

NX-5200/5300/5400

VHF/UHF/700-800 MHz TRANSCEIVERS

NXDN™

DMR



DMR-based TRUNKING

DMR Auto Slot Select



GPS

FleetSync

FEATURE HIGHLIGHTS

- **Multi-Digital** operation in NXDN, DMR, and P25 (Phase 1 & 2) protocols
- Any combination of two digital protocols can be selected from NXDN, DMR, and P25
- **Mixed Digital & FM Analog Operation** allows intelligent migration in mixed sites and easy migration with digital radios in other sites
- **Large, Color 1.74" (240 x 180 pixels) Transflective TFT Display** for better interface even in direct sunlight and with use of polarized sunglasses
- **Easy to follow GUI** for at-a-glance operational status checking and **Multi-line Text** to convey more information
- **4-way Directional-pad (D-pad)** and **2-Position Lever Switch** for intuitive control and operation
- **Built-In GPS Receiver/Antenna** for effective fleet management
- **Bluetooth® Module built-in** for hands-free operation
- Renowned KENWOOD Audio Quality can be achieved with **Active Noise Reduction (ANR)** that utilizes built-in DSP with two microphones for suppression of ambient noise
- **Built-in 56-bit DES Encryption**
- **Optional 256-bit AES Encryption**
- **Over-the-Air Programming (OTAP)**
- **Built-in Motion Sensor** for life-critical man down detection
- **microSD/SDHC (up to 2GB/32GB) Memory Card Slot**
- **IP67/68 and MIL-STD-810 C/D/E/F/G**

GENERAL FEATURES

- 6 W (136-174 MHz) Models
- 5 W (380-470, 450-520 MHz) Models
- 3 W (700/800 MHz) Models
- Full Key Models (w/ numeric keypad) and Standard Key Models (w/o numeric keypad)
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- AMBE+2™ Enhanced Vocoder
- 1 W Loud Speaker Audio

DIGITAL – NXDN MODE

- Gen2 & NXDN Type-C Trunked Operation
- NXDN Conventional Operation
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check
- Short & Long Data Messages
- NXDN Digital Scrambler

DIGITAL – DMR MODE

- DMR Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Enhanced Encryption (40-bit)
- Site Roaming
- Two-slot TDMA in 12.5kHz channels
- Call Interruption
- Dual-slot Direct Mode
- Energy Efficient

DIGITAL – P25 MODE

- P25 Phase 1 Conventional/Trunked Operation
- P25 Phase 2 Trunked Operation
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 Enhanced Encryption (ARC4)
- Over-the-Air Re-keying

FM MODES – GENERAL

- Conventional & LTR Zones
- NPSPAC (USA only) Channels (±4.0 Modulation)
- 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 & Two-Tone
- Built-in Voice Inversion Scrambler

INTELLIGENT BATTERY SYSTEM

- System consists of a Li-ion or Ni-MH rechargeable battery (KNB-L1/L2/L3/N4), Rapid Charger (KSC-Y32), and Battery Reader (KAS-12/12PRO) software
- Up to 60 Rapid Chargers can be chain-connected to a PC
- KAS-12 Battery Reader software can display and manage information
- Up to 5,000 batteries can be managed at a time with the addition of optional KAS-12PRO license upgrade












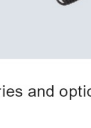



Full Keypad Model



Limited Keypad Model

OPTIONAL ACCESSORIES

<ul style="list-style-type: none"> KNB-L1/L2/L3 Li-ion BATTERY PACK (IP67/68 immersion)  <p>KNB-L1 7.4 V/2000 mAh</p> <p>KNB-L2 7.4 V/2600 mAh</p> <p>KNB-L3 7.4 V/3400 mAh</p>	<ul style="list-style-type: none"> KSC-52A/B SINGLE UNIT CHARGER 	<ul style="list-style-type: none"> KRA-22 VHF HELICAL ANTENNA (Low Profile) 	<ul style="list-style-type: none"> KRA-32 700/800 MHz WHIP ANTENNA 	<ul style="list-style-type: none"> KMC-70 SPEAKER MICROPHONE [IP68] (3-button, DSP Active Noise Reduction; Green Housing [GR] version is also available) 
<ul style="list-style-type: none"> KNB-L11 Li-ion BATTERY PACK 7.2 V/3900 mAh (IP67/68 Immersion) 	<ul style="list-style-type: none"> KSC-526 6-UNIT CHARGER BASE 	<ul style="list-style-type: none"> KRA-23 UHF HELICAL ANTENNA (Low Profile) 	<ul style="list-style-type: none"> KRA-41 VHF STUBBY ANTENNA 	<ul style="list-style-type: none"> KMC-72 SPEAKER MICROPHONE [IP67] (2-button, Built-in noise canceler) 
<ul style="list-style-type: none"> KBP-8 BATTERY CASE (12AA Alkaline Battery)  <p>Intrinsically Safe Batteries are also available.</p>	<ul style="list-style-type: none"> KSC-52PA/B CHARGING POCKET 	<ul style="list-style-type: none"> KRA-26 UHF HELICAL ANTENNA (Standard Length) 	<ul style="list-style-type: none"> KRA-42 UHF STUBBY ANTENNA 	<ul style="list-style-type: none"> KMC-75 SPEAKER MICROPHONE [IP67] (2-button, Built-in noise canceler) 
	<ul style="list-style-type: none"> KAS-12/12PRO BATTERY READER (PC Software) 	<ul style="list-style-type: none"> KRA-27 UHF WHIP ANTENNA (Standard Length) 	<ul style="list-style-type: none"> KWD-AE30/AE31 SECURE CRYPTOGRAPHIC MODULE 	<ul style="list-style-type: none"> KBH-11 BELT CLIP 

