SPECIFICATIONS

GENERAL	IC-F5123D	IC-F6123D
Frequency coverage	136-174Mhz	350-400MHz 400-480MHz 450-520MHz
Number of channels	128 channels (8zones)	
Type of emission	16K0F3E, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	
Channel spacing	25/20/12.5/6.25kHz	
PLL channel step	2.5/3.125kHz	
Power supply requirement	13.6V DC	
Current drain (approx.)		
Tx 60W	12A	
30W	6A	
Rx Max. audio	1.2A	
Standby	300mA	
Antenna impedance	50Ω (SO-239)/BNC	
Operating temperature range	-30°C to + 60°C ; -22°F to + 140°F	
Dimensions (W×H×D) (Projections not included)	150×40×167.5mm; 5.91×1.57×6.59in	
Weight (approx.)	1.1kg;2.4lb	

TRANSMITTER	
Output power (at 13.6V DC)	
IC-F5123D/IC-F6123D	60W (Programmable)
IC-F5123D (30W)/IC-F6123D (30W)	10-30W (Programmable)
Max. frequency deviation	±5.0kHz/±2.5kHz
Frequency stability	±1.0ppm
Spurious emissions	75dB / 0.25µV (≤ 1GHz) 1.0µV (> 1GHz)
Adjacent channel power	70/60dB
Audio frequency response	+1dB to -3dB of 6dB/octave range from 300Hz to 3000Hz/2550Hz
FM Hum and noise	55/50dB
Audio harmonic distortion	3% (AF 1kHz 40% deviation)
FSK error	5% Max. (Digital)
Ext. microphone impedance	600Ω (8-pin modular)

RECEIVER	IC-F5123D	IC-F6123D
Sensitivity		
(at 12dB SINAD)	0.25µV	
(at 5% BER)	-4dBµV (emf)	
Adjacent channel selectivity	80/70dB, 65dB(digital)	75/70dB, 60dB(digital)
Spurious rersponse rejection	80dB	
Intermodulation rejection	80dB	
Hum and noise	55/50dB	
Audio output power (at 5% distortion, 4Ω load)	4W	
Audio frequency response	+1dB to -3dB of 6dB/octave range from 300Hz to 3000Hz/2550Hz	
Ext. speaker connector	2-conductor 3.5 (d) mm (¹/₈")/4	

All stated specifications are subject to change without notice or obligation.

Applicable U.S. Military Specifications

Standard	MIL 810 F	
	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	–
Setting 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)
- Microphone hanger
- DC power cable
- Key assign stickers
- Mounting bracket kit

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

HAND MICROPHONES

HM-152

HM-152T
DTMF microphone

HM-148G
Heavy duty microphone

HM-148T
Heavy duty microphone with DTMF keypad

DESKTOP MICROPHONE

SM-26

EXTERNAL SPEAKERS

SP-30

SP-35: 2m cable
SP-35L: 6m cable

ACC CABLES

OPC-2078
25-pin type

OPC-1939
15-pin type

Note: No digital modulation "IN" using accessory cables.

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

IDAS™
ICOM DIGITAL ADVANCED SYSTEM

IDAS™ Conventional & IDAS™ Single-siteTrunking

Digital/Analog Mixed Mode Operation

Built-in 2-Tone, 5-Tone, CTCSS and DTCS

MDC1200Compatible

MIL-STD-810F Rugged Construction

4W Front Mounted Speaker

MIL-STD 810 Rugged

MDC 1200 Compatible

Limited functions.

More than Just Smooth Digital Migration!

128 channels with 8 zones
Ample 128 channel capacity allows 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 the MIL standard 810 F.

Compact hand microphone
Select from 5 levels of mic gain, for clearer transmission.

GPS receiver connection
With optional D-SUB 25-pin ACC cable OPC-2078, an external GPS receiver or PC can be connected.

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
For easy access to often used functions, P0–P3 buttons are programmable to meet specific needs. Buttons and LCD display are backlit for night time opeartion.

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.

IDAS™ digital mode operation
The IC-F5123D series provides NXDN™ CAI-based IDAS digital mode operation. It is also compatible with IDAS multi-site conventional and IDAS single-site trunking. The following IDAS features are programmable.

- PTT ID • Individual/Talkgroup list (Max. 500)
- RAN (Radio Access Number)
- Status • SDM (Short Data Message)
- Call alert • Radio check (RX)
- Stun/kill/revive (RX) • Remote monitor (RX)
- Digital voice scrambler • Emergency (No ACK)
- GPS data (PC and software required to show received position data)

VHF & UHF DIGITAL/ANALOG TRANSCEIVERS
IC-F5123D(30W)
IC-F5123D
IC-F6123D(30W)
IC-F6123D

Built-in 2-Tone and 5-Tone (Analog 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.

MDC 1200 compatible (Analog mode)
The following MDC features are available with the built-in MDC signaling.
- PTT ID • Radio check (RX)
- Emergency (No ACK) • Stun/Revive (RX)
- 500 alias table (Max.)

Scan features
The priority scan allows you to monitor one or two priority channels while scanning other non-priority channels. The TX channel and talk back functions allow you to make a quick response while scanning.

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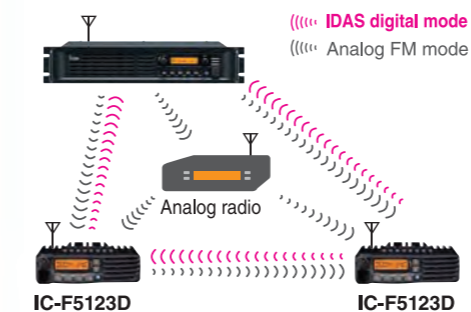- Forced narrow function*

TX: Transmit, RX: Receive

The IC-F5123D series :
A multitude of advantages because it's IDAS™

Advantage 1
Digital/analog mixed mode

(((• IDAS digital mode
(((• Analog FM mode

Analog radio

IC-F5123D   IC-F5123D

The IC-F5123D series can receive both analog mode 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 analog individual/group call

IC-F5123D

The IC-F5123D 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

STAT 100

Preprogrammed status comments are displayed to match the status number.

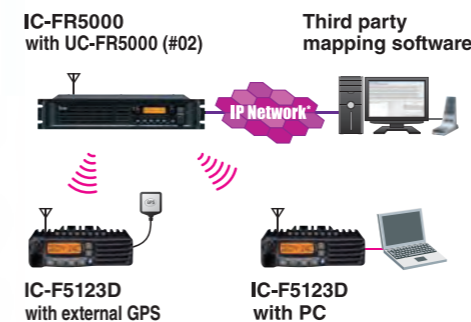**Short data message example**

TEXT MES   SAGING

The display shows longer messages by automatic vertical scrolling.

Up to 100 status conditions can be set and sent with voice call. Also, you can request another IDAS radio to send their status and receive it.
Up to 100-character of short data message can be sent and received. To send more than 9-character short data message, PC connection is required.
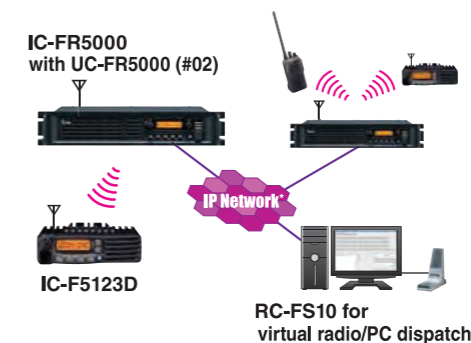
Advantage 4
GPS capability

IC-FR5000 with UC-FR5000 (#02)   Third party mapping software

IP Network*

IC-F5123D with external GPS   IC-F5123D with PC

When used with an external GPS receiver, the IC-F5123D series can transmit accurate position data for use with vehicle management applications.
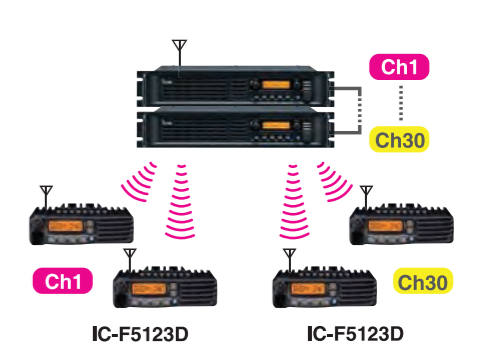
Advantage 5
Multi-site conventional mode

IC-FR5000 with UC-FR5000 (#02)

IP Network*

IC-F5123D   RC-FS10 for virtual radio/PC dispatch

When using the IC-F5123D series in IDAS multi-site conventional mode, the IC-F5123D can communicate with other IDAS radio users working with other repeater sites and/or virtual radio/PC dispatch stations on the IDAS network.

Advantage 6
IDAS single-site trunking

Ch1
Ch30

Ch1   Ch30

IC-F5123D   IC-F5123D

The IC-F5123D series can be used in an IDAS single-site trunking system.
The IDAS trunking system is a distributed system with no dedicated control channel, so more voice traffic channels are available for increased system capacity.

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.