

NX-3220/3320/3420

MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS

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.

Features

Multi-protocol digital radio: Designed to operate under NXDN® or DMR digital, and FM analog protocols

NXDN® Conventional and Type-C & Gen2 Trunking

DMR Tier 2 Conventional & Site Roaming

DMR Auto Slot Select

DMR Tier 3 Trunking

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. Individual color can be set for each channel

4-way Directional-pad (D-pad) for intuitive control and operation

Built-In GPS Receiver/Antenna for effective fleet and incident management

Built-in Bluetooth® for hands-free operation for IoT applications- Applicable Bluetooth profiles: HSP (Headset Profile) and SPP (Serial Port Profile)

Renowned KENWOOD Audio Quality achieved with Active Noise Reduction (ANR) that utilizes built-in DSP

Optional DES and AES Encryption

Built-in Motion Sensor (Man-down, Stationary and Motion Detection)

IP54/55/67 and MIL-STD-810 C/D/E/F/G

1 Watt Audio Output Power

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)

Maximum of 1,000 CH/Radio with option

Paging Call

Emergency Call

Status/Text Message

Remote Stun/Kill/Check

NXDN® DMR Gen2 Bluetooth® GPS FleetSync™

DMR T3 Trunking Auto Slot Select



Full Keypad, Standard & Basic Models

7-color Light Bar Indicator

2-pin Connector.

Digital – NXDN® Mode

NXDN Conventional	Remote Monitor
NXDN Type-C & Gen2 Trunking	All Group Call
6.25 & 12.5 kHz Channels	Over-the-Air Alias (OAA)
Advanced GPS	Over-the-Air Programming (OTAP)

Digital – DMR Mode

Two-slot TDMA in 12.5 kHz channels	Dual-slot Direct Mode
DMR Tier 2 Conventional / Site Roaming	ARC4 Encryption
DMR Auto Slot Select	Energy Efficient
DMR Tier 3 Trunking	Over-the-Air Programming (OTAP)
Call Interruption	

Analog – FM Mode

Conventional & LTR Trunking	MDC-1200: PTT ID ANI / Caller ID
FleetSync/II: PTT ID ANI / Caller ID Display,	Display, Emergency, Radio Check / Inhibit
Selective Group Call, Emergency Status	QT / DQT, DTMF, 2-Tone
Text Messages	Built-in Voice Inversion Scrambler



Multi-Protocol

Unsurpassed interoperability for Enterprise radio users with the freedom to migrate at your own pace.



Gen2

Scalable server-based system architecture for management of NEXEDGE wide area digital communications systems.



Klarity

The ultimate level of sound clarity technology combining Optimization, advanced Sound Analysis and Active Noise Reduction.

Accessories

All accessories may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories.

KNB-55LA/57LA/78L

Li-ion Battery Pack (7.4V/1480mAh, 7.4V/2000mAh, 7.4V/2860mAh)



KMB-30A
Mounting Bracket (for KSC-256AK)
KVC-23
Vehicular Charger



KRA-29P
UHF Broadband Antenna (406-470MHz)



KEP-2
Earphone Kit for KMC-45D (2.5mm plug)



KHS-22A
Light Duty behind the head Headset with in-line PTT



KNB-56N
Ni-MH Battery Pack (7.2 V/1400 mAh)



KRA-22/23
VHF/UHF Low Profile Helical Antenna



KRA-32K
700/800MHz Whip Antenna



KMC-45D
Speaker Microphone (IP54/55 & TDMA)



KBH-11
Belt Clip (2.5")



KBP-5
Battery Case (6 AA)



KRA-25
High Gain VHF Whip Antenna



KRA-36
700/800MHz Stubby Antenna



KHS-7A
Lightweight Single Muff Headset



KAS-20
AVL & Dispatch Software

KSC-25LSK/25SK
Rapid Charger (Li-ion Only/Tri-Chem)



KRA-26/ 27
VHF Helical Antenna UHF Whip Antenna



KRA-38K
800/900MHz Whip Antenna (included with NX-3400/NX-3420)



KHS-8BL
2-wire Palm Mic with Earphone (Black)



KPG-180AP
OTAP Manager

KSC-256AK
Multiple Charger (6-pocket)



