

ICOM

VHF/UHF DIGITAL TRANSCEIVER

ID-51E

The Digital Evolution Continues



Digital (D-STAR DV Mode)
Dualwatch
GPS
Waterproof
Broadcast Radio

Actual size

DIGITAL



VHF/UHF Dual Bander, Integrated GPS

Compact & Versatile Multi-F

Compact Dual Bander

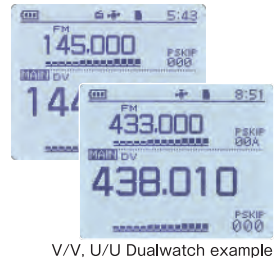
Lightweight & Compact Body

The ID-51E has a compact 58x105.4x26.4 mm body, and weighs only 255g (approx.) with battery pack and antenna. In this slim body, the ID-51E contains 5W output power, VHF/UHF dual band, D-STAR and integrated GPS receiver.



V/V, U/U, V/U Dualwatch

The dualwatch function monitors VHF/VHF, UHF/UHF and VHF/UHF bands simultaneously.* The audio and squelch levels can be set separately for the main and sub-bands.



* DV/DV, AM/AM, FM-N/FM-N and DV/FM-N modes dualwatch not available.

V/V, U/U Dualwatch example

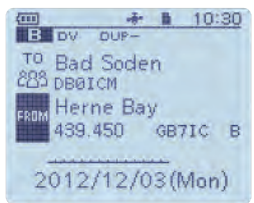
D-STAR DV Mode

D-STAR DV Mode (Digital Voice + Data)

The D-STAR (Digital Smart Technology for Amateur Radio) DV mode is the leading amateur radio digital format.

DR (D-STAR Repeater) Mode Operation

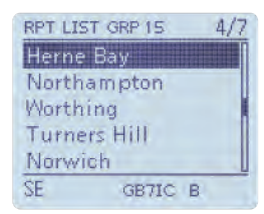
The DR (D-STAR repeater) mode operation allows you to connect to D-STAR repeaters and users more effortlessly. In this mode, just two simple steps are needed.



DR Mode example

Automatic Repeater List-up Function

Using the GPS position information, the automatic repeater list-up function shows the list of nearby D-STAR repeaters from the memory* and helps you quickly access the nearby D-STAR repeater.



Repeater list example

* To use the automatic repeater list-up function, the position data of the repeater is required. The ID-51E will be shipped with D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be available.

Convenient Functions

Independent AM/FM Receiver

FM and AM broadcast stations can be listened to while using the dualwatch function for monitoring ham bands. When a ham band signal is received, the broadcast station is automatically muted.



Broadcast radio example

Voice Memory Function*

The QSO recorder function records incoming and outgoing calls. The voice recorder function can record an off-line conversation. The recorded voice message can be transmitted repeatedly. (Up to 60 seconds x 1 channel) * microSD card required.



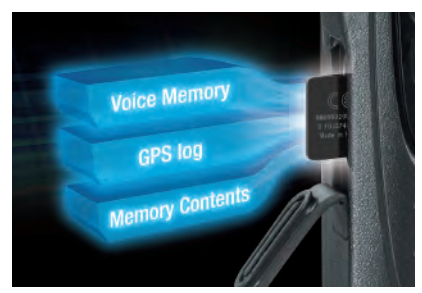
Voice recorder example

microSD Card Slot

When used with a microSD card (Up to 32GB), the microSD card can store various contents including voice memory, DV auto reply message, TX voice message, QSO log, RX history log and GPS log data. Memory channels, D-STAR repeater memories and other personal settings can be saved to the microSD card and can be loaded to the ID-51E transceiver.

SPEECH Function

The SPEECH function announces the received call sign (DV Mode), operating frequency, and/or mode. (Depends on users settings.)



VHF/UHF DIGITAL TRANSCEIVER

ID-51E



Broadcast Receiver, IPX7 Waterproof... Function Digital Transceiver

Integrated GPS

Integrated GPS Receiver

The integrated GPS receiver provides fast start-up time and accurate position. Your current position and altitude are shown on the display and offers a position reporting function in DV mode. The GPS-A mode assists in easy D-PRS operation.

