



This versatile handheld radio supports both NXDN and DMR digital protocols as well as mixed digital & FM analog operation, enabling it to serve with distinction in a wide range of enterprise- and operation-critical applications. Compact yet designed with durability in mind, it's packed with convenient features like Bluetooth® for hands-free operation and built-in GPS. Three different models are available : Full Keypad model with LCD, Standard Keypad model with LCD and a large 4-way D-pad, and the Basic Model without LCD or keypad. Additionally, for expansion capability a software license certification system facilitates extensive customization.

PRODUCT HIGHLIGHTS

- **Multi-protocol digital** radio : designed to operate under an NXDN or DMR digital, and FM analog protocols
- **NXDN** Conventional and Type-C & Gen2 Trunking
- **DMR** Tier II & Site Roaming
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line** Basic Frame (2-Line Main/Sub-LCD, icon & key guide) / 14 Characters
- **5-Line** Text Message Frame (3 Lines of Text, icon & key guide)*
- **7-Color Light Bar Indicator** on the top panel
- **4-way Directional-pad (D-pad)** for intuitive control and operation
- **Built-in GPS Receiver/Antenna** for effective fleet management
- **Built-in Bluetooth** for hands-free operation – Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option)
- Renowned **KENWOOD Audio Quality** with **Active Noise Reduction (ANR)** that utilizes built-in DSP
- Software **DES** and **AES** Encryptions for **NXDN** Conventional/Trunking and **DMR** Conventional protocols
- **Built-in Motion Sensor** (Man-down, Stationary and Motion Detection)
- **IP54/55/67 & MIL-STD-810 C/D/E/F/G**

*The number of lines may vary depending on the display language (character set).

GENERAL FEATURES

- Audio Output Power (5 W, 4 W and 1 W)
- UHF : 120 MHz capability
- Available models: Full Keypad (w/ LCD and full keypad), Standard Keypad (w/ LCD and 4-way large D-pad/4 key), and Basic (w/o LCD and keypad)
- 260 CH / 128 Zones (64 CH / 4 Zones for Basic model)
- 1000 CH with option
- Paging Call
- Emergency Call
- Status/Text Message
- Remote Stun/Kill/C

DIGITAL - NXDN MODE

- NXDN Type-C & Gen2 Trunked
- NXDN Conventional
- 6.25 & 12.5 kHz Channels
- All Group Call
- Over-the-Air Alias (OAA)
- Over-the -Air Programming (OTAP)

DIGITAL - DMR MODE

- Complies with ETSI DMR Tier II standards
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Site Roaming
- Dual-slot Direct Mode
- ARC4 Encryption
- Energy Efficient

ANALOG - FM MODE

- Conventional & LTR Trunking
- FleetSync/II: PTT ID ANI / Caller ID Display, Selective Group Call, Emergency Status / Text Messages
- MDC-1200 : PTT ID ANI / Caller ID Display, Selective Call, Emergency, Radio Check / Inhibit
- QT/DQT, DTMF, 5-Tone
- Built-in Voice Inversion Scrambler



Full Keypad Model (E)

Standard Keypad Model (E2)

Basic Model (E3)

OPTIONAL ACCESSORIES

• KNB-55LM/57LM

Li-ion battery pack
(7.4 V/1480 mAh,
7.4 V/ 2000 mAh)



• KNB-56NM

Ni-MH battery pack
(7.2 V/1400 mAh)

• KNB-78LM*

Li-ion battery pack
(7.4 V/2860 mAh)
*Available later

• KBP-5M

Battery case (6 AA)

• KSC-25LSE/25SE

Rapid charger
KSC-25LSE > Li-ion
batteries only
KSC-25SE > Li-ion &
Ni-MH batteries



• KSC-256E

Multiple charger
(6-pocket)



• KMB-30M

Mounting bracket
(for KSC-256E)

KSC-256

• KRA-22/23

VHF/UHF helical
antenna
(low profile)



• KRA-26

VHF helical
antenna
(standard length)



• KRA-27

UHF whip antenna
(standard length)



• KRA-41/42

VHF/UHF stubby
antenna



• KMC-45DW

Speaker micro-
phone (IP54/55)



• KBH-11M

Belt clip



• KPG-180AP

OTAP Manager

SPECIFICATIONS

All accessories and options may not be available in all markets.
Contact an authorized KENWOOD dealers for details and complete list of all accessories and options.