KRA-28
Broadband VHF Whip Antenna



KRA-39
900MHz Stubby Antenna



KHS-10D-BH
Behind-the-Head Heavy Duty Head Set with Boom Mic



Specifications

General	NX-3220	NX-3320	NX-3420
Frequency Range	138-174 MHz	4061-470 MHz	TX/RX: 851-870, 935-941 MHz TX:806-825, 896-902 MHz
Max. Channels Per Radio		Up to 1000 CH with option	
Number of Channels		260 (64 for no LCD models)	
Number of Zones		128 (4 for no LCD models)	
Channel Spacing			
Analog	12.5/15/25/30 kHz	12.5/25 kHz	12.5/25 kHz
Digital	6.25 kHz/12.5 kHz	6.25 kHz/12.5 kHz	6.25 kHz/12.5 kHz
Power Supply		75V DC ± 20%	
Battery Life 5-5-90		(FDMA conventional / Trunking, TDMA Conventional / Trunking)	
KNB-55L (1,480 mAh)	8.5 / 6.5 hours, 12.5 / 9 hours		9 / 7 hours, 12 / 9 hours
KNB-56N (1,400 mAh)	7.5 / 6 hours, 11 / 8 hours		8 / 6 hours, 10.5 / 8 hours
KNB-57L (2,000 mAh)	12 / 9.5 hours, 17.5 / 13 hours		13 / 10 hours, 17 / 13 hours
KNB-78L (2,860 mAh)	17.5 / 13.5 hours, 25 / 18.5 hours		18.5 / 14 hours, 24 / 18.5 hours
Operating Temperature		-22°F to +140°F (-30°C to +60°C)	
Frequency Stability		±0.5 ppm (-30°C to +60°C; +25°C Ref.)	
Dimensions		(W x H x D) Projections Not Included	
Radio Only		2.20 x 4.71 x 1.43 in (56 x 119.6 x 36.4 mm)	
KNB-55LA (1,480 mAh)		2.20 x 4.71 x 1.43 in (56 x 119.6 x 36.4 mm)	
KNB-56N (1,400 mAh)		2.20 x 4.71 x 1.68 in (56 x 119.6 x 42.7 mm)	
KNB-57LA (2,000 mAh)		2.20 x 4.71 x 1.53 in (56 x 119.6 x 39 mm)	
KNB-78L (2,860 mAh)		2.20 x 4.71 x 1.77 in (56 x 119.6 x 44.9 mm)	
Weight Radio Only		78 oz (220 g)	
KNB-55LA (1,480 mAh)		111 oz (315 g)	
KNB-56N (1,400 mAh)		14.5 oz (410 g)	
KNB-57LA (2,000 mAh)		12.0 oz (340 g)	
IC Certification	282F-479000	282F-479100	282F-502500

Battery Life is measured by Battery Save ON, GPS/Bluetooth OFF, 4 W for VHF/UHF and 3 W for 800/900MHz Bands Specifications are subject change without notice, due to advancements in technology.

Receiver	NX-3220	NX-3320	NX-3420
Sensitivity			
NXDN* 6.25 kHz Digital (3% BER)			0.20 µV
NXDN*12.5 kHz Digital (3% BER)			0.25 µV
DMR 12.5 KHz Digital (5% BER)			0.30 µV
DMR 12.5 KHz Digital (1% BER)			0.45 µV
Analog (12dB SINAD)			0.25 µV

Selectivity			
Analog @ 12.5KHz		65 dB	60 dB
Analog @ 25KHz		72 dB	70 dB
Intermodulation			70 dB
Spurious Rejection			70 dB
Audio Distortion			3%
Audio Output Power		500 mW/8Ω (3% Distortion) / 1000 mW/8Ω (5% Distortion)	

Transmitter	NX-3220	NX-3320	NX-3420
RF Power Output (High / Mid / Low)	5 W / 4 W / 1 W		3 W / 1 W
Spurious Emission		-70 dB	
FM Hum & Noise			
Analog @ 12.5KHz		40 dB	
Analog @ 25KHz		45 dB	
Audio Distortion		Less than 3%	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E, 14K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

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MIL-STD & IP

MIL Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures	MIL 810G Methods/Procedures
Low Pressure	5001/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	5011/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III	506.5/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV	516.6/Procedure I, IV

International Protection Standard

Dust & Water Protection*

IP54/55/67

*For IP54/55 Audio accessory or cover must be installed. / For IP67 Audio accessory cover must be installed.

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