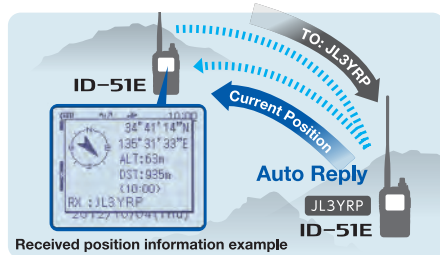


GPS receiver transparent image

Automatic Reply Function (DV Mode)

When receiving a call addressed to your call sign, the ID-51E can automatically reply your current position information*. Between ID-51E's communication, replied position information can pop up on the caller's display.

* Function not available on all D-STAR networks.

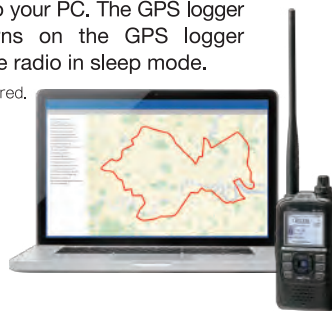


Received position information example

GPS Log Function*

The GPS log function logs your position information at regular intervals (1 second-60 seconds, depending on the setting) and memorizes this in the microSD card to export to your PC. The GPS logger only mode turns on the GPS logger function with the radio in sleep mode.

* microSD card required.



Durability and Easy Operation

IPX7 Waterproof Construction

The ID-51E has superior IPX7 waterproof protection (1m depth of water for 30 minutes). It can be used in harsh outdoor environments, when hiking, mountain biking, touring and mountain sports.



Menu-Driven User Interface

The directional keypad and quick menu button help you with quick and intuitive access to many settings and speeds up the operation. The large full dot-matrix display with easy-to-read characters increases the amount of information.



Other Features

5W Output Power

Using a highly-efficient PA amplifier, the ID-51E generates 5W of RF output power from this compact body.

Direct Rapid Charging

Recharge the ID-51E by plugging the supplied wall charger directly in the radio. The BP-271 can be charged in 3 hours (approx.) when the power is OFF.

Long Lasting Battery Pack

The supplied BP-271 provides up to 4.5 hours* of operating time, and the optional large capacity battery pack, BP-272 provides up to 7.5 hours*.

* Typical operation with 1:1.8 duty cycle in DV mode. (Power save ON.)

CS-51 Cloning Software Supplied

The CS-51 cloning software is supplied with the ID-51E for editing various memory settings from a PC. (Supplied with the application CD)

- Total 1,304 memory channels including 700 D-STAR repeater memories
- Analog FM mode with CTCSS/DTCS code squelch
- 1750Hz tone signal
- 16 DTMF memory channels (24 digits)
- Auto power save
- Auto power off
- Clock function
- Priority watch
- Key lock function

- CI-V level converter for remote radio control
- Squelch release function to monitor a weak signal
- External DC power jack
- Earphone code antenna for FM broadcast
- LCD and keypad backlighting
- VHF air band and other utility communication can be listened to*

* See specifications page for receiver range details.



SPECIFICATIONS

GENERAL

Version	Transmit	Receiver	Broadcast
EUR	144-146, 430-440	(A) 144-146, 430-440 (B) 144-146, 430-440	0.52-1.71 76.0-108.0
	144-146, 430-440	(A) 136-174, 380-479* ¹ (B) 108-174, 380-479* ¹	0.52-1.71 76.0-108.0
ITR	144-146, 430-434, 435-438	(A) 144-146, 430-434, 435-438 (B) 108-136.995, 144-146, 430-434, 435-438* ²	0.52-1.71 76.0-108.0

(A) means A Band, (B) means B band.
Guaranteed range: *¹ 144-146, 430-440MHz. *² 144-146, 430-434, 435-438MHz.

