ICOM

Professional Radios

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

P25 · DIGITAL WIRELESS · SANS FIL NUMÉRIQUE · INALÁMBRICO DIGITAL

NXDN™

6.25 kHz FDMA
True RF Efficiency

Company Profile

Icom, the wireless communications experts

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

Quality & Reliability

Icom quality and Icom reliability

Over 60 years of engineering and production excellence is a part of every Icom product. Using the latest equipment, Icom radios are engineered to pass rigorous in-house tests as well as environmental tests to U.S. Military standard 810 specifications.

Dust Protection Test

Air Leak Test

Production

Made in Japan quality

Icom is a rare example of an electronics manufacturer that has not shifted production to lower cost countries, but kept its production base in Japan. The Wakayama Icom plants have advanced production systems to produce small volume/multi-model wireless communication products.

Icom brand

Icom, world brand name

Icom is recognized as a reliable two-way radio global brand name around the world with a reputation for rugged quality products. Our land mobile radios are used by many professional organizations worldwide including military forces, local governments, utilities, transportation/airports, security firms, and many other users.

Network

Icom's worldwide network

Icom products are sold in over 80 countries around the world. Icom has an international sales and service network, including sales subsidiaries in the United States, Australia, Germany, Spain and China. Icom is here to support and service our products and your communication needs.

PROFESSIONAL COMMUNICATIONS PRODUCTS LINEUP

Satellite PTT

IC-SAT100
>> P.3

P25 Digital Radios

IC-F7010 series
IC-F7020 series
IC-F7040 series
>> P.4

IC-F9011 series
IC-F9021 series
>> P.4

IC-F7510
IC-F7520
IC-F7540
>> P.5

IC-F9511 series
IC-F9521 series
>> P.6

IC-F9511HT
>> P.5

IC-FR9010
IC-FR9020
>> P.6

IDAS™ Radios (NXDN™ Type-D Compatible)

IC-F3400D series
IC-F4400D series
>> P.7

IC-F52D
IC-F62D
>> P.8

IC-F1100D series
IC-F2100D series
>> P.8

IC-F3261D series
IC-F4261D series
>> P.9

IC-F3230D series
IC-F4230D series
>> P.9

IC-F3210D
IC-F4210D
>> P.9

IC-F3201DEX series
IC-F4201DEX series
>> P.10

IC-F52D-UL
IC-F52D-UL
>> P.10

IC-F5400D series
IC-F6400D series
>> P.11

IC-F5061D series
IC-F6061D series
>> P.11

IC-F5220D
IC-F6220D
>> P.12

IC-F5121D series
IC-F6121D series
>> P.12

IC-FR5000
IC-FR6000
>> P.13

IC-FR5200H
IC-FR6200H
>> P.13

Analog Radios

IC-F1000 series
IC-F2000 series
>> P.15

IC-F3001 series
IC-F4001 series
>> P.15

IC-F5021 series
IC-F6021 series
>> P.16

IC-F5011 series
IC-F6011 series
>> P.16

Data Radios

IC-F5122DD
IC-F6122DD
>> P.16

RoIP Gateway

VE-PG4
>> P.17

IP Advanced Radio Systems

IP100H
>> P.18

IP501H
>> P.19

IP501M
>> P.20

SPEAKER-PHONE UNIT
VE-SP1
>> P.20

HF Radios

IC-F8101
>> P.21

AUTOMATIC TUNING
ANTENNA
AH-740
>> P.21

2

Satellite Push-To-Talk Radio

iridium® connected

REAL-TIME, ONE-TO-MANY GLOBAL COMMUNICATION WITH ONE PUSH OF THE PTT

SATELLITE PTT
IC−SAT100

SATELLITE | **IP67 WATERPROOF & DUST-TIGHT** | **Rugged MIL-STD 810 MIL-STD810** | **DOT DOT MATRIX DISPLAY** | **INTEGRATED GPS** | **BLUETOOTH®**

VIBRATION ALERT | **! EMERGENCY CALL** | **1500mW LOUD AUDIO**

FEATURES

- **Uses the Iridium® satellite network**
- **Total global coverage, including the Poles***
- **One-to-many communication**
- **Priority interrupt calling**
- **Emergency button**
- **1500 mW powerful audio**
- **Multiple languages (Chinese, English, French, Japanese, and Spanish)**
- **Interoperability with IDAS™ and analog radios through the optional VE-PG4, RoIP gateway (Planned feature)**

• Short data messages (SDM)
• SMA type antenna connector for an external antenna
• USB interface (for charging and data communications)
• 14-pin type accessories connector
• High reliability made in Japan Li-ion battery pack
• Two programmable function keys
• Talkgroup scan
• Compatible with Iridium Extreme® PTT

* Depending on country or region, carrying and/or use of the IC-SAT100 may be prohibited.

Supplied Accessories
• BP-300, battery pack • MBB-5, belt clip • FA-S102U, antenna
• BC-241, desktop charger • BC-242, AC adapter

	IC-SAT100
Dimensions (W × H × D; projections are not included)	57.8 × 135 × 32.8 mm; 2.3 × 5.3 × 1.3 in
Weight (approximate)	300g; 10.6 oz (with BP-300)
Display (W × H, approximate)	33 × 27 mm; 1.3 × 1.1 in (viewing area), 128 × 104 pixels
Operation temperature range	−30°C to +60°C; −22 °F to 140 °F
Audio output power	1500 mW typical (at 5% distortion with 8 Ω load)
Battery life (approximately)	7 hours (talk time)
	24 hours (standby time)
Talkgroup	15 groups (maximum)
Military standard	MIL-STD 810G
IP Rating	IP67 waterproof and dust-tight
Antenna connector	SMA (50 Ω)

IC-F7010T   IC-F7020S   IC-F7040S

IC-F9021T   IC-F9021S   IC-F9011B

VHF P25 DIGITAL TRANSCEIVERS

IC-F7010T/S (5 W)

UHF P25 DIGITAL TRANSCEIVERS

IC-F7020T/S (5 W)

700/800 MHz P25 DIGITAL TRANSCEIVERS

IC-F7040T/S (3 W)

P25 PHASE 1 AND 2
SMALLEST AND LIGHTEST OF ITS CLASS

P25 PHASE 1 CONVENTIONAL	**P25** PHASE 1 TRUNKING (ISL-P25TR required)	**P25** PHASE 2 TRUNKING (ISL-P25P2 required)	**P25** VOTING SCAN (ISL-P25VS required)	**OTAP** (OVER-THE-AIR PROGRAMMING) (CS-OTPM2 required)	**IP68** WATERPROOF & DUST-TIGHT	Rugged **MIL-STD 810**
COLOR COLOR LCD	**14** HOURS BATTERY LIFE (with BP-284)	MOTION/ STATIONARY DETECTION	MAN DOWN, LONE WORKER	GPS POSITION AND DATA (ISL-P25DS required)	VOICE ANNOUNCEMENT	VIBRATION ALERT
VOICE RECORDING*1	**BLUETOOTH®**	FIPS CERTIFIED **AES/DES***2	**1300**mW LOUD AUDIO			

*1 A microSD card is required.
*2 UT-125FIPS required for DES.
   UT-125FIPS and ISL-P25AES required for AES.

VHF P25 DIGITAL TRANSCEIVERS

IC-F9011T/S/B (6 W)

UHF P25 DIGITAL TRANSCEIVERS

IC-F9021T/S/B (5 W)

P25 PHASE 1 TRUNKING AND
P25 CONVENTIONAL MODES

P25 PHASE 1 CONVENTIONAL	**P25** PHASE 1 TRUNKING (ISL-3 required)	**IP67** WATERPROOF & DUST-TIGHT	Rugged **MIL-STD 810**	**DOT** DOT MATRIX DISPLAY	**9** HOURS BATTERY LIFE (with BP-254)	MAN DOWN, LONE WORKER (With UT-124R)
FIPS CERTIFIED **AES/DES** (With UT-125FIPS)						

FEATURES

• Individual and group call • Unit ID and talkgroup display on receive • Status update and status query • Radio stun/kill/revive • Remote monitor • Radio check • Call alert • Call log • Emergency • OTAP (Over-the-Air Programming) function* (* Optional CS-OTPM2 software required.) • OTAR (Over-the-Air Rekeying) • Analog inversion voice scrambler (16-codes) • Front panel programming option* (* ISL-P25FP, license key required.) • Advanced System Key (ASK) protects the radio from unauthorized programming • Mixed mode operation • Digital voice recording to a microSD card • 2-Tone, CTCSS and DTCS • DTMF autodial • MDC 1200 compatible • Quick A/B switch on the top panel programmable • Digital voice recording to a microSD card • USB port for PC connection • Audio equalizer • Volume equalizing function • Active noise canceller • Menu and function item localization • Internal clock • Optional BC-225 intelligent charger and RS-BC225 reader software • 136–174, 380–470, 450–512 and 450–520 MHz, 5 W versions* (* Some frequency ranges do not have FCC certification.) • 700/800 MHz, 3 W versions • 1024 memory channels with 128 zones • 1300 mW audio output (internal speaker)

Supplied Accessories
• BP-284, battery pack • MB-133, belt clip
* May differ or not supplied, depending on the transceiver version.

FEATURES

• Individual and group call • Unit ID and talkgroup display on receive • Status update and status query • Radio inhibit/uninhibit • Remote monitor • Radio check • Page call • Emergency • OTAR (Over-the-Air Rekeying) • Analog inversion voice scrambler • Mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • MDC 1200 compatible • Quick A/B/C and toggle switches on the top panel • 4-way navigation cross keypad* (* IC-F9011T/S, F9021T/S only.) • Internal clock • 136–174 MHz, 6 W • 380–470, 450–520 MHz, 5 W • 512 memory channels with 128 zones • 1000 mW audio output (internal speaker)

Supplied Accessories
• BP-254, battery pack • MB-115, belt clip • Antenna
* May differ or not supplied, depending on the transceiver version.

P25 Digital Mobile Radios

VHF P25 DIGITAL TRANSCEIVER
IC−F7510 (50 W)

UHF P25 DIGITAL TRANSCEIVER
IC−F7520 (45 W)

700/800 MHz P25 DIGITAL TRANSCEIVER
IC−F7540 (30 W/35 W)

GREAT CHOICE FOR PUBLIC ORGANIZATIONS
RUGGED P25 MOBILE RADIO, PHASE 1 AND 2

P25 PHASE 1 CONVENTIONAL · **P25 PHASE 1 TRUNKING (ISL-P25TR required)** · **P25 PHASE 2 TRUNKING (ISL-P25P2 required)** · **P25 VOTING SCAN (ISL-P25VS required)** · **OTAP (OVER-THE-AIR PROGRAMMING) (CS-OTPM2 required)**

IP55 JET WATER & DUST · **Rugged MIL-STD 810 / MIL-STD810** · **Dual Head, COMMANDMIC™** · **COLOR COLOR LCD** · **LONE WORKER FUNCTION**

GPS POSITION AND DATA*1 · **VOICE ANNOUNCEMENT** · **VOICE RECORDING*2** · **BLUETOOTH®** · **FIPS CERTIFIED AES/DES*3**

*1 ISL-P25DS and UX-241 required.   *2 A microSD card is required.
*3 UT-125FIPS required for DES. UT-125FIPS and ISL-P25AES required for AES.

IC-F7510

FEATURES

• Individual and group call • Unit ID and talkgroup display on receive • Status update and status query • Radio stun/kill/revive • Remote monitor • Radio check • Call alert • Call log • Emergency • OTAP (Over-the-Air Programming) function* (* Optional CS-OTPM2 software required.) • OTAR (Over-the-Air Rekeying) • Analog inversion voice scrambler (16-codes) • Front panel programming option* (* ISL-P25FP, license key required.) • Advanced System Key (ASK) protects the radio from unauthorized programming • Mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • MDC 1200 compatible • Large sized functions and four-direction buttons • USB port for PC connection • Audio equalizer • Volume equalizing function • Active noise canceller • Digital voice recording to a microSD card • D-SUB 25-pin ACC connector • Menu and function item localization • Internal clock • Optional detached controller, dual head or COMMANDMIC™ configurations (See Page 11 for details) • 136–174, 380–470, 450–512 and 450–520 MHz versions* (* Some frequency ranges do not have FCC certification.) • 700/800 MHz, 30/35 W versions • 1024 memory channels with 128 zones • 20 W audio amplifier

Supplied Accessories
• HM-220, hand microphone • DC power cable • Mounting bracket kit • Microphone hanger

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VHF P25 DIGITAL TRANSCEIVER
IC−F9511HT (110 W)

110 W RF POWER, P25 TRUNKING AND P25 CONVENTIONAL MODES

P25 PHASE 1 CONVENTIONAL · **P25 PHASE 1 TRUNKING (ISL-3 required)** · **IP54 SPLASH & DUST CONTROLLER AND RF UNIT** · **Rugged MIL-STD 810 / MIL-STD 810** · **DOT DOT MATRIX DISPLAY**

LONE WORKER FUNCTION · **FIPS CERTIFIED AES/DES (With UT-125FIPS)**

IC-F9511HT

Photo includes optional SP-30.

FEATURES

• Individual and group call • Unit ID and talkgroup display on receive • Status update and status query • Radio inhibit/uninhibit • Remote monitor • Radio check • Page call • Emergency • OTAR (Over-the-Air Rekeying) • Analog inversion voice scrambler • Mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • MDC 1200 compatible • Digital voice recording to a microSD card • D-SUB 25-pin ACC connector • Internal clock • Optional HM-211 active noise canceling microphone • 136–174 MHz, 110 W at 20% duty cycle operation • 512 memory channels with 128 zones • 15 W audio amplifier

Supplied Accessories
• HM-148G, hand microphone • DC power cable • Mounting bracket kit
• Microphone hanger • Separation cable (5 m)

P25 Digital Mobile Radios

VHF P25 DIGITAL TRANSCEIVERS
IC-F9511T/S (50 W)

UHF P25 DIGITAL TRANSCEIVERS
IC-F9521T/S (50 W)

IC-F9511S

IC-F9511T

P25 PHASE 1 TRUNKING AND P25 CONVENTIONAL MODES

| P25 PHASE 1 CONVENTIONAL | P25 PHASE 1 TRUNKING (ISL-3 required) | IP54 SPLASH & DUST CONTROLLER UNIT | Rugged MIL-STD 810 | CONTROLLER SEPARATION |
| DOT MATRIX DISPLAY | LONE WORKER FUNCTION | FIPS CERTIFIED AES/DES (With UT-125FIPS) | | |

FEATURES

• Individual and group call • Unit ID and talkgroup display on receive • Status update and status query • Radio inhibit/uninhibit • Remote monitor • Radio check • Page call • Emergency • OTAR (Over-the-Air Rekeying) • Analog inversion voice scrambler • Mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • MDC 1200 compatible • D-SUB 25-pin ACC connector • Internal clock • Optional HM-211 active noise canceling microphone • Optional detachable controller • 136–174 MHz, 400–470 and 450–512 MHz, 50 W versions • 22 W audio amplifier

Supplied Accessories
• HM-148G, hand microphone • DC power cable • Mounting bracket kit
• Microphone hanger • SP-35, external speaker* (* IC-F9511T, IC-F9521T only.)

P25 Digital Repeaters

VHF P25 DIGITAL REPEATER
IC-FR9010
(110 W, 100% duty)

UHF P25 DIGITAL REPEATER
IC-FR9020
(100 W, 100% duty)

IC-FR9010

P25 CONVENTIONAL REPEATER FOR REPEATER AND BASE MODES

| P25 PHASE 1 CONVENTIONAL | BASE MODE OPERATION | 2U 2U RACK MOUNT |
| Rugged MIL-STD 810 | | |

FEATURES

• Individual and group call* • Status update and status request* • Radio inhibit/uninhibit* • Radio check* • Call alert* • SBC log (Call log)* • Radio monitor* • Emergency* (* Conventional base mode.) • 4-line × 20-character display • S-meter and output power bar graph display • PC programmable • D-SUB 25-pin accessory connector for remote control • CW-ID transmission • DTMF encode • CTCSS and DTCS • P25 conventional/FM mixed mode operation • Built-in speaker • P25 self-test mode and key test mode • Automatic error detection • High reliability, rugged construction • 146–174 MHz, 110 W • 440–475 MHz, 100 W • 110 W/100 W (VHF/UHF) output power at 100% duty cycle operation • 500 memory channels capacity and 16 key buttons

Supplied Accessories
• DC power cable connector

OTAP Manager

OTAP MANAGER
CS-OTPM2

EASILY RECONFIGURE RADIOS WITH OVER-THE-AIR PROGRAMMING

FEATURES

• Remotely reconfigure radios while in the field

• Radios can reconfigure in a short period of time by transmitting only the updates. • Single programming data can transmit to a whole fleet with only one click • Up to 10,000 sessions are logged for review and rescheduling • Both original and new data can be kept in the radios until the OTAP process is completed • System operator can change language setting of CS-OTPM2 • Manages up to 100,000 radios

Supplied Accessories
• USB dongle supplied with the software

Compatible models
• IC-F7010 series • IC-F7020 series • IC-F7040 series • IC-F7510 • IC-F7520 • IC-F7540

Multi-site Conventional

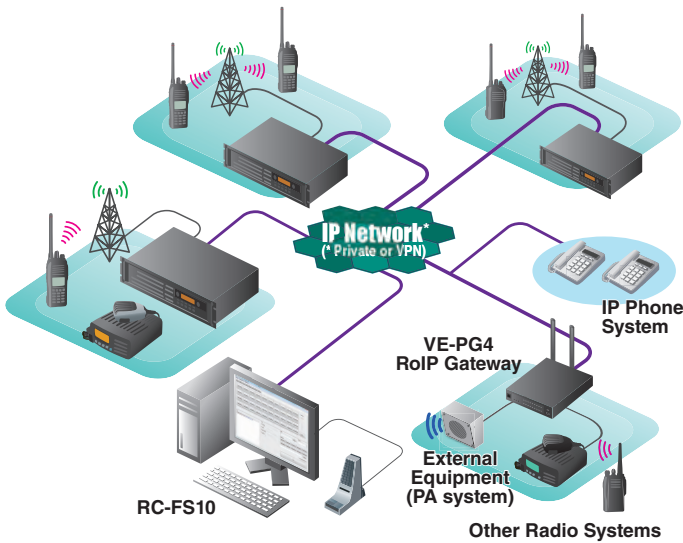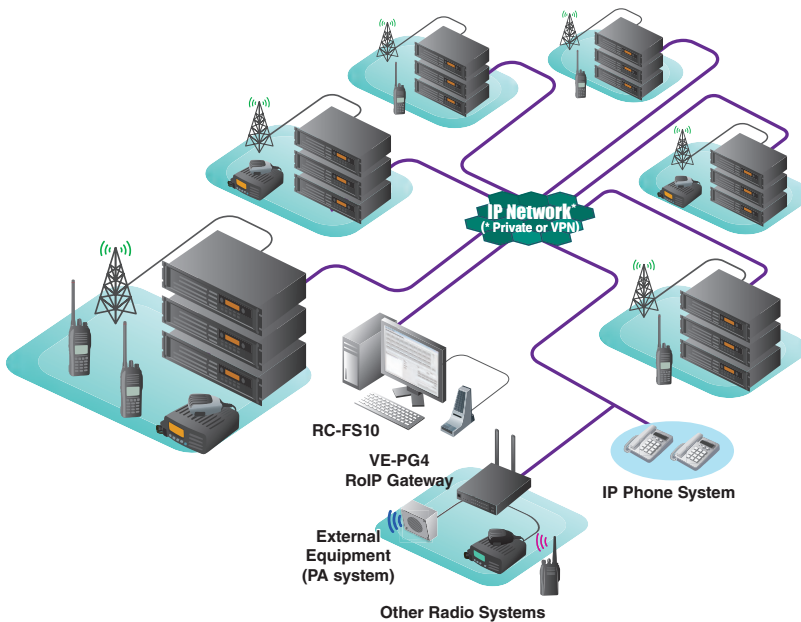
IP Network*
(* Private or VPN)

