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 50 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.

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.
P25 Digital Handheld Radios

**VHF P25 DIGITAL TRANSCEIVERS**
IC-F7010T/S (5 W)
IC-F7020T/S (5 W)
IC-F7040T/S (3 W)

**UHF P25 DIGITAL TRANSCEIVERS**
IC-F9011T/S/B (6 W)
IC-F9021T/S/B (5 W)

**FEATURES**
- Individual and group call
- Unit ID and talkgroup display on receive
- Status update and status query
- Radio stunt/revive
- Remote monitor
- Radio check
- Call alert
- Call log
- Emergency
- OTAR (Over-the-Air Rekeying)
- Analog inversion voice scrambler
- Mixed mode operation
- DTMF autodial
- 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, 400–470, 450–520 MHz, 5 W
- 512 memory channels with 128 zones
- 1000 mW audio output

**Supplied Accessories**
- Battery pack, BP-284
- Belt clip, MB-133

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

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**P25 PHASE 1 AND 2**
SMALLEST AND LIGHTEST OF ITS CLASS

**VHF P25 DIGITAL TRANSCEIVERS**
IC-F7010T/S (5 W)
IC-F7020T/S (5 W)
IC-F7040T/S (3 W)

**UHF P25 DIGITAL TRANSCEIVERS**
IC-F9011T/S/B (6 W)
IC-F9021T/S/B (5 W)

**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* (* OTAP manager software will be required. Planned feature.)
- OTAR (Over-the-Air Rekeying)
- Analog inversion voice scrambler
- Front panel programming option* (* ISL-P25FP, license key required.)
- Quick A/B switch on the top panel programmable
- 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
- 800 mW audio output (internal speaker)

**Supplied Accessories**
- Battery pack, BP-284
- Belt clip, MB-115

* 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

**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* (*OTAP manager software will be required. Planned feature.)
- OTAR (Over-the-Air Rekeying)
- Analog inversion voice scrambler (16-codes)
- Front panel programming option* (*ISL-P25FP, license key required.)
- Mixed mode operation
- DTMF autodial
- MDC 1200 compatible
- Large sized functions and four-direction buttons
- USB port for PC connection
- Audio equalizer
- Volume equalizing function
- Active noise canceller
- D-SUB 25-pin ACC connector
- Menu and function item localization
- Internal clock
- Optional detached controller, dual head or COMMANDMIC™ configurations (See Page 10 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**

- Hand microphone, HM-220
- 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

**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
- MDC 1200 compatible
- 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**

- Hand microphone, HM-148G
- 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)

P25 PHASE 1 TRUNKING AND P25 CONVENTIONAL MODES

<table>
<thead>
<tr>
<th>FEATURES</th>
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</table>
| • 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  • 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
• Hand microphone, HM-148G  • DC power cable  • Mounting bracket kit  • Microphone hanger  • External speaker, SP-35* (* 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)

P25 CONVENTIONAL REPEATER FOR REPEATER AND BASE MODES

<table>
<thead>
<tr>
<th>FEATURES</th>
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</table>
| • 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  • 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
**FEATURES**

- Individual and group call
- PTT ID and ANI
- Status and message
- Remote Kill, Stun and Revive
- Remote monitor
- Radio check
- Call alert
- Emergency
- OAA (Over-the-Air-Alias)
- Digital voice scrambler
- Menu and function item localization
- Voice announcement
- Active noise canceller
- Telephone interconnection

**SUPPLIED ACCESSORIES**

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

* May differ or not supplied, depending on the transceiver version.
IDAS™ Handheld Radios

**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and message
- Remote Kill, Stun and Revive
- Remote monitor
- Radio check
- Call alert
- Emergency
- OAA (Over-the-Air-Alias) (*)
- Digital voice scrambler
- Voting scan
- Digital/analog mixed mode operation
- DTMF autodial and decoder
- MDC 1200 compatible
- Basic LTR™ trunking
- Optional HM-233GP GPS speaker-microphone
- Inversion voice scrambler (analog)
- Audio equalizer
- Active noise canceller
- Programmable functions and menu items in a language other than English
- 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 (*)
- 512 memory channels with 128 zones
- 800 mW audio output (internal speaker)

**Supplied Accessories**
- Battery pack, BP-290
- Belt clip, MBB-3

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

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**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and message
- Remote Kill, Stun and Revive (RX)
- Remote monitor
- Radio check (RX)
- Call alert (RX)
- Emergency
- OAA (Over-the-Air-Alias) (*)
- Digital voice scrambler
- Voting scan
- Digital/analog mixed mode operation
- DTMF autodial
- MDC 1200 (limited functions)
- GPS position data with optional HM-171GPW
- 1.5 W 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 (*)
- 128 memory channels with 8 zones (IC-F1100D/F2100D: 16 memory channels)

**Supplied Accessories**
- Battery pack, BP-280
- Belt clip, MB-133
- Antenna
- Desktop charger, BC-213*
- AC adapter, BC-123SE*

* May differ or not supplied, depending on the transceiver version.
IDAS™ Handheld Radios

**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)

**FIELD-PROVEN DIGITAL RADIO WITH GPS AND WATERPROOF**

**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and short data message (SDM)
- Remote Kill, Stun and Revive
- Remote monitor
- Radio check
- Call alert
- Emergency
- Digital voice scrambler
- Voting scan
- Optional HM-168WP waterproof 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

**Supplied Accessories**
- Battery pack, BP-232WP
- Belt clip, MB-94R
- Antenna

**IC-F3230DT/DS**

**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and short data message (SDM)
- Remote Kill, Stun and Revive (RX)
- Remote monitor (RX)
- Radio check (RX)
- Call alert
- Emergency
- Digital voice scrambler
- Voting scan
- Optional HM-168WP waterproof speaker-microphone
- Up to 128 memory channel with 8 zones
- 1000 mW loud audio

**Supplied Accessories**
- Battery pack, BP-232WP
- Belt clip, MB-94R
- Antenna
- Desktop charger, BC-160*2
- AC adapter, BC-145SA/SE*

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

**WATERPROOF TYPE-D MULTI-SITE TRUNKING RADIO**
- IC-F3210D (5 W)
- IC-F4210D (4 W)

**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and short data message (SDM)
- Remote Kill, Stun and Revive (RX)
- Remote monitor (RX)
- Radio check (RX)
- Call alert
- Emergency
- Digital voice scrambler
- Voting scan
- Optional HM-171GP GPS speaker-microphone
- Up to 128 memory channel with 8 zones
- 136–174, 350–400, 400–470, 450–520 MHz, 5 W

**Supplied Accessories**
- Battery pack, BP-265
- Desktop charger, BC-193*
- AC adapter, BC-133SA/SE*
- Belt clip, MB-124

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

**SIMPLE TYPE-D MULTI-SITE TRUNKING RADIO**
- IC-F3261DT
- IC-F4261D

**FEATURES**
- Individual and group call
- PTT ID and ANI
- Status and short data message (SDM)
- Remote Kill, Stun and Revive (RX)
- Remote monitor (RX)
- Radio check (RX)
- Call alert
- Emergency
- Digital voice scrambler
- Voting scan
- Optional HM-171GP GPS speaker-microphone
- Up to 128 memory channel with 8 zones
- 136–174, 350–400, 400–470, 450–520 MHz, 5 W

**Supplied Accessories**
- Battery pack, BP-232WP
- Belt clip, MB-94R
- Antenna

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

UL Nonincendive
Class I, Division 2,
Groups A, B, C, D (with BP-232UL)
Ambient temperature: –20°C to +40°C

IDAS™ Handheld Radios (Intrinsically Safe/Hazardous Locations)

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

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

DO NOT use the transceiver with any other equipment not specified in the option list (Pages 22–25). Please ask your dealer to ensure the hazardous locations ratings are acceptable for the intended place of use.
SUPERB PERFORMANCE AND A COMPREHENSIVE RANGE OF FEATURES

**VHF DIGITAL TRANSCEIVERS**

**IC-F5400D/DS (90 W)**

**UHF DIGITAL TRANSCEIVERS**

**IC-F6400D/DS (45 W)**

**FEATURES**

- Individual and group call
- PTT ID and ANI
- Status and message
- Remote Kill, Stun and Revive
- Remote monitor
- Radio check
- Call alert
- Emergency
- Power OFF emergency
- GAA (Over-The-Air-Alias)
- 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
- 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**

- Hand microphone, HM-220
- DC power cable
- Mounting bracket kit
- Microphone hanger
- * May differ or not supplied, depending on the transceiver version.

