

# KENWOOD

## NX-5200/5300/5400

NEXEDGE® VHF/UHF / 700-800MHz  
MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS



### NXDN®

NEXEDGE® Bluetooth®

#### ● FEATURE HIGHLIGHTS

- **Multi-Protocol** operation in P25 (Phase I&II), NXDN® and Analog protocols
- **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
- **Active Noise Reduction (ANR)** utilizing built-in DSP with two microphones for suppression of ambient noise
- **Renowned KENWOOD Digital Audio Quality**
- Built-in **56-bit DES Encryption**
- **Optional 256-bit AES Encryption**
- **Built-in Motion Sensor** for life-critical man down detection
- **MicroSD/microSDHC Memory Card Slot** for increased memory capacity for "Voice & Data"
- **IP67/68 and MIL-STD-810 C/D/E/F/G**

#### ● GENERAL FEATURES

- 5 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
- 1 W Loud Speaker Audio

#### ● DIGITAL – P25 MODE

- P25 Conventional Trunking (Phase 1/Phase 2) Protocol
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit

- Encryption Key Zeroize & Retention
- P25 GPS Location
- Over-the-Air Programming<sup>2</sup>

#### ● DIGITAL – NXDN® MODE

- NXDN® Conventional/Trunking Protocol<sup>1</sup>
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming<sup>2</sup>
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging<sup>3</sup>
- Remote Stun/Kill<sup>3</sup>
- Remote Check<sup>3</sup>
- Short & Long Data Messages<sup>3</sup>
- GPS Location
- NXDN® Digital Scrambler Included

#### ● 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 (Option)

- System consists of the optional high-capacity Li-Ion Battery Series (KNB-L1/L2/L3), Rapid Charger (KSC-Y32), and Battery Reader (KAS-12) software
- Up to 30 Rapid Chargers can be chain-connected to a PC installed with the KAS-12
- KAS-12 Battery Reader software can display and manage information including battery type, model name, voltage, temperature, discharge cycle, expected life, and remaining capacity
- Up to 1,000 batteries can be managed at a time (requires an additional option)

\*1 Only supports TYPE-C Protocol

\*2 Requires KENWOOD OTAP Management software.

\*3 Requires NX subscriber unit PC serial interface compatible software application (e.g. KENWOOD AVL & Dispatch Messaging software) or hardware (e.g. console).



# Options

**KNB-L1/L2/L3**  
Li-ion Battery Pack  
(IP67/68 Immersion)



**KSC-Y32**  
Rapid Charger



**KSC-32/32S**  
Rapid Charger



**KSC-326/326S**  
Rapid Charger



**KAS-12**  
Battery Reader  
(PC Software)

**KRA-26**  
VHF Helical Antenna  
(Standard Length)



**KRA-27**  
UHF Whip Antenna  
(Standard Length)



**KRA-32**  
700/800MHz Whip Antenna



**KMC-41D**  
Speaker Microphone (IP54/55)



**KMC-54W**  
Speaker Microphone  
• 2-mic digital noise cancelling via the radio's DSP  
• 3.5mm-diameter EP jack  
• Complies with MIL-STD 810C/D/E/F/G  
• IP65/67 Dust & Water\*



**KWD-AE30/AE31**  
Secure Cryptographic Module



**KPG-180AP**  
OTAP Manager

**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.

# Main Specifications

	NX-5200	NX-5300	NX-5400
<b>GENERAL</b>			
<b>Frequency Range</b>	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
<b>Max. Channels Per Radio</b>	1024 (Up to 4000 CH with option)		
<b>Number of Zones</b>	128		
<b>Max. Channels per Zone</b>	512		
<b>Channel Spacing</b>			
Analog	12.5/15/20/25*/30* kHz	12.5/25 kHz*	12.5/25 kHz
Digital	6.25kHz/12.5kHz	6.25kHz/12.5kHz	12.5 kHz (6.25 kHz)
<b>Power Supply</b>	7.5V DC ± 20%		
<b>Battery Life</b> (5-5-90/10-10-90 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	
<b>Operating Temperature</b>	-22°F to +140°F (-30°C to +60°C)		
<b>Frequency Stability</b>	±2.0 ppm	±1.0 ppm	±1.5 ppm
<b>Dimensions</b> Radio w/Control Head	(W x H x D)		
KNB-L1 (2,000 mAh)	2.28 x 5.47 x 1.52 in. (58 x 139 x 38.8 mm)		
KNB-L2 (2,600 mAh)	2.28 x 5.47 x 1.65 in. (58 x 139 x 41.8 mm)		
KNB-L3 (3,400 mAh)	2.28 x 5.47 x 1.86 in. (58 x 139 x 47.2 mm)		
<b>Weight</b> (net) Radio w/Control Head			
KNB-L1 (2,000 mAh)		15.52 oz (440 g)	
KNB-L2 (2,600 mAh)		16.57 oz (470 g)	
KNB-L3 (3,400 mAh)		17.98 oz (510 g)	
<b>FCC ID</b>			
Type 1	K44431400	K44431500	ALH442000
Type 2		K44431501	
<b>IC Certification</b>			
Type 1	282F-431400	-	282D-442000
Type 2		282F-431501	

\*25 and 30 kHz are not included in the models sold in the USA or US territories. Analog measurements made per TIA 603 and specifications shown are typical. Digital measurements made per TIA 102CAAA and specifications shown are typical. Specifications are subject to change without notice, due to advancements in technology.

	NX-5200	NX-5300	NX-5400
<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	-	-
P25 Digital (5% BER)		0.25 µV	
P25 Digital (1% BER)		0.40 µV	
Analog (12dB SINAD)		0.24 µV	
<b>Selectivity</b>			
P25 Digital		60 dB	
Analog @ 25 kHz		73 dB	
Analog @12.5 kHz		67 dB	64 dB
<b>Intermodulation</b>		73 dB	75 dB
<b>Spurious Rejection</b>	80 dB		75 dB
<b>Audio Distortion</b>		3%	
<b>Audio Output Power</b>	500 mW/8Ω (3% Distortion) / 1,000 mW /8Ω (5% Distortion)		
<b>TRANSMITTER</b>			
<b>RF Power Output Power</b>	5 W to 1 W		3 W to 1 W
<b>Spurious Emission</b>	-70 dB		
<b>FM Hum &amp; Noise</b>			
Analog @ 25 kHz		40 dB	
Analog @ 12.5 kHz		45 dB	
<b>Audio Distortion</b>	2%		
<b>Modulation</b>	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

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# 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
<b>Low Pressure</b>	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
<b>High Temperature</b>	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
<b>Low Temperature</b>	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
<b>Temperature Shock</b>	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
<b>Solar Radiation</b>	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
<b>Rain</b>	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
<b>Humidity</b>	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
<b>Salt Fog</b>	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
<b>Dust</b>	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
<b>Vibration</b>	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
<b>Shock</b>	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>					
<b>Dust &amp; Water Protection</b>	IP54/55				
<b>Immersion</b>	IP67/68*				

\*IP68=1m/2H or 2m/0.5H

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