

# KENWOOD

### NEXEDGE

One Radio with Multi-Protocol Support

## 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

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

Paging Call

Emergency Call

Status/Text Message

Remote Stun/Kill/Check



Unsurpassed interoperability for Enterprise radio users with the freedom to migrate at





















Full Keypad Model Standard & Basic Models

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#### Digital - NXDN® Mode

NXDN Conventional NXDN Type-C & Gen2 Trunking 6.25 & 12.5 kHz Channels Advanced GPS

Remote Monitor All Group Call Over-the-Air Alias (OAA) Over-the-Air Programming (OTAP)

#### Digital - DMR Mode

Two-slot TDMA in 12.5 kHz channels DMR Tier 2 Conventional / Site Roaming DMR Auto Slot Select S-Trunking (Ver. UP) DMR Tier 3 Trunking 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, DTMF, 2-Tone Built-in Voice Inversion Scrambler





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

combining Optimization, advanced Sound Analysis and Active Noise Reduction.



KNB-55L/57L/78L Li-ion Battery Pack (7.4V/1480mAh, 7.4V/2000mAh, 7.4V/2860mAh) KNB-56N Ni-MH Battery Pack (7.2 V/1400 mAh) KNB-79LCM Li-ion Battery Pack (7.4 V/2860 mAh. Intrinsically Safe) KBP-5 Battery Case (6 AA) KSC-25LSK/25SK Rapid Charger (Li-ion Only/Tri-Chem) KSC-256AK Multiple Charger

KMB-30A Mounting Bracket (for KSC-256AK) KVC-23 Vehicular Charger KRA-22/23 VHF/UHF Low Profile Helical Antenna KRA-25 High Gain Whip Antenna KRA-26/27 VHF Helical Antenna UHF Whip Antenna KRA-28 Broadband VHF Whip Antenna KRA-41/42 VHF/UHF Stubby Antenna KRA-24 800MHz Whip Antenna KRA-32K 700/800MHz Whip Antenna KRA-36

700/800MHz Stubby Antenna

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

KRA-39 900MHz Stubby Antenna

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

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



KHS-7 Headset (Single Muff Single Muff & In-line PTT / Heavy Duty Behind-th Head)

KHS-7A KH5-/A Lightweight Single Muff Headset or KMC-54WD

KHS-8BL 2-wire Palm Mic with Earphone (Black) KHS-9BL

3-wire Lapel Mic with Earphone (Black)

KHS-10D Headset (Single Muff Single Muff & In-line PTT Heavy Duty Behind-the-Head)

KHS-22A

KHS-26 11 Head Set (with Ear Bud In-Line PTT/ with D-RING IN-LINE PTT)

KHS-27A Head Set (with D-Ring În-Line PTT)

KHS-31C Head Set (with C-Ring)

KBH-11 Belt Clip (2.5")

KAS-20 AVL & Dispatch Software KPG-180AP

OTAP Manager KLH-206/207

### Leather/Nylon Case

#### **Specifications**

Frequency Range	136-174 MHz	400-520 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 Digital	12.5/15/25*/30* kHz 6.25 kHz/12.5 kHz	12.5/25* kHz 6.25 kHz/12.5 kHz	12.5/25* kHz 6.25 kHz/12.5 kHz			
Power Supply	75V DC ± 20%					
Battery Life 5-5-90 KNB-55L (1,480 mAh) KNB-56N (1,400 mAh KNB-57L (2,000 mAh) KNB-78L (2,860 mAh) KNB-79LCM (2,860 mAh)	(FDMA conventional / Trunking, TDMA Conver 85 / 65 hours, 12.5 / 9 hours 75 / 6 hours, 11 / 8 hours 12 / 95 hours, 175 / 13 hours 175 / 135 hours, 25 / 185 hours 15 / 11.5 hours, 21.5 / 16 hours		9 / 7 hours, 12 / 9 hours 8 / 6 hours, 10.5 / 8 hours 13 / 10 hours, 17 / 13 hours 18.5 / 14 hours, 24 / 18.5 hours 15.5 / 12 hours, 20.5 / 16 hours			
Operating Temperature	-4	22°F to +140°F (-30°C to +60	°C)			
Frequency Stability	±0.5	5 ppm (-30°C to +60°C; +25°C	C Ref.)			
Dimensions Radio Only KNB-55L (1,480 mAh) KNB-56N (1,400 mAh) KNB-57L (2,000 mAh) KNB-78L, KNB-79LCM	(W x H x D) Projections Not Included 2.20 x 4.71 x 1.43 in (56 x 119.6 x 3.64 mm) 2.20 x 4.71 x 1.43 in (56 x 119.6 x 3.64 mm) 2.20 x 4.71 x 1.88 in (56 x 119.6 x 42.7 mm) 2.20 x 4.71 x 1.53 in (56 x 119.6 x 3.9 mm) 2.20 x 4.71 x 1.77 in (56 x 119.6 x 4.9 mm)					
Weight Radio Only KNB-55L (1,480 mAh) KNB-56N (1,400 mAh) KNB-57L (2,000 mAh) KNB-78L, KNB-79LCM	78 oz (220 g) 11.1 oz (315 g) 14.5 oz (410 g) 12.0 oz (340 g) 13.6 oz (385 g) / 13.9 oz (395 g)					
FCC ID	K44479000	K44479100	K44502500			
IC Certification	282F-479000	282F-479100	282F-502500			

Analog measurements made per TIA603. Specifications are measured according to applicable standards. 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.

Sensitivity NXDN* 6.25 kHz Digital (3% BER) NXDN*12.5 kHz Digital (3% BER) DMR 12.5 kHz Digital (3% BER) DMR 12.5 kHz Digital (5% BER) DMR 12.5 kHz Digital (1% BER) Analog (12dB SINAD)		0.20 μV 0.25 μV 0.30 μV 0.45 μV 0.25 μV	
Selectivity Analog @ 12.5kHz Analog @ 25kHz	65 dB 72 dB		60 dB 70 dB
Intermodulation		70 dB	
Spurious Rejection		70 dB	
Audio Distortion		3%	
Audio Outout Power	500 mW/80 (	396 Distortion) / 1000 mW//80	(5% Distortion)

Transmitter	NX-3220	NX-3320	NX-3420		
RF Power Output (High / Mid / Low)	5W/4W/1W		3 W / 1 W		
Spurious Emission	-70 dB				
FM Hum & Noise Analog @ 12.5kHz Analog @ 25kHz	40 dB 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

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/Prcedure 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

#### JVCKENWOOD USA Corporation

Communications Sector Headquarters 1440 Corporate Drive | Irving, TX 75038

Order Administration/Distribution P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745 www.kenwood.com/usa

JVCKENWOOD Canada Inc.

Canadian Headquarters and Distribution 6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8 www.kenwood.com/ca

KENWOOD Communications Global Website





ADS#17919 Print in U.S.A.

