



VHF AND UHF TRANSCEIVERS

IC-F3162DT

(IDAS digital VHF transceiver with 10-keypad)

IC-F3162T

(VHF transceiver with 10-keypad)

IC-F3162DS

(IDAS digital VHF transceiver without 10-keypad)

IC-F3162S

(VHF transceiver without 10-keypad)

IC-F4162DT

(IDAS digital UHF transceiver with 10-keypad)

IC-F4162T

(UHF transceiver with 10-keypad)

IC-F4162DS

(IDAS digital UHF transceiver without 10-keypad)

IC-F4162S

(UHF transceiver without 10-keypad)



IDAS™

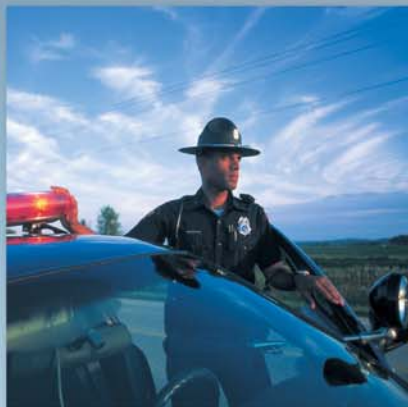
COM DIGITAL ADVANCED SYSTEM



Analogue

IDAS™ dPMR™

IDAS™ NXDN™



- 512 ch / 128 zones
- Conventional/BIIS 1200 mode
- IDAS™ dPMR™
IDAS™ NXDN™
- 2-Tone, 5-Tone
CTCSS, DTCS
- VHF 5W,
UHF 5W output
- 14 hrs. operating
time with BP-232H
- Full dot-matrix
LCD

Digital*/Analogue Multi-Mode Pro

* With IC-F3162D/F4162D "D" version.



▲ IC-F3162DT/T

▲ IC-F4162DS/S

IP55 Dust-protection and water jet resistance

The IC-F3162/D series meets IP55 requirements for dust-protection and water jet resistance. Its durable construction is backed up by the aluminum die-cast chassis and polycarbonate casing, allowing reliable operation under harsh weather and environmental conditions.

Lithium-ion battery pack

The 2300 mAh (typ.) Li-ion battery pack, BP-232H, provides 14 hours* of operating time. Icom's rugged dual-rail guide securely locks the battery to the radio. The optional battery case BP-240 provides a convenient back up and great reassurance in an emergency.

* Typical operation Tx:Rx:Stand-by=5:5:90, power save on

Most popular signalings built-in

The 2-Tone, 5-Tone, CTCSS, DTCS and BISS signaling capabilities are built-in for group communication or selective calling. Also, the IC-F3162/D series can decode ten 2-Tone codes or eight 5-Tone codes on a channel. When a matched tone is received, the following actions are programmable for each code.

- Beep sound
- Bell icon
- Auto TX
- Answer back call
- Scan
- Radio stun/kill/revive

Wide frequency range and large channel capacity

The IC-F3162/D series covers a wide frequency range in one version (VHF 136–174 MHz, UHF 400–470 MHz). The 512 memory channel capacity with 128 zones allows you to divide and store a variety of flexible channel groupings. Memory channel selection can be made with a simple rotation of the rotary channel knob. Wide, middle and narrow channel bandwidth (25/20/ 12.5 kHz)* is also programmable.

* Programmable 25/12.5 kHz or 20/12.5 kHz

Voting operation (Analogue mode only)

The voting mode scanning detects the signal strength level of repeater stations and automatically selects the strongest station, useful for roaming between 2 or more repeater sites. Once you program the voting mode to a memory zone, you can easily start voting mode operation by changing the zone setting.

VHF TRANSCEIVERS

IC-F3162DT/T

IDAS digital/analogue FM with 10-keypad

IC-F3162DS/S

IDAS digital/analogue FM without 10-keypad

UHF TRANSCEIVERS

IC-F4162DT/T

IDAS digital/analogue FM with 10-keypad

IC-F4162DS/S

IDAS digital/analogue FM without 10-keypad

Professional

Full dot-matrix LCD

Using a large full dot-matrix LCD (32 x 18 mm), the IC-F3162/D series shows upper and lower case characters clearly. The display setting is selectable from 1 line, 12 characters or 2 lines 24 characters via programming. The bottom row shows assigned functions to the [P0] to [P3] buttons.



