

A New Legacy: Slimmer, Smaller and Infinitely Better

The IC-F52D series is a next generation IDAS™ handheld radio. It not only inherits technical design advantages from the IC-F3400D series, but also offers state-of-the-art improvements, while applying size and usability from the hugely popular IC-F50V/IC-F50 series analog models. The IC-F52D series is a true mixture of legacy and modern technology in one of the most compact packages available today.

Small, light and feature packed

Multiple operating modes

- Analog FM
- NXDN™/dPMR™ conventional
- Upgradable to NXDN™ Type-D trunking
- Upgradable to dPMR™ Mode 3 trunking

Full dot-matrix display, rotary channel and volume knob for simple every-day operation

Built-in Bluetooth®, voice recording, active noise cancelling functions

Motion/stationary detection, man down and lone worker functions

OTAP (Over-the-Air Programming) function easily reconfigures in-the-field radios

Intelligent battery management helps to extend the battery life



IC-F52D

IC-F62D

General Features

- 136–174, 350–400, 400–470, 450–512, 450–520 MHz versions
- 512 Channels / 128 Zones
- 14 character dot-matrix display with status icons
- Improved user interface
- Programmable functions and menu items in a language other than English (For example French, Spanish, German, Russian and Turkish)
- Backlit LCD and buttons
- 20-position rotary selector and ON/OFF volume knob
- 800 mW loud and intelligible internal speaker audio
- MIL-STD-810 G shock, vibration, temperature and more
- IP67/66/55/54 waterproof & dust-tight protection
- 29 mm (1.1 inch) slim dimensions (with BP-290 battery pack)
- Battery conditioning intelligence function
- License key upgrade (trunking)

Operating Mode

- NXDN or dPMR mode 1/2 conventional
- NXDN or dPMR multi-site conventional over IP network
- NXDN Type-D single/multi-site trunking*
* License key (ISL-UGMTR) required
- dPMR Mode 3 trunking*
* License key (ISL-UGMD3) required
- 12.5 kHz digital mode (NXDN conventional)
- Analog mode
- Analog/digital mixed operation

Digital Functions (Voice and Data)

- AMBE+2™ vocoder
- Over-the-Air Programming (OTAP) function*
* Optional OTAP manager (CS-OTPM1) required
- Over-the-Air Alias (OAA) sends own name with a call
- Over-the-Air Update (OTAU) changes the repeater channel data and site code over the air (NXDN Type-D trunking)
- Individual, group and all call
- Late entry for group call
- Status call and polling
- Short data messages
- Call alert (NXDN)
- GPS position data (Optional HM-233GP required)
- Transparent data mode



Check our web site to know more about
6.25 kHz FDMA narrow band.
www.icom.co.jp/world/fdma/

Analog Functions

- CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC functions (Depending on version)
- BIIS 1200 (MSK)
- LTR™ trunking (Depending on version)
- DTMF autodial

Security and Safety

- Digital voice scrambler (Low level encryption)
- Analog voice scrambler (Inversion)
- Power ON password
- Tactical group temporarily reconfigures user talkgroups
- Radio stun/revive/kill
- Remote monitor (NXDN)/ambience listening (dPMR)
- Emergency key for emergency call
- Man down function
- Lone worker function
- Motion/stationary detection

Scan Functions

- Priority scan
- Voting scan for site roaming

Voice/Audio Functions

- Voice announcement (Channel number and zone)
- VOX function for hands-free operation
- Voice recording/playback (Up to 8 minutes)
- TX/RX active noise canceller
- TX/RX audio equalizer
- Audio compander (Analog mode)

Hardware Features

- Programmable vibration alert
- Built-in Bluetooth® for wireless audio and data
- Variety of optional audio accessories including speaker-microphones, headsets and earphones
- Optional HM-233GP GPS speaker-microphone
- 14-pin accessory connector
- Wireless radio programming over Bluetooth®