IP Phone System

VE-PG4 RoIP Gateway

External Equipment (PA system)

RC-FS10

Other Radio Systems
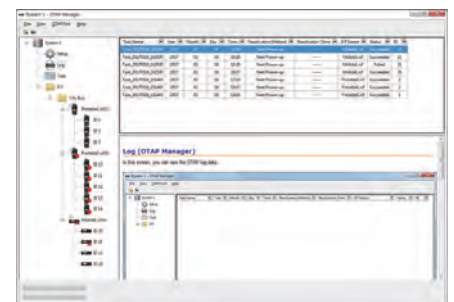
- 6.25 kHz digital migration
- Digital/analog mixed mode operation
- Up to 16 IDAS repeater sites connection over an IP network.
- RC-FS10, remote communicator
- Telephone interconnection (with VE-PG4)

Type-D Multi-site Trunking

IP Network*
(* Private or VPN)

RC-FS10

VE-PG4 RoIP Gateway

IP Phone System

External Equipment (PA system)

Other Radio Systems

- Distributed channel system which does not use a dedicated control channel
- Up to 30 channels per site and up to 48 sites connection over an IP network
- Up to 60,000 individual IDs and 60,000 group IDs with fleet management
- Automatic site roaming
- ESN authentication
- RC-FS10, remote communicator
- RS-MGR1 system manager
- Telephone interconnection (with VE-PG4)

IC-F3400DT   IC-F3400DS   IC-F3400D

VHF DIGITAL TRANSCEIVERS

IC–F3400DT/DS/D (5 W)

UHF DIGITAL TRANSCEIVERS

IC–F4400DT/DS/D (5 W)

IDAS™ THE SMART DIGITAL SOLUTION

IDAS™ CONVENTIONAL · Type-D TRUNKING (ISL-UGMTR required) · IP68 WATERPROOF & DUST-TIGHT · Rugged MIL-STD 810 · 10.5 HOURS BATTERY LIFE (with BP-283) · INTEGRATED GPS

MOTION/STATIONARY SENSOR · MAN DOWN, LONE WORKER · VIBRATION ALERT · VOICE ANNOUNCEMENT · VOICE RECORDING *1 · OTAP (OVER-THE-AIR PROGRAMMING) (CS-OTPM1 required)

OAA (OVER-THE-AIR-ALIAS) · BLUETOOTH® · AES/DES ENCRYPTION *2 · 1300 mW LOUD AUDIO

*1 A microSD card is required.
*2 Optional UT-134 required for 64-key DES.
 Optional UT-134 and ISL-AKAES license key required for AES.

FEATURES

• Individual and group call • PTT ID and ANI • Status and message • Radio Kill, Stun and Revive • Remote monitor • Radio check • Call alert • Emergency • Digital voice scrambler • OTAR (Over-The-Air-Rekeying) * Optional CS-OTAR1 software required. • Voting scan • Transparent data • Digital/analog mixed mode operation • DTMF autodial and decoder • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • USB port for PC connection • AquaQuake™ function • Audio equalizer • Digital voice recording to a microSD card • Active noise canceller • Menu and function item localization • Internal clock • Optional BC-225 intelligent charger and RS-BC225 reader software • 136–174, 380–470, 450–512 and 450–520 MHz, 5 W versions* (* Some frequency ranges do not have FCC certification.) • 1024 memory channels with 128 zones (IC-F3400D/F4400D: 32 memory channels) • 4000 memory channels with optional ISL-CHEX license key. • 1300 mW audio output (internal speaker)

Supplied Accessories
• BP-283, battery pack • MB-133, belt clip

IC-F52D   IC-F62D

IC-F1100DT   IC-F2100DS   IC-F1100D

VHF DIGITAL TRANSCEIVER
IC–F52D (5 W)

UHF DIGITAL TRANSCEIVER
IC–F62D (5 W)

5 W POWER PACK
SUPER COMPACT BODY

IDAS™ CONVENTIONAL	**Type-D** TRUNKING (ISL-UGMTR required)	IP67 WATERPROOF & DUST-TIGHT	Rugged MIL-STD 810	**13** HOURS BATTERY LIFE (with BP-290)	MOTION/ STATIONARY SENSOR	MAN DOWN, LONE WORKER
CHANNEL ANNOUNCEMENT	VIBRATION ALERT	VOICE RECORDING	OTAP (OVER-THE-AIR PROGRAMMING) (CS-QTPM1 required)	OAA (OVER-THE-AIR-ALIAS)	BLUETOOTH®	**1300** mW LOUD AUDIO

FEATURES

• Individual and group call • PTT ID and ANI • Status and message • Radio Kill, Stun and Revive • Remote monitor • Radio check • Call alert • Emergency • Digital voice scrambler • Voting scan • Transparent data • Digital/analog mixed mode operation • DTMF autodial and decoder • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • Optional HM-233GP GPS speaker-microphone • Inversion voice scrambler (analog) • Audio equalizer • Active noise canceller • Menu and function item localization • AquaQuake™ function • Optional BC-225 intelligent charger and RS-BC225 reader software • 136–174, 350–400, 400-470, 450–512 and 450–520 MHz, 5 W versions* (* Some frequency ranges do not have FCC certification.) • 512 memory channels with 128 zones • 1300 mW audio output (internal speaker)

Supplied Accessories
• BP-290, battery pack • MBB-3, belt clip

VHF DIGITAL TRANSCEIVERS
IC–F1100DT/DS/D (5 W)

UHF DIGITAL TRANSCEIVERS
IC–F2100DT/DS/D (4 W)

COMPACT, WATERPROOF
AND SUPERIOR AUDIO CLARITY

IDAS™ CONVENTIONAL	**Type-D** TRUNKING SINGLE-SITE	IP67 WATERPROOF & DUST-TIGHT	Rugged MIL-STD 810	**18** HOURS BATTERY LIFE (with BP-280)
MOTION/ STATIONARY SENSOR	MAN DOWN, LONE WORKER	CHANNEL ANNOUNCEMENT	OAA (OVER-THE-AIR-ALIAS)	**1500** mW LOUD AUDIO

Icom's custom made speaker

FEATURES

• Individual and group call • PTT ID and ANI • Status and message • Radio Kill, Stun and Revive (RX) • Remote monitor • Radio check (RX) • Call alert (RX) • Emergency • OAA (Over-the-Air-Alias)* (* IC-F1100DT/DS, IC-F2100DT/DS only.) • Digital voice scrambler • Voting scan • Digital/analog mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • MDC 1200 (limited functions) • GPS position data with optional HM-171GPW • 1500 mW loud audio output power (internal speaker) with improved audio clarity • AquaQuake™ function • 136–174 MHz, 5 W • 350–400, 400–470 and 450–520 MHz, 4 W* (* Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones (IC-F1100D/F2100D: 16 memory channels)

Supplied Accessories
• BP-280, battery pack • MB-133, belt clip • Antenna
• BC-213*, desktop charger • BC-242*, AC adapter
* May differ or not supplied, depending on the transceiver version.

IDAS™ Handheld Radios

IC-F3261DT   IC-F4261DS

IC-F3230DT   IC-F4230DS

IC-F3210D   IC-F4210D

VHF DIGITAL TRANSCEIVERS
IC–F3261DT/DS (5 W)
IC–F3263DT/DS (5 W)

UHF DIGITAL TRANSCEIVERS
IC–F4261DT/DS (5 W)
IC–F4263DT/DS (5 W)

VHF DIGITAL TRANSCEIVERS
IC–F3230DT/DS (5 W)

UHF DIGITAL TRANSCEIVERS
IC–F4230DT/DS (4 W)

VHF DIGITAL TRANSCEIVER
IC–F3210D (5 W)

UHF DIGITAL TRANSCEIVER
IC–F4210D (4 W)

FIELD-PROVEN DIGITAL RADIO WITH GPS

| IDAS™ CONVENTIONAL | Type-D TRUNKING | IP67 WATERPROOF & DUST-TIGHT | Rugged MIL-STD 810 |
| DOT MATRIX DISPLAY | 10.5 HOURS BATTERY LIFE (with BP-232WP) | MAN DOWN*1, LONE WORKER | INTEGRATED GPS *1 |

*1 Functions are not installed depending on version.

WATERPROOF TYPE-D MULTI-SITE TRUNKING RADIO

| IDAS™ CONVENTIONAL | Type-D TRUNKING | IP67 WATERPROOF & DUST-TIGHT | Rugged MIL-STD 810 |
| 19/17 HOURS BATTERY LIFE (with BP-232WP, VHF/UHF) | LONE WORKER FUNCTION | CHANNEL ANNOUNCEMENT | |

SIMPLE TYPE-D MULTI-SITE TRUNKING RADIO

| IDAS™ CONVENTIONAL | Type-D TRUNKING | IP54 SPLASH & DUST | Rugged MIL-STD 810 |
| 17.5/16 HOURS BATTERY LIFE (with BP-265, VHF/UHF) | LONE WORKER FUNCTION | CHANNEL ANNOUNCEMENT | |

FEATURES

• Individual and group call • PTT ID and ANI • Status and short data message (SDM) • Radio Kill, Stun and Revive • Remote monitor • Radio check • Call alert • Emergency • Digital voice scrambler • Voting scan • Digital/analog mixed mode operation • DTMF autodial and decoder • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • Inversion voice scrambler (analog) • 136–174, 350–400, 400–470, 450–512 and 450–520 MHz, 5 W* (* Some frequency ranges do not have FCC certification.) • 512 memory channels with 128 zones • 800 mW (typ.) loud audio (internal speaker)

Supplied Accessories
• BP-232WP, battery pack • MB-94R, belt clip • Antenna

FEATURES

• Individual and group call • PTT ID and ANI • Status and short data message (SDM) • Radio Kill, Stun and Re-vive (RX) • Remote monitor (RX) • Radio check (RX) • Call alert • Emergency • Digital voice scrambler • Voting scan • CTCSS and DTCS • Optional HM-168LWP water-proof speaker-microphone • Up to 128 memory channel with 8 zones • 8-character alphanumeric display • 136–174 MHz, 5 W • 350–400, 400–470, 450–512 and 450–520 MHz, 4 W* (* Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones • 1000 mW loud audio (internal speaker)

Supplied Accessories
• BP-232WP, battery pack • MB-94R, belt clip • Antenna
• BC-160*, desktop charger • BC-145SA/SE*, AC adapter
* May differ or not supplied, depending on the transceiver version.
* IC-F3230DT/F4230DT is not available in some countries. (Not available in the USA.)

FEATURES

• Individual and group call • PTT ID (TX) • Short data mes-sage (RX notification) •Status call (TX and RX beep) • Radio Kill, Stun and Revive (RX) • Remote monitor (RX) • Radio check (RX) • Call alert • Emergency • Digital voice scrambler • Voting scan • CTCSS and DTCS • Optional HM-171GP GPS speaker-microphone • 136–174 MHz, 5 W • 400–470, 450–512 and 450–520 MHz, 4 W • 16 memory channels • 800 mW (typ.) loud audio (internal speaker)

Supplied Accessories
• BP-265, battery pack • MB-124, belt clip
• BC-193, desktop charger* • BC-123SA/SE, AC adapter*
• Antenna
* May differ or not supplied, depending on the transceiver version.

IC-F3201DEX IC-F4201DEX

IC-F52D-UL IC-F62D-UL

VHF DIGITAL TRANSCEIVERS

IC-F3201DEX (1 W)
IC-F3203DEX (1 W)

UHF DIGITAL TRANSCEIVERS

IC-F4201DEX (1 W)
IC-F4203DEX (1 W)

IECEx/ATEX INTRINSICALLY SAFE DIGITAL RADIO

IDAS™ CONVENTIONAL	Type-D TRUNKING SINGLE-SITE	IECEx / ATEX INTRINSICALLY SAFE	IP67 WATERPROOF & DUST-TIGHT
Rugged MIL-STD 810	21/19.5 HOURS BATTERY LIFE (with BP-277EX, V/UHF)	MAN DOWN, LONE WORKER	CHANNEL ANNOUNCEMENT

● **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

VHF DIGITAL TRANSCEIVER

IC-F52D-UL (5 W) `Approval pending`

UHF DIGITAL TRANSCEIVER

IC-F62D-UL (5 W) `Approval pending`

5 W OUTPUT POWER FOR HAZARDOUS LOCATIONS

IDAS™ CONVENTIONAL	Type-D TRUNKING (ISL-UGMTR required)	IP67 WATERPROOF & DUST-TIGHT	Rugged MIL-STD 810	13 HOURS BATTERY LIFE (with BP-292UL)	MOTION/ STATIONARY SENSOR	MAN DOWN, LONE WORKER
CHANNEL ANNOUNCEMENT	VIBRATION ALERT	VOICE RECORDING	OTAP (OVER-THE-AIR PROGRAMMING) (CS-OTPM1 required)	OAA (OVER-THE-AIR-ALIAS)	BLUETOOTH®	1300 mW LOUD AUDIO

● **UL Classification Rating**

Intrinsically Safe: Division 1, Class I, Groups C, D, Class II, Groups E, F, G, Class III. T3C. Ambient temperature: –20°C to +60°C
Nonincendive: Division 2, Class I, Groups A, B, C, D
Intrinsically Safe when used with BP-292UL battery pack.

Certification pending at time of printing. Subject to change.

FEATURES

• Individual and group call • PTT ID (TX) • Power ON/OFF status call (TX) • Radio Kill, Stun and Revive (RX) • Remote monitor (RX) • Radio check (RX) • Call alert (RX) • Emergency (TX) • Digital voice scrambler • Voting scan • Digital/analog mixed mode operation • 2-Tone, CTCSS and DTCS • DTMF autodial • Low electrical resistivity body; Carrying case is not required • MDC 1200 PTT ID and emergency transmission • Optional HM-203EX speaker-microphone • 136–174 and 400–470 MHz, 1 W • 16 memory channels

Supplied Accessories
• BP-277EX, battery pack • MB-94EX, belt clip
• Antenna • BC-212EX, desktop charger • BC-123SA/SE, AC adapter*
* May differ depending on the transceiver version.

FEATURES

• Individual and group call • PTT ID and ANI • Status and message • Radio Kill, Stun and Revive • Remote monitor • Radio check • Call alert • Emergency • Digital voice scrambler • Voting scan • Transparent data • Digital/analog mixed mode operation • DTMF autodial and decoder • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • Inversion voice scrambler (analog) • Audio equalizer • Active noise canceller • Menu and function item localization • AquaQuake™ function • Optional BC-225 intelligent charger and RS-BC225 reader software • 136–174, 350–400, 400-470, 450–512 and 450–520 MHz, 5 W versions* (* Some frequency ranges do not have FCC certification.) • 512 memory channels with 128 zones • 1300 mW audio output (internal speaker)

Supplied Accessories
• BP-292UL, battery pack • MBB-3, belt clip

DO NOT use the transceiver with any other equipment not specified in the option list (Pages 22–26). Please ask your dealer to ensure the hazardous locations ratings are acceptable for the intended place of use.

VHF DIGITAL TRANSCEIVERS

IC−F5400D/DS (50 W)

UHF DIGITAL TRANSCEIVERS

IC−F6400D/DS (45 W)

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

IC-F5400D

IC-F5400DS

SUPERB PERFORMANCE AND A COMPREHENSIVE RANGE OF FEATURES

IDAS™ CONVENTIONAL	**Type-D** TRUNKING (ISL-UGMTR required)	**IP55** JET WATER & DUST	Rugged **MIL-STD 810** MIL-STD 810	Dual Head, COMMANDMIC™*1	**COLOR** COLOR LCD*1	LONE WORKER FUNCTION
INTEGRATED GPS (UX-241 required)	VOICE ANNOUNCEMENT	VOICE RECORDING*2	**OTAP** (OVER-THE-AIR PROGRAMMING) (CS-OTPM1 required)	**OAA** (OVER-THE-AIR-ALIAS)	**BLUETOOTH®**	**AES/DES** ENCRYPTION*3

*1 IC-F5400D/F6400D only.   *2 A microSD card is required.
*3 Optional UT-134 required for 64-key DES. Optional UT-134 and ISL-AKAES license key required for AES.

FEATURES

• Individual and group call • PTT ID and ANI • Status and message • Radio Kill, Stun and Revive   • Remote monitor • Radio check • Call alert • Emergency • Power OFF emergency • Digital voice scrambler • OTAR (Over-The-Air-Rekeying) * Optional CS-OTAR1 software required. • Voting scan • DTMF autodial and decoder • Transparent data • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • Digital voice recording to a microSD card • USB port for PC connection • Ignition line • D-SUB 25-pin ACC connector • 20 W audio amplifier • Audio Equalizer • Active Noise Canceller • Menu and function item localization • Internal clock • Public address and RX speaker functions • Optional detached controller, dual head or COMMANDMIC™ configurations • 136–174 MHz, 50 W versions • 380–470, 450–512 and 450–520 MHz, 45 W versions* (* Some frequency ranges do not have FCC certification.) • 1024 memory channels with 128 zones (IC-F5400DS/F6400DS: 99 memory channels selectable) • 4000 memory channels with optional ISL-CHEX license key.

Supplied Accessories
• HM-220, Hand microphone • 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-F5400D/F6400D only.

Dual head controller configuration

COMMANDMIC™ and detached controller configuration

VHF ANALOG / DIGITAL TRANSCEIVERS

IC−F5061/D (50 W)
IC−F5063/D (50 W)

UHF ANALOG / DIGITAL TRANSCEIVERS

IC−F6061/D (45 W)
IC−F6063/D (45 W)

VERSATILE, MULTI-FUNCTION MOBILE SERIES

IDAS™ CONVENTIONAL*1	**Type-D** TRUNKING*1	**IP54** SPLASH & DUST CONTROLLER UNIT	Rugged **MIL-STD 810** MIL-STD 810
CONTROLLER SEPARATION	**DOT** DOT MATRIX DISPLAY	LONE WORKER FUNCTION	

*1 UT-126H/HL required for IC-F5061/F5063 and F6061/F6063 (without "D" models).

