FULL-DUPLEX COMMUNICATION THAT WORKS OVER A WIRELESS LAN AND IP NETWORK

- Easy system to set up and use
- Up to 100 users can communicate at the same time
- Encryption provides extra security
- Range is only resistricted by your IP network coverage
- No licence fee required, no call charges
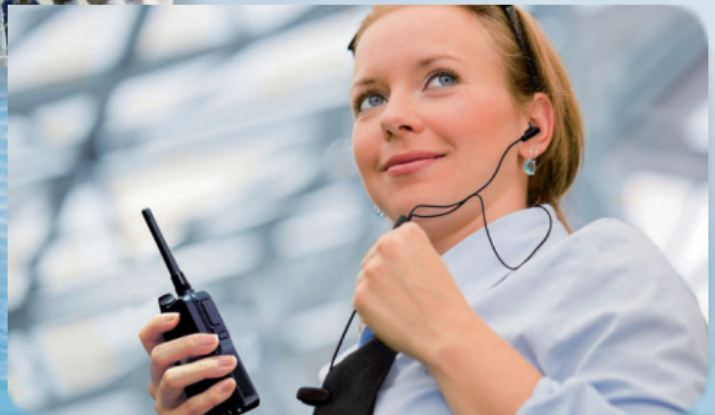
ICOM

8/26 12:05
IP110H

IP110H

COTEL

Real-time Voice Communication Tool

Tunnel Construction and Mining
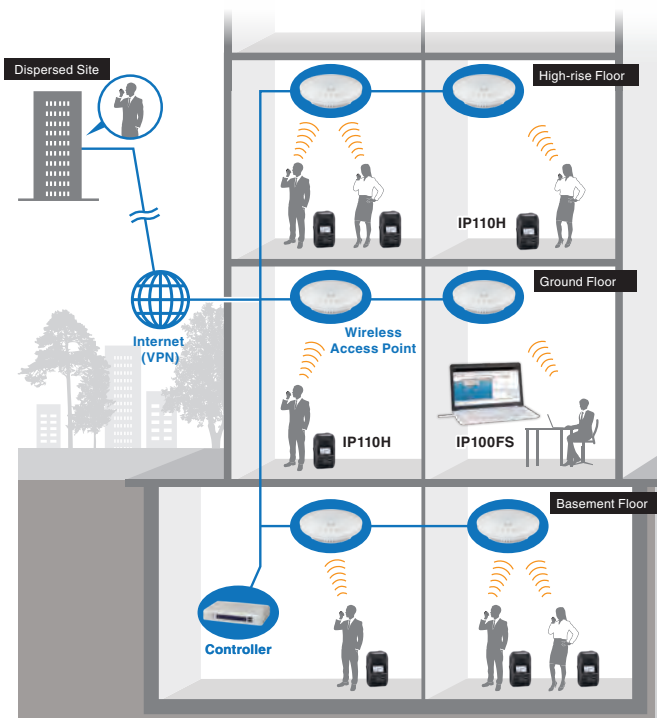
IP110H

AP-95M

SM-26

IP110H

IP100FS

The communication area can be flexibly expanded as the work progresses. In addition, the safety of the user can be confirmed by the Man down and Motion sensor functions.

Factories and Warehouses

AP-95M

IP110H + HM-186PI

IP110H

IP110H

The WLAN radio can cover all working sites, offices and remote bases through an IP network (VPN). Wherever you are in the network, you can share the information you need.

WLAN Radio System Features

Dispersed Site

High-rise Floor

IP110H

Ground Floor

Internet (VPN)

Wireless Access Point

IP110H

IP100FS

Basement Floor

Controller

Scalable System Using Wireless LAN Network

Deploying wireless access points over an IP network, the WLAN radio system can expand the communication range.

License-Free Communication

The WLAN radio uses common wireless LAN network frequencies, which do not need communication fees for running the system.

Communication with Dispersed Sites

When connected over an Internet VPN, the WLAN radios can communicate between dispersed sites.

Simultaneous TalkListen Function

Talk Listen Simultaneous

The WLAN radio provides full duplex communication like a telephone conversation and one-to-many communication.

TalkListen works with or without external headset.

