

HF/50MHz TRANSCEIVER



# Simple & Tough with IF DSP



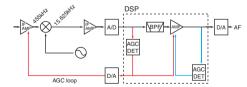


# IF DSP

The latest IF DSP technology is employed in the IC-7200. While the IC-7200 is an entry-class transceiver, advanced digital features are comparable to higher class transceivers.

# AGC loop management

Distortion and blocking from strong nearby signals are prevented by placing DSP functions inside the AGC loop. The AGC time constants are selectable from fast, slow and off for each operating mode.



# Digital IF filter

Optional filters will be never required for the IC-7200. The built-in digital filter allows you to flexibly select the filter width and shape from soft and sharp\* and provides cutting-edge filter characteristics.

 $^{\ast}$  Filter shape is selectable for SSB and CW modes only.

Mode	Passband width range
SSB	50–500Hz; 50Hz step 600Hz–3.6kHz; 100Hz step
CW	50–500Hz; 50Hz step 600Hz–3.6kHz; 100Hz step
RTTY	50–500Hz; 50Hz step 600Hz–2.7kHz; 100Hz step
AM	200Hz–8kHz; 200Hz step

# Digital Twin PBT

Only Icom brings you Twin Passband tuning! Tailor your IF passband with the Twin PBT by electronically shifting the upper and lower edges of the IF filter. Depending on the use of the concentric knobs, you can either narrow the IF passband, or shift the entire passband to eliminate interfering signals.

# Manual notch filter

The manual notch filter delivers more than 70dB of attenuation. Strong interfering tones will be eliminated without adversely affecting the AGC loop performance. On the bottom right of the front panel, a dedicated control knob adjusts the notch filter frequency.

# Digital noise reduction

The digital noise reduction reduces background noise and improves the signal-tonoise ratio. The noise reduction level is adjustable in 16 steps. It improves the readability of voice and data signals.

# Digital noise blanker

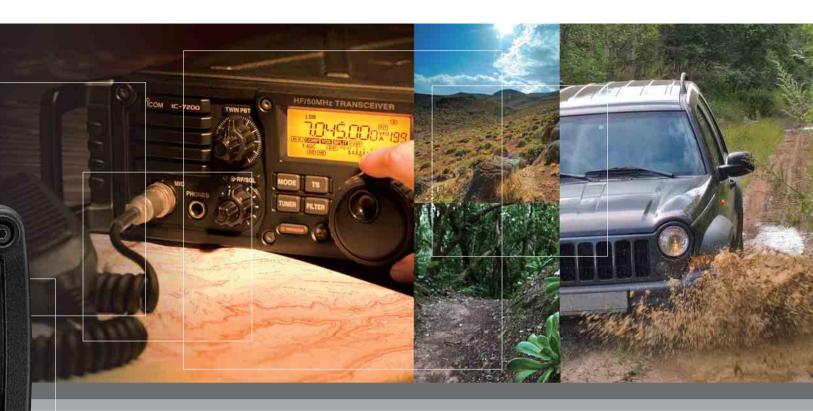
The noise blanker reduces pulse-type noise such as engine ignition and sparking. The NB level and width (blanking duration) are adjustable in 100 steps.

# High stability transmitter

The DDS (Direct Digital Synthesizer) creates a clear, clean transmit signal and improves

the C/N ratio. With a dual-fan cooling system, the IC-7200 provides stable high quality output even during high duty cycle operation.





# HF/50MHz TRANSCEIVER

# USB port for PC control

The IC-7200 can be controlled by a PC through a USB port using the CI-V data format. In addition, modulator and received audio can also be transferred over the USB cable. By using appropriate external software, you can record incoming calls and/or transmit preprogrammed messages from your PC.

### **RF** speech compressor

The digital RF speech compressor increases your average talk power in SSB mode. Even when the compression level is increased, the DSP controlled RF speech compressor provides low distortion audio.

# CW mode operation

Full break-in, selectable CW carrier point (USB or LSB) and adjustable CW pitch are also standard.

# Tough construction against water intrusion

Waterproof protection technologies that are used in Icom's marine radios are applied to

the buttons and knobs on the front panel to provide a measure of protection against water intrusion.

\* IC-7200 is NOT waterproof.



**Rugged design for outdoor use** The rugged design of the IC-7200 means your enjoyment of this rig is not limited to your shack only.

# Other features

- RIT VOX
- ±0.5ppm frequency stability
- LCD backlight (Hi/Lo/Off)
- CI-V interface
- 201 memory channels
- Built-in 20dB attenuator
- Preamplifier 
   Dial lock
- Auto TS function 1Hz step tuning
- Band stacking register
- Built-in voice synthesizer Quick split
- Front facing speaker Quick set mode

# "Rear bumper"

The "rear bumper" protects various connectors on the rear panel and lets you stand the radio on its rear end when the antenna is disconnected, such as while moving or packing the radio.



