802.11AH PRODUCT PORTFOLIO

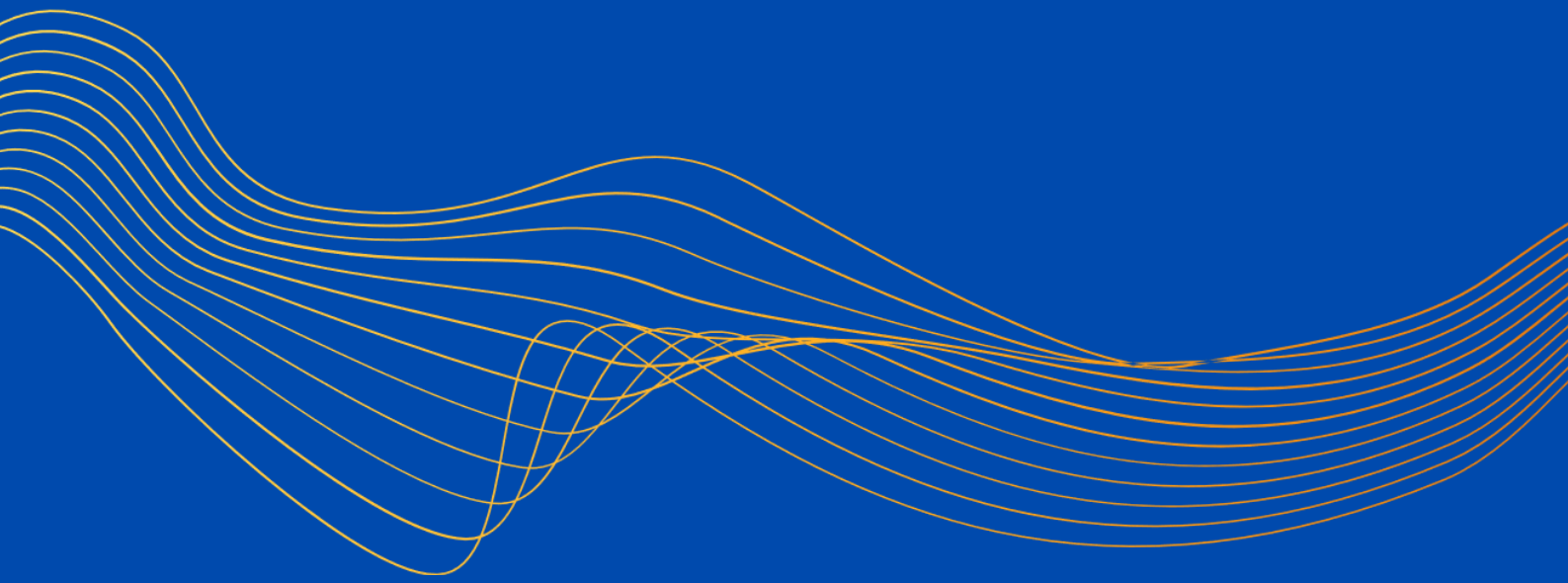
2025 Edition

WI-FI HALOW PRODUCTS

台灣雲端物聯網產業協會
Cloud Computing & IoT Association in Taiwan

AHPC
802.11ah推進協議会

FOREWORD



Welcome to the second edition of the Wi-Fi HaLow Product Portfolio, a curated showcase of state-of-the-art 802.11ah products from leading manufacturers in Taiwan and Japan. This portfolio provides an updated view of the evolving Wi-Fi HaLow ecosystem, a rapidly growing segment within the IoT connectivity market.

Wi-Fi HaLow, or 802.11ah, operates in the sub-1 GHz spectrum, offering several notable advantages over traditional Wi-Fi technologies. These include an extended range exceeding one kilometer, reduced power consumption, and improved penetration through walls and obstacles. Such features make it an ideal choice for a wide array of applications, including smart agriculture, smart cities, industrial IoT, and healthcare.

In response to the increasing demand for accurate and up-to-date information on Wi-Fi HaLow products, we present this expanded and refined portfolio. This edition is a result of the continued collaboration between CIAT (Cloud Computing and IoT Association in Taiwan) and AHPC (802.11ah Promotion Council) in Japan. Our goal remains to deliver a comprehensive, reliable, and insightful resource that reflects the latest advancements in Wi-Fi HaLow technology.

We invite you to explore this growing ecosystem and stay connected with the forefront of IoT connectivity.

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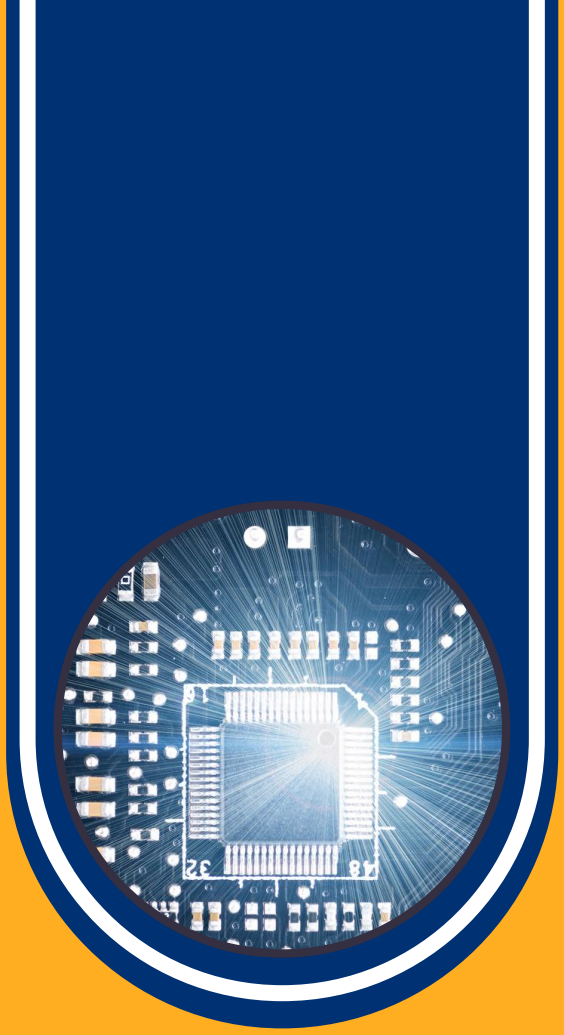

CHIPSETS

NEW

Morse Micro

Morse Micro

Founded in 2016, Morse Micro is the world leader in Wi-Fi HaLow™. It is headquartered in Sydney, Australia, and has offices in the UK, USA, China, Japan, Taiwan, and India.

With over AU $200m in capital raised to date, Morse Micro is the world's largest non-public Wi-Fi chip company, with a world-class team of 180+ Wi-Fi experts.

MM8108

Next-gen, faster, smaller, lower power and longer range than any other chip on the market.

The MM8108 SoC is a highly integrated, ultra-low power, single-chip Wi-Fi HaLow® compliant connectivity solution. It supports long-range data rates up to 43.33 Mbps using 256-QAM modulation at 8 MHz bandwidth over the air in the sub-1 GHz (license-exempt bands worldwide).

- 1, 2, 4, and 8 MHz 256 QAM support (MCS 9, 43 Mbps)
- The most energy efficient transmitter for OFDM devices, by far:
  - 400mW (26dBm) output for 1080mW input
  - 37% system efficiency (4x competitive CMOS transmitters
  - High sensitivity, lower power consumption receiver
- Integrated PA & LNA (no external FEM/SAW required)
- USB interface in addition to SPI / SDIO
- 5mm x 5mm BGA package

Frequency	Certification Status	Expected Testing Date
850-950 MHz	certified in AU, JP, USA, EU, CAN, TAW	May 2025

NEW

Morse Micro

Morse Micro

MM8108

Scenarios

Morse Micro's Wi-Fi HaLow powers long-range, low-power wireless for smart homes, security, agriculture, industrial automation, and smart grids. It connects devices across vast areas, penetrates walls, supports 4K video, and enables real-time monitoring. Ideal for battery-operated and hard-to-reach systems, it ensures secure, efficient, and scalable connectivity for the world of IoT.

Video Cameras and Security Systems

Enabling long-range, secure wireless connectivity ideal for 4K security systems. Wi-Fi HaLow eliminates costly wiring by connecting cameras and sensors at greater distances with low power consumption, enabling longer battery life.

Smart Grid and AMI 2.0

Wi-Fi HaLow connects smart grid systems at the Grid Edge, supporting dynamic energy demands from solar, EVs, and batteries. It enables behind-the-meter monitoring and demand-side management with future-ready bandwidth.

Smart Home Coverage

Wi-Fi HaLow offers full-property coverage for smart homes with strong penetration and data throughput. It supports a wide range of applications from security to lighting without requiring mesh networks. Its low power use, single access point reach, and robust security making it ideal both indoors and out.

Enterprise and Industrial Automation

Designed for demanding industrial environments, Wi-Fi HaLow delivers reliable, low-latency, secure wireless for process control, robotics, and HVAC systems. It simplifies infrastructure needs with long-range, wall-penetrating coverage, supporting dense sensor deployments.

Precision Agriculture and Remote Connectivity

Wi-Fi HaLow transforms rural connectivity, empowering farmers with real-time data on crops, livestock, and climate. Its long range and mesh capabilities support large-scale monitoring and control across remote terrains.

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Morse Micro

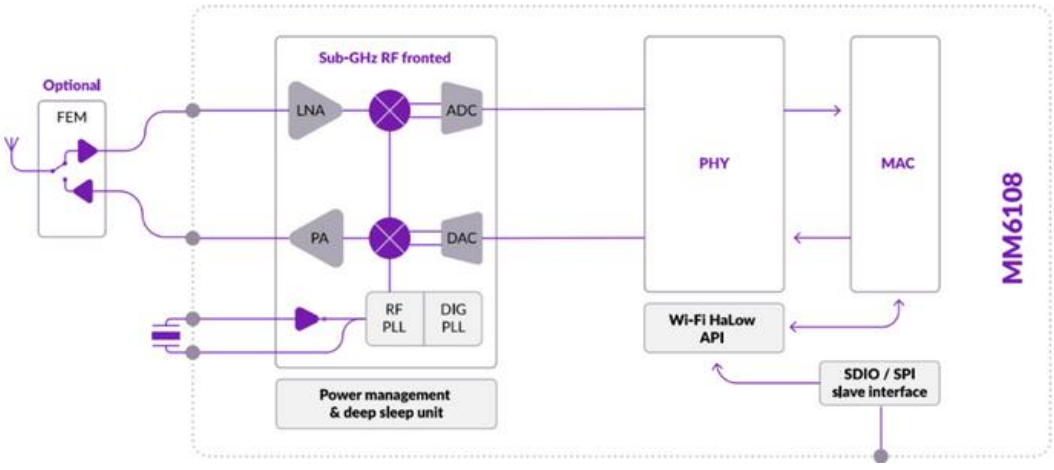
Morse Micro

The Morse Micro team includes original inventors of Wi-Fi and designers of Wi-Fi chips that have shipped inside many billions of devices. The company is an avid contributor to the efforts of the Wi-Fi Alliance to bring interoperability certifications for Wi-Fi HaLow technology to market. Morse Micro-powered solutions empower smart homes, smart cities, infrastructure, industrial and enterprise applications, providing 10 times the range, 100 times the area, and 1000 times the volume to overcome the limitations of traditional Wi-Fi.

MM6108 SoC

The MM6108 System on Chip (SoC) is a single-chip solution providing complete Wi-Fi HaLow® connectivity through Radio, PHY, and MAC sections. Designed in accordance with the IEEE 802.11ah standard, the SoC supports data rates up to 32.5 Mbps, and provides programmable operation in the sub-1 GHz range (license exempt from RF bands worldwide). The RF interface for the MM6108 includes the option to use either the on-chip amplification for typical low-power, low-cost devices, or in conjunction with an external PCB-mount power amplifier (PA) or Front-End Module (FEM) for ultra-long-reach applications.

The RF receiver features a high linearity LNA, making the use of external filters unnecessary in many applications. Battery-operated applications are supported by a combination of features in the MM6108. The IEEE 802.11ah standard provides for extended sleep times of battery-operated STA client devices, with longer durations than other prior IEEE802.11a/b/g/n/ac generations. Several SKUs add a robust and independent Host Applications Processor (HAP) based on a low power 32b RISC-V core. Morse Micro customers can migrate their operational code to run on the HAP for the most highly-integrated SOC solution to minimize PCB size and costs for Wi-Fi HaLow® applications.



Frequency	Certification Status	Expected Testing Date
850-950MHz	certified in US/Japan/EU/Canada/Taiwan (partner products)	NA

Morse Micro

Morse Micro

MM6108 SoC

Scenarios

For Internet of Things (IoT) and Machine-to-Machine (M2M) applications:

- Surveillance cameras and sensors
- Cloud connectivity
- Building automation systems (BAS)
- Machine performance monitors and sensors
- Building access control & security
- Drone video and navigation communications
- Rural internet access
- Utility smart meter and intelligent grids
- Industrial automation controls
- Smart home automation
- Wi-Fi HaLow® access points and bridges
- Wi-Fi HaLow® client adapters/dongles
- Smart city networks

Cases

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NEWRACOM

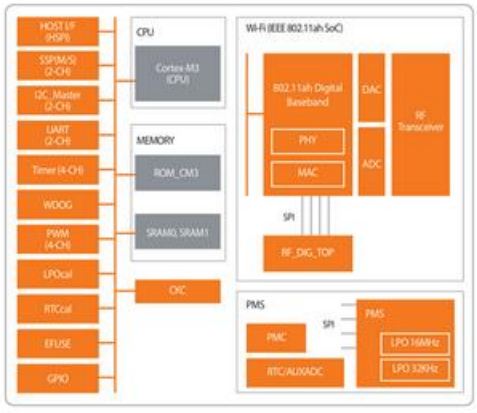
Newracom is the world's leading fabless semiconductor company for Wi-Fi HaLow. We are partnered with numerous world leading semiconductor companies, consumer electronic device manufactures, and IoT/ M2M device manufactures to provide innovative Wi-Fi HaLow connectivity by customizing WLAN functionalities into business systems for high profitability while being cost effective.

NRC7394 SoC

NRC7394 is the advanced Wi-Fi HaLow System-on-Chip (SoC), designed specifically to meet the connectivity needs of the Internet of Things (IoT) era. With its exceptional range, low power consumption, and seamless integration capabilities, NRC7394 is the ideal solution for enabling a wide range of IoT applications. Its capability to connect up to 8K devices within a single network makes it perfect for environments with dense deployments of IoT devices. Moreover, Wi-Fi HaLow incorporates advanced power-saving features, significantly reducing power consumption and greatly extending the battery life of connected devices.

With fully integrated power amplifiers, the NRC7394 offers a robust output of up to 17dBm, providing sufficient power for a wide range of IoT applications. Moreover, its compatibility with various commercial external FEM devices enables further flexibility to achieve even higher output power levels.

The NRC7394's standalone mode support enables the execution of a wide range of IoT applications on embedded ARM Cortex-M3. Additionally, the availability of numerous sample applications simplifies the development of new IoT application programs.



Frequency	Certification Status	Expected Testing Date
750-950MHz	certified in USA/Japan/EU/Singapore/Korea (Customer product solutions)	NA

NEWRACOM

NEWRACOM

NRC7394 SoC

Scenarios

TARGET IOT APPLICATIONS

- Smart home
- Smart grid
- Security and access control
- Healthcare
- Wearable
- Agriculture
- Building automation
- Industrial automation
- Drones and robotics
- Smart cities

Cases

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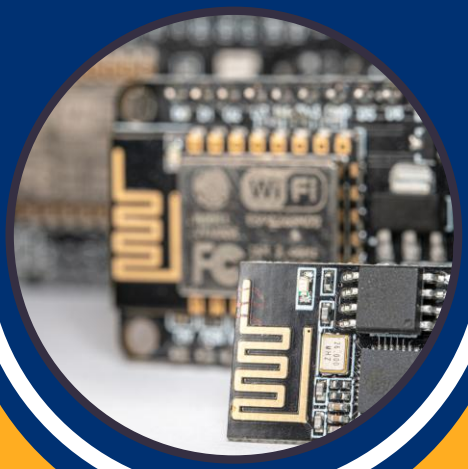


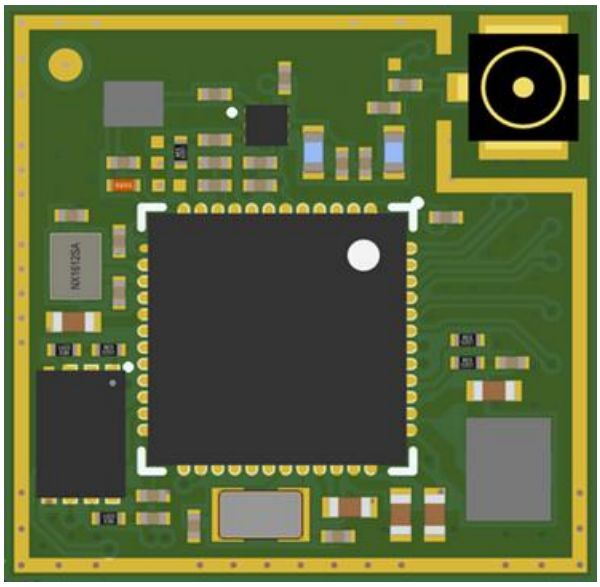
MODULES

AcSip Technology

AcSiP, as the name literally implies, we focus on developing "Advanced Communication System in Package" technologies and services. Since 2009, we have accumulated lots of experience in wireless communication & various applications. With the knowledge & valuable experience, we are able to provide series of wireless connectivity solutions. Our products line include LoRa, Bluetooth, NFC, Zigbee, WiFi 4/6/6E, GPS, and even the new long range communication standard – WiFi HaLow.