IC-F5061D (with optional RMK-3 and OPC-609)

FEATURES

• Individual and group call • PTT ID and ANI • Status and short data message (SDM) • Radio Kill, Stun and Revive • Remote monitor • Radio check • Call alert • Emergency • Digital voice scrambler • Voting scan • Digital/analog mixed mode operation • DTMF autodial and decoder • MDC 1200 compatible • Basic LTR™ trunking • 2-Tone, CTCSS and DTCS • Inversion voice scrambler (analog) • Ignition line • D-SUB 25-pin ACC connector • Optional HM-211 active noise canceling microphone • Optional detachable controller • 136–174 MHz, 50 W versions • 350–400, 400-470, 450–512 and 450–520 MHz, 45 W versions* (* Some frequency ranges do not have FCC certification.) • 512 memory channels with 128 zones

Supplied Accessories
• HM-148G (IC-F5061/D) or HM-152 (IC-F5063/D), hand microphone
• DC power cable • Microphone hanger • Mounting bracket kit
* May differ or not supplied, depending on the transceiver version.

IDAS™ Mobile Radios

VHF DIGITAL TRANSCEIVER
IC−F5220D (50 W)

UHF DIGITAL TRANSCEIVER
IC−F6220D (45 W)

WIDE-AREA COVERAGE
WITH TYPE-D MULTI-SITE TRUNKING

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

IC-F5220D

IDAS™ CONVENTIONAL | **Type-D** TRUNKING | Rugged **MIL-STD 810** | **LONE WORKER FUNCTION** | **CHANNEL ANNOUNCEMENT**

FEATURES

• Individual and group call • PTT ID and ANI • Status and short data message (SDM) • Radio Kill, Stun and Revive (RX) • Remote monitor (RX) • Radio check (RX) • Call alert • Emergency • Digital voice scrambler • Voting scan • CTCSS and DTCS • GPS receiver connection with optional ACC cable • 8-character alphanumeric display • 4 W (typical) front mounted speaker • 136–174 MHz, 50 W versions • 350–400, 400–470, 450–512 and 450–520 MHz, 45 W versions* (* Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones

Supplied Accessories
• HM-152, hand microphone • DC power cable • Mounting bracket kit • Microphone hanger

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VHF DIGITAL TRANSCEIVERS
IC−F5121D (50 W)
IC−F5123D (50 W)

UHF DIGITAL TRANSCEIVERS
IC−F6121D (45 W)
IC−F6123D (45 W)

SOLID FUNDAMENTAL
DIGITAL RADIO

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

IC-F5121D

IDAS™ CONVENTIONAL | **Type-D** TRUNKING SINGLE-SITE | Rugged **MIL-STD 810** | **LONE WORKER FUNCTION**

FEATURES

• Individual and group call • PTT ID and ANI • Status and short data message (SDM) • Radio Kill, Stun and Revive (RX) • Remote monitor (RX) • Radio check (RX) • Call alert • Emergency • Digital voice scrambler • Voting scan • Digital/analog mixed mode operation • DTMF autodial • 2-Tone, CTCSS and DTCS • GPS receiver connection with optional ACC cable • 8-character alphanumeric display • 4 W (typical) front mounted speaker • Optional HM-211 active noise canceling microphone • 136–174 MHz, 50 W versions • 350–400, 400–470, 450–512 and 450–520 MHz, 45 W versions* (* Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones

Supplied Accessories
• HM-152, hand microphone • DC power cable • Mounting bracket kit • Microphone hanger

IDAS™ Repeaters

VHF REPEATER
IC–FR5000 (50 W)

UHF REPEATER
IC–FR6000 (50 W)

IC-FR5000

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

VALUE, PERFORMANCE AND FLEXIBILITY

IDAS™ CONVENTIONAL MULTI-SITE*1 **Type-D** TRUNKING*2 **2U** 2U RACK MOUNT **TWO IN ONE**

*1 Optional UC-FR5000 and CF-FR5000MC required for multi-site conventional.
*2 Optional UC-FR5000 required for single-site trunking. Optional UC-FR5000 and CF-FR5000MT required for multi-site trunking.

FEATURES

• Two RF modules in one unit* (* Optional UR-FR5000 or UR-FR6000 required.) • 50 W output power at 50% duty, 25 W at 100% duty operation (Ambient temperature: 25˚C) • Optional UR-PA5000 or UR-PA6000 power amplifier provides 100 W output at 50% duty, 50 W at 100% duty operation* (Ambient temperature: 25˚C) (* UR-PA5000/UR-PA6000 is not available in some countries. Not available in the USA.) • Base station operation • PC programmable via IP network* (* UC-FR5000 required.) • D-SUB 25-pin accessory connector • CW-ID transmission • 5-Tone, CTCSS and DTCS • DTMF encode and decode • 32 memory channels capacity • Digital voice scrambler • Inversion voice scrambler for analog • IDAS conventional/FM mixed mode operation • Built-in audio Compander for analog • 136–174, 350–400, 400–470, 450–512 and 450–520 MHz, 50 W* (* Some frequency ranges do not have FCC certification.)

Supplied Accessories
• DC power cable • Key assign stickers

VHF REPEATER
IC–FR5200H (50 W, 100 % duty)

UHF REPEATER
IC–FR6200H (50 W, 100 % duty)

Solid heatsink

IC-FR5200H

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

50 WATT FULL DUTY CYCLE OPERATION

IDAS™ CONVENTIONAL MULTI-SITE*3 **Type-D** TRUNKING*4 **2U** 2U RACK MOUNT **MIL-STD 810 Rugged** MIL-STD810

*3 Multi-site conventional is not available depending on the repeater version.
*4 Type-D trunking is not available depending on the repeater version.

FEATURES

• 50 Watt Full Duty cycle Operation with the solid heatsink • Base station operation • PC programmable via IP network* (* Not available depending on the repeater version.) • D-SUB 25-pin accessory connector • CW-ID transmission • 5-Tone, CTCSS and DTCS • DTMF encode and decode • 32 memory channels capacity • Digital voice scrambler • Inversion voice scrambler for analog • IDAS conventional/FM mixed mode operation • Built-in audio Compander for analog • 136–174, 350–400, 400–470, 450–512 and 450–520 MHz, 50 W* (* Some frequency ranges do not have FCC certification.)

Supplied Accessories
• DC power cable • Key assign stickers

Remote Communicator / System Manager / OTAP Manager

REMOTE COMMUNICATOR
RC−FS10

IDAS CONVENTIONAL | **Type-D TRUNKING MULTI-SITE** | **ANALOG (With VE-PG4)**

VIRTUAL RADIO/PC DISPATCH

FEATURES

● **PC remote communicator for Type-D multi-site trunking, conventional 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 • Communication log is displayed and can be stored • Optional HM-154 or SM-26 microphone can be used with the RC-FS10 Optional CT-23 PTT microphone adapter is required. • The CT-24 digital voice converter is supplied with RC-FS10 which converts microphone audio to the AMBE+2™ codec for the IDAS radio system.

Supplied Accessories
• Installation CD • USB cable • CT-24, digital converter

SYSTEM MANAGER (For Type-D Multi-Site Trunking)
# RS−MGR1

Type-D TRUNKING MULTI-SITE

ENHANCE SYSTEM MANAGEMENT FOR TYPE-D TRUNKING SYSTEMS

FEATURES

● **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 • Repeater site icons laid out on an image file such as a map or network diagram • E-mail alert notification can be sent to the administrator, if an alarm or disconnect occurs or clears • The "Mesh ping status" shows the connectivity by sending ping commands in all combinations of repeater sites • The "Version list" shows the repeaters firmware revision list

Supplied Accessories
• USB flash drive (Software and hardware key protection)
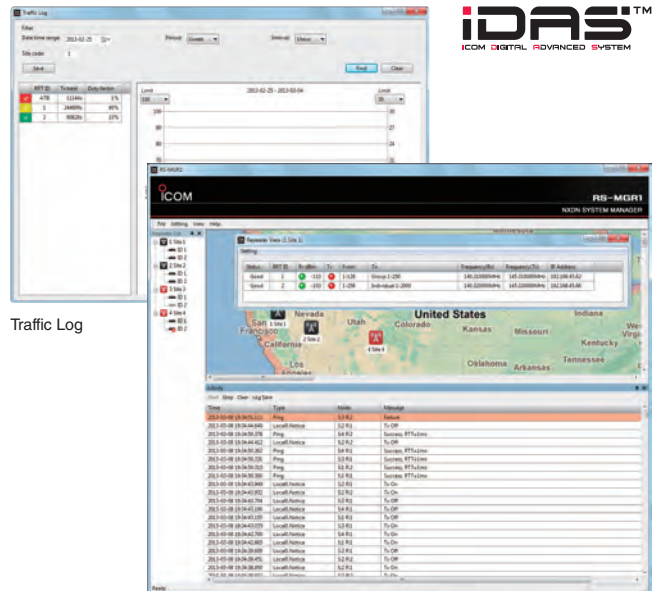
Traffic Log

OTAP MANAGER
CS−OTPM1

IDAS CONVENTIONAL | **Type-D TRUNKING**

EASILY RECONFIGURE RADIOS WITH OVER-THE-AIR PROGRAMMING

FEATURES

● **Remotely reconfigure radios while in the field**

• Radios can reconfigure in a short period of time by transmitting only the updates. • Single programming data can transmit to a whole fleet with only one click • Up to 10,000 sessions are logged for review and rescheduling • Both original and new data can be kept in the radios until the OTAP process is completed • System operator can change language setting of CS-OTPM1 • Manages up to 100,000 radios

Supplied Accessories
• USB dongle supplied with the software

Compatible models
• IC-F3400D series • IC-F4400D series • IC-F5400D series • IC-F6400D series
• IC-F52D • IC-F62D • IC-F52D-UL • IC-F62D-UL
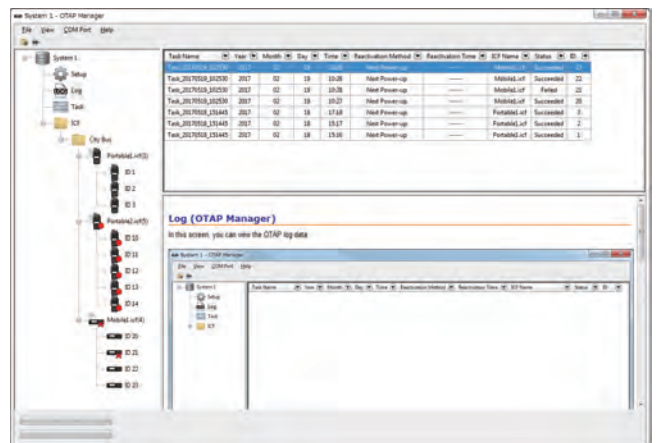
IC-F1000T   IC-F2000S   IC-F1000

IC-F3001   IC-F4001

VHF TRANSCEIVERS
IC-F1000/T/S (5 W)

UHF TRANSCEIVERS
IC-F2000/T/S (4 W)

VHF TRANSCEIVERS
IC-F3001 (5 W)
IC-F3003 (5 W)

UHF TRANSCEIVERS
IC-F4001 (4 W)
IC-F4003 (4 W)

SLIM, COMPACT DIMENSIONS AND IMPROVED AUDIO CLARITY

2-TONE CTCSS / DTCS **IP67** WATERPROOF & DUST-TIGHT **Rugged MIL-STD 810** MIL-STD 810 **14 HOURS** BATTERY LIFE (with BP-279) **1500 mW** LOUD AUDIO

MOTION/ STATIONARY SENSOR **MAN DOWN, LONE WORKER** **Rugged MIL-STD 810** MIL-STD 810

Icom's custom made speaker

AFFORDABLE, HIGH PERFORMANCE RADIO

2-TONE CTCSS / DTCS **IP54** SPLASH & DUST **Rugged MIL-STD 810** MIL-STD 810 **14 HOURS** BATTERY LIFE (with BP-264) **LONE WORKER FUNCTION**

FEATURES

• Compact and slim body (24.5 mm depth) • Easy to hear in noisy environments • DTMF autodial • MDC 1200 PTT ID, Emergency and other limited functions • BIIS PTT ID and emergency call • 16 codes inversion voice scrambler • "Shift key" function • 136–174 MHz, 5 W • 335–380, 400–470, 450–512 and 450–520 MHz, 4 W* (* Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones (IC-F1000/F2000: 16 memory channels) • 1500 mW loud audio output power (internal speaker) with improved audio clarity

Supplied Accessories
• BP-279, battery pack • MB-133, belt clip • Antenna
• BC-213, desktop charger • BC-242, AC adapter*
* May differ or not supplied, depending on the transceiver version.

FEATURES

• DTMF autodial • MDC 1200 PTT ID and Emergency • BIIS PTT ID and emergency call • 16 codes inversion voice scrambler • Internal VOX capability for hands-free operation • 136–174 MHz, 5 W • 350–400, 400–470, 450–512 and 450–520 MHz, 4 W* (* Some frequency ranges do not have FCC certification.) • 16 memory channels • 800 mW (typ.) loud audio (internal speaker)

Supplied Accessories
• Battery pack* • MB-124, belt clip • Antenna
• Desktop charger* • AC adapter*
* May differ or not supplied, depending on the transceiver version.

Analog Mobile Radios

VHF TRANSCEIVERS
IC-F5021 (50 W)
IC-F5023/H (25/50 W)

UHF TRANSCEIVERS
IC-F6021 (45 W)
IC-F6021/H (25/45 W)

VHF TRANSCEIVERS
IC-F5011 (50 W)
IC-F5013/H (25/50 W)

UHF TRANSCEIVERS
IC-F6011 (45 W)
IC-F6011/H (25/45 W)

IC-F5021 series

IC-F5011 series

HARDWORKING MOBILE RADIOS

2-TONE CTCSS / DTCS

Rugged MIL-STD 810 MIL-STD 810

LONE WORKER FUNCTION

FEATURES

• DTMF autodial • MDC 1200 compatible (limited functions) • External memory channel control, external device connection with optional ACC cable • 8-character alphanumeric display (IC-F5021/F6021 series only) • 4 W (typical) front mounted speaker • 136–174 MHz, 50/25 W versions* • 400-470, 450–512 and 450–520 MHz, 25/45 W versions* (* Depending on version. Some frequency ranges do not have FCC certification.) • 128 memory channels with 8 zones (IC-F5021/F6021 series only) • 8 memory channels and LED lighting (IC-F5011/F6011 series only)

Supplied Accessories
• HM-152, hand microphone • DC power cable • Mounting bracket kit • Microphone hanger

Data Radios

VHF DATA TRANSCEIVER
IC-F5122DD (25 W)

UHF DATA TRANSCEIVER
IC-F6122DD (25 W)

RS-232 + Ethernet version

RS-232 version

GENERAL PURPOSE TRANSPARENT DATA MODEM

DIGITAL 4-LEVEL FSK

TRANSPARENT DATA

Rugged MIL-STD 810 MIL-STD 810

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) support for Ethernet**

• Meets EN 300 113/EN 300 279 standards • Memory channel selection via PC control command • Data encryption function (500 codes) • Fast data transfer using 4-level FSK modulation • 136–174 MHz and 400–470 MHz

Supplied Accessories
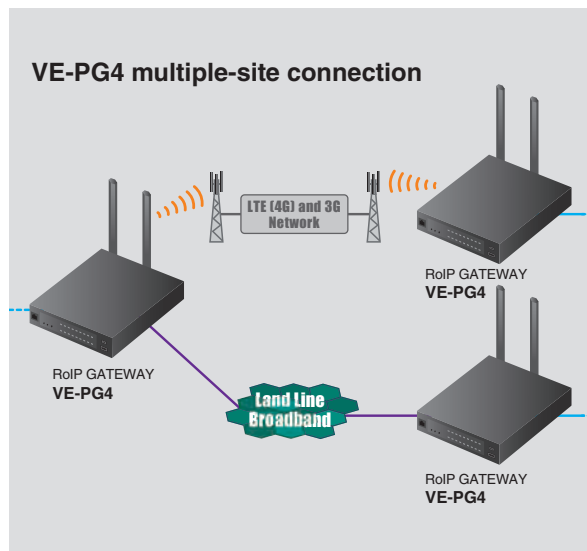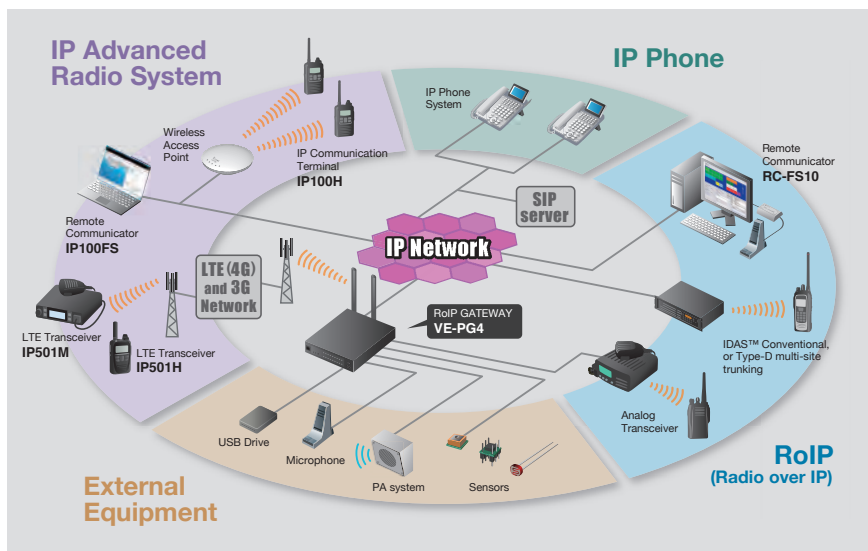• DC power cable • Mounting bracket kit

16

RoIP Gateway

RoIP GATEWAY
VE−PG4

VERSATILE RADIO OVER IP GATEWAY LINKING VARIOUS RADIO SYSTEMS AND PROTOCOLS

LTE (4G) and 3G · **WIRELESS LAN TRANSCEIVER CONTROLLER** · **IDAS™ CONVENTIONAL CONNECTION** · **Type-D TRUNKING CONNECTION** · **ANALOG CONNECTION** · **IP PHONE SYSTEM CONNECTION** · **1U HALF-WIDTH RACK MOUNT**

VE-PG4

IP Advanced Radio System · **IP Phone** · **External Equipment** · **RoIP (Radio over IP)**

VE-PG4 multiple-site connection

FEATURES

Bridge Connection between Radio Systems
The VE-PG4 interconnects with two or more radio systems, even when the systems are using different bands and different categories. All received audio is bridged to opposing radio system. The built-in digital voice converter converts analog audio to IDAS™ compatible digital audio.

