KENWOOD

NX-5200S/5300S

VHF/UHF MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS

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. Two different models with 14-pin Universal connector are available: Full Keypad model with LCD and Standard Keypad model with LCD and a large 4-way D-pad. Additionally, for expansion capability a software license certification system facilitates extensive customization.

Full-Keypad & Standard Models

Features

Multi-protocol digital radio: Designed to operate under NXDN® or DMR digital, and FM analog protocols

Mixed Digital & FM Analog Operation allows intelligent migration in mixed sites and easy migration with digital radios in other sites

Large, 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 and Multi-line Text to convey information

4-way Directional-pad (D-pad) and 2-Position Lever Switch for intuitive control

Built-In GPS Receiver/Antenna for effective fleet and incident management

Bluetooth® Module Built-in for hands-free and IoT applications operation

Renowned KENWOOD Audio Quality 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 man down detection

microSD/microSDHC Up to 2GB/32GB Memory Card Slot for increased memory capacity for "Voice & Data"

IP67/68 and MIL-STD-810 C/D/E/F/G

6 W (136-174 MHz) Models

5 W (380-470, 450-520 MHz) Models

Full Key Models (w/numeric keypad) and Standard Key Models (w/o numeric keypad)

Maximum of 1024 CH, 128 Zones

1 W Speaker Audio

Digital – DMR Mode

Two-slot TDMA in 12.5 kHz channels	Call Interruption
DMR Tier 2 Conventional	Dual-slot Direct Mode
DMR Tier 3 Trunking (Optional)	Energy Efficient
DMR Over-the-Air Programming	Optional ARC4 encryption

FM Modes – General

Conventional & LTR Zones	MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
FleetSync®/II: PTT ID ANI / Caller ID Display, Selective Group Call, Emergency Status / Text Messages	QT / DQT & Two-Tone
	Built-in Voice Inversion Scrambler

Digital – NXDN® Mode

NXDN Conventional	Remote Stun/Kill
NXDN Type-C & Gen2 Trunking (Optional)	Remote Check
6.25 & 12.5 kHz Channels	Over-the-Air Alias (OAA)
Paging Call	Over-the-Air Programming (OTAP)
Emergency Call	Short & Long Data Messages
All Group Call	NXDN Digital Scrambler
Status Messaging	

Intelligent Battery System (option)

System consists of the optional high-capacity Battery Series (KNB-L1/L2/L3/N4), Rapid Charger (KSC-Y32), and Battery Reader (KAS-12) software

Up to 60 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 5,000 batteries can be managed at a time (requires an additional option)

Accessories

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

KSC-32
Rapid Charger

KRA-23
UHF Helical Antenna
(Low Profile)

KRA-41
UHF Stubby
Antenna

KBH-11
Belt Clip (2.5")

KNB-N4
Ni-MH Battery Pack
(IP67/68 Immersion)

KSC-326AK
Rapid Charger
(6-unit Rapid Rate)

KRA-26
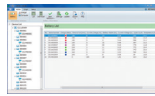VHF Helical Antenna
(Standard Length)

KRA-42
UHF Stubby
Antenna

KWD-AE30/AE31
Secure Cryptographic Module

KBP-8
Alkaline Battery Case

KAS-12/PRO
Battery Reader
(PC Software)

KRA-27
UHF Whip Antenna
(Standard Length)

KMC-72W
Speaker Microphone
(IP67)

KPG-180AP
OTAP Manager

KSC-Y32
Rapid Charger

KRA-22
VHF Helical Antenna
(Low Profile)

KRA-32
700/800MHz
Whip Antenna

KMC-70M
Speaker Microphone
(with dual-sided
2-mic for superior
ANR, IP67)

Specifications

General	NX-5200S	NX-5300S
Frequency Range	136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz
Max. Channels Per Radio	1024	
Number of Zones	128	
Max. Channels per Zone	512	
Channel Spacing		
Analog	12.5/15/20/25*/30* kHz	12.5/25* kHz
Digital	6.25 kHz/12.5 kHz	6.25 kHz/12.5 kHz
Power Supply	7.5V 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	-22ºF to +140ºF (-30ºC to +60ºC)	
Frequency Stability	± 0.5 ppm	
Dimensions/Weight Radio w/battery	(W x H x D) 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)	13.5 oz (382 g)
KNB-L2 (2,600 mAh)	2.28 x 5.47 x 1.56 in. (58.0 x 138.9 x 39.5 mm)	14.3 oz (406 g)
KNB-L3 (3,400 mAh)	2.28 x 5.47 x 1.77 in. (58.0 x 138.9 x 44.9 mm)	15.8 oz (449 g)
KNB-N4 (2,500 mAh)	2.28 x 6.55 x 1.78 in. (58.0 x 166.4 x 45.2 mm)	20.4 oz (579 g)
KBP-8	2.64 x 8.59 x 2.12 in. (67.0 x 218.3 x 53.9 mm)	25.1 oz (712 g)
FCC ID		
Type 1	K44431400	K44431500
Type 2		K44431501

*25/30 kHz in VHF/UHF Bands (except T-Band) are not included in the models sold in the USA or US territories.
Analog measurements made per TIA603. Specifications are measured according to applicable standards.
Specifications are subject to change without notice, due to advancements in technology.

Receiver	NX-5200S	NX-5300S
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	
Analog (12dB SINAD)	0.25 μV	
Selectivity		
Analog @ 12.5kHz	67 dB	
Analog @ 25kHz	73 dB	
Intermodulation	73 dB	75 dB
Spurious Rejection	80 dB	75 dB
Audio Distortion	3%	
Audio Output Power	500 mW/8Ω (3% Distortion) / 1,000 mW/8Ω (5% Distortion)	

Transmitter	NX-5200S	NX-5300S
RF Power Output	6 W to 1 W	5 W to 1 W
Spurious Emission	-70 dB	
FM Hum & Noise		
Analog @ 12.5kHz	40 dB	
Analog @ 25kHz	45 dB	
Audio Distortion	Less than 2%	
Emission Designator	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

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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
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	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
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	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
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Prcedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
Shock	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
Immersion				512.4/Procedure I	512.5/Procedure I

International Protection Standard		
Dust & Water Protection	IP54/55	
Immersion	IP67/68*	

*Conditions: Portable radio immersed for 2 hours at a depth of 1 meter (IP68=1m/2H)

KENWOOD Communications
Global Website

comms.kenwood.com

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Communications Systems Business Unit
JVCKENWOOD Corporation

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