KENWOOD

NEXEDGE® NX-5200/5300

NXDN™ DMR P25

NEXEDGE VHF/UHF MULTI-PROTOCOL DIGITAL & ANALOGUE PORTABLE RADIOS

Gen2 Bluetooth® microSD HC GPS FleetSync® by KENWOOD 5-tone DMR-based TRUNKING T3&S DMR Auto Slot Select

Full Keypad Model

Limited Keypad Model

FEATURE HIGHLIGHTS

- **Multi-Digital** operation in NXDN, DMR and P25 (Phases 1 & 2) protocols
- **Any combination of two digital protocols** can be selected from NXDN, DMR, and P25
- **Mixed Digital & FM Analogue Operation** allows intelligent migration in mixed sites and easy migration with digital radios in other sites
- **Large, Colour 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**
- **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) Model
- 5 W (400-470 MHz) Model
- 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
- Over-the-Air Programming
- 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-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

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 Over-the-Air Re-keying
- P25 Over-the-Air Programming

Analogue – FM MODE

- Conventional & LTR Zones
- 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 & 5-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

OPTIONAL ACCESSORIES

- **KNB-L1** Li-ion BATTERY PACK, IP67/68 (7.4 V/2000 mAh)

- **KNB-L2** Li-ion BATTERY PACK, IP67/68 (7.4 V/2600 mAh)

- **KNB-L3** Li-ion BATTERY PACK, IP67/68 (7.4 V/3400 mAh)

- **KNB-N4** Ni-MH BATTERY PACK, IP67/68 (7.2 V/2500 mAh)

- **KSC-Y32** RAPID CHARGER

- **KSC-32/32S** RAPID CHARGER

- **KSC-326/326S** MULTIPLE CHARGER (6-unit Rapid Rate)

- **KBP-8** BATTERY CASE (12AA Alkaline Battery)

Intrinsically Safe Batteries are also available.

- **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-41** VHF STUBBY ANTENNA

- **KRA-42** UHF STUBBY ANTENNA

- **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

- **KMC-42WD** SPEAKER MICROPHONE (IP67)

- **KWD-AE31** SECURE CRYPTOGRAPHIC MODULE
- **KBH-11** BELT CLIP

- **KPG-180AP** OTAP MANAGER
- **KAS-12/12PRO** BATTERY READER (PC Software)

All accessories and options may not be available in all markets.
Contact an authorised KENWOOD dealer for details and complete list of all accessories and options.

SPECIFICATIONS

		Portable Radios	
GENERAL		**NX-5200**	**NX-5300**
Frequency Range		136-174 MHz	400-470 MHz
Max. Channels Per Radio		1024 (Up to 4000 channels with option)	
Number of Zones		128	
Max. Channels Per Zone		512	
Channel Spacing	Analogueue	12.5/20/25 kHz	
	Digital	6.25/12.5 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)	12.5 hours / 8.5 hours	
	KBP-8 (w/ AA battery x12)	High Power: Approx. 11 hours / 8 hours, Low Power: Approx. 25 hours/ 18 hours	
Operating Temperature		-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)	58.0 x 138.9 x 36.5 mm	
	KNB-L2 (2,600 mAh)	58.0 x 138.9 x 39.5 mm	
	KNB-L3 (3,400 mAh)	58.0 x 138.9 x 44.9 mm	
	KNB-N4 (2,500 mAh)	58.0 x 166.4 x 45.2 mm	
	KBP-8 (w/ AA x 12)	67.0 x 218.3 x 53.9 mm	
Weight (Net) Radio w/ Battery	KNB-L1 (2,000 mAh)	382 g	
	KNB-L2 (2,600 mAh)	406 g	
	KNB-L3 (3,400 mAh)	449 g	
	KNB-N4 (2,500 mAh)	579 g	
	KBP-8 (w/ AA x 12)	712 g	
Applicable Standards	ETSI (EMC)	EN 301 489-3, EN 301 489-5, EN 301 489-17	
	ETSI (Spectrum)	EN 300 086, EN 300 113, EN 300 219, EN 300 328, EN 300 440, EN 301 166	
	ETSI Safety	EN 60065, EN 60215, EN 60950-1	

		Portable Radios	
RECEIVER		**NX-5200**	**NX-5300**
Sensitivity (Digital)	NXDN 3 % BER (6.25 kHz/12.5 kHz)	0.25 µV / 0.32 µV	
	NXDN 1 % BER (6.25 kHz/12.5 kHz)	-4 dB µV (0.32 µV) / -1 dB µV (0.45 µV)	
	DMR 5 % BER	0.3 µV (-117.5 dBm)	
	DMR 1 % BER	0.45 µV (-114 dBm)	
	P25 5 % BER	0.28 µV	
Sensitivity (Analogue)	12 dB SINAD (12.5/20&25 kHz)	0.32 µV / 0.28 µV	
	20 dB SINAD (12.5/20&25 kHz)	-1 dB µV (0.45 µV) / -3 dB µV (0.35 µV)	
Selectivity	Analogue 12.5 kHz	68 dB	
	Analogue 20 kHz	74 dB	
	Analogue 25 kHz	76 dB	
Intermodulation		65 dB	
Spurious Rejection		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**
RF Power Output Power		6 to 1 W	5 to 1 W
Spurious Emission		-36 dBm ≤1 GHz, -30 dBm > 1 GHz	
FM Hum & Noise (Analogue): @12.5/20/25 kHz		40/45/45 dB	
Audio Distortion		2 %	
Emission Designator		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 11K0F3E, 8K50F3E, 7K50F2D, 8K30F1E, 8K30F1D, 8K30F7W, 8K10F1E, 8K10F1D, 8K10F1W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

Specifications are measured according to applicable standards, and subject to change without notice, due to advancements in technology.

APPLICABLE MIL-STD & IP

MIL Standard	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 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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