Telephone Interconnect
The built-in simplified SIP server can assign extension numbers to IDAS™ radio terminals and IP advanced radio terminals as well as IP phones. A radio user can initiate phone calls. Phone users can make individual or group calls to the connected radio users.

IP Advanced Radio System Gateway
The VE-PG4 interconnects IP100H, IP communication terminals, and IP501H/IP501M, LTE transceivers with conventional radio systems. GPS position data from LTE transceivers can be obtained and transferred to a PC for GPS tracking*.

* GPS mapping software required for GPS data (future).

Multi-site Connection between VE-PG4s
Two or more VE-PG4s can be connected through LAN or LTE (4G) and 3G networks*. The communication area can be flexibly expanded, and dispersed radio sites can be connected, regardless of distance and/or the radio system used.

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

• Wireless LAN IP Advanced Radio System controller (Equivalent to the IP1000C function) built-in, capable of controlling up to 50 IP communication terminals
• IDAS™ Conventional and NXDN™ Type-D multi-site trunking connection • IC-SAT100, Satellite PTT transceiver connection* (* Planned feature)
• Base station operation with optional microphone • External equipment, sensor connection • Serial Pass-through function
• Voice recording function to a USB drive* (* User supplied) • Half-width 1U form design • Router functions with VPN tunnel
• Web-based configuration setting • SIP server and IP-PBX functions • SYSLOG and SNMP
• Abnormal condition monitoring such as LAN port link-down and SIP server registration error • Administrator password • Security slot
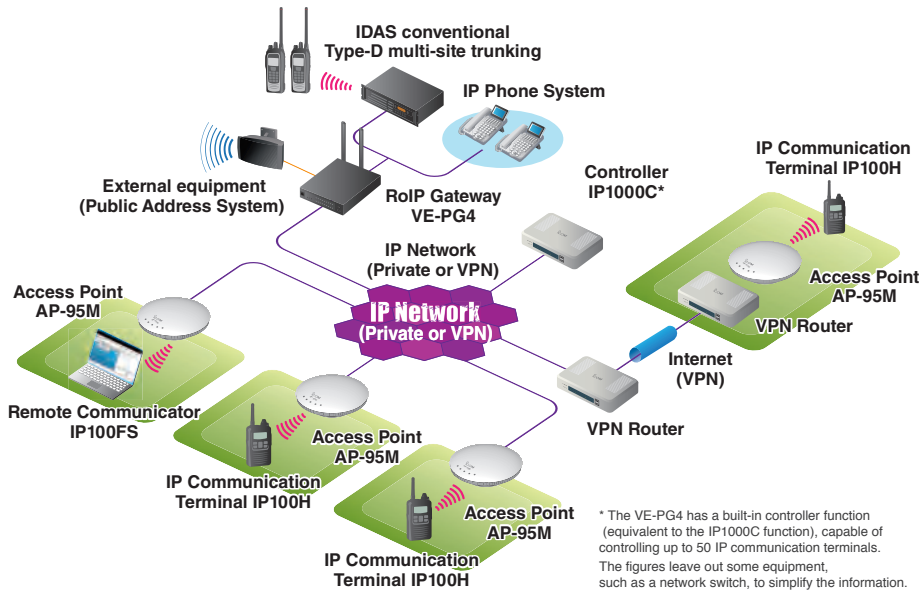
Supplied Accessories
• Antennas • Antenna bases with 1.5 m (4.9 ft) cable • BC-236, AC adapter* • Quick connectors
* May differ, or not supplied, depending on the version.

FULL-DUPLEX COMMUNICATION THAT WORKS OVER A WIRELESS IP NETWORK

IDAS conventional Type-D multi-site trunking

IP Phone System

IP Communication Terminal IP100H

Controller IP1000C*

External equipment (Public Address System)

RoIP Gateway VE-PG4

Access Point AP-95M

VPN Router

IP Network (Private or VPN)

Access Point AP-95M

IP Network (Private or VPN)

Remote Communicator IP100FS

Internet (VPN)

Access Point AP-95M

VPN Router

IP Communication Terminal IP100H

Access Point AP-95M

IP Communication Terminal IP100H

* The VE-PG4 has a built-in controller function (equivalent to the IP1000C function), capable of controlling up to 50 IP communication terminals.
The figures leave out some equipment, such as a network switch, to simplify the information.

IP100H

FEATURES

Wireless Communication System
By deploying access points along an 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.

Hands-free, Full-duplex Communication
With an optional earphone-microphone or headset*, the IP100H user can simultaneously talk and receive like a phone. 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.

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.

Interconnect between IDAS™ and IP Phone Systems
With the VE-PG4 RoIP gateway, the IP advanced radio system can interconnect with an IP phone system, analog transceiver and IDAS™ Type-D multi-site trunking and conventional system.

WIRELESS LAN ACCESS POINT
AP−95M

• IEEE 802.11ac (Wave 2) Standard, High-Speed Communication*
• Beam Forming Function, MU-MIMO Function
• Optional RS-AP3, Access point management software

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

AP-95M

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-95M
• 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

IP100FS

CONTROLLER
IP1000C

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

IP1000C

IP COMMUNICATION TERMINAL
IP100H

WIRELESS LAN	FULL DUPLEX COMMUNICATION	IPX7 WATERPROOF	Rugged MIL-STD 810 / MIL-STD 810	DOT DOT MATRIX DISPLAY
20 HOURS BATTERY LIFE (with BP-271)	VIBRATION ALERT	EMERGENCY CALL	Provisioning / FOTA (Firmware Over-the-Air)	

FEATURES

● **License-free wireless LAN communication terminal using IEEE 802.11 a/b/g/n standards (2.4 GHz and 5 GHz*)**
● **WPA-PSK/WPA2-PSK (TKIP/AES) authentication**
● **IPX7 waterproof (1 m 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 preprogrammed message transmission • Status messages • Emergency call function • Full dot-matrix display

Supplied Accessories
• BP-271, battery pack • MB-127, belt clip
• Antenna • Hand strap

INSTANT WIDE AREA COVERAGE OVER AN LTE (4G) and 3G NETWORK

IP501M

IP501H

LTE (4G) and 3G Network

IP501H

Controller Server IP5000C

VE-SP1

VE-PG4
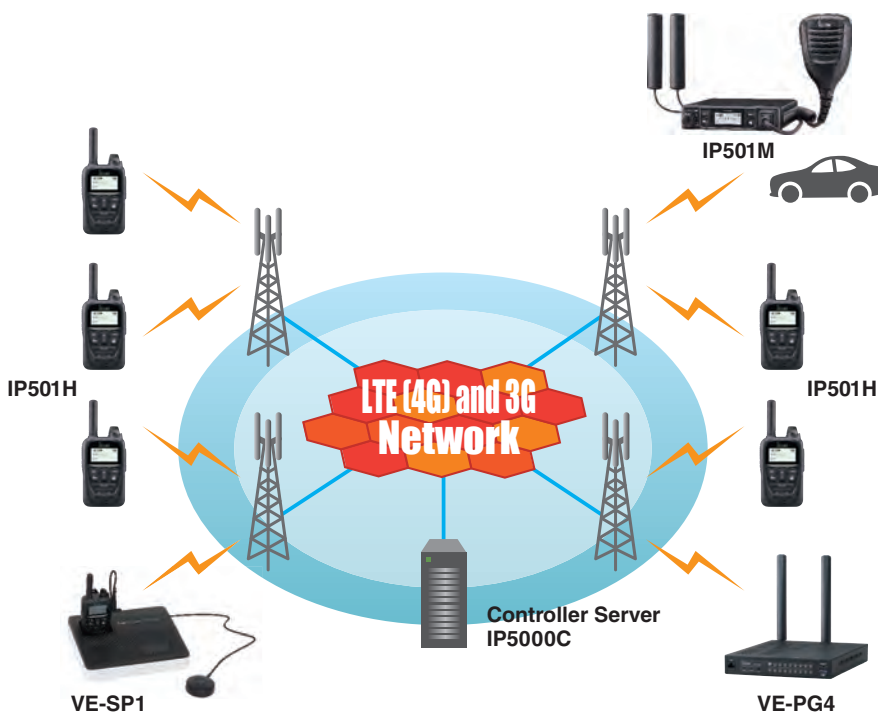
IP501H

Push-to-Talk Communication over an LTE (4G) and 3G Networks*
The IP501H/IP501M LTE transceiver uses dedicated hardware in a closed network to provide a stable and secure connection. The LTE transceiver does not require its own repeaters or IP network, which reduces the cost of building and maintaining a wide area radio network.

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

Full-Duplex Communication
The LTE transceiver enables use of full-duplex communication, which provides smooth telephone style conversations. The IP501H/IP501M users can talk and receive at the same time.

Multiple User Communication
Multiple users in call groups can initiate calls instantaneously, removing the need to wait for available channels, to communicate.

Priority Interrupt Calling
The LTE transceiver supports 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.

Interconnect between IDAS™ and IP100H Systems
With the VE-PG4, RoIP gateway, the LTE transceiver can be connected with IP phones, analog transceivers, IDAS™ digital transceivers and an IP100H wireless LAN IP Advanced Radio System. In addition, GPS position data can be obtained from the LTE transceiver.

* GPS mapping software required for GPS data (future).

LTE TRANSCEIVER
IP501H

LTE (4G) and 3G | FULL DUPLEX COMMUNICATION | IP67 WATERPROOF & DUST-TIGHT | Rugged MIL-STD 810 / MIL-STD 810 | MAN DOWN, LONE WORKER

17 HOURS BATTERY LIFE (with BP-272) | INTEGRATED GPS | BLUETOOTH® | VIBRATION ALERT | Provisioning / FOTA (Firmware Over-the-Air)

FEATURES
- **Short-delay, high quality audio with wideband, near lossless G.726 vocoder**
- **IP67 waterproof and dust-tight (1 m depth water for 30 minutes)**
- **Lone worker and Man down functions**
- **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 preprogrammed message transmission • Up to 500 memories (including group, individual, talk group and telephone) • Full duplex communication without a headset • Full dot-matrix display

Supplied Accessories
• BP-272, battery pack • MB-135, belt clip
• Antenna • Hand strap

IP501M

Optional HM-230HB

LTE TRANSCEIVER
IP501M

FIXED MOUNT LTE TRANSCEIVER INTEROPERABLE WITH THE IP501H

- LTE (4G) and 3G
- FULL DUPLEX COMMUNICATION
- IP54 SPLASH & DUST
- MIL-STD 810 Rugged
- Provisioning / FOTA (Firmware Over-the-Air)
- BLUETOOTH®
- INTEGRATED GPS
- EMERGENCY CALL

FEATURES

- Interoperable with the handheld IP501H
- Solid structure meets IP54 and MIL-STD-810G standards
- Built-in Bluetooth® and GPS
- Optional HM-230HB with providing a handheld-like user interface
- An Ethernet port for data communication
- D-SUB 25-PIN connector with optional OPC-2407 cable

• Text message reception and preprogrammed message transmission • Up to 500 memories (including group, individual, talk group and telephone) • Full duplex communication without a headset • Full dot-matrix display • Both 12- and 24- volt compatible

Supplied Accessories
• HM-241, speaker-microphone • Antennas with 3 m, 9.8 ft cable • GPS antenna • Mounting bracket • Microphone hanger • DC power cable

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VE-SP1
(IP501H purchase separately)

SM-1
External Microphone
(Supplied with the VE-SP1)

SPEAKER-PHONE UNIT
VE−SP1

JUST PUT THE IP501H IN THE SLOT AND START A VOICE CONFERENCE

FEATURES

- Compact body and easy installation
- Built-in loudspeaker and high sensitivity microphone
- Charges the IP501H during voice conference
- Portable operation with LR6 (AA)×8 cells
- Up to two SM-1 external microphones connectable

Supplied Accessories
• OPC-2397, connection cable • BC-242, AC adapter • SM-1, external microphone

HF TRANSCEIVER
IC−F8101 | Enhanced Version

Controller attached type

Supplied Accessories
- HM-193 microphone
- Mic hanger kit
- SP-35L external speaker
- DC power cable • Fuse

* For the remote control microphone and detached controller types, an optional separation cable is separately required.

Remote control microphone type*

Supplied accessories
- HM-192 remote control mic • Mic hanger kit for HM-192
- Extension mic connector • SP-35L external speaker
- DC power cable • Fuse

Detached controller type*

Supplied accessories
- HM-193 microphone • Remote controller head
- RMK-6 separation kit • Mic hanger kit • SP-35L external speaker
- DC power cable • Fuse

A PROFESSIONAL HF, ALL IN ONE PACKAGE

FEATURES

- **Three types of controller configurations**
- **2G ALE (Automatic Link Establishment) , MIL-STD-188-141B compatible**
- **CCIR493-4 based 4-digit and 6-digit open standards Selcall**

• RX: 0.5–29.9999 MHz, TX: 1.6–29.9999 MHz • 125 W* PEP output power (* J3E/A1A mode, depending on version) • 100% duty cycle operation (SSB voice TX) • SSB, AM, CW and Data mode* (* Depending on version) • 500 memory channels, 500 selcall and 500 ALE channels • MIL-STD-188-141B and FED-STD-1045A ALE standards; ALE individual call, net call, sounding, AMD (Automatic message display) and LQA (Link Quality Analysis) polling • CCIR493 based 4- and 6-digit open standards and 4- and 6-digit Icom proprietary digital ID system • Selcall, phone call, message call, position call, status call, emergency call, channel test call and stun call • IP54 and MIL-STD-810 durable enclosed structure • BITE (Built-in Test Equipment) function • Optional GPS unit, UX-248, for sending position information and using AVL (Automatic Vehicle Location) system • Administrator and user access feature for user menu access restriction • Clear talk function for digital noise reduction • USB port for PC programming and CI-V remote control • PTT tune function automatically starts tuning when the PTT button is pushed • ±0.3 ppm frequency stability • HF e-mail function with RapidM TC4 HF data modem, software and PC • 2400 bps MELPe Vocoder and 256-bit AES encryption* with RapidM TC4-LP (* The function availability depending on the transceiver version. Not available in the USA version.)

AUTOMATIC TUNING ANTENNA
AH−740 Compact type

FEATURES

AH-740, Relay-Driven Compact Type Antenna
- Relay-driven compact automatic tuning antenna
- Compact and lightweight (3.5 kg)
- 150 mS typical high-speed tuning (while memory tuning)
- Low power consumption (0.4 A typical)

Supplied Accessories
- Control cable and coaxial cable

AH-5NV NVIS (Near Vertical Incidence Skywave) Kit
- Fiberglass antenna element (4.5 m; 14.8 ft) for short range communication within approximately 500 km*
  (* Depending on radio propagation conditions)

**NVIS Kit
(Option for AH-740)**

AH-5NV

AH-740

Silver mounting stand shown in photo not included.

Options for Handheld Radios

BATTERY PACKS

MODEL NAME	BP-277EX Li-ion 7.4 V/1800 mAh (min.) 1900 mAh (typ.)	BP-292UL Li-ion 7.2 V/1910 mAh (min.) 2010 mAh (typ.)	BP-300 Li-ion 7.2 V/2200 mAh (min.) 2350 mAh (typ.)	BP-283 Li-ion 7.2 V/1910 mAh (min.) 2010 mAh (typ.)	BP-284 Li-ion 7.2 V/3070 mAh (min.) 3210 mAh (typ.)	BP-254 Li-ion 7.4 V/2900 mAh (min.) 3040 mAh (typ.)	BP-290 Li-ion 7.2 V/1910 mAh (min.) 2010 mAh (typ.)	BP-294 Li-ion 7.2 V/3050 mAh (min.) 3150 mAh (typ.)	BP-280 Li-ion 7.2 V/2280 mAh (min.) 2400 mAh (typ.)
IC-SAT100			✔						
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S				✔	✔				
IC-F9011T/S/B, IC-F9021T/S/B						✔			
IC-F3400DT/DS/D, IC-F4400DT/DS/D				✔	✔				
IC-F52D, IC-F62D							✔	✔	
IC-F1100DT/DS/D, IC-F2100DT/DS/D									✔
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS									
IC-F3230DT/DS, IC-F4230DT/DS									
IC-F3210D, IC-F4210D									
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX	✔								
IC-F52D-UL, IC-F62D-UL		✔							
IC-F1000T/S, IC-F2000T/S									✔
IC-F3001, IC-F3003 IC-F4001, IC-F4003									
IP501H									
IP100H									

BATTERY PACKS / BATTERY CASES

MODEL NAME	BP-279 Li-ion 7.2 V/1485 mAh (min.) 1570 mAh (typ.)	BP-278 Li-ion 7.2 V/1130 mAh (min.) 1190 mAh (typ.)	BP-232WP Li-ion 7.4 V/2200 mAh (min.) 2350 mAh (typ.)	BP-265 Li-ion 7.4 V/1850 mAh (min.) 2000 mAh (typ.)	BP-264 Ni-MH 7.2 V/1400 mAh	BP-271 Li-ion 7.4 V/1150 mAh (min.) 1200 mAh (typ.) / BP-272 Li-ion 7.4 V/1880 mAh (min.) 2000 mAh (typ.)	BP-237 LR6 (AA) ×6 cells	BP-291 LR6 (AA) ×5 cells	BP-240 LR03 (AAA) ×6 cells
IC-SAT100									
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S									
IC-F9011T/S/B, IC-F9021T/S/B								✔	
IC-F3400DT/DS/D, IC-F4400DT/DS/D									
IC-F52D, IC-F62D								✔	
IC-F1100DT/DS/D, IC-F2100DT/DS/D	✔	✔							
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS			✔						✔
IC-F3230DT/DS, IC-F4230DT/DS			✔						✔
IC-F3210D, IC-F4210D				✔	✔				
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL									
IC-F1000T/S, IC-F2000T/S	✔	✔							
IC-F3001, IC-F3003 IC-F4001, IC-F4003				✔	✔				
IP501H						✔			
IP100H						✔			

BATTERY CASES / CHARGERS

MODEL NAME	BP-261 LR6 (AA) ×6 cells	BP-263 LR6 (AA) ×6 cells	BP-273 LR6 (AA) ×3 cells	BC-212EX Rapid charger	BC-241 Rapid charger	BC-219N Rapid charger	BC-225 Intelligent charger	BC-226 Rapid charger Connectable type	BC-227 Rapid charger
IC-SAT100				✔					
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S						✔	✔		✔
IC-F9011T/S/B, IC-F9021T/S/B									
IC-F3400DT/DS/D, IC-F4400DT/DS/D						✔	✔	✔	✔
IC-F52D, IC-F62D						✔	✔	✔	✔
IC-F1100DT/DS/D, IC-F2100DT/DS/D									
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔								
IC-F3230DT/DS, IC-F4230DT/DS	✔								
IC-F3210D, IC-F4210D		✔							
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX				✔					
IC-F52D-UL, IC-F62D-UL						✔	✔	✔	✔
IC-F1000T/S, IC-F2000T/S									
IC-F3001, IC-F3003 IC-F4001, IC-F4003		✔							
IP501H									
IP100H				✔					

✔ : Applicable   : Not applicable

* The battery charger, BC-212EX, BC-219N, BC-225, BC-226, BC-227 or BC-214 **must not be used** in an explosive atmosphere.
The IC-F3201DEX/F3203DEX/F4201DEX/F4203DEX Intrinsically Safe models should only be used with the specified Intrinsically Safe approved options.
The IC-F52D-UL/F62D-UL models should only be used with the specified approved options.
Read all instructions enclosed with the transceiver carefully and completely before using the transceiver.

Options for Handheld Radios

CHARGERS / READER SOFTWARE

MODEL NAME	BC-119NS Rapid charger AD-110 is supplied with the BC-119NS.	BC-213 Rapid charger	BC-160 Rapid charger	BC-171 Regular charger	BC-191 Rapid charger for BP-264 / BC-193 Rapid charger for BP-265	BC-192 Regular charger for BP-264	BC-202 Rapid charger / BC-202IP2 Rapid charger with smart charging function	BC-218 Rapid charger with Bluetooth® function	RS-BC225 Intelligent charger software for Windows® PC
					(Photo shows BC-191)		(Photo shows BC-202IP2)		
IC-SAT100									
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S									✔ (Use with BC-225)
IC-F9011T/S/B, IC-F9021T/S/B	✔ (Use with AD-110)								
IC-F3400DT/DS/D, IC-F4400DT/DS/D									✔ (Use with BC-225)
IC-F52D, IC-F62D									✔ (Use with BC-225)
IC-F1100DT/DS/D, IC-F2100DT/DS/D		✔							
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS			✔	✔					
IC-F3230DT/DS, IC-F4230DT/DS			✔	✔					
IC-F3210D, IC-F4210D					✔	✔			
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL									✔ (Use with BC-225)
IC-F1000/T/S, IC-F2000/T/S		✔							
IC-F3001, IC-F3003 IC-F4001, IC-F4003					✔	✔			
IP501H							✔	✔	
IP100H							✔ (Use BC-202)		

MULTI-CHARGERS / CHARGER ADAPTERS

MODEL NAME	BC-214N AD-140 is supplied with the BC-214N.	BC-214 Either AD-130 or AD-132N is supplied with the BC-214.	BC-121NS AD-110 is supplied with the BC-121NS.	BC-197 Either AD-120, AD-121 or AD-122 is supplied with the BC-197.	BC-211	AD-140 For BP-300	AD-132N For BP-283/284/ 290/292UL/294	AD-110 For BP-254	AD-130 For BP-278/279/ 280
IC-SAT100	✔					✔ (Use with BC-214N)			
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S		✔ (AD-132N is required)					✔ (Use with BC-214)		
IC-F9011T/S/B, IC-F9021T/S/B			✔					✔ (Use with BC-119NS or BC-121NS)	
IC-F3400DT/DS/D, IC-F4400DT/DS/D		✔ (AD-132N is required)					✔ (Use with BC-214)		
IC-F52D, IC-F62D		✔ (AD-132N is required)					✔ (Use with BC-214)		
IC-F1100DT/DS/D, IC-F2100DT/DS/D		✔ (AD-130 is required)							✔ (Use with BC-214)
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS				✔ (AD-122 is required)					
IC-F3230DT/DS, IC-F4230DT/DS				✔ (AD-122 is required)					
IC-F3210D, IC-F4210D				✔ (AD-120 or AD-121 is required)					
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL		✔ (AD-132N is required)					✔ (Use with BC-214)		
IC-F1000/T/S, IC-F2000/T/S		✔ (AD-130 is required)							✔ (Use with BC-214)
IC-F3001, IC-F3003 IC-F4001, IC-F4003				✔ (AD-120 or AD-121 is required)					
IP501H					✔				
IP100H					✔				

CHARGER ADAPTERS / AC ADAPTERS / CHARGER CABLES

MODEL NAME	AD-122 For BP-232WP	AD-120 For BP-264 / AD-121 For BP-265	BC-242 12 V/1 A	BC-123S*1 12 V/1 A	BC-147S*1 12 V/250 mA	BC-157S 12 V/7.5 A	BC-228 15 V/4 A	BC-207S 12 V/4.2 A	CP-23L For 12 V DC
		(Photo shows AD-120)							
IC-SAT100			✔ (Use with BC-241)			✔ (Use with BC-214N)			
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S				✔ (Use with BC-225, BC-227 or BC-219N)		✔ (Use with BC-214)			✔ (Use with BC-219N or BC-227)
IC-F9011T/S/B, IC-F9021T/S/B				✔ (Use with BC-119NS)		✔ (Use with BC-121NS)			
IC-F3400DT/DS/D, IC-F4400DT/DS/D				✔ (Use with BC-225, BC-227 or BC-219N)		✔ (Use with BC-214)	✔ (Use with BC-226)		✔ (Use with BC-219N or BC-227)
IC-F52D, IC-F62D				✔ (Use with BC-225, BC-227 or BC-219N)		✔ (Use with BC-214)	✔ (Use with BC-226)		✔ (Use with BC-219N or BC-227)
IC-F1100DT/DS/D, IC-F2100DT/DS/D			✔ (Use with BC-213)	✔ (Use with BC-213)		✔ (Use with BC-214)			✔ (Use with BC-213)
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔ (Use with BC-197)			✔ (Use with BC-160)	✔ (Use with BC-171)	✔ (Use with BC-197)			✔ (Use with BC-160)
IC-F3230DT/DS, IC-F4230DT/DS	✔ (Use with BC-197)			✔ (Use with BC-160)	✔ (Use with BC-171)	✔ (Use with BC-197)			✔ (Use with BC-160)
IC-F3210D, IC-F4210D		✔ (Use with BC-197)		✔ (Use with BC-191 or BC-193)	✔ (Use with BC-192)	✔ (Use with BC-197)			✔ (Use with BC-191 or BC-193)
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX				✔ (Use with BC-212EX)					
IC-F52D-UL, IC-F62D-UL				✔ (Use with BC-225, BC-227 or BC-219N)		✔ (Use with BC-214)	✔ (Use with BC-226)		✔ (Use with BC-219N or BC-227)
IC-F1000/T/S, IC-F2000/T/S			✔ (Use with BC-213)	✔ (Use with BC-213)		✔ (Use with BC-214)			✔ (Use with BC-213)
IC-F3001, IC-F3003 IC-F4001, IC-F4003		✔ (Use with BC-197)		✔ (Use with BC-191 or BC-193)	✔ (Use with BC-192)	✔ (Use with BC-197)			✔ (Use with BC-191 or BC-193)
IP501H				✔ (Use with BC-202/IP2)		✔ (Use with BC-211)		✔ (Use with BC-218)	✔ (Use with BC-218)
IP100H				✔ (Use with BC-202)		✔ (Use with BC-211)			

*1 BC-123/BC-147SA for the USA plug. SE for European plug. SV for Australian plug.

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Options for Handheld Radios

Table 1

MODEL NAME	CHARGER CABLES — CP-22 (With DC-DC CONVERTER)	DC POWER CABLES — OPC-515L	DC POWER CABLES — OPC-656 (IP67)	SPEAKER-MICROPHONES — HM-203EX	HM-222 (IP68)	HM-184/H (IP67)	HM-233GP (GPS, IP67)	HM-168LWP (Waterproof connector, IP67)	HM-158LA
IC-SAT100			✔ (Use with BC-214N)		✔				
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S		✔ (Use with BC-219N, BC-225 or BC-227)	✔ (Use with BC-214)		✔				
IC-F9011T/S/B, IC-F9021T/S/B						✔			
IC-F3400DT/DS/D, IC-F4400DT/DS/D		✔ (Use with BC-219N, BC-225 or BC-227)	✔ (Use with BC-214)		✔				
IC-F52D, IC-F62D		✔ (Use with BC-219N, BC-225 or BC-227)	✔ (Use with BC-214)		✔		✔		
IC-F1100DT/DS/D, IC-F2100DT/DS/D			✔ (Use with BC-214)					✔	✔
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS		✔ (Use with BC-160 or BC-171)	✔ (Use with BC-197)			✔			
IC-F3230DT/DS, IC-F4230DT/DS		✔ (Use with BC-160 or BC-171)	✔ (Use with BC-197)					✔	✔
IC-F3210D, IC-F4210D		✔ (Use with BC-191, BC-192 or BC-193)	✔ (Use with BC-197)						✔
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX				✔					
IC-F52D-UL, IC-F62D-UL		✔ (Use with BC-219N, BC-225 or BC-227)	✔ (Use with BC-214)						
IC-F1000/T/S, IC-F2000/T/S			✔ (Use with BC-214)					✔	✔
IC-F3001, IC-F3003, IC-F4001, IC-F4003		✔ (Use with BC-191, BC-192 or BC-193)	✔ (Use with BC-197)						✔
IP501H	✔ (Use with BC-218)								
IP100H									

Table 2

MODEL NAME	SPEAKER-MICROPHONES — HM-159LA	HM-171GPW (Waterproof connector, IP67, GPS)	HM-171GP (GPS)	HM-183LS (IPX7)	HM-186LS	HM-215	EARPHONE-MICROPHONES — HM-153LA	HM-166LA	HM-153LS
IC-SAT100									
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S									
IC-F9011T/S/B, IC-F9021T/S/B									
IC-F3400DT/DS/D, IC-F4400DT/DS/D									
IC-F52D, IC-F62D									
IC-F1100DT/DS/D, IC-F2100DT/DS/D	✔	✔					✔	✔	
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS									
IC-F3230DT/DS, IC-F4230DT/DS	✔							✔	
IC-F3210D, IC-F4210D	✔		✔						
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL									
IC-F1000/T/S, IC-F2000/T/S	✔						✔	✔	
IC-F3001, IC-F3003, IC-F4001, IC-F4003	✔								
IP501H				✔	✔	✔ (Use with BC-218)			✔
IP100H				✔	✔				✔ *2

Table 3

MODEL NAME	EARPHONE-MICROPHONES — HM-166LS	TIE-CLIP MICROPHONE — HM-163MC	HEADSETS — 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)	HS-102 (Earphone type)	VS-3 (Bluetooth® headset)
IC-SAT100		✔	✔ (Use with VS-5MC)		✔ (Use with VS-5MC)		✔ (Use with VS-5MC)		✔
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S		✔ *4	✔ (Use with VS-4MC or VS-5MC)		✔ (Use with VS-4MC or VS-5MC)		✔ (Use with VS-4MC or VS-5MC)		✔
IC-F9011T/S/B, IC-F9021T/S/B			✔ (Use with VS-4MC or VS-1MC)		✔ (Use with VS-4MC or VS-1MC)		✔ (Use with VS-4MC or VS-1MC)		
IC-F3400DT/DS/D, IC-F4400DT/DS/D			✔ (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)		✔
IC-F1100DT/DS/D, IC-F2100DT/DS/D			✔ (Use with VS-4LA or OPC-2004LA)	✔	✔ (Use with VS-4LA or OPC-2004LA)	✔	✔ (Use with VS-4LA or OPC-2004LA)		
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS			✔ (Use with VS-4MC)		✔ (Use with VS-4MC)		✔ (Use with VS-4MC)		
IC-F3230DT/DS, IC-F4230DT/DS			✔ (Use with VS-4LA)		✔ (Use with VS-4LA)		✔ (Use with VS-4LA)		
IC-F3210D, IC-F4210D			✔ (Use with VS-4LA or OPC-2004LA)		✔ (Use with VS-4LA or OPC-2004LA)		✔ (Use with VS-4LA or OPC-2004LA)		
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL									
IC-F1000/T/S, IC-F2000/T/S			✔ (Use with VS-4LA or OPC-2004LA)	✔	✔ (Use with VS-4LA or OPC-2004LA)	✔	✔ (Use with VS-4LA or OPC-2004LA)		
IC-F3001, IC-F3003, IC-F4001, IC-F4003			✔ (Use with VS-4LA or OPC-2004LA)		✔ (Use with VS-4LA or OPC-2004LA)		✔ (Use with VS-4LA or OPC-2004LA)		
IP501H	✔		✔ *3 (Use with OPC-2006LS or OPC-2328)		✔ *3 (Use with OPC-2006LS or OPC-2328)		✔ *3 (Use with OPC-2006LS or OPC-2328)	✔ (Use with OPC-2359)	✔
IP100H	✔ *2		✔ *3 (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 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 mode operation only.
* 4 These options are available with IC-F7040T/S only.

✔ : Applicable   : Not applicable

Options for Handheld Radios

MODEL NAME	PTT SWITCH CABLES					VOX/PTT CASE	PLUG ADAPTER CABLES		EARPHONES
	VS-4MC For manual PTT operation	VS-5MC For manual PTT, VOX operation	VS-4LA For manual PTT operation	OPC-2328 For manual PTT operation	OPC-2359	VS-1MC	OPC-2004LA For VOX operation	OPC-2006LS For VOX operation	EH-15B 2.5 mm plug
IC-SAT100		✔ (Use with HS-94, HS-95 or HS-97)							✔ (Use with HM-163MC)
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔ (Use with HS-94, HS-95 or HS-97)	✔*4 (Use with HS-94, HS-95 or HS-97)							✔*4 (Use with HM-163MC)
IC-F9011T/S/B, IC-F9021T/S/B	✔ (Use with HS-94, HS-95 or HS-97)					✔ (Use with HS-94, HS-95 or HS-97)			
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔ (Use with HS-94, HS-95 or HS-97)								
IC-F52D, IC-F62D		✔ (Use with HS-94, HS-95 or HS-97)							✔ (Use with HM-163MC)
IC-F1100DT/DS/D, IC-F2100DT/DS/D			✔ (Use with HS-94, HS-95 or HS-97)				✔ (Use with HS-94, HS-95 or HS-97)		
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔ (Use with HS-94, HS-95 or HS-97)								
IC-F3230DT/DS, IC-F4230DT/DS			✔ (Use with HS-94, HS-95 or HS-97)						
IC-F3210D, IC-F4210D			✔ (Use with HS-94, HS-95 or HS-97)				✔ (Use with HS-94, HS-95 or HS-97)		
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL									
IC-F1000/T/S, IC-F2000/T/S			✔ (Use with HS-94, HS-95 or HS-97)				✔ (Use with HS-94, HS-95 or HS-97)		
IC-F3001, IC-F3003 IC-F4001, IC-F4003			✔ (Use with HS-94, HS-95 or HS-97)				✔ (Use with HS-94, HS-95 or HS-97)		
IP501H				✔ (Use with HS-94, HS-95 or HS-97)	✔ (Use with HS-102)			✔ (Use with HS-94, HS-95 or HS-97)	
IP100H				✔ (Use with HS-94, HS-95 or HS-97)	✔ (Use with HS-102)			✔ (Use with HS-94, HS-95 or HS-97)	

MODEL NAME	EARPHONES						ACC ADAPTERS		BELT CLIPS
	SP-26 2.5 mm plug	SP-27 3.5 mm plug	SP-28 2.5 mm plug	SP-29 3.5 mm plug	SP-32 Tube earphone adapter	SP-40 3.5 mm plug	AD-118 Allows you to use 6-pin Hirose plug accessories	AD-135 3.5 mm jack earphone adapter	MB-94EX Alligator type
IC-SAT100	✔ (Use with HM-163MC)	✔ (Use with HM-222 or AD-135)	✔ (Use with HM-163MC)	✔ (Use with HM-222 or AD-135)	✔ (Use with EH-15B)	✔ (Use with HM-222 or AD-135)	✔	✔	
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔*4 (Use with HM-163MC)	✔*4 (Use with HM-222 or AD-135)	✔*4 (Use with HM-163MC)	✔*4 (Use with HM-222 or AD-135)	✔*4 (Use with EH-15B)	✔*4 (Use with HM-222 or AD-135)	✔	✔*4	
IC-F9011T/S/B, IC-F9021T/S/B							✔		
IC-F3400DT/DS/D, IC-F4400DT/DS/D							✔		
IC-F52D, IC-F62D	✔ (Use with HM-163MC)	✔ (Use with HM-222 or AD-135)	✔ (Use with HM-163MC)	✔ (Use with HM-222 or AD-135)	✔ (Use with EH-15B)	✔ (Use with HM-222 or AD-135)	✔	✔	
IC-F1100DT/DS/D, IC-F2100DT/DS/D									
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS								✔	
IC-F3230DT/DS, IC-F4230DT/DS									
IC-F3210D, IC-F4210D									
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									✔
IC-F52D-UL, IC-F62D-UL									
IC-F1000/T/S, IC-F2000/T/S									
IC-F3001, IC-F3003 IC-F4001, IC-F4003									
IP501H									
IP100H									

MODEL NAME	BELT CLIPS		BELT HANGERS			CHARGER BRACKET	MOUNT BASE	BRACKET ADAPTOR	CARRYING CASES
	MB-135 MB-133 MB-127 MB-124 MB-115 MB-98 MB-94R MBB-3 MBB-5 Alligator type (Photo shows MB-133)	MB-136 MB-93 Swivel type (Photo shows MB-93)	MB-96N Swivel type	MB-96F Fixed type	MB-96FL Long type	MB-130	MBF-1 For use with BC-218	MBA-7 For use with BC-218	LC-191*5
IC-SAT100	✔ (Use MBB-5)								
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔ (Use MB-133)	✔ (Use MB-136)	✔	✔	✔				
IC-F9011T/S/B, IC-F9021T/S/B	✔ (Use MB-115)								
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔ (Use MB-133)	✔ (Use MB-136)	✔	✔	✔				
IC-F52D, IC-F62D	✔ (Use MBB-3)	✔ (Use MB-136)	✔	✔	✔				
IC-F1100DT/DS/D, IC-F2100DT/DS/D	✔ (Use MB-133)					✔ (Use with BC-213)			
IC-F3261DT/DS, IC-F3263DT/DS IC-F4261DT/DS, IC-F4263DT/DS	✔ (Use MB-94R)	✔ (Use MB-93)	✔	✔	✔	✔ (Use with BC-160)			
IC-F3230DT/DS, IC-F4230DT/DS	✔ (Use MB-94R)	✔ (Use MB-93)	✔	✔		✔ (Use with BC-160)			
IC-F3210D, IC-F4210D	✔ (Use MB-124)					✔ (Use with BC-191, BC-192 or BC-193)			
IC-F3201DEX, IC-F3203DEX IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL	✔ (Use MBB-3)	✔ (Use MB-136)	✔	✔	✔				✔
IC-F1000/T/S, IC-F2000/T/S	✔ (Use MB-133)					✔ (Use with BC-213)			
IC-F3001, IC-F3003 IC-F4001, IC-F4003	✔ (Use MB-124)					✔ (Use with BC-191, BC-192 or BC-193)			
IP501H	✔ (Use with MB-135)						✔ (Use with MBA-7)	✔ (MBF-1)	
IP100H	✔ (Use with MB-127)								

*4 These options are available with IC-F7040T/S only. *5 Charging is possible while the case is attached.