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**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.

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**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**

**FEATURES**

- Individual and group call
- PTT ID and ANI
- Status and short data message (SDM)
- Remote 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
- 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**

- Hand microphone, HM-320
- DC power cable
- Mounting bracket kit
- Microphone hanger
- * 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

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
- 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
- Hand microphone (HM-152)
- DC power cable
- Mounting bracket kit
- Microphone hanger

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

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
- 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
- Hand microphone (HM-152)
- DC power cable
- Mounting bracket kit
- Microphone hanger
IDAS™ Repeaters

**VALUE, PERFORMANCE AND FLEXIBILITY**

**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-P5000 or UR-P6000 power amplifier provides 100 W output at 50% duty, 50 W at 100% duty operation* (Ambient temperature: 25˚C) (*UR-P5000/UR-P6000 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
- 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 Comander 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

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**50 WATT FULL DUTY CYCLE OPERATION**

**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
- 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 Comander 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

VIRTUAL RADIO/PC DISPATCH

FEATURES

- PC remote communicator for Type-D multi-site trunking, conventional and analog radio systems
  VE-PG3 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
- Digital converter, CT-24

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

ENHANCE SYSTEM MANAGEMENT
FOR TYPE-D TRUNKING SYSTEM

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)

OTAP MANAGER
CS-OTPM1

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
IDAS™ Handheld Radios (Type-C Compatible)

SMALL TO LARGE ENTERPRISE-SIZED SCALABLE SYSTEMS

Centralized Control Channel Trunking
The Type-C trunking system uses a centralized control channel system. The control channel is independent of the traffic channels, and continuously transmits a control signal. The Type-C trunking system is suitable for controlling a large number of users and congested traffic channels.

Up to 48 Site Trunking
The Type-C trunking system can have a maximum of 30 (local) or 48* (regional) trunking sites, wide area roaming and calling service with an IP network connection. A transceiver can communicate with other transceivers registered to the interlinked trunked sites.

* Maximum number of group call sites is 16 sites for Unicast and 48 sites for multicast.

Up to 60,000 Group ID and Unit ID Capability
The maximum 60,000 Group ID and Unit ID capacity is sufficient for large organizations and multi-user system sharing. A capacity of up to 3,000 Unit ID and group IDs provides ample unit and fleet organization capabilities for single-site trunking systems.

Call Queuing
If all traffic channels are busy, the user's call request is automatically stored in the call queuing until a traffic channel is available. The system sends a beep sound to notify when a traffic channel is available.

- Eight Priority Levels with Preemption
- Four priority monitor IDs
- Fail-soft mode
- Either message trunked or transmission trunked method can be set

FEATURES
- Eight Priority Levels with Preemption
- Four priority monitor IDs
- Fail-soft mode
- Either message trunked or transmission trunked method can be set

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

Centralized Control Channel Trunking
The Type-C trunking system uses a centralized control channel system. The control channel is independent of the traffic channels, and continuously transmits a control signal. The Type-C trunking system is suitable for controlling a large number of users and congested traffic channels.

Up to 48 Site Trunking
The Type-C trunking system can have a maximum of 30 (local) or 48* (regional) trunking sites, wide area roaming and calling service with an IP network connection. A transceiver can communicate with other transceivers registered to the interlinked trunked sites.

* Maximum number of group call sites is 16 sites for Unicast and 48 sites for multicast.

Up to 60,000 Group ID and Unit ID Capability
The maximum 60,000 Group ID and Unit ID capacity is sufficient for large organizations and multi-user system sharing. A capacity of up to 3,000 Unit ID and group IDs provides ample unit and fleet organization capabilities for single-site trunking systems.

Call Queuing
If all traffic channels are busy, the user's call request is automatically stored in the call queuing until a traffic channel is available. The system sends a beep sound to notify when a traffic channel is available.

- Eight Priority Levels with Preemption
- Four priority monitor IDs
- Fail-soft mode
- Either message trunked or transmission trunked method can be set

FEATURES
- Eight Priority Levels with Preemption
- Four priority monitor IDs
- Fail-soft mode
- Either message trunked or transmission trunked method can be set

Supply Accessories
- Battery pack, BP-232WP
- Belt clip, MB-94R
- Antenna
IDAS™ Mobile Radios (Type-C Compatible)

VHF DIGITAL TRANSCEIVER
IC-F5360D (50 W)
UHF DIGITAL TRANSCEIVER
IC-F6360D (45 W)

WIDE AREA COVERAGE WITH TYPE-C TRUNKING

FEATURES
- Paging call • Broadcast call • All call • Group call • Individual call • Status call • Text message • Emergency call • Stun, Kill and Revive (RX) • Radio check (RX) • Over-the-air alias • GPS • Digital scrambler • Mixed mode operation (Conventional system)
- Transparent data • Menu-driven User Interface • DTMF encoder/decoder • MDC 1200 PTT ID transmission • Inversion voice scrambler (analog) • Audio compander for analog • D-SUB 15-pin ACC connector • Ignition line • 136–174 MHz, 50 W • 400–470 MHz, 45 W • 512 memory channels with 128 zones • 4 W (typ.) front mounted speaker

Supplied Accessories
- Hand microphone, HM-148G • DC power cable • Mounting bracket kit • Microphone hanger

IDAS™ Repeaters (Type-C Compatible)

VHF REPEATER
IC-FR5000C (6 W)
UHF REPEATER
IC-FR6000C (5 W)

TYPE-C TRUNKING DIGITAL REPEATER

FEATURES
- Multi-site conventional • Digital/analog mixed mode operation • Digital scrambler • 6.25 and 12.5 kHz digital channels • Unit ID & Group ID validation • Optional OCXO unit for 6.25 kHz channel spacing • Up to 48 site trunked IP network • IP network connectivity • Compact flash memory expansion • Repeater or base operation • 6 programmable function keys • Two-digit LED display • 30 channel scanning base (Conventional mode) • 3 W external speaker audio • Program/modern interface • Remote terminal interface • DTMF AUX output control • DTMF AUX input monitoring • Programmable AUX I/O’s • Flash firmware upgrading • 146–174, 400–430, 450–480 MHz • 5 W output power (100% duty cycle) • Some features require activation licenses.

