



VHF AND UHF DIGITAL TRANSCEIVERS (NXDN™)

IC-F3202DEX

(VHF transceiver for Europe version)

IC-F4202DEX

(UHF transceiver for Europe version)

IC-F3203DEX

(VHF transceiver for Export versions)

IC-F4203DEX

(UHF transceiver for Export versions)

IECEX/ATEX INTRINSICALLY SAFE RADIO



IDAS™
ICOM DIGITAL ADVANCED SYSTEM

NXDN™

IP67



IEC Certifications

Mining : Ex ib I Mb
Gas : Ex ib IIC T4 Gb
Dust : Ex ib IIIC T110°C Db
-20°C ≤ Ta ≤ +55°C
IEC 60079-0 (2011), IEC 60079-11 (2011)

ATEX Certifications

Mining : I M2 Ex ib I Mb
Gas : II 2G Ex ib IIC T4 Gb
Dust : II 2D Ex ib IIIC T110°C Db
-20°C ≤ Ta ≤ +55°C
EN 60079-0 (2012), EN 60079-11 (2012)

IP67 Dust-tight & Waterproof Protection

The IC-F3202DEX/F3203DEX series provides rugged protection against dust and water that is equivalent to IP67. The IC-F3202DEX/F3203DEX series can withstand 1m depth of water for 30 minutes and its dust-tight construction shuts out powder dust, sand and other objects.

IDAS™ Digital Mode Operation

The IC-F3202DEX/F3203DEX series provides can program NXDN™ Type-D single-site trunking and digital conventional as well as analog mode per channel. The following digital features are programmable.

- PTT ID (TX)
- Individual/Group calls
- Block decode
- Radio check (RX)
- Stun/kill/revive (RX)
- Call alert (RX)
- Remote monitor (RX)
- Emergency (TX)
- Digital voice scrambler (15-bit)
- Power ON/OFF status call (TX)
- RAN (Radio Access Number)
- Voting scan for multi-site conventional operation

TX: Transmit, RX: Receive

Analogue Mode Compatible

The IC-F3202DEX/F3203DEX series has built-in 5-Tone, 2-Tone, CTCSS and DTCS signaling capability for analogue mode group communication and selective calling. The lone worker and man down functions automatically send an emergency signal to assist in worker safety. The radio is perfect for use as an analogue transceiver ready for future digital migration.

Other Features

- 16 memory channels with channel announcement function
- MDC 1200 PTT ID and emergency transmission
- DTMF autodial
- Three programmable buttons (including emergency red button)
- Low electrical resistivity body; Carrying case is not required
- 19.5–21 hours* operating time with BP-277EX (* 5: 5: 90 duty cycle with Power save.)
- Optional waterproof speaker-microphone, HM-203EX



SPECIFICATIONS

	IC-F3202DEX IC-F3203DEX	IC-F4202DEX IC-F4203DEX	
GENERAL			
Frequency coverage	136–174 MHz	400–470 MHz	
Number of channels	16 channels		
Type of emission	16K0F3E, 14K0F3E, 8K50F3E, 4K00F1E/F1D		
Power supply requirement	7.4 V DC nominal		
Current drain (approx.)			
Tx High	550 mA		
Rx Max. audio/Standby	300 mA (Internal SP)/110 mA (Digital mode)		
Antenna impedance	50 Ω		
Operating temperature range	–20°C to +55°C		
Dimensions (W × H × D) (Projections not included)	63 × 144 × 50 mm (With BP-277EX)		
Weight (approx.)	258 g (Radio only) 466 g (With MB-94EX, BP-277EX & FA-SC55V)	250g (Radio only) 460 g (With MB-94EX, BP-277EX & FA-SC57U)	
TRANSMITTER			
Output power (at 7.4 V DC)	1 W, 0.8 W, 0.6 W (Hi, L2, L1)		
Max. permissible deviation	±5.0 kHz/±4.0 kHz/±2.5 kHz (W/M/N)		
Frequency stability	±1.0 ppm		
Spurious emissions	0.25 μV (≤ 1 GHz), 1.0 μV (> 1 GHz) 66 dB min.		
FM Hum and Noise (EXP)	50/46 dB typ. (W/N)	46/40 dB typ. (W/N)	
Residual modulations (EUR)	54/53/50 dB typ. (W/M/N)	48/46/42 dB typ. (W/M/N)	
Audio harmonic distortion	1.0/1.0/1.5% typ. (W/M/N) (@ AF 1 kHz 40% deviation)		
FSK error	2.0% typ. (Digital)	1.5% typ. (Digital)	
Ext. microphone connector	14-pin multi-connector/2.2 kΩ		
RECEIVER			
Sensitivity	Digital (5% BER)	–8 dBμV emf typ.	–9 dBμV emf typ.
	Analog (EUR, 20 dB SINAD)	–4 dBμV emf typ.	–5 dBμV emf typ.
	Analog (EXP, 12 dB SINAD)	0.24 μV typ.	0.22 μV typ.
Adjacent channel selectivity	78/75/70/62 dB typ. (W/M/N/D)	74/72/66/57 dB typ. (W/M/N/D)	
Spurious response	85 dB typ. (W/M/N),	75 dB typ. (W/M/N),	
	87 dBμV emf typ. (Digital)	79 dBμV emf typ. (Digital)	
Intermodulation	EUR	67 dB typ. (W/M/N), 73 dBμV emf typ. (Digital)	
	EXP	75/75/67 dB typ. (W/N/D)	74/74/73 dB typ. (W/N/D)
Hum and noise	EUR (With CCITT filter)	53/51/48 dB typ. (W/M/N)	46/44/41 dB typ. (W/M/N)
	EXP (Without CCITT filter)	48/43 dB typ. (W/N)	43/37 dB typ. (W/N)
Audio output power	400 mW typ. (at 5% distortion with 32 Ω load)		
External speaker connector	14-pin multi-connector/32 Ω		

