



VHF AND UHF DIGITAL REPEATERS

IC-FR5200H

VHF Repeater (60W)

IC-FR6200H

UHF Repeater (60W)

60W Full Duty Cycle Digital Repeater



IDAS™
ICOM DIGITAL ADVANCED SYSTEM



TYPE-D

60W 100% Duty Cycle Operation

Employing a high performance power amplifier, together with the solid heatsink built into the chassis, the IC-FR5200H series provides a reliable 100% duty cycle operation at 50W output.

IDAS, Analog FM and Mixed Mode

The IC-FR5200H series is compatible with both analog FM mode and IDAS conventional and NXDN™ Type-D trunking mode. Program digital and/or analog FM modes per channel. The mixed mode operation allows you to receive both analog FM and IDAS conventional modes and to transmit either mode depending on the received signal.

32 Channel Capacity and 5 Programmable Buttons

The 12-digit dot-matrix display, 5 programmable buttons, 32 memory channels and internal speaker allow you to use the repeater as a simple base station or to check repeater activity. LEDs on the front panel show channel conditions.

Built-in Type-D Trunking and Network Controller

The Type-D multi-site trunking/conventional functions are integrated in the repeater. The IP network capability extends your communication coverage and allows you to remotely control the repeater settings.

D-SUB 25-pin Accessory Connector

The IC-FR5200H series has a programmable D-SUB 25-pin accessory connector for connecting external remote control devices. Also, modulation/demodulation signals can be input/output from the D-SUB connector.

Multiple CTCSS, DTCS Tone and RAN Code Decode

The IC-FR5200H series decodes multiple CTCSS and DTCS as well as digital RAN (Radio Access Number) codes on a per channel basis (up to 16 tones/codes) and downlinks the received signal with a specified tone/code. This function is useful for sharing a channel with multiple groups.



Other Features

- CW ID transmission
- ±0.5ppm high frequency stability (Digital mode)
- 2U low profile for 19-inch rack mount
- Digital voice scrambler provides 15-bit key (about 32,000 codes)
- Built-in inversion voice scrambler (Analog mode)
- Built-in audio compander (Analog mode)
- PTT priority setting (Local Mic., external PTT or repeater operation)
- 5-Tone and DTMF encoder/decoder (Analog mode)
- Normal and priority scan
- Convenient key assign stickers supplied
- Beat cancel capability
- Low voltage alert (Analog mode)

SPECIFICATIONS

	IC-FR5200H	IC-FR6200H
GENERAL		
Frequency coverage	136–174MHz	400–470, 450–512, 450–520, 350–400* MHz (* Non-FCC)
Number of channels	Max. 32 channels	
Channel spacing	6.25/12.5kHz	6.25/12.5/25kHz*
Type of emission	16K0F3E, 11K0F3E/F7E/F7D/F7W, 4K00F1E/F1D/F3E	
Frequency stability	±0.5ppm	
Antenna impedance	50Ω (Type-N ⌀2)	
Operating temperature range	–30°C to +60°C; –22°F to +140°F	
Power supply voltage	13.6V DC	
Current drain (at 13.6V DC)		
TX 60W	11A	11A
RX Max. audio/Stand-by	1.2A/500mA (LCD backlight OFF)	1.2A/450mA (LCD backlight OFF)
Dimensions (W×H×D)	483×88×360 mm ; 19.02×3.46×14.17 in	
Weight	10kg ; 22lb (approx.)	

TRANSMITTER		
Output power	60W (adjustable to 5W)	
100% duty cycle	60W (at 20–35°C, 24 hours)	
Max. frequency deviation	±5.0kHz/±2.5kHz (W/N)	
Spurious emissions	80dB	
FM hum and noise	55/50dB (W/N)	50/45dB (W/N)
Audio harmonic distortion	1% (40% deviation)	
Digital FSK error	5% Max.	
Microphone impedance	600Ω (8-pin modular)	

RECEIVER		
Sensitivity 12dB SINAD	0.30μV	0.25μV
5% BER	0.25μV	0.25μV
Adjacent channel selectivity	85/56dB (W/N)	80/60dB (W/N)
	68dB (Digital)	70dB (Digital)
Spurious response	80dB (W/N)	70dB (W/N)
	75dBμV emf (Digital)	65dBμV emf (Digital)
Intermodulation rejection	80dB (W/N)	
	75dBμV emf (Digital)	
Hum and noise ratio	55/50/66dB (W/N/D)	50/45/55dB (W/N/D)
Audio output power	4.0W at 5% distortion with a 4Ω load	
External speaker connector	2-conductor 3.5 (d) mm (1/8")/4Ω	

Measurements made in accordance with TIA-603-C (for FM) and EN 301 166 (for Digital). All stated specifications are subject to change without notice or obligation.
 * 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