Supplied Accessories
- DC power cable
Analog Handheld Radios

**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)
- 1.5 W loud audio output power (internal speaker) with improved audio clarity

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

**IC-F1000T/TS (5 W)**

**IC-F2000T/TS (4 W)**

**SLIM, COMPACT DIMENSIONS AND IMPROVED AUDIO CLARITY**

**IC-F3001 (5 W)**

**IC-F3003 (5 W)**

**IC-F4001 (4 W)**

**IC-F4003 (4 W)**

**AFFORDABLE, HIGH PERFORMANCE RADIO**

**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

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

<table>
<thead>
<tr>
<th>VHF TRANSCEIVERS</th>
<th>UHF TRANSCEIVERS</th>
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<tbody>
<tr>
<td>IC-F5021 (50 W)</td>
<td>IC-F5023/H (50/25 W)</td>
</tr>
<tr>
<td>IC-F6021 (45 W)</td>
<td>IC-F6021/H (45/25 W)</td>
</tr>
</tbody>
</table>

Data Radios

<table>
<thead>
<tr>
<th>VHF DATA TRANSCEIVER</th>
<th>UHF DATA TRANSCEIVER</th>
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</thead>
<tbody>
<tr>
<td>IC-F5122DD (25 W)</td>
<td>IC-F6122DD (25 W)</td>
</tr>
</tbody>
</table>

GENERAL PURPOSE TRANSPARENT DATA MODEM

<table>
<thead>
<tr>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 9600 bps (at 12.5 kHz) and 4800 bps (at 6.25 kHz) data mode</td>
</tr>
<tr>
<td>• 25 W, 10 W and 6 W three-step RF output power</td>
</tr>
<tr>
<td>• TCP/IP protocol (IPv4) support for Ethernet</td>
</tr>
<tr>
<td>• Meets EN 300 113/EN 300 279 standards</td>
</tr>
<tr>
<td>• Memory channel selection via PC control command</td>
</tr>
<tr>
<td>• Data encryption function (500 codes)</td>
</tr>
<tr>
<td>• Fast data transfer using 4-level FSK modulation</td>
</tr>
</tbody>
</table>

Supplied Accessories

• DC power cable • Mounting bracket kit
RoIP Gateway / VPN Routers

RoIP GATEWAY

VE-PG3

VERSATILE RADIO OVER IP GATEWAY

FEATURES

- Interconnects between IDAS, analog radio and IP communication terminal
- Telephone interconnection with IP phones and PSTN lines
- Cross band, cross category interconnection
- Public address, siren, warning light and external equipment connection
- Optional RC-FS10 software for virtual PC dispatch station

- RoIP and SIP gateway functions
- Direct dialing from radio user* (* Limited to radios with DTMF capability)
- Optional CT-24 digital voice converter converts analog radio and G.711 μ-law codec to the AMBE+2™ codec for the IDAS radio system
- The virtual serial port function for remote control connected analog radios or equipment from a PC over an IP network
- IP router function: PPPoE/IPv6 bridge, NAT, dynamic DNS, VPN pass through, IP filter, SNMP and SYSLOG
- USB flash drive connection for firmware updates and data backup
- Site-to-site bridge mode communication over an IP network
- Site-to-multisite bridge mode communication using an IP multicast network
- Mixing audio function for bridge mode operation

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

VPN ROUTER

SR-VPN1

SIMPLE VPN ROUTER FOR RADIO OVER IP

FEATURES

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

Supplied Accessory
- AC adapter, BC-207S
Push-to-Talk Communication over an LTE (4G) and 3G Network*

The IP501H uses a dedicated hardware in a closed network to provide stable and secure connection. The IP501H 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 IP501H enables use of full-duplex communication, which provides smooth telephone style conversations. The IP501H users can talk and receive at the same time.

Multiple User Communication

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

Priority Interrupt Calling

The IP501H 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 a gateway device*, the IP501H system will provide interoperability 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 IP501H transceiver. * The gateway device will be available in the future.

**FEATURES**

- Low-delay, high quality audio with wideband, low compression 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
  * Gateway device required for GPS data (future).

**Supplied Accessories**

- Battery pack, BP-272 • Belt clip, MB-135
- Antenna • Hand strap
**IP ADVANCED RADIO SYSTEM (Wireless LAN)**

**FULL-DUPEX COMMUNICATION THAT WORKS OVER A WIRELESS IP NETWORK**

![Diagram of IP Advanced Radio System (Wireless LAN)](image)

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### 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.

**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 function notices incoming calls. 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-2259 or HS-85 with OPC-2144 for full-duplex operation.

**Interconnect between IDAS™ and IP Phone Systems**

With the VE-PG3 RoIP gateway, the IP advanced radio system can interconnect with an IP phone system, analog transceiver and IDAS™ Type-D multi-site trunking and conventional system.

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### WIRELESS LAN ACCESS POINT

**AP-90M**

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

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

### REMOTE COMMUNICATOR

**IP100FS**

- The IP100FS can communicate with IP communication terminals from a PC
- The IP100FS can obtain location information of each IP100H based on using access points, when used with the AP-90M
- Can be installed on a Windows®-based tablet PC as well as laptop PC
- Supplied with USB flash drive for use as a USB hardware key

### CONTROLLER

**IP1000C**

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

* Depending on the IP1000C version

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**IP COMMUNICATION TERMINAL**

**IP100H**

- License-free wireless LAN communication terminal using IEEE 802.11 a/b/g/n standards (2.4 GHz and 5 GHz*)
- WPA-PSK or WPA2-PSK encryption
- IPX7 waterproof (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.

### SUPPLIED ACCESSORIES

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

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* Depending on the IP1000C version.
HF Radios and Automatic Tuning Antenna

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)

Supplied Accessories

Remote control microphone type
- 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
- 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)
  - SSBN, AM, CW and Data mode
  - 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

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

AH-740 Compact type

AH-5NV NVIS Kit (Option for AH-740)

Silver mounting stand shown in photo not included.
Options for Handheld Radios

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>BATTERY PACKS</th>
<th>BATTERY CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP-277EX Li-ion</td>
<td>7.4 V/1800 mAh (min.), 1900 mAh (typ.)</td>
<td></td>
</tr>
<tr>
<td>BP-232UL Li-ion</td>
<td>7.4 V/2200 mAh (min.), 2360 mAh (typ.)</td>
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<tr>
<td>BP-283 Li-ion</td>
<td>7.2 V/1910 mAh (min.), 2010 mAh (typ.)</td>
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<tr>
<td>BP-284 Li-ion</td>
<td>7.2 V/1950 mAh (min.), 3210 mAh (typ.)</td>
<td></td>
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<tr>
<td>BP-290 Li-ion</td>
<td>7.2 V/1910 mAh (min.), 3040 mAh (typ.)</td>
<td></td>
</tr>
<tr>
<td>BP-294 Li-ion</td>
<td>7.2 V/3070 mAh (min.), 3210 mAh (typ.)</td>
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</tr>
<tr>
<td>BP-280 Li-ion</td>
<td>7.4 V/2280 mAh (min.), 2400 mAh (typ.)</td>
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<td>BP-279 Li-ion</td>
<td>7.2 V/1485 mAh (min.), 1570 mAh (typ.)</td>
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<tr>
<td>BP-232UL</td>
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<tr>
<td>BP-279</td>
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</tbody>
</table>


* The battery charger, BC-212EX, BC-160, BC-171 or BC-197 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-F3201D-UL/F3203D-UL/F4201D-UL/F4203D-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

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>CHARGERS</th>
<th>READER SOFTWARE</th>
<th>MULTI-CHARGERS</th>
<th>CHARGER ADAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC-191</td>
<td>BC-191</td>
<td>BS-191</td>
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### CHARGER ADAPTERS

<table>
<thead>
<tr>
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<th>CHARGERS</th>
<th>AC ADAPTERS</th>
</tr>
</thead>
<tbody>
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<td>AD-130</td>
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### AC ADAPTERS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>IN POWER CABLES</th>
<th>SPEAKER-MICROPHONES</th>
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</thead>
<tbody>
<tr>
<td>CP-23L</td>
<td>CP-23L</td>
<td>CP-23L</td>
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<tr>
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<tr>
<td>HM-168LWP</td>
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</table>

*Some options may not be available in some countries. Please ask your dealer for details.*
# Options for Handheld Radios

