ICOM

VHF AND UHF DIGITAL TRANSCEIVERS

IC-F3230DT
VHF Transceiver with Full Keypad

IC-F4230DT
UHF Transceiver with Full Keypad

IC-F3230DS
VHF Transceiver with Simple Keypad

IC-F4230DS
UHF Transceiver with Simple Keypad

IDAS™ Multi-site Trunking Radio with Superior Waterproof Protection

IDAS™
ICOM DIGITAL ADVANCED SYSTEM

IDAS™ digital mode operation

The IC-F3230D 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.

IP67 waterproof and dust-tight protection

The IC-F3230D series provides outstanding protection against water and dust equivalent to IP67. The IC-F3230D series can withstand 1 m depth of water for 30 minutes and its dust-tight construction prevents the ingress of powder dust, sand, mud and other objects.

Easy to hear in noisy areas

The built-in bridge-tied load (BTL) amplifier delivers a powerful 1000 mW* audio output from the large 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 change the operating channel, the radio announces the channel number. Convenient for making radio adjustments without having to look at the radio.

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.

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

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

* TX: Transmit, RX: Receive

Other features

- CTCSS/DTCS encoder/decoder*
- Up to 128 memory channel with 8 zones
- Optional HM-168LWP, waterproof speaker-mic
- Low battery alert
- 2-step power save
- Voting scan
- Time out timer
- Talk around function
- Lone worker function
- Surveillance function
- Forced narrow function*

* Analog mode only.

Note: IC-F3230DT/F4230DT is NOT available in some countries. (Not available in the USA.)

Rugged MIL-STD 810

IP67

SPECIFICATIONS

	IC-F3230DT/DS	IC-F4230DT/DS
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*/12.5/6.25 kHz	
Power supply requirement	7.5 V DC nominal	
Current drain (approx.) TX	1.3 A (High)	
RX	400 mA/100 mA (Max. audio/Standby)	
Antenna impedance	50 Ω	
Operating temperature range	–30 °C to +60 °C; –22 °F to +140 °F (Radio specifications)	
Dimensions (W × H × D) (Projections not included)	53 × 120 × 37 mm; 2.1 × 4.7 × 1.5 in (With BP-232WP)	
Weight (approx.)	340 g; 12 oz (With MB-94R, BP-232WP & antenna)	
TRANSMITTER		
Output power (at 7.5 V DC)	5 W, 2 W, 1 W (Hi, L2, L1)	4 W, 2 W, 1 W (Hi, L2, L1)
Max. frequency deviation	±5.0/±2.5 kHz (Wide/Narrow)	
Frequency stability	±1.0 ppm	
Spurious emissions	75 dB typ.	
FM Hum and Noise	52/46 dB typ. (W/N)	46/40 dB typ. (W/N)
Audio harmonic distortion	1.0/2.0% typ. (AF 1 kHz 40% deviation, W/N)	
FSK error	2% typ.	
Ext. microphone connector	3-conductor 2.5 (d) mm (1⁄10″)/2.2 kΩ	
RECEIVER		
Sensitivity (Analog 12 dB SINAD)	0.23 µV typ.	0.24 µV typ.
(Digital 5% BER)	0.18 µV typ.	0.18 µV typ.
Adjacent channel selectivity	77/71/58 dB typ. (W/N/D)	74/67/58 dB typ. (W/N/D)
Spurious response rejection	90 dB typ.	80 dB typ.
Intermodulation rejection	75/75/70 dB typ. (W/N/D)	76/76/72 dB typ. (W/N/D)
Hum and noise	48/42 dB typ. (W/N)	46/40 dB typ. (W/N)
Audio output power (at 5% distortion, 8 Ω load)	1000 mW typ. (Internal speaker) 400 mW typ. (External speaker)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1⁄8″)/8 Ω	

Measurements made in accordance with EIA/TIA-603.

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

*** 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25 kHz 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
Immersion	512.5	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-F3230DT/DS, F4230DT/DS with BP-232WP)	
Dust & Water	IP67 (Dust-tight and waterproof protection)

Supplied accessories: (* May differ or not supplied according to version)
- Battery pack, BP-232WP
- Belt clip, MB-94R
- Antenna
- Desktop charger, BC-160*
- 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

IP67

BP-232WP BP-240 BP-261

Battery packs and cases	Type	Capacity	Operating time*
BP-232WP	Rechargeable Li-ion battery	2200 mAh (min.) 2350 mAh (typ.)	19/17 hours (VHF/UHF)
BP-240	LR03 (AAA) batteries × 6		–
BP-261	LR6 (AA) batteries × 6		–

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

REGULAR CHARGER

BC-147S*1 BC-171

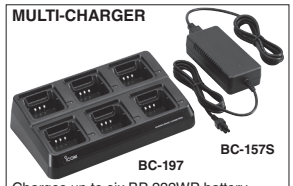
Charges the BP-232WP in 8–10 hours (approx.).

RAPID CHARGER

BC-123S*1 BC-160

Charges the BP-232WP in 3 hours (approx.).

MULTI-CHARGER



BC-197 BC-157S

Charges up to six BP-232WP battery packs in 3.5 hours (approx.).

*1 BC-123/BC-147SA for USA plug. SE for Europe plug. SV for Australia plug.

SPEAKER-MICROPHONES

IP67

HM-168LWP HM-158LA HM-159LA

EARPHONE-MICROPHONE

HM-166LA

HEADSETS (VS-4LA required)

HS-94 Earhook type

HS-95 Behind-the-head type

HS-97 Throat type

PTT SWITCH CABLE

VS-4LA
Required when using any of these headsets, HS-94, HS-95 or HS-97.

BELT CLIPS

MB-93 Swivel type

MB-94R Alligator type Same as supplied.

LEATHER BELT HANGERS

MB-96N Swivel type

MB-96F Fixed type

MB-96FL Long type

CHARGER BRACKET

MB-130
For use with BC-160

CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLE

CP-23L
For use with BC-160

OPC-656
For use with BC-197

STUBBY ANTENNAS
- **FA-SC56VS**: 150–162 MHz
- **FA-SC57VS**: 160–174 MHz
- **FA-SC73US**: 450–490 MHz

CUT ANTENNAS
- **FA-SC61VC**: 136–174 MHz
- **FA-SC61UC**: 380–520 MHz

HIGH GAIN ANTENNAS
- **FA-SC62V**: 150–160 MHz
- **FA-SC63V**: 155–165 MHz

ANTENNAS
- **FA-SC25V**: 136–150 MHz
- **FA-SC55V**: 150–174 MHz
- **FA-SC25U**: 400–430 MHz
- **FA-SC57U**: 430–470 MHz
- **FA-SC72U**: 470–520 MHz
- **FA-SC01U**: 350–400 MHz
- **FA-SC03U**: 380–430 MHz

CHARGER ADAPTER
- **AD-122**

AD-122 charger adapter is supplied with the BC-197, depending on BC-197's version.

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand 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, Kamiminami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 **www.icom.co.jp/world**

Count on us!

Icom America Inc.
www.icomamerica.com

Icom Canada
www.icomcanada.com

Icom Brazil
E-mail: sales@icombrazil.com

Icom (Europe) GmbH
www.icomeurope.com

Icom Spain S.L.
www.icomspain.com

Icom (UK) Ltd.
www.icomuk.co.uk

Icom France s.a.s.
www.icom-france.com

Icom (Australia) Pty. Ltd.
www.icom.net.au

Shanghai Icom Ltd.
www.bjicom.com

Your local distributor/dealer:

LT 13HS019A2 © 2013–2019 Icom Inc. Printed in Japan