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Options for Handheld Radios

MODEL NAME	CARRYING CASES						ZONE COPY CABLES		
	LC-184*5	LC-186*5	LC-187*5 For use with BP-290 / LC-190*5 For use with BP-294 (Photo shows LC-187)	LC-188 For use with BP-290	LC-183*5 For use with BP-271	LC-185*5 For use with BP-272	OPC-1870 Handheld to handheld	OPC-2362 Handheld to mobile / OPC-1871 Handheld to mobile (Photo shows OPC-2362)	OPC-2338 Programming cable USB-14-pin type
IC-SAT100									
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔						✔	✔ (Use OPC-2362)	✔
IC-F9011T/S/B, IC-F9021T/S/B							✔	✔ (Use OPC-1871)	
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔ *6	✔ *6					✔	✔ (Use OPC-2362)	✔
IC-F52D, IC-F62D			✔	✔			✔		✔
IC-F1100DT/DS/D, IC-F2100DT/DS/D									
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS							✔		
IC-F3230DT/DS, IC-F4230DT/DS									
IC-F3210D, IC-F4210D									
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX									
IC-F52D-UL, IC-F62D-UL							✔		✔
IC-F1000/T/S, IC-F2000/T/S									
IC-F3001, IC-F3003, IC-F4001, IC-F4003									
IP501H				✔	✔				
IP100H									

MODEL NAME	ANTENNAS							HIGH GAIN ANTENNAS
	FA-S81V 136–150 MHz / FA-S82V 148–162 MHz / FA-S83V 160–174 MHz / FA-S81U 380–430 MHz / FA-S82U 430–480 MHz / FA-S83U 470–520 MHz	FA-S25V 136–148 MHz / FA-S65V 148–160 MHz / FA-S66V 160–174 MHz / FA-S30U 380–430 MHz / FA-S58U 430–470 MHz / FA-S75U 470–520 MHz	FA-SC25V 136–150 MHz / FA-SC55V 150–174 MHz / FA-SC25U 400–430 MHz / FA-SC57U 430–470 MHz / FA-SC72U 470–520 MHz	FA-SC28V 148–162 MHz / FA-SC29V 160–174 MHz	FA-SC01U 350–400 MHz / FA-SC02U 330–380 MHz / FA-SC03U 380–430 MHz	FA-S100U 760–870 MHz	FA-S102U Satellite + GPS antenna	FA-SC62V 150–160 MHz / FA-SC63V 155–165 MHz
IC-SAT100							✔	
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔					✔		
IC-F9011T/S/B, IC-F9021T/S/B		✔						
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔							
IC-F52D, IC-F62D			✔ (Except FA-SC55V)	✔	✔ (Use FA-SC01U)			✔
IC-F1100DT/DS/D, IC-F2100DT/DS/D			✔	✔	✔ (Use FA-SC01U or FA-SC02U)			
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS			✔		✔ (Use FA-SC01U or FA-SC03U)			✔
IC-F3230DT/DS, IC-F4230DT/DS			✔		✔ (Use FA-SC01U or FA-SC03U)			✔
IC-F3210D, IC-F4210D			✔					✔
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX			✔					
IC-F52D-UL, IC-F62D-UL			✔ (Except FA-SC55V)	✔	✔ (Use FA-SC01U)			✔
IC-F1000/T/S, IC-F2000/T/S			✔	✔	✔ (Use FA-SC02U)			✔
IC-F3001, IC-F3003, IC-F4001, IC-F4003			✔		✔ (Use FA-SC01U or FA-SC03U)			✔
IP501H								
IP100H								

MODEL NAME	CUT ANTENNAS		STUBBY ANTENNAS	
	FA-S67VC 136–174 MHz / FA-S76UC 380–520 MHz	FA-SC61VC 136–174 MHz / FA-SC61UC 380–520 MHz	FA-S81VS 136–150 MHz / FA-S82VS 148–162 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
IC-SAT100				
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S	✔		✔	
IC-F9011T/S/B, IC-F9021T/S/B	✔			
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔		✔	
IC-F52D, IC-F62D		✔		✔
IC-F1100DT/DS/D, IC-F2100DT/DS/D		✔		✔
IC-F3261DT/DS, IC-F3263DT/DS, IC-F4261DT/DS, IC-F4263DT/DS		✔		✔
IC-F3230DT/DS, IC-F4230DT/DS		✔		✔
IC-F3210D, IC-F4210D		✔		✔
IC-F3201DEX, IC-F3203DEX, IC-F4201DEX, IC-F4203DEX				
IC-F52D-UL, IC-F62D-UL		✔		✔
IC-F1000/T/S, IC-F2000/T/S		✔		✔
IC-F3001, IC-F3003, IC-F4001, IC-F4003		✔		✔
IP501H				
IP100H				

*5 Charging is possible while the case is attached. *6 LC-184 for use with IC-F3400DT/DS, F4400DT/DS. LC-186 for use with IC-F3400D, F4400D.
Some options may not be available in some countries. Please ask your dealer for details.

✔ : Applicable   : Not applicable

Options for Mobile Radios and Repeaters

HAND MICROPHONES

MODEL NAME	HM-220 Heavy-duty type IP54	HM-220T Heavy-duty type with DTMF keypad IP54	HM-221 IP55	HM-221T DTMF keypad type IP55	HM-211 Active Noise Canceling	HM-152	HM-152T DTMF keypad type	HM-148G Heavy-duty type	HM-148T Heavy-duty type with DTMF keypad
IC-F7510, IC-F7520, IC-F7540	✔	✔	✔	✔					
IC-F9511HT					✔	✔	✔	✔	✔
IC-F9511T/S, IC-F9521T/S					✔	✔	✔	✔	✔
IC-F5400D, IC-F6400D	✔	✔	✔	✔					
IC-F5400DS, IC-F6400DS	✔	✔	✔	✔					
IC-F5061/D, IC-F5063/D / IC-F6061/D, IC-F6063/D					✔	✔	✔	✔	✔
IC-F5220D, IC-F6220D						✔	✔	✔	✔
IC-F5121D, IC-F5123D / IC-F6121D, IC-F6123D					✔	✔	✔	✔	
IC-F5021, IC-F5023/H / IC-F6021, IC-F6023/H						✔	✔	✔	
IC-F5011, IC-F5013/H / IC-F6011, IC-F6013/H						✔	✔	✔	✔
IC-FR9010, IC-FR9020									
IC-FR5000, IC-FR6000						✔			
IC-FR5200H, IC-FR6200H						✔			
IP501M									

SPEAKER MICROPHONE / HEADSET / DESKTOP MICROPHONES / EXTERNAL SPEAKERS / SEPARATION KITS

MODEL NAME	HM-241 (Speaker Mic)	VS-3 Bluetooth® headset	SM-29	SM-26	SP-30	SP-35 (2 m; 6.5 ft cable) / SP-35L (6 m; 19.7 ft cable)	RMK-5	RMK-7 Dual-head	RMK-2
IC-F7510, IC-F7520, IC-F7540		✔	✔		✔	✔	✔	✔	
IC-F9511HT			✔		✔	✔			
IC-F9511T/S, IC-F9521T/S			✔		✔	✔			✔
IC-F5400D, IC-F6400D			✔		✔	✔	✔	✔	
IC-F5400DS, IC-F6400DS			✔		✔	✔			
IC-F5061/D, IC-F5063/D / IC-F6061/D, IC-F6063/D			✔		✔	✔			
IC-F5220D, IC-F6220D			✔		✔	✔			
IC-F5121D, IC-F5123D / IC-F6121D, IC-F6123D			✔		✔	✔			
IC-F5021, IC-F5023/H / IC-F6021, IC-F6023/H			✔			✔			
IC-F5011, IC-F5013/H / IC-F6011, IC-F6013/H			✔		✔	✔			
IC-FR9010, IC-FR9020									
IC-FR5000, IC-FR6000			✔			✔			
IC-FR5200H, IC-FR6200H			✔			✔			
IP501M	✔	✔			✔	✔			

SEPARATION KITS / COMMANDMIC™ / SEPARATION CABLES / GPS ANTENNA / ACC CABLES

MODEL NAME	RMK-3	HM-218 Secondary controller for use with RMK-5 IP55	HM-230HB IP55	OPC-2367 8 m; 26.2 ft / OPC-2366 5 m; 16.4 ft / OPC-2365 3 m; 9.8 ft / OPC-2364 1.9 m; 6.2 ft	OPC-2373 1.9 m; 6.2 ft / OPC-2374 8 m; 26.2 ft	OPC-608 8 m; 26.2 ft / OPC-726 5 m; 16.4 ft / OPC-607 3 m; 9.8 ft / OPC-609 1.9 m; 6.2 ft	UX-241 5 m; 16.4 ft cable length	OPC-1939 D-SUB 15-pin type	OPC-2078 D-SUB 25-pin type
IC-F7510, IC-F7520, IC-F7540		✔ (Use with RMK-5)		✔ (Use with RMK-5 or RMK-7)	✔ (Use with HM-218)		✔		
IC-F9511HT						✔			
IC-F9511T/S, IC-F9521T/S						✔ (Use with RMK-2)			
IC-F5400D, IC-F6400D		✔ (Use with RMK-5)		✔ (Use with RMK-5 or RMK-7)	✔ (Use with HM-218)		✔		
IC-F5400DS, IC-F6400DS							✔		
IC-F5061/D, IC-F5063/D / IC-F6061/D, IC-F6063/D	✔					✔ (Use with RMK-3)			
IC-F5220D, IC-F6220D								✔*1	✔*1
IC-F5121D, IC-F5123D / IC-F6121D, IC-F6123D								✔*1	✔*1
IC-F5021, IC-F5023/H / IC-F6021, IC-F6023/H								✔	✔
IC-F5011, IC-F5013/H / IC-F6011, IC-F6013/H								✔	✔
IC-FR9010, IC-FR9020									
IC-FR5000, IC-FR6000									
IC-FR5200H, IC-FR6200H									
IP501M			✔						

*1 No digital modulation "IN" using accessory cables.

Options for Mobile Radios and Repeaters

MODEL NAME	ACC CABLES	ZONE COPY CABLES		MICROPHONE CABLE
	OPC-2407 D-SUB 25-pin type	OPC-2362 Mobile to handheld	OPC-1871 Mobile to handheld / OPC-1532 Mobile to mobile (Photo shows OPC-1871)	OPC-647 2.5 m; 8.2 ft cable length
IC-F7510, IC-F7520, IC-F7540		✔		
IC-F9511HT			✔	
IC-F9511T/S, IC-F9521T/S			✔	
IC-F5400D, IC-F6400D		✔		
IC-F5400DS, IC-F6400DS		✔		
IC-F5061/D, IC-F5063/D IC-F6061/D, IC-F6063/D				
IC-F5220D, IC-F6220D				
IC-F5121D, IC-F5123D IC-F6121D, IC-F6123D				
IC-F5021, IC-F5023/H IC-F6021, IC-F6023/H				
IC-F5011, IC-F5013/H IC-F6011, IC-F6013/H				
IC-FR9010, IC-FR9020				
IC-FR5000, IC-FR6000				
IC-FR5200H, IC-FR6200H				
IP501M	✔			✔ (Use with HM-230HB or HM-241)

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

Options for Repeaters

MODEL NAME	CHANNEL MODULES	POWER AMPLIFIERS	ACC CABLE	TRUNKING/NETWORK CONTROLLER	IDAS™ SOFTWARE	
	UR-FR5000 136–174 MHz, 50 W / UR-FR6000 400–470, 450–512, 450–520 MHz, 50 W	UR-PA5000 136–174 MHz, 100 W 50% duty, 50 W 100% duty / UR-PA6000 400–470, 450–520 MHz, 100 W 50% duty, 50 W 100% duty	OPC-2202 For connection with UR-PA5000/PA6000	UC-FR5000	CF-FR5000MC Multi-site conventional software for UC-FR5000	CF-FR5000MT NXDN™ Type-D Multi-site trunking software for UC-FR5000
IC-FR9010, IC-FR9020						
IC-FR5000, IC-FR6000	✔	✔ *1	✔	✔	✔ (Use with UC-FR5000)	✔ (Use with UC-FR5000)
IC-FR5200H, IC-FR6200H						

Some options may not be available in some countries. Please ask your dealer for details. *1 Not available in some countries. (Not available in the USA.)

Options for Handheld and Mobile Radios

MODEL NAME	LICENSE KEYS							
	ISL-3 APCO P25 Trunking Phase 1	ISL-P25TR APCO P25 Trunking Phase 1	ISL-P25P2 APCO P25 Trunking Phase 2	ISL-P25AES AES Encryption Activation Key	ISL-P25VS APCO P25 Conventional Voting Scan	ISL-P25DS APCO P25 Packet Data Service (GPS/Text)	ISL-P25FP Front Panel Programming	ISL-P25W 25 kHz Activation Key (for USA version transceivers)
IC-F7010T/S, IC-F7020T/S, IC-F7040T/S		✔	✔	✔ (Use with UT-134)	✔	✔	✔	✔
IC-F9011T/S/B, IC-F9021T/S/B	✔							
IC-F7510, IC-F7520, IC-F7540		✔	✔	✔ (Use with UT-134)	✔	✔	✔	✔
IC-F9511HT/T/S, IC-F9521T/S	✔							

MODEL NAME	LICENSE KEYS				
	ISL-UGMTR NXDN™ Type-D Trunking Upgrade Key	ISL-AKAES AES Encryption Activation Key	ISL-CHEX Channel Expansion Key increases channel number up to 4000	ISL-AKSTM Dealer Set Mode Activation Key	ISL-AK25K 25 kHz Activation Key (for USA version transceivers)
IC-F3400DT/DS/D, IC-F4400DT/DS/D	✔	✔ (Use with UT-134)	✔	✔	✔
IC-F52D, IC-F62D	✔				✔
IC-F52D-UL, IC-F62D-UL	✔				✔
IC-F5400D/DS, IC-F6400D/DS	✔	✔ (Use with UT-134)	✔	✔	✔

✔ : Applicable   : Not applicable

Options for RoIP and IP Advanced Radio Systems

MODEL NAME	AC ADAPTERS			AUDIO CONNECTION CABLES					SPEAKER-MICROPHONE
	BC-236 12 V/8.3 A	**BC-207S** 12 V/4.2 A	**BC-147S***1 12 V/0.25 A	**OPC-2273** For VHF marine transceiver 5 m; 16.4 ft	**OPC-2390** For IC-FR5000/ FR5200H series 5 m; 16.4 ft	**OPC-2275** For mobile transceiver 5 m; 16.4 ft	**OPC-2276** For HM-152 or SM-26 5 m; 16.4 ft	**OPC-2389** For RS-232 serial connection 5 m; 16.4 ft	**HM-241**
VE-PG4	✔			✔	✔	✔	✔	✔	✔
AP-95M		✔							
IP100FS			✔ (Use with CT-23)						
RC-FS10			✔ (Use with CT-23)						

*1 BC-147SA for the USA plug. SE for European plug. SV for Australian plug.

MODEL NAME	HAND MICROPHONES			DESKTOP MICROPHONE	DIGITAL VOICE CONVERTER	MICROPHONE ADAPTER	ACCESS POINT MANAGER
	HM-152	**HM-152T** DTMF keypad type	**HM-216** Short cable*3	**SM-26**	**CT-24** For more than five digital radio connections	**CT-23**	**RS-AP3**
VE-PG4	✔*2	✔*2	✔*2	✔*2	✔		
AP-95M							✔
IP100FS	✔ (Use with CT-23 and BC-147S)			✔ (Use with CT-23 and BC-147S)		✔ (Use with SM-26 or HM-152)	
RC-FS10	✔ (Use with CT-23 and BC-147S)			✔ (Use with CT-23 and BC-147S)		✔ (Use with SM-26 or HM-152)	

*2 The HM-152, HM-152T, HM-216 and SM-26 has no Speaker function. An external speaker is required to be connected to the VE-PG4 to hear received audio with these options.

*3 The HM-216 has a total of 490 mm cable length including a 300 mm curl code, while the HM-152 has a total of 900 mm cable length.

