

ICOM

# BUSINESS RADIO SOLUTIONS



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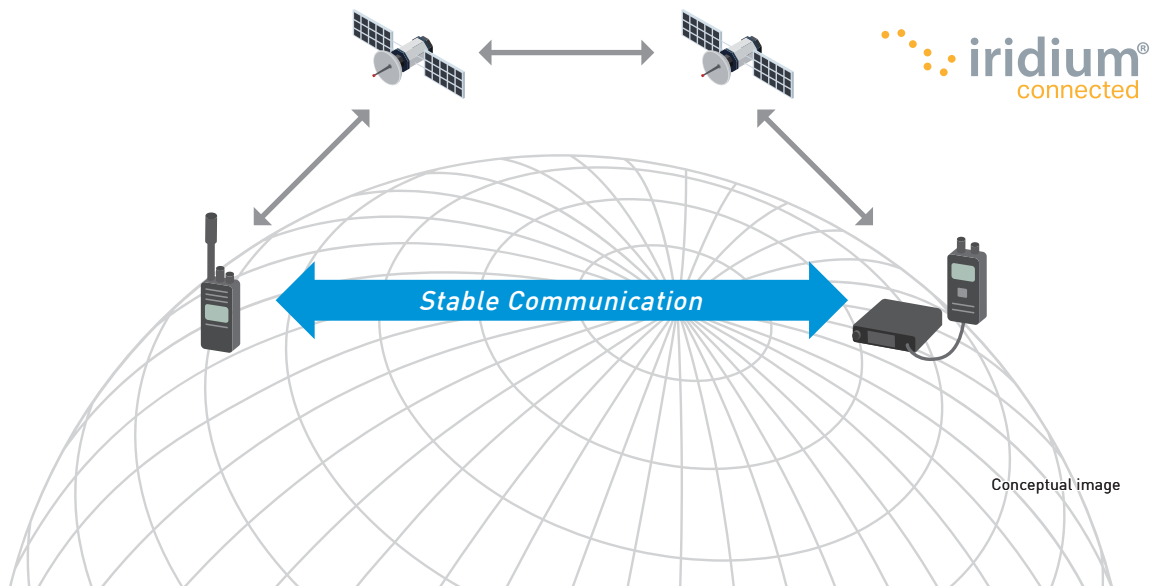
# SATELLITE / IP SOLUTIONS





### Real-Time Communications Across the Globe

*SATELLITE PTT (Push-To-Talk) is a transceiver that uses the Iridium® satellite network. It can be used as a communication device in remote, isolated areas where there are no mobile phones or communications infrastructure. Even if the terrestrial network infrastructure is rendered unusable by human or natural disasters, SATELLITE PTT can provide a stable back-up, independent from other networks.*



Conceptual image



Satellite PTT

## IC-SAT100



### Compact Handheld Satellite PTT Radio

- Emergency key for calling programmed users
- Integrated GPS receiver shows received signal position
- IP67 and MIL-STD-810 rugged construction
- 1500 mW of powerful audio
- 14.5 hours of long operating time<sup>\*1</sup>
- Built-in Bluetooth® capability<sup>\*2</sup>
- AES 256-bit encryption for security



Satellite PTT

## IC-SAT100M

### Satellite PTT Radio for In-Building and In-Vehicle Use

- Emergency key for calling programmed users
- Integrated GPS receiver shows received signal position
- Supplied 1500 mW speaker-microphone
- Built-in Bluetooth® capability<sup>\*2</sup>
- AES 256-bit encryption for security
- Compatible with both 13.2 and 26.4 V DC vehicle power source



Antenna Unit



<sup>\*1</sup> TX : RX : standby = 5 : 5 : 90. <sup>\*2</sup> Version without Bluetooth® capability also available. Ask your dealer for details.

**Please Note:** Subscription contracts are required for using the IC-SAT100/M. Depending on the country or region, carrying and/or use of the IC-SAT100/M may be prohibited. The IC-SAT100M is primarily designed for base station use. Additional environmental protection is expected for use outside the scope.

Functions / Specifications	IC-SAT100	IC-SAT100M
Frequency Range	1616–1626.5 MHz	1616–1626.5 MHz
Talkgroups	15 (Max.)	15 (Max.)
Dimensions (W×H×D: Projections are not included)	57.8 × 135 × 32.8 mm, 2.3 × 5.3 × 1.3 in	Antenna unit (with RF unit): 76.8 × 200 × 76.8 mm, 3 × 7.9 × 3 in Main unit: 125 × 29 × 156.5 mm, 4.9 × 1.1 × 6.2 in
Weight (approximate)	360 g, 12.7 oz	Antenna unit (with RF unit): 600 g, 1.3 lb Main unit with microphone: 1.2 kg, 2.6 lb
IP Rating	IP67	IP67 (Antenna unit (with RF unit)), IP55 (mic), IP54 (main unit)
Operating Time (Hours)	14.5	
Display	●	●
Keypad	Limited	Limited
AF Output Power (Internal SP)	1500 mW typical	1500 mW typical
Encryption	AES	●
Vibration Alert	●	●
Voice Recorder	●	●
Bluetooth® Capability	●	●
GPS Receiver	●	●
Short Data Message	●	●
Emergency Call	●	●
PoE Capability		●
I/O Control Port	USB, 14-PIN ACC	D-SUB, LAN, Ignition sense

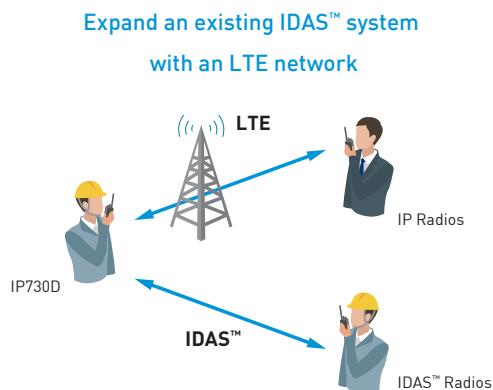


### *Innovative IP Radios with Licensed Professional Radio Mode*

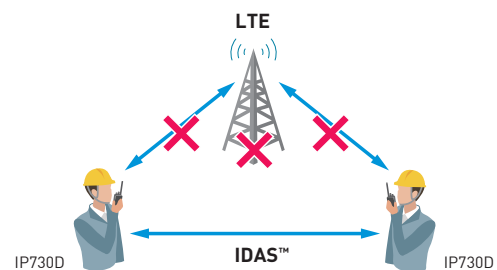
*The IP730D and IP740D are dual mode “Hybrid” radios that provide nationwide coverage over LTE networks and conventional VHF/UHF professional radio mode (IDAS™ digital/analog mode.) It receives both communication modes and transmits either or both modes.*

#### **Dual Mode Operation with Main and Sub PTT Buttons**

The IP730D series has a Sub PTT button, in addition to the Main PTT button. It provides smooth dual mode operation with independent PTT buttons for each LTE mode and IDAS™ mode.



Communication redundancy, when network  
congestion occurs or network  
service is temporarily unavailable

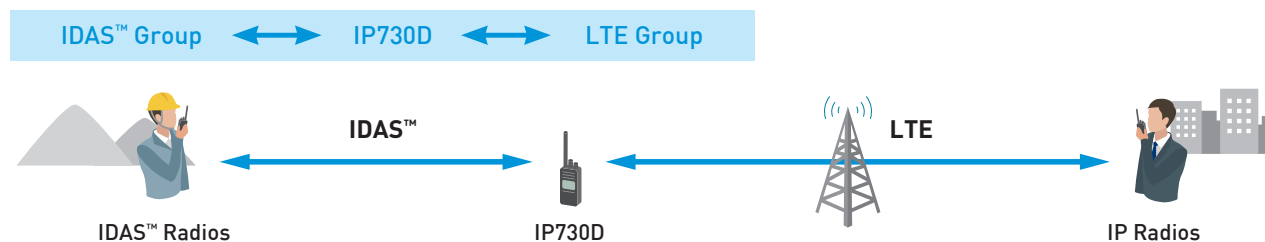




## The Bridge Function\*

The Bridge function\* is an innovative feature that allows handheld radio users to achieve an audio bridge between the LTE mode and IDAS™ mode easily.

\* When using the Bridge function, operating time will be shorter and output power of the radio is reduced to 1 W. The Bridge function may be prohibited in some countries. Please check the legal requirements in your country before using this function.



\* Network coverage provided by a custom SIM card. Service availability depends on the country.



