



VHF AND UHF DIGITAL TRANSCEIVERS

**IC-F5220D IC-F6220D**

VHF Transceiver

UHF Transceiver

# Wide-area Coverage with IDAS™ Multi-site Trunking



## IDAS™ digital mode operation

The IC-F5220D series provides NXDN™ CAI-based IDAS digital mode operation. It is compatible with IDAS multi-site conventional and IDAS multi-site and single-site trunking.

## 4W front mounted speaker

4 watts\* front facing speaker delivers clear and loud audio throughout a vehicle's cabin. In addition, the digital modulation provides distinct clarity even at the fringes of the communication range. \* Typical with internal speaker

## Channel announcement

When you change the operating channel, the radio announces the channel number. Convenient for making radio adjustments without having to look at the radio.

## Roaming scan

In the multi-site trunking mode, if the signal condition worsens as the radio user moves, the roaming scan automatically finds a new site to retain the communication link and quality.

## Built military rugged

The tough aluminum die-cast chassis and polycarbonate front panel have been tested to the MIL-STD-810 environmental tests.

## Optional accessory cable

An external GPS receiver, PC or other equipment can be connected with the optional OPC-2078 (D-sub 25-pin) or OPC-1939 (D-sub 15-pin). The ACC connector provides an ignition switch, external PTT, serial input/output, horn honk, channel control and public address functions, according to the programming.



Photo includes optional OPC-2078.

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

## IDAS™ digital mode features

- Up to 500 individual and up to 500 group ID aliases (Each for single-site/multi-site/conventional)
- PTT ID and ANI
- Call alert
- Status
- SDM (Short Data Message)
- Radio check (RX)
- Stun/kill/revive (RX)
- RAN (Radio Access Number)
- Remote monitor (RX)
- Emergency
- Digital voice scrambler
- ATB (All Trunks Busy) ring back
- GPS data (PC and software required to show received position data)

\* TX: Transmit, RX: Receive

## Other features

- CTCSS/DTCS encoder/decoder\*
- 128 channels with 8 zones
- Microphone hanger action programmable
- Power-on password function
- Talk around function
- Voting scan
- Nuisance delete function
- Forced narrow function\*
- Time-out-timer, lock-out penalty

\* Analog mode only



**SPECIFICATIONS**

	IC-F5220D	IC-F6220D
<b>GENERAL</b>		
Frequency coverage (MHz)	136-174	350-400, 400-470, 450-512, 450-520
Number of channels	128 channels/8 zones	
Type of emission	16K0F3E*/11K0F3E/8K50F3E/4K00F1E/F1D	
Channel spacing	25*/15/12.5/6.25 kHz	
Power supply requirement	13.6V DC	
Current drain Tx (High)	10A (50W)	11A (45W)
(approx.) Rx (Max./Standby)	1.2A/300mA	1.2A/300mA
Antenna impedance	50Ω (SO-239)	
Operating temperature range	-30°C to +60°C ; -22°F to +140°F	
Dimensions (WxHxD)	150x40x167.5mm; 5.91x1.57x6.59in	
(Projections not included)		
Weight (approx.)	1.1kg; 2.4lb	
<b>TRANSMITTER</b>		
Output power (at 13.6V DC)	50W, 25W, 5W (Hi, L2, L1)	45W, 25W, 4.5W (Hi, L2, L1)
Max. frequency deviation	± 5.0kHz/±2.5kHz (Wide/Narrow)	
Frequency stability	±1.0ppm	
Spurious emissions	87dB typ.	85dB typ.
FM Hum and noise	50/45dB typ. (W/N)	46/40dB typ. (W/N)
Audio harmonic distortion	3% typ. (AF 1kHz 40% deviation)	
FSK error	2% typ.	
Ext. microphone impedance	600Ω (8-pin modular)	

Measurements made in accordance with TIA-603.