Measurements made in accordance with TIA-603, EN 300-086, EN 301-166.
All stated specifications are subject to change without notice or obligation.

Applicable U.S. Military Specifications & IP Rating

Standard	MIL 810G	
	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
Solar Radiation	505.5	I
Rain Blowing/Drip	506.5	I, III
Humidity	507.5	II
Salt Fog	509.5	–
Dust Blowing	510.5	I
Immersion	512.5	I
Vibration	514.6	I
Shock	516.6	I, IV

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

Ingress Protection Standard

Dust & Water	IP67 (Dust-tight and waterproof)
--------------	----------------------------------

Supplied accessories: (May differ according to version)

- Battery pack, BP-277EX
- Belt clip, MB-94EX
- Antenna
- Battery charger, BC-212EX
- AC adapter, BC-123S

Read all instructions enclosed with the transceiver carefully and completely before using the transceiver.

Icom, Icom Inc. and Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand and/or other countries. IDAS and 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, 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 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 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 (Europe) GmbH

Communication Equipment
Auf der Krautweide 24
65812 Bad Soden am Taunus, Germany
Phone: +49 (6196) 76885-0
Fax: +49 (6196) 76885-50
E-mail: info@icom-europe.com
URL: <http://www.icom-europe.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 France s.a.s.

Zac de la Plaine,
1 Rue Brindejone 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>

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>

Icom New Zealand

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

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>

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>


OPTIONS

BATTERY PACK
IP67



BP-277EX
Rechargeable
Li-ion, 7.4 V
1800 mAh (min.)
1900 mAh (typ.)

RAPID CHARGER



BC-123S^{*1} **BC-212EX**

Charges the BP-277EX in 2 hours (approx.).

SPEAKER-MICROPHONE
IP67



HM-203EX

BELT CLIP



MB-94EX
Alligator type
Same as supplied.

ANTENNAS

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

^{*1} BC-123SA for USA.
SE for Europe. SV for Australia.

DO NOT use the transceiver with any other equipment other than the above options.
The battery charger, BC-212EX must not be used in an explosive atmosphere.

ATEX mining protection and meaning

I	M2	Ex	ib	I	Mb
Mb = Mining equipment protection level: High protection					
I = Protection in mining group: Methane					
ib = Intrinsic safety					
Ex = Explosion proof equipment					
M2 = Must be switched OFF in case of firedamp					
I = Group I, Mining					

ATEX gas protection and meaning

II	2	G	Ex	ib	IIC	T4	Gb
Gb = GAS equipment protection level: High protection							
T4 = Device surface temperature will not exceed 135°C							
IIC = Protection in GAS group: Acetylene, Hydrogen							
ib = Intrinsic safety							
Ex = Explosion proof equipment							
G = Gas, vapour and mist							
2 = High level protection for use in Zone 1 (gas)							
II = Group II, other (non-mining) areas							

ATEX dust protection and meaning

II	2	D	Ex	ib	IIC	T110°C	Db
Db = Dust equipment protection level: High protection							
T110°C = Maximum temperature of device surface							
IIC = Dust group: Conductive dust (R_S10 ³ Ωm)							
ib = Intrinsic safety							
Ex = Explosion proof equipment							
D = Dust							
2 = High level protection for use in Zone 21 (dust)							
II = Group II, other (non-mining) areas							

* Please ask your dealer to ensure the ATEX and IECEx ratings are acceptable for the intended place of use.

Your local distributor/dealer: