



Private Mobile Radios

2017–2018 Europe Edition



iDASTM
ICOM DIGITAL ADVANCED SYSTEM



Company Profile

Icom Inc. is a wireless communications manufacturing company located in Osaka, Japan. Since Icom's establishment in 1954, the company have had a long record as a trusted manufacturer of land mobile radio, amateur radio, marine radio, navigation products, aviation radio and communication receivers.

Icom quality and reliability

Over 50 years of engineering and production excellence is a part of every Icom product. Using the latest manufacturing technology, Icom radios are tested to pass rigorous in-house tests as well as environmental tests to the US Military standard 810 specifications. Icom's products also comply with the European RoHS directive and intrinsic safety standards.



Made in Japan

Icom is a rare example of a Japanese electronic manufacturer that has not shifted production abroad, but has kept its production base in Japan. The Wakayama Icom plants have advanced production systems to produce small or large volume/multi-model wireless communication products.



Icom, a global brand name

Icom is recognised as a leading 2-way radio global brand name around the world. Our land mobile radios are used by many professional organizations all over the world, including public safety, security and humanitarian organizations.

Icom's worldwide network

Icom products are sold across the globe. Icom has an international sales and service network, including sales subsidiaries in the U.S., Canada, Australia, Germany and Spain. Icom is there to support and service your communication needs.

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Professional Licence-Free

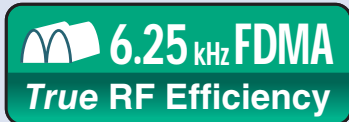
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Why 6.25 kHz FDMA Narrowband?

True Narrowband: Reliable Communications for Half the Spectrum!

6.25 kHz FDMA allows you to double the capacity of your valued spectrum. The choice of two independent 6.25 kHz in 12.5 kHz, or a standalone 6.25 kHz channel is yours. This double capacity/independent channel flexibility and efficiency is only possible with 6.25 kHz FDMA.

Communications Reliability When You Most Need It

No need to allow for TDMA time slot synchronization. Instant communications in emergencies and critical situations. FDMA is the fail safe mode of choice in land mobile radio. Nothing else compares.

FDMA: Proven History Like No Other Radio Technology

For over 50 years, FDMA has been the backbone of two-way radio communication. Generational enhancements have culminated in the

realisation of 6.25 kHz FDMA digital protocols that are literally ahead of their time, while keeping backward compatibility with analogue FM radio.

6.25 kHz Channels: the Current and Future Trend

6.25 kHz channel plans and standards are used in North America, Europe, Japan, Oceania, and the list goes on. 6.25 kHz provides an answer to the worldwide problem of spectrum shortage and efficient use.

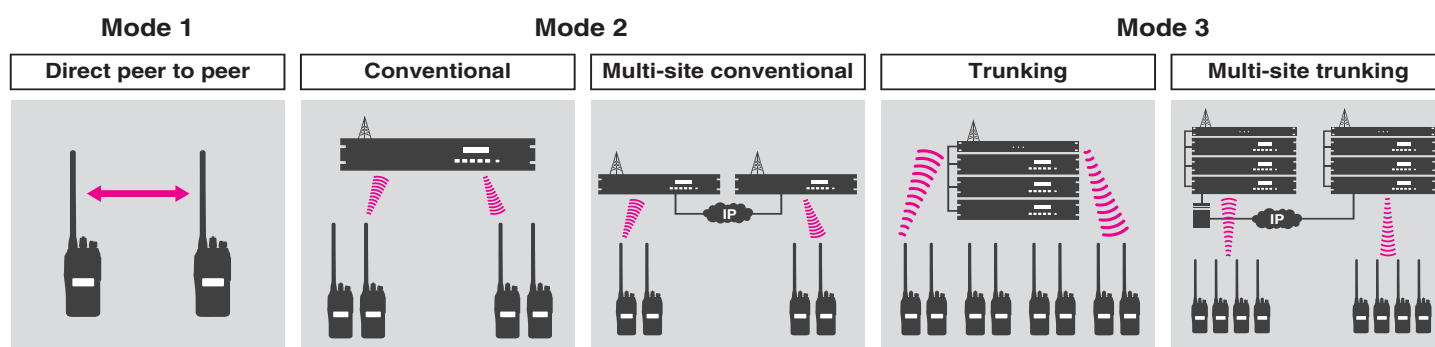
6.25 kHz Fundamental Excellence

Narrower bandwidth FDMA provides technical excellence in sensitivity, interference resistance, increased coverage, audio quality, spectrum efficiency and more. Why look at anything else?

Icom Radio Systems

dPMR™ licenced digital radio system

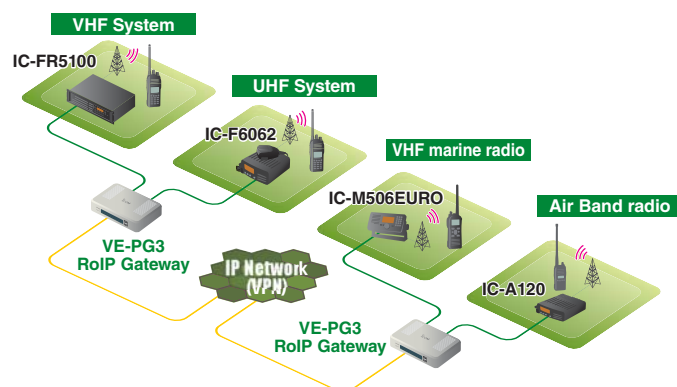
The IDAS dPMR digital radio system utilizes a 6.25 kHz FDMA digital radio protocol which meets the ETSI dPMR technical standards and provides spectrum efficient true 6.25 kHz very narrow channel spacing. The IDAS dPMR system is scalable from Mode 1 direct peer to peer, Mode 2 conventional repeater mode up to Mode 3 high traffic trunking systems with IP network multi-site connectivity.



VE-PG3 RoIP Gateway

The VE-PG3 RoIP gateway provides simplified cross system/cross band/cross protocol connection between VHF/UHF land mobile, marine VHF and air band frequencies. The VE-PG3 can convert analogue/digital audio and vice versa for mixed mode operation. It can interconnect various systems, such as IDAS dPMR and NXDN™ system, IP advanced radio system using wireless LAN frequencies, and IP phones and analogue phone systems.

* Cross band/cross category operation may be prohibited in some countries.



IP Advanced Radio System

The IP501H IP advanced radio system provides nationwide communication using a cellular network and instantaneous communication with PTT operation. The IP100H IP advanced radio system is a licence-free, full duplex communication system that works over a wireless LAN or IP network. Both systems offer cost effective communication, and can be easily installed with minimum maintenance.



Digital Handheld Radios



IC-F3400DPT

IC-F3400DPS

IC-F3400DP

VHF DIGITAL TRANSCEIVERS

IC-F3400DPT/DPS/DP (5 W)

UHF DIGITAL TRANSCEIVERS

IC-F4400DPT/DPS/DP (5 W)

IDAS™ TAKES YOU TO A NEW LEVEL OF “SMART”



FEATURES

- Small, slim and stylish
- High resolution transreflective colour LCD
- Bluetooth® module for remote and hands-free operation
- dPMR™ Mode 1/2 digital and Mode 3 trunking with the upgrade licence
- OTAP (Over-the-Air-Programming)* and OAA (Over-the-Air-Alias)
- IP68 waterproof (1 m depth water for 1 hour) and dust-tight

* Optional software required.

• Motion/Stationary detection, Man Down and Lone Worker functions • Vibration alert • Audio equalizer and active noise canceling • Digital voice recording to a microSD card • USB port for PC connection • AquaQuake™ function • Menu and function item localization • Internal clock • Broadcast call • Ambience listening • Status call and short data message • Call back function for Mode 3 • Transparent data • Remote Kill, Stun and Revive • Built-in 5-Tone, 2-Tone, CTCSS and DTCS • DTMF autodial memories and decoder • MDC 1200 compatible • BIIS 1200 functions

Supplied Accessories

• Battery pack, BP-283 • Belt clip, MB-133

* May differ or not supplied, depending on the transceiver version.



IC-F3262DT

IC-F4262DS

VHF DIGITAL TRANSCEIVERS

IC-F3262DT/DS (5 W)

UHF DIGITAL TRANSCEIVERS

IC-F4262DT/DS (5 W)

ADVANCED DIGITAL RADIO WITH BUILT-IN GPS AND WATERPROOF



FEATURES

- dPMR™ Mode 1/2 digital and Mode 3 trunking
- Integrated GPS receiver and Man Down functions*
- IP67 waterproof and dust-tight
- Large full dot-matrix LCD with menu driven interface
- Transparent data modem function

* Functions are not installed depending on version.

• Broadcast call • Ambience listening • Status call and short data message • Call back function for Mode 3 trunking • Remote Kill, Stun and Revive • 14-pin accessory connector with amplifier output • Built-in 5-Tone, 2-Tone, CTCSS and DTCS • BIIS 1200 functions • Eight DTMF autodial memories • Inversion voice scrambler for analogue • Audio compander for analogue

Supplied Accessories

• Battery pack, BP-232WP • Belt clip, MB-94R • Antenna



IC-F52D

IC-F62D

VHF DIGITAL TRANSCEIVER

IC-F52D (5 W)

UHF DIGITAL TRANSCEIVER

IC-F62D (5 W)

SLIMMER, SMALLER AND INFINITELY BETTER



FEATURES

- Small, lightweight and feature packed
- dPMR™ Mode 1/2 digital and Mode 3 trunking with the upgrade licence
- IP67/66/55/54 waterproof and dust-tight
- Full dot-matrix LCD, rotary channel and volume knob
- Built-in Bluetooth®, voice recording and active noise cancelling functions
- OTAP (Over-the-Air-Programming)* and OAA (Over-the-Air-Alias) function

* Optional software required.

• Motion/Stationary detection, Man Down and Lone Worker functions • Vibration alert • Audio equalizer • Voice recording and playback (Up to 8 minutes) • Programmable functions and menu items in a language other than English • Ambience listening • Status call and short data message • Transparent data mode • Remote Kill, Stun and Revive • Built-in 5-Tone, 2-Tone, CTCSS and DTCS • DTMF autodial memories • BISS 1200 functions • Analogue voice scrambler • Optional HM-233GP GPS speaker-microphone

Supplied Accessories

• Battery pack, BP-290 • Belt clip, MBB-3

* May differ or not supplied, depending on the transceiver version.



IC-F1000D

IC-F2000D

VHF DIGITAL TRANSCEIVER

IC-F1000D (5 W)

UHF DIGITAL TRANSCEIVER

IC-F2000D (4 W)

COMPACT, WATERPROOF DIGITAL BUSINESS RADIO



FEATURES

- dPMR™ Mode 1/2 digital and analogue
- Slim, compact and lightweight
- IP67 waterproof and dust-tight
- Motion/stationary detection, Man Down and Lone Worker functions
- Good audio for noisy environments

• Radio Kill, Stun and Revive (RX) • Ambience listening • Status call (TX and RX beep) • Short data message (RX notification) • Voting scan • GPS position data with optional HM-171GPW • Built-in 2-Tone, 5-Tone, CTCSS and DTCS • BISS 1200 PTT ID and emergency call • DTMF autodial

Supplied Accessories

• Battery pack, BP-280 • Desktop charger, BC-213

• AC adapter, BC-123SE/SUK* • Belt clip, MB-133 • Antenna

* May differ or not supplied, depending on the transceiver version.



Intrinsically Safe Radios / Analogue Radios



VHF DIGITAL TRANSCEIVER IC-F3202DEX (1 W)

UHF DIGITAL TRANSCEIVER IC-F4202DEX (1 W)

**IECEX/ATEX INTRINSICALLY
SAFE DIGITAL RADIO**



FEATURES

• IEC Certifications

Mining: Ex ib I Mb Gas: Ex ib IIC T4 Gb
Dust: Ex ib IIIC T110°C Db -20°C ≤ Ta ≤ +55°C

• ATEX Certifications

Mining: I M2 Ex ib I Mb Gas: II 2G Ex ib IIC T4 Gb
Dust: II 2D Ex ib IIIC T110°C Db -20°C ≤ Ta ≤ +55°C

• dPMR™ Mode 1/2 digital and analogue

• Power ON/OFF status call (TX) • Radio Stun/Kill/Revive (RX) • Ambience listening (RX) • Emergency (TX) • Voting scan • Built-in 2-Tone, 5-Tone, CTCSS and DTCS • BIIS 1200 PTT ID transmission • DTMF autodial • Optional speaker-microphone, HM-203EX

Supplied Accessories

• Battery pack, BP-277EX • Desktop charger, BC-212EX
• AC adapter, BC-123SE/SUK* • Belt clip, MB-94EX • Antenna
* May differ depending on the transceiver version.

DO NOT use the transceiver with any other equipment not specified in the option list (Pages 14–17).

Please ask your dealer to ensure the ATEX and IECEX ratings are acceptable for the intended place of use.



VHF HANDHELD TRANSCEIVER IC-F51ATEX (1 W)

UHF HANDHELD TRANSCEIVER IC-F61ATEX (1 W)

**ATEX INTRINSICALLY
SAFE RADIO**



FEATURES

• ATEX Intrinsically Safe

Gas: II2G Ex ib IIA T3 Gb
Dust: II2D Ex tb IIIC T160°C Db IP67
(Tamb = -20°C to +55°C)
EN 60079-0 (2012)+A11:2013,
EN 60079-11 (2012), EN 60079-31 (2014)

• Lone Worker function • Built-in 2-Tone, 5-Tone, CTCSS and DTCS • BIIS 1200 capability • MDC 1200 compatibility • Eight DTMF autodial memories • Mode dependent scan • Compact body; 56 (W) × 97 (H) × 36.4 (D) mm • Optional speaker-microphone, HM-138

Supplied Accessories

• Battery pack, BP-227AXD • Belt clip, MB-98 • Antenna



VHF HANDHELD TRANSCEIVERS IC-F1000T/S (5 W)

UHF HANDHELD TRANSCEIVERS IC-F2000T/S (4 W)

**SLIM, COMPACT DIMENSIONS
WITH IP67 WATERPROOFING**



FEATURES

- Compact and slim body (24.5 mm depth)
- IP67 waterproof and dust-tight
- Enhanced emergency with motion sensor
- Easy to hear in noisy environments
- 16 codes inversion voice scrambler

• Built-in 5-Tone, 2-Tone, CTCSS and DTCS • BIIS 1200 PTT ID and Emergency call • MDC 1200 PTT ID, Emergency and other limited functions • Eight DTMF autodial memories • Surveillance function • Escalating alarm • "Shift key" function

Supplied Accessories

• Battery pack, BP-279 • Desktop charger, BC-213
• AC adapter, BC-123SE/SUK • Belt clip, MB-133 • Antenna
* May differ or not supplied, depending on the transceiver version.



dPMR™ 446 Digital Radios / PMR 446 Radios



VHF HANDHELD TRANSCEIVER IC-F1000 (5 W)

UHF HANDHELD TRANSCEIVER IC-F2000 (4 W)

**SIMPLE, BASIC MODEL WITH
IP67 WATERPROOFING**



FEATURES

- Compact and slim body (24.5 mm depth)
- IP67 waterproof and dust-tight
- Enhanced emergency with motion sensor
- Easy to hear in noisy environments
- 16 codes inversion voice scrambler

• Built-in 5-Tone, 2-Tone, CTCSS and DTCS • BIIS 1200 PTT ID and Emergency call • MDC 1200 PTT ID, Emergency and other limited functions • Eight DTMF autodial memories • Surveillance function • Escalating alarm • "Shift key" function

Supplied Accessories

- Battery pack, BP-279 • Desktop charger, BC-213
- AC adapter, BC-123SE/SUK • Belt clip, MB-133 • Antenna
- * May differ or not supplied, depending on the transceiver version.



dPMR™ 446/PMR 446 TRANSCEIVER IC-F29DR (500 mW ERP)

**PROFESSIONAL DIGITAL
LICENCE-FREE RADIO**



FEATURES

- Digital: improved resistance to interference
- No licence is required to use this radio
- Compact and slim body (30.3 mm depth)
- IP67 waterproof and dust-tight
- 11 km* coverage (wide open space)

* Communication range will vary, depending on terrain and conditions.

• Outstanding audio quality • 16-position rotary channel knob with voice announcement function • Call ring tone function • Operating channels are programmable in the field • PC programmable • Digital common ID, CTCSS and DTCS codes for group call • Power on scan

Supplied Accessories

- Battery pack, BP-280 • Desktop charger, BC-213
- AC adapter, BC-123SE/SUK • Belt clip, MB-133
- * May differ or not supplied, depending on the transceiver version.



PMR 446 TRANSCEIVERS IC-F29SR (500 mW ERP) IC-F29SR2 (500 mW ERP)

**SLIM, WATERPROOF
LICENCE-FREE RADIO**



FEATURES

- Licence-free analogue PMR 446
- No licence is required to use this radio
- Compact and slim body (24.5 mm depth)
- IP67 waterproof and dust-tight
- 8 km* coverage (wide open space)

* Communication range will vary, depending on terrain and conditions.

• Easy to use and easy to hear • 16-position rotary channel knob programmable operating channel and group code • Call ring tone function • Answer back call function • PC programmable • Built-in voice scrambler for private conversation • CTCSS and DTCS codes for group call

Supplied Accessories

- Battery pack, BP-279 • Desktop charger, BC-213
- AC adapter, BC-123SE/SUK • Belt clip, MB-133
- * May differ or not supplied, depending on the transceiver version.



Digital Mobile Radios

VHF DIGITAL TRANSCEIVER

IC-F5400DP

(25 W, Colour LCD)

UHF DIGITAL TRANSCEIVER

IC-F6400DP

(25 W, Colour LCD)



IC-F5400DP

VHF DIGITAL TRANSCEIVER

IC-F5400DPS

(25 W, Segment LCD)

UHF DIGITAL TRANSCEIVER

IC-F6400DPS

(25 W, Segment LCD)



IC-F5400DPS



SUPERB PERFORMANCE AND A COMPREHENSIVE RANGE OF FEATURES



IC-F5400DP/ IC-F5400DPS/ F6400DP only. F6400DP only.

FEATURES

- High resolution colour LCD (IC-F5400DP/IC-F6400DP only.)
- Bluetooth® module for remote and hands-free operation
- dPMR™ Mode 1/2 digital and Mode 3 trunking with the upgrade licence
- OTAP (Over-the-Air-Programming) and OAA (Over-the-Air-Alias)*
- IP55 jet water resistance and dust-protection
- Optional detached controller, dual head or COMMANDMIC™ configurations (IC-F5400DP/IC-F6400DP only.)

* Optional software required.

- Built-in GPS receiver (UX-241 GPS antenna required separately) • Lone Worker function • Audio equalizer and active noise canceling • Digital voice recording to a microSD card • USB port for PC connection • Menu and function item localization • Ignition line • D-SUB 25-pin ACC connector • 20 W audio amplifier • Broadcast call • Ambience listening • Status call and short data message • Call back function for Mode 3 • Transparent data • Remote Kill, Stun and Revive • Built-in 5-Tone, 2-Tone, CTCSS and DTCS • DTMF autodial memories and decoder • MDC 1200 compatible • BUIS 1200 functions

Supplied Accessories

- Hand microphone, HM-221 • DC power cable • Mounting bracket kit • Microphone hanger



Multiple Controller Configurations*

With a combination with optional separation kits, COMMANDMIC™ and separation cables, three types of controller configurations are available to suit almost any application or installation that may be required.

* Multiple controller configurations are for IC-F5400DP/IC-F6400DP only.



Dual head controller configuration

COMMANDMIC™ and detached controller configuration

VHF DIGITAL TRANSCEIVER

IC-F5062D (25 W)

UHF DIGITAL TRANSCEIVER

IC-F6062D (25 W)

VERSATILE, MULTI-FUNCTION MOBILE SERIES



IC-F5062D/F6062D



FEATURES

- dPMR™ Mode 1/2 digital and Mode 3 trunking
- Large dot-matrix LCD with menu driven interface
- IP54 splash resistance and dust-protection (Controller only)
- Detachable front panel (Optional RMK-3 and separation cable required)
- D-SUB 25-pin accessory connector and ignition sensing

- Broadcast call • Ambience listening • Status call and short data message • Transparent data call • Emergency call and alert • Remote Kill, Stun and Revive • Built-in 5-Tone, 2-Tone, CTCSS and DTCS • Eight DTMF autodial • Built-in inversion voice scrambler for analogue mode • Ignition line

Supplied Accessories

- Hand microphone, HM-152 • DC power cable • Microphone hanger • Mounting bracket kit • Key assign stickers



Digital Radios / Analogue Radios

VHF DIGITAL TRANSCEIVER

IC-F5122D (25 W)

UHF DIGITAL TRANSCEIVER

IC-F6122D (25 W)

DIGITAL STANDARD MOBILE RADIO



FEATURES

- dPMR™ Mode 1/2 digital and analogue FM mode operation
- Digital/analogue mixed mode operation
- Front mounted speaker delivers clear and loud audio
- Built-in 5-Tone, 2-Tone, CTCSS and DTCS (Analogue mode)
- External memory channel control with optional ACC cable

- Status call and data call (Short Data Message)
- Transparent data call (Xon/Xoff)
- Remote Kill, Stun and Revive (RX)
- Ambient listening (RX)
- Voting scan
- BIIS PTT ID transmission
- Eight DTMF autodial memories
- Lone Worker function
- Surveillance function

Supplied Accessories

- Hand microphone, HM-152
- DC power cable
- Microphone hanger
- Mounting bracket kit
- Key assign stickers

VHF MOBILE TRANSCEIVER

IC-F5022

(25 W, 128 Ch with LCD)

UHF MOBILE TRANSCEIVER

IC-F6022

(25 W, 128 Ch with LCD)



IC-F5022/F6022

VHF MOBILE TRANSCEIVER

IC-F5012

(25 W, 8 Ch without LCD)

UHF MOBILE TRANSCEIVER

IC-F6012

(25 W, 8 Ch without LCD)



IC-F5012/F6012

HARDWORKING MOBILE RADIOS



FEATURES

- 128 memory channels and 8-character alphanumeric display (IC-F5022/F6022 only)
- 8 memory channels and LED lighting (IC-F5012/F6012 only)
- Front mounted speaker delivers clear and loud audio
- Built-in 5-Tone, 2-Tone, CTCSS and DTCS
- External memory channel control with optional ACC cable
- BIIS PTT ID transmission
- MDC 1200 compatible (Limited functions)

Supplied Accessories

- Hand microphone, HM-152
- DC power cable
- Microphone hanger
- Mounting bracket kit
- Key assign stickers



Data Radios



RS-232 + Ethernet version



RS-232 version

VHF DATA TRANSCEIVER

IC-F5122DD

UHF DATA TRANSCEIVER

IC-F6122DD

GENERAL PURPOSE TRANSPARENT DATA MODEM



FEATURES

- 9600 bps (at 12.5 kHz) and 4800 bps (at 6.25 kHz) data mode
- 25 W, 10 W and 6 W three-step RF output power
- TCP/IP protocol (IPv4) supported for Ethernet
- Meets EN 300 113/EN 300 279 standards
- Fast data transfer using 4-level FSK modulation

Supplied Accessories

- DC power cable
- Mounting bracket kit



dPMR™ Digital Repeaters / dPMR™ Mode 3 Controllers



VHF REPEATERS

IC-FR5100 (25 W, 100% duty)
IC-FR5100H (50 W, 100% duty)

UHF REPEATERS

IC-FR6100 (25 W, 100% duty)
IC-FR6100H (50 W, 100% duty)



VALUE, PERFORMANCE AND FLEXIBILITY

FEATURES

- dPMR™ Mode 2 digital and analogue FM with auto sensing
- dPMR™ Mode 3 repeater for use with IC-FC5000E controller
Optional UC-FR5000SE required.
- 100% duty cycle operation At 25°C ambient temperature.
- “Two channels in one box” configuration for FR5100/FR6100
Optional UR-FR5100/UR-FR6100 required.