AI7394L/LT

AI7394L/LT is a highly integrated SoC incorporating baseband (MAC & PHY), Sub 1 GHz radio transceiver, and ADC/DAC in a single module. It is fully compliant with the IEEE 802.11ah standard which is the long-range and low-power version of Wi-Fi standard. It supports 1/2/4 MHz channel bandwidth which yields 150 Kbps to 15 Mbps PHY rate that can handle low-rate sensors to high-rate surveillance camera applications. The self-contained Wi-Fi networking with huge range of data throughput offers the ideal solution to add Wi-Fi connectivity to IoT products.



Frequency	Certification Status	Expected Testing Date
WiFi Halow	certified in FCC / CE / TELEC	2024 Q3

AcSip Technology

Logistic Tag

Scenarios

Most logistics labels are still paper-based and not reusable. Using e-paper logistics labels can address the issue of non-reusability in logistics labels.
By integrating with other sensors, real-time information on the item's location, trajectory, temperature, whether it has fallen, and one-click receipt/return can be obtained.
From 2030, the EU regulations mandate that all cardboard boxes must be reusable. Many businesses are making adjustments in terms of material improvements and business models to comply with these changes.

Cases

The integration of built-in WiFi HaLow technology into logistics labels brings revolutionary advantages to supply chain management. This technology ensures reliable connectivity even in challenging environments, enabling real-time, accurate data transmission for logistics managers to constantly monitor the whereabouts and conditions of shipments.
WiFi HaLow Logistic Tag technology underscores a commitment to sustainability by reducing the reliance on traditional, resource-intensive tracking methods. By leveraging wireless communication and eliminating the need for disposable tracking devices, businesses can significantly reduce their environmental footprint while simultaneously cutting costs associated with maintenance and disposal.
Overall, this technology will help businesses stand out in the fiercely competitive global market, achieving higher levels of supply chain management excellence.

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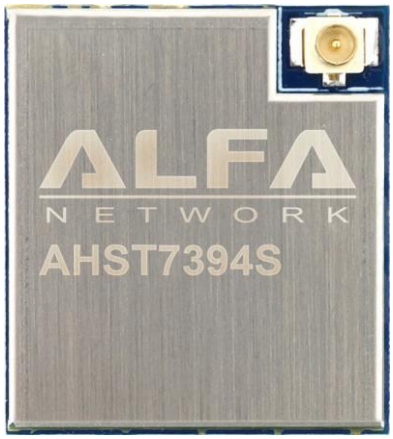
ALFA NETWORK Inc

ALFA Network Inc. is dedicated to providing customized networking、connectivity and IoT solutions that cater to each customer's unique needs through our specialized OEM/ODM services. We ensure that all our products meet the highest quality standards, from innovative design to engineering testing. Our comprehensive approach guarantees the delivery of reliable and up-to-date products.

AHST7394S

AHST7394S is world's leading WiFi HaLow™ solder down module

- Newracom NRC7394 inside
- Up to 15Mbps data rate
- Supports AP and STA mode
- HaLow IPEX/U.FL antenna connector
- SPI and UART support for host interface



Frequency	Certification Status	Expected Testing Date
AHST7394S-US(902 MHz–928 MHz) AHST7394S-EU(863 MHz–868 MHz) AHST7394S-JP(920.5–927.5 MHz)	certified in FCC/CE/NCC/TELEC	End of JUL

ALFA NETWORK Inc

AHST7394S

Scenarios

The AHST7394S allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands, utilizing compact form factor, save space on your motherboard, the various applications of IoT are up to you.

The AHST7394S data rate up to 15 Mbps which better than LoRa 38.4 Kbps

with the high-speed data rate, it enables connectivity for many IoT applications, including sensors, weather stations, industrial monitoring, medical patient monitoring, agriculture monitoring, surveillance camera, EV car chargers, vehicle-to-vehicle and vehicle-to-infrastructure communications, commercial drone

Cases

EV charging station

Each charging station will deploy many charging piles. WiFi HaLow technology can be used to improve communication distance and security. With higher data throughput, it can provide multimedia value-added services, bring new experiences and realize new business models.

Commercial drone

Commercial UAV guidance and control frequencies are mostly in the general 2.4GHz and 5.8GHz frequency bands. Now the WiFi HaLow in the 900MHz frequency band is used, which can bring the advantages of long transmission distance and low power consumption.

Whether in commerce, agriculture, industry, transportation It has good applications in fields

such as disaster prevention and disaster relief.

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AsiaRF Co., Ltd.

AsiaRF, founded in Taipei in 1997, is a global leader in wireless connectivity solutions, trusted especially in North America. We offer Wi-Fi HaLowTM, Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6, 5G, BLE, LoRa WAN, and more. Committed to quality and service, we collaborate with Taiwanese distributors to stay competitive.

Wi-Fi HaLow Module MM610X

Wi-Fi HaLow module Sub-GHz, MM610X-001 is based on MorseMicro MM6108 RF SOC and obtained multi-national regulations. Wi-Fi HaLow is a low-power, long-range version of the IEEE 802.11ah standard, designed for IoT applications.

Frequency	Certification Status	Expected Testing Date
850MHz-950MHz	certified in Taiwan	2024 10

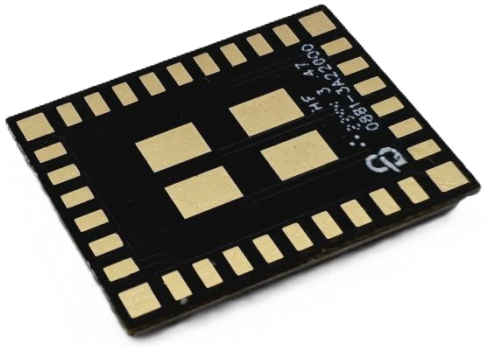
NEW

ASKEY Computer Corp.

Established in 1989, Askey Computer Corp. is a professional ODM vendor specializing in development of varies network communications as 5G/LTE, small cell, PON/cable modem, Wi-Fi router and Internet of Things. Askey aims to create a positive change cycle and development in our lifestyle through technologies.

WAH0070

- WAH0070 is TELEC (JP version) and FCC (US version) certificated module
- Newracom NRC7394 chipset
- AP and STA, 802.11s mesh network support
- Interface : GPIO, AUXADC, I2C, SPI and UART
- Temperature : -40℃~85℃



Frequency	Certification Status	Expected Testing Date
US : 902~928 MHz, JP : 921~927 MHz	certified in USA, Japan	Certification ready

NEW

ASKEY Computer Corp.

WAH0070

Scenarios

The device built in WAH0070 module can setup long range, ultra low power, satisfied throughput network. WAH0070 can be used every fixed IOT devices to save cost. Wi-Fi HaLow use sub-G unlicensed band, which is very suitable to replace NB-IOT or LTE Cat-M module in smart city, smart agriculture and large scale security monitor. In indoor, it can solve Bluetooth connectivity range problem in large buildings.

Cases

Smart Bus Station

Bus station always transmit and receive traffic data. Using Wi-Fi HaLow technology, it can save lots transmission fee.

Smart Roadside Parking system

Roadside parking bollard record vehicle info. It can transmit photo or video by Wi-Fi HaLow.

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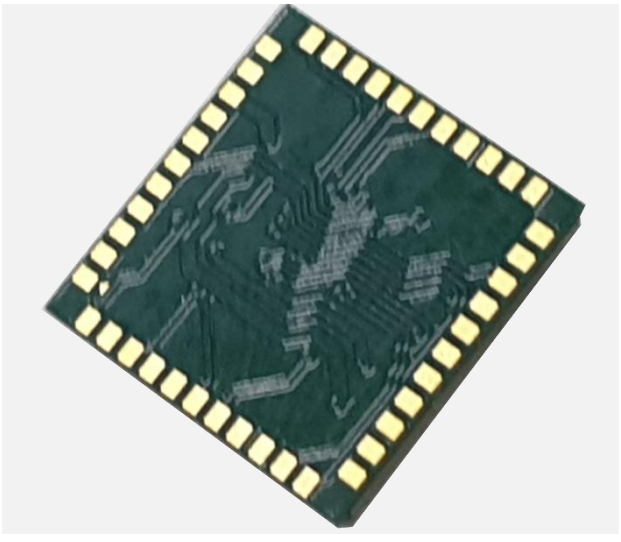
AzureWave

AzureWave has always been striving to realize its infinite potential of innovation in all aspects, better quality and more reliable delivery in its journey to become one of the most specialized module experts in the industry.

AW-HM610

AW-HM610 is the smallest IEEE 802.11ah Wi-Fi module that operates in the Sub 1GHz license-exempt band, offering longer ranger and higher data rate for internet of things (IoT) applications.



Frequency	Certification Status	Expected Testing Date
US: 902~928 MHz JP: 920~928 MHz	certified in US, JP	2024/06

AzureWave

AzureWave

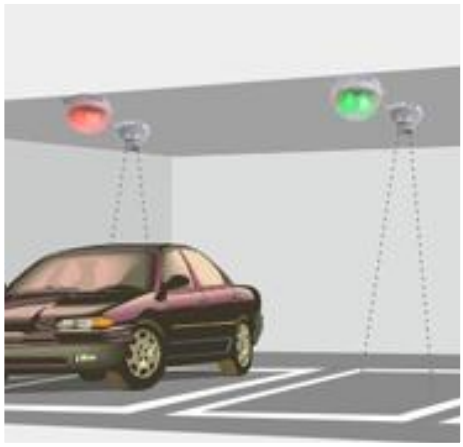
AW-HM610

Scenarios

AW-HM610 supports 1/2/4 MHz channel bandwidth which yields 150 Kbps to 15 Mbps PHY rate that can handle low-rate sensors to high-rate surveillance camera applications. The self-contained Wi-Fi networking with huge range of data throughput offers the ideal solution to add Wi-Fi connectivity to IoT products with low power consumption requirements.

Cases

WiFi HaLow is combined with IP CAM and sensor, and can be used for long-distance image recognition and sensing functions, such as parking monitoring, license plate sensing, smart factories, and vehicle charging equipment, etc.



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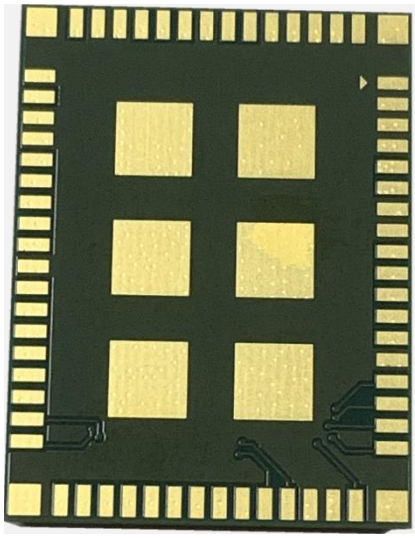
AzureWave

AzureWave has always been striving to realize its infinite potential of innovation in all aspects, better quality and more reliable delivery in its journey to become one of the most specialized module experts in the industry.

AW-HM662

AW-HM662 is the Higher Power IEEE 802.11ah Wi-Fi module that operates in the Sub 1GHz license-exempt band, offering longer ranger and higher data rate for internet of things (IoT) applications.



Frequency	Certification Status	Expected Testing Date
Sub 1GHz (750-950 MHz)	certified in US JP planning	2025/08

AzureWave

AzureWave

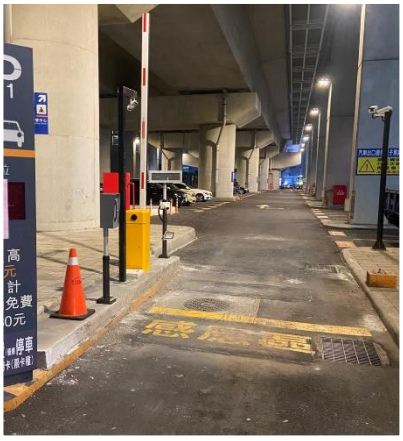
AW-HM662

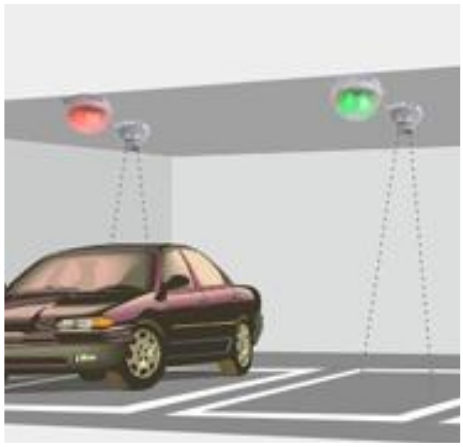
Scenarios

AW-HM662 provide the higher power 802.11ah solution, and that supports 1/2/4 MHz channel bandwidth which yields 150 Kbps to 15 Mbps PHY rate that can handle low-rate sensors to high-rate surveillance camera applications. The self-contained Wi-Fi networking with huge range of data throughput offers the ideal solution to add Wi-Fi connectivity to IoT products requirements.

Cases

WiFi HaLow is combined with IP CAM and sensor, and can be used for long-distance image recognition and sensing functions, such as parking monitoring, license plate sensing, smart factories, and vehicle charging equipment, etc.





MegaChips Corporation

MegaChips

MegaChips was founded on 1990 as Japan's first fabless semiconductor manufacturer to provide solutions of innovative system LSI. We provide ASIC, ASSP, and modules worldwide to support the business success of our customers with creative technology and innovative solutions in growth fields such as industrial equipment, communication infrastructure and FA.

Wi-Fi HaLow™ RF module

1. Multi-functional module works as an access point or an end point
2. Simplified features for less footprint and cost
3. Host interface : SDIO, SPI
4. Selectable adntenna output : U.FL connector or Edge thorough hole
5. Evaluation kits with RF modules are available

Frequency	Certification Status	Expected Testing Date
TELEC:921, 923 ~ 927 MHz	TELEC	2024.06
FCC, ISED:902 ~ 928MHz	FCC, ISED	2024.05

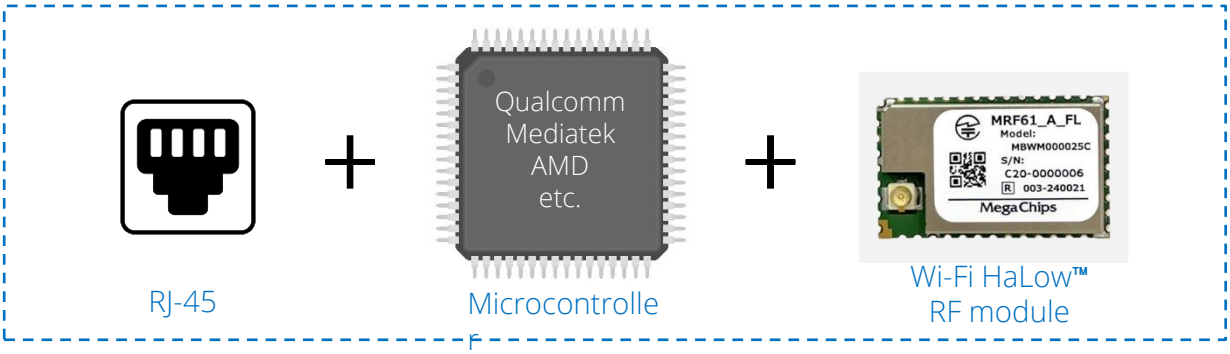
MegaChips Corporation

MegaChips

Wi-Fi HaLow™ RF module

Scenarios

Image for Wi-Fi HaLow™ access point's board



RJ-45 + Microcontroller + Wi-Fi HaLow™ RF module

Cases

1. Access Point
2. EV charge station
3. Construction equipment
4. Surveillance camera
5. Smart home network

- Hayashi / hayashi.kaori@megachips.co.jp

AccessPoint

Construction Equipment

Video Intercom

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MegaChips

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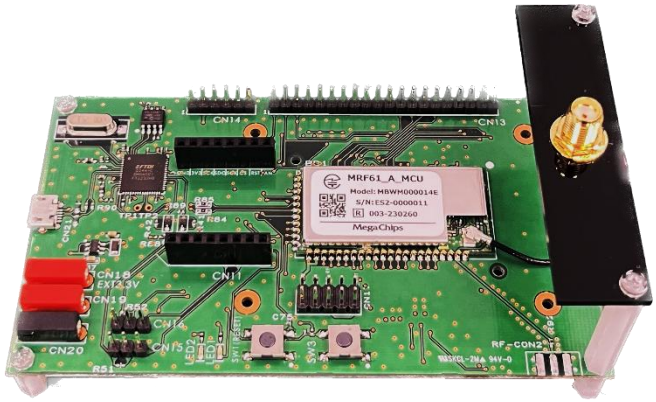
Wi-Fi HaLow™ RF+MCU module

1. Designed for an end point application such as sensors.
2. All necessary building block are on-board to develop.
3. OS support : Amazon Free RTOS
4. Optional secure element IC for highly secure communication to the cloud.
5. Selectable antenna output : U.FL connector or Edge thorough hole
6. Interface : SDIO, SPI, I2C, I2S, UART, GPIO, ADC, DAC, PWM, COUNTER, TCC, USB2.0
7. Available development board for on-board MCU which can develop FW for sensor control in advance.



