

NX-3220/3320

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

NXDN™ **DMR**



DMR
-based
TRUNKING **T3&S**

DMR >>>>>
Auto Slot
Select >>>>>

FleetSync®

5-tone

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. 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
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line Basic Frame** (2 lines of 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 Digital protocols
- **Built-in Motion Sensor** (Man-down, Stationary and Motion Detection)
- **MIL-STD-810 C/D/E/F/G**

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

GENERAL FEATURES

- **2-pin audio connector** with 6 contacts to connect with a variety of options, and single mic Active Noise Reduction (ANR) capability



- Audio Output Power: 1 Watt
- Intrinsically Safe Option
- 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

- S-Trunking
- 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, Selective Call, Emergency, Radio Check / Inhibit
- QT / DQT, DTMF, 5-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)



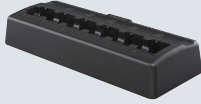
KNB-57L

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



KSC-25S

- **KSC-256A**
MULTIPLE CHARGER (6-pocket)



- **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

- **KMC-45D**
SPEAKER
MICROPHONE
[IP54/55]



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



- **KPG-180AP**
OTAP MANAGER (PC software)

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	12.5/25*1 kHz	
	Digital	6.25/12.5 kHz	
Power Supply		7.5 V DC ±20 %	
Battery Life*2 (Average battery life at 5-5-90)		FDMA Conv. / Trunk.	TDMA Conv. / Trunk.
	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		-30°C to +60°C	
Frequency Stability (-30°C to +60°C; +25°C Ref.)		± 0.5 ppm	
Dimensions*5 (W x H x D) Projections not included	Radio only	56 x 119.6 x 36.4 mm	
	with KNB-55L	56 x 119.6 x 36.4 mm	
	with KNB-56N	56 x 119.6 x 42.7 mm	
	with KNB-57L	56 x 119.6 x 39.0 mm	
	with KNB-78L/79LC	56 x 119.6 x 44.9 mm	
Weight*6 (net)	Radio only	220 g	
	with KNB-55L	315 g	
	with KNB-56N	410 g	
	with KNB-57L	340 g	
	with KNB-78L	385 g	
	with KNB-79LC	395 g	

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	
Selectivity	Analog, 12 dB SINAD	0.25 µV	
	Analog @ 12.5 kHz	65 dB	
Intermodulation	Analog @ 25 kHz	72 dB	
		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		5 W / 4 W / 1 W	
Spurious Emission		-70 dB	
FM Hum & Noise	Analog @ 12.5 kHz	40 dB	
	Analog @ 25 kHz	45 dB	
Audio Distortion		3 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E*1, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

*1 Over 12.5 kHz channel spacings 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 KCS-26S/25LS.

*4 Operating temperature specification for a Li-ion battery is -10°C to +60°C.

*5 Dimensions for Full Keypad/Std Keypad Models

*6 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.

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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JVCKENWOOD Singapore Pte. Ltd.

1 Ang Mo Kio Street 63 Singapore 569110

<https://www.kenwood.com/sg/com>

JVCKENWOOD Australia Pty.

4 Talavera Road, North Ryde N.S.W 2113

<https://www.kenwood.com/au/com>

KENWOOD Communications
Global Website



comms.kenwood.com



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