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>SPEAKER-MICROPHONES</th>
<th>EARPHONE-MICROPHONES</th>
<th>PTT SWITCH CABLES</th>
<th>VOX/PTT CASES</th>
<th>ACC ADAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM-158LA</td>
<td>HM-159LA</td>
<td>HM-171GPW Waterproof connector</td>
<td>HM-153LA</td>
<td>HM-166LA</td>
<td>HM-163MC</td>
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<tr>
<td>IC-F7010T/S, IC-F7020T/S, IC-F7010D/T/S, IC-F7020D/T/S</td>
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<td>✔</td>
<td>✔</td>
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<tr>
<td>HS-95 Behind-the-head type</td>
<td>✔</td>
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<tr>
<td>HS-95LWP Behind-the-head type with waterproof connector</td>
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<td>HS-97 Throat microphone type</td>
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<td>VS-3 Bluetooth® headset</td>
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<td>VS-4MC For manual PTT operation</td>
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<tr>
<td>VS-5MC For manual PTT, VOX operation</td>
<td>✔</td>
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<td>VS-4LA For manual PTT operation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>HS-94LWP Earhook type with waterproof connector</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>HS-94LWP Behind-the-head type</td>
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<td>✔</td>
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<tr>
<td>HS-95LWP Behind-the-head type with waterproof connector</td>
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<tr>
<td>HS-97 Throat microphone type</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>VS-3 Bluetooth® headset</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tr>
<tr>
<td>VS-4MC For manual PTT operation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>VS-5MC For manual PTT, VOX operation</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>VS-4LA For manual PTT operation</td>
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<td>HS-94LWP Earhook type with waterproof connector</td>
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<tr>
<td>HS-95 Behind-the-head type</td>
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<tr>
<td>HS-95LWP Behind-the-head type with waterproof connector</td>
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<td>✔</td>
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<tr>
<td>HS-97 Throat microphone type</td>
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<td>✔</td>
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<tr>
<td>VS-3 Bluetooth® headset</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>VS-4MC For manual PTT operation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>VS-5MC For manual PTT, VOX operation</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>HS-94LWP Earhook type with waterproof connector</td>
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</table>

*1 These options are compatible with IC-F7045T/S only.
Some options may not be available in some countries. Please ask your dealer for details.
## Options for Handheld Radios

### BELT CLIPS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>MB-94EX</th>
<th>MB-133</th>
<th>MB-136</th>
<th>MB-96N</th>
<th>MB-96FL</th>
<th>MB-130</th>
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<tbody>
<tr>
<td></td>
<td>Alligator type</td>
<td>MB-94/MB-94E</td>
<td>Swivel type</td>
<td>Fixed type</td>
<td>Long type</td>
<td>モン</td>
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<tr>
<td></td>
<td></td>
<td>MB-133</td>
<td>MB-136</td>
<td>MB-96N</td>
<td>MB-96FL</td>
<td>MB-130</td>
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<tr>
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<td>MB-3</td>
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### BELT HANGERS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>LC-184*2</th>
<th>LC-185*2</th>
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<tbody>
<tr>
<td></td>
<td>IC-184</td>
<td>IC-185</td>
</tr>
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### CHARGER BRACKET

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>LC-184*2</th>
<th>LC-185*2</th>
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<tbody>
<tr>
<td></td>
<td>IC-184</td>
<td>IC-185</td>
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### CARRYING CASES

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>LC-184*2</th>
<th>LC-185*2</th>
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<tbody>
<tr>
<td></td>
<td>IC-184</td>
<td>IC-185</td>
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### CARRYING CASES

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>LC-184*2</th>
<th>LC-185*2</th>
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<tbody>
<tr>
<td></td>
<td>IC-184</td>
<td>IC-185</td>
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### ZONE COPY CABLES

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>LC-187*2</th>
<th>LC-188*2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OPC-1870</td>
<td>OPC-2362</td>
</tr>
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<td></td>
<td>OPC-2362</td>
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### ANTENNAS

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<td>150–160 MHz</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>CHANNEL MODULES</th>
<th>POWER AMPLIFIERS</th>
<th>ACC CABLE</th>
<th>TRUNKING/NETWORK CONTROLLER</th>
<th>IDAS™ SOFTWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UR-FR5000</strong></td>
<td>136–174 MHz, 50 W</td>
<td><strong>UR-PA5000</strong></td>
<td>OPC-2202</td>
<td>UC-FR5000</td>
<td>CF-FR5000MC</td>
</tr>
<tr>
<td><strong>UR-FR6000</strong></td>
<td>400–470, 450–520 MHz, 50 W</td>
<td><strong>UR-PA6000</strong></td>
<td>For connection with UR-PA5000/PA6000</td>
<td></td>
<td>Multi-site conventional software for UC-FR6000</td>
</tr>
<tr>
<td><strong>UR-PA5000</strong></td>
<td>136–174 MHz, 50 W</td>
<td><strong>OPC-2202</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UR-PA6000</strong></td>
<td>400–470, 450–520 MHz, 100 W 50%/duty, 50 W 100% duty</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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

## Options for RoIP, VPN Router and IP Advanced Radio Systems

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>AC ADAPTER</th>
<th>AUDIO CONNECTION CABLES</th>
<th>REMOTE COMMUNICATOR</th>
<th>DIGITAL VOICE CONVERTER</th>
<th>ACCESS POINT MANAGER</th>
<th>MICROPHONE ADAPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BC-207S</strong></td>
<td>12 V/4.2 A</td>
<td>OPC-2273 VHF marine transceiver 5 m; 16.4 ft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPC-2274</strong></td>
<td>For IC-FR5000/FR5200H series 5 m; 16.4 ft</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>OPC-2275</strong></td>
<td>For mobile transceiver 5 m; 16.4 ft</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>OPC-2276</strong></td>
<td>For HM-152 or SM-36 5 m; 16.4 ft</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>RC-FS10</strong></td>
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<td><strong>CT-24</strong></td>
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<td><strong>RS-AP3</strong></td>
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<td><strong>CT-23</strong></td>
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<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>BATTERY PACKS</th>
<th>BATTERY CASE</th>
<th>DESKTOP CHARGERS</th>
<th>MULTI-CHARGER</th>
<th>AC ADAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BP-271</strong></td>
<td>Li-ion 7.4 V/1500 mAh (min.) 12000 mAh (typ.)</td>
<td></td>
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<tr>
<td><strong>BP-272</strong></td>
<td>Li-ion 7.4 V/1880 mAh (min.) 2000 mAh (typ.)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>BP-273</strong></td>
<td>LR6(AA)×3 cells</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>BC-202</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>BC-202P2</strong></td>
<td>Rapid charger with smart charging function</td>
<td></td>
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</tr>
<tr>
<td><strong>BC-218</strong></td>
<td>Rapid multi-charger</td>
<td></td>
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</tr>
<tr>
<td><strong>BC-211</strong></td>
<td>Rapid multi-charger</td>
<td></td>
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</tr>
<tr>
<td><strong>BC-123S</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>BC-157S</strong></td>
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</table>

* BC-123S for US plug, 5E for Europe plug, SV for Australia plug.

## Options for Repeaters

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>AC ADAPTER</th>
<th>CIGARETTE LIGHTER CABLES</th>
<th>SPEAKER-MICROPHONES</th>
<th>EARPHONE-MICROPHONES</th>
<th>HEADSETS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BC-207S</strong></td>
<td>12 V/4.2 A</td>
<td>CP-22 DC-DC CONVERTER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CP-23L</strong></td>
<td>For 12 V DC</td>
<td>HM-183LS</td>
<td></td>
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<tr>
<td><strong>CP-231</strong></td>
<td>For 12 V DC</td>
<td>HM-186LS</td>
<td></td>
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<td></td>
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<tr>
<td><strong>HM-215</strong></td>
<td></td>
<td>HM-153LS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HM-166LS</strong></td>
<td></td>
<td>HM-166LS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VS-3</strong></td>
<td>Bluetooth® headset</td>
<td></td>
<td></td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>HEADSETS</th>
<th>PLUG ADAPTER CABLE</th>
<th>PTT SWITCH CABLES</th>
<th>MOUNT BASE</th>
<th>BRACKET ADAPTOR</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HS-94</td>
<td></td>
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<tr>
<td></td>
<td>HS-95</td>
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<td>HS-97</td>
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<td>HS-102</td>
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<tr>
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<td>OPC-2006LS</td>
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<td>OPC-2228</td>
<td>OPC-2359</td>
<td>MB-1</td>
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<tr>
<td></td>
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<td>For VOX operation</td>
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<td>For manual PTT operation</td>
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</tbody>
</table>

* 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.