### Hybrid IP Transceivers

## IP730D/IP740D

### Hybrid Handheld IP Radio for Local & Nationwide Communications

- Simultaneous TalkListen™ in LTE Mode
- Dual Mode receiving both communications from LTE and IDAS™ (or Analog)
- 1300 mW of powerful audio<sup>\*1</sup>
- IP67 waterproof and dust-tight
- 24 hours of long lasting battery life<sup>\*2</sup>
- Emergency Call, Lone Worker and Man Down functions
- Built-in Bluetooth® capability
- GPS Data Transmission capability



Functions / Specifications		IP730D/IP740D
Network (USA Version)	4G LTE	B2, B4, B12
Frequency range (Depending on the version)		IP730D: 136~174 MHz IP740D: 350~470 MHz, 400~520 MHz
Dimensions (W × H × D: Projections are not included)		61.7 × 140.5 × 42.8 mm, 2.4 × 5.5 × 1.7 in
Weight (approximate)		320 g, 11.3 oz
IP Rating		IP67
Operating Time (Hours)		24 (LTE mode) 13 (IDAS mode)
Display		●
Keypad		Limited
AF Output Power (Internal SP)		1300 mW typ. (5% distortion)
Simultaneous TalkListen™		●
Man Down		●
Lone Worker		●
Vibration Alert		●
Voice Recorder		●
Bluetooth® Capability		●
GPS Receiver		●
Short Data Message		● (LTE mode)
Emergency Call		●
Provisioning/FOTA (Firmware Over-the-Air)		●

\*1 At 5% audio distortion

\*2 LTE Mode, TX : RX : standby = 5 : 5 : 90. The battery life may be shorter, depending on the distance with the cellular station or the signal strength.



### *Area Coverage Over an 4G LTE Network\**

#### **Simultaneous TalkListen™**

The Simultaneous TalkListen™ provides full-duplex one-to-many communication, which allows users to talk and receive at the same time.

This results in a smooth, telephone-like conversations.

#### **Exceptional Stability and Availability**

The system server is placed within a secured closed network, and shielded from potential attacks. Its operation relies on a custom SIM that is isolated from the Internet, making it more reliable than regular PoC systems that use the Internet.

#### **Multiple-user Communication**

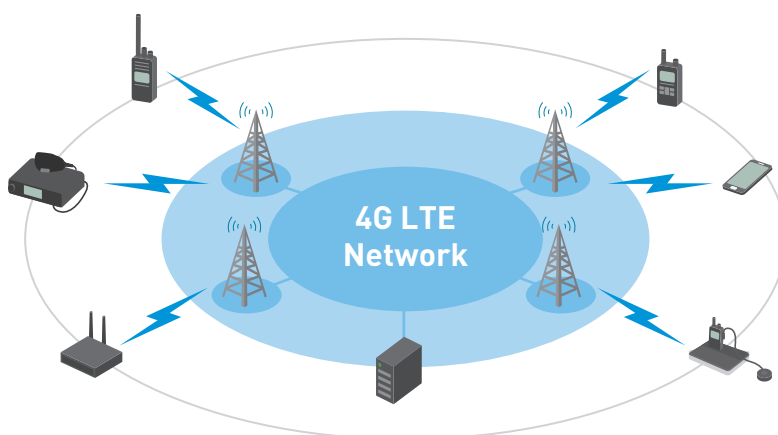
Multiple users in the call groups can initiate calls instantaneously.

This removes the need to wait for available channels to communicate.

#### **Priority Interrupt Calling**

Our IP radios support group calls with three or more people. In case of an emergency, you can break into an on-going call to transmit an important message.

\*Network coverage provided by a custom SIM card. Service availability depends on the country.

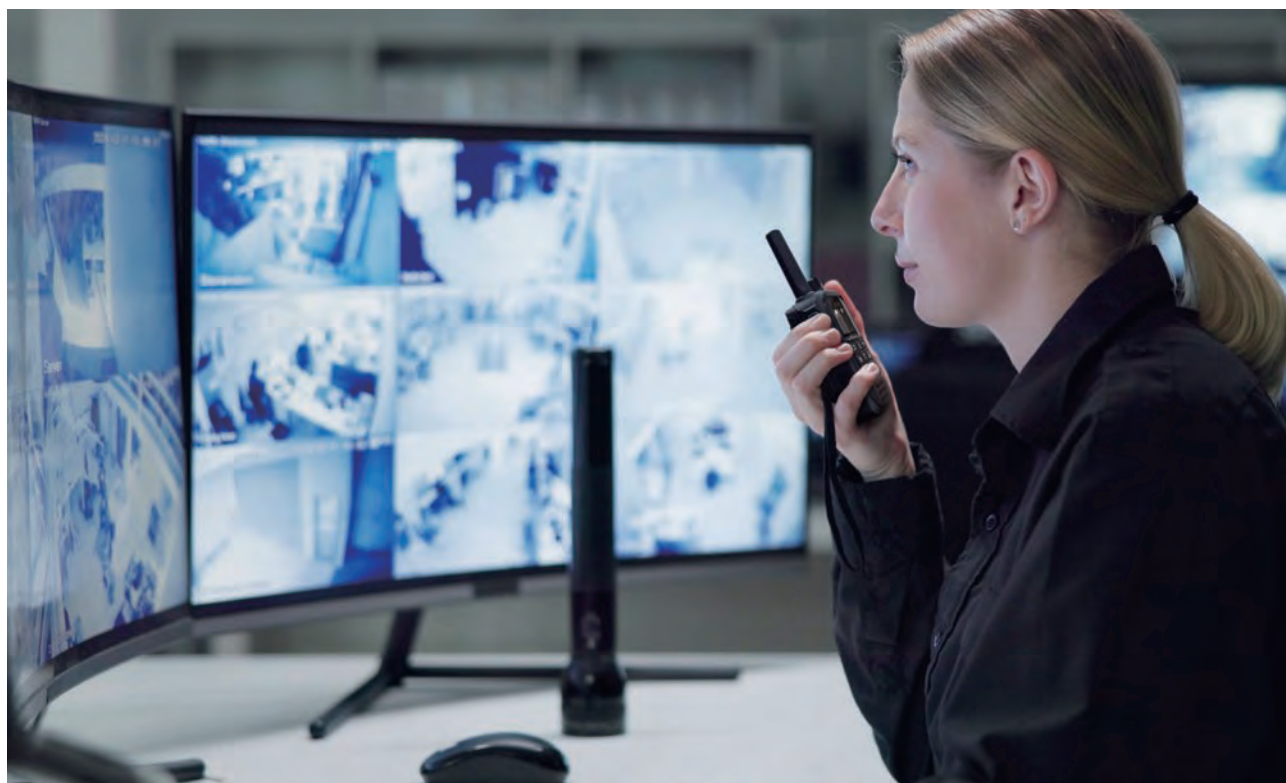
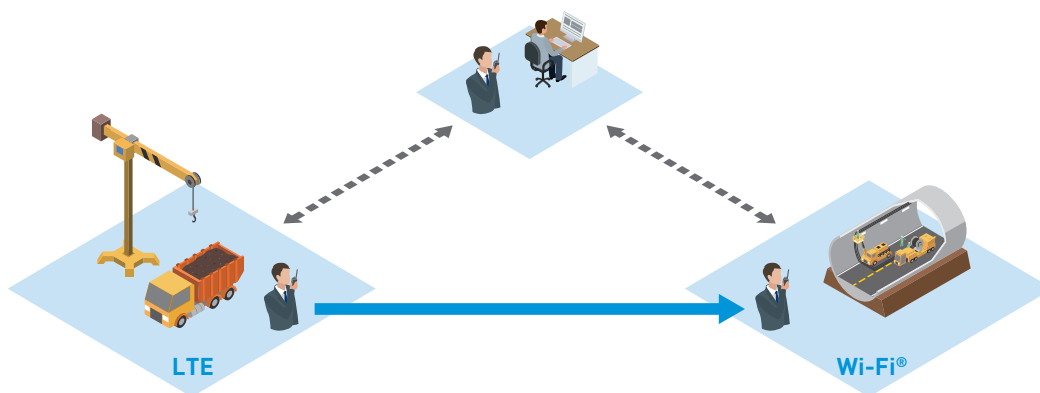




## Dual Mode IP Transceiver That Communicates via Both 4G LTE and Wi-Fi®

The IP510H is a dual mode IP transceiver that communicates via both 4G LTE and Wi-Fi®. When outside LTE coverage, it automatically switches to a Wi-Fi connection without any user intervention, allowing seamless communication even in areas where one network isn't available.

