ICOM

IP ADVANCED RADIO SYSTEM

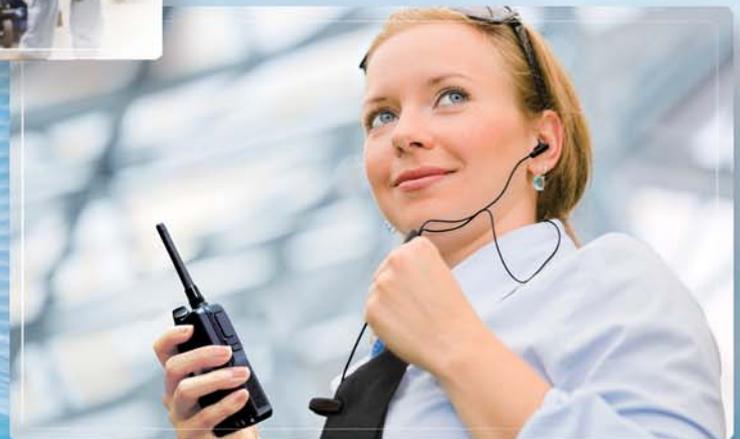| IP Communication Terminal	Remote Communicator	Controller
IP100H	**IP100FS**	**IP1000C**

Full-Duplex Communication That Works Over a Wireless LAN and IP Networks*

- **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 headset for full-duplex operation.

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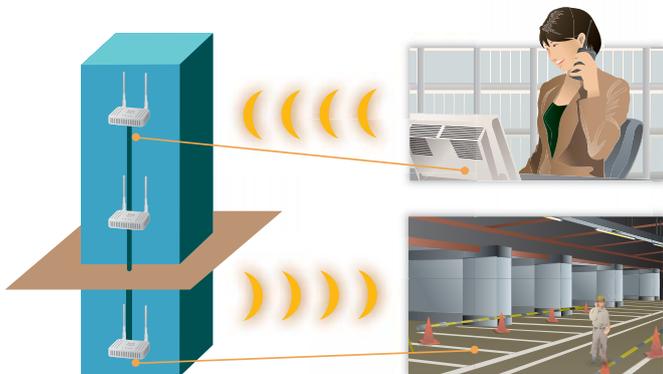
Individual, Group or Area Communication

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

Hands-free, Full-duplex Communication

With an optional headset, 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.

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

Wireless LAN Access Point
AP–90M

* IEEE 802.11 a/b/g/n/ac compliant
* PoE (Power over Ethernet) capability

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 using access points.
* Can be installed to a Windows® based tablet PC as well as laptop PC.

Controller
IP1000C

* The IP1000C controls all terminal configurations and voice traffic.
* Capable of controlling up to 100 or 20* terminals (including IP100FS).
  * Depending on version.

Full-duplex Communication

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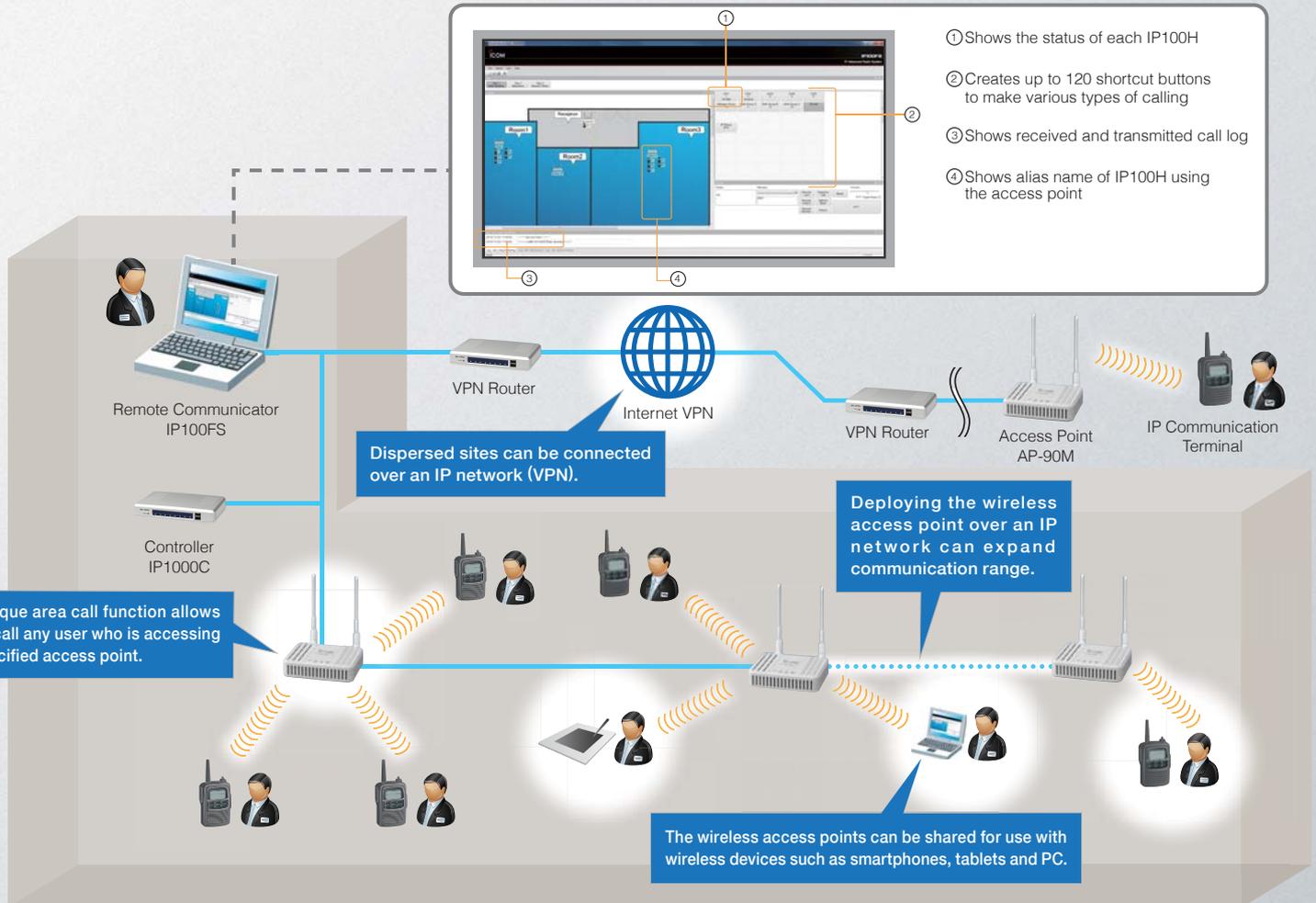
Status and Short Data Messaging

The IP100H/IP100FS can send status and short data messages* to other users.

* Pre-programmed message only for IP100H.

High Security

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

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 calling

③ Shows received and transmitted call log

④ Shows alias name of IP100H using the access point

Remote Communicator IP100FS

VPN Router

Internet VPN

VPN Router

Access Point AP-90M

IP Communication Terminal

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

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

Controller IP1000C

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 the VE-PG3 RoIP gateway, the IP advanced radio system can interconnect with an IP phone, analogue transceiver and IDAS™ NXDN™ digital transceiver.

When used with an IP phone system, the IP100H can be used as a phone handset for making internal or external calls.*

* For interconnection with other equipment, verification tests are required before the installation. The IP100H can call a preprogrammed phone number only. (Cannot push phone number to make a call.)
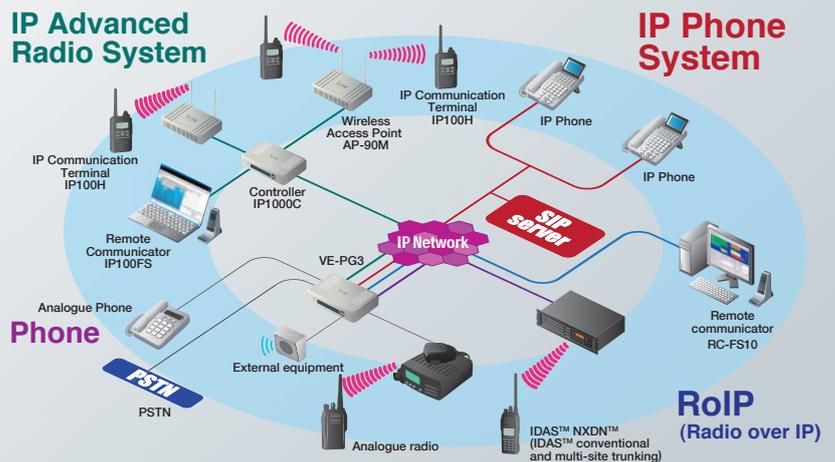
RoIP Gateway
VE‑PG3