# HF/50MHz TRANSCEIVER -7200

# **SPECIFICATIONS**

#### **GENERAL**

Frequency range*1				
Rx 0.030-60.00	0000MHz*2			
Tx 1.800- 1.99	9999MHz 3.500- 3.999999MHz			
5.3305, 5.34	65, 5.3665, 5.3715, 5.4035MHz*3			
7.000- 7.30	0000MHz 10.100-10.150000MHz			
14.000-14.35	0000MHz 18.068–18.168000MHz			
21.000-21.450000MHz 24.890-24.990000MHz				
28.000–29.700000MHz 50.000–54.000000MHz				
*1 Shows USA version. Frequency coverage depends on version.				
* <sup>2</sup> Guaranteed range: 0.5–29.999 and 50–54.000 MHz. * <sup>3</sup> USB only.				
Mode	: USB, LSB, CW, RTTY (FSK), AM			
No. of memory Ch.	: 201Ch. (199 regular, 2 scan edages)			
<ul> <li>Frequency resolution</li> </ul>	: 1 Hz			
<ul> <li>Frequency stability</li> </ul>	: Less than ±0.5ppm			
Power supply requirement	: 13.8V DC ±15 % (negative ground)			
Current drain	:			
Transmit	Max. power 22.0A			
Receive	Max. audio 2.0A			
	Stand-by 1.3A			
<ul> <li>Operating temp. range</li> </ul>	: -10°C to +60°C; +14°F to +140°F			
<ul> <li>Antenna connector</li> </ul>	: SO-239 (50Ω)			
Dimensions	: 241×84×281 mm			
(projections not included)	9 <sup>1</sup> /2x3 <sup>5</sup> /16x11 <sup>1</sup> /16 in			
<ul> <li>Weight (approx.)</li> </ul>	: 5.5 kg; 12.1 lb			

TRANSMITTER

Modulation system	:		
SSB	Digital PSN modulation		
AM	Digital Low power modulation		
<ul> <li>Output power</li> </ul>	:		
SSB, CW, RTTY	2–100 W		
AM	1–40 W		
<ul> <li>Spurious emissions (Unwanted emission) :</li> </ul>			
HF bands	Less than –50dB		
50MHz band	Less than -63dB		
<ul> <li>Carrier suppression</li> </ul>	: More than 50dB		
<ul> <li>Unwanted sideband</li> </ul>	: More than 50dB		
<ul> <li>Microphone connector</li> </ul>	: 8-pin connector (600Ω)		

#### RECEIVER

 Intermediate frequencies : 64.455MHz, 455kHz, 15.625kHz Sensitivity (10dB S/N, Preamp ON, Filter shape sharp):
 SB, CW
 Less than 0.16µV (1.8–29.995MHz) Less than  $0.13\mu V$  (50MHz band) AM Less than 13/V (0.5-1.8MHz) Less than 2µV (1.8–29.995MHz) Less than 1µV (50MHz band)

#### Squelch sensitivity (SSB, threshold, Preamp ON) : Less than 5.6 uV

		2000 than 0.0 p v
· Selec	tivity	
	SSB	More than 2.4kHz/–6dB
	(BW: 2.4kHz, sharp)	Less than 3.6kHz/–60dB
	CW	More than 500Hz/–6dB
	(BW: 500Hz, sharp)	Less than 900Hz/–60dB
	RTTY (BW: 350Hz)	More than 360Hz/–6dB
		Less than 650Hz/–60dB
	AM (BW: 6kHz)	More than 6.0kHz/–6dB
		Less than 15.0kHz/–60dB
<ul> <li>Spurious and image</li> </ul>		: More than 70dB
rejection ratio		(Except 1/2 IF through on 50MHz band)
<ul> <li>Audio output power</li> </ul>		: More than 2.0W at 10% distortion
(at 13.8 V DC)		with an 8Ωload
<ul> <li>RIT variable range</li> </ul>		: ±9.99kHz
<ul> <li>EXT SP connector</li> </ul>		: 2-conductor 3.5 (d) mm (1/8") /8Ω

Supplied accessories: Hand microphone · DC power cable · Spare fuses All stated specifications are subject to change without notice or obligations.

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



Automatic antenna tuner and compact detachable controller are standard. 2 exciter inputs are available. (An optional OPC-599 is required.)



SP-20 EXTERNAL SPEAKER 4 audio filters: headphone jack; can connect to 2 transceivers Input impedance: 8Ω Max. input power: 5W



MB-116 HANDLES Protect buttons and knobs on the front panel when moving the radio.



SP-21 EXTERNAL SPEAKER

Input impedance: 8Ω

Max. input power: 5W

MB-117 CARRYING HANDLE Convenient when carrying the transceiver.



For mobile operation with the AH-4. All bands between 7–30 MHz can be matched.



SP-10 EXTERNAL SPEAKER Compact size speaker



MB-118 MOBILE MOUNTING BRACKET For mounting the radio in a



AH-4 HE+50 MHz AUTOMATIC

SM-20 DESKTOP MICROPHONE High quality deskton microphone



Converts 13-pin ACC connector to 7-pin + 8-pin ACC connector

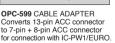


TUNER Compact, light weight antenna tuner



HM-36 HAND MICBOPHONE Same as that supplied with the radio.







AH-710 FOLDED DIPOLE

ANTENNA Covers from 1.9 to 30MHz. Has a

PL-259 connector. Easy to assemble (non-kink construction)

CONVERTER For remote transceiver control from a PC equipped with an RS-232C port.

#### PS-300 GENERAL PURPOSE POWER SUPPLY

- Max, 30A output (25A continuous)
- Max. 30A output (25A continue 9–15V variable output voltage Transformer type
   Voltage and current meters
- 209(W)x120(H)x280(D) mm;
- $8^{7}/_{32} 4^{23}/_{32} 11^{1}/_{32}$  in dimensions (Not available in some countries)

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