

# KENWOOD

## NEXEDGE®

# NX-3220/3320

## NEXEDGE® VHF/UHF MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS

**NXDN®** **DMR** **Gen2** **Bluetooth®** **GPS** **FleetSync®**

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.



Full Keypad Model

Standard & Basic Models  
(Not proportionately accurate)

### FEATURE HIGHLIGHTS

- **Multi-protocol digital** radio: Designed to operate 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** can be achieved 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** and **MIL-STD-810 C/D/E/F/G**

### GENERAL FEATURES

- 1 Watt Audio Output Power
- 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)
- Maximum of 1,000 CH/Radio with option
- Intrinsically Safe Option (Future Availability)
- Paging Call
- Emergency Call
- Status/Text Message
- Remote Stun/Kill/Check

### 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
- Two-slot TDMA in 12.5 kHz channels
- Call Interruption
- 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, Emergency, Radio Check / Inhibit
- QT / DQT, 2-Tone
- Built-in Voice Inversion Scrambler

# Options

<p><b>KNB-55L/57L</b> Li-ion Battery Pack (7.4 V/1480 mAh, 7.4 V/2000 mAh)</p>	<p><b>KMB-30</b> Mounting Bracket (for KSC-256)</p>	<p><b>KRA-27</b> UHF Whip Antenna</p>	<p><b>KHS-8</b> 2-wire Palm Mic with Earphone (Black)</p>	<p><b>KHS-27A</b> Head Set (with D-Ring In-Line PTT)</p>
<p><b>KNB-56N</b> Ni-MH Battery Pack (7.2 V/1400 mAh)</p>	<p><b>KVC-23</b> Vehicular Charger</p>	<p><b>KRA-28</b> Broadband VHF Whip Antenna</p>	<p><b>KHS-9BL</b> 3-wire Lapel Mic with Earphone (Black)</p>	<p><b>KHS-31C</b> Head Set (with C-Ring)</p>
<p><b>KNB-68LC</b> Li-ion Battery Pack (7.4 V/2000 mAh, Intrinsically Safe*)</p>	<p><b>KRA-22</b> VHF Low Profile Helical Antenna</p>	<p><b>KEP-2</b> Earphone Kit for KMC-45D (2.5mm plug)</p>	<p><b>KHS-10</b> Headset (Single Muff Single Muff &amp; In-line PTT Heavy Duty Behind-the-Head)</p>	<p><b>KBH-11</b> Belt Clip (2.5")</p>
<p><b>KBP-5</b> Battery Case (6 AA)</p>	<p><b>KRA-23</b> UHF Low Profile Helical Antenna</p>	<p><b>KMC-45D</b> Speaker Microphone (IP54/55 &amp; TDMA)</p>	<p><b>KHS-22</b> Head Set</p>	<p><b>KPG-180P</b> OTAP Manager</p>
<p><b>KSC-25LSK/25SK</b> Rapid Charger (Li-ion Only/Tri-Chem)</p>	<p><b>KRA-25</b> High Gain Whip Antenna</p>	<p><b>KHS-7</b> Headset (Single Muff / Single Muff &amp; In-line PTT / Heavy Duty Behind-the-Head)</p>	<p><b>KHS-26</b> Head Set (with Ear Bud In-Line PTT)</p>	<p><b>KLH-206</b> Leather Case</p>
<p><b>KSC-256K</b> Multiple Charger (6-pocket)</p>	<p><b>KRA-26</b> VHF Helical Antenna</p>	<p><b>KHS-7A</b> Lightweight Single Muff Headset</p>	<p><b>KLH-207</b> Nylon Case</p>	

\*Future Availability

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

# Main Specifications

	NX-3220	NX-3320
<b>GENERAL</b>		
Frequency Range	136-174 MHz	400-520 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
Digital	6.25kHz/12.5 kHz	6.25kHz/12.5kHz
Power Supply	7.5V DC ± 20%	
Battery Life	(FDMA/TDMA) 5-5-90	
KNB-55L (1,480 mAh)	Approx. 8 hours	Approx. 9.5 hours
KNB-56N (1,400 mAh)	Approx. 8 hours	Approx. 9 hours
KNB-57L (2,000 mAh)	Approx. 11 hours	Approx. 13.5 hours
Operating Temperature	-22°F to +140°F (-30°C to +60°C)	
Frequency Stability	±2.0 ppm	±1.0 ppm
Dimensions	(W x H x D) Projections Not Included	
Radio Full Keypad Model	2.20 x 4.71 x 1.43 in (56 x 119.6 x 36.4 mm)	
KNB-55L (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-57L (2,000 mAh)	2.20 x 4.71 x 1.53 in (56 x 119.6 x 39 mm)	
Weight Radio Full Keypad Model	7.8 oz (220 g)	
KNB-55L (1,480 mAh)	11.1 oz (315 g)	
KNB-56N (1,400 mAh)	14.5 oz (410 g)	
KNB-57L (2,000 mAh)	12.0 oz (340 g)	
FCC ID	K44479000	K44479100
IC Certification	282F-479000	282F-479100

	NX-3220	NX-3320
<b>RECEIVER</b>		
<b>Sensitivity</b>		
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	
<b>Selectivity</b>		
Analog @ 12.5 kHz	65 dB	
Analog @ 25 kHz	72 dB	
Intermodulation	70 dB	
Spurious Rejection	70 dB	
Audio Distortion	3%	
Audio Output Power	500 mW/8Ω (3% Distortion) / 1,000 mW/8Ω (5% Distortion)	
<b>TRANSMITTER</b>		
RF Power Output (High / Mid / Low)	5 W / 4 W / 1 W	
Spurious Emission	-70 dB	
<b>FM Hum &amp; Noise</b>		
Analog @ 12.5 kHz	40 dB	
Analog @ 25kHz	45 dB	
Audio Distortion	3%	
Digital Protocol	ETSI TS 102 361-1, -2, -3	
Emission Designator	16K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60F0XD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. NXDN® is a trademark of JVCKENWOOD Corporation and Icom Inc. NEXEDGE® is a registered trademark of JVCKENWOOD Corporation. FleetSync® is a registered trademark of JVCKENWOOD Corporation. All other trademarks are the property of their respective holders.

\*1 25 and 30 kHz are not included in the models sold in the USA or US territories. Analog measurements made per TIA603. Specifications are measured according to applicable standards. Specifications shown are typical and subject to change without notice, due to advancements in technology.

# Applicable 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	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	501.1/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
<b>International Protection Standard</b>					
Dust & Water Protection*	IP54/55/67				

\*Radio must equip 2PIN accessory cover.

# KENWOOD

JVCKENWOOD USA Corporation  
 Communications Sector Headquarters  
 3970 Johns Creek Court, Suite 100, Suwanee, GA 30024-1265  
 Order Administration/Distribution  
 P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745  
[www.kenwood.com/usa](http://www.kenwood.com/usa)

JVCKENWOOD Canada Inc.  
 Canadian Headquarters and Distribution  
 6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8  
[www.kenwood.com/ca](http://www.kenwood.com/ca)



ISO9001 Registered  
 JVCKENWOOD Corporation