Options for HF Radios

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>HAND MICROPHONE</th>
<th>REMOTE CONTROL MIC</th>
<th>SEPARATION KIT</th>
<th>SEPARATION CABLES</th>
<th>AUTO TUNING ANTENNA</th>
<th>NVIS KIT</th>
<th>EXTERNAL SPEAKERS</th>
<th>THIRD PARTY PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HM-193</td>
<td>HM-192</td>
<td>RMK-6</td>
<td>OPC-608 8 m; 26.2 ft; OPC-766 5.5 m; 16.4 ft; OPC-607 3.3 m; 9.8 ft; OPC-609 1.9 m; 6.2 ft</td>
<td>AH-740 2.5–30 MHz Compact type</td>
<td>AH-5NV</td>
<td>SP-30</td>
<td>SP-35 With 2 m; 6.5 ft cable</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>SP-35L With 6 m; 19.7 ft cable</td>
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</table>

Some options may not be available in some countries. Please ask your dealer for details.
### Specifications for P25 Digital Radios and Repeaters

<table>
<thead>
<tr>
<th>Feature</th>
<th>IC-F7010T/S</th>
<th>IC-F7020T/S</th>
<th>IC-F7040T/S</th>
<th>IC-F9011T/S</th>
<th>IC-F9015</th>
<th>IC-F9511HT</th>
<th>IC-F9511T/S</th>
<th>IC-F9511T/B</th>
<th>IC-F9010T/S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong> (Varies according to version)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTX: 769–775, 851–869 MHz TX: 799–805, 806–824 MHz (EXP version) RX: 774–780, 785–802 MHz TX: 794–806, 806–825 MHz</td>
<td>–</td>
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</tr>
<tr>
<td><strong>Number of channels (Max.)</strong></td>
<td>1024 channels/128 zones</td>
<td>512 channels/128 zones</td>
<td>1024 channels/128 zones</td>
<td>512 channels/128 zones</td>
<td>512 channels/128 zones</td>
<td>512 channels/128 zones</td>
<td>512 channels/128 zones</td>
<td>500 channels</td>
<td></td>
</tr>
<tr>
<td><strong>Type of emission</strong> (Varies according to version)</td>
<td>16KF03E**, 14KF03E, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E**, 11KF03E, 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td>16KF03E** , 8K0F3E, 8K10F1E/1F1D, 8K10F1W</td>
<td></td>
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<tr>
<td><strong>Channel spacing</strong> (Varies according to version)</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
<td>25/20/15 kHz</td>
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<tr>
<td><strong>Dimensions</strong> (W×H×D; Projections not included)</td>
<td>53.6 × 123.5 × 38.2 mm; 2.1 × 4.9 × 1.5 in (With BP-284)</td>
<td>58.6 × 167 × 41.8 mm; 2.3 × 6.6 × 1.6 in (With BP-254)</td>
<td>174 × 55 × 150 mm; 6.9 × 2.2 × 5.9 in (With BP-254)</td>
<td>175 × 60 × 279 mm; 6.9 × 2.4 × 11.0 in (RF unit)</td>
<td>175 × 45 × 170 mm; 6.9 × 1.8 × 6.7 in</td>
<td>482 × 88 × 413 mm; 19.0 × 3.5 × 16.3 in</td>
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<tr>
<td><strong>Weight (approx.)</strong></td>
<td>533 g; 1.2 lb (With BP-254)</td>
<td>1500 g; 3.3 lb (With BP-254)</td>
<td>4.7 kg; 10.4 lb (With controller)</td>
<td>1.5 kg; 3.3 lb</td>
<td>11 kg; 24.3 lb</td>
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<td><strong>RF output power</strong></td>
<td>VHF</td>
<td>UHF</td>
<td>VHF</td>
<td>UHF</td>
<td>VHF</td>
<td>UHF</td>
<td>VHF</td>
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<tr>
<td>VHF</td>
<td>5 W</td>
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<td>5 W</td>
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<tr>
<td>UHF</td>
<td>5 W</td>
<td>5 W</td>
<td>5 W</td>
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<td>5 W</td>
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<td><strong>Sensitivity</strong></td>
<td>(at 12 dB SINAD)</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
<td>0.2 µV typ.</td>
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<tr>
<td>(at 5% BER)</td>
<td>0.25 µV typ.</td>
<td>0.22 µV typ.</td>
<td>0.22 µV typ.</td>
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<td>0.22 µV typ.</td>
<td>0.22 µV typ.</td>
<td>0.22 µV typ.</td>
<td>0.22 µV typ.</td>
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<tr>
<td><strong>Intermodulation injection</strong></td>
<td>Analog</td>
<td>75/74/70 dB typ.</td>
<td>75/75/75 dB typ.</td>
<td>77/75/75 dB typ.</td>
<td>78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78 dB min.</td>
</tr>
<tr>
<td>Digital</td>
<td>75/74/70 dB typ.</td>
<td>75/75/75 dB typ.</td>
<td>77/75/75 dB typ.</td>
<td>78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78/78 dB typ.</td>
<td>78/78 dB min.</td>
<td>(VHF/UHF)</td>
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<td><strong>AF output power</strong></td>
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<td>1000 mW typ.</td>
<td>4 W typ.</td>
<td>4 W typ.</td>
<td>4 W typ.</td>
<td>4 W typ.</td>
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<td>External SP</td>
<td>1000 mW typ.</td>
<td>1000 mW typ.</td>
<td>4 W typ.</td>
<td>4 W typ.</td>
<td>4 W typ.</td>
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<td>4 W typ.</td>
<td>4 W typ.</td>
<td>7.5 W typ. (8 Ω)</td>
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<tr>
<td>5-Tone encoder/decoder</td>
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<td><strong>Operating time (approx.)</strong></td>
<td>9 hours with BP-233 &amp; 14 hours with BP-234</td>
<td>9 hours with BP-254</td>
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<td><strong>IP rating</strong></td>
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<td>IP55</td>
<td>IP54</td>
<td>IP54 (Controller and RMK-2)</td>
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**Specifications for IDAS™ Handheld Radios**

