



ICOM IP ADVANCED RADIO SYSTEM

License-Free Full-Duplex Voice Communication
Over Wireless LAN and IP Networks



IP100H HANDSET

If your mine or industrial operation has an existing Wi-Fi-enabled network, Matrix has an easy, low-cost way to add individual, group or area voice communications through VoIP or RoIP handsets.

Icom's WLAN-based radio system offers scalable, license-free communication that uses simple, standardized wireless network products.

LICENSE-FREE SYSTEM

No radio licenses are necessary for the system as it uses standard WLAN networking products as infrastructure.

SCALABLE SYSTEM

Communications are distributed across WLAN access points on an IP network, which makes it easy to expand the system.

SECURE ENCRYPTED COMMUNICATION

The wireless security protocols WPA-PSK and WPA-PSK2 encrypt the calls.

SIMULTANEOUS USE

Many users in the system can transmit simultaneously. When a headset is connected to the IP100H, users can talk concurrently in full duplex – similar to talking on a regular telephone.

LOCALIZATION OF USERS

IP100FS software can connect to the network and be used as a fixed radio. It can call a user, send a message and easily see the access point to which each user is connected.

RELIABLE SOUND QUALITY

Sound quality is higher than in a traditional radio communication system and is comparable to regular telephone communication.

- Easy to set up and use
- Handles up to 100 users
- Encryption for added security
- No license fee or call charges

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THE BASIC SYSTEM



NETWORK SYSTEM LINK

The IP1000C wireless Network System Link keeps track of the radios in your network. It can also communicate with third-party manufacturers' WLAN access points, allowing for great system flexibility.

The Network System Link is easy to set up with existing networks or new wireless networks.

- Manages up to 100 IP Radios
- Up to 11 System Links can be interconnected to increase the total number of IP Radios on a network
- Can be used in all standard wireless networks
- Easy to install
- Manages individual, group and all-area calls
- OPC-1402 - Serial cable (optional)

Converter Mode

- Interconnect between IP phone, analog phone and radio networks
- Phone calls can be initiated by radio users

Bridge Mode

- Site-to-site radio communication over an IP network
- Site-to-multisite radio communication
- Cross band, cross category (VHF/UHF land mobile, marine VHF and air band) connection

Common Features

- Interconnect between IDAS™ NXDN™, IDAS™ and IP Advanced Radio System
- Optional RC-FS10 software for virtual PC dispatch station
- Public address, siren, warning light and external equipment connection

ICOM IP ADVANCED RADIO SYSTEM



IP RADIO PHONE

The IP100H is a powerful device and one of the smallest professional radios available.

- Compact size (3.7" T without external antenna), and lightweight (7.2 oz)
- Up to 27 hours with standard BP-271
- Supports full duplex with headset connected
- Reliable sound quality
- High security with AES encrypted communication
- Vibration function for incoming calls
- Waterproof in accordance with IPX7
- Can be used without external antenna (shown above) in wireless networks with good coverage

If you have an existing Wi-Fi system, this is all you need to add VoIP or RoIP.

IDEAL FOR OPERATIONS WITH AN EXISTING WI-FI SYSTEM

- Metal/Non-metal Mines
- Coal Mines (Outby)
- Warehouses
- Industrial Operations
- Shopping Malls/Department Stores
- Security/Guard Communications
- Hospitals/Care Centers
- Hotels/Museums



ACCESS POINT

The AP-90M is Icom's compact, proprietary WLAN access point. It handles the use of both 5 and 2.4 GHz spectrum bands with built-in high-level encryption.

The Access Point is equipped with various features, such as load balancing, packet filters and support for PoE function.

The entire functionality of the system can be monitored with the use of RS-AP3 software.

- IEEE802.11a/b/g/n/ac compatibility
- Handles 5 and 2.4 GHz bands simultaneously
- IEEE802.11af PoE compatible
- External antenna



PC DISPATCHER (OPTIONAL)

The IP100FS is an IP-based, centralized PC-dispatcher that serves as an additional radio in your network.

It handles all types of calls, such as individual and group calls or text messages.

Messages can be sent as free text or predefined. The program also has a map feature that allows you to see which radio stations are connected to a respective access point.

- Functions like a traditional radio in the system
- Uses the computer's built-in sound system
- Map function
- CT-23 PTT microphone adaptor (optional)
- SM-26 desktop microphone (optional)
- HM-152 hand microphone (optional)

LICENSE-FREE VoIP OR RoIP FOR WIRELESS NETWORKS (WLAN)

- Simple handling and easy installation
- Convenient small devices with reliable sound quality can be used in the system
- User groups can share a common channel and communication can be in simplex or full duplex, depending on programming
- Cost-effective
- Built-in security

NO WI-FI IN YOUR MINE OR INDUSTRIAL OPERATION?

Matrix has several system options to help you add Wi-Fi to your operation plus the expertise to advise you on the best overall solution based on your communications objectives.

- New modular networking system that is easy to expand as your needs grow
- Extending Wi-Fi reach on an existing network
- Adding Wi-Fi communications as a secondary system to fill in "dark spots"





ACCESSORIES / OPTIONS

HEADSETS



HS-94 Earhook
OPC-2006LS /
OPC-2328 Required



HS-95 Behind-the-Ear
OPC-2006LS /
OPC-2328 Required



HS-97 Throat
OPC-2006LS /
OPC-2328 Required

NOTE: When a headset is connected to the IP100H, users can talk concurrently in full duplex – similar to talking on a regular phone.



Comes with:

- BP-271 Li-Ion battery
- MP-127 belt clip
- Wrist strap
- Short stub antenna
- Antenna Cover (used for internal antenna)
- Battery charger not included

BATTERIES



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



BP-273
LR6 (AA)
Batteries x 3

SERIAL CABLE



OPC-1402
For use with IP1000C

BATTERY CHARGERS



BC-202
Battery Charger
incl. BC-123S



BC-211
6-port Charger
incl. AD-127
(shown with BC-157S)



TECHNICAL DATA IP1000C

Power supply	100-240V AC (with supplied AC adaptor)
Temperature	0° to +40°
Dimensions (bxhxd)	232x168x38 mm 9 ⁹ / ₆₄ x 6 ³⁹ / ₆₄ x 1 ¹ / ₂ in
Weight	750 g 26.455 oz
LAN	RJ-45 connection x 4 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
USB	Standard A x 2
Service connection	RS-232C (RJ-11) connection

PC DISPATCHER OPTIONS



CT-23
PTT Microphone
Adapter



SM-26
Desktop Microphone



HM-152
Hand Microphone

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