ICOM

VHF/UHF DUAL BAND TRANSCEIVERS

IC-E80D (Handheld transceiver)
ID-E880 (Mobile transceiver)

For the **Outdoors.**

VHF/UHF Dual Band
Digital Transceiver, IC-E80D

Digital & Analog

Easy to set up

Free download software CS-80/880

Optional HM-189GPS
(For IC-E80D)

For **Mobile use.**

VHF/UHF Dual Band
Digital Transceiver, ID-E880

DIGITAL

Enjoy

Enjoy long distance communication. Exchange position information and messages.

Lots of Fun,
Advanced Digital D-STAR

D-STAR (Digital Smart Technology for Amateur Radio) is a Digital communication protocol developed by the JARL (Japan Amateur Radio League). By using a D-STAR repeater and an Internet gateway, a D-STAR radio makes long distance communications easy.

Repeaters linked by the Internet allow worldwide communication!

INTERNET

By usin
crisp a
commu

Plot your own position and the positions of other stations by using mapping software.

Repeater

Repeater

GPS position reporting function with the optional HM-189GPS.

* PC, mapping software included. Optional data cable required.

Internet --- DV mo

Take it into the field—
Easy to use!

Optional GPS speaker-microphone

When used with the GPS speaker-microphone, HM-189GPS, the IC-E80D shows your position data on its LCD display and offers automatic position reporting in DV mode.

5 Watts (typical) output power

The IC-E80D provides 5W (typ.) output power in both VHF/UHF bands. The supplied Lithium-Ion battery, BP-217, provides up to 6 hours*[1] of operating time.

External DC power jack

The external DC power jack allows for operation with an external DC power supply (10–16V DC). When used with the DC power cable, operation during charging is possible.

Other features

• 4 step RF power selection (5W, 2.5W, 0.5W, 0.1W)
• IPX4*[2] water-resistant construction
• Auto power save and auto power off
• 10dB (approx.) built-in attenuator

*[1] Tx high: Rx: Stand-by duty ratio= 1 min.: 1 min.: 8 min. Power save on.
*[2] Only when the supplied battery pack (or optional battery case), antenna and jack cover are attached.

VHF/UHF DUAL BAND TRANSCEIVER
IC-E80D

Supplied accessories
(*depending on version)
● Battery pack, BP-217
● Wall charger, BC-167*
● Antenna, FA-S270C
● Belt clip, MB-107
● Hand strap

IC-E80D & ID-E880

D-STAR Digital Voice capability

The IC-E80D and ID-E880 can transmit and receive D-STAR format digital voice and 950 bps* data communication, simultaneously. Analog FM mode is also available.

* Approximate value.

GPS position reporting functions

Your position data is shown on the display and can be sent* to other station. In addition, the GPS A mode assists in D-PRS mode operation to send your position information to an APRS server.

* 3rd party GPS receiver is required for ID-E880. Optional HM-189GPS is required for IC-E80D.

E 135° MYP

Setting example for showing own position as 135 degrees east longitude (ID-E880)

Wideband receiver

The IC-E80D covers 0.495–999.990MHz* and the ID-E880 covers 118–173.995, 230–549.995 and 810–999.990MHz.* You will be able to listen to aviation, marine, weather channels and other utility communications.

* Receiver range depending on versions. See specification page for details.

The above photo includes optional HM-189GPS.

Easy

Easy to set up!

D-STAR repeater list and DR mode operation

The D-STAR repeater list stores up to 300 channels of repeater call signs, frequencies, gateway call signs, duplex direction and offset frequency with 8-character channel name.
The D-STAR repeater (DR) mode operation makes it easier to use D-STAR repeater.

| No. | Name | Call Sign | | Frequency | | | |
		Repeater Call Sign	Gateway Call Sign	Operating Freq	DUP	Offset Freq	RPT1 USE
Group 1	(Remain 297 CH)						
0	WA-BLV-A	N7IH A	N7IH G		DUP		
1	WA-BLV-B	N7IH B	N7IH G	443.575000.	+DUP.	5.000000.	Yes
2	WA-BLV-C	N7IH C	N7IH G	145.290000.	–DUP.	0.600000.	Yes
New							

* Repeater list programming example using CS-80/880.