SPECIFICATIONS

IC-F52D • IC-F62D

| | | IC-F52D NXDN Version | IC-F52D dPMR Version | IC-F62D NXDN Version | IC-F62D dPMR Version |
|--|----------------------------|---|--|--|--|
| GENERAL | | | | | |
| Frequency coverage (* Depending on version) | | 136–174 MHz | 136–174 MHz | 350–400, 400–470, 450–512, 450–520 MHz | 400–470 MHz |
| Number of channels | | 512 channels /128 zones | | | |
| Type of emission (* Depending on version) | | 16K0F3E*, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D | 16K0F3E*, 14K0F3E, 8K50F3E, 4K00F1E/D | 16K0F3E*, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D | 16K0F3E*, 14K0F3E, 8K50F3E, 4K00F1E/D |
| Power supply requirement | | 7.5 V DC nominal | | | |
| Current drain (approx.) | Tx | 1.8 A | | | |
| | Rx | 500 mA /170 mA (Max. audio (internal SP)/Standby) / 600 mA /170 mA (Max. audio (internal SP)/Standby) | | | |
| Antenna impedance | | 50 Ω | | | |
| Operating temperature range | | –30 °C to +60 °C; –22 °F to +140 °F (Radio specifications) | | | |
| Dimensions (W × H × D; Projections not included) | | 56 × 91.5 × 29 mm; 2.2 × 3.6 × 1.1 in (With BP-290) | | | |
| Weight (approx.) | | 125 g; 4.4 oz (main unit) | | | |
| | | 230 g; 8.1 oz (BP-290, MBB-3) | | | |
| TRANSMITTER | | | | | |
| Output power (Hi, L2, L1) | | 5 W, 2 W, 1 W | | 5 W, 2 W, 1 W | |
| Frequency stability | | ±1.0 ppm | | ±1.0 ppm | |
| Spurious emissions | | 80 dB typ. (USA) | | 80 dB typ. (USA) | |
| FM Hum and noise | | 0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz) (EUR) | | 0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz) (EUR) | |
| Audio harmonic distortion | | 57 dB typ. (@25 kHz), 55 dB typ. (@12.5 kHz) (USA) | | 57 dB typ. (@25 kHz), 56 dB typ. (@12.5 kHz) (USA) | |
| FSK error | | 0.4% typ. (AF 1kHz 40% deviation) | | 0.4% typ. (AF 1kHz 40% deviation) | |
| | | 1% typ. (@DVN/DN) | | 1% typ. (@DVN/DN) | |
| RECEIVER | | | | | |
| Sensitivity | Analog (12 dB SINAD) | 0.23 μV typ. | | 0.23 μV typ. | |
| | Analog (20 dB SINAD) | –4.0 dBμV emf typ. (@25/20 kHz), –1.4 dBμV emf typ. (@12.5 kHz) | | –4.0 dBμV emf typ. (@25/20 kHz), –1.1 dBμV emf typ. (@12.5 kHz) | |
| Adjacent channel selectivity | Digital (1% BER) | –5.0 dBμV emf typ. (0.28 μV typ.) (@DVN), –3.0 dBμV emf typ. (0.35 μV typ.) (@DN) | | –4.0 dBμV emf typ. (0.32 μV typ.) (@DVN), –3.0 dBμV emf typ. (0.35 μV typ.) (@DN) | |
| | Analog | 79 dB typ. (@25/20 kHz), 77 dB typ. (@12.5 kHz) | | 76 dB typ. (@25/20 kHz), 73 dB typ. (@12.5 kHz) | |
| Spurious response rejection | Digital | 70 dB typ. (@DVN), 72 dB typ. (@DN) | | 66 dB typ. (@DVN), 68 dB typ. (@DN) | |
| Intermodulation rejection | Analog | 76 dB typ. | | 78 dB typ. | |
| | Digital | 76 dB typ. (USA) 68 dB typ. (EUR) | | 74 dB typ. (USA) 68 dB typ. (EUR) | |
| Audio output power | Internal SP External SP | 800 mW typ. (at 5% distortion, 12 Ω load) 1000 mW typ. (at 5% distortion, 8 Ω load) | | 73 dBμV emf typ. (@DVN), –40 dBm typ. (@DN) | |

Measurements made in accordance with TIA-603, EN300 086, EN301 166, EN300 113. All stated specifications are subject to change without notice or obligation.

*1 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions.

DVN: Digital Very Narrow (6.25 kHz), DN: Digital Narrow (12.5 kHz). DN is for NXDN version only.

Applicable U.S. Military Specifications & IP Rating

| Standard | MIL 810G | |
|-------------------|----------|-----------|
| | Method | Procedure |
| Low Pressure | 500.5 | I, II |
| High Temperature | 501.5 | I, II |
| Low Temperature | 502.5 | I, II |
| Temperature Shock | 503.5 | I-C |
| Solar Radiation | 505.5 | I |
| Rain Blowing/Drip | 506.5 | I, III |
| Humidity | 507.5 | II |
| Salt Fog | 509.5 | – |
| Dust Blowing | 510.5 | I |
| Immersion | 512.5 | I |
| Vibration | 514.6 | I |
| Shock | 516.6 | I, IV |

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

Ingress Protection Standard

Dust & Water IP67/66/55/54

Battery Life

| Battery pack | Type | Capacity | Operating time* |
|--------------|--------------|----------------------------------|--------------------|
| BP-290 | Li-ion 7.2 V | 2010 mAh (typ.), 1910 mAh (min.) | 13 hours (Approx.) |

* Tx: Rx: standby = 5:5:90 duty cycle. Power save function ON.