Frequency	Certification Status	Expected Testing Date
TELEC:921, 923 ~ 927 MHz	TELEC	2024.04
FCC, ISED :902 ~ 928MHz	FCC, ISED	2024.07

MegaChips Corporation

MegaChips

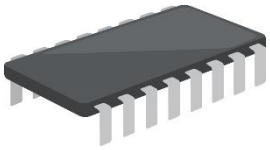
Wi-Fi HaLow™ RF＋MCU module

Scenarios

Image for Wi-Fi HaLow™ sensor board

Wi-Fi HaLow™
RF + MCU module

+



Power IC

+

Various Sensors

Cases

1. Factory：Sensor network
2. Warehouse：Pallet and vehicle management
3. Agriculture：Crop Management
4. Drone：Image data transmission
5. Walkie-talkie : voice data transmission

Sensor Devices

Drones

Walkie-Talkies

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MegaChips Corporation

MegaChips

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Wi-Fi HaLow™ Evaluation Kit

1. Raspberry Pi based kit equipped with our RF module
2. Works as an access point or an end point depending on the setting
3. Immediately use with the below two types of evaluations
   - Bandwidth measurement function using iperf command
   - Video and image transmission using IP camera / USB camera
4. Enable Bridge mode connection
5. Versatile Linux-based system for evaluation : ssh connection etc.

Frequency	Certification Status	Expected Testing Date
TELEC:923 ~ 927 MHz	TELEC	2023.04
FCC, ISED: 902 ~ 928MHz	FCC, ISED	2024.05

MegaChips Corporation

MegaChips

Wi-Fi HaLow™ Evaluation Kit

Evaluation Cases

Example of actual evaluation cases for Wi-Fi HaLow™

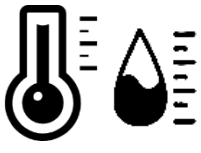
<Access point>

PC

+

Evaluation kit

<End point>

Video transmission	Voice calls	IoT Sensor
		
Evaluation kit	Evaluation kit	MCU development board
Ethernet, USB	USB	I2C、SPI、UART
		
IP camera USB camera	USB headset	Various Sensor

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NEW

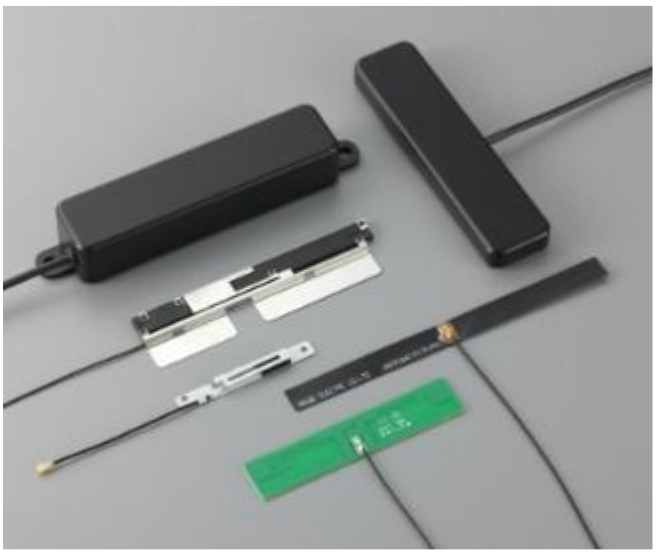
NISSEI ELECTRIC CO., LTD.

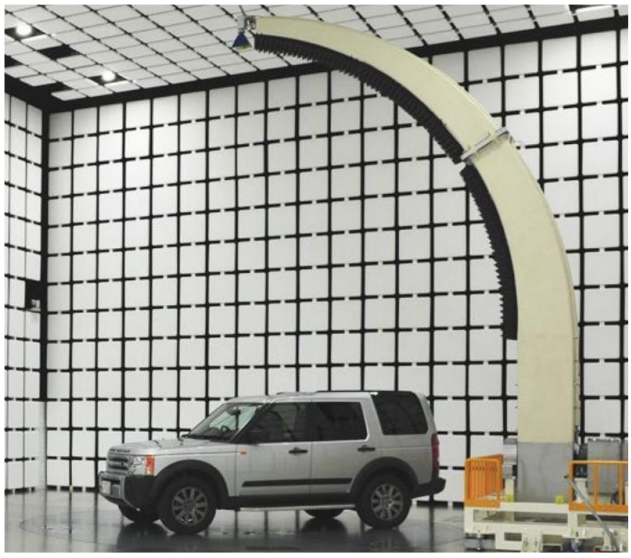
NISSEI

We are a manufacturer of heat-resistant special electric wires that was established 56 years ago, and we develop and manufacture not only electric wires but also communication cable harnesses and antenna products. As for antennas, we can propose total solutions based on the development of antennas that meet customer needs and evaluation support at our own evaluation site.

Wi-Fi HaLow™ Antenna

1. Wi-Fi HaLow™ technical compliance certified antenna.
2. Evaluation support at our own antenna site.
3. We handle everything from design, evaluation, and manufacturing in-house.
4. We also manufacture a communication cables harnesses.





Frequency	Certification Status	Expected Testing Date
Wi-Fi HaLow™:902～928MHz Other：700MHz～10GHz	TELEC	2024.07

※We can design, evaluate and manufacture

NEW

NISSEI ELECTRIC CO., LTD.

NISSEI

Wi-Fi HaLow™ Antenna

Scenarios

Combining modules and antennas allows us to make proposals for a variety of markets.

module

+

Antenna

Camera

Office Supply

AGV/AMR

Computer

Cases

1. Automobile
2. Medical
3. Home Appliances
4. Life Science
5. Telecommunications
6. Office Supply

michihiro_mochizuki@nissei-el.co.jp

https://www.nissei-el.co.jp/

NEW

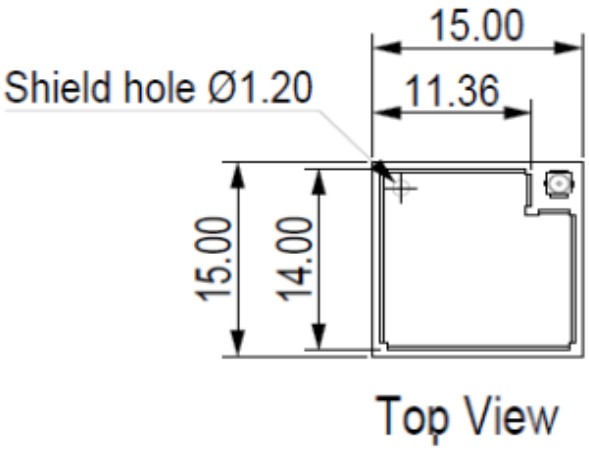
Quanta Storage Inc.

TECHMAN

Quanta Storage Inc., a technology company that provides smart IoT solutions, embedded Morse Micro MM6108 chip solutions in iW3240H industrial Wi-Fi 7 router, which provide the iW3240H not only with long distance Wi-Fi transmission capability, but also provides better wall penetration capability.

WFAHLEXNI04

The WFAHLEXNI04 module includes ultra-long-reach PA, high linearity LNA, T/R switch, 32 MHz crystal oscillator and it has been designed for a simplified Wi-Fi HaLow connection to an external host for applications in which a customer wants to merely replace their prior RF technology with a Wi-Fi HaLow connection while leveraging the latest WPA3 personal security protocol.



Frequency	Certification Status	Expected Testing Date
860 ~ 930MHz	USA, Taiwan, Canada	2025/05

NEW

Quanta Storage Inc.

TECHMAN

WFAHLEXNI04

Scenarios

The WFAHLEXNI04 module is ultra-long-range, low-power Wi-Fi HaLow module for IoT Applications in :

- Low-power Sensor Networks
- Asset Tracking and Management
- Machine Performance Monitors & Sensors
- Building Access Control & Security
- Agricultural and Farm Networks
- Utility Smart Meter and Intelligent Grid
- Industrial Automation Controls
- Smart Home Automation
- Warehouse Connectivity
- Smart City Networks
- Wi-Fi HaLow Client Adapters/Dongles/Gateways

Cases

Module has been built into gateway, which can be used as a connection between machines and machines in factories.

Andy.shih@qsitw.com
https://qsitw.com/page/en/index.html

NEW

Quectel Wireless Solutions

Quectel is a global IoT solutions provider of modules, antennas and services. We exist to connect devices and people to networks of all kinds, powering digital innovation and helping to build a smarter world. Our products and services make life more convenient, efficient, comfortable, prosperous and secure.

FGH100M

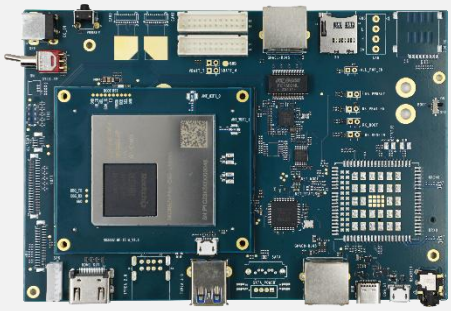
Wi-Fi HaLow + CPU/MCU

FGH100M is a long-range, low-power Wi-Fi HaLow module launched by Quectel, which complies with the IEEE 802.11ah standard. FGH100M operates in the 850–950 MHz working frequency band with a channel width of 1/2/4/8 MHz. Its maximum physical rate is 32.5 Mbps, and maximum output power is 21 dBm theoretically. The module has greater coverage and penetration performance, extending the reach of smart home or smart city networks and enabling users to control IoT devices in a radius of 1 km. FGH100M has a low-power design and supports large-capacity access, and enables simultaneous access of up to 8191 devices to the same Wi-Fi access point theoretically, which is more suitable for the access requirements of large-scale IoT devices. With its ultra-compact package size, FGH100M optimizes and effectively reduces end-product size and design cost, and fully meets the demands of size-sensitive applications

HaLow Module

13.0 × 13.0 × 2.2 mm

Development Kit



Frequency	Certification Status	Expected Testing Date
TELEC–923 ~ 927 MHz FCC, ISED —902 ~ 928MHz	FCC, CE, Telec	2023. 7 2024. 6

NEW

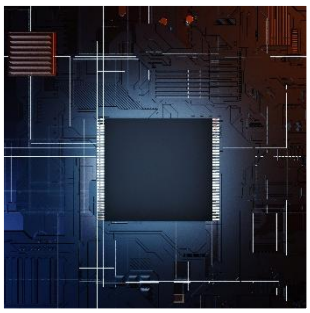
Quectel Wireless Solutions

FGH100M

Wi-Fi HaLow + CPU/MCU

Scenarios

Operating as access point or station devices.



Cases

1. Access point with Linux operating system only.
2. Station with Linux operating system or freeRTOS.
3. SDIO or SPI interfaces.

Access Point

Surveillance Camera

NEW

Quectel Wireless Solutions

FGH100M

Wi-Fi HaLow + CPU/MCU

Scenarios

Typical Applications – Home & Industrial Automation

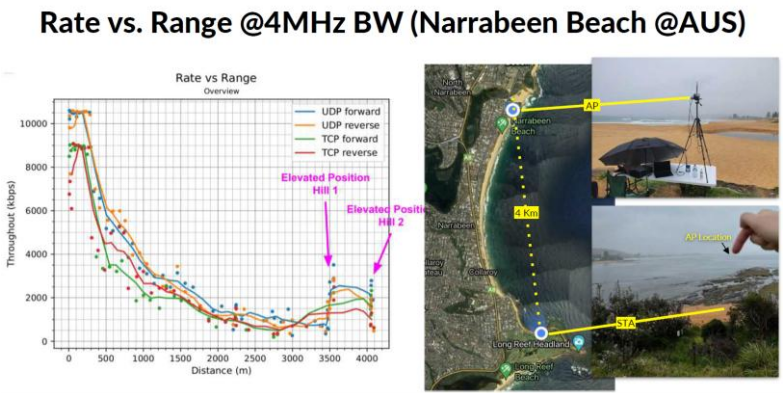
- Security Cameras
- HVAC & Air Quality
- Appliance & Lighting
- Entertainment & Audio
- Industrial Robotics
- Industrial PDA
- Condition Monitor

Typical Applications - Smart Agriculture

- Drone
- Smart Sensors
- Consumer Pad
- Positioning

Cases

Rate vs Range



info@quectel.com

https://www.quectel.com

Silex technology, Inc.

Through wireless expertise, unrivaled quality, and dedicated support, Silex Technology delivers highly reliable and secure wireless connectivity products for medical, industrial, and commercial customers. We are dedicated to providing a single-vendor solution for hardware and software support from design through manufacturing, which results in a completely connected, always-on experience.

SX-SDMAH(JP)

SX-SDMAH is an 802.11ah Wi-Fi HaLow SDIO/SPI module enabled by Morse Micro's MM6108. It features a host SDIO or SPI interface to operate with a processor or a microcontroller. Its small footprint design with the integrated antenna connector saves the PCB space and allows a more flexible embedded system design. The SX-SDMAH has been already certified to enable the embedded products for Japanese market.

Frequency	Certification Status	Expected Testing Date
920.5-928.1MHz	certified in Japan	NA

Vizmonet Pte Ltd

vizmo
FREEDOM FROM WIRES

Vizmonet is a Singapore based company founded in 2011 with a prime focus on the design and manufacture of Carrier-Class-Customized™ Wireless Connectivity Solutions. Our Built-to-Customize™ wireless solutions in the form of modules and complete systems drive a variety of applications that have been deployed globally by our OEM customers across various industry verticals. For more than a decade, Vizmonet' s Core RF design and manufacturing expertise has helped many OEMS to anchor a niche position in the wireless ecosystem.

ahSP1

This high performance module, works as a companion with SONY SPRESENCE main boardby providing Wi-Fi HaLow connectivity to unlock numerous Industrial IOT application scenarios.
ahSP1 has already obtained Japan Type Approval certification and is ready to be deployed in Japan Market.
Operating in the license free band 902 MHz to 928 MHz, it supports bandwidth profiles of 1/2/4 MHz and industrial grade operating temperature -40 deg C to +85 deg C

Scenarios

Agriculture tech、Industrial IoT、Industrial connectivity、Sound diagnostics、Real-time sensor analysis

Frequency	Certification Status	Expected Testing Date
920-928MHz	certified in Japan	already certified

DEVICES PERIPHERALS

NEW

ALFA NETWORK Inc.

ALFA NETWORK

ALFA Network Inc. is dedicated to providing customized networking、connectivity and IoT solutions that cater to each customer's unique needs through our specialized OEM/ODM services. We ensure that all our products meet the highest quality standards, from innovative design to engineering testing. Our comprehensive approach guarantees the delivery

HaLow-Cam

HaLow-Cam is the world's leading WiFi HaLow + IP Camera

- Morse Micro MM6108 inside
- 2 million pixel high-definition professional lens
- 1080P HD resolution image is clear and delicate
- 3 IR LEDs support day and night mode
- WiFi HaLow detachable antenna (SMA)
- Supports RTSP/Wire Guard VPN

Frequency	Certification Status	Expected Testing Date
US (902 MHz–928 MHz) EU (863 MHz–868 MHz) JP (920.5–927.5 MHz)	CE/NCC/TELEC	Certification completed

NEW

ALFA NETWORK Inc.

HaLow-Cam

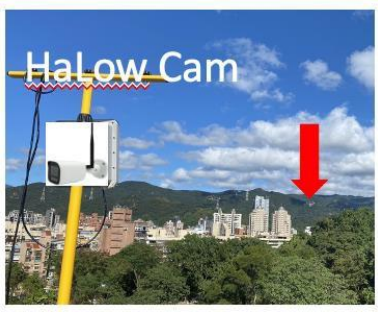
Scenarios

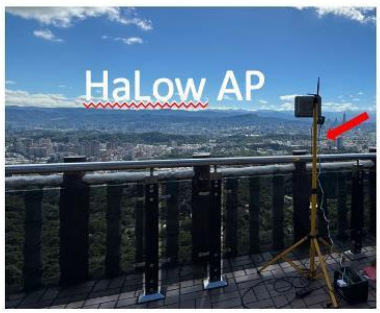
Advantages of Wi-Fi HaLow Cameras in Various Application Fields: In smart disaster prevention, long-range and low-power characteristics help deploy river monitoring and disaster warning networks in mountainous areas. For industrial monitoring, HaLow cameras' strong wall penetration and high connection capacity are ideal for safety management in large factories and mining sites.