Enhanced audio

The IC-F3162/D series employs a BTL amplifier that increases the audio output and the built-in audio compander provides clear, low noise communications.

Built-in inversion-type voice scrambler

The built-in inversion type analogue voice scrambler* provides secure conversation as standard. When a more secure system is required, optional voice scrambler UT-109R or UT-110R are available.

* Inversion type voice scrambler is not compatible with UT-109R/UT-110R voice scrambler.

BIIS 1200 compatible

The following selective calling and data features are available with the built-in BIIS system.

- 32 abbreviated call memories
- 7 group IDs
- 24-status Messages
- Send 12-character SDM (Short Data Message)
- Receive up to 95 characters of free text
- GPS position reporting function with optional HM-170GP

Other features

- Built-in LTR™ trunking and MDC 1200 capability* (* Depending on version)
- 8 DTMF autodial memories
- 2 step reduced power setting
- Power on password
- Busy, repeater lockout functions
- Surveillance function temporarily turns off the LED backlight and beep sound
- Powerful 5W output and more...

OPTIONS

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

BATTERY PACKS AND CASE

BP-230N BP-232H BP-240

Battery packs	Type	Capacity	Operating time*	Output power
BP-230N	Rechargeable Li-ion	950 mAh (min.), 980 mAh (typ.)	5.5 hours	5 W
BP-232H	Rechargeable Li-ion	2250 mAh (min.), 2300 mAh (typ.)	14 hours	5 W
BP-240	AAA (LR03) batteries x 6		-	1 W

* Operating time is approximate time (at 20 °C). Tx: Rx: standby=5:5:90. Power save on.

REGULAR CHARGER

BC-147S*1

Charges the BP-232H in 10 hours. (approx.).

RAPID CHARGER

BC-123S*1

Charges the BP-232H in 3 hours. (approx.).

MULTI-CHARGER

BC-197

Charges up to six BP-232H battery packs in 3.5 hours. (approx.). Charger adapter AD-122 is supplied with the BC-197.

*1 BC-123/BC-147SA for USA plug. SE for Europe plug. SV for Australia plug.

SPEAKER-MICROPHONES

IPX7 IP57 GPS IP57

HM-168 HM-169 HM-170GP HM-159SC

EARPHONES

SP-27 Tube earphone

SP-13 Earphone

AD-52 Required when using any of these earphones

HEADSETS (VS-1SC or VS-4SC required)

HS-94 Earhook type

HS-95 Behind-the-head type

HS-97 Throat type

PTT CASE/PTT SWITCH CABLE

VS-1SC VS-4SC

Either VS-1SC or VS-4SC is required when using any of the headsets.

POWER SUPPLY CABLES

CP-23L For use with BC-160

OPC-656 For use with BC-197

BELT CLIPS

MB-93 Swivel type

MB-94 Alligator type Same as supplied.

MB-94R Alligator type

LEATHER BELT HANGERS

MB-96N MB-96F MB-96FL

CHARGER BRACKET

MB-130

For use with BC-160

INTERNAL UNITS

UT-109R Non-rolling type voice scrambler

UT-110R Rolling type voice scrambler

UT-124R Man down unit

UT-126H NXDN CAI-based IDAS digital unit

STUBBY ANTENNAS

- FA-SC56VS: 150–162 MHz
- FA-SC57VS: 160–174 MHz
- FA-SC73US: 450–490 MHz

CUT ANTENNAS

- FA-SC61VC: 136–174 MHz
- FA-SC61UC: 380–520 MHz

HIGH GAIN ANTENNAS

- FA-SC62V: 150–160 MHz
- FA-SC63V: 155–165 MHz

ANTENNAS

- FA-SC25V: 136–150 MHz
- FA-SC55V: 150–174 MHz
- FA-SC25U: 400–430 MHz
- FA-SC57U: 430–470 MHz

IDAS digital mode ready

IDAS (Icom Digital Advanced System) is Icom's digital land mobile system using the 6.25 kHz narrowband FDMA technology. IDAS has choice of an NXDN™ protocol or an ETSI dPMR™ protocol. See the IDAS and dPMR brochures for details.

