chengdu	86-28-8545-0198
Hong Kong	852-2720-5118
Taiwan	
Toll Free	0800-777-111
Taipei & IoT Campus	886-2-2792-7818
Taichung	886-4-2372-5058
Kaohsiung	886-7-392-3600

Middle East and Africa

Israel	072-2410527
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Asia

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Osaka	81-6-6267-1887
Nagoya	81-0800-500-1055
Korea	
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Seoul	82-2-3660-9255
Singapore	
Singapore	65-6442-1000
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Penang	60-4-537-9188
Thailand	
Bangkok	66-02-2488306-9
Vietnam	
Hanoi	84-24-3399-1155
Indonesia	
Jakarta	62-21-751-1939
Australia	
Toll Free	1300-308-531
Melbourne	61-3-9797-0100
India	
Bangalore	91-80-6814-4600
Pune	91-94-2260-2349

Europe

Netherlands	
Eindhoven	31-40-267-7000
Breda	31-76-523-3100
Germany	
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Düsseldorf	49-2103-97-855-0
France	
Paris	33-1-4119-4666
Italy	
Milan	39-02-9544-961
UK	
Newcastle	44-0-191-262-4844
London	44-0-870-493-1433
Spain	
Madrid	34-91-668-86-76
Sweden	
Stockholm	46-0-864-60-500
Poland	
Warsaw	48-22-31-51-100
Russia	
Moscow	8-800-555-01-50
St. Petersburg	8-800-555-81-20
Czech Republic	
Ústí nad Orlicí	420-465-524-421
Ireland	
Galway	353-91-792444

Americas

North America	
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Cincinnati	1-513-742-8895
Milpitas	1-408-519-3898
Irvine	1-949-420-2500
Ottawa	1-815-433-5100
Brazil	
Toll Free	0800-770-5355
São Paulo	55-11-5592-5367
Mexico	
Toll Free	1-800-467-2415
Mexico City	52-55-6275-2727

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Please verify specifications before ordering. This guide is intended for reference purposes only.

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