Options for HF Radios

MODEL NAME	HAND MICROPHONE	REMOTE CONTROL MIC	SEPARATION KIT	SEPARATION CABLES	AUTOTUNING ANTENNA	NVIS KIT	EXTERNAL SPEAKERS		GPS UNIT
	HM-193	**HM-192**	**RMK-6** For controller attached version	**OPC-608** 8 m; 26.2 ft **OPC-726** 5 m; 16.4 ft **OPC-607** 3 m; 9.8 ft **OPC-609** 1.9 m; 6.2 ft	**AH-740** 2.5–30 MHz Compact type	**AH-5NV**	**SP-30**	**SP-35** With 2 m; 6.5 ft cable **SP-35L** With 6 m; 19.7 ft cable	**UX-248** Can be used with Enhanced version.
IC-F8101	✔	✔	✔	✔	✔	✔ (Use with AH-740)	✔	✔	✔

MODEL NAME	GPS/MODEM CABLE	ANTENNA TUNER	ANTENNA ELEMENT	SHIELDED CONTROL CABLE	MOUNTING BRACKET	COOLING FAN	THIRD PARTY PRODUCTS	
	OPC-2308	**AT-140**	**AH-2b**	**OPC-2309** 10 m; 32.8 ft	**MB-126**	**CFU-F8100**	RapidM internal TC4 Modem and Email Software	**SCS PACTOR III**
IC-F8101	✔	✔	✔ (Use with AT-140)	✔ (Use with AT-140)	✔	✔	✔	✔

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

✔ : Applicable   : Not applicable

Specifications for P25 Digital Radios and Repeaters

	IC-F7010T/S IC-F7020T/S IC-F7040T/S	IC-F9011T/S/B IC-F9021T/S/B	IC-F7510 IC-F7520 IC-F7540	IC-F9511HT	IC-F9511T/S IC-F9521T/S	IC-FR9010 IC-FR9020
Frequency coverage (Varies according to version)	136–174 MHz 380–470 MHz 450–512 MHz 450–520 MHz (USA version) RX/TX: 769–775, 851–869 MHz TX: 799–805, 806–824 MHz (EXP version) RX/TX: 764–776, 851–870 MHz TX: 794–806, 806–825 MHz	136–174 MHz 380–470 MHz 450–520 MHz – 	136–174 MHz 380–470 MHz 450–512 MHz 450–520 MHz (USA version) RX/TX: 769–775, 851–869 MHz TX: 799–805, 806–824 MHz (EXP version) RX/TX: 764–776, 851–870 MHz TX: 794–806, 806–825 MHz	136–174 MHz	136–174 MHz 400–470 MHz 450–520 MHz – 	146–174 MHz 440–475 MHz –
Number of channels (Max.)	1024 channels/ 128 zones	512 channels/ 128 zones	1024 channels/ 128 zones	512 channels/ 128 zones	512 channels/ 128 zones	500 channels
Type of emission (Varies according to version)	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 8K10F1E/F1D, 8K10F1W	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 8K10F1E/F1D, 8K10F1W	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D
Channel spacing (Varies according to version)	12.5/25 kHz (VHF/UHF) 12.5/20/25 kHz (700/800 MHz)	12.5/25 kHz 15/30 kHz	12.5/25 kHz (VHF/UHF) 12.5/20/25 kHz (700/800 MHz)	12.5/15/30 kHz	12.5/25 kHz 15/30 kHz	12.5/20/25/30 kHz
Dimensions (W×H×D; Projections not included)	53.6 × 123.5 × 38.2 mm; 2.1 × 4.9 × 1.5 in (With BP-284)	58.6 × 167 × 41.8 mm; 2.3 × 6.6 × 1.6 in (With BP-254)	174 × 55 × 150 mm; 6.9 × 2.2 × 5.9 in	175 × 60 × 279 mm; 6.9 × 2.4 × 11.0 in (RF unit)	175 × 45 × 170 mm; 6.9 × 1.8 × 6.7 in	482 × 88 × 413 mm; 19.0 × 3.5 × 16.3 in
Weight (approx.)	355 g; 12.5 oz (VHF/UHF) (With BP-284, MB-133 & ant.) 345 g; 12.2 oz (700/800 MHz) (With BP-284, MB-133 & ant.)	533 g; 1.2 lb (With BP-254)	1500 g; 3.3 lb	4.7 kg; 10.4 lb (With controller and cable)	1.5 kg; 3.3 lb	11 kg; 24.3 lb
RF output power — VHF	5 W	6 W	50 W	110 W	50 W	110 W
RF output power — UHF	5 W	5 W	45 W	–	50 W	100 W
RF output power — 700/800 MHz	3 W	–	30/35 W	–	–	–
Sensitivity (at 12 dB SINAD)	0.22 µV typ. (@25/12.5 kHz, VHF) 0.23 µV typ. (@25/12.5 kHz, UHF) 0.25 µV typ. (@25/20/12.5 kHz, 700/800 MHz)	0.25 µV typ.	0.22 µV typ. (@25/12.5 kHz, VHF/UHF) 0.22 µV typ. (@25/20/12.5 kHz, 700/800 MHz)	0.25 µV typ.	0.25 µV typ.	0.30 µV typ.
Sensitivity (at 5% BER)	0.22 µV typ. (VHF) 0.23 µV typ. (UHF) 0.25 µV typ. (700/800 MHz)	0.30 µV typ.	0.22 µV typ. (@C4FM, H-DQPSK, VHF/UHF/700/800 MHz)	0.25 µV typ.	0.25 µV typ.	0.30 µV typ.
Intermodulation rejection — Analog	75/74/70 dB typ. (VHF/UHF/700/800 MHz)	75/75 dB typ. (VHF/UHF)	77/75/75 dB typ. (VHF/UHF/700/800 MHz)	78 dB typ. (VHF)	78/78dB typ. (VHF/UHF)	79/77 dB min. (VHF/UHF)
Intermodulation rejection — Digital	75/74/70 dB typ. (VHF/UHF/700/800 MHz)	75/75 dB typ. (VHF/UHF)	77/75/75 dB typ. (VHF/UHF/700/800 MHz)	78 dB typ. (VHF)	78/78dB typ. (VHF/UHF)	79/77 dB min. (VHF/UHF)
AF output power — Internal SP	1300 mW typ.(8 Ω)	1000 mW typ. (8 Ω)	4 W typ. (4 Ω)	–	4 W typ. (4 Ω)	7.5 W typ. (8 Ω)
AF output power — External SP	1000 mW typ.(8 Ω)	1000 mW typ. (8 Ω)	4 W typ. (4 Ω)	15 W typ. (4 Ω)	22 W typ. (4 Ω)	–

*¹ ISL-P25W is required for 25 kHz bandwidth operation for USA versions.

	IC-F7010T/S IC-F7020T/S IC-F7040T/S	IC-F9011T/S/B IC-F9021T/S/B	IC-F7510 IC-F7520 IC-F7540	IC-F9511HT	IC-F9511T/S IC-F9521T/S	IC-FR9010 IC-FR9020
APCO P25 digital	✔	✔	✔	✔	✔	✔
APCO P25 trunking	✔ (Phase 1 ISL-P25TR required) (Phase 2 ISL-P25P2 required)	✔ (Phase 1, ISL-3 is required)	✔ (Phase 1 ISL-P25TR required) (Phase 2 ISL-P25P2 required)	✔ (Phase 1, ISL-3 is required)	✔ (Phase 1, ISL-3 is required)	–
AES encryption	✔ (UT-134 and ISL-P25AES required)	✔ (UT-125 required)	✔ (UT-134 and ISL-P25AES required)	✔ (UT-125 required)	✔ (UT-125 required)	–
DES encryption	✔ (UT-134 required)	✔ (UT-125 or UT-128 required)	✔ (UT-134 required)	✔ (UT-125 or UT-128 required)	✔ (UT-125 or UT-128 required)	–
FIPS 140-2 Level 1	✔ (UT-125FIPS required)	✔ (UT-125FIPS required)	✔ (UT-125FIPS required)	✔ (UT-125FIPS required)	✔ (UT-125FIPS required)	–
P25 Conventional Voting Scan	✔ (ISL-P25VS required)	–	✔ (ISL-P25VS required)	–	–	–
P25 Packet Data Service	✔ (ISL-P25DS required)	–	✔ (ISL-P25DS required)	–	–	–
OTAP Function	✔ (CS-OTPM2 required)	–	✔ (CS-OTPM2 required)	–	–	–
CTCSS/DTCS — encoder	✔	✔	✔	✔	✔	✔
CTCSS/DTCS — decoder	✔	✔	✔	✔	✔	✔
2-Tone — encoder	✔	✔	✔	✔	✔	–
2-Tone — decoder	✔	✔	✔	✔	✔	–
DTMF — autodial	✔	✔	✔	✔	✔	–
DTMF — decoder	–	–	–	–	–	–
Voice Scrambler — Inversion	✔	✔	✔	✔	✔	–
MDC 1200	✔	✔	✔	✔	✔	–
Man down function	✔	✔ (UT-124R required)	–	–	–	–
Front Panel Programming	✔ (ISL-P25FP required)	–	✔ (ISL-P25FP required)	–	–	–
Operating time (approx.)	9 hours with BP-283 14 hours with BP-284	9 hours with BP-254	–	–	–	–
IP rating	IP68 (1 m depth/1 hour)	IP67	IP55	IP54	IP54 (Controller and RMK-2)	–
MIL standard	MIL-STD-810-G	MIL-STD-810-F	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-F	MIL-STD-810-G

Specifications for IDAS™ Handheld Radios

	IC-F3400DT/DS/D IC-F4400DT/DS/D	IC-F52D IC-F62D	IC-F1100DT/DS/D IC-F2100DT/DS/D	IC-F3261DT/DS IC-F3263DT/DS IC-F4261DT/DS IC-F4263DT/DS	IC-F3230DT/DS IC-F4230DT/DS	IC-F3210D IC-F4210D	IC-F3201DEX IC-F3203DEX IC-F4201DEX IC-F4203DEX	IC-F52D-UL IC-F62D-UL
Frequency coverage (Varies according to version)	136–174 MHz 380–470 MHz 450–512 MHz	136–174 MHz 350–400 MHz 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 350–400 MHz 400–470 MHz 450–520 MHz	136–174 MHz 350–400 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	136–174 MHz 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 400–470 MHz	136–174 MHz 350–400 MHz 400–470 MHz 450–512 MHz 450–520 MHz
Number of channels (Max.)	1024/4000*² Ch/ 128 zones (DT, DS) 32 Ch/2 zones*³ (D)	512 channels/ 128 zones	128 channels (DT, DS) 16 channels (D)	512 channels/ 128 zones	128 channels/ 8 zones	16 channels	16 channels	512 channels/ 128 zones
Type of emission (Varies according to version)	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 4K00F1E/D	16K0F3E*¹, 11K0F3E, 8K50F3E, 4K00F1E/F1D	16K0F3E*¹, 11K0F3E, 8K50F3E, 4K00F1E/D	16K0F3E*¹, 11K0F3E, 8K50F3E, 4K00F1E/D	16K0F3E*¹, 11K0F3E, 8K50F3E, 4K00F1E/D	16K0F3E*¹, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D
Channel spacing (Unit: kHz) (Varies according to version)	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz
Dimensions (projections not included; W×H×D)	53.6 × 123.5 × 29.3 mm; 2.1×4.9×1.2 in (with BP-283)	56 × 91.5 × 29 mm; 2.2 × 3.6 × 1.1 in (With BP-290)	52.2 × 111.8 × 29.4 mm; 2.1 × 4.4 × 1.2 in (With BP-280, DS, D) 52.2 × 111.8 × 34.1 mm; 2.1 × 4.4 × 1.3 in (With BP-280, DT)	53.5 × 142.7 × 39.5 mm; 2.1 × 5.6 × 1.6 in (with BP-232WP)	53 × 120 × 37 mm; 2.1 × 4.7 × 1.5 in (With BP-232WP)	58 × 111.5 × 36.5 mm; 2.3 × 4.4× 1.4 in (With BP-265)	63 × 144 × 50 mm; 2.5 × 5.7 × 2.0 in (With BP-277EX)	56 × 91.5 × 29 mm; 2.2 × 3.6 × 1.1 in (With BP-292UL)
Weight (approximate)	305 g; 10.8 oz (VHF) 300 g; 10.6 oz (UHF) (With BP-283, MB-133 & ant.)	230 g; 8.1 oz (With BP-290 & MBB-3)	260 g; 9.2 oz (D) 270 g; 9.5 oz (DS) 280 g; 9.9 oz (DT) (With BP-280 & MB-133)*⁵	410 g; 14.5 oz (VHF) 400 g; 14.1 oz (UHF) (With BP-232WP, MB-94R & ant.)	340 g; 12 oz (With BP-232WP, MB-94R & ant.)	320 g; 11.3 oz (With BP-265, MB-124 & ant.)	466 g; 1.03 lb (VHF) 460 g; 1.01 lb (UHF) (With BP-277EX, MB-94EX & ant.)	270 g; 9.5 oz (With BP-292UL, & MBB-3)
RF output power VHF	5 W	5 W	5 W	5 W	5 W	5 W	1 W	5 W
RF output power UHF	5 W	5 W	4 W	5 W	4 W	4 W	1 W	5 W
Sensitivity (at 12 dB SINAD)	0.22 µV typ. (VHF) 0.23 µV typ. (UHF)	0.23 µV typ.	0.21 µV typ. (VHF) 0.24 µV typ. (UHF)	0.23 µV typ.	0.23 µV typ. (VHF) 0.24 µV typ. (UHF)	0.23 µV typ. (VHF) 0.22 µV typ. (UHF)	0.24 µV typ. (VHF) 0.22 µV typ. (UHF)	0.23 µV typ.
Sensitivity (at 5% BER)	0.26 µV typ.*⁴ (VHF) 0.32 µV typ.*⁴ (UHF)	0.28 µV typ.*⁴ (VHF) 0.32 µV typ.*⁴ (UHF)	0.20 µV typ.	0.20 µV typ.	0.18 µV typ.	0.18 µV typ.	0.20 µV typ. (VHF) 0.18 µV typ. (UHF)	0.28 µV typ.*⁴ (VHF) 0.32 µV typ.*⁴ (UHF)
Intermodulation rejection Analog (V/UHF)	75/74 dB typ.	76/74 dB typ.	75/77 dB typ.	75/75 dB typ.	75/76 dB typ.	75/75 dB typ.	75/74 dB typ.	76/74 dB typ.
Intermodulation rejection Digital (V/UHF)	72/73 dBµV emf typ.	73/73 dBµV emf typ.	71/70 dB typ.	66/66 dB typ.	70/72 dB typ.	70/70 dB typ.	67/73 dB typ.	73/73 dBµV emf typ.
AF output power Internal SP	1300 mW typ. (8 Ω)	1300 mW typ. (8 Ω)	1500mW typ. (8 Ω)	800 mW typ. (12 Ω)	1000 mW typ. (8 Ω)	800 mW typ. (12 Ω)	400 mW typ. (32 Ω)	1300 mW typ. (8 Ω)
AF output power External SP	1000 mW typ. (8 Ω)	1000 mW typ. (8 Ω)	400 mW typ. (8 Ω)	1000 mW typ. (8 Ω)	400 mW typ. (8 Ω)	400 mW typ. (8 Ω)	400 mW typ. (32 Ω)	1000 mW typ. (8 Ω)

*¹ Some frequency ranges (350–400, 360–400, 450–520 MHz versions) do not have FCC certification.
*² Optional license key (ISL-CHEX) required. *³ Up to 32 selected channels out of 1024 can be allocated to the channel knob. *⁴ At 1% BER (Digital 6.25 kHz).

	IC-F3400DT/DS/D IC-F4400DT/DS/D	IC-F52D IC-F62D	IC-F1100DT/DS/D IC-F2100DT/DS/D	IC-F3261DT/DS IC-F3263DT/DS IC-F4261DT/DS IC-F4263DT/DS	IC-F3230DT/DS IC-F4230DT/DS	IC-F3210D IC-F4210D	IC-F3201DEX IC-F3203DEX IC-F4201DEX IC-F4203DEX	IC-F52D-UL IC-F62D-UL
Type-D multi-site trunking	✔ (ISL-UGMTR required)	✔ (ISL-UGMTR required)	–	✔	✔	✔	–	✔ (ISL-UGMTR is required)
Type-D single-site trunking	✔ (ISL-UGMTR required)	✔ (ISL-UGMTR required)	✔	✔	✔	✔	✔	✔ (ISL-UGMTR is required)
Multi-site conventional	✔	✔	✔	✔	✔	✔	✔	✔
Digital voice scrambler	✔	✔	✔	✔	✔	✔	✔	✔
DES Encryption	✔ (UT-134 required for 64-key)	–	–	–	–	–	–	–
AES Encryption	✔ (UT-134 & ISL-AKAES required)	–	–	–	–	–	–	–
OTAR Function	✔ (CS-OTAR1 required)	–	–	–	–	–	–	–
OTAP Function	✔ (CS-OTPM1 required)	✔ (CS-OTPM1 required)	–	–	–	–	–	✔ (CS-OTPM1 required)
CTCSS/DTCS (Encoder/Decoder)	✔	✔	✔	✔	✔	✔	✔	✔
2-Tone (Encoder/Decoder)	✔	✔	✔	✔	–	–	✔	✔
5-Tone (Encoder/Decoder)	✔	✔	✔	✔	–	–	✔	✔
DTMF autodial	✔	✔	✔	✔	–	–	✔	✔
DTMF decoder	✔	✔	–	✔ *⁵	–	–	–	✔
Voice Scrambler Inversion	✔	✔	–	✔	–	–	–	✔
MDC 1200	✔	✔	✔ *⁷	✔	–	–	✔ *⁸	✔
LTR™ trunking	✔	✔	–	✔	–	–	–	✔
Man down function	✔	✔	✔	✔ *⁶	–	–	✔	✔
Motion detection sensor	✔	✔	✔	–	–	–	–	✔
GPS receiver	✔	✔ (HM-233GP required)	✔ (HM-171GPW required)	✔ *⁶	–	✔ (HM-171GP required)	–	–
Channel announcement	✔	✔	✔	–	✔	✔	–	✔
Vibration alert	✔	✔	–	–	–	–	–	✔
Voice recorder	✔	✔	–	–	–	–	–	✔
IECEx/ATEX Intrinsically safe	–	–	–	–	–	–	✔	–
UL Intrinsically safe*⁹	–	–	–	–	–	–	–	✔
Operating time (approx.)	10.5 hours with BP-283 16.5 hours with BP-284	13 hours with BP-290 18.5 hours with BP-294	18 hours with BP-280 11.5 hours with BP-279 9 hours with BP-278	10.5 hours with BP-232WP (GPS version digital)	19/17 hours with BP-232WP (VHF/UHF)	12/11 hours with BP-264 17.5/16 hours with BP-265 (VHF/UHF)	21/19.5 hours with BP-277EX (VHF/UHF)	13 hours with BP-292UL
IP rating	IP68 (1 m depth/1 hour)	IP67/66/55/54	IP67/55/54	IP67	IP67	IP54	IP67	IP67/66/55/54
MIL standard	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G	MIL-STD-810-G

*⁵ Possible as a kind of 5-Tone format. *⁶ Depending on version. *⁷ Limited functions only. (PTT ID, emergency call, radio check (RX) and stun/revive (RX))
*⁸ Limited functions only. (PTT ID and emergency only) *⁹ The IC-F52D-UL/F62D-UL are under evaluation as of January 2019.