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 Communication Terminal IP100H

Wireless Access Point AP-90M

IP Communication Terminal IP100H

Controller IP1000C

Remote Communicator IP100FS

Analogue Phone

Phone

VE-PG3

External equipment

PSTN

PSTN

Analogue radio

IDAS™ NXDN™
(IDAS™ conventional and multi-site trunking)

IP Phone System

IP Phone

IP Phone

SIP server

IP Network

Remote communicator RC-FS10

RoIP
(Radio over IP)

IP ADVANCED RADIO SYSTEM

SPECIFICATIONS

IP100H

Wireless standards	IEEE 802.11 a/b/g/n
Dimensions (W×H×D)[*1]	58×95×26.4mm (with BP-271)
Weight (approx.)	205g (with BP-271 and antenna)
Operating time[*2]	More than 20 hours (with BP-271)
RF output power	Less than 10mW/MHz
Voice Codec	G.711 µ-law (64kbps)
AF output power (10% distortion)	Internal SP 400mW (typ., 16Ω), External SP 200mW (typ., 8Ω)
Security	WEP (64/128-bit), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)
Operating temperature	−10°C to +60°C

[*1] Projections are not included. [*2] Tx: Rx: Stand-by=1:1:8 duty cycle

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

IP100FS (System requirements)
- Antenna cap

Operating system	Windows® 8/Windows® 8.1 (32-bit/64-bit) Windows® 7 (32-bit/64-bit) SP1 or later, Windows Vista® (32-bit/64-bit) SP2 or later, Windows®XP(32-bit)SP3/(64-bit)SP2 or later (Except for Windows® RT)
CPU	Intel® Core™ 2 Duo Processor E6600/ 2.4GHz or better
Memory	2GB or higher
Hard disk space	1GB of disk space (for saving log files)
Audio	DirectSound compatible audio (Frequency response up to 20kHz, sampling rate 48kHz)
Display resolution	1920×1080 pixel recommended 1024×768 pixel minimum
Other	USB 2.0 port, 10Mbps or faster Ethernet interface, speaker, microphone or headset

IP1000C

Power supply	100–240V AC (With supplied AC adapter)
Operating temperature	0°C to +40°C
Dimensions (W×H×D)[*3]	232×168×38mm
Weight (approx.)	750g (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

[*3] Projections are not included.

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

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

OPTIONS

▶ For IP100H

Battery packs and case

BP-271
Li-Ion 7.4V/
1150mAh (min.),
1200mAh (typ.)

BP-272
Li-Ion 7.4V/
1880mAh (min.),
2000mAh (typ.)

BP-273
LR6 (AA)
batteries ×3

Rapid charger

BC-202

BC-123S*
*BC-123SA for 120V AC,
SE for 230V AC.

Multi-charger

BC-157S

BC-211

Speaker-microphones

HM-186LS

HM-153LS

HM-166LS

Headsets

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.

Plug adapter cables

OPC-2006LS

OPC-2328
PTT switch cable

Belt clip

MB-127

Slim L-type plug adapter cable

OPC-2144
Required when using either
HS-85, HM-153, HM-166 or SP-13.

Setup cables

OPC-478UC

OPC-2144

Both cables are required for initial setup.

▶ For IP100FS

CT-23
PTT microphone adapter

SM-26
Desktop microphone

HM-152
Hand microphone

▶ For IP1000C

OPC-1402
Serial cable