



VHF AND UHF DIGITAL TRANSCEIVERS

IC-F5220D IC-F6220D

VHF Transceiver

UHF Transceiver

Wide-area Coverage with IDAS™ Multi-site Trunking

IDAS™
ICOM DIGITAL ADVANCED SYSTEM

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.

* No digital modulation "IN" using accessory cables.



Photo includes optional OPC-2078.

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*
- Microphone hanger action programmable
- Talk around function
- Forced narrow function*
- Voting scan
- Time-out-timer, lock-out penalty
- No emergency in analog mode
- 128 channels with 8 zones
- Power-on password function
- Nuisance delete function
- * Analog mode only



SPECIFICATIONS

	IC-F5220D	IC-F6220D
GENERAL		
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	
TRANSMITTER		
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
RECEIVER		
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.

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