Instantly Connects You with Your Team

Shopping Centers and Malls

IP110H
+ HM-179PI

IP110H
+ VS-3

IP100FS

SM-26

IP110H

By deploying access points along the IP network, the WLAN radio can communicate all the way from the basement to the top floor. Real-time simultaneous Talk and Listen is possible.

Hotel and Restaurant Management

IP110H
+ VS-3

IP110H
+ VS-3

IP110H
+ VS-3

You can use the WLAN radio as a handy communication tool between staff members. With optional Bluetooth® headset, VS-3, the WLAN radio can be used wirelessly and inconspicuously.

Product Lineups

Compact, Lightweight Wireless LAN Radio with Simultaneous TalkListen Function

COTEL

8/26 12:05
IP110H

IP110H

WLAN Transceiver

- ▌ All, Group, Talkgroup, Individual and Telephone Calls
- ▌ 1000 mW loud audio from internal speaker
- ▌ Optional Bluetooth® headset, VS-3
- ▌ IP67 / IP54 waterproof and dust-tight
- ▌ Battery can be charged through the USB Type-C™ cable
- ▌ More than 20 hours of operating time
  (Tx 1: Rx 1: Stand-by 8 duty ratio)
- ▌ WPA2, WPA-Enterprise security

<Other features>
- Audio is recorded for instant review
- Vibration alert function
- Motion/Stationary detection,
  man down and lone worker functions
- Over-the-Air programming

**Remote Communicator**
(Supplied with a USB flash drive)

- Windows™ PC based communication app
- Obtains location info of each radio based on the access point being used
- Management functions such as remote lock function

Individual, Group or Area Communication

Staff spread across an extended site, such as a hotel, can communicate seamlessly.

Hands-free, Full-duplex Communication
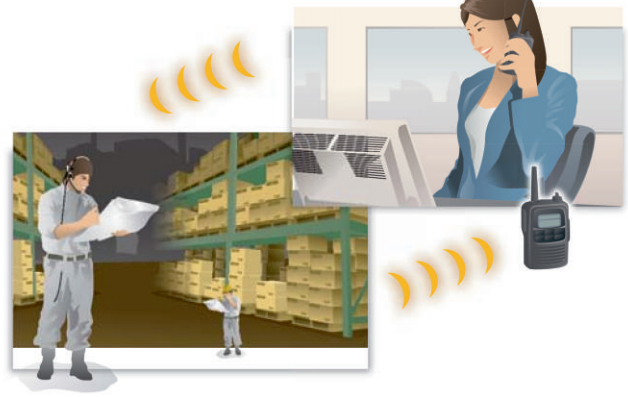
With an optional earphone-mic or headset HS-102 or HS-85, the IP100H user can talk and receive simultaneously like a phone call. Hands-free operation allows your staff to carry out other tasks at the same time.

Intra-building Communication
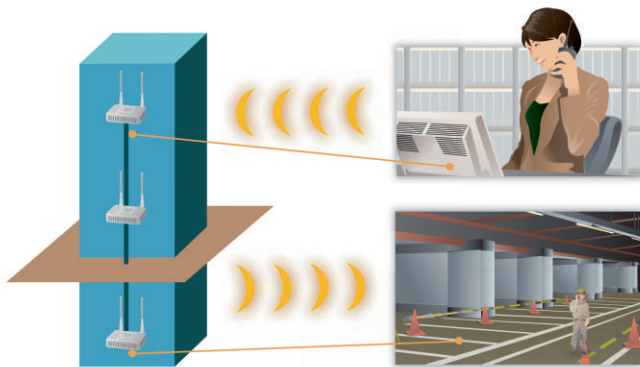
By deploying access points along the IP network, the IP advanced radio system can communicate all the way from the basement to the top floor. The IP110H can access the nearest access point and can roam between access points*. *Same SSIDs are required for roaming use.

Dispersed Sites Communication

If connected over an Internet VPN, the IP110H/IP100FS can communicate between dispersed sites such as offices or shops in different cities.

Application examples

| Hotels | Warehouse / Manufacturing | Hospitals | Security |

Restaurant / Drive Thru   Supermarkets / Retail Shops

IP Communication Terminal
IP110H

- IP54 waterproof (1m depth water for 30 minutes) for outdoor work or places prone to get wet.
- Compact 58×95×26.4 mm body and 205g (approximate) lightweight.
- Vibration alert function for incoming calls.

Wireless LAN Access Point
AP-95M

- IEEE 802.11 a/b/g/n/ac compliant
- PoE (Power over Ethernet) capability
- Optional RS-AP3, Access point management software

Remote Communicator
IP100FS

(Supplied with USB flash drive for use as a USB hardware key)

- The IP100FS can communicate with IP communication terminals from a PC.
- The IP100FS can obtain location information of each IP110H based on the access point being used.
- Can be installed on a Windows® based tablet PC as well as a laptop PC.

Controller
IP1000C

- The IP1000C controls all terminal configurations and voice traffic.
- Capable of controlling up to 100 or 20* terminals (including IP100FSs).
- Links up to 11 IP1000Cs over an IP network (Internet VPN) and increases the number of usable IP110H/IP100FS communication terminals to 1100 units.
  * Depending on the IP1000C version.

Full-duplex Communication

With an optional earphone-mic or headset HS-102, the IP110H can talk and receive at the same time. All users in the system can communicate simultaneously.

Status and Short Data Messaging

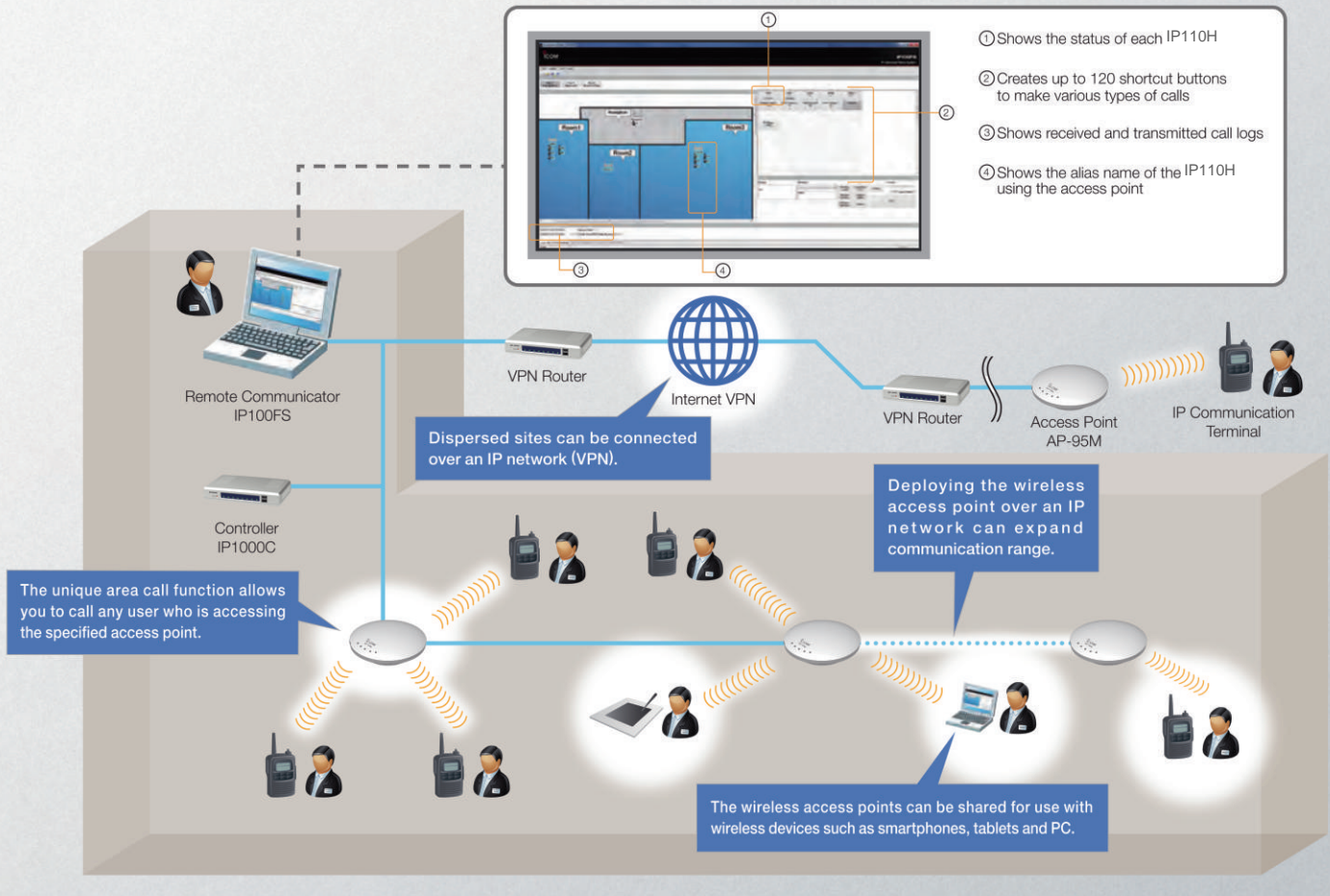The IP110H/IP100FS can send status and short data messages* to other users.