- 32 channel capacity • 2U height rack mount design • Base station operation for Analogue and dPMR Mode 2 operation • D-SUB 25-pin accessory connector • CW-ID transmission • Built-in 5-tone, CTCSS and DTCS • Built-in voice scrambler • DTMF encode and decode • IC-FR5200H/FR6200H: high power, full duty repeater with heatsink chassis version (Export version)

Supplied Accessories

- DC power cable • Key assign stickers



dPMR™ MODE 3 EXTERNAL CONTROLLER

IC-FC5000E

dPMR™ MODE 3 TRUNKING CONTROLLER



FEATURES

- Spectrum efficient centralized control channel trunking
- Up to 32 channels per site (One control channel, up to 31 traffic channels)
- Up to 32 site multi-site trunking with CS-FC5000SCS system control software
- Up to 256 site multi-region connection

- Call queuing and emergency call with pre-emption • CS-FC5000 web based management software • Firmware update over an IP network • Remote reboot of the trunking controller over an IP network • Repeater anomaly detection and alert • A traffic channel can be configured as a secondary control channel • 1U (44mm) rack mount

Supplied Accessories

- DC power cable

dPMR™ MODE 3 SYSTEM MANAGER

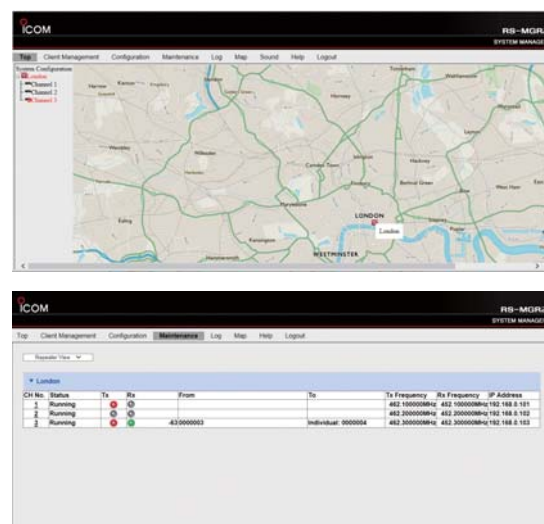
RS-MGR2

ENHANCE SYSTEM MANAGEMENT FOR dPMR™ MODE 3 SYSTEM

FEATURES

- Provides real-time monitoring, system alerts and log search functions for a dPMR™ Mode 3 system

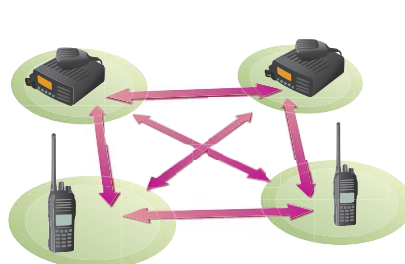
- Real-time monitoring includes repeater view, repeater status, repeater condition, active screen and system connection • Registration log, communication log, traffic log can be searched and downloaded with extensive filter settings • Repeater site icons laid out on an image file such as a map or network diagram • Up to 20 user accounts with three types of access rights and e-mail alert setting



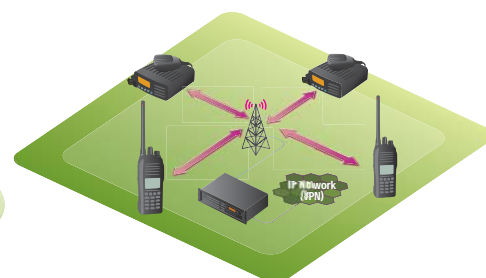
dPMR™ Conventional Mode (Mode 1/ Mode 2)

dPMR radios are designed to coexist with analogue radio systems, and can receive both analogue and digital mode signals on a single channel.

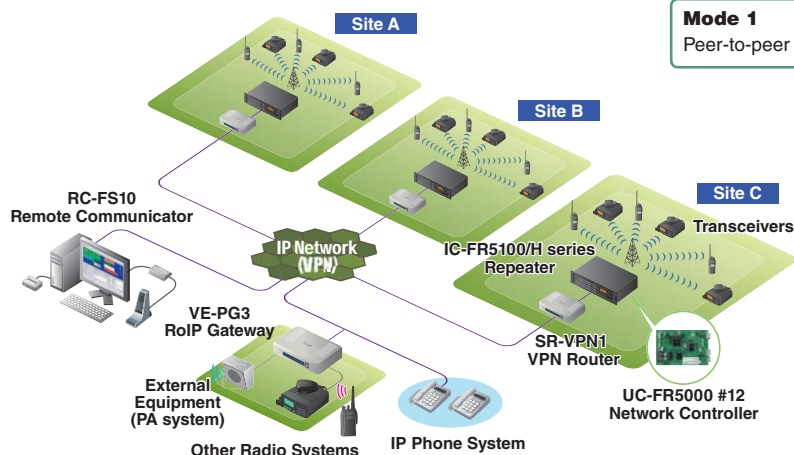
In Mode 2 conventional systems, up to 16 repeater sites can be interconnected over an IP network, and you can build low-complexity multi-site systems.



Mode 1
Peer-to-peer mode



Mode 2
Conventional repeater mode



Mode 2
Conventional repeater mode with an IP network connection

Up to 16 repeater sites can be connected over an IP network.

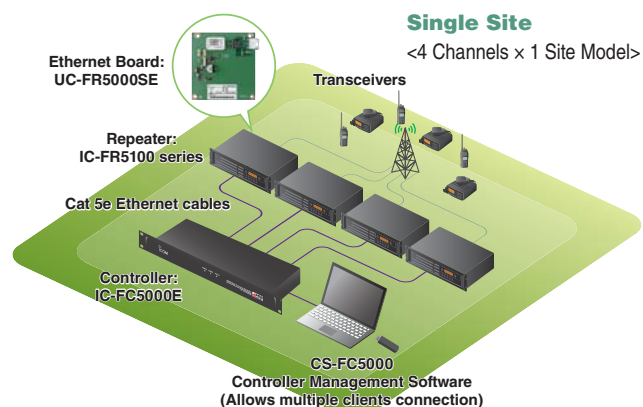
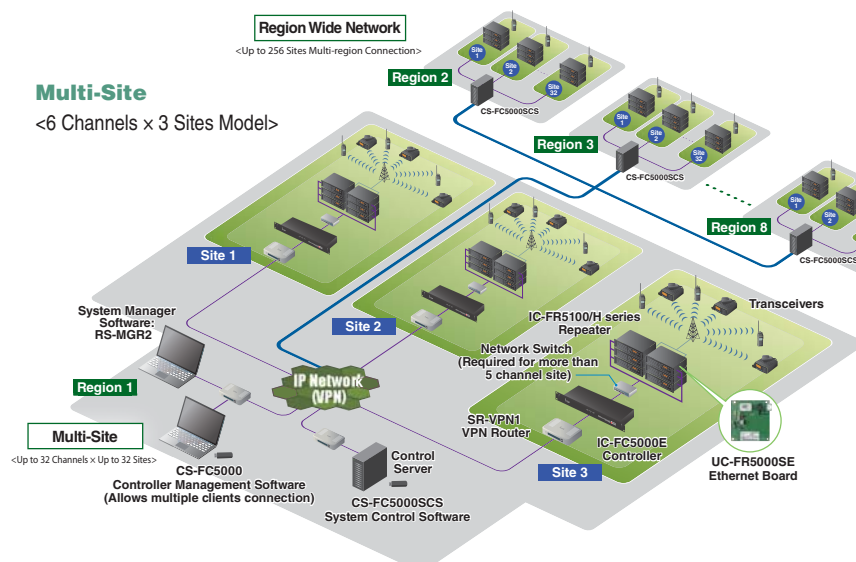
- Flexible migration solution from analogue to digital
- Up to 16 repeater sites
- Web based system administration
System software updates and configuration online
- Status call
- Data call (SDM)
- Transparent data call
- Digital/Analogue dual mode*
- * VE-PG3 required to relay analogue voice traffic over the IP network.
- RC-FS10 creates a IP-based virtual radio station on a PC and works as a simple dispatch
- Interconnect with IP phones, analogue radios and IP advanced radio systems with the VE-PG3 RoIP gateway
- Voting scan function allows selection of a repeater from multiple repeater sites, depending on the RSSI level

dPMR™ Mode 3 Digital Trunking

In a dPMR Mode 3 digital trunking system, when a user requests a call through a dedicated control channel, the trunking controller automatically allocates one of the traffic channels and sets up the call. The system can accommodate a large number of users on a limited number of repeater channels with high efficiency. The System Control Software can interconnect multiple trunking controllers over an IP network, so the system can be expanded from a single site system to multiple sites and increased coverage.

Multi-Site

<6 Channels x 3 Sites Model>

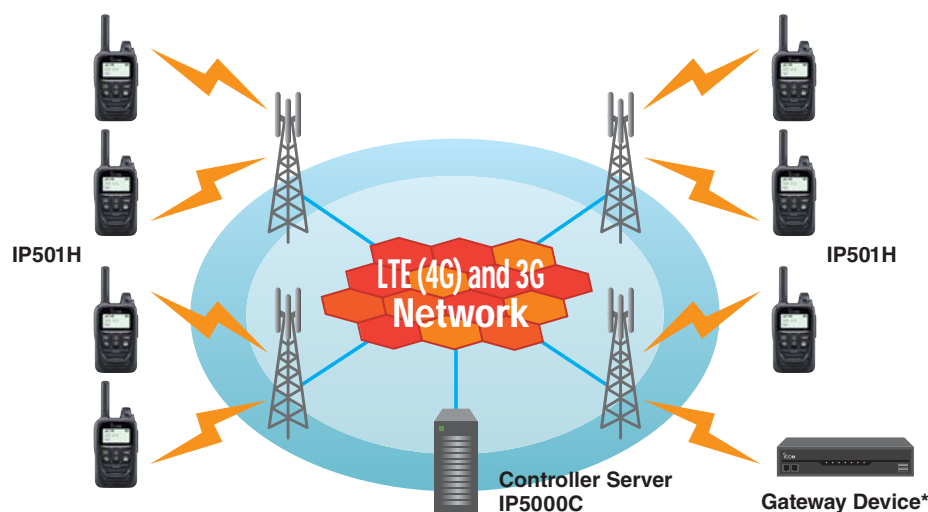


- Up to 32 channels per site
- Up to 32 site multi-site trunking with CS-FC5000SCS System Control Software
- * Up to 256 site multi-region connection (8 region x 32 sites for example)
- Channel license system. Four channel activation key is supplied with the IC-FC5000E
For additional channels/sites, an activation key is required.
- CS-FC5000 web based management software allows to connect multiple clients
- Individual and group calls, including broadcast
- Status call
- Short data message
- Call Queuing
- Emergency Call with Pre-emption



IP ADVANCED RADIO SYSTEM (Over LTE (4G) and 3G Network)

INSTANT NATIONWIDE COVERAGE OVER A LTE (4G) and 3G NETWORK MULTIPLE USER COMMUNICATIONS WITH TELEPHONE STYLE CONVERSATION



* The gateway device will be available in the future.