To make a CQ call using D-STAR: When GW set is set to Auto.

Step 1
Push the DR button and select an uplink repeater (RPT1) for access

Setting example for Würzburg, Germany (DB0WZ) as uplink repeater (IC-E80D)

Step 2
Hold the UR button and select a downlink repeater

Setting example for Bellevue, WA, U.S.A. (N7IH) as downlink repeater (ID-E880)

Then push the PTT button to transmit

* Above photos show setting example only.

Repeater

ID-1

You can communicate with Icom's 1.2GHz transceiver, ID-1, in DV mode*.
* Depending on repeater configuration.

...g digital mode, voice is ...nd clear, even at the ...munication fringe!

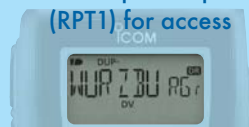Simplex mode communication in DV and FM mode is available without requiring a repeater.

...e (4.8kbps)

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common features

CS-80/880 free download software

Used with the CS-80/880 cloning software, various settings can be made from a PC. Share your memory channels info and radio settings between IC-E80Ds, ID-E880s or both.
Available for free download from:
http://www.icom.co.jp/world/support/index.html
* Either OPC-1529R, OPC-478 or OPC-478UC optional cable is required.

Other features common to both radios

• Total of 1052 memory channels with 8-character channel name
• 16 channels DTMF memory (24-digit)
• LCD and keypad backlighting
• Monitor function to listen to a weak signal
• Built-in CTCSS/DTCS tone encoder and decoder (FM mode only)
• Tone scan and pocket beep function
• 26 memory banks with selected bank and bank link scanning
• Key lock function
• 1750Hz tone function

Other digital features for both radios

• One touch reply function
• 50 channels GPS memory and GPS alarm
• 300 channels D-STAR repeater list
• D-STAR access repeater scan

D-STAR makes mobile operation much more fun!

Detachable controller

The controller is separated from the main unit for flexible installation. The controller has magnets on the rear panel, it allows the controller to attach to the main unit or other metal objects.

Compact body with large display

While the ID-E880 has a compact body, it has a large LCD display. At 64×20.7 mm, the LCD offers an excellent viewing angle suitable for mobile operation. Green, yellow and amber display backlighting is available. Select the color you like!

Max. 50 Ch/sec. high speed scan

The ID-E880 has a maximum scanning speed of 50 channels per second while in program scan mode. This scanning power allows the utmost efficiency when searching a wide frequency range.

Other features

• 50W output power both VHF/UHF band
• Built-in noise filter (AM/FM mode)
• Data and 9600/1200bps packet jacks on the rear panel
• ±2.5ppm frequency stability
• Adjustable microphone sensitivity

VHF/UHF DUAL BAND TRANSCEIVER

ID-E880

Supplied accessories
(*depending on version)
● Separation cable, OPC-1154A (3.4 m)
● DC power cable, OPC-1132A
● Hand microphone, HM-133
● Remote controller bracket
● Microphone hanger
● Mounting bracket kit

