

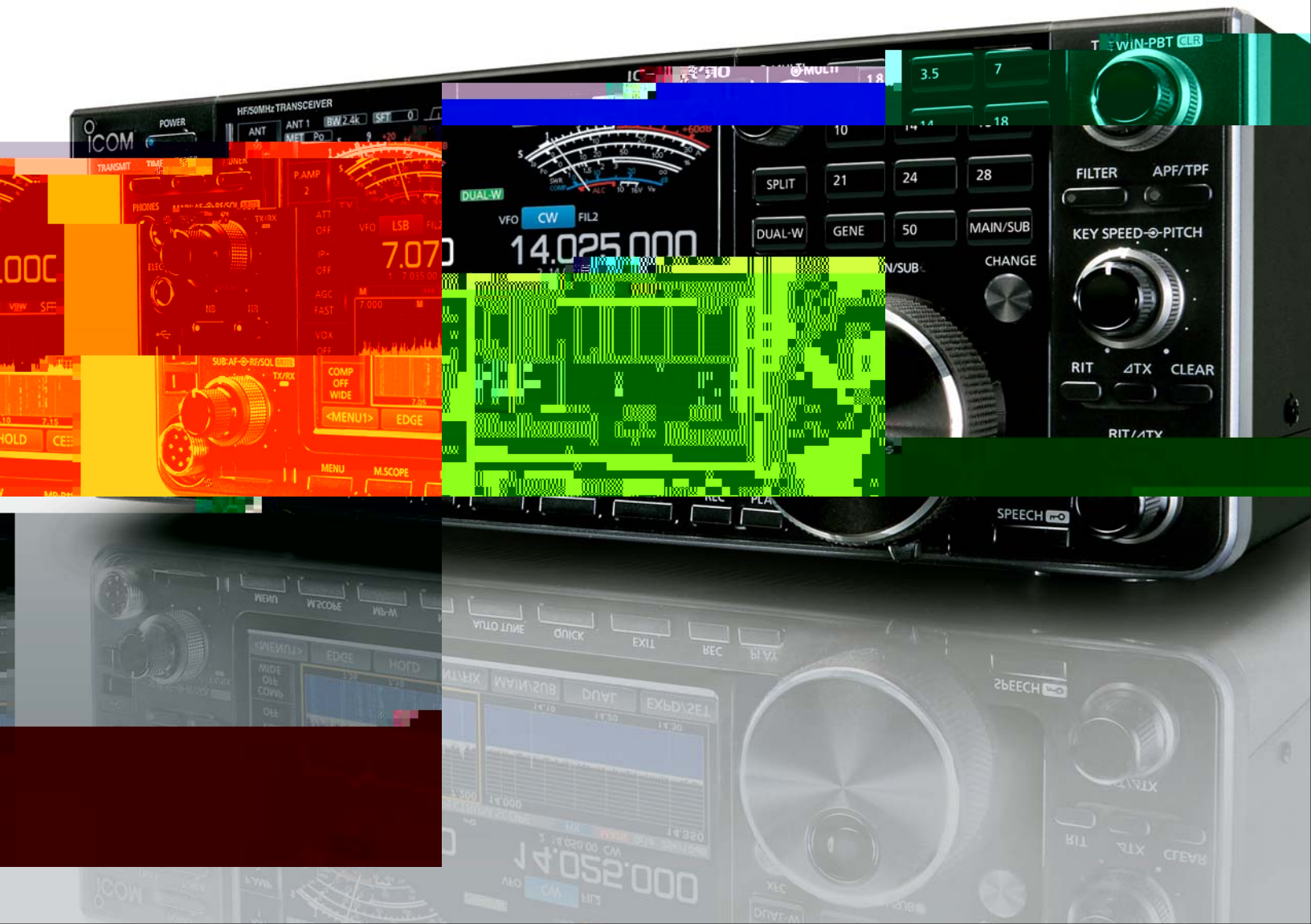
 ICOM

HF/50MHz TRANSCEIVER

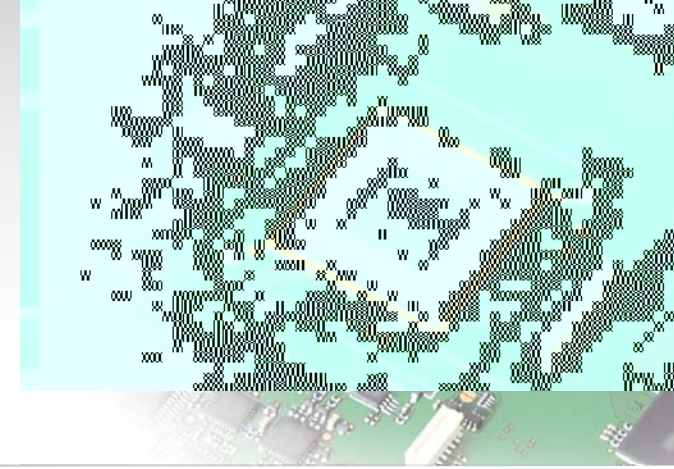
IC-7610

RF Direct Sampling Takes You to the Next Level

Outstanding HF Experience Right Here



RF Direct Sampling Takes You to the Next Level with Advanced RMDR and True Dual Receive



Whether it is poor band conditions, or battling to pick out a call in a large pile-up, faint signals have always been a challenge for DXers and Contesters around the world.