The IP510H also supports full-duplex communication, meaning users can simultaneously talk and listen and interrupt a conversation if needed, just like a phone call. It's ideal for industries like transportation, infrastructure, and security, where stable communication is critical, as well as for traditional IP transceiver applications. Furthermore, with Bluetooth® capability for cable-free operation, it enhances work efficiency. The IP510H is also more compact and lightweight than our previous IP transceivers.



IP Transceiver

## IP510H



*Dual mode IP transceiver,  
4G LTE and Wi-Fi®*

- Wi-Fi standards IEEE802.11 a/b/g/n/ac
- Supports WPA3 Enterprise/ Personal Wi-Fi security
- Automatic switching between LTE and Wi-Fi®
- Support for registering IP510H to the controller server through Wi-Fi access
- USB Type-C™ charging, battery can be replaced without turning OFF the power

Coming soon



**Talk Listen**  
Simultaneous

IP Transceivers

**IP504H** (USA)  
**IP503H** (EXPORT)  
**IP501H** (USA)



*Compact and Durable IP Handheld*

- 900 mW loud high quality vocoder audio (IP504H/IP503H)
- IP67 dust-tight and waterproof
- Emergency Call, Lone Worker and Man Down functions
- Voice Record/Playback functions
- Vibration Alert function notifies of incoming calls
- Built-in Bluetooth® capability and GPS
- Simultaneous TalkListen™

**Talk Listen**  
Simultaneous



IP504H



IP503H



IP501H

IP Transceiver

## IP501M

*Mobile IP Radio Interoperable with Handheld IP Radio*

- Built-in Bluetooth® capability and GPS
- Preprogrammed message transmission and reception
- An Ethernet port for data communication  
(The optional VE-PG4 is required.)
- Emergency call and Lone Worker functions
- Noise Cancelling function (TX only)
- IP54 dust-protection and water resistance
- D-SUB 25-PIN connector with the optional OPC-2407 cable for interfacing other devices and various controls
- Simultaneous TalkListen™



**Talk Listen**  
Simultaneous





Functions / Specifications		IP510H	IP504H/IP503H/IP501H	IP501M
Network (EUR/EXP Versions)	4G LTE	B2, B4, B5, B12, B13, B14, B25, B26, B66, B71	B2, B4, B5, B12, B13, B14, B25, B26, B66, B71 (IP504H) B1, B3, B7, B8, B20 (IP503H) B2, B4, B5, B17 (IP501H)	B2, B4, B12
	3G		B1, B8 (IP503H), B2, B5 (IP501H)	B2, B5
Wi-Fi Standards		IEEE802.11 a/b/g/n/ac		
Dimensions (W × H × D: Projections are not included)		56 × 92.3 × 31.2 mm, 2.2 × 3.6 × 1.2 in	59 × 95 × 32 mm, 2.3 × 3.7 × 1.3 in	125 × 29 × 156 mm, 4.9 × 1.4 × 6.1 in
Weight (approximate)		220 g, 7.7 oz	240 g, 8.5 oz	840 g, 1.85 lb
IP Rating		IP67	IP67	IP54
Operating Time (Hours)		18 (LTE mode), 36 (Wi-Fi mode)	14 (IP504H), 17 (IP503H, IP501H)	
Display		●	●	●
Keypad		Limited	Limited	Limited
AF Output Power (Internal SP)		1000 mW	900 mW (IP504H, IP503H), 400 mW (IP501H)	4 W (External SP)
Simultaneous TalkListen™		●	●	●
Man Down		●	●	
Lone Worker		●	●	●
Vibration Alert		●	●	
Voice Recorder		●	●	●
Bluetooth® Capability		●	●	●
GPS Receiver		●	●	●
Short Data Message		●	●	●
Emergency Call		●	●	●
Provisioning/FOTA (Firmware Over-the-Air)		●	●	●

## Speakerphone Unit

**VE-SP1***Conference Call Speaker*

- Portable operation with eight LR6 (AA) cells
- Built-in loudspeaker and high sensitivity external microphone
- Charges the radio when using the AC adapter
- The VE-SP1 is compatible with IP501H, IP503H, and IP504H.



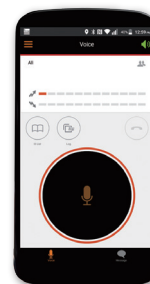
## IP Transceiver APP

**IP500APP***Android™/iOS™ Application to Communicate with IP Radios\**

- Full-Duplex communication
- Short text message
- Voice Recording/Playback function
- Address book
- TX/RX history

\* Android®: 8.0 or later  
iOS®: 12 or later

Operation is not guaranteed on all Android or iOS devices.  
It may not work depending on the OS version or installed applications.





## *Simultaneous TalkListen™ That Works Over Wi-Fi®*

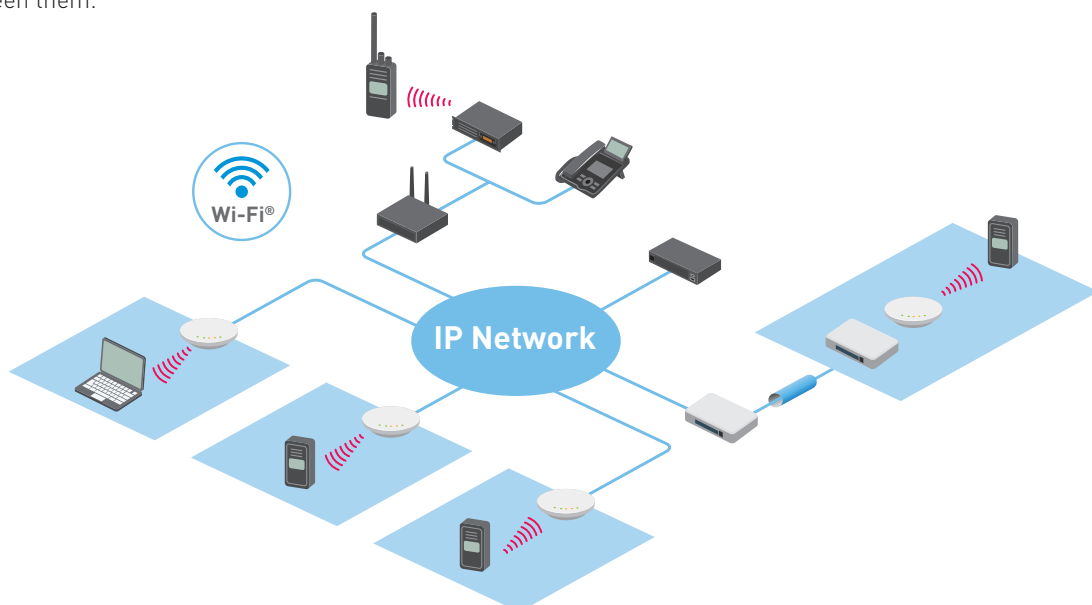
### **Communication System Using Wi-Fi®**

By deploying access points across an existing IP network, the Wi-Fi radio system allows you to communicate from anywhere within coverage range. The IP110H can access the nearest access point, and roam between them.

### **Individual, Group, All or Area Communication**

Staff spread across multiple rooms can communicate simultaneously. The IP110H can send and receive short data messages with a vibration alert from another unit\*.

\* Send preprogrammed message from the IP110H. Free texting from a IP100FS.





## Wi-Fi Transceiver

**IP110H***Compact Wi-Fi Radio*

- License-free communication terminal
- WPA2, WPA-Enterprise security
- Built-in Bluetooth® capability
- IP67 and MIL-STD-810
- Compact body and lightweight
- 1000 mW audio output
- Motion/Stationary Detection, Man Down and Lone Worker functions

**Talk Listen™**  
Simultaneous



## IP Transceiver Application

**IP100FS***Remote Communicator*

- Communicate with IP110H from a PC.
- Obtain location information of each IP110H
- Can be installed on a Windows™ tablet PC as well as laptop PC
- Management functions such as remote lock function.



Functions / Specifications	IP110H
Network (USA Version)	Wi-Fi: IEEE 802.11 a/b/g/n/ac 2412~2462 MHz, 5180~5320, 5500~5580, 5660~5700, 5745~5825 MHz
Dimensions (W × H × D: Projections are not included)	57 × 96.9 × 25.1 mm, 2.2 × 3.8 × 1.0 in
Weight (approximate)	146 g, 5.2 oz
IP Rating	IP67 / IP54
Operating Time (Hours)	20
Display	•
Keypad	Limited
AF Output Power (Internal SP)	1000 mW
Simultaneous TalkListen™	•
Man Down	•
Lone Worker	•
Vibration Alert	•
Voice Recorder	•
Bluetooth® Capability	•
GPS Receiver	•
Short Data Message	•
Emergency Call	•
Provisioning/FOTA (Firmware Over-the-Air)	•



# Bridging Communication Gaps, This Radio over Gateway Device Links Diverse Voice Communication Systems and Frequencies

The VE-PG4 is a versatile RoIP (Radio over IP network) gateway unit, which seamlessly interconnects various communication systems. The built-in LTE module\* provides virtually nationwide communication coverage.