Specifications for IDAS™ Mobile Radios and Repeaters

	IC-F5400D/DS IC-F6400D/DS	IC-F5061/D, F6061/D IC-F5063/D, F6063/D	IC-F5220D/F6220D	IC-F5121D/F6121D IC-F5123D/F6123D	IC-FR5200H IC-FR6200H	IC-FR5000 IC-FR6000
Frequency coverage (Varies according to version)	136–174 MHz 380–470 MHz 450–512 MHz	136–174 MHz 350–400 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	136–174 MHz 350–400 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	136–174 MHz 350–400 MHz 400–470 MHz 450–512 MHz 450–520 MHz
Number of channels (Max.)	1024/4000*[2] Ch/ 128 zones (DT) 99 Channels*[3] (DS)	512 channels/ 128 zones	128 channels/ 8 zones	128 channels/ 8 zones	32 channels	32 channels
Type of emission (Varies according to version)	16K0F3E*[1], 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	16K0F3E*[1], 11K0F3E, 11K0F7E/D, 8K10F1E/D, 4K00F1E/D	16K0F3E*[1], 11K0F3E, 8K50F3E, 4K00F1E/F1D	16K0F3E*[1], 11K0F3E, 8K50F3E, 4K00F1E/F1D	16K0F3E*[1], 11K0F3E, 11K0F7E/D/W 4K00F1E/D, 4K00F3E	16K0F3E*[1], 11K0F3E, 11K0F7E/D/W 8K50F3E,4K00F1E/D, 4K00F3E
Channel spacing (Varies according to version)	12.5/15/25 kHz, 6.25/12.5 kHz	6.25/12.5/25 kHz, 6.25/15/30 kHz	6.25/12.5/25 kHz, 6.25/15/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz	6.25/12.5/25 kHz 7.5/15/30 kHz
Dimensions (projections not included; W×H×D)	174 × 55 × 150 mm 6.9 × 2.2 × 5.9 in	160 × 45 × 150 mm 6.3 × 1.8 × 5.9 in	150 × 40 × 167.5 mm 5.9 × 1.6 × 6.6 in	150 × 40 × 167.5 mm 5.9 × 1.6 × 6.6 in	483 × 88 × 360 mm 19.0 × 3.5 × 14.2 in	483 × 88 × 260 mm 19.0 × 3.5 × 10.2 in
Weight (approx.)	1.5 kg; 3.3 lb	1.3 kg; 2.9 lb	1.1 kg; 2.4 lb	1.1 kg; 2.4 lb	10 kg; 22 lb	5.6 kg; 12.3 lb
RF output power VHF	50 W	50 W (F5061/D) 25 W (F5063/D)	50 W	50 W	50 W (100% duty cycle)	50 W (50% duty cycle) 25 W (at 100% duty cycle)
RF output power UHF	45 W	45 W (F6061/D) 25 W (F6063/D)	45 W	45 W	50 W (100% duty cycle)	50 W (50% duty cycle) 25 W (at 100% duty cycle)
Sensitivity (at 12 dB SINAD)	0.22 µV typ. (VHF) 0.25 µV typ. (UHF)	0.25 µV typ.	0.25 µV typ.	0.25 µV typ.	0.30 µV typ. (VHF) 0.25 µV typ. (UHF)	0.30 µV typ. (VHF) 0.25 µV typ. (UHF)
Sensitivity (at 5% BER)	0.25 µV typ.*[4]	0.20 µV typ.	0.20 µV typ.	0.18 µV typ.	0.25 µV typ.	0.25 µV typ.
Intermodulation rejection Analog (V/UHF)	78 /75 dB typ.	77/77 dB typ.	75/75 dB typ.	75/75 dB typ.	78/78 dB typ.	78/78 dB typ.
Intermodulation rejection Digital (V/UHF)	70/70 dB typ.	–	70/70 dB typ.	70/70 dB typ.	75/75 dBµV emf typ.	75dBµV emf typ./ 65dBµV emf min.
AF output power (4Ω load)	4 W typ.	4 W typ.	4 W typ.	4 W typ.	4 W typ.	4 W typ.

*[1] Some frequency ranges (350–400, 450–520 MHz versions) do not have FCC certification.
*[2] Optional license key (ISL-CHEX) required. *[3] Due to the segment display, channel indication is possible for up to 99 selected channels out of 1024.
*[4] At 1% BER (Digital 6.25 kHz).

	IC-F5400D/DS IC-F6400D/DS	IC-F5061D IC-F5063D IC-F6061D IC-F6063D	IC-F5061 IC-F5063 IC-F6061 IC-F6063	IC-F5220D IC-F6220D	IC-F5121D IC-F5123D IC-F6121D IC-F6123D	IC-FR5200H IC-FR6200H	IC-FR5000 IC-FR6000
Type-D multi-site trunking	✔ (ISL-UGMTR required)	✔	✔ (UT-126H/HL required)	✔	–	✔ *[8]	✔ (UC-FR5000 + CF-FR5000MT required)
Type-D single-site trunking	✔ (ISL-UGMTR required)	✔	✔ (UT-126H/HL required)	✔	✔	✔ *[8]	✔ (UC-FR5000 required)
Multi-site conventional	✔	✔	✔ (UT-126H/HL required)	✔	✔	✔ *[8]	✔ (UC-FR5000 + CF-FR5000MC required)
Digital voice scrambler	✔	✔		✔	✔	✔	✔
DES Encryption	✔ (UT-134 required for 64-key)	–		–	–	–	–
AES Encryption	✔ (UT-134 & ISL-AKAES required)	–		–	–	–	–
OTAR Function	✔ (CS-OTAR1 required)	–		–	–	–	–
OTAP Function	✔ (CS-OTPM1 required)	–		–	–	–	–
CTCSS/DTCS (Encoder/Decoder)	✔	✔		✔	✔	✔	✔
2-Tone (Encoder/Decoder)	✔	✔		–	✔	–	–
5-Tone (Encoder/Decoder)	✔	✔		–	✔	✔	✔
DTMF autodial	✔	✔		–	✔	✔	✔
DTMF decoder	✔ *[5]	✔ *[5]		–	–	✔	✔
Voice Scrambler Inversion	✔	✔		–	–	✔	✔
MDC 1200	✔	✔		–	✔ *[6]	–	–
LTR™ trunking	✔	✔		–	–	✔ *[7]	✔ *[7]
GPS receiver	✔ (UX-241 required)	–		–	–	–	–
Channel announcement	✔	–		✔	–	–	–
Voice recorder	✔	–		–	–	–	–
IP rating	IP55	IP54 (Controller and RMK-3)		–	–	–	–
MIL standard	MIL-STD-810-G	MIL-STD-810-G		MIL-STD-810-G	MIL-STD-810-F	MIL-STD-810-G	MIL-STD-810-F

*[5] Possible as a kind of 5-Tone format. *[6] Limited functions only. (PTT ID, emergency, radio check, stun/revive only).
*[7] External controller required. *[8] Depending on version.

✔ : Available   UT-134 : Required internal unit (Eg. UT-134)   – : Not available

Specifications for Analog and Data Radios

	IC-F1000/T/S IC-F2000/T/S	IC-F3001 IC-F3003 IC-F4001 IC-F4003	IC-F5021 IC-F5023/H IC-F6021 IC-F6023/H	IC-F5011 IC-F5013/H IC-F6011 IC-F6023/H	IC-F5122DD IC-F6122DD
Frequency coverage (Varies according to version)	136–174 MHz 335–380 MHz (IC-F2000) 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 350–400 MHz 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 400–470 MHz 450–512 MHz 450–520 MHz	136–174 MHz 400–470 MHz
Number of channels (Max.)	IC-F1000T/S, F2000T/S: 128 ch IC-F1000, F2000: 16 ch	16 channels	128 channels /8 zones	8 channels	128 channels
Type of emission (Varies according to version)	16K0F3E*¹, 11K0F3E	16K0F3E*¹, 11K0F3E	16K0F3E*¹, 11K0F3E	16K0F3E*¹, 11K0F3E	8K30F1D, 4K00F1D
Channel spacing (Varies according to version)	12.5/25 kHz	12.5/25 kHz, 15/30 kHz	12.5/25 kHz, 15/30 kHz	12.5/25 kHz, 15/30 kHz	6.25/12.5 kHz
Dimensions (projections not included; W×H×D)	52.2 × 111.8 × 24.5 mm; 2.1 × 4.4 × 1.0 in (With BP-279)	58 × 111 × 35.5 mm 2.3 × 4.4 × 1.4 in (With BP-265)	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 (25 W)		150 × 40 × 134.7 mm 5.9 × 1.6 × 5.3 in
Weight (approx.)	240 g; 8.5 oz (With BP-279)	270 g; 9.5 oz (With BP-265)	1.1 kg; 2.4 lb (50/45 W) 0.8 kg; 1.8 lb (25 W)		0.9 kg; 2.0 lb
RF output power — VHF	5 W	5 W	50 W (F5021, F5023H) 25 W (F5023)	50 W (F5011, F5013H) 25 W (F5013)	25 W
RF output power — UHF	4 W	4 W	45 W (F6021, F6023H) 25 W (F6023)	45 W (F6011, F6013H) 25 W (F6013)	
Sensitivity (at 12 dB SINAD)	0.25 µV typ.	0.25 µV typ.	0.25 µV typ.	0.25 µV typ.	0.32/0.28 µV typ. (D 12.5/6.25)
Intermodulation rejection — VHF	74 dB typ.	75 dB typ.	75 dB typ.	75 dB typ.	68/66 dB typ. (D 12.5/D 6.25)
Intermodulation rejection — UHF	73 dB typ.	74 dB typ.			
AF output power — Internal SP	1500 mW typ. (8 Ω)	800 mW typ. (12 Ω)	4 W typ. (4 Ω)	4 W typ. (4 Ω)	—
AF output power — External SP	400 mW typ. (8 Ω)	400 mW typ. (8 Ω)	—	—	

*¹ Some frequency ranges (335–380, 350–400, 450–520 MHz versions) do not have FCC certification.

		IC-F1000/T/S IC-F2000/T/S	IC-F3001 IC-F3003 IC-F4001 IC-F4003	IC-F5021 IC-F5023/H IC-F6021 IC-F6023/H	IC-F5011 IC-F5013/H IC-F6011 IC-F6023/H
CTCSS/DTCS	encoder	✔	✔	✔	✔
	decoder	✔	✔	✔	✔
2-Tone	encoder	✔	✔	✔	✔
	decoder	✔	✔	✔	✔
5-Tone	encoder	✔	✔	✔	✔
	decoder	✔	✔	✔	✔
DTMF	autodial	✔	✔	✔	✔
	decoder	–	–	–	–
Voice Scrambler	Inversion	✔ (16-code)	–	–	–
MDC 1200		✔ *²	✔ *³	✔ *⁴	✔ *⁴
Man down function		✔	–	–	–
Motion detection function		✔	–	–	–
Channel announcement		✔	–	–	–
Operating time (approx.)		20 hours with BP-280 14 hours with BP-279 10 hours with BP-278	14 hours with BP-264 20 hours with BP-265	–	–
IP Rating		IP67	IP54	–	–
MIL standard		MIL-STD-810-G	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F

*² Limited functions only. (PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX), transmit status messages only). *³ Limited functions only. (PTT ID and emergency only).
*⁴ Limited functions only. (PTT ID, emergency (TX/RX), radio check (RX), stun/revive (RX) only).

Specifications for RoIP and IP Advanced Radio Systems

	VE-PG4
Power supply	12 V DC ±10%, 4 A maximum 100–240 V AC (with the supplied AC adaptor)
Dimensions (W × H × D; projections not included)	213 × 36.8 × 270 mm; 8.4 × 1.4 × 10.6 in (Approximate)
Weight (approx.)	1.8 kg; 4 lb (Main unit, approximate)
Regulatory compliance	FCC Part 15 Class B/ ICES003, Part22, Part24, Part27, EN301 489-1, EN301 489-19, EN301 489-52, EN301 908-1, EN301 908-2, EN301 908-13, EN303 413, EN62479 EN62311, EN62368-1
LAN/WAN	(RJ-45 type) × 1 (Auto MDI/MDI-X) 10BASE-T/100BASE-TX/1000BASE-T * WAN/LAN port selectable.
LAN	(RJ-45 type) × 1 (Auto MDI/MDI-X) 10BASE-T/100BASE-TX/1000BASE-T
USB Host interface	USB 3.0 Standard A receptacles ×3
USB Console interface	USB 2.0 mini B receptacles ×1
Network* 4G bands:	LTE B1, B3, B7, B8, B20 (EUR) LTE B2, B4, B12 (USA)
Network* 3G bands:	W-CDMA B1, B8 (EUR) W-CDMA B2, B5 (USA)
External 1-4 port Connectors	2.54 mm (0.1 in) pitch quick connector (4 terminals ×3) ×4
External 1-4 port Audio input	−10 dBs/−40 dBs selectable Input impedance 10 kΩ unbalance
External 1-4 port Audio output	0 dBs/−20 dBs selectable 600 Ω load unbalance/8 Ω 1 W speaker
External 1-4 port Control input	Low voltage contacts (3.3 V DC/ 1 mA)/ Voltage input (3–16 V)
External 1-4 port Control output	No voltage contacts (30 V/ 500 mA)/Open collector (3–16 V 10 mA)
Internet protocol	IPv4
VoIP protocol	SIP
Codec	G.711 μ-law, AMBE+2™

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

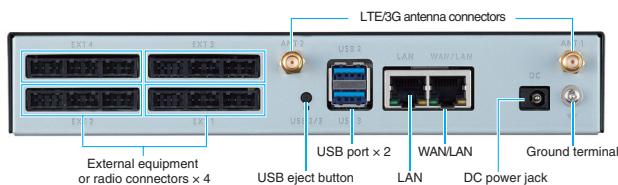|	IP1000C
Power supply	100–240 V AC (with supplied AC adapter)
Dimensions (W×H×D)*	232 × 38 × 168 mm; 9.1 × 1.5 × 6.6 in
Weight (approx.)	750 g; 1.7 lb (Main unit only)
LAN	RJ-45 connector × 4 (AUTO MDI/MDI-X) 1000BASE-T/100BASE-TX/10BASE-T
USB	Standard A receptacles × 2
Maintenance console	RS-232 (RJ-11) connector

* Projections are not included.

	AP-95M
Wireless LAN	IEEE 802.11 ac/a/b/g standard
Frequency range*	2.412–2.472 GHz, 5.18–5.24, 5.745–5.825 GHz
Data rates (theoretical value)	11 Mbps, 54 Mbps, 400 Mbps[*1], 866.7 Mbps
Power supply	PoE (IEEE802.3af standard, Maximum 9 W) or AC adapter (12 V/2 A)
Dimensions (W×H×D)*	162 × 42 × 162 mm; 6.4 × 1.7 × 6.4 in
Weight (approx.)	520 g; 1.1 lb (Main unit only)
LAN	RJ-45 connector × 1 1000BASE-T/100BASE-TX/ 10BASE-T (Auto MDI/MDI-X)
Security	WEP (64/128/152-bit), WPA, WPA2, WPA-PSK, WPA2-PSK IEEE 802.1X/EAP

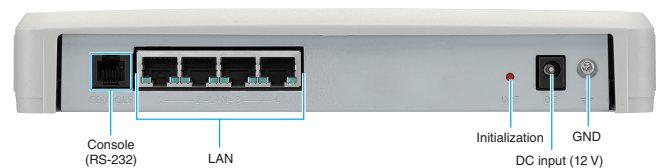* Projections are not included. Authorized frequency range and channels may differ, depending on country.
*1 When connecting with a terminal compatible with 256-QAM.

Rear Panel View (VE-PG4)

LTE/3G antenna connectors

External equipment or radio connectors × 4 · USB eject button · USB port × 2 · LAN · WAN/LAN · DC power jack · Ground terminal

Rear Panel View (IP1000C)

Console (RS-232) · LAN · Initialization · DC input (12 V) · GND

	IP100H
Wireless standards	IEEE 802.11 a/b/g/n
Frequency range*	2.412–2.472 GHz, 5.18–5.825 GHz
Dimensions (W × H × D; projections not included)	58 × 95 × 26.4 mm; 2.3 × 3.7 × 1.0 in (with BP-271)
Weight (approx.)	205 g; 7.2 oz (with BP-271 and antenna)
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)
AF output power 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)
IP Rating	IPX7
MIL Standard	MIL-STD-810-G

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

Specifications for IP Advanced Radio Systems

		IP501H (Handheld radio)	IP501M (Mobile radio)
Network	**4G bands:**	LTE B1, B3, B7, B8, B20 (EXP) LTE B2, B4, B5, B17 (USA)	LTE B1, B3, B7, B8, B20 (EXP) LTE B2, B4, B12 (USA) LTE B1, B3, B5, B7, B8, B28 (AUS)
	3G bands:	W-CDMA B1, B8 (EXP) W-CDMA B2, B5 (USA)	W-CDMA B1, B8 (EXP) W-CDMA B2, B5 (USA) W-CDMA B1, B5 (AUS)
Dimensions (W × H × D; projections not included)		59 × 95 × 32 mm; 2.3 × 3.7 × 1.3 in (with BP-272)	125 × 29 × 156 mm; 4.9 × 1.4 × 6.1 in
Weight (approx.)		240 g; 8.5 oz (with BP-272 and antenna)	TBD
Voice Codec		G.726 (32 kbps)	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)	More than 4 W (4 Ω at 10% distortion)
Operating time (5:5:90 duty cycle.)		More than 17 hours (with BP-272)	—
Bluetooth®		Ver 2.1 +EDR	Ver 2.1 +EDR
GPS		Built-in	Built-in
LAN		—	RJ-45 connector × 1 100BASE-TX/10BASE-T (AUTO MDI/MDI-X)

Specifications for HF Radios and Automatic Tuning Antenna

		IC-F8101	
		(EXP/USA version)	**(AUS version)**
Frequency coverage	Rx	0.5–29.999 MHz (Continuous)	
	Tx	1.6–29.999 MHz	
Number of channels		500 ch 500 selcall ch, 500 ALE ch	
Type of emission		J3E, J2B, F1B, A1A, A3E	J3E and A3E (RX only)
Power supply requirements		13.8 V DC (11.73–15.87 V DC)	13.8 V DC (10.8–15.6 V DC)
Current drain	Tx	28 A	
	Rx	3.0 A	
Dimensions (W×H×D; projections not included)		174 × 62 × 259 mm; 6.9 × 2.4 × 10.2 in (Controller attached type)	
Weight (approx.)		3.9 kg; 8.6 lb (Controller attached type)	
RF output power		125/50/10 W PEP (J3E/A1A) 75/50/10 W PEP (F1B/J2B) 30/12.5/ 3W PEP (A3E)	100/50/10 W PEP (J3E)
Spurious emissions		64 dB below PEP typ. (EXP) 64 dB below PEP (USA)	64 dB below PEP typ.
Carrier suppression		50 dB below PEP	
Unwanted sideband		55 dB below PEP (400 Hz) 65 dB below PEP (1 kHz)	
Sensitivity	J3E	14 dBμV (0.5–1.599 MHz, at 10 dB S/N) −14 dBμV (1.6–29.999 MHz, at 10 dB S/N)	
	A3E	22 dBμV (0.5–1.599 MHz, at 10 dB S/N) 6 dBμV (1.6–29.999 MHz, at 10 dB S/N)	
Selectivity	J3E	2.4 kHz/−6 dB, 3.8 kHz/−60 dB	
	A3E	6 kHz/−6 dB, 15 kHz/−60 dB	
Spurious response rejection		70 dB	
AF output power		4.0 W typ. (with 4 Ω load at 10% distortion)	
IP Rating		IP54	
MIL standard		MIL-STD-810-G	

		AH-740
Frequency coverage	With whip antenna	2.5–29.9999 MHz
	With AH-5NV	2.2–29.9999 MHz
Output power rating		SSB/DATA: 125 W PEP
VSWR	With whip antenna	1.5:1 typical (50 Ω)
	With AH-5NV	1.5:1 typical (50 Ω)
Tuning speed	New channel	2–3 S typical
	Memory tune	150 mS typical
Number of memory channels		45 channels
Power supply requirements		13.8 V DC (10.8–15.87 V DC)
Power consumption		0.4 A typical
Tune power		5–15 W PEP, Rated 10 W PEP
Dimensions (Projections not included)	Base unit (W×H×D)	238 × 145 × 160 mm; 9.4 × 5.7 × 6.3 in
	Height	1909 mm; 75.2 in
Weight (approx.)		3.5 kg; 7.7 lb
Mounting		M16 × 45 mm
Supplied accessories		6 m; 19.7 ft control cable and 6 m; 19.7 ft coaxial cable
IP Rating		IP55
MIL standard		MIL-STD-810-G

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.

Icom Inc.