Supplied accessories: (May differ depending on version)

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

■ BATTERY PACK & BATTERY CASE

BP-290: Rechargeable Li-ion battery with intelligent reporting. IP67 protection.
BP-291: LR6 (AA) × 5 battery case. IP54 protection.

■ BATTERY CHARGERS

BC-226: Connectable type charger (connects up to six BC-226 units). Charges the BP-290 in 2.7 hours.
 + **BC-228:** AC adapter. One AC adapter is required for up to six charger units.
BC-225: Intelligent charger. Shows the charging information with the LED lighting. Charges the BP-290 in 2.5 hours (approx.).
 + **BC-123SA/SE/SV:** AC adapter.
RS-BC225: Intelligent charger software for Windows® PC.
BC-227: Compact type desktop charger. Charges the BP-290 in 2.7 hours.
 + **BC-123SA/SE/SV:** AC adapter.
BC-219N/BC-219: Desktop charger. Charges the BP-290 in 2.5 hours.
 + **BC-123SA/SE/SV:** AC adapter.
BC-214: Multi-charger. Charges up to six BP-290 batteries in 2.8 hours (approx.).
 + **BC-157S:** AC adapter.
 * AD-132N charger adapter is supplied with the BC-214, depending on version.



■ POWER SUPPLY CABLES

CP-23L: Vehicle charger cable for use with the BC-219/N, BC-225 or BC-227.
OPC-515L: DC power cable for use with the BC-219/N, BC-225 or BC-227.
OPC-656: DC power cable for use with the BC-214.

■ SPEAKER-MICROPHONES AND EARPHONES

HM-222: Speaker microphone with 3.5 mm earphone jack. IP68 protection.
HM-233GP: GPS speaker microphone. IP67 protection.
HM-163MC: Tie-clip microphone with 2.5 mm earphone jack.
EH-15B: Earphone with 2.5 mm plug for use with HM-163MC.
SP-26: Tube earphone with 2.5 mm plug for use with HM-163MC.
SP-28: Earhook type earphone with 2.5 mm plug for use with HM-163MC.
SP-32: Tube earphone adapter for use with EH-15B.
SP-27: Tube earphone with 3.5 mm plug. For use with HM-222 or AD-135.
SP-29: Earhook type earphone with 3.5 mm plug. For use with HM-222 or AD-135.
SP-40: Earphone with 3.5 mm plug. For use with HM-222 or AD-135.



■ HEADSETS & PTT SWITCH CABLE

HS-94: Earphone-headset (Use with VS-5MC).
HS-95: Behind-the-head headset (Use with VS-5MC).
HS-97: Throat microphone (Use with VS-5MC).
VS-3: Bluetooth headset.
VS-5MC: PTT switch cable with VOX function. VS-5MC is required when using any of HS-94, HS-95 or HS-97.



■ BELT CLIPS, BELT HANGERS AND CARRYING CASES

MBB-3: Alligator belt clip. Same as supplied.
MB-136: Swivel belt clip.
MB-96M: Swivel type leather belt hanger.
MB-96F: Fixed type leather belt hanger. For use with the MBB-3.
MB-96FL: Long fixed type leather belt hanger. For use with the MBB-3.
LC-187: Hard type carrying case. Charging is possible while wearing the case.
LC-188: Hard type carrying case.



■ OTHER OPTIONS AND CABLES

AD-135: 3.5 mm earphone jack adapter for use with any of SP-27, SP-29 or SP-40 earphone.
AD-118: ACC adapter. For use with Hirose plug accessory.
OPC-2338: Programming cable. USB-14-pin type.
OPC-1870: Zone copy cable. Handheld to handheld type.

■ SOFTWARE AND ACTIVATION KEYS

CS-OTPM1: OTAP manager software.
CS-F52D: Programming software.
ISL-UGMTR: NXDN™ Type-D trunking upgrade key.
ISL-UGMD3: dPMR™ Mode 3 trunking upgrade key.

■ ANTENNAS

FA-SC25V: 136–150 MHz
FA-SC28V: 148–162 MHz
FA-SC29V: 160–174 MHz
FA-SC01U: 350–400 MHz
FA-SC25U: 400–430 MHz
FA-SC57U: 430–470 MHz
FA-SC72U: 470–520 MHz

■ STUBBY ANTENNAS

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

■ HIGH GAIN ANTENNAS

FA-SC62V: 150–160 MHz
FA-SC63V: 155–165 MHz

■ CUT-TYPE ANTENNAS

FA-SC61VC: 136–174 MHz
FA-SC61UC: 380–520 MHz

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

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