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-5200	NX-5300	NX-5400
Frequency Range	136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz	RX: 763-776, 851-870 MHz TX: 763-776, 793-806, 806-825, 851-870 MHz
Max. Channels Per Radio	1024 (Up to 4000 channels with option)		
Number of Zones	128		
Max. Channels Per Zone	512		
Channel Spacing	Analog: 12.5 / 15 / 20 / 25 ¹⁾ / 30 ¹⁾ kHz Digital: 6.25 / 12.5 kHz	12.5 / 25 ¹⁾ kHz	12.5 / 25 kHz
Power Supply	7.5 V DC ±20 %		
Battery Life (5-5-90/10-10-80 duty cycle)	KNB-L1 (2,000 mAh)	10 hours / 6.5 hours	
	KNB-L2 (2,600 mAh)	12.5 hours / 8.5 hours	
	KNB-L3 (3,400 mAh)	17 hours / 11 hours	
	KNB-N4 (2,500 mAh)	12 hours / 8.5 hours	
	KBP-8 (w/ AA x12)	High Power: 11 hours / 8 hours Low Power: 26 hours / 18.5 hours	
Operating Temperature (Radio only) ²⁾	-22 °F to +140 °F (-30 °C to +60 °C)		
Frequency Stability (-30°C to +60°C, +25°C Ref.)	±0.5 ppm		
Dimensions (W x H x D) Radio w/ Battery, Projections Not Included	KNB-L1 (2,000 mAh)	2.28 x 5.47 x 1.44 in (58.0 x 138.9 x 36.5 mm)	
	KNB-L2 (2,600 mAh)	2.28 x 5.47 x 1.56 in (58.0 x 138.9 x 39.5 mm)	
	KNB-L3 (3,400 mAh)	2.28 x 5.47 x 1.77 in (58.0 x 138.9 x 44.9 mm)	
	KNB-N4 (2,500 mAh)	2.28 x 6.55 x 1.78 in (58.0 x 166.4 x 45.2 mm)	
	KBP-8 (w/ AA x 12)	2.64 x 8.59 x 2.12 in (67.0 x 218.3 x 53.9 mm)	
Weight	Radio Only	9.21 oz (261 g)	
	KNB-L1 (2,000 mAh)	13.5 oz (382 g)	
	KNB-L2 (2,600 mAh)	14.3 oz (406 g)	
	KNB-L3 (3,400 mAh)	15.8 oz (449 g)	
	KNB-N4 (2,500 mAh)	20.4 oz (579 g)	
FCC ID	Type 1	K44431400	ALH442000
	Type 2	—	K44431501
IC Certification	Type 1	282F-431400	282D-442000
	Type 2	—	282F-431501

RECEIVER	NX-5200	NX-5300	NX-5400
Sensitivity	NXDN 6.25 kHz Digital (3 % BER)	0.20 µV	
	NXDN 12.5 kHz Digital (3 % BER)	0.25 µV	
	DMR Digital (5 % BER)	0.25 µV	
	DMR Digital (1 % BER)	0.40 µV	
	P25 Digital (5 % BER)	0.25 µV	
	P25 Digital (1 % BER)	0.40 µV	
	Analog (12 dB SINAD)	0.25 µV	
Selectivity	Analog @ 12.5 kHz	67 dB	64 dB
	Analog @ 25 kHz	73 dB	75 dB
Intermodulation	80 dB	73 dB	75 dB
Spurious Rejection	75 dB		
Audio Distortion	3 %		
Audio Output Power	500 mW (3 % Distortion) / 1,000 mW (5 % Distortion)		
TRANSMITTER	NX-5200	NX-5300	NX-5400
RF Power Output Power	6 to 1 W	5 to 1 W	3 to 1 W
Spurious Emission	-70 dB		
FM Hum & Noise	Analog @ 12.5 kHz	40 dB	
	Analog @ 25 kHz	45 dB	
Audio Distortion	2 %		
Emission Designator	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

¹⁾ 25 and 30 kHz are not included in the models sold in the USA or US territories.
²⁾ Operating temperature specification for a Li-ion battery is 14°F to +140°F (-10°C to +60°C).
P25 Digital measurements made per TIA 102CAAA, analog measurements made per EN Standards or TIA 603 and specifications shown are typical.
Specifications are subject change without notice, due to advancements in technology.

APPLICABLE MIL-STD & IP*3

MIL Standards	810C Methods/ Procedures	810D Methods/ Procedures	810E Methods/ Procedures	810F Methods/ Procedures	810G Methods/ Procedures
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
Immersion	—	—	—	512.4/I	512.5/I
International Protection Standards					
Dust & Water	IP54, IP55				
Immersion	IP67, IP68				

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

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