Cases

Smart City and Smart Agriculture Monitoring:

In the smart city application, HaLow Camera enhance infrastructure such as streetlight surveillance and traffic monitoring. In smart agriculture application, HaLow Camera can cover vast farmlands and pastures for monitoring crop growth and livestock activity. For home security and healthcare, HaLow improves the flexibility of wireless camera deployment and battery life, supporting long-distance elderly care and patient monitoring.





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NEW

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HaLow-Water Sensor

- HaLow-Water Sensor is the world's leading WiFi HaLow Sensor
- Newracom 7394 inside
- Acconeer A121 Low-Power Radar IC (Operating Frequency: 57GHz/64GHz)
- Communication Options: RS-485 / WiFi HaLow
- Continuous Level Measurement Range (Depth): 10 m or more, compliant with the requirements of the field measurement environment.
- Accuracy: ±1 mm / ±0.01%.
- Resolution: 0.001 mm.
- Operating Temperature: -40°C to +125°C.
- Sensor Features: Built-in temperature sensor for automatic temperature compensation, corrosion-resistant design.
- Protection Rating: IP68 with potting treatment.
- Applications: Sewer monitoring, wastewater treatment plants, liquid level measurement in open water bodies, river and lake water level monitoring.

MADE IN TAIWAN

Frequency	Certification Status	Expected Testing Date
US (902 MHz–928 MHz) EU (863 MHz–868 MHz) JP (920.5–927.5 MHz)	certified in CE/NCC/TELEC	End of Jul

NEW

ALFA NETWORK Inc.

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HaLow-Water Sensor

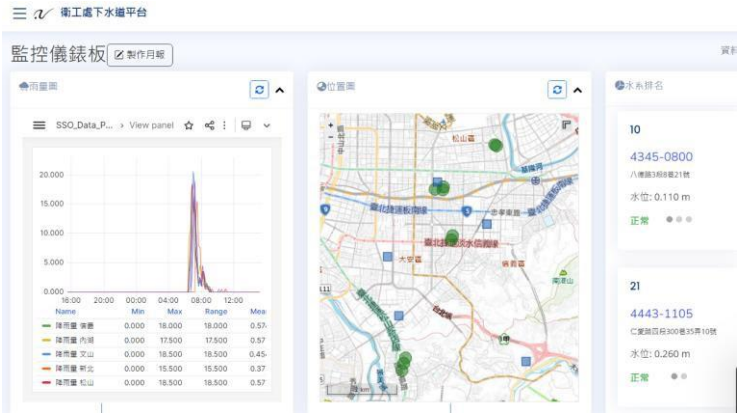
Scenarios

Advantages of Wi-Fi HaLow Water Sensor with AI Monitoring System Application

In smart city sewer system , long-range and low-power characteristics help deploy sewer and disaster warning networks in city. For Agriculture monitoring, Water Storage Monitoring (Tanks, Reservoirs, Wells) Ideal for remote or off-grid areas due to HaLow's energy efficiency and stable connectivity.

Cases

Smart City Sewer System and Smart Agriculture Application: In the smart city sewer monitoring system application, HaLow Water Sensor enhance infrastructure such as real time sewer monitoring and AI disaster warning networks . In smart agriculture application, HaLow Water Sensor cover vast farmlands and pastures for monitoring water levels in irrigation sources like tanks,
reservoirs, and underground wells to prevent overflows or shortages.



sales@alfa.com.tw

www.alfa.com.tw

ASKEY Computer Corp.

Established in 1989, Askey Computer Corp. is a professional ODM vendor specializing in development of varies network communications as 5G/LTE, small cell, PON/cable modem, Wi-Fi router and Internet of Things. Askey aims to create a positive change cycle and development in our lifestyle through technologies.

CAM2303

Wi-Fi HaLow Wireless Camera

A major leap forward in the smart home and IoT fields, this technology not only enables longer-range communication but also delivers stronger connectivity with enhanced security.

- New networking connectivity technology, Wi-Fi HaLow (802.11ah), operates in the 900 MHz band, offering longer range and lower power consumption.
- Full HD video with 1080p resolution captures details clearly, delivering a more realistic viewing experience.
- Power over Ethernet (PoE) transmits both power and data through a single network cable, simplifying installation, enhancing reliability, and reducing costs.
- Equipped with edge AI computing, the camera enables real-time image processing on-device, reducing latency and improving overall performance.
- Integrated with cloud-based VMS and a mobile app for remote monitoring anytime, anywhere.

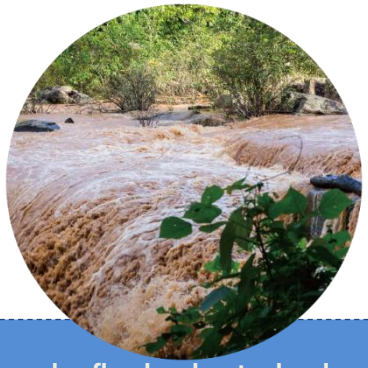
Frequency	Certification Status	Expected Testing Date
US : 902~928 MHz JP : 921~927 MHz	USA, Japan	20250508

ASKEY Computer Corp.

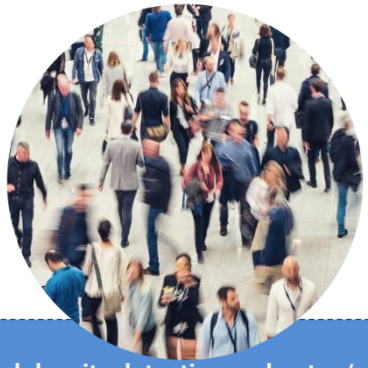
CAM2303

Scenarios

Animal invasion detection and environmental live broadcast to protect greenhouse crops.



Fire, smoke, flood and water level monitoring and warnings.



Crowd density detection and entry / exit direction analysis in public areas such as airports, stations, campuses, and stadiums.

Production line operations, warehouse entrances, loading dock truck arrival / departure monitoring.

Night vision loitering detection to enhance parking lot safety.

Real estate property management: monitoring of littering, illegal parking, blind spots, blocked fire escapes, etc.

NEW

FURUNO Electric

FURUNO

Established in 1951, Furuno Electric is a comprehensive marine electronic manufacturer that successfully commercializing the world's first fish finder. With sensing and information processing technologies at its core, our main business is the manufacture and sale of marine electronic and other industrial applications such as healthcare, communication and GNSS solutions, disaster prevention and monitoring solutions.

FWC

FWC is a solar and battery integrated river cloud surveillance camera capable of nighttime imaging. It operates with ultra low power consumption and can operate for more than 7 days without sunlight. The high sensitivity low light performance also enables clear images without flash in dark places, at night, and in other situations where it has not been possible to shoot clear images before. In addition, Immediate installation with no wiring and communication work required. It is also ideal for use immediately from the day of installation and for operation for a certain period. Remote monitoring using the cloud service via Wi-Fi HaLow or LTE.

Frequency	Certification Status	Expected Testing Date
NA	Japan	

NEW

FURUNO Electric

FURUNO

FWC

Scenarios

In cases where a person is regularly patrolling the area to monitor the situation or rushing to the area to visually monitor during a disaster, FWC makes it possible to monitor remotely without having to go to the area. Examples of FWC applications are as follows:

- Monitoring of water levels in rivers and reservoirs
- Poaching monitoring(fish)
- Monitoring of wildlife damage
- Agriculture / Livestock

Cases

FWC has been adopted for a demonstration experiment to remotely monitor beef cattle. Remote monitoring system was constructed by installing cameras in the cow barn and rangeland and connecting them to Wi-Fi HaLow access point in the office. The system enables remote monitoring of the cow barn and rangeland from the office, and is expected to improve the efficiency of monitoring the cow situation and solve the problem of damage caused by wildlife.

fwc-support@furuno.co.jp

www.furuno.com/special/jp/fwc/

DEVICES AP

ALFA NETWORK Inc.

ALFA NETWORK

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HaLow-R

HaLow-R is the world's leading WiFi HaLow™ + WiFi 4 Indoor IoT Router

- Router/Extender two modes in one
- Morse Micro MM6108 inside
- WiFi HaLow data rate up to 32.5 Mbps @ 8MHz BW
- WiFi 4 data rate up to 300 Mbps @ 40MHz BW
- WiFi HaLow support AP/Station mode
- RJ45 Fast Ethernet support
- Detachable dipole antenna

TAA COMPLIANT

MADE IN TAIWAN

Frequency	Certification Status	Expected Testing Date
US (902 MHz–928 MHz) EU (863 MHz–868 MHz) JP (920.5–927.5 MHz)	FCC/CE/NCC/TELEC	Certification completed

ALFA NETWORK Inc.

HaLow-R

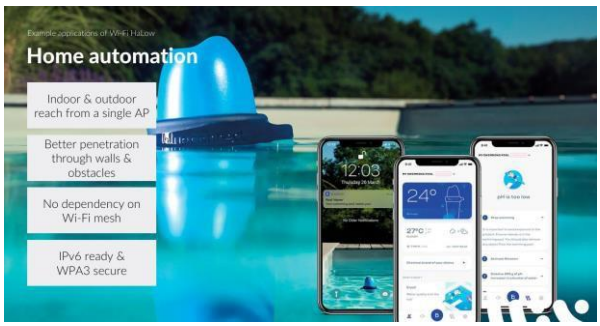
Scenarios

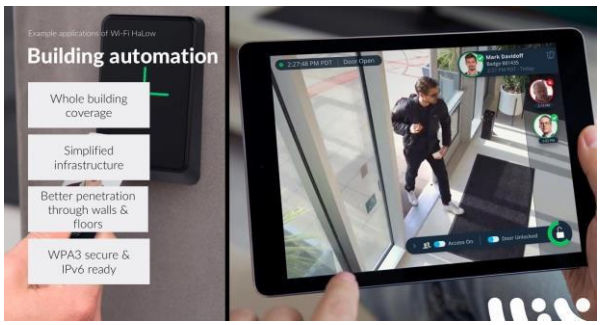
The HaLow-R indoor IoT series allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands, along with popular WiFi2.4 GHz to share Internet connection to a laptop、tabelet and smart phone, getting started with this new WiFi standard is straightforward.
With high performance MediaTek router chip and Morse Micro advanced WiFi HaLow™ SoC, up to 32.5 Mbps data throughput.
It enables connectivity for many IoT applications, including sensors, weather stations, industrial monitoring, medical patient monitoring, agriculture monitoring, surveillance camera, smart building, smart home.

Cases

Smart Home and Smart Building:

The number of connected devices in smart homes continues to increase. Wi-Fi HaLow uses the Sub-GHz frequency band, which not only enhances the penetration and coverage of Wi-Fi signals, but also avoids the very crowded 2.4GHz frequency band, providing a better solution for the Internet of Things in the home. The device brings a reliable and seamless networking solution.
IoT devices are often deployed on the perimeter or outside of buildings, such as security cameras, door locks, and window sensors. These devices often require more emphasis on coverage and penetration than high transmission throughput. Wi-Fi HaLow Most Notable One of the advantages is extended coverage, allowing climate sensors and sprinkler systems deployed in garages, front or backyards, or even rooftops to easily connect to APs and smart building ecosystems.





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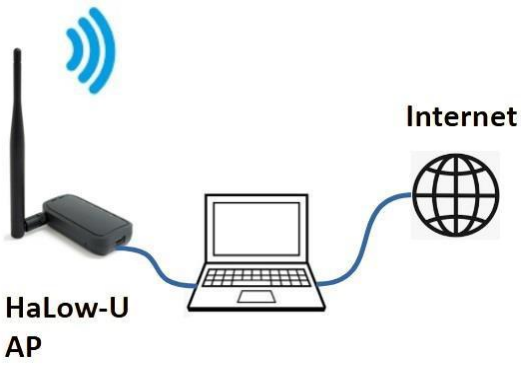
HaLow-R

HaLow-U is the world's first USB Type-C WiFi HaLow ™ AP/CPE

- AP/Station/Mesh three modes in one
- Newracom NRC7292 inside
- Detachable SMA external antenna
- USB Type-C for power and data
- Plug-and-play, desktop computers and laptops can be instantly upgraded to WiFi HaLow



MADE IN TAIWAN

TAA COMPLIANT

Frequency	Certification Status	Expected Testing Date
US(902 MHz–928 MHz) EU(863 MHz–868 MHz) JP(920.5–927.5 MHz)	Certified in FCC/CE/NCC/TELEC	Certification completed

ALFA NETWORK Inc.

ALFA NETWORK

HaLow-R

Scenarios

The HaLow-U USB adapter allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands, leverage the ubiquitous, plug-and-play USB Type-C interface, getting started with this new WiFi standard is straightforward.
With powerful ARM™ Cortex-A7 based SOC and Newracom advanced WiFi HaLow™ SoC, up to 15 Mbps data throughput.
It enables connectivity for many IoT applications, including sensors, weather stations, industrial monitoring, medical patient monitoring, agriculture monitoring, surveillance camera.

Cases

Smart city applications:

Located in Medellin, a city in Colombia, South America, traffic light data and control need to be more flexible and easier to deploy. Using HaLow-U meets the city's needs.

Smart agriculture and transportation:

The Netherlands, located in Europe, is a major exporter of food and agricultural products. Improving production capacity and reducing production costs are the most important issues. HaLow-U can contribute to smart agriculture and transportation.

Large-scale live broadcast camera control:

A professional broadcast equipment manufacturer located in Belgium, network cabling for multiple cameras working together is always a problem. HaLow-U solves this problem by providing long-distance and reliable WiFi.

sales@alfa.com.tw

www.alfa.com.tw

ALFA NETWORK Inc.

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Tube-AH

Tube-AH is the world's first WiFi HaLow ™ outdoor AP/CPE with PoE

- AP/Station/Mesh three modes in one
- Newracom NRC7292 inside
- N female antenna connector
- Passive PoE support
- Mast mounted installation enclosure
- IP66 waterproof resistance

MADE IN TAIWAN

TAA COMPLIANT

Frequency	Certification Status	Expected Testing Date
US(902 MHz–928 MHz) EU(863 MHz–868 MHz) JP(920.5–927.5 MHz)	Certified in FCC/CE/NCC/TELEC	Certification completed

ALFA NETWORK Inc.

ALFA NETWORK

Tube-AH

Scenarios

The Tube-AH outdoor series allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands, utilizing compact, mast mounted waterproof enclosure, getting started with this new WiFi standard is straightforward.
With powerful ARM™ Cortex-A7 based SOC and Newracom advanced WiFi HaLow™ SoC, up to 15 Mbps data throughput.
It enables connectivity for many IoT applications, including sensors, weather stations, industrial monitoring, medical patient monitoring, agriculture monitoring, surveillance camera.

Cases

Smart city applications:

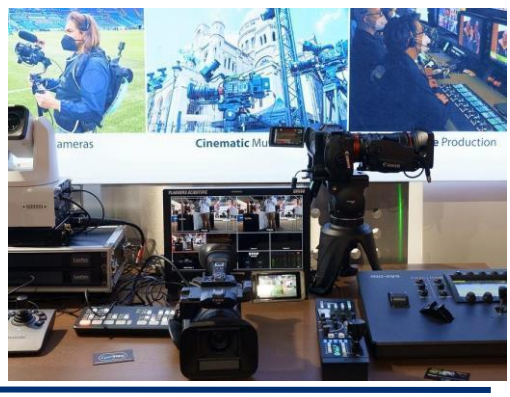
Located in Medellin, a city in Colombia, South America, traffic light data and control need to be more flexible and easier to deploy. Using Tube-AH meets the city's needs.

Smart agriculture and transportation:

The Netherlands, located in Europe, is a major exporter of food and agricultural products. Improving production capacity and reducing production costs are the most important issues. Tube-AH can contribute to smart agriculture and transportation.

Large-scale live broadcast camera control:

A professional broadcast equipment manufacturer located in Belgium, network cabling for multiple cameras working together is always a problem. Tube-AH solves this problem by providing long-distance and reliable WiFi.



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Tube-AHM

Tube-AHM is the world's leading WiFi HaLow ™ outdoor AP/CPE with PoE

- AP/Station two modes in one
- Morse Micro MM6108 inside
- Data rate up to 32.5 Mbps @ 8MHz BW
- N female antenna connector
- Passive PoE support
- Mast mounted installation enclosure
- IP66 waterproof resistance

MADE IN TAIWAN MADE IN

TAA COMPLIANT

Frequency	Certification Status	Expected Testing Date
US(902 MHz–928 MHz) EU(863 MHz–868 MHz) JP(920.5–927.5 MHz)	Certified in FCC/CE/NCC/TELEC	Certification completed

ALFA NETWORK Inc.

ALFA NETWORK

Tube-AHM

Scenarios

The Tube-AHM outdoor series allows building long range, ultra-low power WiFi networks in sub 1 GHz license-exempt bands, utilizing compact, mast mounted waterproof enclosure, getting started with this new WiFi standard is straightforward.
With high performance MediaTek router chip and Morse Micro advanced WiFi HaLow™ SoC, up to 32.5 Mbps data throughput.
It enables connectivity for many IoT applications, including sensors, weather stations, industrial monitoring, medical patient monitoring, agriculture monitoring, surveillance camera.