\* Service availability depends on the country. Network coverage provided by a custom SIM card.



RoIP Gateway

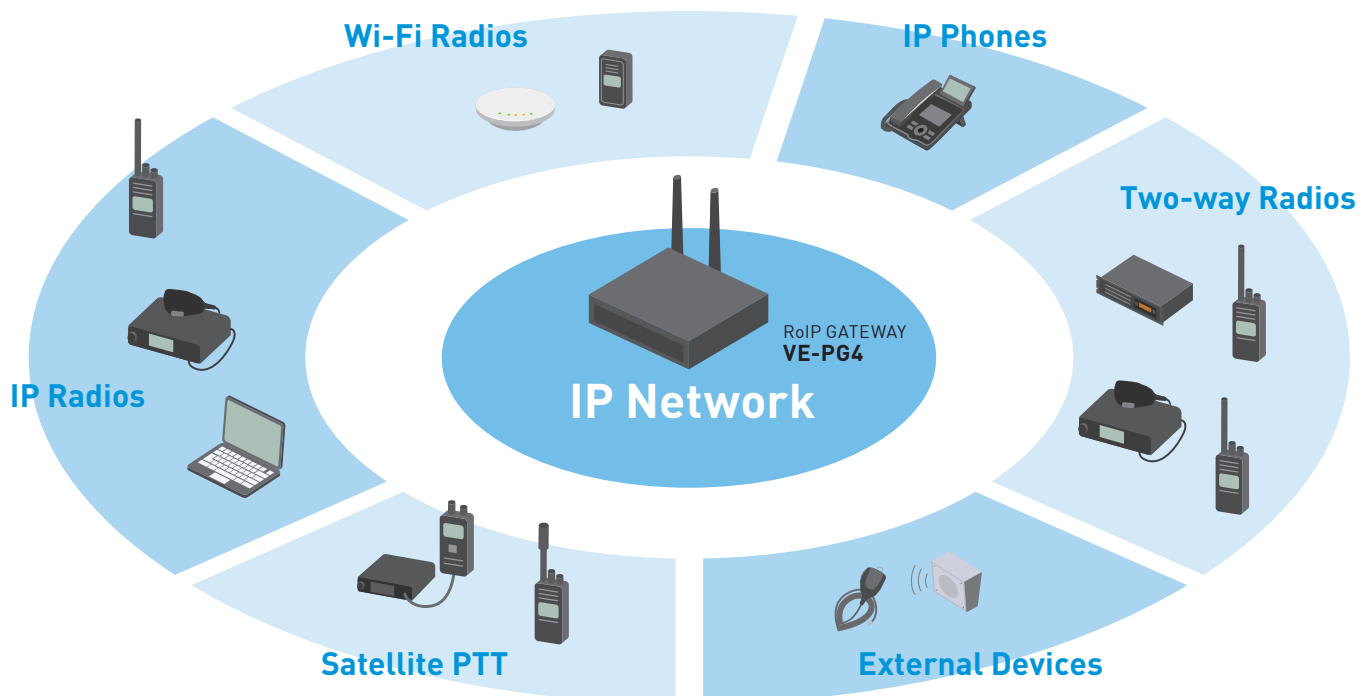
## VE-PG4

### Radio over IP network Gateway

- Links land mobile radios, Wi-Fi transceivers, LTE transceivers, IP phone systems and external devices
- Wi-Fi transceiver controller (Equivalent to the IP1100CV function) built-in, capable of controlling up to 50 Wi-Fi transceivers
- IDAS™ Conventional and NXDN™ Type-D multi-site trunking connection



### Communication Links







# TWO WAY RADIO SOLUTIONS





### *Ideal P25 Radio Solution for Public Works*

*Icom P25 radios meet public works and safety customers' demanding needs and afford them the opportunity to make the most of their budgets, with cost-effective digital two-way radio communications products.*

*Communicating with Icom's P25 radios using conventional analog, digital, or mixed mode operation as well as optional Phase 1 and Phase 2 trunking allows customers the ability to upgrade their fleet at their own pace.*



VHF, UHF and 700/800 MHz P25 Digital Transceivers

### **IC-F7000 Series**

#### *P25 Conventional and Trunking, Smallest and Lightest of Its Class*

- P25 Phase 1/2 Trunking capabilities
- LLA function (also known as P25 Radio Authentication)
- ARC4 40-bit software encryption
- FIPS certified AES/DES encryption\*
- IP68
- Integrated GPS

\* Optional



VHF, UHF and 700/800 MHz P25 Digital Transceivers

**IC-F7500 Series*****P25 Conventional and Phase 1/2 Trunking Rugged Mobile Radio with Superior Class Leading Audio***

- P25 Phase 1/2 Trunking capabilities
- LLA function (also known as P25 Radio Authentication)
- ARC4 40-bit software encryption
- FIPS certified AES/DES encryption\*
- IP55
- Integrated GPS



\* Optional



Functions / Specifications	IC-F7000 SERIES		IC-F7500 SERIES	
	IC-F7010T/S IC-F7020T/S	IC-F7040T/S	IC-F7510 IC-F7520	IC-F7540
Frequency Range	136–174 MHz 380–470 MHz 450–512 MHz	769–869 MHz	136–174 MHz 380–470 MHz 450–512 MHz	769–869 MHz
Channels	1024 2000 (with ISL-P25CHEX)		1024 2000 (with ISL-P25CHEX)	
Channel Spacing	12.5/25 kHz		12.5/25 kHz	12.5/20/25 kHz
Dimensions (W × H × D: Projections are not included)	53.6 × 123.5 × 38.2 mm, 2.1 × 4.9 × 1.5 in		174 × 55 × 150 mm, 6.9 × 6.6 × 1.6 in	
Weight (approx.)	355 g, 12.5 oz <sup>*1</sup>		1500 g, 3.3 lb	
RF output power (High)	5 W		50 W (VHF), 45 W (UHF)	30/35 W (700/800 MHz)
IP Rating	IP68		IP55	
Operating Time <sup>*1,2</sup> (Hours)	14			
Display	Color LCD		Color LCD	
Keypad	●		●	
AF Output Power	1300 mW typ.		4 W typ.	
Analog Conventional	●		●	
P25 Conventional	●		●	
P25 Trunking	Phase 1 (FDMA)	Optional	Optional	
	Phase 2 (TDMA)	Optional	Optional	
Encryption	AES	Optional	Optional	
	DES	Optional	Optional	
	ARC4	Optional	Optional	
FIPS 140-2 Level 1	Optional		Optional	
LLA function (also known as P25 Radio Authentication)	●		●	
P25 Conventional Voting Scan	Optional		Optional	
P25 Packet Data Service	Optional		Optional	
OTAP Function	Optional		Optional	
CTCSS/DTCS	Encoder/Decoder	●	●	
2-Tone	Encoder/Decoder	●	●	
DTMF Autodial	●		●	
Analog Voice Scrambler (Inversion)	●		●	
MDC 1200	●		●	
Front Panel Programming	Optional		Optional	
Man Down	●			
Motion Detection Sensor	●			
Lone Worker	●		●	
Channel Announcement	●		●	
Vibration Alert	●			
Voice Recorder	●		●	
Bluetooth® Capability	●		●	
GPS Receiver	●		● <sup>*3</sup>	
Front Panel Separation			Optional	
COMMANDMIC™ Capability			●	

\*1 With standard battery pack \*2 Conventional mode. 5:5:90 duty cycle, power save ON \*3 UX-241 antenna is required.