FEATURES

Push-to-Talk Communication over a LTE (4G) and 3G Network

The IP501H provides nationwide communication using an already established cellular network* and instantaneous communication with PTT operation. The IP501H does not require its own repeaters or IP network and reduces the cost of building and maintaining a wide area radio network.

* Service availability depends on the country. Please ask your Icom distributor in your country about the planned launch date of the service or other requirements. This product requires the system construction working in collaboration with a mobile network operator.

Telephone Style Conversation

The IP501H provides telephone style conversation with PTT operation, where both parties can talk and receive simultaneously. With built-in echo cancel function, full-duplex communication can be made without an optional headset or earphone-microphone.

Multiple User Communication

As the IP501H uses a LTE (4G) and 3G network, multiple users can initiate calls respectively, without interfering with each other.

Group Call, and Emergency Call

The IP501H supports group call with three or more people. In case of an emergency, you can break into an on-going call to relay an important message.

Interconnect between IDAS™ and IP100H Systems

With a gateway device*, the IP501H system will provide interoperability with IP phones, analogue transceivers, IDAS™ digital transceivers and an IP100H wireless LAN IP Advanced Radio System. In addition, GPS position data can be obtained from the IP501H transceiver. * The gateway device will be available in the future.



LTE TRANSCEIVER

IP501H



FEATURES

- High quality, clear audio
- IP67 waterproof and dust-tight (1m depth water for 30 minutes)
- MIL-STD 810 G rugged construction
- Compact 59 × 95 × 32 mm body and 240 g (approximate) lightweight
- Vibration alert function notifies of incoming calls
- Built-in Bluetooth® and GPS*

• Optional BC-218 charger cradle and HM-215 speaker-microphone, the Bluetooth® function enables you to wirelessly use the speaker-microphone connected to the charger • Text message reception and pre-programmed message transmission • Up to 500 memories (including group, individual, talk group and telephone) • Full duplex communication without a headset • Full dot-matrix display

* Gateway device required for GPS data (future).

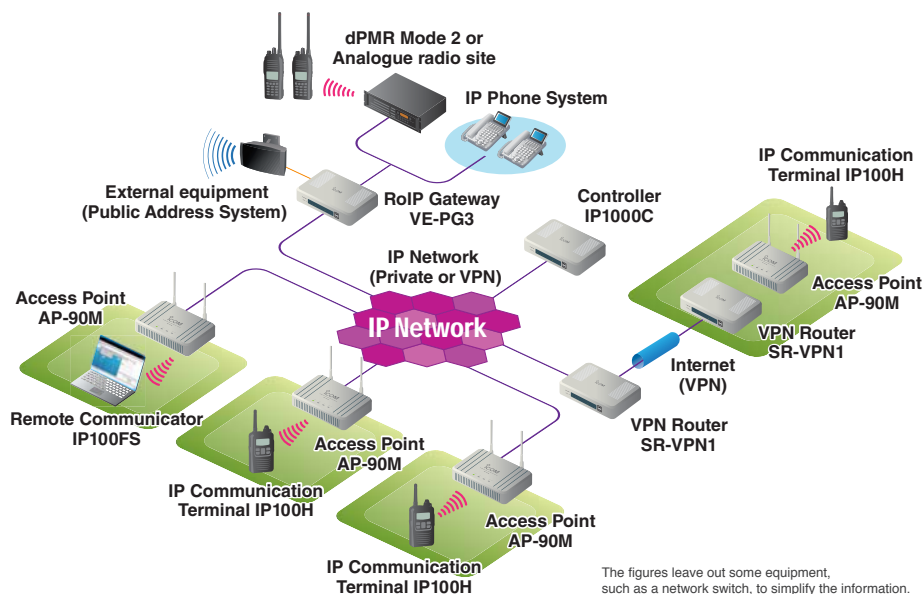
Supplied Accessories

- Battery pack, BP-272 • Belt clip, MB-135
- Antenna • Hand strap



IP ADVANCED RADIO SYSTEM (Wireless LAN)

FULL-DUPLEX COMMUNICATION THAT WORKS OVER A WIRELESS IP NETWORK



FEATURES

Wireless Communication System

By deploying access points along the existing IP network, the IP advanced radio system can communicate from anywhere in the facility. The IP100H can access the nearest access point, and can roam between access points.

Individual, Group, All or Area Communication

Staff spread across multiple rooms can communicate seamlessly. The IP communication terminal can receive Short Data Messages with a vibration alert from a PC installed with IP100FS.

Hands-free, Full-duplex Communication

With an optional earphone-microphone or headset*, the IP100H user can simultaneously talk and receive like a phone call. Hands-free operation allows your staff to carry out other tasks at the same time.

* For full-duplex operation, please use either HM-153LS, HM-166LS, HS-102 with OPC-2359 or HS-85 with OPC-2144 for full-duplex operation.

Interconnect between IDAS™ and IP Phone Systems

With the VE-PG3 RoIP gateway, the IP advanced radio system can interconnect with IP phone systems, analogue transceivers and dPMR™ mode 2 digital transceivers.

WIRELESS LAN ACCESS POINT

AP-90M

- IEEE 802.11 a/b/g/n/ac compliant (2.4 GHz and 5 GHz*)
- PoE (Power over Ethernet) capability
- Optional RS-AP3, Access point management software

* Authorized frequency range and channels may differ depending on the country.

REMOTE COMMUNICATOR

IP100FS

- 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, when used with the AP-90M
- Can be installed on a Windows®-based tablet PC as well as laptop PC
- Supplied with USB flash drive for use as a USB hardware key

CONTROLLER

IP1000C

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

* Depending on the IP1000C version



AP-90M



IP1000C



IP100H

IP COMMUNICATION TERMINAL

IP100H



FEATURES

- Licence-free wireless LAN communication terminal using IEEE 802.11 a/b/g/n standards (2.4 GHz and 5 GHz*)
- WPA-PSK or WPA2-PSK encryption
- IPX7 waterproof (1m depth water for 30 minutes)
- MIL-STD 810 G rugged construction
- Compact 58 × 95 × 26.4 mm body and 205 g (approximate) lightweight
- Vibration alert function notices incoming calls

* Authorized frequency range and channels may differ depending on country.

- Text message reception and pre-programmed message transmission
- Status messages
- Emergency call function
- Full dot-matrix display

Supplied Accessories

- Battery pack, BP-271
- Belt clip, MB-127
- Antenna
- Hand strap



RoIP Gateway / VPN Router / Remote Communicator

RoIP GATEWAY VE-PG3

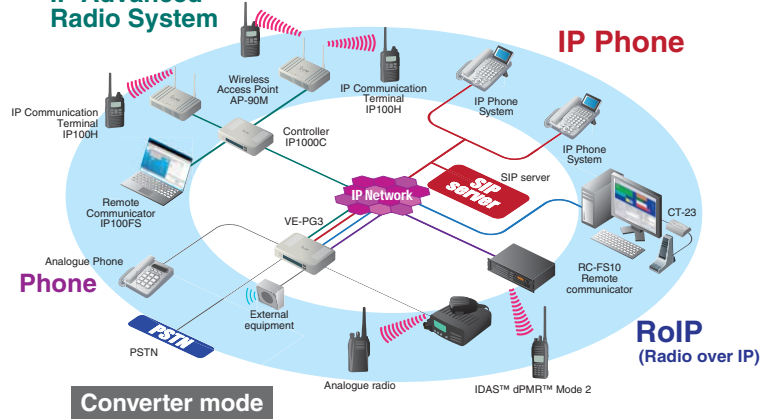


VERSATILE RADIO OVER IP GATEWAY



VE-PG3

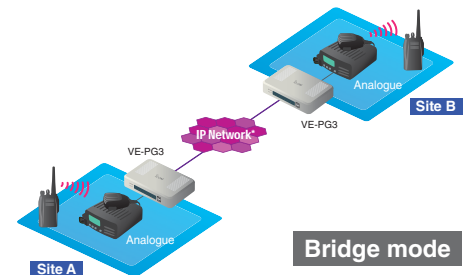
IP Advanced Radio System



Converter mode

FEATURES

- Interconnects between dPMR™ Mode 2, analogue radio and IP Advanced Radio System
- Telephone interconnection with IP phones and PSTN lines
- Cross band, cross category interconnection
- Public address, siren, warning light and external equipment connection
- Optional RC-FS10 software for virtual PC dispatch station
- RoIP and SIP gateway functions
- Direct dialing from radio user* (* Limited to radios with DTMF capability)
- Optional CT-24 digital voice converter converts analogue radio and G.711 µ-law codec to the AMBE+2™ codec for the IDAS radio system
- The virtual serial port function for remote control connected analogue radios or equipment from a PC over an IP network
- IP router function: PPPoE/IPv6 bridge, NAT, dynamic DNS, VPN pass through, IP filter, SNMP and SYSLOG
- USB flash drive connection for firmware updates and data backup
- Site-to-site bridge mode communication over an IP network
- Site-to-multisite bridge mode communication using an IP multicast network
- Mixing audio function for bridge mode operation



Bridge mode

Supplied Accessories

- AC adapter, BC-207S
- Ferrite core
- Spare quick connectors
- Utility software CD

VPN ROUTER SR-VPN1

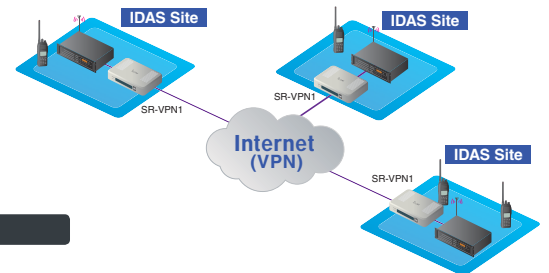
SIMPLE VPN ROUTER FOR RADIO OVER IP



SR-VPN1

FEATURES

- Up to 32 IPsec VPN tunnels with 1000BASE-T gigabit Ethernet
- A broadband IP connection is separately required for an Internet connection.
- 3DES, AES-128, AES-192 or AES-256 encryption
- IPsec wizard provides simple step-by-step instructions
- IPv4 multicast routing for VE-PG3
- Dynamic DNS client function



Supplied Accessory

- AC adapter, BC-207S

REMOTE COMMUNICATOR RC-FS10

VIRTUAL RADIO / PC DISPATCH



FEATURES










- PC remote communicator for dPMR™ Mode 2 and analogue radio systems
- VE-PG3 is required for analogue radio systems.
- Up to eight different dPMR Mode 2 and analogue 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-154 or SM-26 microphone can be used with the RC-FS10
- Optional CT-23 PTT microphone adapter is required.