SPECIFICATIONS

GENERAL	IC-E80D	ID-E880
• Frequency coverage	:	
Europe TX	144–146, 430–440MHz	144–146, 430–440MHz
RX	0.495–999.990MHz*¹	118–173.995, 230–549.995, 810–999.990MHz*¹
Europe-1 TX/RX		144–146, 430–440MHz
Italy TX	144–146, 430–434, 435–438MHz	144–146, 430–434, 435–438MHz
RX	0.495–29.995, 50–51, 76–136.995, 144–146, 430–434, 435–438MHz*²	118–173.995, 230–549.995, 810–999.990MHz*²
France TX	144–146, 430–440MHz	
RX	0.495–29.995, 50–52, 76–136.995, 144–146, 430–440MHz*¹	
	*¹ Guaranteed range, 144–146, 430–440MHz.	
	*² Guaranteed range, 144–146, 430–434, 435–438MHz.	
• Type of emission	: F2D, F3E, F7W	F2D, F3E, F7W
• Useable temp. range	: –20°C to +60°C	–10°C to +60°C
• Frequency stability	: ±2.5ppm	±2.5ppm
	(–20°C to +60°C on the basis of 25°C)	(–10°C to +60°C on the basis of 25°C)
• Digital TX speed	: 4.8kbps	4.8kbps
• Voice coding speed	: 2.4kbps	2.4kbps
• Antenna impedance	: 50Ω (SMA)	50Ω (SO-239)
• Memory channels	: 1052 channels (including 50 program scan edges and 2 call channels)	1052 channels (including 50 program scan edges and 2 call channels)
• Power supply	: 7.4V DC (with BP-217)	13.8V DC (±15%)
External DC power	10–16V DC	
• Current drain	: (at 7.4V DC)	(at 13.8V DC)
TX High (VHF/UHF)	1.8/2.1A typ.	11.5/12.5A typ.
RX	Power save/Rated output/Stand-by	Max. audio Less than 1.2A
	FM 30mA/170mA/62mA typ.	Stand-by Less than 0.9A
	DV 38mA/215mA/106mA typ.	
	(Power save duty= 1:4)	
• Dimensions (W×H×D)	: 58.4×103×34.2 mm;	150×40×199.2 mm;
(projections not included)		
• Weight (approx.)	: 290g	1300g
	(with antenna and BP-217)	(without microphone, cable and bracket)

TRANSMITTER	IC-E80D	ID-E880
• Output power	: High/Mid/Low/S-low 5W/2.5W/0.5W/0.1W typ.	High/Mid/Low 50W/15W/5W (approx.)
• Spurious emissions	: Less than –60dBc (High, Mid)	Less than –60dB
• Max. freq. deviation	: ±5.0/2.5kHz (FM wide/narrow)	±5.0/2.5kHz (FM wide/narrow)
• Ext. MIC impedance	: 2kΩ	600Ω (8-pin modular)

RECEIVER	IC-E80D	ID-E880
• Intermediate frequencies	: Except WFM (1st/2nd) 61.65MHz/450kHz WFM (1st/2nd/3rd) 59.25MHz/13.35MHz/1.95MHz	46.35MHz/450kHz (1st/2nd)
• Sensitivity (typical)		
	FM (at 12dB SINAD, 3.5kHz DEV)	FM (at 12dB SINAD)
	1.625–29.995MHz 0.4µV	118.000–136.995MHz 0.16µV
	30.000–75.995MHz 0.25µV	137.000–173.995MHz 0.16µV
	76.000–117.995MHz 0.25µV	230.000–259.995MHz 0.56µV
	118.000–173.995MHz 0.14µV	260.000–299.995MHz 0.32µV
	174.000–259.995MHz 0.32µV	300.000–349.995MHz 0.22µV
	260.000–349.995MHz 0.32µV	350.000–399.995MHz 0.22µV
	350.000–469.995MHz 0.16µV	400.000–499.995MHz 0.16µV
	470.000–599.995MHz 0.32µV	500.000–549.995MHz 0.16µV
	600.000–999.995MHz 0.56µV	810.000–879.990MHz 0.45µV
	WFM (at 12dB SINAD, 52.5kHz DEV)	880.000–999.990MHz 0.45µV
	76.000–108.000MHz 1µV	AM (at 10dB S/N, 30% Mod.)
	175.000–221.995MHz 1.8µV	118.000–136.995MHz 0.5µV
	470.000–770.000MHz 2.5µV	137.000–173.995MHz 0.5µV
	AM (at 10dB S/N, 30% Mod.)	230.000–259.995MHz 1.8µV
	0.495–4.995MHz 1.3µV	260.000–299.995MHz 1.0µV
	5.000–29.995MHz 0.56µV	300.000–349.995MHz 0.79µV
	118.000–137.000MHz 0.5µV	350.000–399.995MHz 0.63µV
	222.000–246.995MHz 0.79µV	400.000–499.995MHz 0.56µV
	247.000–329.995MHz 1µV	500.000–549.995MHz 0.56µV
	DV (at BER 1%, 4.8kbps)	DV (at BER 1%, 4.8kbps)
	VHF (Ham band) 0.22µV	VHF (Ham band) Less than 0.35µV
	UHF (Ham band) 0.22µV	UHF (Ham band) Less than 0.35µV
• Selectivity	: AM/FM Wide More than 50dB	FM Wide More than 10kHz/6dB
	FM-N, DV More than 45dB	Less than 30kHz/60dB
	WFM More than 300kHz/–3dB	FM-N More than 6kHz/6dB
	Less than 700kHz/–20dB	Less than 20kHz/60dB
		DV More than 50dB
• Spurious and image rejection	: VHF (Ham band) More than 50dB UHF (Ham band) More than 50dB (IF points; More than 60dB)	More than 60dB
• Spurious radiation	: Less than –57dBm	Less than –57dBm
• Audio output power	: More than 300mW (at 7.4V DC)	More than 2.0W (at 13.8V DC)
at 10% distortion with an 8Ω load		
• Ext. speaker impedance	: 8Ω	8Ω

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

OPTIONS

OPTIONS FOR IC-E80D

■ BATTERY PACK AND CASE

BP-216 : AA (LR6) × 2 battery case
BP-217*¹ : Li-Ion battery pack 7.4V/1500mAh (min.), 1580mAh (typ.)

■ BATTERY CHARGERS

BC-167*¹ : Wall charger (12V/500mA output) Charges the BP-217 in 6 hours (approx.). BC-167ND or SD for 230V AC
BC-139 : Rapid desktop charger. Charges the BP-217 in 2.5 hours (approx.).

■ CIGARETTE LIGHTER CABLES AND DC POWER CABLE

CP-19R : Cigarette lighter cable with DC-DC converter.
CP-12L : Cigarette lighter cable with noise filter.
OPC-254L : DC power cable. For use of the transceiver with an external power supply. (12V DC required)

■ SPEAKER-MICROPHONES, HEADSET AND EARPHONE

HM-189GPS*² : GPS speaker microphone
HM-75A : Remote control speaker microphone.
HM-131 : Compact type speaker microphone.
HM-153 : Durable type earphone microphone.
HM-166 : Light type earphone microphone.
HS-85 : Headset. Allows you hands-free operation. Includes VOX, PTT, "one-touch PTT" (TOT).
SP-13 : Earphone

■ OTHER OPTIONS

MB-107*¹ : Alligator type belt clip.
MB-86 : Swivel type belt clip.
LC-163 : Carrying case
FA-S270C*¹ : VHF/UHF antenna
AD-92SMA : Antenna connector adaptor. Allows you to connect a BNC-type antenna

OPTIONS FOR ID-E880

■ HAND MICROPHONES

HM-103 : Lightweight hand microphone.
HM-154 : Hand microphone with up/down buttons.
HM-133*¹ : Remote control microphone.

■ DC POWER SUPPLY CABLES

OPC-1132A*¹ : 3m DC power supply cable.
OPC-347 : 7m DC power supply cable.

■ MOUNTING BASE

MB-120 : Mounting base

■ EXTERNAL SPEAKER

SP-10 : Mid sized external speaker

■ EXTENSION CABLES

OPC-440 : 5m microphone extension cable.
OPC-647 : 2.5m microphone extension cable.
OPC-441 : 5m speaker extension cable.
OPC-589 : Microphone adapter cable. Connection for 8-pin microphone.

OPTIONS FOR BOTH MODELS

■ CLONING SOFTWARE

CS-80/880 : Free download cloning software for IC-E80D and ID-E880. Please download from the following URL. http://www.icom.co.jp/world/support/index.html One of either OPC-1529R, OPC-478 or OPC-478UC is required.

■ CLONING & DATA CABLES

OPC-1529R : Data communication cable for PC or GPS receiver connection. (RS-232C type)
OPC-478 : PC cloning cable (RS-232C type)
OPC-478UC : PC cloning cable (USB type)
OPC-474 : Transceiver to transceiver cloning cable. (Between same models only)

*¹ Same as supplied. *² Please note: HM-189GPS is compatible only with the IC-E80D at this time.

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