| IC-F3400DT/DSD | IC-F3400T/DSD | IC-F52D | IC-F62D | IC-F1100DT/DSD | IC-F2100DT/DSD | IC-F2200DT/DSD | IC-F2300DT/DSD | IC-F2310D-UL | IC-F2320D-UL | IC-F2330DT/DSD | IC-F2340DT/DSD | IC-F2360DT/DSD |
|----------------|--------------|--------|--------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| **Frequency coverage** (Varies according to version) | 136-174 MHz | 136-174 MHz | 380-470 MHz | 450-512 MHz | 136-174 MHz | 136-174 MHz | 380-470 MHz | 450-512 MHz | 136-174 MHz | 136-174 MHz | 380-470 MHz | 450-512 MHz | 136-174 MHz |
| **Number of channels (Max.)** | 1024/4000 **CV** | 128 zones (DT, DS) | 32 CV zones (D) | 512 channels/ 128 zones | 16 channels | 512 channels/ 128 zones | 16 channels | 512 channels/ 128 zones | 16 channels | 512 channels/ 128 zones |
| **Type of emission** (Varies according to version) | 16KOF3E, 11KOF3E, 8KOF5E, 8KOF5E/E/D, 4KOF5E/E/D | 16KOF3E, 8KOF5E, 8KOF5E/E/D, 4KOF5E/E/D | 16KOF3E, 14KOF5E, 3KOF5E, 4KOF5E/E/D | 16KOF3E, 11KOF5E, 8KOF5E, 4KOF5E/E/D | 16KOF3E, 11KOF5E, 8KOF5E, 4KOF5E/E/D | 16KOF3E, 11KOF5E, 8KOF5E, 4KOF5E/E/D | 16KOF3E, 11KOF5E, 8KOF5E, 4KOF5E/E/D |
| **Channel spacing (Unit: kHz)** (Varies according to version) | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz | 25kHz |
| **Dimensions** (projections not included; W×H×D) | 33.6 × 123.5 × 29.3 mm; 2.1 × 4.8 × 1.2 in (with BP-238) | 56 × 91.5 × 29 mm; 2.2 × 3.6 × 1.1 in (with BP-206) | 32.2 × 118.3 × 24.8 mm; 2.1 × 4.4 × 1.2 in (with BP-238, DS, D) | 52.2 × 118.3 × 31.4 mm; 2.1 × 4.4 × 1.3 in (with BP-238, DT) | 32.5 × 142.7 × 38.5 mm; 3.5 × 4.4 × 1.5 in (with BP-232WP) | 63 × 144 × 50 mm; 2.5 × 5.7 × 2.0 in (With BP-277EX) | 53.5 × 142.7 × 39.5 mm; 53 × 120 × 37 mm; 2.1 × 4.4 × 1.5 in (with BP-232UL) | 58 × 115.5 × 36.5 mm; 53.5 × 142.7 × 39.5 mm (With BP-232WP) |
| **Weight (approximate)** | 305 g; 10.8 oz (VHF) | 300 g; 10.6 oz (with BP-238, MB-133 & ant.) | 230 g; 8.1 oz (with BP-290 & MBB-3) | 270 g; 9.5 oz (with BP-290 & MB-133) | 410 g; 14.5 oz (VHF) | 466 g; 1.0 lb (with BP-277EX, MB-94E & ant.) | 340 g; 12 oz (with BP-232WP, MB-948 & ant.) | 320 g; 11.3 oz (With BP-265, MB-124 & ant.) | 405 g; 14.3 oz (with BP-232WP, MB-948 & ant.) |
| **RF output power** | VHF | 5 W | 5 W | 5 W | 5 W | 5 W | 1 W | 5 W | 5 W | 5 W |
| **Sensitivity** (at 12 dB SINAD) | 0.24 μV typ. | 0.24 μV typ. | 0.24 μV typ. | 0.24 μV typ. | 0.23 μV typ. | 0.24 μV typ. (VHF) | 0.23 μV typ. | 0.23 μV typ. | 0.24 μV typ. | 0.24 μV typ. |
| **Internal modulation rejection** | Analog (V/UHF) | 75/74 dB typ. | 75/74 dB typ. | 75/74 dB typ. | 77/74 dB typ. | 75/74 dB | 75/74 dB | 75/74 dB | 75/74 dB |
| **AF output power** | Internal SP | 800 mW typ. (12dB) | 800 mW typ. (12 dB) | 1500mW typ. (8 dB) | 800 mW typ. (12 dB) | 400 mW typ. (32 dB) | 400 mW typ. (32 dB) | 800 mW typ. (12 dB) | 800 mW typ. (12 dB) |
| **DE5 Encryption** | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) |
| **AES Encryption** | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) | (12 1/4 MHz required) |
| **CTCSS/DTCS (Encoder/Decoder)** | 2-tone (Encoder/Decoder) | — | — | — | — | — | — | — | — |
| **5-Tone (Encoder/Decoder)** | — | — | — | — | — | — | — | — | — |
| **Voice Scrambler** | — | — | — | — | — | — | — | — | — |
| **ULTR™ truncing** | — | — | — | — | — | — | — | — | — |
| **Voice recorder** | — | — | — | — | — | — | — | — | — |
| **Vibration alert** | — | — | — | — | — | — | — | — | — |
| **Motion detection sensor** | — | — | — | — | — | — | — | — | — |
| **GPS receiver** | — | — | — | — | — | — | — | — | — |
| **Channel announcement** | — | — | — | — | — | — | — | — | — |
| **Intrinsically safe** | — | — | — | — | — | — | — | — | — |
| **UL non-incendive** | — | — | — | — | — | — | — | — | — |

*25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Some frequency ranges (350–400, 360–400, 450–520 MHz versions) do not have FCC certification.

* Optional license key (ISL-CHEX) required. * Up to 32 selected channels out of 1024 can be allocated to the channel knob. * At 1% BER (Digital 6.5kHz).

* Showing IC-F2100DT/DSD 400–470 MHz versions. The IC-F1100DT/DSD VHF versions are under evaluation as of May 2018.

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* Possible as a kind of 5-Tone format. * Depending on version. ** Limited functions only. (PTT ID, emergency call, radio check (RX) and stun/revive (RX)).

* Limited functions only. (PTT ID and emergency only)
### Specifications for IDAS™ Mobile Radios and Repeaters

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<tr>
<td>Number of channels (Max.)</td>
<td>128 zones</td>
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<td>Type of emission</td>
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<td>12.5/15.25 kHz, 12.5/15.25</td>
<td>12.5/15.25 kHz, 12.5/15.25</td>
<td>12.5/15.25 kHz, 12.5/15.25</td>
<td>12.5/15.25 kHz, 12.5/15.25</td>
<td>12.5/15.25 kHz, 12.5/15.25</td>
<td>12.5/15.25 kHz, 12.5/15.25</td>
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<td>Dimensions (projections not</td>
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<td>174 × 55 × 150 mm</td>
<td>174 × 55 × 150 mm</td>
<td>174 × 55 × 150 mm</td>
<td>174 × 55 × 150 mm</td>
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<td>174 × 55 × 150 mm</td>
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<td>50 W</td>
<td>50 W</td>
<td>50 W</td>
<td>50 W</td>
<td>50 W</td>
<td>50 W</td>
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<td>Sensitivity (at 12 dB SINAD)</td>
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<td>0.22 μV typ.</td>
<td>0.22 μV typ.</td>
<td>0.22 μV typ.</td>
<td>0.22 μV typ.</td>
<td>0.22 μV typ.</td>
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<td>0.22 μV typ.</td>
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<td>4 W typ.</td>
<td>4 W typ.</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Channel announcement</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Voice recorder</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>IP rating</td>
<td>IP55</td>
<td>IP54</td>
<td>IP55</td>
<td>IP54</td>
<td>IP55</td>
<td>IP54</td>
<td>IP55</td>
<td>IP54</td>
<td>IP55</td>
</tr>
</tbody>
</table>

* Possible as a kind of 5-Tone format. ** Limited functions only (PTT ID, emergency, radio check, stun/revive only).
* Limited functions only (PTT ID and emergency only). *** External controller required. **** Depending on version.
* ✔ Multi-site conventional system must use the IC-FR5000/FRS200H series.
* ✔ Multi-site conventional system must use the IC-FRS5000C series only.

---

31 : Available UT-134 : Required internal unit (e.g. UT-134) -- : Not available
## Specifications for Analog and Data Radios