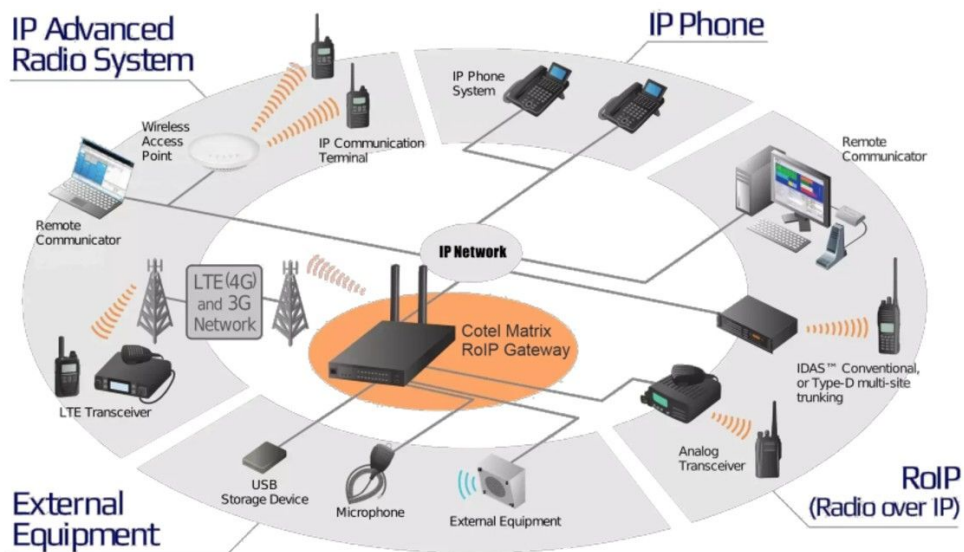* The IP100H can send only preprogrammed messages.

High Security

The wireless LAN security protocols (WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)) encrypt your private conversations.

Easy System to Set Up and Use

The IP1000C programs almost all terminal configurations over the air. Individual PC programming via cable connection is not required. (Except initial setup)

① Shows the status of each IP110H

② Creates up to 120 shortcut buttons to make various types of calls

③ Shows received and transmitted call logs

④ Shows the alias name of the IP110H using the access point

Remote Communicator IP100FS

VPN Router

Internet VPN

VPN Router

Access Point AP-95M

IP Communication Terminal

Dispersed sites can be connected over an IP network (VPN).

Controller IP1000C

Deploying the wireless access point over an IP network can expand communication range.

The unique area call function allows you to call any user who is accessing the specified access point.

The wireless access points can be shared for use with wireless devices such as smartphones, tablets and PC.