Cases

Smart city applications:

Located in Medellin, a city in Colombia, South America, traffic light data and control need to be more flexible and easier to deploy. Using Tube-AHM meets the city's needs.

Smart agriculture and transportation:

The Netherlands, located in Europe, is a major exporter of food and agricultural products. Improving production capacity and reducing production costs are the most important issues. Tube-AHM can contribute to smart agriculture and transportation.

Large-scale live broadcast camera control:

A professional broadcast equipment manufacturer located in Belgium, network cabling for multiple cameras working together is always a problem. Tube-AHM solves this problem by providing long-distance and reliable WiFi HaLow.



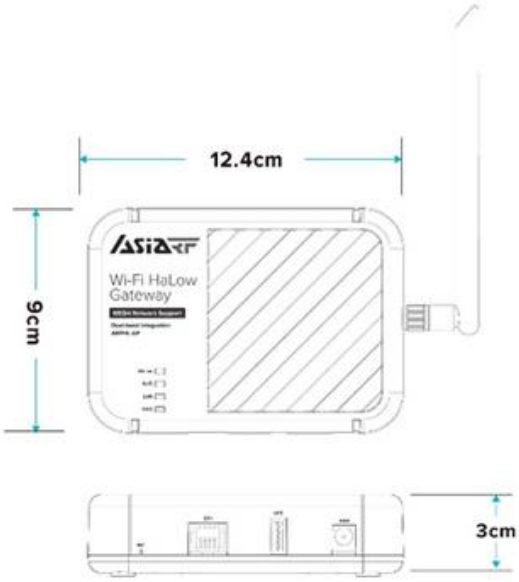
sales@alfa.com.tw
www.alfa.com.tw

AsiaRF Co., Ltd.

AsiaRF, founded in Taipei in 1997, is a global leader in wireless connectivity solutions, trusted especially in North America. We offer Wi-Fi HaLowTM, Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6, 5G, BLE, LoRa WAN, and more. Committed to quality and service, we collaborate with Taiwanese distributors to stay competitive.

Wi-Fi HaLow Mesh Gateway Dual Band
ARFHL-AP

The ARFHL-AP Wi-Fi HaLow IoT Gateway revolutionizes industrial IoT (IIoT) connectivity with its Dual-Band Wi-Fi 4 & HaLow technology. This cutting-edge device is engineered for optimal performance in various industrial environments, offering unparalleled flexibility and efficiency.



Frequency	Certification Status	Expected Testing Date
Wi-Fi 4: 2412MHz-2462Mhz Wi-Fi Halow:923MHz-927MHz	certified in Taiwan	2024 05

AsiaRF Co., Ltd.

Wi-Fi HaLow Mesh Gateway Dual Band

ARFHL-AP

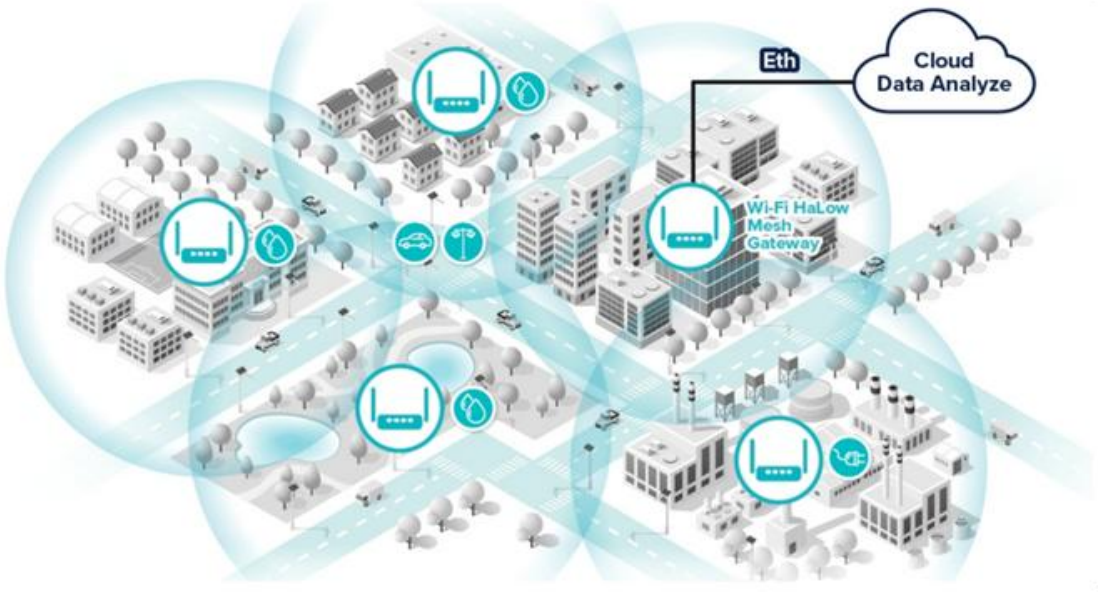
Scenarios

Energy Remote Sensor/Control Solution

Real-time monitoring allows users to track energy consumption patterns and make informed decisions for efficient energy management. Remote control capabilities enable users to adjust energy systems in real-time, optimizing energy usage and reducing waste. The solution offers reliability and scalability, ensuring seamless performance and adaptability to various energy management needs and systems.

Cases

Our customer uses AsiaRF'sHaLow gateway product in Taiwan's official smart meters to collect information and real-time monitoring energy consumption patterns.



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https://www.asiarf.com

AsiaRF Co., Ltd.

Wi-Fi HaLow Mesh Gateway Dual Band

ARFHL-AP

Scenarios

Rural Internet Enhancement Solution

In today's digital age, reliable internet connectivity is crucial for economic development, education, healthcare, and social inclusion. However, rural areas often face significant challenges in accessing high-quality internet services. The Rural Internet Enhancement Solution, powered by Wi-Fi HaLow™ technology, is a game-changer in bridging the digital divide and empowering rural communities with enhanced wireless connectivity.

Cases

In Africa, many rural areas lack reliable internet due to sparse populations and inadequate infrastructure. A solution combining Wi-Fi HaLow™ technology with low Earth orbit satellites has been developed to provide robust internet coverage. Wi-Fi HaLow™ offers long-range, low-power connectivity, ideal for vast rural areas, while satellites ensure global reach, even to remote locations. This integrated approach has significantly improved internet access in rural African communities, supporting local education, healthcare, and economic growth, and providing a scalable model to bridge the digital divide globally.

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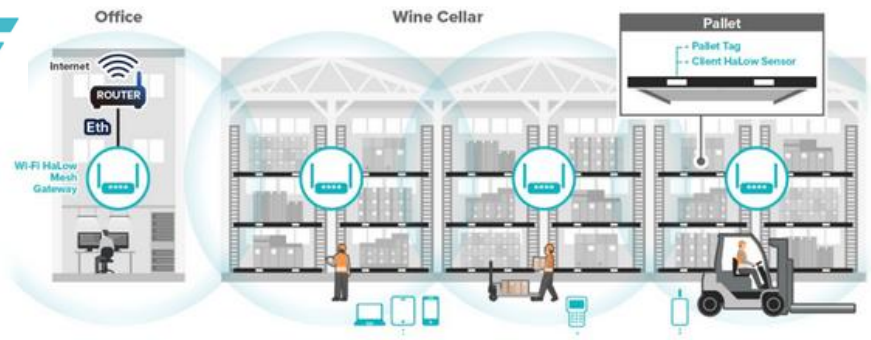
AsiaRF Co., Ltd.

Wi-Fi HaLow Mesh Gateway Dual Band

ARFHL-AP



Scenarios

Factory Automation by Wi-Fi HaLow

Transforming Industrial Efficiency and Connectivity Wi-Fi HaLow™ is revolutionizing factory automation by offering enhanced connectivity, real-time monitoring and control, efficient asset management, and scalability. By leveraging Wi-Fi HaLow™ technology, industrial operations can achieve seamless communication, optimize production processes, and improve overall efficiency. The ability to establish reliable connections over long distances, combined with real-time data exchange, empowers manufacturers to make informed decisions, enhance productivity, and minimize downtime. As factory automation continues to evolve, Wi-Fi HaLow™ stands as a key enabler, unlocking new possibilities for increased efficiency, reduced costs, and improved competitiveness in the industrial sector.

Cases

Wi-Fi HaLow™ is revolutionizing logistics warehouse automation by leveraging its MESH networking capabilities to ensure comprehensive connectivity across expansive facilities. This advanced system enables seamless real-time tracking of goods, automatic inventory updates, and efficient order processing, significantly reducing human errors and boosting customer satisfaction. By facilitating predictive maintenance, Wi-Fi HaLow™ helps minimize equipment failures and downtime, enhancing operational reliability. The implementation of this technology in warehouses not only streamlines operations but also leads to considerable cost savings and a stronger competitive edge, demonstrating the significant advantages of Wi-Fi HaLow™ in modern logistics environments.

sales@asiarf.com

https://www.asiarf.com

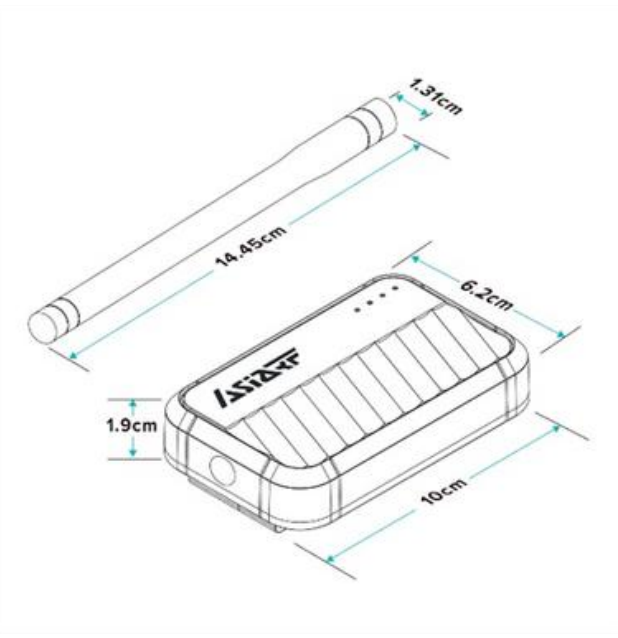
AsiaRF Co., Ltd.

AsiaRF, founded in Taipei in 1997, is a global leader in wireless connectivity solutions, trusted especially in North America. We offer Wi-Fi HaLowTM, Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6, 5G, BLE, LoRa WAN, and more. Committed to quality and service, we collaborate with Taiwanese distributors to stay competitive.

Wi-Fi HaLow Mesh Portable Gateway

ARFHL-UM

Wi-Fi HaLow MESH portable gateway ARFHL-UM dual-band, offering plug-and-play, zero-configuration connectivity with exceptional energy efficiency and USB power bank support. It provides long-range, seamless mobile networking over distances exceeding 1 km, ideal for on-the-go applications.



Frequency	Certification Status	Expected Testing Date
Wi-Fi 4: 2412MHz-2462Mhz Wi-Fi Halow:923MHz-927MHz	certified in Taiwan	2024 05

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Wi-Fi HaLow Mesh Outdoor Gateway

ARFHL-OD

ARFHL-OD Outdoor Gateway is designed to fulfill field long distance 20 Mbps data requirements by Wi-Fi HaLow technology.
Wi-Fi HaLow Morse Micro MM6108 chipset, Powered by PoE(802.3af)

Frequency	Certification Status	Expected Testing Date
Wi-Fi 4: 2412MHz-2462Mhz Wi-Fi Halow:923MHz-927MHz	certified in Taiwan	2024 06

ASKEY Computer Corp.

Established in 1989, Askey Computer Corp. is a professional ODM vendor specializing in development of varies network communications as 5G/LTE, small cell, PON/cable modem, Wi-Fi router and Internet of Things. Askey aims to create a positive change cycle and development in our lifestyle through technologies.

RTM4100AH

RTM4100AH includes 3 wireless technologies, 802.11n (Wi-Fi 4), 802.11ah (Wi-Fi HaLow) and Bluetooth (BT5.1) and support USB LTE dongle also. Askey also can provide management system to record and analysis collected data from devices.

The key features:

- 802.11b/g/n 2x2 + 802.11ah + BT5.1
- Support USB LTE dongle
- 1Gb WAN and 1Gb LAN
- AP/Station mode
- 802.11s mesh network
- IP55 rating

Frequency	Certification Status	Expected Testing Date
US : 902~928 MHz JP : 921~927 MHz	USA, Japan	TELEC in progress

ASKEY Computer Corp.

RTM4100AH

Scenarios

RTM4100AH can build up Wi-Fi HaLow network with 802.1s mesh technology. It transfers Wi-Fi HaLow data from sensor, gateway and camera in long distance and periodical data collection use case as smart agriculture, smart factory, smart city or rural area. Few Wi-Fi Halow routers can control and collect data from Wi-Fi HaLow sensors. It is very suitable to use in hotel, hospital, factory and bus/train station.

Cases

Smart Factory

Install router, gateway and camera in the factory, it can monitor machine, pump for productivity, environment for security

Hotel

Update thermostat with Wi-Fi HaLow module, manager can get and control entire level sensors by one router easily

sales@askey.com

www.askey.com

NEW

CONTEC CO., LTD.

CONTEC

Found In 1975, Contec Corporation, has been contributing to society as a world pioneer by providing various input/output (I/O) boards, industrial PCs (Box-PC, Panel-PC, Rack-PC, etc.), wired and wireless LAN, industrial LCD displays, various related support software and BTO Solution, with "PC For All Automation" as the cornerstone of business.

SGA1000 11ah Wireless Access point

Compact IEEE802.11ah-compliant wireless LAN converter, compliant with the IEEE802.11ah standard, enabling the construction of high-speed and long-distance wireless networks. It supports external antennas, allowing for flexible construction of wireless LAN systems, and its lightweight and compact design enables installation on walls, DIN rails, and various other locations with the included mounting bracket. It can also be used as an access point (parent station) that can connect up to four stations (child stations) by switching modes.

Frequency	Certification Status	Expected Testing Date
920MHz	Japan, TELEC	

NEW

CONTEC CO., LTD.

CONTEC

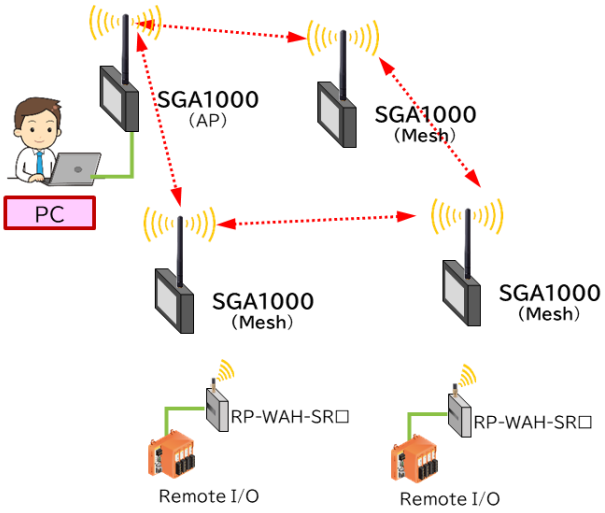
SGA1000
11ah Wireless Access point

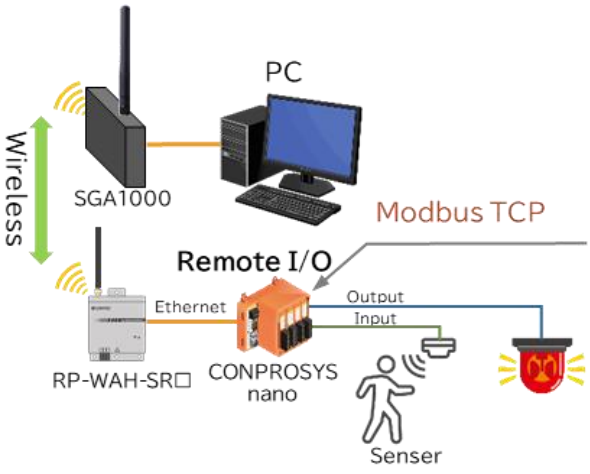
Scenarios

1. Wireless connection of outdoor surveillance camera images for systems using surveillance cameras.
2. Wireless communication of information (remote I/O) from sensors at remote locations.
3. wireless communication of information from PLCs in remote locations within the factory premises. (This means monitoring equipment information in places where wireless LAN cannot reach.)

Cases

-Wireless image transmission in a system using surveillance cameras.
-Input/output of information from sensors in remote locations using remote I/O.
-Collect information from PLCs in remote locations within a factory using a wireless network.





sales@jp.contec.com
www.contec.com/jp

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RP-WAH-SR1
RP-WAH-SR2

Compact IEEE802.11ah-compliant wireless LAN converter, compliant with the IEEE802.11ah standard, enabling the construction of high-speed and long-distance wireless networks. It supports external antennas, allowing for flexible construction of wireless LAN systems, and its lightweight and compact design enables installation on walls, DIN rails, and various other locations with the included mounting bracket. It can also be used as an access point (parent station) that can connect up to four stations (child stations) by switching modes.