GENERAL		NX-3220	NX-3320
Frequency Range		136 ~ 174 MHz	400 ~ 520 MHz
Max. Channels per Radio		Up to 1000 channels with option	
Number of Channels		260 (64 for no LCD models)	
Number of Zones		128 (4 for no LCD models)	
Channel Spacing	Analog	12.5 / 20 / 25 kHz	
	Digital	6.25 / 12.5 kHz	
Power Supply		7.5 V DC ± 20%	
Battery Life (FDMA/TDMA) 5-5-90	KNB-55L (1480 mAh)	approx. 8 hours / approx. 9.5 hours	
	KNB-56N (1400 mAh)	approx. 8 hours / approx. 9 hours	
	KNB-57L (2000 mAh)	approx. 11 hours / approx. 13.5 hours	
Operating Temperature		-30°C to +60°C	
Frequency Stability		± 2.0 ppm	± 1.0 ppm
Dimensions (W x H x D) — projections not included —	Radio only	56 x 119.6 x 36.4 mm ¹	
	With KNB-55L (1480 mAh)	56 x 119.6 x 36.4 mm ¹	
	With KNB-56N (1400 mAh)	56 x 119.6 x 42.7 mm ¹	
	With KNB-57L (2000 mAh)	56 x 119.6 x 39 mm ¹	
Weight (net)	Radio only	220 g ²	
	With KNB-55L (1480 mAh)	315 g ²	
	With KNB-56N (1400 mAh)	410 g ²	
	With KNB-57L (2000 mAh)	340 g ²	
Applicable Standards	ETSI (EMC)	EN 301 489-3, EN 301 489-5, EN 301 489-17	
	ETSI (Spectrum)	EN 300 086, EN 300 113, EN 300 219, EN 300 328, EN 300 440, EN 301 166	
	ETSI Safety	EN 60215, EN 60950-1	

¹ Dimensions for Full Keypad/Std Keypad Models / ² Weight for Full Keypad Model
Specifications are measured according to applicable standards.

Specifications shown are typical and subject to change without notice, due to advancements in technology.

RECEIVER		NX-3220	NX-3320
Sensitivity - Digital	NXDN 3% BER (6.25 kHz/12.5 kHz)	0.20 µV / 0.25 µV	
	NXDN 1% BER (6.25 kHz/12.5 kHz)	-4.0 dBµV (0.32 µV) / -1 dBµV (0.45 µV)	
	DMR 12.5 kHz Digital, 5% BER	-4.5 dBµV (0.30 µV)	
	DMR 12.5 kHz Digital, 1% BER	-1 dBµV (0.45 µV)	
Sensitivity - Analog	EIA 12 dB SINAD (12.5/20 & 25 kHz)	0.25 µV	
	EN 20 dB SINAD (12.5/20 & 25 kHz)	-1 dBµV (0.45 µV) / -3 dBµV (0.35 µV) / -3 dBµV (0.35 µV)	
Selectivity	Analog 12.5 kHz	68 dB	
	Analog 20 kHz	74 dB	
	Analog 25 kHz	76 dB	
Intermodulation		65 dB	
Spurious Rejection		65 dB	
Audio Distortion		3%	
Audio Output (Internal Speaker)	3% Distortion	500 mW / 8 Ohm	
	5% Distortion	1000 mW / 8 Ohm	
TRANSMITTER		NX-3220	NX-3320
RF Power Output		5 W / 4 W / 1 W	
Spurious Emission		-36 dBm ≤ 1 GHz, -30 dBm > 1 GHz	
FM Hum & Noise	Analog @ 25 kHz	45 dB	
	Analog @ 20 kHz	45 dB	
	Analog @ 12.5 kHz	40 dB	
Audio Distortion		3 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3	
Emission Designator		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 8K50F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K50F2D, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

NORMES MIL-STD & IP

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
Low Pressure	500.1 / I	500.2 / I, II	500.3 / I, II	500.4 / I, II	500.5 / I, II
High Temperature	501.1 / I, II	501.2 / I, II	501.3 / I, II	501.4 / I, II	501.5 / I, II
Low Temperature	502.1 / I	502.2 / I, II	502.3 / I, II	502.4 / I, II	502.5 / I, II
Temp. Shock	503.1 / I	503.2 / I	503.3 / I	503.4 / I, II	503.5 / I
Solar Radiation	505.1 / I	505.2 / I	505.3 / I	505.4 / I	505.5 / I
Rain*	506.1 / I, II	506.2 / I, II	506.3 / I, II	506.4 / I, III	506.5 / I, III
Humidity	507.1 / I, II	507.2 / II, III	507.3 / II, III	507.4	507.5 / II
Salt Fog	509.1 / I	509.2 / I	509.3 / I	509.4	509.5
Dust	510.1 / I	510.2 / I	510.3 / I	510.4 / I, III	510.5 / I
Vibration	514.2 / VIII, X	514.3 / I	514.4 / I	514.5 / I	514.6 / I
Shock	516.2 / I, II, V	516.3 / I, IV	516.4 / I, IV	516.5 / I, IV	516.6 / II, IV

International Protection Standards

Dust & Water* IP54, IP55, IP67

*Audio accessory connector must be covered.

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