IP GATEWAY CONNECTIVITY

IP Advanced Radio System

Wireless Access Point

IP Communication Terminal

IP Phone

IP Phone System

Remote Communicator

Remote Communicator

IP Network

LTE (4G) and 3G Network

Cotel Matrix RoIP Gateway

IDAS™ Conventional, or Type-D multi-site trunking

LTE Transceiver

Analog Transceiver

External Equipment

USB Storage Device

Microphone

External Equipment

RoIP (Radio over IP)

High-Performance Access Point with IEEE 802.11ac (Wave 2) Standard

The Access Point complies with IEEE802.11ac (Wave 2) standard. It is a high-performance access point compatible with reliable, high-speed communications, making it ideal for Cotel's new IP ADVANCED RADIO SYSTEM . The Access Point enables 5GHz and 2.4GHz dual band simultaneous communication and a maximum of 16 group setting using the Virtual AP (VLAN) function. In addition, several access points can be connected together to expand the communication range.

WIRELESS ACCESS POINT

IEEE802.11b/g/n

IEEE802.11a/n/ac

Supplied accessory: AC adapter*, Mounting bracket set

*May not be supplied, depending on the version.

FEATURES

IEEE 802.11ac (Wave 2) Standard, High-Speed Communication

The AP-95M complies with the IEEE802.11ac (Wave 2) standard providing high-speed and stable data communication at a maximum of 867 Mbps (theoretical value).

Beam Forming Function, MU-MIMO Function

The Beam Forming function can send a signal to a specific direction, and the MU-MIMO function[1] prevents mutual interference. These functions can improve the communication quality.

[1] 2×2 MIMO

Virtual AP Function

Up to eight wireless LAN terminal groups can be configured, which can have different VLAN IDs in each 5 GHz and 2.4 GHz band[2].Each virtual AP can have different security settings.

[2] Different SSIDs must be set in the same unit.

Automatic Settings Enables Easy Management

The Automatic Power Level Adjustment function and Connecting Terminal Limit function can remove interference, and they can prevent reduction in communication speed caused by access concentration. The AP-95M can automatically set the channel according to the surrounding signal conditions.

Easy PC Configuration

By using your PC's web browser, you can update to new firmware, and configure the access point. The AP-95M is compatible with SNMP and the RS-AP3 access point management tool so that you can easily manage your terminals.

[Other Features]

- Protection function
- Authentication function (IEEE802.1X/WPA/WPA2)
- PoE function
- Stealth function (Hide SSID function)
- Gigabit Ethernet (1000BASE-T)
- Router function
- Web Authentication function
- Network Monitoring function
- Packet Filter function
- Security Slot[3] and more   [3] Attach a security wire (user supplied).

[Options]

- **RS-AP3** ACCESS POINT MANAGEMENT TOOL
  Configure and monitor individual/all access points in a network, for centralized management.

SPECIFICATIONS

[General]

Power supply	PoE（IEEE 802.3af standard: Max. 9 W）
	12 V ±10% DC, More than 2 A[1]
Usable conditions	−10°C to ＋55°C; +14°F to +131°F (Below 0°C; 32°F: Usable when the power is ON)
	Humidity 5 to 95% (At no condensation)
Dimensions (W) × (D) × (H)	Approximately 162 × 162 × 42 mm; 6.4 × 6.4 × 1.7 in （Projections not included）
Weight	Approximately 520 g; 1.1 lb (Accessories not included)

[1] With an AC adapter. An AC adapter may not be supplied, depending on the version.

[Wireless LAN]

Security standards	WEP（64/128/152 bit）, WPA, WPA2, WPA-PSK, WPA2-PSK,
	IEEE 802.1X/EAP
Number of channels[2]	20 MHz bandwidth	2.4 GHz: 13 channels, 5 GHz: 9 channels
	40 MHz bandwidth	2.4 GHz : 9 channels, 5 GHz: 4 channels
	80 MHz bandwidth	5 GHz: 2 channels

[2] Usable channels depend on the country.

[Interface]

Cable LAN	10BASE-T/100BASE-TX/1000BASE-T compatible
	RJ-45 type connector (MDI/MDI-X automatic distinction) × 1
Wireless LAN	IEEE 802.11 ac/n/a/g/b standard
Data rates	Cable LAN : 10/100/1000 Mbps
	Wireless LAN : 11/54/400[3]/867 Mbps

[3] When connecting with a terminal compatible with 256-QAM.

ABOUT INSTALLATION

This product radiates or receives radio wave from its top surface, so we recommend mounting on a wall or ceiling. You can mount on the wall or ceiling using the supplied bracket.

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