ICOM

IP100H

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 restricted by your IP network coverage**
- **No licence fee required, no call charges**

[*] Requires either HM-153LS, HM-166LS or HS-102 with OPC-2359 for full-duplex operation.

Wireless LAN System Extends Your Communication Coverage.
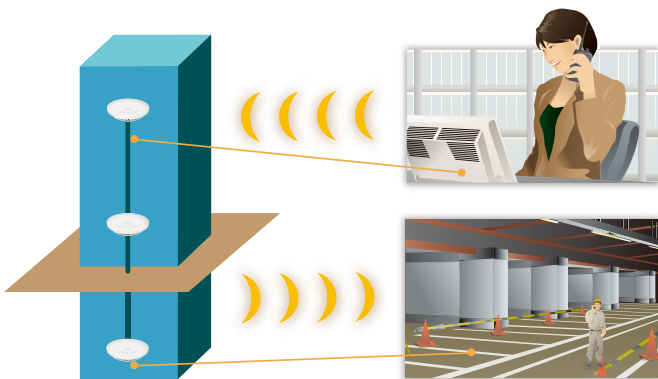
Individual, Group or Area Communication

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, 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 IP100H 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 IP100H/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
IP100H

- IPX7 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.
- Emergency call with higher priority.
- Tested to the MIL-STD 810 G specifications.

* The IP100H can be used with an internal antenna. (Communication range will decrease to half from/to access points.)

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 IP100H 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 terminals (including IP100FSs).
- Links up to 11 IP1000Cs over an IP network (Internet VPN) and increases the number of usable IP100H/IP100FS communication terminals to 1100 units.

Full-duplex Communication

With an optional earphone-mic or headset HS-102, the IP100H can talk and receive at the same time. All users in the system can communicate simultaneously.
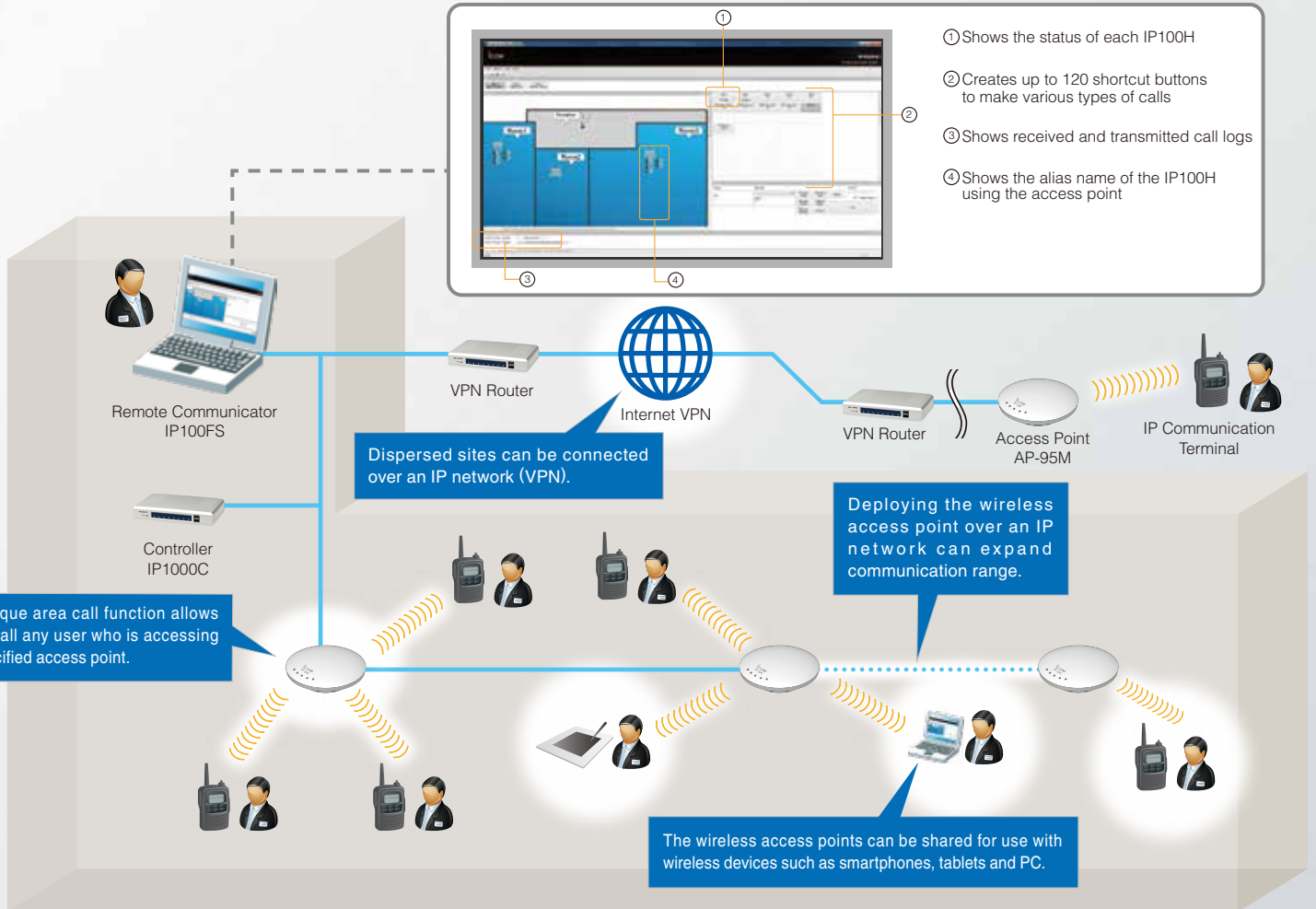
Status and Short Data Messaging