Supplied Accessories

- Installation CD
- USB cable
- Digital converter, CT-24

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY PACKS								
	BP-277EX (Li-ion) For intrinsically safe radios 7.4 V/1800 mAh (min.) 1900 mAh (typ.) 	BP-227AXD (Li-ion) For intrinsically safe radios 7.4 V/1850 mAh (min.) 1950 mAh (typ.) 	BP-284 (Li-ion) 7.2 V/3070 mAh (min.) 3210 mAh (typ.) 	BP-283 (Li-ion) 7.2 V/ 1910 mAh (min.) 2010 mAh (typ.) 	BP-232WP (Li-ion) 7.4 V/2200 mAh (min.) 2350 mAh (typ.) 	BP-294 (Li-ion) 7.2 V/3050 mAh (min.) 3150 mAh (typ.) 	BP-290 (Li-ion) 7.2 V/1910 mAh (min.) 2010 mAh (typ.) 	BP-280 (Li-ion) 7.2 V/2280 mAh (min.) 2400 mAh (typ.) 	BP-279 (Li-ion) 7.2 V/1485 mAh (min.) 1570 mAh (typ.) 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP			✓	✓					
IC-F3262DT/DS IC-F4262DT/DS					✓				
IC-F52D IC-F62D						✓	✓		
IC-F1000D IC-F2000D								✓	✓
IC-F3202DEX IC-F4202DEX	✓								
IC-F51 ATEX IC-F61 ATEX		✓							
IC-F1000T/S IC-F2000T/S								✓	✓
IC-F1000 IC-F2000								✓	✓
IC-F29DR								✓	✓
IC-F29SR IC-F29SR2								✓	✓

MODEL NAME	BATTERY PACKS	BATTERY CASES				DESKTOP CHARGERS			
	BP-278 (Li-ion) 7.2 V/1130 mAh (min.) 1190 mAh (typ.) 	BP-240 LR03 (AAA) x6 cells 	BP-261 LR6 (AA) x6 cells 	BP-291 LR6 (AA) x5 cells 	BC-212EX *1 Rapid charger for intrinsically safe radios 	BC-219N Rapid charger 	BC-225 Intelligent charger 	BC-226 Connectable type. Connects up to six BC-226 units. 	BC-227 Compact rapid charger 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP						✓	✓	✓	✓
IC-F3262DT/DS IC-F4262DT/DS		✓	✓						
IC-F52D IC-F62D				✓		✓	✓	✓	✓
IC-F1000D IC-F2000D	✓								
IC-F3202DEX IC-F4202DEX					✓				
IC-F51 ATEX IC-F61 ATEX									
IC-F1000T/S IC-F2000T/S	✓								
IC-F1000 IC-F2000	✓								
IC-F29DR	✓								
IC-F29SR IC-F29SR2	✓								

*1 The battery charger, BC-212EX **must not be used** in an explosive atmosphere.

MODEL NAME	DESKTOP CHARGERS					MULTI-CHARGERS		
	BC-160 Rapid charger 	BC-171 Regular charger 	BC-213 Rapid charger 	BC-119N Rapid charger 	BC-152N Regular charger 	BC-214 *2 Rapid multi- charger 	BC-197 *3 Rapid multi- charger 	BC-121N Rapid multi- charger 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP						✓ (Use with AD-132N)		
IC-F3262DT/DS IC-F4262DT/DS	✓	✓					✓ (Use with AD-122)	
IC-F52D IC-F62D						✓ (Use with AD-132N)		
IC-F1000D IC-F2000D			✓			✓ (Use with AD-130)		
IC-F3202DEX IC-F4202DEX								
IC-F51 ATEX IC-F61 ATEX				✓ (AD-100 is required)	✓			✓ (Use with AD-100)
IC-F1000T/S IC-F2000T/S			✓			✓ (Use with AD-130)		
IC-F1000 IC-F2000			✓			✓ (Use with AD-130)		
IC-F29DR			✓			✓ (Use with AD-130)		
IC-F29SR IC-F29SR2			✓			✓ (Use with AD-130)		

*2 Either AD-130 or AD-132N is supplied with the BC-214, depending on version. *3 AD-122 is supplied with the BC-197, depending on version.

The IC-F3202DEX/F4202DEX and IC-F51/F61 ATEX intrinsically models should only be used with the specified intrinsically safe approved options.

✓ : Applicable □ : Not applicable

OPTIONS FOR HANDHELD TRANSCEIVERS










MODEL NAME	CHARGER ADAPTERS				AC ADAPTERS				
	AD-132N*2 For BP-283, BP-284, BP-294 or BP-290	AD-122*3 For BP-232WP	AD-130*2 For BP-278, BP-279 or BP-280	AD-100 For BP-227AXD	BC-123S*4 12 V/1 A	BC-145S*4 16 V/0.93 A	BC-147S*4 12 V/0.25 A	BC-157S 12 V/7.5 A	BC-228 15 V/4 A
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP	✓ (Use with BC-214)				✓ (Use with BC-219N, BC-225 or BC-227)			✓ (Use with BC-214)	✓ (Use with BC-226)
IC-F3262DT/DS IC-F4262DT/DS		✓ (Use with BC-197)			✓ (Use with BC-160)		✓ (Use with BC-171)	✓ (Use with BC-197)	
IC-F52D IC-F62D	✓ (Use with BC-214)				✓ (Use with BC-219N, BC-225 or BC-227)			✓ (Use with BC-214)	✓ (Use with BC-226)
IC-F1000D IC-F2000D			✓ (Use with BC-214)		✓ (Use with BC-213)			✓ (Use with BC-214)	
IC-F3202DEX IC-F4202DEX					✓ (Use with BC-212EX)				
IC-F51 ATEX IC-F61 ATEX				✓ (Use with BC-119N or BC-121N)		✓ (Use with BC-119N)	✓ (Use with BC-152N)	✓ (Use with BC-121N)	
IC-F1000T/S IC-F2000T/S			✓ (Use with BC-214)		✓ (Use with BC-213)			✓ (Use with BC-214)	
IC-F1000 IC-F2000			✓ (Use with BC-214)		✓ (Use with BC-213)			✓ (Use with BC-214)	
IC-F29DR			✓ (Use with BC-214)		✓ (Use with BC-213)			✓ (Use with BC-214)	
IC-F29SR IC-F29SR2			✓ (Use with BC-214)		✓ (Use with BC-213)			✓ (Use with BC-214)	










*4 BC-123SA/BC-145SA/BC-147SA for US plug. SE for EURO plug. SV for Australia plug. BC-123SUK/BC-145SUK for UK plug.



MODEL NAME	CHARGER BRACKET	CIGARETTE LIGHTER CABLE	DC POWER CABLES		READER SOFTWARE	SPEAKER-MICROPHONES			
	MB-130	CP-23L	OPC-656	OPC-515L	RS-BC225	HM-203EX For intrinsically safe radios IP67	HM-222 IP68	HM-184/H IP67	HM-233GP GPS IP67
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP		✓ (Use with BC-219N or BC-227)	✓ (Use with BC-214)	✓ (Use with BC-219N, BC-225 or BC-227)	✓ (Use with BC-225)		✓		
IC-F3262DT/DS IC-F4262DT/DS	✓ (Use with BC-160)	✓ (Use with BC-160)	✓ (Use with BC-197)					✓	
IC-F52D IC-F62D		✓ (Use with BC-219N or BC-227)	✓ (Use with BC-214)	✓ (Use with BC-219N, BC-225 or BC-227)	✓ (Use with BC-225)		✓		✓
IC-F1000D IC-F2000D	✓ (Use with BC-213)	✓ (Use with BC-213)	✓ (Use with BC-214)						
IC-F3202DEX IC-F4202DEX						✓			
IC-F51 ATEX IC-F61 ATEX									
IC-F1000T/S IC-F2000T/S	✓ (Use with BC-213)	✓ (Use with BC-213)	✓ (Use with BC-214)						
IC-F1000 IC-F2000	✓ (Use with BC-213)	✓ (Use with BC-213)	✓ (Use with BC-214)						
IC-F29DR	✓ (Use with BC-213)	✓ (Use with BC-213)	✓ (Use with BC-214)						
IC-F29SR IC-F29SR2	✓ (Use with BC-213)	✓ (Use with BC-213)	✓ (Use with BC-214)						

MODEL NAME	SPEAKER-MICROPHONES					TIE-CLIP MICROPHONE	EARPHONE-MICROPHONES		HEADSETS
	HM-168LWP IP67	HM-158LA	HM-159LA	HM-171GPW GPS IP67	HM-138 IPX7	HM-163MC	HM-153LA	HM-166LA	VS-3 Bluetooth® headset
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP									
IC-F3262DT/DS IC-F4262DT/DS									
IC-F52D IC-F62D						✓			✓
IC-F1000D IC-F2000D	✓	✓	✓	✓			✓	✓	
IC-F3202DEX IC-F4202DEX									
IC-F51 ATEX IC-F61 ATEX					✓				
IC-F1000T/S IC-F2000T/S	✓	✓	✓				✓	✓	
IC-F1000 IC-F2000	✓	✓	✓				✓	✓	
IC-F29DR	✓	✓	✓				✓	✓	
IC-F29SR IC-F29SR2	✓	✓	✓				✓	✓	

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	HEADSETS					EARPHONES			
	HS-94 Earhook type with boom microphone 	HS-94LWP Earhook type with waterproof connector 	HS-95 Behind-the-head type 	HS-95LWP Behind-the-head type with waterproof connector 	HS-97 Throat microphone type 	EH-15B 	SP-26 Tube earphone 	SP-27 Tube earphone 	SP-28 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP	✓ (Use with VS-4MC)		✓ (Use with VS-4MC)		✓ (Use with VS-4MC)				
IC-F3262DT/DS IC-F4262DT/DS	✓ (Use with VS-4MC)		✓ (Use with VS-4MC)		✓ (Use with VS-4MC)				
IC-F52D IC-F62D	✓ (Use with VS-5MC)		✓ (Use with VS-5MC)		✓ (Use with VS-5MC)	✓ (Use with HM-163MC)	✓ (Use with HM-163MC)	✓ (Use with HM-222 or AD-135)	✓ (Use with HM-163MC)
IC-F1000D IC-F2000D	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)				
IC-F3202DEX IC-F4202DEX									
IC-F51 ATEX IC-F61 ATEX									
IC-F1000T/S IC-F2000T/S	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)				
IC-F1000 IC-F2000	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)				
IC-F29DR	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)				
IC-F29SR IC-F29SR2	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)	✓	✓ (Use with VS-4LA or OPC-2004LA)				

MODEL NAME	EARPHONES			PLUG ADAPTER CABLE	PTT SWITCH CABLES			ACC ADAPTERS	
	SP-29 	SP-32 Tube earphone adapter 	SP-40 	OPC-2004LA VOX operation 	VS-5MC Manual PTT/VOX operation 	VS-4MC Manual PTT operation 	VS-4LA Manual PTT operation 	AD-118 Allows you to use 6-pin Hirose plug accessories 	AD-135 3.5 mm jack earphone adapter 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP						✓		✓	
IC-F3262DT/DS IC-F4262DT/DS						✓		✓	
IC-F52D IC-F62D	✓ (Use with HM-222 or AD-135)	✓ (Use with EH-15B)	✓ (Use with HM-222 or AD-135)		✓			✓	✓
IC-F1000D IC-F2000D				✓			✓		
IC-F3202DEX IC-F4202DEX									
IC-F51 ATEX IC-F61 ATEX									
IC-F1000T/S IC-F2000T/S				✓			✓		
IC-F1000 IC-F2000				✓			✓		
IC-F29DR				✓			✓		
IC-F29SR IC-F29SR2				✓			✓		




