KENWOOD

NEXEDGE®
One Radio with Multi-Protocol Support

NX-3220/3320

VHF/UHF DIGITAL TRANSCEIVERS
(Featuring 2-pin audio connector)

NXDN™   **DMR**

Gen2   DMR-based TRUNKING T3   DMR Auto Slot Select

FleetSync®   GPS   Bluetooth®

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 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

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

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 (Available later)
- 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

- DMR Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Site Roaming
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Dual-slot Direct Mode
- Enhanced 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

Full Keypad Model   **Standard Keypad Model**   **Basic Model**

⬤ OPTIONAL ACCESSORIES

- **KNB-55L/57L/78L**
  Li-ion BATTERY PACK
  (7.4 V/1480 mAh, 7.4 V/2000 mAh, 7.4 V/2860 mAh)

- **KNB-56N**
  Ni-MH BATTERY PACK
  (7.2 V/1400 mAh)

- **KNB-79LC**
  Li-ion BATTERY PACK
  (7.4 V/2860 mAh, Intrinsically Safe)

- **KBP-5**
  BATTERY CASE (6 AA)

- **KSC-25LS/25S**
  RAPID CHARGER
  (Li-ion Only/Tri-Chem)

- **KSC-526**
  6-UNIT CHARGER BASE
  (Req. KSC-52P)

- **KSC-52P**
  CHARGING POCKET

KNB-57L

KSC-25S

KSC-526

- **KVC-23**
  VEHICULAR CHARGER

- **KRA-22/23**
  VHF/UHF HELICAL ANTENNA
  (Low Profile)
  KRA-22   KRA-23

- **KRA-26**
  VHF HELICAL ANTENNA
  (Standard Length)

- **KRA-27**
  UHF WHIP ANTENNA
  (Standard Length)

- **KRA-41/42**
  VHF/UHF STUBBY ANTENNA
  KRA-41   KRA-42

- **KRA-25/28**
  HIGH GAIN (Whip)/
  BROADBAND VHF (Whip)

- **KEP-1/2**
  EARPHONE
  (3.5 mm/2.5 mm)

- **KCM-45D**
  SPEAKER MICROPHONE
  (IP54/55 & TDMA)

- **KHS-7/7A/10/22**
  HEADSET (Single Muff / Single Muff & In-line PTT / Heavy Duty / Behind-the-Head)

- **KHS-8/9**
  PALM MICROPHONE WITH EARPHONE (2-wire/3-wire)

- **KHS-26/27/31C**
  HEADSET (with EAR BUD IN-LINE PTT / with D-RING IN-LINE PTT / with C-RING)

- **KBH-11**
  BELT CLIP (2.5")

- **KPG-180AP**
  OTAP MANAGER

- **KLH-207**
  NYLON CASE

- **KLH-206**
  LEATHER CASE

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.

⬤ SPECIFICATIONS

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 / 15 / 20 / 25*¹ / 30*¹ kHz	12.5 / 25*¹ kHz
	Digital	6.25 / 12.5 kHz	6.25 / 12.5 kHz
Power Supply		7.5 V DC ±20 %	
		FDMA Conv. / Trunk.	TDMA Conv. / Trunk.
Battery Life*² (Average battery life at 5-5-90)	KNB-55L (1480 mAh)	8.5 / 6.5 h	12.5 / 9.0 h
	KNB-56N (1400 mAh)	7.5 / 6.0 h	11.0 / 8.0 h
	KNB-57L (2000 mAh)	12.0 / 9.5 h	17.5 / 13.0 h
	KNB-78L (2860 mAh)	17.5 / 13.5 h	25.0 / 18.5 h
	KNB-79LC (2860 mAh)*³	15.0 / 11.5 h	21.5 / 16.0 h
Operating Temperature*⁴		-22°F to +140°F (-30°C to +60°C)	
Frequency Stability (-30°C to +60°C; +25°C Ref.)		± 0.5 ppm	
Frequency Stability		± 2.0 ppm	± 1.0 ppm
Dimensions*⁵ (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)	
	With KNB-55L	2.20 x 4.71 x 1.43 in (56 x 119.6 x 36.4 mm)	
	With KNB-56N	2.20 x 4.71 x 1.68 in (56 x 119.6 x 42.7 mm)	
	With KNB-57L	2.20 x 4.71 x 1.53 in (56 x 119.6 x 39 mm)	
	With KNB-78L/79LC	2.20 x 4.71 x 1.77 in (56 x 119.6 x 44.9 mm)	
Weight (net)*⁶	Radio only	7.8 oz (220 g)	
	With KNB-55L	11.1 oz (315 g)	
	With KNB-56N	14.5 oz (410 g)	
	With KNB-57	12.0 oz (340 g)	
	With KNB-78L	13.6 oz (385 g)	
	With KNB-79LC	13.9 oz (395 g)	
FCC ID		K44479000	K44479100
IC Certification		282F-479000	282F-479100

RECEIVER		NX-3220	NX-3320
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	0.25 µV	
	DMR 12.5 kHz Digital, 1 % BER	0.45 µV	
	Analog, 12 dB SINAD	0.25 µV	
Selectivity	Analog @ 12.5 kHz	65 dB	
	Analog @ 25 kHz	72 dB	
Intermodulation		70 dB	
Spurious Rejection		70 dB	
Audio Distortion		3 %	
Audio Output (Internal Speaker)	3 % Distortion	500 mW	
	5 % Distortion	1000 mW	

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

*1 25 and 30 kHz are not included in the models sold in the USA or US territories.
*2 Battery Life is measured with factory default setting, GPS/ Bluetooth OFF.
*3 Typical value under the condition charged with KSC-25S/25LS.
*4 Operating temperature specification for a Li-ion battery is 14°F to +140°F (-10°C to +60°C).
*5 Dimensions for Full Keypad/Std Keypad Models
*6 Weight for Full Keypad Model
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*⁷

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/ I, IV
International Protection Standards					
Dust & Water	IP54, IP55, IP67				

*7 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

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CL862K-E-2R3