The IP100H/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 IP100H

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 IP100H 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.

RoIP GATEWAY

IP Phone and Transceiver Interconnection

With a VE-PG4 RoIP gateway, the IP advanced radio system can interconnect with an IP phone, LTE, IDAS™ Conventional, Type-D multi-site trunking and analogue transceivers.
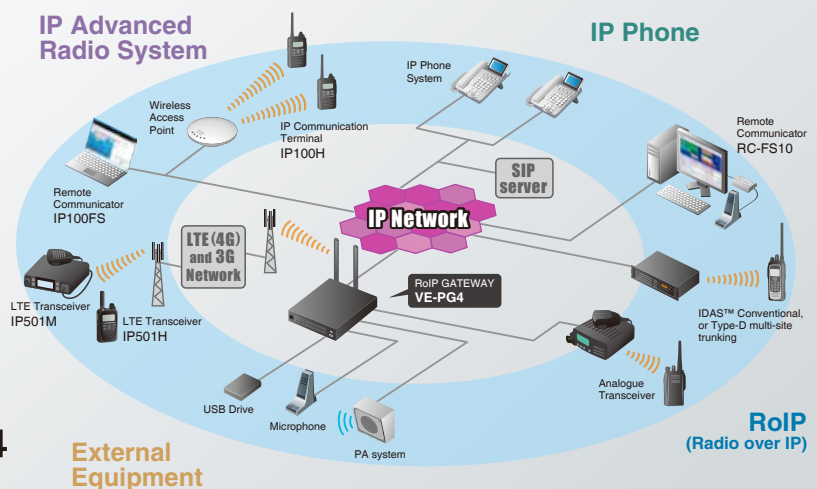 The VE-PG4 has a built-in controller function (equivalent to the IP1000C function), capable of controlling up to 50 IP communication terminals.

RoIP Gateway
VE−PG4

Interconnection image The IP communication terminals, radios and telephones can communicate with each other within the doughnut shaped blue ring.

IP Advanced Radio System

IP Phone

Wireless Access Point

IP Communication Terminal IP100H

IP Phone System

Remote Communicator RC-FS10

Remote Communicator IP100FS

SIP server

IP Network

LTE (4G) and 3G Network

RoIP GATEWAY VE-PG4

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

LTE Transceiver IP501M

LTE Transceiver IP501H

Analogue Transceiver

USB Drive

Microphone

PA system

External Equipment

RoIP
(Radio over IP)

SPECIFICATIONS

IP100H

Wireless standards	IEEE 802.11 a/b/g/n
Frequency range[*1]	2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz
Dimensions (W × H × D)[*2]	58 × 95 × 26.4 mm; 2.3 × 3.7 × 1.0 in (with BP-271)
Weight (approx.)	205 g; 7.2 oz (with BP-271 and antenna)
Operating time[*3]	More than 20 hours (with BP-271)
RF output power	Less than 10 mW/MHz
Voice Codec	G.711 µ-law (64 kbps)
AF output power (10% distortion)	Internal SP 400 mW (typ., 16 Ω load), External SP 200 mW (typ., 8 Ω load)
Security	WEP (64/128-bit), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)
Operating temperature	−10 °C to +60 °C; +14 °F to +140 °F

[*1] Authorized frequency range and channels may differ depending on the country.
[*2] Projections are not included. [*3] Tx: Rx: Stand-by=1 : 1 : 8 duty cycle