<table>
<thead>
<tr>
<th></th>
<th>IC-F1000/T/S</th>
<th>IC-F3001</th>
<th>IC-F5021</th>
<th>IC-F5011</th>
<th>IC-F5122DD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong> (Varies according to version)</td>
<td>136–174 MHz</td>
<td>136–174 MHz</td>
<td>136–174 MHz</td>
<td>136–174 MHz</td>
<td>136–174 MHz</td>
</tr>
<tr>
<td></td>
<td>335–380 MHz (IC-F2000)</td>
<td>400–470 MHz</td>
<td>400–470 MHz</td>
<td>400–470 MHz</td>
<td>400–470 MHz</td>
</tr>
<tr>
<td></td>
<td>400–470 MHz</td>
<td>450–512 MHz</td>
<td>450–512 MHz</td>
<td>450–512 MHz</td>
<td>450–512 MHz</td>
</tr>
<tr>
<td></td>
<td>450–520 MHz</td>
<td>450–520 MHz</td>
<td>450–520 MHz</td>
<td>450–520 MHz</td>
<td>400–470 MHz</td>
</tr>
<tr>
<td><strong>Number of channels</strong> (Max.)</td>
<td>128 ch</td>
<td>16 ch</td>
<td>128 channels / 8 zones</td>
<td>8 channels</td>
<td>128 channels</td>
</tr>
<tr>
<td><strong>Type of emission</strong> (Varies according to version)</td>
<td>16K0F3E*, 11K0F3E</td>
<td>16K0F3E*, 11K0F3E</td>
<td>16K0F3E*, 11K0F3E</td>
<td>16K0F3E*, 11K0F3E</td>
<td>8K30F1D, 4K00F1D</td>
</tr>
<tr>
<td><strong>Channel spacing</strong> (Varies according to version)</td>
<td>12.5/25 kHz, 15/30 kHz</td>
<td>12.5/25 kHz, 15/30 kHz</td>
<td>12.5/25 kHz, 15/30 kHz</td>
<td>12.5/25 kHz, 15/30 kHz</td>
<td>6.25/12.5 kHz</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (projections not included; W×H×D)</td>
<td>52.2 × 111.8 × 24.5 mm; 2.1 × 4.4 × 1.0 in (With BP-279)</td>
<td>58 × 111 × 35.5 mm; 2.3 × 4.4 × 1.4 in (With BP-265)</td>
<td>150 × 40 × 167.5 mm; 5.9 × 1.6 × 6.6 in (50/45 W)</td>
<td>150 × 40 × 117.5 mm; 5.9 × 1.6 × 4.6 in (25 W)</td>
<td>150 × 40 × 134.7 mm; 5.9 × 1.6 × 5.3 in (50/45 W)</td>
</tr>
<tr>
<td><strong>Weight</strong> (approx.)</td>
<td>240 g; 8.5 oz (With BP-279)</td>
<td>270 g; 9.5 oz (With BP-265)</td>
<td>1.1 kg; 2.4 lb (50/45 W)</td>
<td>0.8 kg; 1.8 lb (25 W)</td>
<td>0.9 kg; 2.0 lb</td>
</tr>
<tr>
<td><strong>RF output power</strong></td>
<td>5 W</td>
<td>5 W</td>
<td>50 W (F5021, F5023H)</td>
<td>25 W (F5011, F5013H)</td>
<td>25 W (F5013)</td>
</tr>
<tr>
<td></td>
<td>25 W (F5023)</td>
<td>45 W (F6021, F6023H)</td>
<td>25 W (F5011, F5013H)</td>
<td>25 W (F5013)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 W</td>
<td>4 W</td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>68/66 dB typ. (D 12.5/D 6.25)</td>
</tr>
<tr>
<td><strong>AF output power</strong></td>
<td>1500 mW typ. (8 Ω)</td>
<td>800 mW typ. (12 Ω)</td>
<td>4 W typ. (4 Ω)</td>
<td>4 W typ. (4 Ω)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>400 mW typ. (8 Ω)</td>
<td>400 mW typ. (8 Ω)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Sensitivity</strong> (at 12 dB SINAD)</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
</tr>
<tr>
<td></td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
<td>0.25 μV typ.</td>
</tr>
<tr>
<td><strong>Intermodulation rejection</strong></td>
<td>71 dB typ.</td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>68/66 dB typ. (D 12.5/D 6.25)</td>
</tr>
<tr>
<td></td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>75 dB typ.</td>
<td>68/66 dB typ. (D 12.5/D 6.25)</td>
</tr>
<tr>
<td><strong>Voice Scrambler</strong></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>–</td>
</tr>
<tr>
<td><strong>MDC 1200</strong></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Man down function</strong></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Motion detection function</strong></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Channel announcement</strong></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Operating time</strong> (approx.)</td>
<td>20 hours with BP-280</td>
<td>14 hours with BP-279</td>
<td>14 hours with BP-264</td>
<td>20 hours with BP-265</td>
<td>–</td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>IP67</td>
<td>IP54</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

*1 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Some frequency ranges (335–380, 350–400, 450–520 MHz versions) do not have FCC certification.

**Limited functions only. (PTT ID, emergency, radio check, stun/revive, transmit status messages only).**

**Limited functions only. (PTT ID and emergency only).**

**Limited functions only. (PTT ID, emergency, radio check, stun/revive only).**
# Specifications for RoIP and VPN Routers

<table>
<thead>
<tr>
<th><strong>VE-PG3</strong></th>
<th><strong>SR-VPN1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply</strong></td>
<td>100–240 V AC</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (projections not included; WxHxD)</td>
<td>232 × 38 × 168 mm; 9.1 × 1.5 × 6.6 in</td>
</tr>
<tr>
<td><strong>Weight (approx.)</strong></td>
<td>800 g; 1.8 lb</td>
</tr>
<tr>
<td><strong>Regulatory compliance</strong></td>
<td>FCC (Part 15 Subpart B), ICES-003, EN55022/EN55024/EN61000-3-2/EN61000-3-3</td>
</tr>
<tr>
<td><strong>LAN/WAN</strong></td>
<td>RJ-45 connector × 4 with switching function 1000BASE-T/100BASE-TX/10BASE-T (AUTO MDI/MDI-X)</td>
</tr>
<tr>
<td><strong>TRX 1/2 port</strong></td>
<td>RJ-45 connector × 2 100BASE-TX/10BASE-T (AUTO MDI/MDI-X)</td>
</tr>
<tr>
<td><strong>EXT 1/2 port</strong></td>
<td>General audio/transmit control/Relay circuit 2.54 mm (0.1 in) pitch quick connector (4 terminals × 3) × 2</td>
</tr>
<tr>
<td><strong>Telephone set port</strong></td>
<td>RJ-11 connector × 1</td>
</tr>
<tr>
<td><strong>Telephone line port</strong></td>
<td>RJ-11 connectors × 2</td>
</tr>
<tr>
<td><strong>USB</strong></td>
<td>Standard A receptacles × 2</td>
</tr>
<tr>
<td><strong>Internet protocol</strong></td>
<td>IPv4</td>
</tr>
<tr>
<td><strong>Supported protocol</strong></td>
<td>SIP</td>
</tr>
<tr>
<td><strong>Codec</strong></td>
<td>G.711 μ-law, AMBE+2 (Optional CT-24 required)</td>
</tr>
</tbody>
</table>

## REAR PANEL VIEW (VE-PG3)

![REAR PANEL VIEW (VE-PG3)](image1.png)

## REAR PANEL VIEW (SR-VPN1)

![REAR PANEL VIEW (SR-VPN1)](image2.png)
# Specifications for IP Advanced Radio Systems

## IP501H

<table>
<thead>
<tr>
<th>Network</th>
<th>4G bands:</th>
<th>LTE B1, B3, B7, B8, B20 (EXP) LTE B2, B4, B5, B17 (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G bands:</td>
<td>W-CDMA B1, B8 (EXP) W-CDMA B2, B5 (USA)</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>(W × H × D; projections not included)</td>
<td>59 × 95 × 32 mm; 2.3 × 3.7 × 1.3 in (with BP-272)</td>
</tr>
<tr>
<td>Weight (approx.)</td>
<td>240 g; 8.5 oz (with BP-272 and antenna)</td>
<td></td>
</tr>
<tr>
<td>Voice Codec</td>
<td>G.726 (32 kbps)</td>
<td></td>
</tr>
<tr>
<td>AF output power</td>
<td>Internal SP</td>
<td>400 mW (16 Ω at 10% distortion)</td>
</tr>
<tr>
<td></td>
<td>External SP</td>
<td>200 mW (8 Ω at 10% distortion)</td>
</tr>
<tr>
<td>Operating time</td>
<td>(5:5:90 duty cycle.)</td>
<td>More than 17 hours (with BP-272)</td>
</tr>
<tr>
<td>Bluetooth®</td>
<td>Ver 2.1 +EDR</td>
<td></td>
</tr>
<tr>
<td>GPS</td>
<td>Built-In</td>
<td></td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP67/55/54</td>
<td></td>
</tr>
<tr>
<td>MIL Standard</td>
<td>MIL-STD-810-G</td>
<td></td>
</tr>
</tbody>
</table>

