VHF/UHF FM TRANSCEIVER

IC-Q7A

Dual band transceiver with wide band receiver

Wide band receive capability.30 to 1300 MHz

The IC-Q7A/E is a mini-power dual band transceiver with a wide band receiver. The built-in receiver covers a wide frequency range from 30 to 1300 MHz 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. *1 At 3.0 V DC; 350 mW typical for VHF, 300 mW typical for UHF.

*2 Some frequency ranges may be restricted depending on version.

Ultra compact, drip-resistant body

The transceiver's tiny body measures only $58(W) \times 86(H) \times 27(D)$ mm*. 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.

* 29.32(W) × 33.8(H) × 11.16(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; 1¹³/₃₂" 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...





GENERAL

Frequency coverage : Guaranteed 144 - 148, 440 - 450 MHz*

*Tx working range 430 - 450

Rx: 30 - 823.995, 849 - 868.995, 894 - 1039.995** MHz

*Cellular blocked

Mode : FM, AM*, WFM * *Rx only; not guaranteed

Number of memory ch. : 200

Antenna connector : SMA (50 ohm)

Power supply requirement : 2 × AA(R6) Ni-Cd or Alkaline cells (negative ground)

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

Current drain (at 3.0 V DC) : Tx max. power 440 mA/380 mA typ.

Rx rated audio 170 mA typ. standby 95 mA typ. power saved 38 mA typ.

Usable temp. range : -10°C to +60°C; +14°F to +140°F

Dimensions : $58(W) \times 86(H) \times 27(D)$ mm; (projections not included) : $2^{9}/_{32}(W) \times 3^{3}/_{8}(H) \times 1^{1}/_{16}(D)$ in

Weight : 170 g; 6 oz

TRANSCEIVER

Output power (at 3.0 V DC) : VHF; 350 mW typ. (continuously adjustable) : UHF; 300 mW typ.

Modulation system : Variable reactance modulation

Spurious emissions : Less than -40 dB

RECEIVER

Receive system

Intermediate frequencies : 1st 266.7 MHz

3rd 450 kHz

Receive Sensitivity

WFM (at 12 dB SINAD)

FM (at 12dB SINAD) : 30 - 117.995 MHz; Less than 0.32 μV

118 - 174.995 MHz, Less than 0.16 μV 175 - 246.995 MHz, Less than 0.22 μV 247 - 329.995 MHz, Less than 0.4 μV 330 - 379.995 MHz, Less than 0.32 μV 380 - 469.995 MHz, Less than 0.18 μV 470 - 749.995 MHz, Less than 0.10 μV 750 - 999.995 MHz, Less than 0.32 μV 1000 - 1199.995 MHz, Less than 0.79 μV 1200 - 1300 MHz, Less than 0.5 μV 176 - 108.000 MHz, Less than 1.0 μV

175 - 221.995 MHz, Less than 1.0 μ V 470 - 770.000 MHz, Less than 5.6 μ V : 118 - 136.000 MHz, Less than 0.56 μ V

222 - 246.995 MHz, Less than 0.79 μ V AM (at 10 dB S/N) 247 - 329.995 MHz, Less than 1.4 μ V

Selectivity FM/AM : More than 15 kHz at -6dB, Less than 30 kHz at -60 dB

WFM More than 150 kHz at -6dB

Image rejection ratio : More than 60 dB (amateur bands only) udio output power (at 3.0 V DC) : 100 mW at 10% distortion with an 8 ohm

Ext SP connector : 2-connector 3.5 (d) mm (1/8")

The IC-Q7A/E meet MIL-STD requirements and strict environmental standards for shock (MIL

810C, D, E) and vibration (MIL 810C, D, E).

Supplied accessories:

- Antenna
- Belt clip
- Hand strap
- Battery charger**Depending on version

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

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.

NM-46 SPEAKER MICROPHONE

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

OPC-478: RS-232C cable; OPC-478U: USB cable

OPC-782 PLUG ADAPTER CABLE

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

AD-92SMA ANTENNA CONNECTOR ADAPTER

Allows you to connect a BNC-type antenna.

• **HM-128** EARPHONE-MICROPHONE

Ideal for hands-free operation by clipping the Mic. with PTT switch to your lapel or breast pocket. OPC-782 is additionally required.

• **SP-13**EARPHONE

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