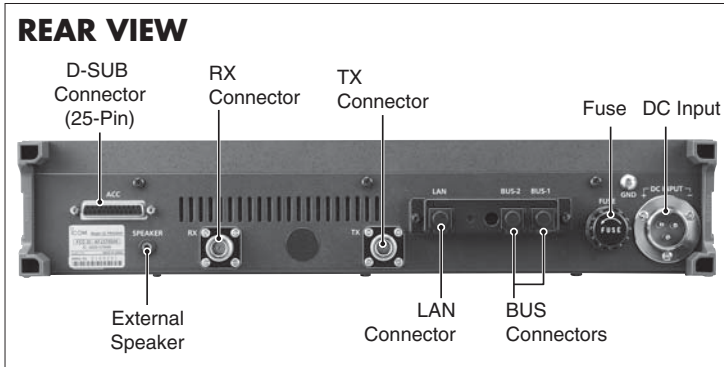
Applicable U.S. Military Specifications

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-C
Humidity	507.5	II
Vibration	514.6	I
Shock	516.6	I

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

Supplied Accessories

- DC power cable
- Handle kit
- Key assign stickers
- Mounting rack
- Spare fuse



OPTIONS



Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in the United States, the United Kingdom, Germany, France, Spain, Russia, Japan and/or other countries. IDAS, IDAS logo are trademarks of Icom Incorporated. NXDN is a trademark of Icom Incorporated and JVC KENWOOD Corporation. All other trademarks are the properties of their respective holders.

Icom Inc.

1-1-32, Kami-minami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

www.icom.co.jp/world

Count on us!

Icom America Inc.

12421 Willows Road NE,
 Kirkland, WA 98034, U.S.A.
 Phone: +1 (425) 454-8155
 Fax: +1 (425) 454-1509
 E-mail: sales@icomamerica.com
 URL: <http://www.icomamerica.com>

Icom (Europe) GmbH

Communication Equipment
 Auf der Krautweide 24
 65812 Bad Soden am Taunus, Germany
 Phone: +49 (6196) 76685-0
 Fax: +49 (6196) 76685-50
 E-mail: info@icom-europe.com
 URL: <http://www.icomeurope.com>

Icom France s.a.s.

Zac de la Plaine,
 1 Rue Brindejonn des Moulinais, BP 45804,
 31505 Toulouse Cedex 5, France
 Phone: +33 (5) 61 36 03 03
 Fax: +33 (5) 61 36 03 00
 E-mail: icom@icom-france.com
 URL: <http://www.icom-france.com>

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road,
 Taipei, Taiwan, R.O.C.
 Phone: +886 (02) 2559 1899
 Fax: +886 (02) 2559 1874
 E-mail: sales@asia-icom.com
 URL: <http://www.asia-icom.com>

Your local distributor/dealer:

Icom Canada

Glenwood Centre #150-6165
 Highway 17A, Delta, B.C.,
 V4K 5B8, Canada
 Phone: +1 (604) 952-4266
 Fax: +1 (604) 952-0090
 E-mail: info@icomcanada.com
 URL: <http://www.icomcanada.com>

Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer"
 Bajos A 08174, Sant Cugat del Valles,
 Barcelona, Spain
 Phone: +34 (93) 590 26 70
 Fax: +34 (93) 589 04 46
 E-mail: icom@icomspain.com
 URL: <http://www.icomspain.com>

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road,
 Clayton, VIC 3168 Australia
 Phone: +61 (03) 9549 7500
 Fax: +61 (03) 9549 7505
 E-mail: sales@icom.net.au
 URL: <http://www.icom.net.au>

Shanghai Icom Ltd.

No.101, Building 9, Caifuxingyuan Park,
 No.188 Maoting Road, Chedun Town,
 Songjiang District, Shanghai, 201611, China
 Phone: +86 (021) 6153 2768
 Fax: +86 (021) 6765 9987
 E-mail: bjicom@bjicom.com
 URL: <http://www.bjicom.com>

Icom Brazil

Rua Itororó, 444 Padre Eustáquio
 Belo Horizonte MG,
 CEP: 30720-450, Brazil
 Phone: +55 (31) 3582 8847
 Fax: +55 (31) 3582 8987
 E-mail: sales@icombrasil.com

Icom (UK) Ltd.

Blacksole House, Altira Park,
 Herne Bay, Kent, CT6 6GZ, U.K.
 Phone: +44 (0) 1227 741741
 Fax: +44 (0) 1227 741742
 E-mail: info@icomuk.co.uk
 URL: <http://www.icomuk.co.uk>

Icom New Zealand

39C Rennie Drive, Airport Oaks,
 Auckland, New Zealand
 Phone: +64 (09) 274 4062
 Fax: +64 (09) 274 4708
 E-mail: inquiries@icom.co.nz
 URL: <http://www.icom.co.nz>