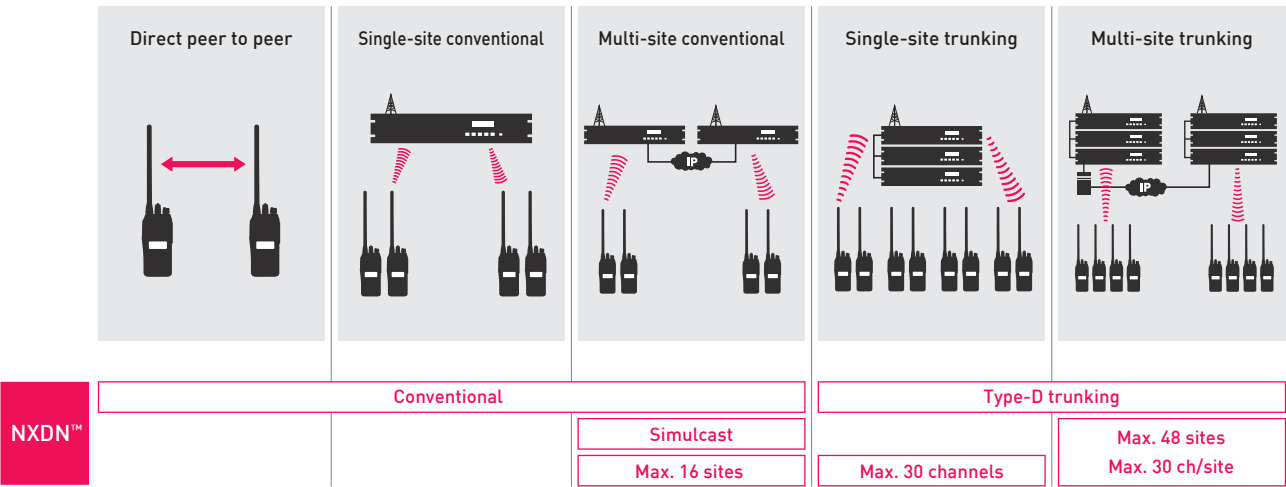
# Flexible Analog and Digital Solutions with Advanced IP Network Integration

## NXDN™/dPMR™ Protocol Choice

The IDAS™ digital radio system has two protocol choices, NXDN™ or dPMR™. Both protocols are open digital radio standards using 6.25 kHz FDMA narrowband technology. With this flexible choice, the IDAS™ radio system allows for interoperability with other manufacturers equipment to add to/replace existing NXDN™ and/or dPMR™ systems. Some models support NXDN™ 12.5 kHz mode for compatibility with other manufacturers.

## System Scalability According to Communication Traffic and Coverage

Depending on the communication traffic and coverage, an IDAS™ radio system can be expanded from single site conventional to simulcast conventional or multi-site trunking, to meet changing communication system requirement. One notable feature is that you don't have to use your own microwave or similar equipment because the requirement for the IP line in the backbone is flexible.

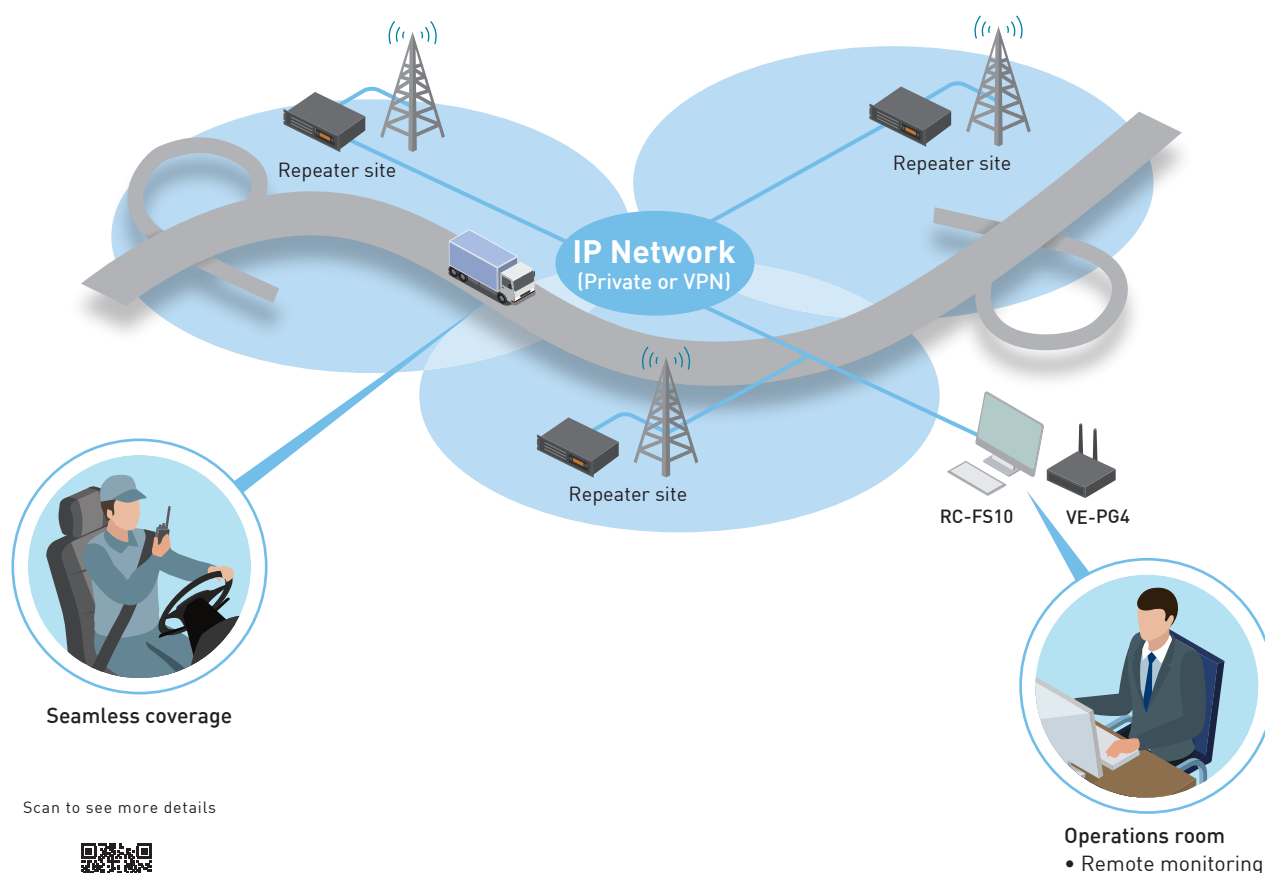


## Wide Area Coverage on a Single Pair of Frequencies

The IDAS™ Simulcast (NXDN™ protocol) system links multiple repeater sites\* through an IP network, synchronizing them with precise GPS signals. This enables a single pair of frequency licenses to cover a wider area. Even in urban areas where obtaining new frequency licenses is difficult, it's feasible to establish a multisite, wide-area system, keeping license costs lower. In certain situations, only the IDAS™ Simulcast system can fulfill specific requirements.

\* The maximum number of sites for an IDAS™ Simulcast system is 32.

### Simulcast Network System



## Ideal 6.25 kHz FDMA Technology for Simulcast

The IDAS™ Simulcast system transmits digital voice and data at 4800 bps using 4-Level FSK and 6.25 kHz very narrow bandwidth FDMA technology. With a symbol duration of about 420 microseconds ( $\mu$ s), the system experiences minimal Inter-Symbol Interference (ISI). Consequently, the IDAS™ Simulcast system boasts a delay spread tolerance of approximately 60  $\mu$ s. In contrast, a DMR/P25 Phase 1 system has a delay spread tolerance of about 30  $\mu$ s, leading to a reduction in coverage radius by a similar amount.



VHF and UHF Digital Transceivers

## IC-F3400D/F4400D Series

### Flagship Excellence with Color Display and Versatile Features

- IP68
- Color LCD and improved user interface
- Integrated GPS
- Hands-free operation with Bluetooth® headset\*1
- OTAP (Over-the-Air Programming) function easily reconfigures in-the-field radios
- Active Noise Cancelling function
- AES/DES encryption\*2



NXDN™

Conventional

Single/Multi-Site Trunking (Optional\*2)

\*1 Headset is required separately. \*2 License key upgrade required



VHF and UHF Digital Transceivers

## IC-F52D/F62D

### Powerful and Compact, 5 W Model with Advanced Features

- IP67
- Full dot matrix display for 14 characters with status icons
- Built-in Bluetooth®, Voice Recording, Active Noise Cancelling function
- Motion/Stationary Detection, Man Down and Lone Worker functions
- OTAP (Over-the-Air Programming) function easily reconfigures in-the-field radios
- Intelligent battery management helps to extend the battery life



NXDN™

Conventional

Single/Multi-Site Trunking (Optional\*2)

\* Depending on version \*2 License key upgrade required



VHF and UHF Digital Transceivers

## IC-F1100D/F2100D Series

### Budget-Friendly Handheld with Keypad and LCD Variations

- 128 channels (16 channels for IC-F1100D/F2100D)
- IP67
- Motion/Stationary Detection, Man Down and Lone Worker functions
- Operating time of up to 18 hours in IC-F1100D series and 17 hours in IC-F2100D series with the supplied battery (BP-280)
- Over-the-Air Alias (OAA) Function Displays the Caller's Name without Programming



NXDN™

Conventional

Single-Site Trunking





Intrinsically Safe VHF and UHF Digital Transceivers

## IC-F52D-UL/F62D-UL

### UL Approved Intrinsically Safe Digital Handheld with 5 W output power

- IP67 • Small, light and feature packed
- Multiple operating modes
- Full dot-matrix display, rotary channel and volume knob for simple every-day operation
- Built-in Bluetooth®\*\* capability, Voice Recording, Active Noise Cancelling functions
- Motion/Stationary Detection, Man Down and Lone Worker functions



NXDN™

Conventional

Single/Multi-Site Trunking (Optional\*\*)

#### UL Classification Rating

Intrinsically safe: Class I, Division 1, Groups C D; Class II, Division 1, Groups E F G; Class III, T3C.  
Non-incendive: Class I, Division 2, Groups A B C D.  
Ambient temperature: -20°C (-4°F) to +60°C (+140°F)  
Intrinsically Safe when used with BP-292UL battery pack.

