



VHF AND UHF DIGITAL TRANSCEIVERS

# IC-F3210D IC-F4210D

VHF Transceiver

UHF Transceiver

## Extend Your Communication Reach with IDAS™ Multi-Site Trunking



### IDAS™ digital mode operation

The IC-F3210D series provides NXDN™ CAI-based IDAS digital mode operation. It is compatible with IDAS multi-site and single-site trunking and IDAS multi-site conventional.

### Easy to hear in noisy areas

The built-in bridge-tied load (BTL) amplifier delivers a powerful 800mW\* audio output from the large 45mm speaker. In addition, the digital modulation provides distinct clarity even at the fringes of the communication range.

\* Typical with internal speaker

### Channel announcement

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

### Longer operating time

The Li-Ion battery pack, BP-265 (7.4V, 2000mAh typ.), provides 17.5/16 hours\* of operating time. Even when used with the BP-264, the radio offers 12/11 hours\* of operating time.

\* VHF/UHF, Tx:Rx:Standby=5:5:90. Power save function ON.

### Weather resistant, military rugged

While the radio is compact and light weight, the radio is tested to dust protection and water resistant equivalent to IP54 and 11 categories of MIL-STD-810 environmental tests. In short, the IC-F3210D series is built rugged!

### Internal VOX capability

The radio has the internal VOX capability for hands-free operation. Optional compatible headset with plug adapter cable OPC-2004 can be used with the radio. Also, the VOX gain and VOX delay time are adjustable.

### 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.

### IDAS™ digital mode features

- PTT ID (TX)
- Block decode
- Radio check (RX)
- Call alert
- Emergency
- GPS (TX with HM-171GP)
- Individual/Group call
- RAN (Radio Access Number)
- Stun/kill/revive (RX)
- Remote monitor (RX)
- Digital voice scrambler
- ATB (All Trunks Busy) ring back

\* TX: Transmit, RX: Receive

### Other features

- CTCSS/DTCS encoder/decoder\*
- Low battery alert
- 3-color LED
- Time out timer
- Lone worker function
- Forced narrow function\*
- 2-step power save
- PC programmable
- Talk around function
- Surveillance function

\* Analog mode only.



**SPECIFICATIONS**

	IC-F3210D	IC-F4210D
<b>GENERAL</b>		
Frequency coverage (MHz)	136-174	400-470, 450-512, 450-520
Number of channels	16 channels	
Type of emission	16K0F3E*/11K0F3E/8K50F3E/4K00F1E/F1D	
Channel spacing	25*/15/12.5/6.25 kHz	
Power supply requirement	7.5V DC nominal	
Current drain TX (High)	1.3A	1.3A
(approx.) RX (Max./Standby)	400mA/90mA	400mA/100mA
Antenna impedance	50Ω	
Operating temperature range	-30°C to +60°C; -22°F to +140°F (Radio specifications)	
Dimensions (W×H×D)	58×111.5×36.5 mm; 2.28×4.39×1.44 in (With BP-265)	
(Projections not included)		
Weight (approx.)	320g; 11.3oz (With MB-124, BP-265 & antenna)	
<b>TRANSMITTER</b>		
Output power (at 7.5V DC)	5W, 2W, 1W (Hi, L2, L1)	4W, 2W, 1W (Hi, L2, L1)
Max. frequency deviation	±5.0/±2.5kHz (Wide/Narrow)	
Frequency stability	±1.0ppm	
Spurious emissions	75/71dB typ. (W/N)	75dB typ.
FM Hum and Noise	52/46dB typ. (W/N)	50/44dB typ. (W/N)
Audio harmonic distortion	0.5/0.8% typ. (AF 1kHz 40% deviation, W/N)	
FSK error	2% typ.	
Ext. microphone connector	3-conductor 2.5 (d) mm (1/10")/2.2kΩ	
<b>RECEIVER</b>		
Sensitivity (Analog 12dB SINAD)	0.23μV typ.	0.22μV typ.
(Digital 5% BER)	0.18μV typ.	0.18μV typ.
Adjacent channel selectivity	77/71/58dB typ. (W/N/D)	74/67/58dB typ. (W/N/D)
Spurious response rejection	91dB typ.	80dB typ.
Intermodulation rejection	75/75/70dB typ. (W/N/D)	
Hum and noise	48/42dB typ. (W/N)	
Audio output power	800mW typ. (Internal SP, 12Ω load)	
(at 5% distortion)	400mW typ. (External SP, 8Ω load)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/8Ω	

Measurements made in accordance with EIA/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.

**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
Vibration	514.6	I
Shock	516.6	I, IV

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

<b>Ingress Protection Standard</b> (IC-F3210D, F4210D with BP-265)	
Dust & Water	IP54 (Dust-protection and water resistant)

<b>Supplied accessories:</b> (* May differ or not supplied according to version)		
• Battery pack, BP-265	• Belt clip, MB-124	• Antenna
• Desktop charger, BC-193*	• AC adapter, BC-123SA/SE*	

**OPTIONS**

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

**BATTERY PACK AND CASES**

Battery packs and cases	Type	Capacity	Operating time*
BP-263	LR6 (AA) batteries × 6		-
BP-264	Ni-MH 7.2V	1400mAh	12/11 hours (V/U, approx.)
BP-265	Li-Ion 7.4V	1900mAh (min.) 2000mAh (typ.)	17.5/16 hours (V/U, approx.)

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

**REGULAR CHARGER For BP-264 (Ni-MH battery)**

**RAPID CHARGER For BP-264 (Ni-MH battery)**

**RAPID CHARGER For BP-265 (Li-Ion battery)**

Charges the BP-264 in 16 hours (approx.).  
Charges the BP-264 in 2 hours (approx.).  
Charges the BP-265 in 2.5 hours (approx.).

\*1 BC-123/BC-147SA for 120V AC. SE for 230V AC. SV for 240V AC.

**MULTI-CHARGER For BP-264/BP-265**

**CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLES**

BC-197  
CP-23L For use with BC-191 or BC-193  
OPC-515L For use with BC-191, BC-192 or BC-193  
OPC-656 For use with BC-197

**SPEAKER-MICROPHONES**

HM-171GP GPS Microphone  
HM-158LA Compact type  
HM-159LA Rugged type

**EARPHONE**

SP-27 Tube earphone

**CHARGER BRACKET**

MB-130 For use with BC-191, BC-192 or BC-193

**HEADSETS & PLUG ADAPTER CABLE**

HS-94 Earhook type  
HS-95 Behind-the-head type  
HS-97 Throat type  
OPC-2004 Required when using any of these headsets.

**BELT CLIP**

MB-124 Alligator type  
Same as supplied.

**ANTENNAS**

- FA-SC25V: 136-150MHz
- FA-SC55V: 150-174MHz
- FA-SC25U: 400-430MHz
- FA-SC57U: 430-470MHz
- FA-SC72U: 470-520MHz

**HIGH GAIN ANTENNAS**

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

**STUBBY ANTENNAS**

- FA-SC65VS: 150-162MHz
- FA-SC57VS: 160-174MHz
- FA-SC73US: 450-490MHz

**CUT ANTENNAS**

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

**CHARGER ADAPTERS**

- AD-120 for BP-264
- AD-121 for BP-265

Either AD-120 or AD-121 charger adapters are supplied with the BC-197, depending on version.

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