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

\* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

	IC-F5220D	IC-F6220D
<b>RECEIVER</b>		
Sensitivity (Analog 12dB SINAD)	0.25μV typ.	
(Digital 5% BER)	0.18μV typ.	
Adjacent channel selectivity	80/70/65dB typ. (W/N/D)	75/66/60dB typ. (W/N/D)
Spurious response rejection	80dB typ.	
Intermodulation rejection	75/75/70dB typ. (W/N/D)	
Hum and noise	45/40dB typ. (W/N)	
Audio output power	4W typ. (at 5% distortion, 4Ω load)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/4Ω	

**Applicable U.S. Military Specifications**

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
Humidity	507.5	II
Vibration	514.6	I
Shock	516.6	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**

HM-152 HM-148G  
Heavy duty microphone

**DTMF MICROPHONES**

HM-152T HM-148T  
Heavy duty microphone

**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.

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in the United States, the United Kingdom, Germany, France, Spain, Russia, Japan and/or other countries. IDAS and IDAS logo are trademarks of Icom Incorporated. NXDN is a trademark of Icom Incorporated and JVC KENWOOD Corporation. All trademarks are the properties of their respective holders.

**Icom Inc.**

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

[www.icom.co.jp/world](http://www.icom.co.jp/world)

**Count on us!**

**Icom America Inc.**

2380 116th Avenue NE,  
Bellevue, WA 98004, U.S.A.  
Phone : +1 (425) 454-8155  
Fax : +1 (425) 454-1509  
E-mail : sales@icomamerica.com  
URL : http://www.icomamerica.com

**Icom Canada**

Glenwood Centre #150-6165 Highway 17,  
Delta, B.C., V4K 5B8, Canada  
Phone : +1 (604) 952-4266  
Fax : +1 (604) 952-0090  
E-mail : info@icomcanada.com  
URL : http://www.icomcanada.com

**Icom Brazil**

Rua Pernambuco, 353 - Sala 901  
Belo Horizonte, M.G.  
30130-150, Brazil  
Phone : +55 (31) 3582 8847  
Fax : +55 (31) 3582 8987  
E-mail : sales@icombrasil.com

**Icom (Europe) GmbH**

Communication Equipment  
Auf der Krautweide 24  
65812 Bad Soden am Taunus, Germany  
Phone : +49 (6196) 76685-0  
Fax : +49 (6196) 76685-50  
E-mail : info@icomeurope.com  
URL : http://www.icomeurope.com

**Icom Spain S.L.**

Ctra. Rubí, No. 88 "Edificio Can Castanyer"  
Bajos A 08174, Sant Cugat del Valles,  
Barcelona, Spain  
Phone : +34 (93) 590 26 70  
Fax : +34 (93) 589 04 46  
E-mail : icom@icomspain.com  
URL : http://www.icomspain.com

**Icom Polska**

81-850 Sopot, ul. 3 Maja 54, Poland  
Phone : +48 (58) 550 7135  
Fax : +48 (58) 551 0484  
E-mail : icompolska@icompolska.pl  
URL : http://www.icompolska.pl

**Icom (UK) Ltd.**

Blacksole House, Altira Park,  
Herne Bay, Kent, CT6 6GZ, U.K.  
Phone : +44 (0) 1227 741741  
Fax : +44 (0) 1227 741742  
E-mail : info@icomuk.co.uk  
URL : http://www.icomuk.co.uk

**Icom France s.a.s.**

Zac de la Plaine,  
1 Rue Brindejenc des Moulinais, BP 45804,  
31505 Toulouse Cedex 5, France  
Phone : +33 (5) 61 36 03 03  
Fax : +33 (5) 61 36 03 00  
E-mail : icom@icom-france.com  
URL : http://www.icom-france.com

**Icom (Australia) Pty. Ltd.**

Unit 1 / 103 Garden Road,  
Clayton, VIC 3168 Australia  
Phone : +61 (03) 9549 7500  
Fax : +61 (03) 9549 7505  
E-mail : sales@icom.net.au  
URL : http://www.icom.net.au

**Icom New Zealand**

146A Harris Road, East Tamaki,  
Auckland, New Zealand  
Phone : +64 (09) 274 4062  
Fax : +64 (09) 274 4708  
E-mail : inquiries@icom.co.nz  
URL : http://www.icom.co.nz

**Asia Icom Inc.**

6F No. 68, Sec. 1 Cheng-Teh Road,  
Taipei, Taiwan, R.O.C.  
Phone : +886 (02) 2559 1899  
Fax : +886 (02) 2559 1874  
E-mail : sales@asia-icom.com  
URL : http://www.asia-icom.com

**Beijing Icom Ltd.**

10C07, Long Silver Mansion, No.88, Yong Ding  
Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 5391/5392/5393  
Fax : +86 (010) 5889 5395  
E-mail : bjicom@bjicom.com  
URL : http://www.bjicom.com

Your local distributor/dealer: