



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
GENERAL		
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)	
TRANSMITTER		
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	
RECEIVER		
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.

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

Supplied accessories: (* 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)

*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

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

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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