DO NOT use any combination other than specified options for UL intrinsically safe. Please ask your dealer to ensure the UL Classification rating is acceptable for the intended place of use.

\* Depending on version    \*\* License key upgrade required

### IDAS™ Handheld Feature Comparison

Functions / Specifications	IC-F3400D/IC-F4400D SERIES	IC-F52D/IC-F62D	IC-F1100D/IC-F2100D SERIES			IC-F52D-UL/IC-F62D-UL
	IC-F3400DT/DS IC-F4400DT/DS	IC-F52D IC-F62D	IC-F1100DT IC-F2100DT	IC-F1100DS IC-F2100DS	IC-F1100D IC-F2100D	IC-F52D-UL IC-F62D-UL
4G LTE/3G Network						
Frequency Range	136–174 MHz 380–470, 450–512 MHz	136–174 MHz 350–400, 400–470, 450–512, 450–520 MHz	136–174 MHz 350–400, 400–470, 450–520 MHz			136–174 MHz 350–400, 400–470, 450–512, 450–520 MHz
Channels	1024 <sup>*1</sup>	512	128	128	16	512
Digital Channel Spacing	6.25/12.5 <sup>*2</sup> kHz	6.25/12.5 <sup>*2</sup> kHz	6.25 kHz			6.25/12.5 <sup>*2</sup> kHz
Dimensions <sup>*3</sup> (W × H × D: Projections are not included)	53.6 × 123.5 × 29.3 mm, 2.1 × 4.9 × 1.2 in	56 × 91.5 × 36.5 mm, 2.2 × 3.6 × 1.4 in	52.2 × 111.8 × 34.1 mm, 2.1 × 4.4 × 1.3 in	52.2 × 111.8 × 29.4 mm, 2.1 × 4.4 × 1.2 in		56 × 92 × 34.1 mm, 2.2 × 3.6 × 1.3 in
Weight (approx.)	340 g, 12.0 oz (VHF) 335 g, 11.8 oz (UHF)	270 g, 9.5 oz	280 g, 9.9 oz	270 g, 9.5 oz	260 g, 9.2 oz	270 g, 9.5 oz
RF output power (High)	5 W	5 W	5 W			5 W
IP Rating	IP68	IP67	IP67			IP67
Operating Time <sup>*3,4</sup> (Hours)	16.5	13	18 (IC-F1100D series) 17 (IC-F2100D series)			10
Display	●	●	●	●		●
Keypad	Full (DT), Limited (DS)	Limited	Full	Limited		Limited
AF Output Power (Internal SP)	1300 mW typ.	1300 mW typ.	1500 mW typ.			1300 mW typ.
Encryption	DES (4-key) DES (64-key) AES	Optional Optional				
Voice Scrambler (Digital)	●	●	●			●
Voice Scrambler (Analog) <sup>*5</sup>	●	●				●
OTAP (Over-the-Air Programming)	● <sup>*14</sup>	● <sup>*14</sup>				● <sup>*14</sup>
CTCSS/DTCS Encoder/Decoder	●	●	●			●
2-Tone Encoder/Decoder	●	●	●			●
5-Tone Encoder/Decoder	●	●	●			●
DTMF	●	●	●			●
MDC 1200	●	●	● <sup>*15</sup>			●
Man Down	●	●	●			●
Motion Detection Sensor	●	●	●			●
Lone Worker	●	●	●			●
Channel Announcement	●	●	●			●
Vibration Alert	●	●				●
Voice Recorder	●	●				●
Bluetooth® Capability	●	●				●
GPS Receiver	●					
Short Data Message	●	●	● <sup>*8</sup>			●
Status Message	●	●	● <sup>*8</sup>			●
Emergency Call	●	●	●			●
Stun/Kill/Revive	●	●	● <sup>*9</sup>			●
Remote Monitor	●	●	● <sup>*9</sup>			●
NXDN™ <sup>*10</sup>	Conventional	●	●			●
	Multi-Site Conventional	●	●			●
	Simulcast	●	●			●
	Type-D Trunking	Optional	Single Site only			Optional

\*1 Upgrade license (ISL-CHEX) required to enable 4000 channel capacity. \*2 NXDN™ only \*3 With standard battery pack \*4 IDAS™: Conventional mode, 5:5:90 duty cycle, power save ON LTE: Depending on the condition of LTE signal strength \*5 Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler. \*6 PTT ID and emergency call \*7 PTT ID only \*8 The non-display model beeps and its LED indicator blinks when receiving a message. \*9 RX only \*10 Default factory setting (Protocol) differs, depending on the radio model. \*11 Depending on versions \*12 UX-241 antenna is required. \*13 D-SUB. Digital modulation input is not available even when using accessory cables. \*14 CS-OTPM1 OTAP Manager Software is separately required to send the OTAP data to the transceivers. \*15 PTT ID, emergency call, radio check (RX), and stun/revive (RX). All stated specifications and features are subject to change without notice or obligation.



VHF and UHF Digital Transceivers

## IC-F5400D/F6400D

### *Flagship Excellence with Versatile Configuration and Color Display*

- IP55
- Flexible configurations with detachable front panel
- Color LCD and improved user interface
- Integrated GPS
- Hands-free operation with Bluetooth® headset\*
- OTAP (Over-the-Air Programming) function easily reconfigures in-the-field radios
- Active noise canceller
- AES/DES encryption

\* Version without Bluetooth also available. Ask your Dealer for details. Available functions depend on paired Bluetooth® devices. Icom does not guarantee all functions and performance of the Bluetooth® headset. Headset is required separately.



NXDN™

Conventional

Single/Multi-Site Trunking (Optional)



VHF and UHF Digital Transceivers

## IC-F5330D/F6330D

### *CommandMic™ Remote Control with Ethernet Cable Connection*

- NXDN™ Type-D single-site trunking
- Flexible Power over Ethernet (PoE) connection\*1 between RF unit and CommandMic™
- High contrast, wide viewing angle, black background display
- Bluetooth® capability\*2
- Emergency and Lone Worker functions
- Optional D-SUB connector cable



\*1 Up to 100 m Ethernet cable    \*2 Depending on version

NXDN™

Conventional

Single-Site Trunking



VHF and UHF Digital Transceivers

## IC-F5130D/F6130D

### *Digital Standard Mobile Transceiver*

- NXDN™ Type-D single-site trunking
- High contrast, wide viewing angle, black background display
- Emergency and Lone Worker functions
- Optional D-SUB connector cable
- GPS receiver connection with optional ACC cable
- Bluetooth® capability with optional UT-137A



