

KENWOOD

NEXEDGE®

NX-5200/5300/5400



NXDN™

VHF/UHF/700-800 MHz DIGITAL TRANSCEIVER
P25 (I&II)/NXDN™ MULTI-DIGITAL & FM ANALOG PORTABLE RADIOS



MAIN FEATURES

- **Multi-Digital** operation in P25 (Phases 1 & 2) and NXDN™ 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
- Renowned KENWOOD Audio Quality can be achieved with **Active Noise Cancelling** that utilizes built-in DSP with two microphones for suppression of ambient noise
- 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

- 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
- 1 W Loud Speaker Audio

DIGITAL – P25 MODE

- P25 Phase 1 Conventional/Trunked Operation
- P25 Phase 2 Trunked Operation
- 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*1

DIGITAL – NXDN™ MODE

- NXDN™ Conventional Operation
- NXDN™ Type-C Trunked Operation
- AMBE+2™ Enhanced Vocoder
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming*1
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging*2
- Remote Stun/Kill*2
- Remote Check*2
- Short & Long Data Messages*2
- 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
- Battery conditions are displayed in color illuminated indicators on the charger, which are also displayed on a connected PC with the same color scheme
- Up to 1,000 batteries can be managed at a time (requires an additional option)

*1 Requires KENWOOD OTAP Management software.

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



OPTIONAL ACCESSORIES

■ KNB-L1/L2/L3

Li-ion BATTERY PACK (IP67/68 immersion)



KNB-L1
7.4 V/2000 mAh



KNB-L2
7.4 V/2600 mAh



KNB-L3
7.4 V/3400 mAh

■ KMC-54WD

SPEAKER MICROPHONE

- 2-mic digital noise cancelling via the radio's DSP
- 3.5mm-diameter earphone jack
- Complies with MIL-STD 810C/D/E/F/G
- IP65/67 Dust & Water*

*The earphone jack cap must be closed tightly



■ KWD-AE30/AE31

SECURE CRYPTOGRAPHIC MODULE

■ KSC-Y32

RAPID CHARGER



■ KAS-12

BATTERY READER
(PC Software)

■ KPG-180AP*

OTAP MANAGER

*Available later

Existing accessories compatible with the NX-5200/5300/5400

■ KSC-32/32S

RAPID CHARGER

■ KSC-326/326S

MULTIPLE CHARGER
(6-unit Rapid Rate)

■ KMC-41D

SPEAKER
MICROPHONE (IP54/55)



■ KBH-11

BELT CLIP

■ KRA-22

VHF HELICAL ANTENNA
(Low Profile)

■ KRA-23

UHF HELICAL ANTENNA
(Low Profile)



■ KRA-26

VHF HELICAL ANTENNA
(Standard Length)

■ KRA-27

UHF WHIP ANTENNA
(Standard Length)

■ KRA-32

700/800 MHz WHIP
ANTENNA



■ KRA-41

VHF STUBBY ANTENNA

■ KRA-42

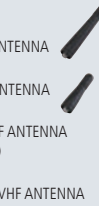
UHF STUBBY ANTENNA

■ KRA-25

HIGH GAIN VHF ANTENNA
(148-162 MHz)

■ KRA-28

BROAD-BAND VHF ANTENNA
(140-170 MHz)



■ KRA-29

BROAD-BAND UHF ANTENNA (380-430 MHz)

■ KRA-36

700/800 MHz STUBBY ANTENNA

■ KBH-8DS

BELT LOOP WITH D-RING

■ KLH-6SW

BELT LOOP WITH D-RING (Leather Case Back)

■ KCT-51

HIROSE 6-PIN ADAPTER

SPECIFICATIONS

		Portable Radios		
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	12.5/15/20/25/30* kHz	12.5/25* kHz	12.5/25 kHz
	Digital	6.25/12.5 kHz	6.25/12.5 kHz	12.5 kHz (6.25 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		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)		
Frequency Stability		±2.0 ppm	±1.0 ppm	±1.5 ppm
Dimensions (W x H x D) Projections Not Included	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)		
Weight	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)		

*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.

Details and timing of firmware and software updates are subject to change without notice. Specifications are subject change without notice, due to advancements in technology.

		Portable Radios		
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		
	P25 Digital (5 % BER)	0.25 µV		
	P25 Digital (1 % BER)	0.40 µV		
	Analog (12 dB SINAD)	0.25 µV		
Selectivity	P25 Digital	60 dB		
	Analog @ 12.5 kHz	67 dB		64 dB
	Analog @ 25 kHz	73 dB		
Intermodulation		73 dB		75 dB
Spurious Rejection		80 dB	75 dB	
Audio Distortion		3 %		
Audio Output Power		500 mW/8 Ω (3 % Distortion)/1,000 mW/8 Ω (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, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

APPLICABLE MIL-STD & IP

MIL Standard	810C Methods/ Procedures	810D Methods/ Procedures	810E Methods/ Procedures	810F Methods/ Procedures	810G Methods/ Procedures
Low Pressure	500.3/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 Standard					
Dust & Water	IP54, IP55				
Immersion	IP67, IP68*				

*Conditions: Portable radio immersed for 2 hours at a depth of 1 meter

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CL804K-E-2