MODEL NAME	BELT CLIPS			BELT HANGERS			CARRYING CASES		
	MB-94EX For intrinsically safe radios 	MB-136 MB-93 MB-86 Swivel type  (Photo shows MB-93)	MB-133 MB-98 MB-94/R MBB-3 Alligator type  (Photo shows MB-133)	MB-96N 	MB-96F 	MB-96FL 	LC-184 For IC-F3400DPT/DPS, F4400DPT/DPS 	LC-186 For IC-F3400DP, F4400DP 	LC-187*5 For use with BP-290 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP		✓ (Use MB-136)	✓ (Use MB-133)	✓	✓	✓	✓	✓	
IC-F3262DT/DS IC-F4262DT/DS		✓ (Use MB-93)	✓ (Use MB-94/R)	✓	✓	✓			
IC-F52D IC-F62D		✓ (Use MB-136)	✓ (Use MBB-3)	✓	✓	✓			✓
IC-F1000D IC-F2000D			✓ (Use MB-133)						
IC-F3202DEX IC-F4202DEX	✓								
IC-F51 ATEX IC-F61 ATEX		✓ (Use MB-86)	✓ (Use MB-98)		✓				
IC-F1000T/S IC-F2000T/S			✓ (Use MB-133)						
IC-F1000 IC-F2000			✓ (Use MB-133)						
IC-F29DR			✓ (Use MB-133)						
IC-F29SR IC-F29SR2			✓ (Use MB-133)						


*5 Charging is possible while the case is attached.

Some options may not be available in some countries. Please ask your dealer for details.

✓ : Applicable : Not applicable

OPTIONS FOR HANDHELD TRANSCEIVERS

	CARRYING CASES	ANTENNAS				CUT ANTENNAS		HIGH GAIN ANTENNAS
MODEL NAME	LC-188 For use with BP-290 	FA-S81V 136–150 MHz FA-S82V 148–160 MHz FA-S83V 160–174 MHz FA-S81U 380–430 MHz FA-S82U 430–480 MHz	FA-SC25V 136–150 MHz FA-SC55V 150–174 MHz FA-SC25U 400–430 MHz FA-SC57U 430–470 MHz	FA-SC25V 136–150 MHz FA-SC28V 148–162 MHz FA-SC29V 160–174 MHz FA-SC25U 400–430 MHz FA-SC57U 430–470 MHz	FA-S24V 136–150 MHz FA-S59V 150–174 MHz FA-S27U 400–470 MHz FA-S56U 450–520 MHz	FA-S67VC 136–174 MHz FA-S76UC 380–520 MHz	FA-SC61VC 136–174 MHz FA-SC61UC 380–520 MHz 	FA-SC62V 150–160 MHz FA-SC63V 155–165 MHz 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP		✓				✓		
IC-F3262DT/DS IC-F4262DT/DS			✓				✓	✓
IC-F52D IC-F62D	✓			✓			✓	✓
IC-F1000D IC-F2000D			✓				✓	✓
IC-F3202DEX IC-F4202DEX			✓					
IC-F51 ATEX IC-F61 ATEX					✓			
IC-F1000T/S IC-F2000T/S			✓				✓	✓
IC-F1000 IC-F2000			✓				✓	✓
IC-F29DR								
IC-F29SR IC-F29SR2								

	STUBBY ANTENNAS		
MODEL NAME	FA-S81VS 136–150 MHz FA-S82VS 150–160 MHz FA-S83VS 160–174 MHz FA-S81US 400–450 MHz FA-S82US 450–490 MHz	FA-SC26VS 136–144 MHz FA-SC27VS 142–150 MHz FA-SC56VS 150–162 MHz FA-SC57VS 160–174 MHz FA-SC26US 400–450 MHz FA-SC73US 450–490 MHz	FA-S62VS 150–162 MHz FA-S63VS 160–174 MHz FA-S57US 450–490 MHz 
IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP	✓		
IC-F3262DT/DS IC-F4262DT/DS		✓	
IC-F52D IC-F62D		✓	
IC-F1000D IC-F2000D		✓	
IC-F3202DEX IC-F4202DEX			
IC-F51 ATEX IC-F61 ATEX			✓
IC-F1000T/S IC-F2000T/S		✓	
IC-F1000 IC-F2000		✓	
IC-F29DR			
IC-F29SR IC-F29SR2			

SPECIFICATIONS FOR HANDHELD TRANSCEIVERS

	IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP	IC-F3262DT/DS IC-F4262DT/DS	IC-F52D IC-F62D	IC-F1000D IC-F2000D	IC-F1000T/S IC-F2000T/S	IC-F3202DEX IC-F4202DEX	IC-F51 ATEX IC-F61 ATEX	IC-F29DR	IC-F29SR IC-F29SR2	
Frequency coverage	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	Analogue; 446.0–446.1 MHz ^{*1}	IC-F29SR (Analogue): 446.0–446.1 MHz ^{*1}	
	380–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	Digital; 446.1–446.2 MHz ^{*1}	IC-F29SR2 (Analogue): 446.0–446.2 MHz ^{*2}	
Number of channels	4000/1024 channels ^{*2} 128 zones	512 channels 128 zones	512 channels 128 zones	128 channels ^{*3}	128 channels ^{*4}	16 channels	128 channels 8 zones	Analogue; 8 ch Digital; 16 ch	IC-F29SR: 8 ch IC-F29SR2: 16 ch (Analogue)	
Channel spacing	6.25, 12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	12.5, 20, 25 kHz	6.25, 12.5kHz	12.5 kHz	
Dimensions (W × H × D; Projections are not included)	53.6 × 123.5 × 29.3 mm (with BP-283)	53.5 × 142.7 × 39.5 mm (with BP-232WP)	56 × 91.5 × 29 mm (with BP-290)	52.2 × 111.8 × 30.3 mm (with BP-280)	52.2 × 111.8 × 24.5 mm (with BP-279)	63 × 144 × 50 mm (with BP-277EX)	56 × 97 × 36.4 mm (with BP-227AXD)	52.2 × 186.1 × 30.3 mm (with BP-280)	52.2 × 186.1 × 24.5 mm (with BP-279)	
Weight (approx.)	305 g (VHF) 300 g (UHF) (with BP-283, belt clip & ant.)	410 g (VHF) 400 g (UHF) (with BP-232WP, belt clip & ant.)	230 g (With BP-290 & belt clip)	260 g (With BP-280 & belt clip)	240 g (with BP-279)	466 g (VHF) 460 g (UHF) (with BP-277EX, belt clip & ant.)	295 g (with BP-227AXD)	270 g (With BP-280 and belt clip)	240 g (With BP-279)	
RF output power (High)	5 W (VHF/UHF)	5 W (VHF/UHF)	5 W (VHF/UHF)	5 W (VHF) 4 W (UHF)	5 W (VHF) 4 W (UHF)	1 W (VHF/UHF)	1 W (VHF/UHF)	500 mW ERP	500 mW ERP	
Frequency stability	±1.0 ppm	±1.0 ppm	±1.0 ppm	±1.0 ppm	±2.5 ppm	±1.0 ppm	±2.5 ppm (VHF) ±2.0 ppm (UHF)	±1.0 ppm	±2.5ppm	
Sensitivity	(20 dB SINAD, emf)	–5.5/–5.5/–2.5 dBµV typ. (VHF) –5.0/–5.0/–2.0 dBµV typ. (UHF)	–4 dBµV typ.	–4/–4/–1.4 dBµV typ. (VHF) –4/–4/–1.1 dBµV typ. (UHF)	–5/–5/–2 dBµV typ. (W/M/N)	–4 dBµV typ.	–4 dBµV typ.	–4 dBµV typ.	26.5 dBµV/m	26.5 dBµV/m
	(5% BER, emf)	–	–8 dBµV typ.	–	–8 dBµV typ.	–	–8 dBµV typ.	–	–8 dBµV typ.	–
	(1% BER, emf)	–5.5 dBµV typ. (VHF) –4 dBµV typ. (UHF)	–	–5 dBµV typ. (VHF) –4 dBµV typ. (UHF)	–	–	–	–	–	–
Selectivity	(W/M/N)	80/80/76 dB typ. (VHF) 75/75/72 dB typ. (UHF)	78/78/68 dB typ.	79/79/77 dB typ. (VHF) 76/76/73 dB typ. (UHF)	77/74/69 dB typ. (VHF) 75/74/69 dB typ. (UHF)	76/72/53 dB typ. (VHF) 73/73/56 dB typ. (UHF)	78/75/70 dB typ. (VHF) 74/72/66 dB typ. (UHF)	75/75/65 dB typ.	81.29 dBµV/m	81.29 dBµV/m
	(Digital)	71 dB typ. (VHF) 66 dB typ. (UHF)	60 dB typ.	70 dB typ. (VHF) 66 dB typ. (UHF)	59 dB typ. (VHF) 58 dB typ. (UHF)	–	62 dB typ. (VHF) 57 dB typ. (UHF)	–	58 dB typ.	–
Intermodulation	(W/M/N)	67 dB typ. (VHF) 68 dB typ. (UHF)	67 dB typ.	68 dB typ.	69 dB typ. (VHF) 70 dB typ. (UHF)	68 dB typ. (VHF) 67 dB typ. (UHF)	67 dB typ.	67 dB typ.	86.29 dBµV/m	86.29 dBµV/m
	(Digital, emf)	72 dBµV typ. (VHF) 73 dBµV typ. (UHF)	73 dBµV typ.	73 dBµV typ.	74 dBµV typ.	–	73 dBµV typ.	–	74 dBµV typ.	–
AF output power	Internal SP	800 mW typ.	800 mW typ.	800 mW typ.	800 mW typ.	800 mW typ.	800 mW (typ. 32Ω)	–	800 mW typ.	800 mW typ.
	External SP	1000 mW typ.	1000 mW typ.	1000 mW typ.	400 mW typ.	400 mW typ.	400 mW (typ. 32Ω)	500 mW typ.	400 mW typ.	400 mW typ.

DN (Digital Narrow): 12.5 kHz. DVN (Digital Very Narrow): 6.25 kHz

^{*1} We suggest you confirm the PMR 446 frequency allocation status in your country before use.

^{*2} Upgrade licence(ISL-CHEX) required to enable 4000 channel capacity. IC-F3400DP/F4400DP (Non-LCD type): Up to 32 selected channels out of 1024 can be allocated to the channel knob.

^{*3} Up to 16 selected channels out of 128 can be allocated to the channel knob. ^{*4} IC-F1000/F2000 (Non-LCD type): Up to 16 selected channels out of 128 can be allocated to the channel knob.