DIGITAL



SPECIFICATIONS

	IC-F3162DT/DS IC-F3162T/S	IC-F4162DT/DS IC-F4162T/S
GENERAL		
Frequency coverage	136–174 MHz	400–470 MHz
Number of channels	512 channels/128 zones	
Channel spacing	25/20/12.5 kHz, 6.25 kHz (Digital version)	
Type of emission	16K0F3E, 14K0F3E, 8K50F3E, 4K00F1E/F1D (Digital version)	
Frequency stability	±1.0 ppm	
Antenna impedance	50 Ω	
Operating temperature range	–25 °C to +55 °C	
Power supply voltage	7.2 V DC nominal	
Current drain (at 7.2 V DC)		
TX 5 W	1.5 A	1.8 A
RX Stand-by	100/150 mA (Analog/Digital)	100/140 mA (Analog/Digital)
Rated output	600 mA	600 mA
Dimensions (W × H × D) (Projections not included)	53 × 136 × 38.5 mm (with BP-232H)	
Weight (approx.)	340 g (with BP-232H)	
TRANSMITTER		
Output power	5 W, 2 W, 1 W (Hi, L2, L1)	
Max. frequency deviation	±5.0 kHz/±4.0 kHz/±2.5 kHz (W/M/N)	
Spurious emissions	0.25 μW (≤1 GHz) 1.0 μW (>1 GHz)	
Audio harmonic distortion	3% typ. (AF 1 kHz, 40% deviation)	
FSK error (Digital)	5% Max.	
Modulation limiting	60–100% of max. deviation	
Ext. microphone connector	9-pin multi connector/2.2 kΩ	
RECEIVER		
Sensitivity 20 dB SINAD 5% BER	–4 dBμV typ. (emf) –8 dBμV typ. (emf)	
Adjacent channel selectivity	75/75/68 dB typ. (W/M/N)	
Spurious response	70 dB min.	
Intermodulation rejection	67 dB typ.	
Hum and noise ratio	55/53/50 dB typ. (W/M/N)	
Audio output power	500 mW typ. at 5% distortion with an 8 Ω load	
Ext. speaker connector	9-pin multi connector/8 Ω	

Measurements made in accordance with EN 300-086.

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

Applicable U.S. Military Specifications & IP Rating

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and Ingress Protection standards.

Standard	MIL 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Rain Blowing/Drip	506.4	I, III
Humidity	507.4	–
Salt Fog	509.4	–
Dust Blowing	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

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

Ingress Protection Standard

Dust & Water	IP55 (Dust-protection and water jet resistance)
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VERSION COMPARISON

	IC-F3162DT/DS IC-F4162DT/DS (dPMR version)	IC-F3162DT/DS IC-F4162DT/DS (NXDN version)	IC-F3162T/S IC-F4162T/S (FM version)
CTCSS/DTCS (Analogue)	✓	✓	✓
5-Tone enc/dec (Analogue)	✓	✓	✓
2-Tone enc/dec (Analogue)	✓	✓	✓
DTMF autodial (Analogue)	✓	✓	✓
DTMF decoder (Analogue)	✓	✓	✓
BIIS 1200 (Analogue)	✓	✓	✓
MDC 1200 (Analogue)	–	✓	✓
LTR trunking (Analogue)	–	✓	✓
Voice scrambler (Analogue)			
Inversion	✓	✓	✓
Non-Rolling	UT-109R	UT-109R	UT-109R
Rolling	UT-110R	UT-110R	UT-110R
Man Down Function	UT-124R	UT-124R	UT-124R
IDAS dPMR			
Mode 1/2	✓	–	–
Mode 3	✓	–	–
IDAS NXDN			
Conventional mode	–	✓*	UT-126H
Single-site type D trunking	–	✓*	UT-126H
Multi-site type D trunking	–	✓*	UT-126H

* UT-126H is already installed in the IDAS NXDN version.

SUPPLIED ACCESSORIES

(May differ according to version)



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Icom Inc. 1-1-32, Kamiminami, 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 Brindejonc 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) 5765 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>