The difference between putting the QSO in the log or having to try another time is the capability of your receiver. One key factor is the RMDR capabilities, the ability to pick out a faint signal in the presence of stronger, adjacent signals.

The IC-7610 introduces dual RF direct sampling receivers, achieving 110dB RMDR, rivaling that of top-of-the-line transceivers.

HF/50MHz TRANSCEIVER

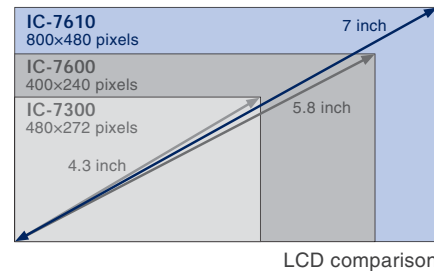
IC-7610



Actual size

7-inch Color Display with Touch Screen Function

The large 7-inch color display shows various operating and setting information at a glance in high resolution (800 × 480 pixels.) The display clearly shows various features, for example the dual spectrum scope aligned vertically or horizontally, simulated analog meters and RTTY, PSK31/63 mode decoded messages.



Dual Receivers, Dual Spectrum Scopes

The IC-7610 provides dual reception, on different bands, as does the high-speed, high-resolution spectrum scopes. Whether watching for a band opening, working a rare DX station operating split, or searching for a multiplier, the ability to watch each receiver separately allows the operator to concentrate on pulling in a weak signal. The scopes provide class-leading performance in resolution, sweep speed and a 100 dB dynamic range. To navigate around the band easier, connect a PC mouse to the USB port for point and click tuning of the receivers.

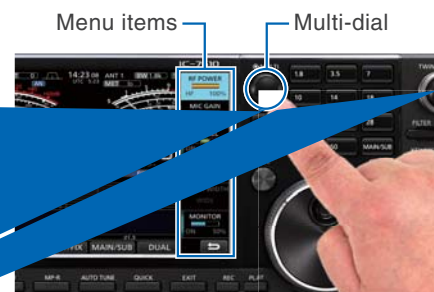
Audio Scope Flexibility

The Audio Scope screen shows both a FFT scope with waterfall along with puped s.03level silTj-m range o12e screewidth,27 2ialsilTj



Audio scope example

Touch Screen and Multi-Dial Knob for Smooth Operation



Remote Encoder for Second VFO Knob

The optional RC-28 remote encoder enables you to add an external Sub dial for controlling the Sub band. Main band and Sub band can be switched with the F1 and F2 buttons and can be controlled with the RC-28. The LED above the F1 and F2 buttons turns ON to show the active band.



DVI-D Connector for an External Display Connection

The IC-7610 has a DVI-D connector for an external display. Operating frequency, setting information and spectrum scope can be observed on a large external display.

SD Card Slot and USB Port for Saving Data

When used with an SD card or USB flash drive, various contents including firmware updates, memory channels, captured screen images, and other personal settings, can be saved and loaded. TX/RX audio, voice memories, RTTY/CW memories and RTTY decode logs can be saved and used on the SD card.

I/Q Signal Output

The IC-7610 enables you to output I/Q signals from the USB connector. They can be used to analyze a spectrum range or to decode signals by a decoder software on a PC.

*This function will be provided in a future firmware update.

Simplified Remote Control for RS-BA1

Whether from a remote part of your home QTH, or on a remote location somewhere around the world, the RS-BA1 software enables you to operate your IC-7610. Not only can you control the radio settings and have both RX/TX audio paths, you are able to display a single band spectrum scope with the waterfall. With the addition of an Ethernet connector, a base station computer is not required.

Rear Panel View



BNC type RX IN/OUT connectors for a receiver antenna or external BPF/preamp connection