NXDN™

Conventional

Single-Site Trunking

## IDAS™ Mobile Radio Feature Comparison

Functions / Specifications		IC-F5400D IC-F6400D	IC-F5330D IC-F6330D	IC-F5130D IC-F6130D
Frequency Range		136–174 MHz 380–470, 450–512 MHz	136–174 MHz 400–520 MHz	136–174 MHz 350–400, 400–520 MHz
Channels		1024 <sup>*1</sup>	128	128
Digital Channel Spacing		6.25/12.5 <sup>*2</sup> kHz	6.25 kHz	6.25 kHz
Dimensions (W × H × D: Projections are not included)		174 × 55 × 150 mm, 6.9 × 2.2 × 5.9 in	150 × 45 × 148 mm, 5.9 × 1.8 × 5.8 in	150 × 45 × 151.8 mm, 5.9 × 1.8 × 6.0 in
Weight [approx.]		1.5 kg, 3.3 lb	1.2 kg, 2.6 lb [Main unit] 250 g, 8.8 oz [Microphone]	1.23 kg, 2.7 lb
RF output power (High)		50 W (VHF), 45 W (UHF)	50 W (VHF), 45 W (UHF)	50 W (VHF), 45 W (UHF)
IP Rating		IP55	IPX4 (Mic)	
Display		●	●	●
Keypad		●	●	●
AF Output Power (Internal SP)		4 W typ.	1.7 W typ. (Mic.)	4 W typ.
Encryption	DES (4-key)	●		
	DES (64-key)	Optional		
	AES	Optional		
Voice Scrambler (Digital)		●	●	●
Voice Scrambler (Analog) <sup>*5</sup>		●		
OTAP (Over-the-Air Programming)		● <sup>*14</sup>		
CTCSS/DTCS	Encoder/Decoder	●	●	●
2-Tone	Encoder/Decoder	●	●	●
5-Tone	Encoder/Decoder	●	●	●
DTMF		●	●	●
MDC 1200		●	● <sup>*15</sup>	● <sup>*15</sup>
BIS 1200		●	● <sup>*6</sup>	● <sup>*6</sup>
Lone Worker		●	●	●
Channel Announcement		●		
Voice Recorder		●		
Bluetooth® Capability		● <sup>*11</sup>	● <sup>*11</sup>	Optional
GPS Receiver		● <sup>*12</sup>		
Short Data Message		●	●	●
Status		●	●	●
Emergency Call		●	●	●
Stun/Kill/Revive		●	● <sup>*9</sup>	● <sup>*9</sup>
Remote Monitor		●	● <sup>*9</sup>	● <sup>*9</sup>
Front Panel Separation		Optional		
Multiple Controller Capability		Optional		
CommandMic™ Capability		Optional	●	
I/O Control Port		USB, D-SUB, Ignition sense	Ignition sense, D-SUB option <sup>*13</sup>	Ignition sense, D-SUB option <sup>*13</sup>
NXDN™ <sup>*10</sup>	Conventional	●	●	●
	Multi-Site Conventional	●	●	●
	Simulcast	●	●	●
	Type-D Trunking	Optional	Single site only	Single site only

<sup>\*1</sup> Upgrade license (ISL-CHEX) required to enable 4000 channel capacity. <sup>\*2</sup> NXDN™ only <sup>\*3</sup> With standard battery pack <sup>\*4</sup> IDAS™: Conventional mode, 5:5:90 duty cycle, power save ON LTE: Depending on the condition of LTE signal strength <sup>\*5</sup> Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler. <sup>\*6</sup> PTT ID and emergency call <sup>\*7</sup> PTT ID only <sup>\*8</sup> The non-display model beeps and its LED indicator blinks when receiving a message. <sup>\*9</sup> RX only <sup>\*10</sup> Default factory setting [Protocol] differs, depending on the radio model. <sup>\*11</sup> Depending on versions <sup>\*12</sup> UX-241 antenna is required. <sup>\*13</sup> D-SUB. Digital modulation input is not available even when using accessory cables. <sup>\*14</sup> CS-OTPM1 OTAP Manager Software is separately required to send the OTAP data to the transceivers. <sup>\*15</sup> PTT ID, emergency call, radio check (RX), and stun/revive (RX).

All stated specifications and features are subject to change without notice or obligation





VHF and UHF Digital Repeaters

## IC-FR5300/FR6300

NXDN™

*Compatible with Analog and IDAS™ ALL Modes Including Simulcast*

- Digital conventional mode and analog FM with auto selection
- 50 W at 50% duty cycle operation (Ambient temperature: 25°C)
- Compatible with digital simulcast system with the optional UC-FR5300 #14 network controller and GPS antenna
- Multi-site conventional or trunking system configuration
- "Two channels in one box" configuration with optional UR-FR5300/UR-FR6300



Remote Communicator

## RC-FS10

NXDN™



*Virtual Radio/PC Dispatch*

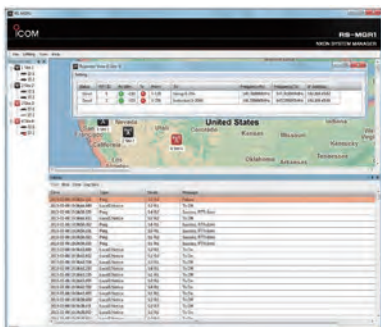
- PC remote communicator for NXDN™ conventional, Type-D multi-site trunking and analog radio systems (VE-PG4 is required for analog radio systems.)
- Up to eight different IDAS™ and analog radio systems can be programmed
- Up to 40 programmable buttons. Short data message, status and DTMF can be sent
- Caller ID, called ID, name and call type information are displayed
- Optional HM-152 or SM-26 microphone



System Manager

## RS-MGR1

NXDN™



*Enhance System Management for NXDN™ Type-D Trunking Systems*

- Provides real-time monitoring, system alerts and log search functions
- Repeater properties show condition summary, system information, interface (traffic statistics), repeater condition details and ping status of each repeater
- Registration log, communication log, traffic log and search log can be searched and downloaded with extensive filter settings





## ***Reliable Technology and Trust for Analog Radios***

*Radio technologies and know-how cultivated for over 60 years have been applied to professional analog radio products. Rugged, waterproof, easy to use, clear and powerful audio in a compact design, Icom's analog products provide high performance and reliable communication. They are cost effective solutions that you can rely on and help you improve productivity and efficiency.*



VHF and UHF Handheld Transceivers

## IC-F1000/F2000 Series

*Big Sound, Small Package! Unmatched 1500 mW Audio*

- 128 channels (16 channels for the non-display model)
- IP67
- Motion/Stationary sensor
- Man down/Lone worker
- 14 hours battery life (with BP-279)
- 1500 mW loud audio
- Channel announcement
- 16 code inversion voice scrambler



VHF and UHF Handheld Transceivers

## IC-F3000/F4000 Series

*Affordable, High Performance Radio*

- 16 channels
- IP54
- Lone worker function
- Battery life, 22 hours in VHF and 20 hours in UHF (with BP-298)
- Built-in 2-Tone, 5-Tone, CTCSS and DTCS
- 1500 mW loud audio from internal speaker
- 1500 mW audio output from optional BTL speaker-microphone, HM-222HLWP
- Internal VOX capability for hands free operation



IC-F3001/F4001



IC-F3003/F4003



UHF Handheld Transceiver

## IC-F200

*Rugged, Easy Operation in the Palm of Your Hand*

- Compact and lightweight
- IP54 / MIL810G
- 15 hours operation (with BP-304A)
- USB Type-C™ charging
- 600 mW loud and clear audio
- Built-in CTCSS and DTCS
- Emergency call button on the top of the panel
- VOX function for hands-free operation





Functions / Specifications	IC-F1000T IC-F2000T	IC-F1000S IC-F2000S	IC-F1000 IC-F2000	IC-F3001/3 IC-F4001/3	IC-F200
Frequency Range	136–174 MHz 335–380 MHz, 400–470 MHz, 450–512 MHz, 450–520 MHz			136–174 MHz 350–400 MHz, 400–470 MHz, 450–512 MHz, 450–520 MHz	450–470 MHz
Channels	128	128	16	16	16
Channel Spacing	12.5, 20, 25 kHz			12.5, 20, 25 kHz	12.5 kHz
Dimensions* <sup>1</sup> (W × H × D: Projections are not included)	52.2 × 111.8 × 24.5 mm, 2.1 × 4.4 × 1.0 in			56 × 97 × 36.4 mm, 2.3 × 4.4 × 1.4 in	50 × 94 × 26.7 mm, 2.0 × 3.7 × 1.1 in
Weight* <sup>1</sup> (approx.)	240 g, 8.5 oz			270 g, 9.5 oz	157 g, 5.5 oz
RF output power (High)	5 W (VHF) 4 W (UHF)			5 W (VHF) 4 W (UHF)	2 W or less
IP Rating	IP67			IP54	IP54
Operating Time* <sup>2</sup> (Hours)	14			20 (w/ BP-265), 14 (w/ BP-264)	15
Display	●	●			●
Keypad	Full	Limited			Limited
AF Output Power (Internal SP)	1500 mW typ.			1500 mW typ.	600 mW typ.
Voice Scrambler	●				
CTCSS/DTCS	Encoder/Decoder	●		●	●
2-Tone/5-Tone	Encoder/Decoder	●		●	
DTMF		●		●	
MDC 1200		●* <sup>6</sup>		●* <sup>3</sup>	
BIIS 1200		●* <sup>3</sup>		●* <sup>3</sup>	
Man Down		●			
Lone Worker		●		●	●
Motion Detection Sensor		●			
Channel Announcement		●			●
Emergency Call		●		●	
Stun/Kill/Revive		●* <sup>4</sup>		●* <sup>4</sup>	
Remote Monitor		●* <sup>4</sup>		●* <sup>4</sup>	●* <sup>8</sup>

\*<sup>1</sup> With standard battery pack \*<sup>2</sup> 5:5:90 duty cycle, power save ON \*<sup>3</sup> PTT ID and emergency call \*<sup>4</sup> RX only \*<sup>5</sup> PTT ID only

\*<sup>6</sup> PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX), transmit status messages only \*<sup>7</sup> PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX) only

\*<sup>8</sup> TX only. An MDC compatible transceiver is necessary for receiving.