Frequency	Certification Status	Expected Testing Date
920MHz	certified in Japan, TELEC	NA

CONTEC CO., LTD.

CONTEC

RP-WAH-SR1
RP-WAH-SR2

Scenarios

1.Wireless connection of outdoor surveillance camera images for systems using surveillance cameras.
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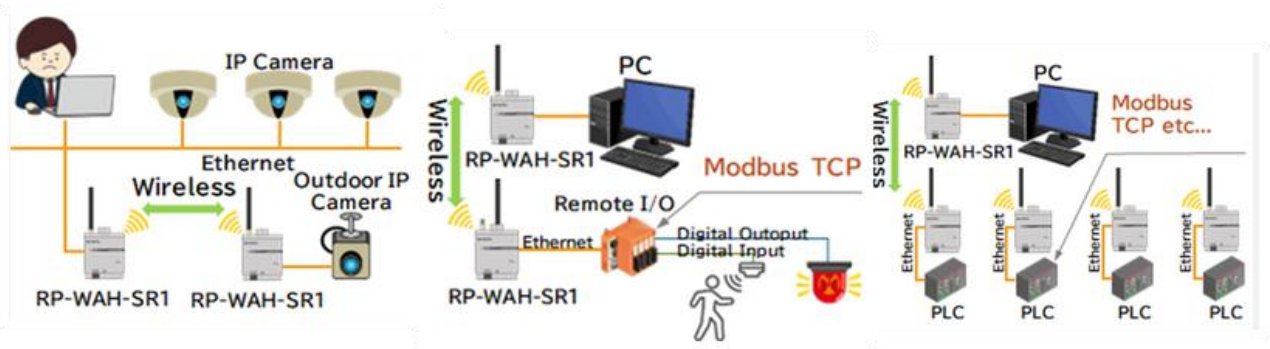

D-Link

D-Link

D-Link is a global leader in designing and developing networking and connectivity products and total solutions for consumers, small businesses, medium to large-sized enterprises, and service providers. From relatively modest beginnings in Taiwan, the company has grown into an award-winning global brand in 43 countries.

MS30N

D-Link's MS30N is a Matter-certified IoT gateway to connect Matter-compliant network devices and can also perform as a router, access point, or extender.
As the heart of the smart home or any IoT application, the MS30N utilizes Wi-Fi 6, Thread, Bluetooth, and Wi-Fi HaLow™ technologies to deliver secure and reliable connections for all connected devices.

Frequency	Certification Status	Expected Testing Date
Wi-Fi, Thread, Bluetooth LE, Wi-Fi HaLow protocols	certified in Japan	2024 05

D-Link

D-Link

MS30N

Scenarios

D-Link Smart Healthcare is an all-in-one caregiving solution combining networked devices, CMS, and app to remotely monitor the daily lives of elderly people. This is done by installing MS30N IoT gateways, sensors, cameras, and smart plugs in their homes. The MS30N performs as the central hub for the home's wireless connection with capabilities such as prioritizing bandwidth for video viewing, event sensing, and power usage monitoring via the CMS and app. This solution provides non-stop elderly monitoring, saving time and manpower for families or medical institutions in the era of caregiving personnel shortage.

Cases

This turnkey solution integrates management software and IoT hardware devices as an Elderly Monitoring System, including IoT-based fall detection, home energy consumption monitoring to improve elderly in-home safety, and AI privacy guard. The MS30N connects wireless cameras, sensors, and smart plugs via Wi-Fi, Wi-Fi HaLow™, and Thread protocols to assist caregivers and family members to efficiently monitor elderly's daily lives.
This solution enables any ISP or SI to increase operational efficiency, reduce complexity, and enhance care quality for the elderly.



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www.dlink.com

Edgecore

Edgecore Networks is a wholly owned subsidiary of Accton Technology Corporation. Edgecore delivers network solutions through channel partners worldwide that keep information moving and connections strong for SMB, enterprise, data center, and service provider customers.

EAP112

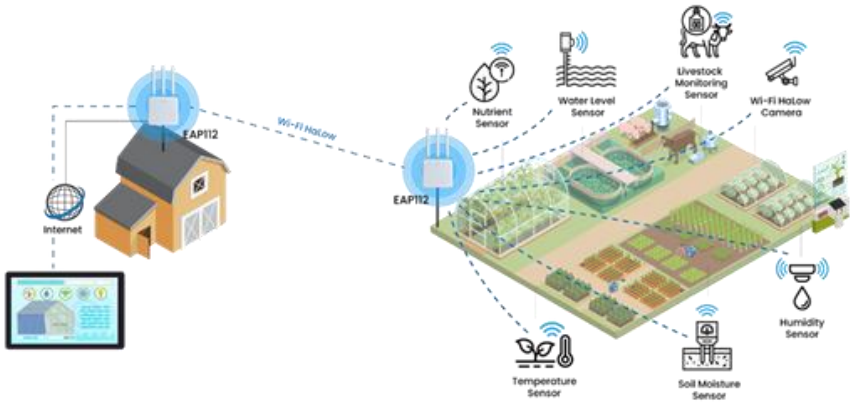
EAP112 stands out as an enterprise-grade IoT Gateway, incorporating Wi-Fi 6, HaLow, BLE, Zigbee, Thread, and LTE technologies to drive advanced AI solutions. EAP112 supports Wi-Fi 6 2x2 uplink and downlink MU-MIMO, delivering an impressive up to 3 Gbps data rate within its IP65-rated enclosure. With Bluetooth Low Energy (BLE) radio, ZigBee, Thread, and HaLow capabilities, EAP112 facilitates the implementation of value-added applications like iBeacon and Matter, fostering seamless communication among diverse IoT devices. The inclusion of Wi-Fi HaLow addresses the need for long-range, low-rate data transmission, while the additional LTE interface serves as an alternative uplink connection to the internet. EAP112 offers the flexibility to operate in standalone mode or under the management of Edgecore ecCLOUD or the ecCLOUD-VPC controller.

Frequency	Certification Status	Expected Testing Date
902-928 MHz (country dependent)	certified in Japan	2024 05

Edgecore

Edge-corE NETWORKS

EAP112



Scenarios

The Edgecore Wi-Fi EAP112 is a groundbreaking six-technology integrated wireless IoT solution that supports Wi-Fi 6, Wi-Fi HaLow, BLE, Zigbee, Matter, LTE, CBRS, and Ethernet protocols, this innovative device caters to both short- and long-range communication needs. Designed to withstand extreme temperatures and environmental conditions, boasting IP65 water and dust resistance, making it suitable for diverse environments and industries such as Smart Agriculture for monitoring and managing vast farmlands through sensors, cameras, and unmanned vehicles; Industrial IoTfor enhancing manufacturing processes and site management; Telecommunications for providing LTE and CBRS connectivity to end-users in remote areas; Smart Cities for building intelligent urban infrastructure like traffic monitoring and public safety networks; Healthcare for supporting medical IoT devices and patient monitoring. By offering comprehensive software integration and native MQTT support, the EAP112 simplifies IoT deployment, providing a versatile platform that bridges multiple communication protocols, unlocking innovative connectivity possibilities, and solving network challenges in diverse environments.

Cases

The Smart farm is implementing smart agriculture technologies to enhance the production. The initiative addresses challenges like dispersed gardens and inconsistent crops quality through digital tools, remote sensing, and AI analysis. Since there is a distance between the farmhouse and the farm and they cannot be connected via wired networks, HaLow enables longer-distance transmission. IoT devices on the farm, such as soil monitoring, temperature and humidity, water quality monitoring, automatic watering, health monitoring by sensors, and farm status monitor by CCTV, can transmit information back to the farmhouse through HaLow. This allows the farm owner to monitor farm conditions in real time, improving crop quality and increasing work efficiency. By using smart IoT devices, the owner has reduced work hours by 25%, standardized crops quality, and increased the sales by 10%.

tt_hsu@accton.com

wifi.edge-core.com

Furuno Systems Co., Ltd.

FURUNO SYSTEMS

Established in 1984, Furuno Systems is a dedicated manufacturer of wireless equipment for business use. Successfully developing Japan's first wireless handy terminal, in-house development and manufacturing of access points have been provided to enable stable communications. We are committed to supporting the telecommunications that are indispensable to everyone's daily life with the wireless technology that we have cultivated over the years.

ACERA 330

ACERA 330 is a Wi-Fi HaLow-compliant access point that also supports 2.4GHz band 11n/b/g, BLE, and USB to accommodate IoT devices with a variety of interfaces and enable data transmission to remote locations via Wi-Fi HaLow. Configurable to switch between access point, repeater, and station modes. Operating temperature is -20 to 60°C, and dust and water resistance is IP55.

Frequency	Certification Status	Expected Testing Date
921-927MHz	certified in Japan	NA

Furuno Systems Co., Ltd.

FURUNO SYSTEMS

ACERA 330

Scenarios

In cases where a person is regularly patrolling the area to monitor the situation, or where the situation is being checked by a sensor but the person wants to monitor the situation with video, the ACERA 330, camera, and sensor can be combined to enable remote monitoring without the need to go to the site. Examples of ACERA 330 applications are as follows:
- Flood monitoring of rivers and roads using cameras
- Crop growth monitoring using sensors and cameras
- Security camera applications in schools and neighborhoods.

Cases

ACERA 330 has been adopted for a demonstration experiment to remotely monitor greenhouses using temperature/humidity sensors and cameras. The ACERA 330 parent unit was installed at a facility operated by the city and connected to an Internet line, and ACERA 330 child units were installed at six greenhouses several hundred meters (maximum 900 m) away from the parent unit, each connected in a star configuration to create a network. The system enables farmers to monitor the status of their greenhouses from their homes via the Internet, and is expected to contribute to more efficient agriculture.

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Silex technology, Inc.

Through wireless expertise, unrivaled quality, and dedicated support, Silex Technology delivers highly reliable and secure wireless connectivity products for medical, industrial, and commercial customers. We are dedicated to providing a single-vendor solution for hardware and software support from design through manufacturing, which results in a completely connected, always-on experience.

AP-100AH(JP)

AP-100AH is the first commercially available access point supporting IEEE's 802.11ah wireless standard which is a long-range technology where a single access point can give you range up to 1 kilometers supporting up to 675 clients. The AP-100AH is all that you need to incorporate 802.11ah into your existing or new infrastructure. The AP-100AH supports communication with a RADIUS server to enable 802.11ah client devices which are capable of 802.1X authentication.

Frequency	Certification Status	Expected Testing Date
920.5-928.1MHz	certified in Japan	NA

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BR-100AH(JP)

BR-100AH is the first commercially available IEEE's 802.11ah wireless enterprise bridge. It enables any Ethernet device to communicate with other 802.11ah devices over a long-range Wi-Fi HaLow network, giving you the freedom to place it anywhere in your facility. BR-100AH is all that you need to incorporate your device into your 802.11ah (HaLow) network. The BR-100AH now supports WPA3-Enterprise to make Wi-Fi HaLow technology available for enterprises that require 802.1X authentication for its IT system.

Frequency	Certification Status	Expected Testing Date
920.5-928.1MHz	certified in Japan	NA

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EX-150AH(JP)

The EX-150AH is the Wi-Fi range extender enabled by Wi-Fi HaLow. You can use the EX-150AH as your Wi-Fi access point and the data from your Wi-Fi device is sent farther through the Wi-Fi HaLow link. With the combination with Wi-Fi HaLow access point, you can easily extend the wireless coverage for your Wi-Fi device. The EX-150AH has the USB Type-C as the power supply port so that it can be powered from other USB devices such as a laptop, Android tablet or a battery pack for example.

Frequency	Certification Status	Expected Testing Date
920.5-928.1MHz	certified in Japan	NA

Silex technology, Inc.

AP-100AH(JP)

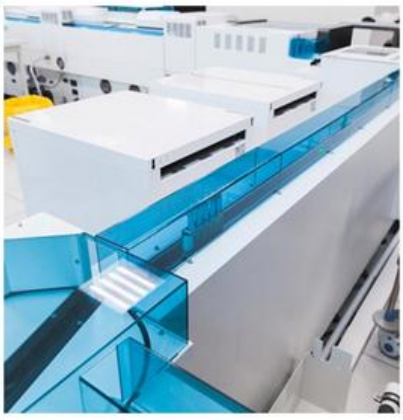
Scenarios

Wi-Fi HaLow products are suitable for use in industrial and medical applications. Their long range and low power consumption enables the connectivity of a wide range of devices. In the industrial field, sensors on factory equipment and AGVs can be connected wirelessly for real-time data collection and monitoring. This enables efficient production control and equipment maintenance. In the medical field, patient monitoring devices and hospital medical equipment can be connected securely and reliably, enabling medical professionals to instantly monitor equipment and patient status.

Cases

Data collection through ModbusTCP system in medical laboratories
- AP-100AH integration into the network and BR-100AH to connect ModbusTCP PLC to the AP-100AH.

Infrastructure extension to eliminate Wi-Fi deadspot in factories/plants
- AP-100AH to create Wi-Fi HaLow LAN. The BR-100AH connected to Wi-Fi access point to let Wi-Fi devices to join the HaLow network.



https://www.silex.jp/contact/

https://www.silex.jp

Vantron Technology Inc.

Vantron

For over twenty years, Vantron Technology has been a leading global provider of embedded computing and intelligent IoT solutions. With our commitment to continuous technology innovation and customer-centric engagement model, Vantron strives to provide state-of-the-art and highly cost-effective turn-key solutions to enable our customer's success.

HAP101-JP

1xWiFi HaLow 802.11ah (USA or Japan version), Based on Morse Micro MM6108.
1xExternal or inner Antenna
1xWiFi 802.11/b/g/n,
1xETH,
1xRS485/5Vout,
12/24VDC (9-36V) Power input.
Inner antenna.

Frequency	Certification Status	Expected Testing Date
High	certified in FCC, TELEC in progress	2024 05

Vantron Technology Inc.

Vantron

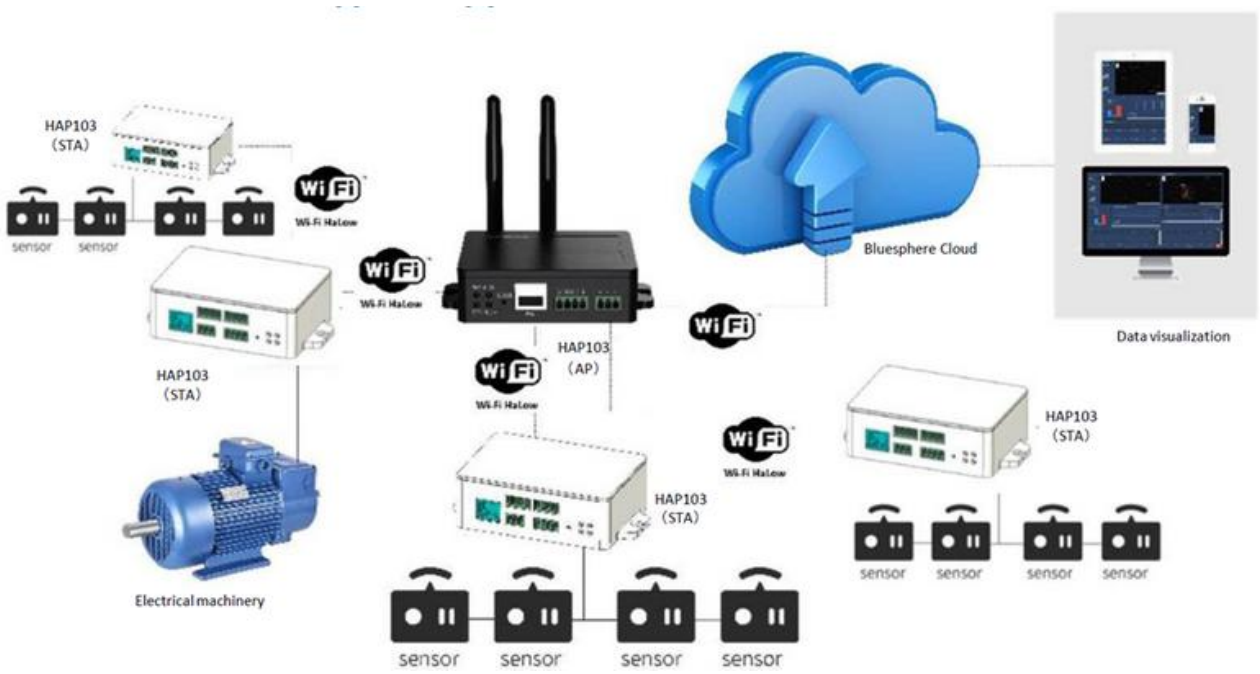
HAP101-JP

Scenarios

This HaLow AP is work at long distance data connection up to 1Km based on WiFi HaLow in sub 1GHz frequency. And up link can be standard WiFi or Ethernet network to internet.
It can work as WiFi HaLow Station, and connect to another HaLow AP to extend network connection by Standard WiFi or Ethernet network.
Bridge WiFi AH to WiFi4, or WiFi AH to ETH.