Type of emission	F2D, F3E, F7W
Mode	DV, FM, FM-N
Number of memory channels	1304 channels (including 500 regular channels, 700 D-STAR repeater, 100 program scan edges and 4 call)
Frequency resolution	1*, 5, 6.25, 8.33*, 9*, 10, 12.5, 15, 20, 25, 30, 50, 100, 125 and 200kHz * Selectable depending on the operating band.
Operating temperature range	-20°C to +60°C; -4°F to +140°F
Frequency stability	±2.5ppm (-20°C to +60°C on the basis of 25°C)
Power supply requirement	7.4V DC (with BP-271, BP-272) 5.5V DC (with BP-273)
External DC power	10-16V DC
Current drain (at 7.4V DC)	
Tx High	Less than 2.5A
Rx Internal SP (16Ω)	Less than 450mA/350mA (DV/FM, FM-N)
External SP (8Ω)	Less than 300mA/200mA (DV/FM, FM-N)
Antenna impedance	50Ω (SMA)
Dimensions (W×H×D, projections not included)	58×105.4×26.4 mm; 2.28×4.15×1.04 in
Weight (approx.)	170g; 6oz (without battery), 255g; 8.99oz (with BP-271 & antenna)

TRANSMITTER

Modulation system DV, FM, FM-N	GMSK reactance modulation, FM reactance modulation
Output power (at 7.4V DC)	5W, 2.5W, 1.0W, 0.5W, 0.1W (High, Mid, Low2, Low1, S-low)
Spurious emissions	Less than -60dBc (High, Mid), Less than -13dBm (Low2, Low1, S-low)
Max. frequency deviation	±5.0/2.5kHz (FM/FM-N)
Ext. Mic impedance	2.2kΩ

RECEIVER

Sensitivity DV, FM, FM-N	Less than 0.28μV (at 1% BER) Less than 0.18μV (at 12dB SINAD)
Selectivity DV FM FM-N	More than 50dB More than 55dB More than 50dB
Spurious rejection	More than 60dB
Audio output power Internal SP (16Ω load) External SP (8Ω load)	(at 7.4V DC, 10% distortion) More than 400mW More than 200mW

Supplied accessories (*Depending on version)

- Battery pack, BP-271
- Wall charger, BC-167SA/SD/SV*
- Antenna, FA-S270C
- Belt clip, MB-127
- Cloning software, CS-51
- Hand strap

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

BATTERY PACKS AND CASE



Battery packs	Type	Capacity	Operating time* (Approx.)
BP-271	Li-ion, 7.4V	1150mAh (min.), 1200mAh (typ.)	4.5hours (DV/FM)
BP-272	Li-ion, 7.4V	1880mAh (min.), 2000mAh (typ.)	7.5hours (DV/FM)
BP-273	LR6 (AA) batteries×3		-

* Tx: Rx: standby = 1:1:8. Power save function ON. GPS OFF.

WALL CHARGER



BC-167S *¹

RAPID CHARGER



BC-202 Charges BP-271/BP-272 in 2/3.5 hours. BC-123S *¹

DC POWER CABLE



OPC-254L/LR

CIGARETTE LIGHTER CABLES



CP-19R

*¹ BC-167SA for 120V AC, SD for 230V AC, SV for 240V AC.
*² BC-123SA for 120V AC, SE for 230V AC.

SPEAKER-MICROPHONES



HM-75LS

HM-186LS

EARPHONE-MICROPHONES



HM-153LS

HM-166LS

SLIM L-TYPE PLUG ADAPTER CABLE



OPC-2144 Required when using either HM-75A, HM-153, HM-166 or SP-13.

HEADSETS and PLUG ADAPTER CABLE



HS-94 Earhook type

HS-95 Behind-the-head type

HS-97 Throat type

OPC-2006LS Required when using any of these headsets

DATA CABLE



OPC-2218LU USB cable

CI-V LEVEL CONVERTER



CT-17

CARRYING CASE



LC-179

SILICONE JACKET CASE



SJ-1

FA-S270C VHF/UHF ANTENNA Same as supplied.
AD-92SMA ANTENNA ADAPTER SMA-BNC antenna adapter.
SP-13 EARPHONE OPC-2144 is required.
CS-51 CLONING SOFTWARE Same as supplied.
MB-127 BELT CLIP Same as supplied.

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

D-STAR (Digital Smart Technology for Amateur Radio) is a digital radio protocol developed by JARL (Japan Amateur Radio League).

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. All other trademarks are the properties of their respective holders.

Autoryzowany
Przedstawiciel
w Polsce:

abel
profit
centrum radiokomunikacji

INRADIO
ABEL & PRO-FIT Centrum Radiokomunikacji
ul. Puzkina 80 92-516 Łódź Poland
tel. (+42) 649 28 28 fax: (+42) 677 04 71
e-mail: biuro@inRADIO.pl
internet: www.inRADIO.pl