	IC-F3400DPT/DPS/DP IC-F4400DPT/DPS/DP	IC-F3262DT/DS IC-F4262DT/DS	IC-F52D IC-F62D	IC-F1000D IC-F2000D	IC-F1000T/S IC-F2000T/S	IC-F3202DEX IC-F4202DEX	IC-F51 ATEX IC-F61 ATEX	IC-F29DR	IC-F29SR IC-F29SR2
dPMR™	Mode 1/ Mode 2	✓	✓	✓	✓	–	✓	–	–
	Mode 2 Multi-site	✓	✓	✓	✓	–	✓	–	–
	Mode 3 Trunking	✓ (With ISL-UGMD3)	✓	✓ (With ISL-UGMD3)	–	–	–	–	–
dPMR™ 446 (Licence-free)	–	–	–	–	–	–	–	✓	–
Encryption	DES (4-key)	✓	–	–	–	–	–	–	–
	DES (64-key)	✓ (With UT-134)	–	–	–	–	–	–	–
	AES	✓ (With UT-134, ISL-AKAE)	–	–	–	–	–	–	–
Voice Scrambler (Digital)	✓	✓	✓	✓	–	✓	–	–	–
Voice Scrambler (Analogue) ^{*1}	Inversion	✓	✓	✓	–	✓	✓	–	✓
	Rolling/Non-rolling	–	–	–	–	–	✓	–	–
OTAP (Over-the-Air Programming)	✓ (With CS-OTPM1)	–	✓ (With CS-OTPM1)	–	–	–	–	–	–
CTCSS/DTCS: encoder/decoder	✓	✓	✓	✓	✓	✓	✓	✓	✓
2-Tone: encoder/decoder	✓	✓	✓	✓	✓	✓	✓	–	–
5-Tone: encoder/decoder	✓	✓	✓	✓	✓	✓	✓	–	–
DTMF autodial	✓	✓	✓	✓	✓	✓	✓	–	–
DTMF decoder	✓ ^{*3}	✓ ^{*3}	–	–	–	–	–	–	–
BIIS 1200	✓	✓	✓	✓ ^{*4}	✓ ^{*4}	✓ ^{*5}	✓	–	–
MDC 1200	✓	–	✓	–	✓ ^{*6}	–	✓	–	–
Man Down function	✓	✓ ^{*7}	✓	✓	✓	–	–	–	–
Motion detection sensor	✓	–	✓	✓	✓	–	–	–	–
Intrinsically safe	–	–	–	–	–	✓	✓	–	–
Channel announcement	✓	–	✓	✓	✓	✓	–	✓	✓
Vibration alert	✓	–	✓	–	–	–	–	–	–
Voice recorder	✓	–	✓	–	–	–	–	–	–
Bluetooth®	✓	–	✓	–	–	–	–	–	–
GPS receiver	✓	✓ ^{*7}	HM-233GP	HM-171GPW	–	–	–	–	–
Operating time ^{*2}	10 hours with BP-283 16 hours with BP-284	12/10.5 hours ^{*8} with BP-232WP	13 hours with BP-290 18.5 hours with BP-294	18 hours with BP-280 12 hours with BP-279	20 hours with BP-280 14 hours with BP-279	21.5/19 hours with BP-277EX (VHF/UHF)	16.5 hours with BP-227AXD	26 hours with BP-280 17 hours with BP-279	33 hours with BP-280 21 hours with BP-279
IP rating	IP68 (1 m depth 1 hour)	IP67	IP67/66/55/54	IP67	IP67	IP67	IP67	IP67	IP67
MIL-STD requirements	MIL-810 G	MIL-810 G	MIL-810 G	MIL-810 G	MIL-810 G	MIL-810 G	MIL-810 F	MIL-810 G	MIL-810 G

^{*1} Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler.

^{*2} Conventional mode. 5:5:90 duty cycle, power save ON. ^{*3} Possible as a kind of 5-Tone format.

^{*4} PTT ID and emergency call. ^{*5} PTT ID only. ^{*6} Limited functions. ^{*7} Depending on version. ^{*8} Non GPS/GPS type.

✓ : Available – : Not available

OPTIONS FOR MOBILE TRANSCEIVERS AND REPEATERS

MODEL NAME	HAND MICROPHONES								
	HM-221 IP55	HM-211T with DTMF keypad IP55	HM-220 Heavy-duty type IP54	HM-220T Heavy duty type with DTMF keypad IP54	HM-211 Noise Canceling Mic	HM-152	HM-152T with DTMF keypad	HM-148G Heavy-duty type	HM-148T Heavy duty type with DTMF keypad
IC-F5400DP, IC-F6400DP	✓	✓	✓	✓					
IC-F5400DPS, IC-F6400DPS	✓	✓	✓	✓					
IC-F5062D, IC-F6062D					✓	✓	✓	✓	✓
IC-F5122D, IC-F6122D					✓	✓	✓	✓	
IC-F5022, IC-F6022						✓	✓	✓	
IC-F5012, IC-F6012						✓	✓	✓	✓
IC-FR5100, IC-FR6100						✓			
IC-FR5100H, IC-FR6100H						✓			

MODEL NAME	DESKTOP MICROPHONES		EXTERNAL SPEAKERS		SEPARATION KITS			COMMANDMIC™	SEPARATION CABLES
	SM-29	SM-26	SP-30	SP-35 2 m cable SP-35L 6 m cable	RMK-5	RMK-7 Dual head	RMK-3	HM-218 Secondary controller for use with RMK-5 IP55	OPC-2364 (1.9 m) OPC-2365 (3 m) OPC-2366 (5 m) OPC-2367 (8 m) For use with RMK-5 or RMK-7
IC-F5400DP, IC-F6400DP	✓		✓	✓	✓ (Separation cable is required)	✓ (Separation cable is required)		✓ (Separation cable is required)	✓
IC-F5400DPS, IC-F6400DPS	✓		✓	✓					
IC-F5062D, IC-F6062D		✓	✓	✓			✓ (OPC-609 is required)		
IC-F5122D, IC-F6122D		✓	✓	✓					
IC-F5022, IC-F6022		✓		✓					
IC-F5012, IC-F6012		✓	✓	✓					
IC-FR5100, IC-FR6100		✓		✓					
IC-FR5100H, IC-FR6100H		✓		✓					

MODEL NAME	SEPARATION CABLES		GPS ANTENNA	ACC CABLES		CHANNEL MODULES	POWER AMPLIFIERS	NETWORK CONTROLLER	ETHERNET BOARD
	OPC-2373 (1.9 m) OPC-2374 (8 m) For use with HM-218, COMMANDMIC	OPC-609 (1.9 m) for use with RMK-3	UX-241	OPC-1939 (15-pin) OPC-2078 (25-pin) (Photo shows OPC-1939)	OPC-2202 UR-PA5000/PA6000 connection cable	UR-FR5100 136–174 MHz, 25 W UR-FR6100 400–470 MHz, 25 W	UR-PA5100 136–174 MHz, 50 W 100% duty UR-PA6100 400–470 MHz, 50 W 100% duty	UC-FR5000 For dPMR Mode 2 multi-site networking	UC-FR5000SE For connection with IC-FC5000E
IC-F5400DP, IC-F6400DP	✓		✓						
IC-F5400DPS, IC-F6400DPS			✓						
IC-F5062D, IC-F6062D		✓							
IC-F5122D, IC-F6122D				✓*					
IC-F5022, IC-F6022				✓					
IC-F5012, IC-F6012				✓					
IC-FR5100, IC-FR6100					✓	✓	✓	✓	✓
IC-FR5100H, IC-FR6100H					✓		Built-in	✓	✓

* No digital modulation "IN" using accessory cables.

Some options may not be available in some countries. Please ask your dealer for details.

SPECIFICATIONS FOR MOBILE TRANSCEIVERS AND REPEATERS

	IC-F5400DP/DPS IC-F6400DP/DPS	IC-F5062D IC-F6062D	IC-F5122D IC-F6122D	IC-F5122DD IC-F6122DD	IC-F5022 IC-F6022	IC-F5012 IC-F6012	IC-FR5100H IC-FR6100H	IC-FR5100 IC-FR6100		IC-FC5000E
Frequency coverage	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz	136–174 MHz		Power supply requirements	12 V DC
	380–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz	400–470 MHz			
Number of channels	4000/1024 channels *1 128 zones	512 channels 128 zones	128 channels 8 zones	128 channels	128 channels 8 zones	8 channels	32 channels		Dimensions (W × H × D; Projections are not included)	483 × 44 × 219 mm
Channel spacing	6.25, 12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz	6.25, 12.5 kHz	12.5, 20, 25 kHz	12.5, 20, 25 kHz	6.25, 12.5, 20, 25 kHz		Weight (approx.)	2.25 kg
Power supply requirements	13.2 V DC	13.2 V DC	13.2 V DC	13.2 V DC	13.2 V DC	13.2 V DC	13.2 V DC		LAN	RJ-45 connector × 4 (100BASE-TX)
Dimensions (W × H × D; Projections are not included)	174 × 55 × 150 mm	160 × 45 × 150 mm	150 × 40 × 117.5 mm	150 × 40 × 134.7 mm	150 × 40 × 117.5 mm	150 × 40 × 117.5 mm	483 × 88 × 260 mm		WAN	RJ-45 connector × 1 (100BASE-TX)
Weight (approx.)	1.5 kg	1.3 kg	800 g	900 g	800 g	800 g	8.1 kg	5.6 kg	LED	Power, Error, Status
RF output power (High)	25 W	25 W	25 W	25 W	25 W	25 W	50 W	25 W	Conformity standard	ETSI TS 102 658
Frequency stability	±1.0 ppm	±1.0 ppm	±1.0 ppm	±1.0 ppm	±2.5 ppm	±2.5 ppm	±0.2 kHz (VHF) ±0.5 kHz (UHF)			
Sensitivity	(20 dB SINAD, emf)	–4 dBμV typ.	–4 dBμV typ.	–4 dBμV typ.	–	–4 dBμV typ.	–4 dBμV typ.	0 dBμV (min.)		
	(5% BER, emf)	–	–8 dBμV typ.	–8 dBμV typ.	–	–	–	–		
	(1% BER, emf)	–6 dBμV typ.	–	–	–4/–5 dBμV typ. (DN/DVN)	–	–	0 dBμV typ.		
Selectivity	(W/M/N)	75/75/72 dB typ.	85/83/75 dB typ.	80/80/70 dB typ. (VHF) 75/75/70 dB typ. (UHF)	–	75/75/65 dB typ.	75/75/65 dB typ.	86/83/77 dB typ. (VHF) 80/78/70 dB typ. (UHF)		
	(Digital)	65 dB typ.	–	65 dB typ. (VHF) 60 dB typ. (UHF)	64/60 dB typ. (DN/DVN)	–	–	67 dB typ. (VHF) 63 dB typ. (UHF)		
Intermodulation rejection	(Analogue)	70 dB typ.	70 dB typ.	67 dB typ.	–	67 dB typ.	67 dB typ.	72 dB typ.		
	(Digital, emf)	70 dB typ.	–	–	68/66dB typ. (DN/DVN)	–	–	76 dBμV typ. (VHF) 74 dBμV typ. (UHF)		
AF output power (Internal SP)	4 W typ.	4 W typ.	4 W typ.	–	4 W typ.	4 W typ.	3.5 W			

DN (Digital Narrow): 12.5 kHz. DVN (Digital Very Narrow): 6.25 kHz

*1 Upgrade licence (ISL-CHEX) required to enable 4000 channel capacity. IC-F5400DPS/F6400DPS (Segment type display): Channel indication is possible for up to 99 selected channels out of 1024.