Cases

Home security, Access control, Video Phone, Wireless Sensor network, etc.



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https://www.vantrontech.us/

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Vantron

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HC081

WiFi HaLow 802.11ah (USA or Japan version), Based on Morse Micro MM6108.
1x5MP Camera,
1x1W Speaker,
1xMIC Input,
1xUSB-C, with 5V Power input,
1xCall ON/OFF button,
1xRestore button,
1xInner with 2000mAh Li-Battery.
1xTripod mounting hole
1xMicro-SD Card Slot.

Frequency	Certification Status	Expected Testing Date
High	certified in FCC, TELEC in progress	2024 06

Vantron Technology Inc.

Vantron

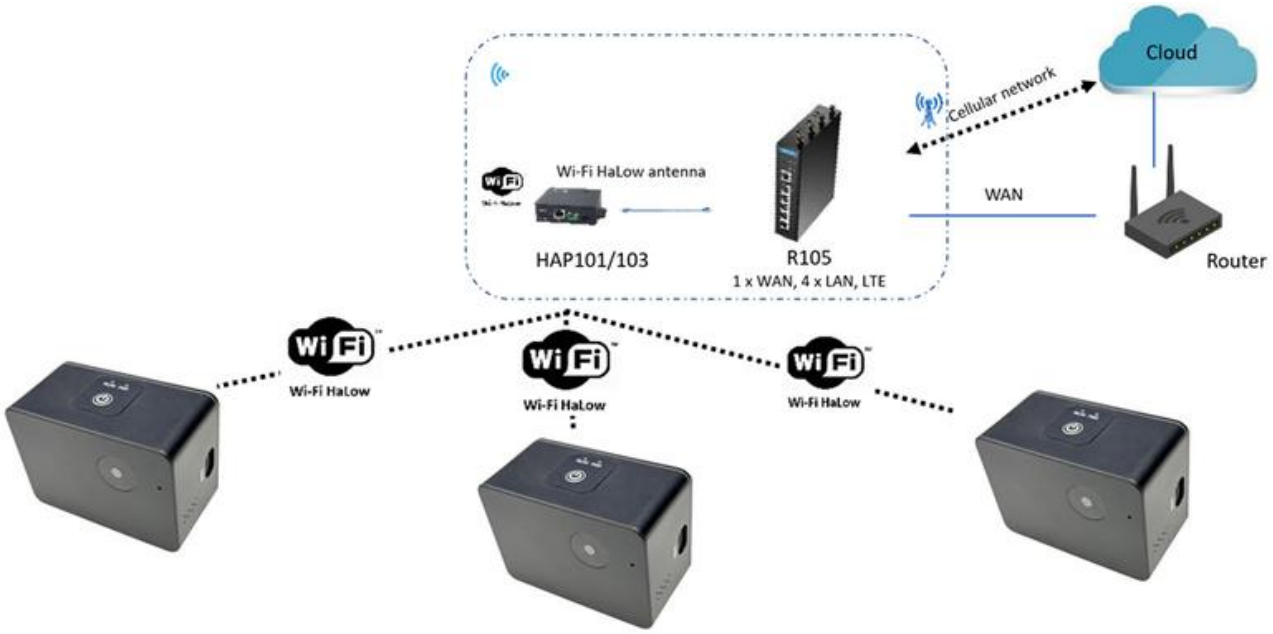
HC081

Scenarios

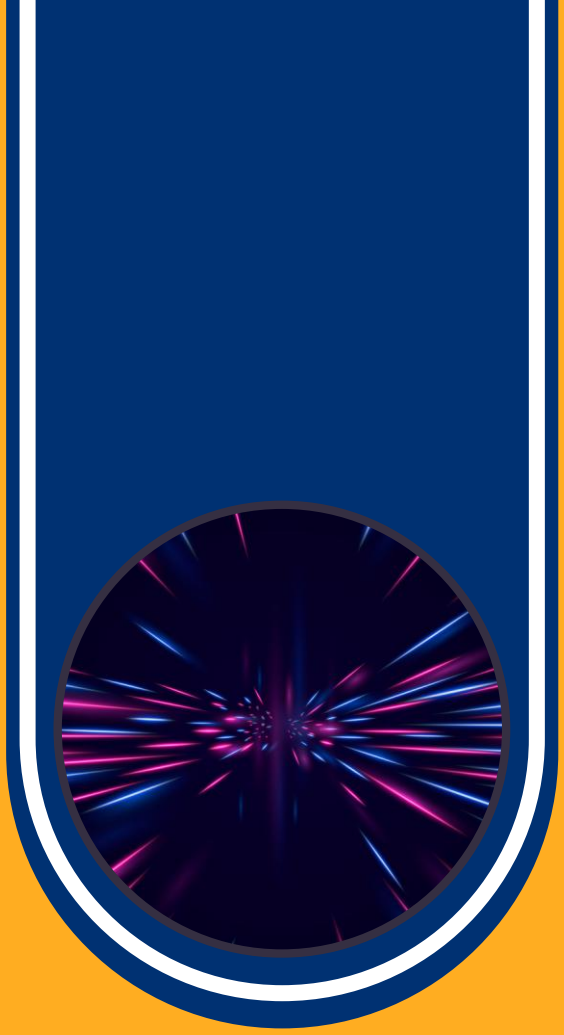
This HaLow AP is work at long distance camera video capture and streaming up to 200m+ based on WiFi HaLow in sub 1GHz frequency.
It will work with HaLow AP to transfer video to center network tablet / device, and provide audio communication between camera and center network tablet / device/

Cases

Long Distance Communication Home security, Video Phone, etc.



sales@vantrontech.com
https://www.vantrontech.us/



GATEWAY

NEW

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WAR0070

WAR0070 is Wi-Fi HaLow gateway, it has RS485 and Ethernet interface to connect sensors or IP camera.

- RS485 and Ethernet
- USB type C for power
- Support Modbus

Frequency	Certification Status	Expected Testing Date
US : 902~928 MHz JP : 921~927 MHz	USA, Japan	Certification ready

NEW

ASKEY Computer Corp.

WAR0070

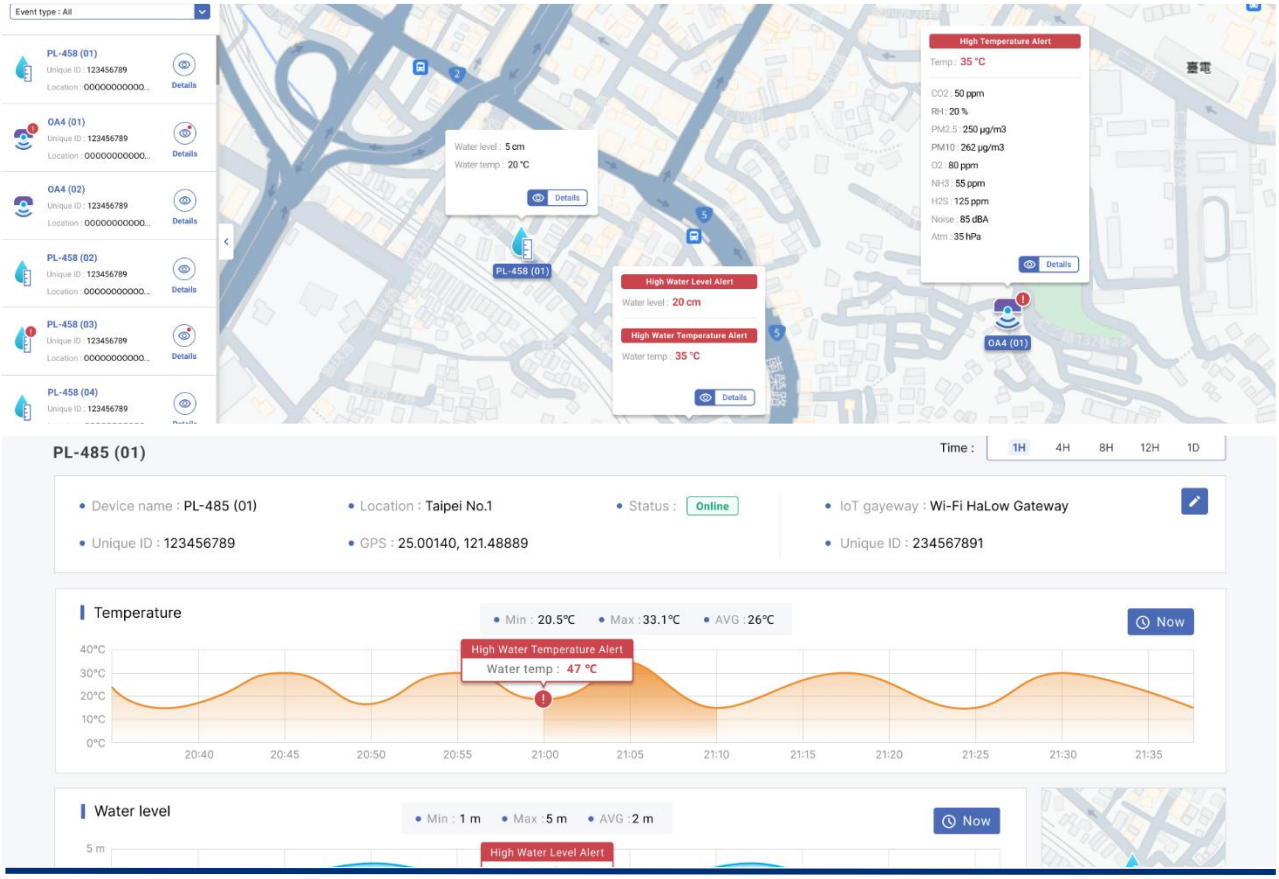
Scenarios

Gateway works with Askey router, camera, cloud system and 3rd party environmental sensor. Designed for smart agriculture and aquaculture, the system deliver real-time environmental monitoring, tracks data trend, and provides instant alerts abnormalities are detected.

Cases

Environmental Monitoring

Gateways connect with sensors to monitor air quality and water level. The system keep monitoring and tracking data trend.



sales@askey.com

www.askey.com

NEW

CENTURY SYSTEMS Co.,Ltd.

Century Systems, established in 1985, is a network equipment manufacturer that provides a variety of products from both software and hardware perspectives. We develop and supply a wide range of products that can be used in various locations, including communication operators, production lines, public infrastructure, and enterprises.

Wi-Fi HaLow IoT Gateway

- Equipped with Wi-Fi HaLow/LTE communication modules.
- Comes standard with a subset of Ubuntu.
- Supports development with scripting languages like Python and Perl.
- Usable as either AP (Access Point) or STA (Station) mode (modifiable via WebUI).
- Power-saving features (with two types of sleep modes).
- Supports variable voltage (can be used with battery power).

Frequency	Certification Status	Expected Testing Date
920 MHz	Japan	2024/05

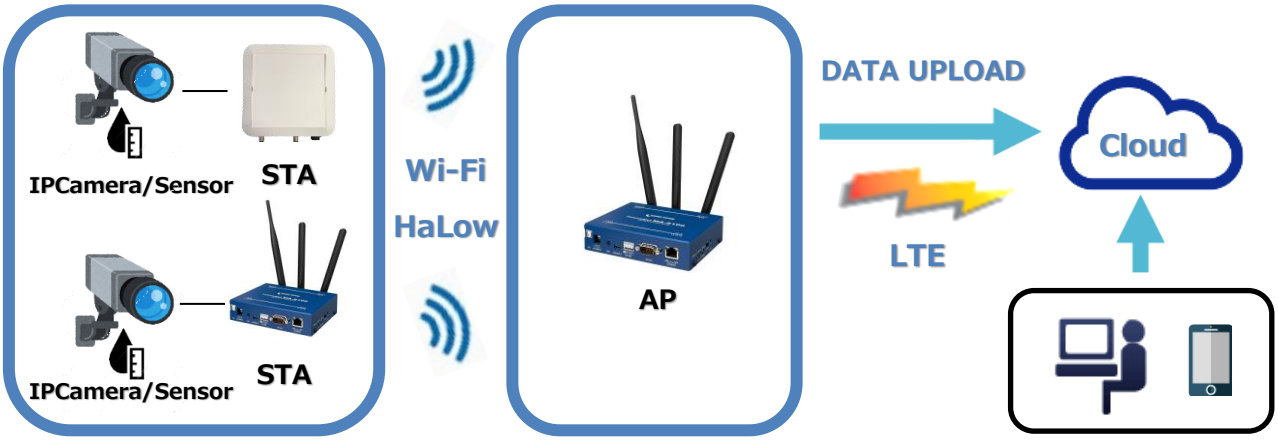
NEW

CENTURY SYSTEMS Co.,Ltd.

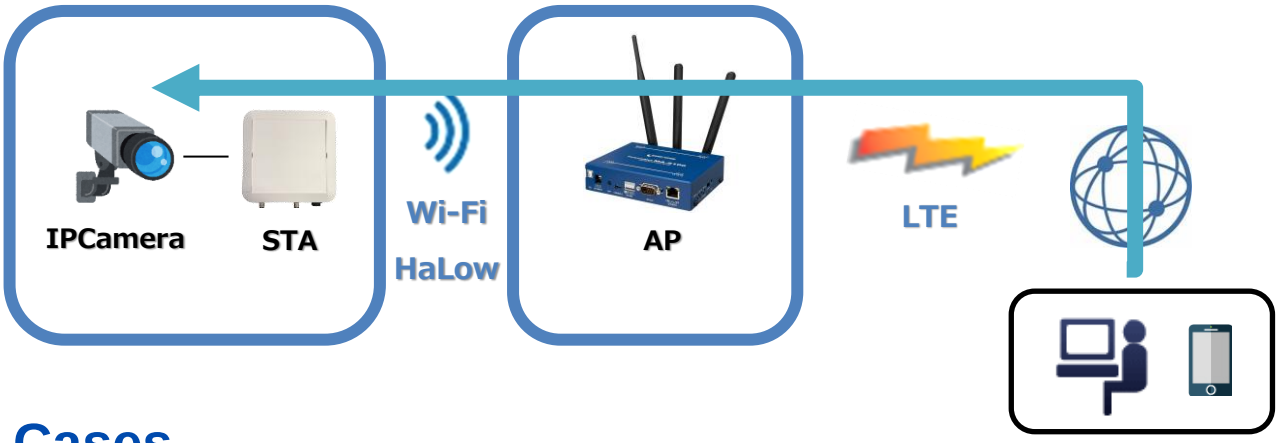
Wi-Fi HaLow IoT Gateway

Scenarios

Utilize as an IoT gateway for transmitting camera and sensor data to the cloud.



Utilize as a HaLow-compatible LTE router for remote access to IP cameras.



Cases

- River monitoring
- construction site monitoring
- camera monitoring etc.

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www.centurysys.co.jp/

NEW

Quanta Storage Inc.

TECHMAN

Quanta Storage Inc., a technology company that provides smart IoT solutions, embedded Morse Micro MM6108 chip solutions in iW3240H industrial Wi-Fi 7 router, which provide the iW3240H not only with long distance Wi-Fi transmission capability, but also provides better wall penetration capability.

iW3240H

iW3240H series are leading edge Wi-Fi 7 dual-band Mesh Gateway/AP/Bridge/Client which provides not only high speed low latency wireless connection up to 6.3 Gbps, but also two 10G Ethernet SFP+ as reliable backbone with MRP rapid fail-over. Besides Wi-Fi 7, iW3240H series are uniquely equipped with IEEE802.11ah Wi-Fi HaLow which works at 900MHz RF band with less interference and long distance transmission up to 3KM.

Frequency	Certification Status	Expected Testing Date
2.4GHz, 5GHz, 900MHz	USA, Taiwan	2025/06

NEW

Quanta Storage Inc.