Supplied accessories
- BP-271 Li-ion battery pack
- Hand strap
- MB-127 belt clip
- Antenna
- Antenna cap

IP100FS (System requirements)

Operating system	Windows® 10 (32-bit/64-bit), Windows® 8.1 (32-bit/64-bit) (Except for Windows® RT)
CPU	Intel® Core™ 2 Duo Processor E6600/ 2.4 GHz or better
Memory	2 GB or higher
Hard disk space	1 GB of disk space (for saving log files)
Audio	DirectSound compatible audio (Frequency response up to 20 kHz, sampling rate 48 kHz)
Display resolution	1920×1080 pixel recommended 1024×768 pixel minimum
Other	USB 2.0 port, 10 Mbps or faster Ethernet interface, speaker, microphone or headset

IP1000C

Power supply	100–240 V AC (With supplied AC adapter)
Operating temperature	0 °C to +40 °C; +32 °F to +104 °F
Dimensions (W × H × D)[*4]	232 × 38 × 168 mm; 9.1 × 1.5 × 6.6 in
Weight (approx.)	750 g; 1.65 lb (Main unit only)
LAN	RJ-45 connector × 4 1000BASE-T/100BASE-TX/10BASE-T (Auto MDI/MDI-X)
USB	Standard A receptacles × 2
Maintenance console	RS-232C (RJ-11) connector

[*4] Projections are not included.

Supplied accessories
- BC-207S AC adapter
- Cushion sheets
- Ferrite core

AP-95M

Power supply	12 V DC ±10% or PoE (IEEE802.3af compatible)
Dimensions (W × H × D)[*5]	162 × 162 × 42 mm; 6.4 × 6.4 × 1.7 in
Weight (approx.)	520 g; 1.1 lb (Accessories not included)
Cable LAN	RJ-45 connector × 1 1000BASE-T/100BASE-TX/10BASE-T (MDI/MDI-X automatic distinction)
Wireless LAN	IEEE 802.11 a/b/g/n/ac
Frequency range[*6]	2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz
Security	WEP (64/128/152-bit), WPA, WPA2, WPA-PSK, WPA2-PSK, IEEE 802.1X/EAP
Operating temperature	-10 °C to +55 °C; +14 °F to +131 °F

[*5] Projections are not included.
[*6] Authorized frequency range and channels may differ depending on the country.

Supplied accessories   • AC adapter*   • Mounting bracket

* Depending on the version.

All stated specifications are subject to change without notice or obligation.

OPTIONAL ACCESSORIES

▶ For IP100H

BP-271 Rechargeable Li-ion 1150/1200 mAh (min./typ.)

BP-272 Rechargeable Li-ion 1880/2000 mAh (min./typ.)

BP-273 LR6 (AA) batteries × 3

Multi-connectable rapid charger

Connectable up to 6 units

BC-202IP3L

BC-123S* AC adapter for single unit

BC-228 AC Adapter is required for multiple connections.

* The straight plug type is required.

Earphone-microphones (Full-duplex operation)

HM-153LS   **HM-166LS**
Use HM-153LS or HM-166LS for full-duplex operation also.

Speaker-microphones (Simplex operation)

HM-183LS IPX7 Waterproof   **HM-186LS**

Multi-charger

BC-211*   **BC-157S**
* AC adapter may be supplied as standard, depending on the version.

Headset (Full-duplex operation)

HS-102 Earphone type. OPC-2359 is required.

OPC-2359 PTT switch cable

Headsets (Simplex operation)
- **HS-94:** Earhook type
- **HS-95:** Behind-the-head type
- **HS-97:** Throat type
  Either OPC-2006LS or OPC-2328 is required when using any of these headsets.

- **BC-202IP2:** Single rapid charger
  AC adapter may be supplied as standard, depending on the version.
- **MB-127:** Belt clip. Same as supplied.
- **OPC-2006LS:** Plug adapter cable
- **OPC-2328:** PTT switch cable
  Either OPC-2006LS or OPC-2328 is required when using any of HS-94, HS-95 or HS-97.
- **OPC-478UC + OPC-2144:** Setup cables
  Both cables are required for initial setup.

▶ For IP100FS

PTT microphone adapter

CT-23

AC adapter

BC-147S For use with CT-23

Desktop microphone

SM-26

Hand microphone

HM-152

▶ For IP1000C

Serial cable

OPC-1402

▶ For AP-95M

Access point management software

Security Dashboard

RS-AP3
Configure and monitor individual/all access points in a network for centralized management.

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