		IC-F5400DP/DPS IC-F6400DP/DPS	IC-F5062D IC-F6062D	IC-F5122D IC-F6122D	IC-F5022 IC-F6022	IC-F5012 IC-F6012	IC-FR5100/H IC-FR6100/H
dPMR™	Mode 1/ Mode 2	✓	✓	✓	–	–	✓
	Mode 2 Multi-site	✓	✓	✓	–	–	UC-FR5000 *3 (#12 required)
	Mode 3 Trunking	✓ (With ISL-UGMD3)	✓ *3	–	–	–	UC-FR5000SE *7
Encryption	DES (4-key)	✓					
	DES (64-key)	✓ (With UT-134)					
	AES	✓ (With UT-134, ISL-AKAES)					
Voice Scrambler (Digital)		✓	✓	✓	–	–	✓
Voice Scrambler (Analogue) *2	Inversion	✓	✓	–	–	–	✓
OTAP (Over-the-Air Programming) function		✓ (With CS-OTPM1)	–	–	–	–	–
CTCSS/DTCS	encoder/decoder	✓	✓	✓	✓	✓	✓
2-Tone	encoder/decoder	✓	✓	✓	✓	✓	–
5-Tone	encoder/decoder	✓	✓	✓	✓	✓	✓
DTMF autodial		✓	✓	✓	✓	✓	✓
DTMF decoder		✓ *4	✓ *4	–	–	–	–
BIIS 1200		✓	✓	✓ *5	✓ *5	✓ *5	–
MDC 1200		✓	–	–	✓	✓	–
Lone Worker function		✓	✓	✓	✓	✓	–
Channel announcement		✓	–	–	–	–	–
Voice recorder		✓	–	–	–	–	–
Bluetooth®		✓					
GPS receiver		Built-in (UX-241 antenna required)	–	–	–	–	–
IP rating		IP55	IP54 *6	–	–	–	–
MIL-STD requirements		MIL-810 G	MIL-810 F	MIL-810 F	MIL-810 F	MIL-810 F	MIL-810 F










*2 Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler. *3 Depending on version.

*4 Possible as a kind of 5-Tone format. *5 PTT ID only. *6 IP dust and water tests were performed on the controller and RMK-3 only.










*7 IC-FC5000E external controller required. The IC-FR5100/H, FR6100/H cannot be used as a base station in dPMR Mode 3.

✓ : Available – : Not available










OPTIONS FOR IP ADVANCED RADIO SYSTEM, RoIP & VPN ROUTER

	BATTERY PACKS		BATTERY CASE	DESKTOP CHARGERS			MULTI-CHARGER	AC ADAPTERS	
MODEL NAME	BP-272 (Li-ion) 7.4 V/1880 mAh (min.) 2000 mAh (typ.) 	BP-271 (Li-ion) 7.4 V/1150 mAh (min.) 1200 mAh (typ.) 	BP-273 LR6 (AA) x3 cells 	BC-202 Rapid charger 	BC-202IP2 Rapid charger with smart charging function 	BC-218 Rapid charger cradle with Bluetooth 	BC-211 Rapid multi-charger 	BC-1235 *1 12 V/1 A 	BC-1575 12 V/7.5 A 
IP501H	✓	✓			✓	✓	✓	✓ (Use with BC-202IP2)	✓ (Use with BC-211)
IP100H	✓	✓	✓	✓			✓	✓ (Use with BC-202)	✓ (Use with BC-211)

*1 BC-1235A for US plug. SE for Europe plug. SV for Australia plug.

	AC ADAPTERS	CIGARETTE LIGHTER CABLES		SPEAKER-MICROPHONES			EARPHONE-MICROPHONES		HEADSETS
MODEL NAME	BC-2075 12 V/3.5 A 	CP-22 With DC-DC converter 	CP-23L 	HM-183LS 	HM-186LS 	HM-215 	HM-153LS 	HM-166LS 	VS-3 Bluetooth® headset 
IP501H	✔ (Use with BC-218)	✔ (Use with BC-218)	✔ (Use with BC-218)	✔	✔	✔ (Use with BC-218)	✔	✔	✔
IP100H				✔	✔		✔*2	✔*2	

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










	HEADSETS				PLUG ADAPTER CABLE	PTT SWITCH CABLES		BELT CLIPS	CARRYING CASES
MODEL NAME	HS-94 Earhook type with boom microphone 	HS-95 Behind-the-head type 	HS-97 Throat microphone type 	HS-102 Earphone type 	OPC-2006LS VOX operation 	OPC-2328 	OPC-2359 	MB-127 MB-135 Alligator type 	LC-183 For use BP-271 
IP501H	✓ (Use with OPC-2006LS or OPC-2328)	✓ (Use with OPC-2006LS or OPC-2328)	✓ (Use with OPC-2006LS or OPC-2328)	✓ (Use with OPC-2359)	✓	✓	✓	✓ (Use MB-135)	✓
IP100H	✓ (Use with OPC-2006LS or OPC-2328)	✓*3 (Use with OPC-2006LS or OPC-2328)	✓*3 (Use with OPC-2006LS or OPC-2328)	✓*2 (Use with OPC-2359)	*2 ✓	✓	✓	✓ (Use MB-127)	

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




*3 HS-94, HS-95 and HS-97 headsets are simplex operation only.

	CARRYING CASES	MOUNT BASE	BRACKET ADAPTOR
MODEL NAME	LC-185 For use BP-272 	MBF-1 For use with BC-218 	MBA-7 For use with BC-218 
IP501H	✓	✓ (Use with MBA-7)	✓ (Use with MBF-1)
IP100H			

OPTIONS FOR IP ADVANCED RADIO SYSTEM, RoIP & VPN ROUTER

	DIGITAL VOICE CONVERTER	AC ADAPTERS		AUDIO CONNECTION CABLES				HAND MICROPHONE	DESKTOP MICROPHONE
MODEL NAME	CT-24 	BC-2075 12 V /3.5 A 	BC-147S*4 12 V/0.25 A 	OPC-2273 For VHF marine transceiver 5 m 	OPC-2274 For IC-FR5100/H series 5 m 	OPC-2275 For mobile transceiver 5 m 	OPC-2276 For HM-152 or SM-26 5 m 	HM-152 	SM-26 
VE-PG3	✓	✓		✓	✓	✓	✓	✓ (Use with OPC-2276)	✓ (Use with OPC-2276)
SR-VPN1		✓							
AP-90M		✓							
IP100FS			✓ (Use with CT-23)					✓ (Use with CT-23 and BC-147S)	✓ (Use with CT-23 and BC-147S)
RC-FS10			✓ (Use with CT-23)					✓ (Use with CT-23 and BC-147S)	✓ (Use with CT-23 and BC-147S)

*4 BC-147SA for US plug. SE for EURO plug. SV for Australia plug.

	MICROPHONE ADAPTER	ACCESS POINT MANAGER	SERIAL CABLE
MODEL NAME	CT-23 	RS-AP3 	OPC-1402A For maintenance use 
VE-PG3			
SR-VPN1			✓
AP-90M		✓	
IP100FS	✓		
RC-FS10	✓		

Some options may not be available in some countries. Please ask your dealer for details.

SPECIFICATIONS FOR IP ADVANCED RADIO SYSTEM, RoIP & VPN ROUTER

	VE-PG3
Power supply	100–240 V AC 12 V DC (with supplied AC adapter)
Dimensions (W × H × D; projections not included)	232 × 38 × 168 mm
Weight (approx.)	800 g
Regulatory compliance	FCC (Part 15 Class B/Part 68), TIA968-B ICES-003, ICCS-03, CE mark, ETSI ES 203 021 ETSI EG 201 121 (Advisory Note), ETSI TS 102 027-2 V4.1.1 (2006-07), ITU-T G.711
LAN/WAN	RJ-45 connector × 2 100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
TRX 1/2 port	Analog audio/transmit control 2.54 mm pitch quick connector (4 terminals ×3)×2
EXT 1/2 port	General audio/transmit control/Relay circuit 2.54 mm pitch quick connector (4 terminals ×3)×2
Telephone set port	RJ-11 connector ×1
Telephone line port	RJ-11 connectors ×2
USB (USB 2.0)	Standard A receptacles ×2
Internet protocol	IPv4
Supported protocol	SIP
Codec	G.711 μ-law, AMBE+2™ (Optional CT-24 required)

	SR-VPN1
Power supply	100–240 V AC 12 V DC (with supplied AC adapter)
Dimensions (W × H × D; projections not included)	232 × 38 × 168 mm
Weight (approx.)	800 g
Regulatory compliance	FCC (Part 15 Subpart B), ICES-003, EN55022, EN55024, EN61000-3-2, EN61000-3-3
WAN	RJ-45 connector × 2 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
LAN	RJ-45 connector × 4 with switching function 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)
USB	Standard A receptacles ×2
Maintenance console	RS-232C (RJ-11) connector
Internet protocol	IPv4
Dynamic DNS	Supported
IPsec tunnels	Up to 32
Encryption	3DES, AES-128, AES-192, AES-256
Authentication	MD5, SHA-1
IKE keying method	Pre-shared key
NAT traversal	Supported
Multicast protocol	VE-PG3 supported

SPECIFICATIONS FOR IP ADVANCED RADIO SYSTEM, RoIP & VPN ROUTER

IP501H		
Network	4G bands:	LTE 1, 3, 7, 8, 20 (EXP) LTE 2, 4, 5, 17 (USA)
	3G bands:	W-CDMA 1, 8 (EXP) W-CDMA 2, 5 (USA)
Dimensions (W × H × D; projections not included)		59 × 95 × 32 mm (with BP-272)
Weight (approx.)		240 g (with BP-272 and antenna)
Voice Codec		G.726 (32 kbps)
AF output power	Internal SP	400 mW (16 Ω at 10% distortion)
	External SP	200 mW (8 Ω at 10% distortion)
Operating time (5:5:90 duty cycle.)		More than 17 hours (with BP-272)
Bluetooth®		Ver 2.1 +EDR
GPS		Built-in

IP100H		
Wireless standards		IEEE 802.11 a/b/g/n
Frequency coverage*1		2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz
Dimensions (W × H × D; projections not included)		58 × 95 × 26.4 mm (with BP-271)
Weight (approx.)		205 g (with BP-271 and antenna)
RF output power		Less than 10 mW/MHz
Voice Codec		G.711μ-law (64 kbps)
AF output power	Internal SP	400 mW (typ., 16 Ω at 10% distortion)
	External SP	200 mW (typ., 8 Ω at 10% distortion)
Security		WEP(64/128-bit), WPA-PSK(TKIP/AES), WPA2-PSK(TKIP/AES)
Operating time (1:1:8 duty cycle.)		More than 20 hours (with BP-271)

*1 Authorized frequency range and channels may differ depending on country.

IP1000C	
Power supply	100–240 V AC (with supplied AC adapter)
Dimensions (W × H × D; projections not included)	232 × 38 × 168 mm
Weight (approx.)	750 g (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

AP-90M	
Wireless LAN	IEEE 802.11 a/b/g/n/ac
Frequency coverage*2	2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz
Power supply	12 V DC or PoE (IEEE802.3af compatible)
Dimensions (W × H × D; projections not included)	120 × 29 × 103 mm
Weight (approx.)	300 g (Main unit only)
Wired LAN	RJ-45 connector × 1 1000BASE-T/100BASE-TX/ 10BASE-T (Auto MDI/MDI-X)
Data rates (theoretical value)	11 Mbps, 54 Mbps, 300 Mbps, 866.7 Mbps
Security	WEP (64/128/152-bit), WPA, WPA2, WPA-PSK, WPA2-PSK

*2 Authorized frequency range and channels may differ depending on country.

All stated specifications are subject to change without notice or obligation. Read all instructions enclosed with the transceiver carefully and completely before using the transceiver.

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