TECHMAN

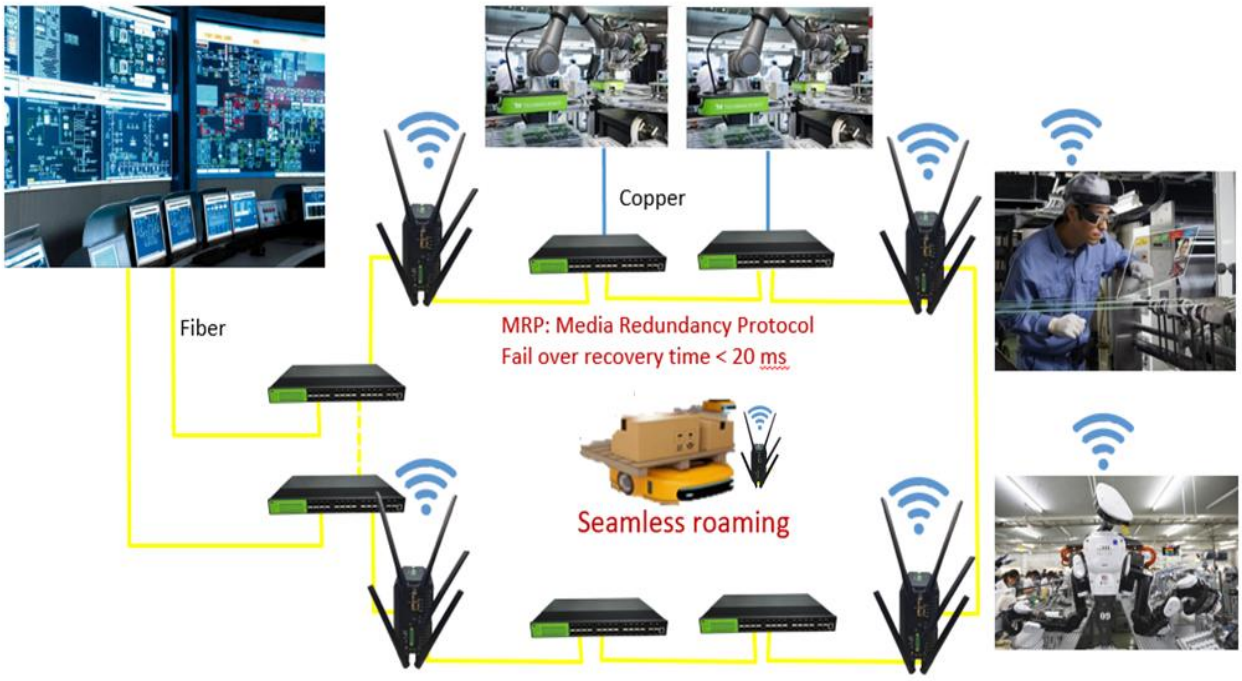
iW3240H

Scenarios

In a real factory environment, there are many obstacles that prevent high-frequency Wi-Fi from penetrating directly. It is necessary to actually measure the line-of-site and add many Wi-Fi routers to complete it. With additional IEEE802.11ah Wi-Fi HaLow to the industrial-spec Wi-Fi 7 router can increase Wi-Fi penetration and transmission distance. In actual factory applications, achieves real high bandwidth, low latency, and full mesh coverage.

Cases

In factories, the application of AR glass requires higher bandwidth, but the application of AGV/AMR and humanoid robots used in factories requires a more stable Wi-Fi connection



Andy.shih@qsitw.com

qsitw.com/page/en/index.html

NEW

TECHWARE Technology Co. Ltd.

TECHWARE Technology Co., Ltd.

TECHWARE, with over two decades of expertise, is a leading system integrator specializing in Industrial Embedded Solutions. We excel in leveraging ARM series processors and LPWAN applications to deliver cutting-edge, user-friendly, and high-performance solutions at an affordable cost. Our dedicated focus lies in empowering users to develop reliable and cost-effective embedded products across various sectors, including industrial automation, healthcare, agriculture, and beyond. From industrial embedded gateways to HMIs, POS systems, kiosks, gaming devices, medical equipment, and intelligent agricultural solutions, we offer comprehensive system-level solutions tailored to meet the evolving needs of our clients.

SBC700Halow

Introducing the TECHWARE SBC700Halow – a compact, high-performance, and cost-effective industrial communication gateway designed to streamline data transmission between sensors/devices and servers/clouds. Featuring an impressive array of communication interfaces including 802.11ah Wifi HaLow, 2.4Ghz Wifi, 10/100BaseT Ethernet, isolated RS485, USB, and LPWAN, it offers unparalleled connectivity options. Powered by Linux OpenWRT, users can effortlessly develop and deploy custom applications, ensuring tailored solutions for swift market entry. Moreover, its firmware upgradeability guarantees ongoing enhancement, making it an ideal choice for industries demanding flexibility and reliability.

Frequency	Certification Status	Expected Testing Date
902 ~ 928MHz	US/JAPAN	2025/07

NEW

TECHWARE Technology Co. Ltd.

TECHWARE Technology Co., Ltd.

SBC700Halow

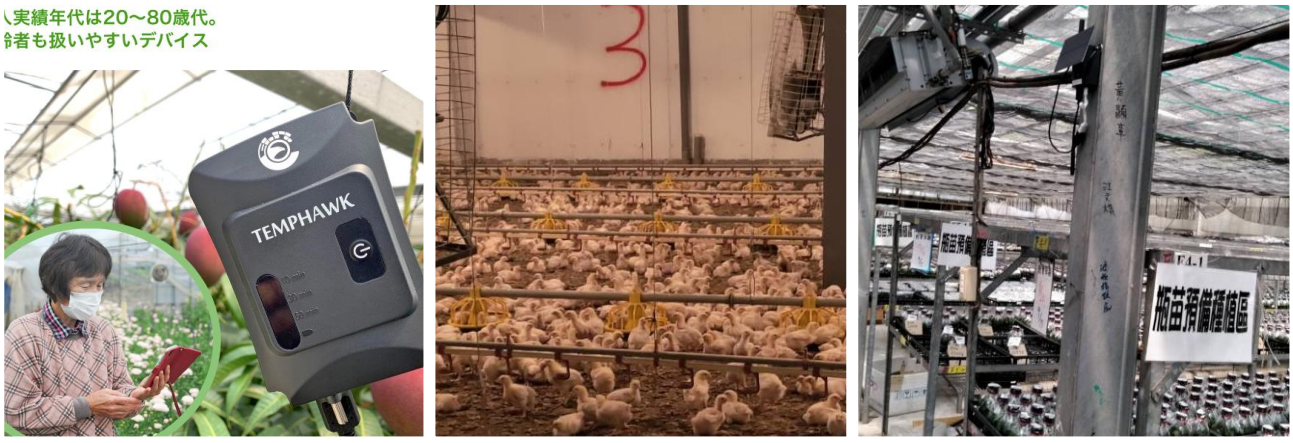
Scenarios

In frozen warehousing, precise temperature monitoring is essential for preserving the quality and safety of stored products like food, medicines, and other temperature-sensitive items. Typical applications include ensuring food safety and quality, maintaining pharmaceutical integrity, creating optimal laboratory conditions, and monitoring temperature during agricultural product transportation.

For these critical needs, TECHWARE offers the SBC700Halow combined with the TEMPHAWK temperature monitor. This solution aligns with the stringent standards of the HACCP food safety control system and utilizes WiFi HaLow communication for reliable data transmission to the cloud. This ensures the accuracy and dependability of temperature monitoring. Additionally, the system includes a temperature alarm system to swiftly address any deviations from the desired temperature range, safeguarding stored goods effectively.

Cases

Smart agriculture
Frozen warehousing
Freeze transportation
Breeding and animal husbandry
Refrigeration air conditioner



Zebra Chen/zebra_chen@techware.com.tw
www.techware.com.tw

NEW

TECHWARE Technology Co. Ltd.

TECHWARE Technology Co., Ltd.

SBC700Halow

Scenarios

Introducing the Wireless Network Distance Extender, a revolutionary network device harnessing the long-distance communication capabilities of WiFi HaLow 802.11ah. By utilizing a pair of SBC700Halow units, this extender effectively extends the reach of wireless network communication from mere meters to kilometers. What sets this solution apart is its seamless integration - requiring no modification to existing device settings, it enables swift and direct implementation. Experience unparalleled connectivity expansion without the hassle, unlocking new possibilities for seamless long-distance communication.

Cases

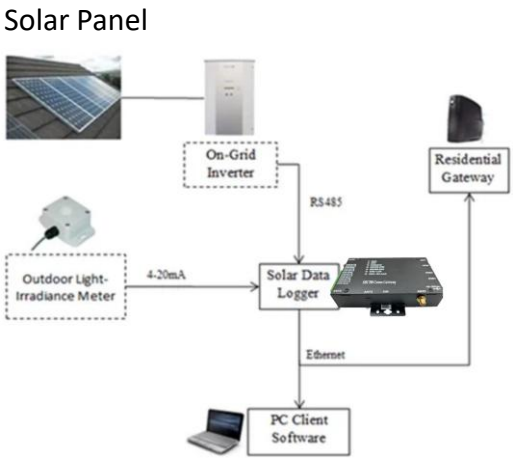
Based on wire or wireless ethernet TCP/IP devices can apply this extender.

Industrial Automation PLC/PAC

Automation Robot

Warehouse sensors

IP Camera



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NEW

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HaloBlue

Introducing HaloBlue: a reliable, widely embraced sensor device with Bluetooth and long-range WiFi HaLow support. Designed as a communication hub, it seamlessly collects data from local sensors and transmits it to internet cloud servers. HaloBlue offers a versatile range of I/O interfaces including I2C, SPI, ADC, PWM, Counter input, and GPIO, alongside RS485, Bluetooth 5.2, and WiFi HaLow wireless communication capabilities.

Powered by the Nordic nRF52840 processor and Newracom 802.11ah WiFi HaLow network device, HaloBlue provides an extensive library of reference codes for rapid application development. With accessible development packages like Arduino and VS Code, creating your connected products is effortless. Plus, HaloBlue's firmware upgradeable feature ensures continuous enhancement of features and stability, ensuring your solutions stay cutting-edge.

Frequency	Certification Status	Expected Testing Date
902 ~ 928MHz	US/JAPAN	2025/09

NEW

TECHWARE Technology Co. Ltd.

TechWare
TECHWARE Technology Co., Ltd.

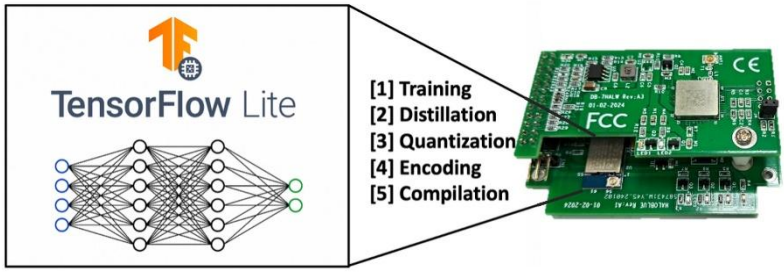
HaloBlue

Scenarios

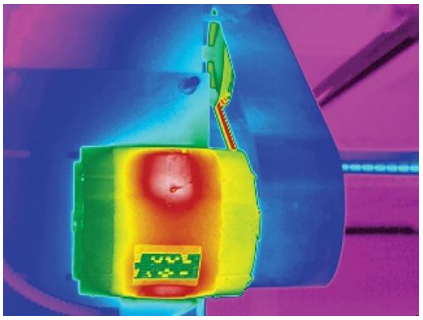
Introducing HaloBlue: your advanced wireless data capture solution, powered by WiFi HaLow and Bluetooth technology. With HaloBlue, configuration is a breeze through mobile devices, and data collection is seamless via Bluetooth connectivity. Featuring versatile sensor interfaces including I2C, SPI, PWM, and RS485, it ensures comprehensive data acquisition capabilities. Plus, leveraging WiFi HaLow for long-distance wireless communication, HaloBlue efficiently transmits data to the cloud, enabling real-time access and analysis. Simplify your data capture process with HaloBlue.

Cases

1. Machine Learning with TinyML support
2. Explosion-proof Light Dimming Controller
3. Thermal Camera
4. Temperature Monitor
5. Weather Monitor Station



TinyML



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EthHaLow

Introducing EthHaLow: EthHaLow is an Ethernet to Wi-Fi HaLow bridge that facilitates communication between devices on an Ethernet network and devices using Wi-Fi HaLow (IEEE 802.11ah), a low-power, long-range Wi-Fi standard designed for the Internet of Things (IoT). This bridge acts as an intermediary, converting Ethernet signals to Wi-Fi HaLow signals and vice versa, allowing devices using different communication protocols to seamlessly interact. The EthHaLow Bridge provides flexible connectivity, linking Serial or Ethernet networks with Wi-Fi HaLow for efficient, low-power, and long-range IoT communication.

1. Ethernet Interface: Equipped with an Ethernet port, EthHaLow connects to wired networks (LAN or internet) via a router or switch, ensuring stable communication with other network devices.

2. Serial Interface: The USB port serves as a serial interface, enabling communication through AT commands, ideal for host systems like MCUs to engage with Wi-Fi HaLow devices. Note that the Ethernet and Serial interfaces operate exclusively (either one can be active).

3. Wi-Fi HaLow Interface: Supporting Wi-Fi HaLow (IEEE 802.11ah), EthHaLow operates in the sub-1 GHz range, providing superior range and low power usage—perfect for IoT, smart homes, and industrial environments.

Frequency	Certification Status	Expected Testing Date
902 ~ 928MHz	US/JAPAN	2025/07

NEW

Uconnect International Co., Ltd.

Uconnect was founded on 2004. We're major in wireless to serial and RTLS cloud solutions. ex. WiFi, Ethernet, HaLow, Bluetooth SPP, BLE, LoRa, UHF, Zigbee, Thread and etc.. The products sold worldwide. We supply OEM or ODM service.

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HaLow to Serial

1. Support dual band WiFi: 2.4 GHz & HaLow (750 ~ 950 MHz)
2. 3. Configurable Bandwidth: 1/2/4 MHz
3. Webpage configuration
4. TCP Server/Client, UDP Server/Client, Http Client, Https Client, Cloud
5. High gain antenna: 2.4 GHz (5 dBi), 915 MHz (2 dBi), 865 MHz (1.65 dBi)
6. Serial Port: RS-232 or RS-422/485

Frequency	Certification Status	Expected Testing Date
750 ~ 950 MHz (Depend on each country	CE, FCC, TETEL, RoHS	Complete

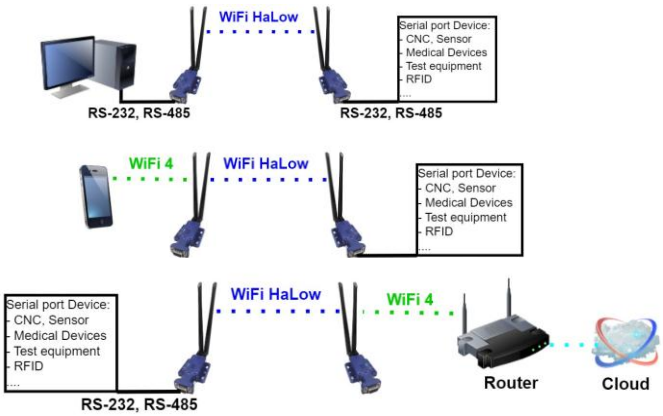
NEW

Uconnect International Co., Ltd.

HaLow to Serial

Scenarios

1. Extend the WiFi range
2. Bridge the WiFi HaLow to smartphone
3. Bridge the WiFi HaLow to Internet or cloud
4. Support any devices, sensors or tools with RS-232 or RS-422.485 interfaces



Cases

1. DNC transmission in CNC factory
2. Industrial automation, remote big data collection and control
3. Building automation: Access control, elevator control, parking
4. Environment monitoring via long range gateway
5. Hospital equipment remote monitoring & control
6. Remote sensor monitoring system
7. RTLS system, Real time location system

sales@uconnect.com.tw
www.uconnect.com.tw

NEW

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.

WiFi HaLow to Ethernet Bridge

1. WiFi HaLow: 750 ~ 950 MHz (Depend on each country)
2. AT & STA mode
3. Connect the Router via Ethernet
4. Webpage configuration
5. Co-works with WiFi HaLow to RS-232 or RS-422/485 converter
6. High gain antenna: 915 MHz (2 dBi), 865 MHz (1.65 dBi)

Frequency	Certification Status	Expected Testing Date
750 ~ 950 MHz (Depend on each country	CE, FCC, TETEL, RoHS	Complete

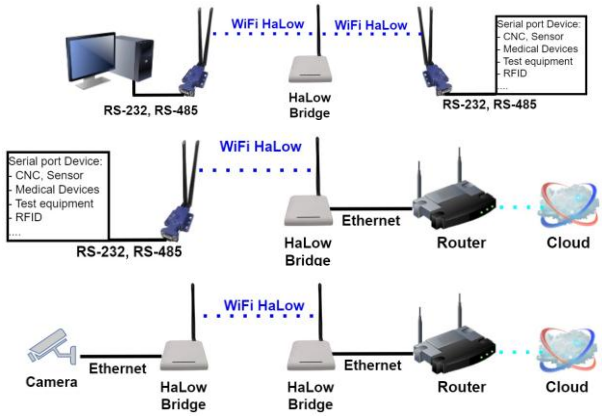
NEW

Uconnect International Co., Ltd.

WiFi HaLow to Ethernet Bridge

Scenarios

1. Support AP or STA modes
2. Extend the WIFi range
3. Bridge the WiFi HaLow devices to cloud
4. Extend the WiFi IP CAM range and bridge the to cloud



Cases

1. Connect with WiFi HaLow to RS-232 or RS-422/485 converter to extend the rage or bridge to Internet.
2. Connect with Senor via WiFi HaLow devices to Internet or Cloud
3. Connect with Ethernet IP CAM via 2 WiFi HaLow bridge to extend the range or bridge to Internet.

ALL COMPANIES

AcSip
ALFA
AsiaRF
ASKEY
AzureWave

Century System
CONTEC

D-Link

Edgecore

FURUNO Systems

MegaChip
Morse Micro

Newracom
NISSEI

Quanta Storage
Quctel

Silex

TECHWARE

UConnet

Vantron
Vizmonet