



VHF/UHF FM TRANSCEIVER

**IC-Q7A** (U.S.A. version)**IC-Q7E** (Europe version)

## Dual band transceiver with wide band receiver

### Wide band receive capability—30 to 1300 MHz

The IC-Q7A/E is a mini-power<sup>\*\*</sup> dual band transceiver with a wide band receiver. The built-in receiver covers a wide frequency range from 30 to 1300 MHz<sup>\*\*</sup> in FM, AM and WFM modes. This allows you to listen to the air band, TV and FM broadcast stations, the 50 MHz and 1200 MHz amateur bands and more—similar to what a dedicated wide band scanning receiver offers.

<sup>\*</sup>At 3.0 V DC; 350 mW typical for VHF, 300 mW typical for UHF.

<sup>\*\*</sup>Some frequency ranges may be restricted depending on version.

### Ultra compact, drip-resistant body

The transceiver's tiny body measures only 58(W) × 86(H) × 27(D) mm<sup>\*</sup>—easily fitting in your palm or shirt pocket. And drip-resistant construction helps protect the transceiver in bad weather or when operating near the water.

<sup>\*</sup>2 $\frac{1}{2}$ (W) × 3 $\frac{3}{8}$ (H) × 1 $\frac{1}{8}$ (D) in.

### Tone squelch standard

Tone squelch operation provides quiet standby—only calls directed to you can open the squelch and be heard. 50 tone frequencies are available and in addition a tone scan function is provided.

### Large built-in speaker

A large (36 mm; 1 $\frac{1}{2}$ " diameter) speaker is built-in to the front panel of the IC-Q7A/E providing loud, crystal clear audio even in noisy environments, etc.

### Economical design

Only 2 alkaline or Ni-Cd cells are needed. Total driving current has been reduced for longer battery life. Put this together and you have economical, lightweight operation.

### Simple operation

The IC-Q7A/E employs an easy band switching system. When you want to change between operating bands, simply push the large band change switch. Controls have been kept to a minimum (8 switches plus power switch and dial) to ensure quick and easy access to all functions.

### Automatic squelch

The automatic squelch system detects receive signal strength and adjusts the squelch level accordingly. Manual squelch can also be selected.

### Other features

- LCD backlighting with timer
- Automatic repeater function (USA version only)
- 200 memory channels
- RIT function
- and more...

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## SPECIFICATIONS

## GENERAL

• Frequency coverage : (unit: MHz)

	Transmit	Receive
USA	144–148	30–823.995
	440–450	849–888.995
Europe	144–148	30–1309.995*
	430–440	894–1309.995*
Italy	144–148	30–1309.995*
	430–440	
Asia	144–148	30–1309.995*
	430–440	
USA-1	144–148	30–1309.995*
	440–450	

\*Specifications guaranteed 30–1300 MHz.

• Mode : FM, AM\*, WFM\*

\*Receive only

• No. of memory ch. : 200

• Usable temp. range : -10°C to +60°C;  
+14°F to +140°F• Tuning steps : 5, 6.25, 10, 12.5, 15, 20, 25,  
30, 50 and 100 kHz

• Frequency stability : ±6 ppm (-10°C to +60°C)

• Power supply requirement:  
2 x AA(R6) Ni-Cd or alkaline  
cells (negative ground)

• Current drain (VHF/UHF; at 3.0 V DC):

Tx max. power 440 mA/380 mA (typical)

Rx rated audio 170 mA (typical)

standby 95 mA (typical)

power saved 38 mA (typical)

• Antenna connector : SMA (50 Ω)

- Dimensions : 58(W)×88(H)×27(D) mm;  
(projections not included) 2 1/8(W)×3 1/8(H)×1 1/8(D) in
- Weight : 170 g; 6 oz (trans. and battery)
- MIC/S/P connector : 4-conductor 3.5 (d) mm (1/8");  
2 kΩ/8 Ω

## TRANSMITTER

- Modulation system : Variable reactance
- Output power : 350 mW typ. (VHF)  
(at 3.0 V DC) 300 mW typ. (UHF)
- Spurious emissions : Less than -40 dB
- Max. freq. deviation : ±5 kHz

## RECEIVER

- Receiver system : Triple conversion  
superheterodyne
- Intermediate freq. : 1st 266.7 MHz  
2nd 19.65 MHz  
3rd 450 kHz
- Sensitivity (except spurious points; typical values):  

FM	30–117.995 MHz	0.32 μV	
	(at 12 dB SINAD)	118–174.995 MHz	0.16 μV
		175–246.995 MHz	0.22 μV
		247–329.995 MHz	0.4 μV
		330–379.995 MHz	0.32 μV
		380–469.995 MHz	0.18 μV
		470–749.995 MHz	1.0 μV
		750–999.995 MHz	0.32 μV
		1000–1199.995 MHz	0.79 μV
		1200–1300 MHz	0.5 μV

WFM	76–108.0 MHz (at 12 dB SINAD)	1.0 μV
	175–221.995 MHz	1.0 μV
AM	470–770 MHz	5.6 μV
	118–136.0 MHz	0.56 μV
	222–246.995 MHz	0.79 μV
	247–329.995 MHz	1.4 μV

- Squelch sensitivity : 0.18 μV (144–148 MHz)  
0.22 μV (430–450 MHz)
- Selectivity : More than 15 kHz/-6 dB  
FM, AM Less than 30 kHz/-6 dB
- WFM More than 150 kHz/-6 dB
- Image rejection ratio : More than 60 dB  
(amateur bands only)

- Audio output power : 100 mW typ. at 10% distortion  
(at 3.0 V DC) with an 8 Ω load

## Supplied accessories

- Antenna
- Belt clip
- Hand strap

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

## OPTIONS

BC-127  
Ni-Cd CHARGER

Charges supplied 2 AA (R6) 700 mAh Ni-Cd cells simultaneously in 7 hours. Up to 4 cells can be charged.

LC-146  
CARRYING CASE

Helps protect the transceiver from scratches, etc.

HS-85  
HEADSET

Allows you hands-free operation. Includes VOX, PTT, "one-touch PTT" (TOT). OPC-782 is additionally required.

HM-46  
SPEAKER-MICROPHONE

Compact and lightweight. Equipped with an earphone jack. OPC-782 is additionally required.

SP-13  
EARPHONE

Provides clear audio in noisy environments. OPC-782 is additionally required.

OPC-782  
PLUG ADAPTER CABLE

Allows connection between a transceiver and speaker-microphone, headset, etc.

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