Other Outstanding Features



SPECIFICATIONS

GENERAL		
Frequency coverage	Receiver*1	0.030–60.00 MHz*2
	Transmitter*1	1.800–1.999, 3.500–3.999, 5.255–5.405*3 7.000–7.300, 10.100–10.150, 14.000–14.350, 18.068–18.168, 21.000–21.450, 24.890–24.990, 28.000–29.700, 50.000–54.000 MHz
*1 USA version. Varies according to version. *2 Guaranteed range: 0.500–29.999, 50.000–54.000 MHz. *3 Some frequency bands are not guaranteed.		
Mode	USB, LSB, CW, RTTY, PSK31/63, AM, FM	
Number of channels	101 (99 regular, 2 scan edges)	
Antenna connectors	SO-239 × 2 (50 Ω unbalanced (Tuner off)) BNC × 1 (RX antenna In/Out)	
Power supply requirement	13.8 V DC ±15%	
Power consumption	Tx	23 A (at 100 W output power)
	Rx	3.0 A (Standby), 3.5 A (Maximum audio)
Operating temperature range	0 °C to +50 °C; 32 °F to 122 °F	
Frequency stability	Less than ±0.5 ppm (0 °C to +50 °C; 32 °F to 122 °F)	
Frequency resolution	1 Hz (fine)	
Dimensions (W × H × D) (projections not included)	340 × 118 × 277 mm; 13.4 × 4.6 × 10.9 in	
Weight (approximately)	8.5 kg; 18.7 lb	
TRANSMITTER		
Output power (HF/50 MHz)	SSB/CW/FM/RTTY/PSK: 1–100 W, AM: 1–25 W	
Modulation system	SSB	Digital P.S.N. modulation
	AM	Digital Low power modulation
	FM	Digital Reactance modulation
Spurious emissions	HF bands	Less than –50 dB
	50 MHz band	Less than –63 dB
Carrier suppression	More than 50 dB	
Unwanted sideband	More than 50 dB	
Microphone impedance	600 Ω	

OPTIONS

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

EXTERNAL SPEAKERS SP-23 4 audio filters, headphone jack SP-33 Wooden box speaker SP-34 4 audio filters; headphone jack	DESKTOP MICROPHONES  SM-30 Compact, lightweight electret microphone. SM-50 Dynamic microphone with [UP/DOWN] switches and a low cut function.	HM-219 HAND MICROPHONE  Same as supplied.	AH-4 HF+50 MHz AUTOMATIC ANTENNA TUNER  Covers 3.5–54 MHz with a 7 m (23 ft) or longer wire antenna.	AH-2b ANTENNA ELEMENT  Covers 7–54 MHz. For use with AH-4.	AH-740 AUTOMATIC TUNING ANTENNA  Covers 2.5–30 MHz (amateur band). OPC-2321 is required.
RC-28 REMOTE ENCODER 	RS-BA1 IP REMOTE CONTROL SOFTWARE 	IC-PW1/PW1EURO HF+50 MHz 1 kW HF LINEAR AMPLIFIER 	PS-126 DC POWER SUPPLY  13.8 V DC, 25 A max. output.	AH-710 FOLDED DIPOLE ANTENNA  Covers 1.9–30 MHz bands.	AH-5NV NVIS KIT  Fiberglass mobile mounting antenna element for use with AH-740. Covers 2.2–30 MHz (amateur band) with AH-740.

- OPC-420: CONTROL CABLE for use with AH-4 (10 m; 32.8 ft)
- OPC-2321: CONTROL CABLE for use with AH-740 (6 m; 19.7 ft)
- MB-121: CARRYING HANDLE

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RECEIVER

Receiver system	Direct Sampling Superheterodyne			
Intermediate frequency	12 kHz			
Sensitivity*4	0.5–1.799 MHz	1.8–29.999 MHz	28.0–29.7 MHz	50–54 MHz
	SSB/CW (at 10 dB S/N)	–	0.16 µV typ.	–
	AM (at 10 dB S/N)	6.3 µV typ.	2.0 µV typ.	–
	FM (at 12 dB SINAD)	–	–	0.5 µV typ.

*4 HF: Preamp 1 ON, 50 MHz; Preamp 2 ON, BW: SSB/CW=2.4 kHz, AM=6 kHz, FM=15 kHz

Squelch sensitivity (Threshold)	SSB: Less than 3.2 µV (Preamp ON) FM: Less than 0.32 µV (Preamp ON)		
Selectivity (Filter shape: Sharp)	More than	Less than	
	SSB (BW: 2.4 kHz)	2.4 kHz/–6 dB	3.6 kHz/–60 dB
	CW (BW: 500 Hz)	500 Hz/–6 dB	700 Hz/–60 dB
	RTTY (BW: 500 Hz)	500 Hz/–6 dB	700 Hz/–60 dB
	AM (BW: 6 kHz)	6.0 kHz/–6 dB	15 kHz/–60 dB
FM (BW: 15 kHz)	12.0 kHz/–6 dB	20 kHz/–60 dB	
Spurious and HF bands image rejection	50 MHz band	More than 70 dB (Except for ADC Aliasing)	
Audio output power	More than 2.0 W (at 10% distortion with an 8 Ω load)		

TUNER

Frequency range	1.9–50 MHz bands
Matching impedance range	16.7 Ω–150 Ω unbalanced (VSWR better than 3: 1)
Tuning accuracy	VSWR 1.5: 1 or less
Tuning time	2–3 seconds (average) (Maximum 15 seconds)

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

Supplied accessories: (May differ depending on version)

- Hand microphone, HM-219
- DC power cable
- Fuses
- Plugs