



VHF AND UHF DIGITAL/ANALOGUE TRANSCEIVERS

IC-F5122D

VHF transceiver

IC-F6122D

UHF transceiver

**Everything you'd expect in a business radio
... Plus Digital!**

iDASTM
ICOM DIGITAL ADVANCED SYSTEM

dPMRTM Mode 1/2 Conventional Mode

Digital/Analogue Mixed Mode Operation

Superb Digital Audio Clarity

Built-in 2-Tone, 5-Tone, CTCSS, and DTCS (Analogue Mode)

MIL-STD-810 F Rugged Construction

4W (typ.) Front Mounted Speaker

25W RF Output Power

128 Channels with 8 Zones



More than Just Smooth Digital Migration!

128 Channels with 8 Zones

An ample 128 channel capacity allow most companies plenty of room to grow. Up to 8 zones lets you group together channels in logical fashion.

Built Military Rugged!

The tough aluminum die-cast chassis and polycarbonate front panel have been tested to MIL standard 810F specifications.

Compact Hand Microphone

Select from 4 levels of mic gain, for clearer transmission.

Optional Accessory Cable

An external GPS receiver, PC or other device can be connected with the optional OPC-2078 (D-sub 25-pin) or OPC-1939 (D-sub 15-pin). Operating channels can be selected from an external device. (up to 16 preprogrammed channels).



Photo includes optional OPC-2078.



8-character LCD

An 8-character alphanumeric LCD with user-friendly icons shows a variety of information and operating status such as caller's name, received message, etc.

Large Programmable Buttons

Programmable P0-P3 buttons provide easy access to frequently used functions. Buttons and LCD display are backlit for night time operation.

Powerful, Front-facing Speaker

4 watts (typ.) front facing speaker delivers clear and loud audio throughout a vehicle's cabin. Digital modulation adds distinct clarity to received voices.

dPMR™ Mode 1/2 Operation

The IC-F5122D series provides dPMR mode 1/2 conventional mode operation. It is also compatible with Mode 2 multi-site system. The following IDAS features are programmable.

- PTT ID • Individual/Talkgroup list (Max. 500)
- CC • Status • SDM (Short Data Message)
- Stun/kill/revive (RX) • Ambience listening (RX)
- Enhanced emergency • Lone worker
- Transparent data call • Digital voice scrambler
- GPS data (PC and software required to show received position data)

Transparent Data Modem Function

When IC-F5122D series is connected to a PC or other external equipment, the transparent data modem function allows communication in a 6.25kHz channel. It can be used for remote telemetry system control or data applications.

Voting Scan

The voting scan detects the signal strength of the repeater sites and automatically selects the strongest station. The function is useful for roaming between multiple repeater sites. (It is recommended to test the voting performance during installation.)

Built-in 2-Tone and 5-Tone (Analogue Mode)

2-Tone and 5-Tone signalings give you selective calling, quiet stand-by and other convenient functions with programming. The stun/kill functions disable a radio over the air and the revive function restores the stunned radio.

Lone Worker Function

When the radio is not operated for a preset period, a warning beep will sound, alerting the radio user to check in. If the radio user does not check in before the preset time runs out, then the radio automatically sends out an emergency signal.

Other Features (* = analogue only)

- CTCSS/DTCS encoder/decoder*
- BIIS PTT ID transmission*
- 8 DTMF autodial memories
- Microphone hanger action programmable
- Optional DTMF microphone (HM-152T/HM-148T)
- PC programmable
- Power-on password function
- Power OFF emergency • Time out timer
- Talk around function
- Nuisance delete function*
- Forced narrow function*

TX: Transmit, RX: Receive

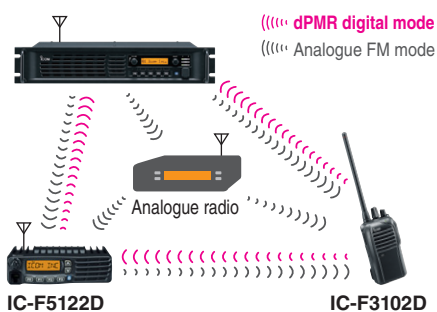
VHF & UHF DIGITAL/ANALOGUE TRANSCEIVERS

IC-F5122D IC-F6122D



The IC-F5122D series : A multitude of advantages because it's IDAS™

Advantage 1 Digital/Analogue Mixed Mode



The IC-F5122D series can receive both analogue and digital mode signals on a single channel and automatically selects the received mode to reply to the received call, while the talk back timer remains. It's a smart way to grow into digital radio – at your own pace, as your budget and comfort allow.

Advantage 2 Digital and Analogue Individual/group Call



The IC-F5122D series allows you to call individual or group users. The radio automatically sends own ID number when the PTT button is held down. The alias name or individual/group ID is displayed on the LCD while receiving a message allowing you to identify who is calling.

Advantage 3 Status Message and Short Data Message

Status message example



Preprogrammed status comments are displayed to match the status number.

Short data message example

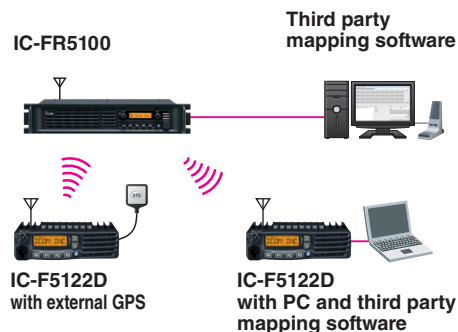


The display shows longer messages by automatic vertical scrolling.

Up to 32 status conditions can be set and sent with voice call. Also, you can request another dPMR radio to send their status and receive it.

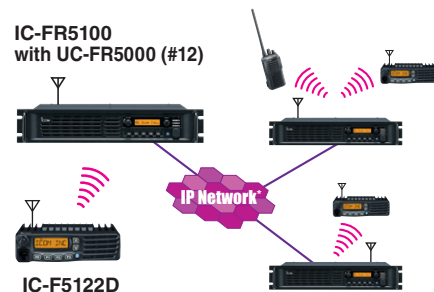
Up to 100-character of short data message can be sent and received.

Advantage 4 GPS Capability



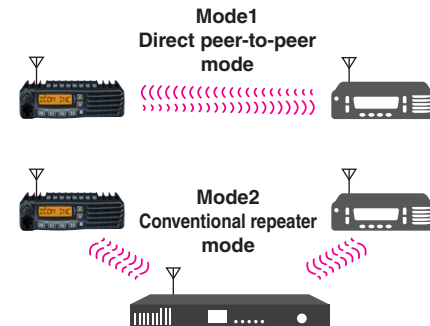
When used with an external GPS receiver, the IC-F5122D series can transmit accurate position data for use with vehicle management applications.

Advantage 5 Multi-Site System



When using the IC-F5122D series in dPMR Mode 2 multi-site system, the IC-F5122D can communicate with other dPMR radio users working with other repeater sites on the network.

Advantage 6 Interoperability



The IC-F5122D series complies with the dPMR standard (TS 102 658) for Mode 1 / Mode 2. This means the radio is capable of working with other manufactures' radio or on dPMR systems where the same features have been implemented, and allows users to have a choice of vendors and equipment in the future.

All advantages shown represent possible system configurations. Ask your Icom dealer to configure an IDAS system that works best for you.

*Note: Private IP Network or VPN Tunnels through the Internet with static endpoints.

SPECIFICATIONS

	IC-F5122D	IC-F6122D
GENERAL		
Frequency coverage	136-174MHz	400-470MHz
Number of channels	128 channels (8 zones)	
Type of emission	16K0F3E, 14K0F3E, 8K50F3E, 4K00F1E/F1D	
Channel spacing	6.25/12.5/20/25kHz	
PLL channel step	2.5/3.125kHz	
Power supply requirement	13.2V DC	
Current drain (approx.)		
Tx	25W	
Rx	Max. audio 1.2A	
Standby	300mA	
Antenna impedance	50Ω (SO-239)	
Operating temperature range	-25°C to +55°C	
Dimensions (W×H×D) (Projections not included)	150×40×117.5mm	
Weight (approx.)	0.8kg	
TRANSMITTER		
Output power (at 13.2V DC)	25W, 10W, 2.5W (Hi, L2, L1)	
Max. frequency deviation	±5.0kHz/±4.0kHz/±2.5kHz (W/M/N)	
Frequency stability	±1.0ppm	
Spurious emissions	0.25μV (≤1GHz) 1.0μV (>1GHz)	
Residual modulation	55/53/50dB typ. (W/M/N)	
Audio harmonic distortion (AF 1kHz 40% deviation)	3% typ.	
FSK error	5% max.	
Ext. microphone impedance	600Ω (8-pin modular)	

Measurements made in accordance with EN 300-086, EN 301-166.
All stated specifications are subject to change without notice or obligation.

	IC-F5122D	IC-F6122D
RECEIVER		
Sensitivity (at 20dB SINAD) (at 5% BER)	-4dBμV typ. (emf) -8dBμV typ. (emf)	
Adjacent channel selectivity	80/80/70dB typ. (W/M/N), 65dB typ. (digital)	75/75/70dB typ. (W/M/N), 60dB typ. (digital)
Spurious response rejection	70dB min.	
Intermodulation rejection	67dB typ. (W/M/N)	
Hum and noise	55/53/50dB typ. (W/M/N)	
Audio output power (at 5% distortion, 4Ω load)	4W typ.	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/4Ω	

Applicable U.S. Military Specifications

Standard	MIL 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Humidity	507.4	-
Settling Dust	510.4	III
Vibration	514.5	I
Shock	516.5	I, IV

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

Supplied Accessories

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

OPTIONS

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

HAND MICROPHONES



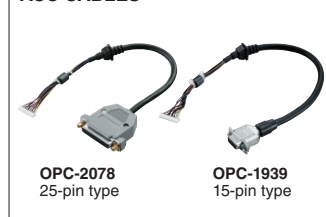
DESKTOP MICROPHONE



EXTERNAL SPEAKERS



ACC CABLES



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