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







VHF and UHF Mobile Transceiver

IC-F5020/F6020 Series

VHF and UHF Mobile Transceivers

IC-F5010/F6010 Series

Hardworking Mobile Radios

- 2 models for display or non-display
- 128 channels (IC-F5020/IC-F6020 series) or 8 channels (IC-F5010/IC-F6010 series)
- Lone worker function
- 4 W (typical) front mounted speaker
- External device connection with optional ACC cable



IC-F5021/F6021



IC-F5023H/F6023H



IC-F5011/F6011



IC-F5013H/F6013H

Functions / Specifications	IC-F5021/3/3H IC-F6021/3/3H	IC-F5011/3/3H IC-F6011/3/3H
Frequency Range	136–174 MHz 400–470 MHz, 450–512 MHz, 450–520 MHz	
Channels	128	8
Channel Spacing	12.5/25 kHz, 15/30 kHz	
Dimensions*1 (W × H × D: Projections are not included)	150 × 40 × 167.5 mm, 5.9 × 1.6 × 6.6 in (50/45 W) 150 × 40 × 117.5 mm, 5.9 × 1.6 × 4.6 in (50/45 W)	
Weight*1 (approx.)	1.1 kg, 2.4 lb (50/45 W)	0.8 kg, 1.8 lb (25 W)
RF output power (High)	50 W (F5021/3H), 25 W (F5023) 45 W (F6021/3H), 25 W (F6023)	50 W (F5011/3H), 25 W (F5013) 45 W (F6011/3H), 25 W (F6013)
Display	●	LED lighting
Keypad	●	
AF Output Power (Internal SP)	4 W typ.	
Voice Scrambler		
CTCSS/DTCS	Encoder/Decoder	●
2-Tone/5-Tone	Encoder/Decoder	●
DTMF	●	
MDC 1200	●*7	
BIIS 1200	●*5	
Lone Worker	●	
Emergency Call	●	
Stun/Kill/Revive	●*4	
Remote Monitor	●*4	

\*1 With standard battery pack   \*2 5:5:90 duty cycle, power save ON   \*3 PTT ID and emergency call   \*4 RX only   \*5 PTT ID only  
\*6 PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX), transmit status messages only   \*7 PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX) only  
All stated specifications and features are subject to change without notice or obligation.

HF Radio

## IC-F8101



### *A Professional HF, All in One Package*

- 2G ALE (Automatic Link Establishment), MIL-STD-188-141B compatible
- 125 W\* PEP output power (\*J3E/A1A modes depending on the transceiver version)
- 100% duty cycle operation (SSB voice TX)
- IP54
- 2400 bps MELPe/TWELP Vocoder and 256-bit AES encryption\* with RapidM TC4-LP  
(\*The function availability depending on the transceiver version)





MURS License-Free Radios

## IC-V10MR

Analog

*Professional Grade License-Free Radio Slim, Compact Dimensions with IP67 Waterproofing*

- 5 MURS frequencies
- 2 W RF output power
- 2-Tone, MDC, CTCSS and DTCS capabilities
- IP67 waterproof
- 16 hours battery life (with BP-279)
- 1500 mW loud audio
- Built-in Motion sensor
- Lone Worker and Man Down functions
- Up to 2 miles in a work site\*
- Download free programming software



\*Communication range may differ depending on operating environment or weather conditions, etc.



MURS License-Free Radios

## IC-V3MR

Analog

*Rugged, Loud and Reliable Professional License-Free Radio*

- 5 MURS frequencies
- 2 W RF output power
- 2-Tone, MDC PTT ID, CTCSS and DTCS capabilities
- IP54 Water and Dust protection
- 24 hours battery life (with BP-298)
- 1500 mW loud audio from internal speaker
- 1500 mW audio output from optional BTL speaker-microphone, HM-222HLWP
- Lone Worker function
- Up to 2 miles in a work site\*
- Download free programming software



\*Communication range may differ depending on operating environment or weather conditions, etc.

Canada GMRS/FRS License-Free Radio

## IC-U20GM

Analog

*Perfect Radio for Restaurants and Retail Shops Enhances Hospitality*

- 22 Canada GMRS/FRS channels
- Compact and lightweight
- IP54 / MIL810G
- 19 hours operation (with BP-304A)
- USB Type-C™ charging
- 600 mW loud and clear audio
- Built-in CTCSS and DTCS
- VOX function for hands-free operation



PMR 446 License-Free Radio (for EUROPE/EXPORT only)

## IC-U20SR

Analog

*Perfect Radio for Restaurants and Retail Shops Enhances Hospitality*

- 16 PMR 446 channels
- Compact and lightweight
- IP54 / MIL810G
- 21 hours operation (with BP-304A)
- USB Type-C™ charging
- 600 mW loud and clear audio
- Built-in CTCSS and DTCS
- Emergency call button on the top of the panel
- Smart-ring function to check communication range
- Alert-ring function for emergency situation
- VOX function for hands-free operation







Functions / Specifications		IC-V10MR	IC-V3MR	IC-U20GM	IC-U20SR
Frequency Range		151.820, 151.880, 151.940, 154.570, 154.600 MHz	151.820, 151.880, 151.940, 154.570, 154.600 MHz	462.5500-462.7250, 467.5625-467.7125 MHz	PMR446
Channels		16	16	22	16
Channel Spacing		11.25/20 kHz	11.25/20 kHz	11.25/20 kHz	12.5 kHz
Dimensions* <sup>1</sup> (W × H × D: Projections are not included)		52.2 × 111.8 × 24.5 mm, 2.1 × 4.4 × 1.0 in	56 × 97 × 36.4 mm, 2.3 × 4.4 × 1.4 in	50 × 94 × 26.7 mm, 2.0 × 3.7 × 1.1 in	50 × 94 × 26.7 mm, 2.0 × 3.7 × 1.1 in
Weight* <sup>1</sup> (approx.)		240 g, 8.5 oz	270 g, 9.5 oz	157 g, 5.5 oz	157 g, 5.5 oz
RF output power (High)		2 W	2 W	1 W	500 mW (ERP)
IP Rating		IP67	IP54	IP54	IP54
Operating Time* <sup>2</sup> (Hours)		16	24	19	21
Display				●	●
Keypad				Limited	Limited
AF Output Power (Internal SP)		1500 mW typ.	1500 mW typ.	600 mW typ.	600 mW typ.
Voice Scrambler					
CTCSS/DTCS	Encoder/Decoder	●	●	●	●
2-Tone	Encoder/Decoder	●	●		
5-Tone	Encoder/Decoder				
DTMF		●	●		
MDC 1200		●* <sup>6</sup>	●* <sup>3</sup>		
BIIS 1200					
Man Down		●			
Lone Worker		●	●	●	●
Motion Detection Sensor		●			
Channel Announcement		●			●
Status Message		●* <sup>5</sup>	●* <sup>5</sup>		
Emergency Call		●* <sup>5</sup>	●* <sup>5</sup>		●* <sup>4</sup>

\*<sup>1</sup> With standard battery pack \*<sup>2</sup> 5:5:90 duty cycle, power save ON \*<sup>3</sup> PTT ID and emergency call (TX) \*<sup>4</sup> TX only. An MDC compatible transceiver is necessary for receiving. \*<sup>5</sup> RX only

\*<sup>6</sup> PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX) only

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





## How the World Communicates

Providing advanced communications, and creating a safe and prosperous society, is what Icom is best at.

We are leading people and society into a bright future by connecting the world with the latest in wireless technology.

Icom is '**How the World Communicates**'.

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