## IP1000H

<table>
<thead>
<tr>
<th>Wireless standards</th>
<th>IEEE 802.11 a/b/g/n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency range*</td>
<td>2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz</td>
</tr>
<tr>
<td>Dimensions (W × H × D; projections not included)</td>
<td>58 × 95 × 26.4 mm; 2.3 × 3.7 × 1.0 in (with BP-271)</td>
</tr>
<tr>
<td>Weight (approx.)</td>
<td>205 g; 7.2 oz (with BP-271 and antenna)</td>
</tr>
<tr>
<td>RF output power</td>
<td>Less than 10 mW/MHz</td>
</tr>
<tr>
<td>Voice codec</td>
<td>G.711μ-law (64 kbps)</td>
</tr>
<tr>
<td>AF output power</td>
<td>Internal SP 400 mW (typ., 16 Ω at 10% distortion)</td>
</tr>
<tr>
<td></td>
<td>External SP 200 mW (typ., 8 Ω at 10% distortion)</td>
</tr>
<tr>
<td>Operating time</td>
<td>(1:1:8 duty cycle.) More than 20 hours (with BP-271)</td>
</tr>
<tr>
<td>Security</td>
<td>WEP(64/128-bit), WPA-PSK(TKIP/AES), WPA2-PSK(TKIP/AES)</td>
</tr>
<tr>
<td>MIL Standard</td>
<td>MIL-STD-810-G</td>
</tr>
</tbody>
</table>

## IP1000C

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

## AP-90M

<table>
<thead>
<tr>
<th>Power supply</th>
<th>12 V DC ±10% or PoE (IEEE802.3af compatible)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W×H×D)*</td>
<td>120 × 29 × 103 mm; 4.7 × 1.1 × 4.1 in</td>
</tr>
<tr>
<td>Weight (approx.)</td>
<td>300 g; 10.6 oz (Main unit only)</td>
</tr>
<tr>
<td>Wired LAN</td>
<td>RJ-45 connector × 1 1000BASE-T/100BASE-TX/10BASE-T (Auto MDI/MDI-X)</td>
</tr>
<tr>
<td>Wireless LAN</td>
<td>IEEE 802.11 a/b/g/n/ac</td>
</tr>
<tr>
<td>Frequency range*</td>
<td>2.4–2.4835 GHz, 5.15–5.35, 5.47–5.85 GHz</td>
</tr>
<tr>
<td>USB</td>
<td>Standard A receptacles</td>
</tr>
<tr>
<td>Security</td>
<td>WEP(64/128/152-bit), WPA-PSK, WPA2-PSK, WPA2-PSK</td>
</tr>
</tbody>
</table>

* Projections are not included.

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

---

**REAR PANEL VIEW (IP1000C)**

![REAR PANEL VIEW (IP1000C)](image)

**REAR PANEL VIEW (AP-90M)**

![REAR PANEL VIEW (AP-90M)](image)
## Specifications for HF Radios and Automatic Tuning Antenna

### IC-F8101

<table>
<thead>
<tr>
<th>Specification</th>
<th>USA Version</th>
<th>AUS Version</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong></td>
<td>0.5–29.999 MHz (Continuous)</td>
<td>1.6–29.999 MHz</td>
</tr>
<tr>
<td><strong>Number of channels</strong></td>
<td>500 ch</td>
<td>500 ch, 500 ALE ch</td>
</tr>
<tr>
<td><strong>Type of emission</strong></td>
<td>J3E, J2B, F1B, A1A, A3E</td>
<td>J3E and A3E (RX only)</td>
</tr>
<tr>
<td><strong>Power supply requirements</strong></td>
<td>13.8 V DC (11.73–15.87 V DC)</td>
<td>13.8 V DC (10.8–15.6 V DC)</td>
</tr>
<tr>
<td><strong>Current drain</strong></td>
<td>Tx: 28 A</td>
<td>Rx: 3.0 A</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>174 x 62 x 259 mm; 6.9 x 2.4 x 10.2 in (Controller attached type)</td>
<td>3.9 kg; 8.6 lb (Controller attached type)</td>
</tr>
<tr>
<td><strong>Spurious emissions</strong></td>
<td>64 dB below PEP typ. (EXP)</td>
<td>6 dB below PEP typ.</td>
</tr>
<tr>
<td><strong>Carrier suppression</strong></td>
<td>50 dB below PEP</td>
<td></td>
</tr>
<tr>
<td><strong>Unwanted sideband</strong></td>
<td>55 dB below PEP (400 Hz)</td>
<td>65 dB below PEP (1 kHz)</td>
</tr>
<tr>
<td><strong>Sensitivity</strong></td>
<td>J3E: 14 dBμV (0.5–1.599 MHz, at 10 dB S/N)</td>
<td>A3E: 22 dBμV (0.5–1.599 MHz, at 10 dB S/N)</td>
</tr>
<tr>
<td><strong>Selectivity</strong></td>
<td>J3E: 2.4 kHz/–60 dB</td>
<td>A3E: 6 kHz/–60 dB</td>
</tr>
<tr>
<td><strong>Spurious response rejection</strong></td>
<td>70 dB</td>
<td></td>
</tr>
<tr>
<td><strong>AF output power</strong></td>
<td>4.0 W typ. (with 4 Ω load at 10% distortion)</td>
<td></td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>IP54</td>
<td></td>
</tr>
<tr>
<td><strong>MIL standard</strong></td>
<td>MIL-STD-810-G</td>
<td></td>
</tr>
</tbody>
</table>

### AH-740

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong></td>
<td>With whip antenna: 2.5–29.999 MHz (With AH-5NV: 1.5–29.999 MHz)</td>
</tr>
<tr>
<td><strong>Output power rating</strong></td>
<td>SSB/DATA: 125 W PEP, 100 W PEP (J3E), 75 W PEP (F1B/J2B), 30 W PEP (A3E)</td>
</tr>
<tr>
<td><strong>VSFR</strong></td>
<td>With whip antenna: 1.5:1 typical (50 Ω), With AH-5NV: 1.5:1 typical (50 Ω)</td>
</tr>
<tr>
<td><strong>Tuning speed</strong></td>
<td>New channel: 2–3 s typical, Memory tune: 10 s typical</td>
</tr>
<tr>
<td><strong>Number of memory channels</strong></td>
<td>45 channels</td>
</tr>
<tr>
<td><strong>Power supply requirements</strong></td>
<td>13.8 V DC (10.8–15.87 V DC)</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>0.4 A typical</td>
</tr>
<tr>
<td><strong>Tune power</strong></td>
<td>5–15 W PEP, Rated 10 W PEP</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base unit: 238 x 145 x 160 mm; Height: 1909 mm; 9.4 x 5.7 x 6.3 in; 75.2 in</td>
</tr>
<tr>
<td><strong>Weight (approx.)</strong></td>
<td>3.5 kg, 7.7 lb</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>M16 x 45 mm</td>
</tr>
<tr>
<td><strong>Supplied accessories</strong></td>
<td>6 m; 19.7 ft control cable and 6 m; 19.7 ft coaxial cable</td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>IP55</td>
</tr>
<tr>
<td><strong>MIL standard</strong></td>
<td>MIL-STD-810-G</td>
</tr>
</tbody>
</table>

* Maximum 6 minute continuous transmission at 35°C.

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

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—Icom Inc.

1-1-32, Kamiminami, Hirano-Ku, Oska 547-0003, Japan
Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013
www.icom.co.jp/world

—Icom America Inc.
www.icomamerica.com

—Icom Canada
www.icomcanada.com

—Icom Brazil
E-mail: sales@icombrazil.com

—Icom (Europe) GmbH
www.icom europe.com

—Icom (Australia) Pty. Ltd.
www.icom.net.au

—Icom Spain S.L.
www.icomspain.com

—Icom (UK) Ltd.
www.icomuk.co.uk

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