KENWOOD

starcomm wireless

NX-1000 SERIES

2W/5W VHF/UHF ANALOG RADIOS

5W VHF/UHF DIGITAL RADIOS

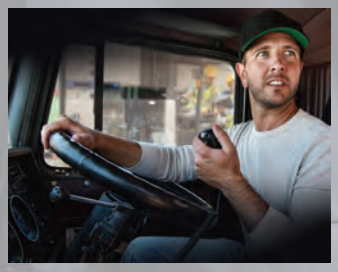
NEXEDGE®

NXDN™ DMR FleetSync®

GPS

TWO-WAY RADIOS FOR EVERY PROFESSION

The NX-1000 Series



NXDN™ DMR ANALOG

Multi-Protocol for Today's Demanding Industries.

The KENWOOD NX-1000 Series portable two-way business radios deliver professional performance. Offering the ideal solution for communications in construction, manufacturing and warehousing, retail, hospitality, facility management and rental fleet applications. Engineered to provide superb ease of use and audio clarity, even in noisy environments and boasts rugged performance for dependable communications in all weather conditions. It's business done right!

NX-1000 SERIES FEATURES

A SINGULAR SOLUTION, ANSWERING THE NEEDS FOR EVERY PROFESSION

From enterprise to operation-critical applications, the NX-1000 Series will shine in a range of different business categories. In addition to the great convenience afforded by a host of powerful features.

Customize at Will

The NX-1000 Series offers future-proof flexibility with support for both FM Analog and NXDN™ to later migrate to digital or expand your digital environment (Upgradable to digital).

FM Analog

FM analog protocol is offered in 25 kHz[*1] and narrow 12.5 kHz channel spacing. Conventional and with QT/DQT, and FleetSync® signaling.

NXDN Digital Protocol

NXDN supports both channel bandwidths of 12.5 kHz and 6.25 kHz bandwidth using FDMA technology. NXDN provides excellent spectrum efficiency, wide coverage and scalability.

DMR Digital Protocol

Ability to upgrade from analog to DMR Tier 2 when you're ready. DMR offers Two talk paths within a 12.5 kHz bandwidth, effectively doubling the capacity for a single license and/or repeater.

*1 Some limitations apply in certain regions when configuring wide channel spacing.

Analog and Digital Two-Way Radios Have Many Similarities but also Vast Differences

Time-tested handheld analog radios have been a staple for reliable two-way voice communications since the early 20th Century. While the introduction of digital two-way radios has accelerated in the last few decades, analog radios are still a viable and appropriate choice, so many organizations are weighing the pros and cons of each technology. This review of typical features in analog and digital two-way radios will help you determine which technology best fits your needs.

ENHANCED AUDIO QUALITY

Based on decades of experience with professional and high quality audio products, the NX-1000 can be customized to deliver the best digital audio to business radio users with various language backgrounds.

VOICE PROMPTS

Voice Prompts

Voice announcement will keep you informed of a newly selected zone/channel, function and when a PF button is pressed, as well as reception status.

TOUGH & ROBUST

The NX-1000 series radios go through stringent tests including drop, immersion, splash, key punch, extreme temperature, dust, and heavy rain to simulate the harshest operating conditions experienced in a variety of applications – both with and without the KMC-45 optional speaker microphone. The NX-1000 series radios also meet the international ingress protection standards, including IP54, IP55 and also meet the MIL-STD 810 C to G standards set by the U.S. Department of Defense.*

* Accessory connectors must be covered.

ENCRYPTION EQUIPPED

Hearing clearly is essential but you don't want your conversation to be heard by others. KENWOOD has the built-in 15-bit privacy for NXDN and DMR with the optional 40-bit ARC4 encryption for DMR.

INTRINSICALLY SAFE

The NX-1200NV/1300NU and NX-1200DV/1300DU portables offer an Intrinsically Safe Option approved for Class I, Div. 1, Group D and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations.

Designed to Go with all Sizes and Shapes

The NX-1000 has the flexibility to grow with your business. The ability to easily upgrade to more advanced NEXEDGE® or DMR digital features protects your initial investment and allows for cost effective expansion and capacity updates without having to sacrifice quality.

Direct Mode
NXDN™

Dual Slot Direct Mode
DMR

Conventional Repeater
NXDN™ DMR

Multi-Site Conventional
NXDN™ DMR

Simulcast (NXR-5000)
NXDN™

Simulcast (Kairos)
DMR

NX-1000 SERIES

NX-1200AV/1300AU

NX-1202AV/1302AU

5W/2W VHF/UHF ANALOG PORTABLE RADIOS

NX-1200AV/NX-1300AU (5W) and NX-1202AV/NX-1302AU (2W) are efficient portable radios that operate in analog FM. The model matrix includes basic and keypad variations, with or without a high-contrast backlit LCD. They are packed with features for intuitive operation and excellent performance.

Other features include a 7-color LED indicator and KENWOOD 2-pin audio accessory connector. If you wish to transition to digital capability, by purchasing a software option, DMR and Analog or NXDN and Analog mixed operation is available which gives you the freedom and flexibility to migrate at your own pace. All this comes in a tough, compact radio with great value and all weather reliability!

A large 7-colour LED indicator on the top panel illuminates to notify multi-status functions. (PC programming required.)

NX-1200/1300

MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS

If you are thinking of harnessing the latest digital protocols – NXDN (NX-1200NV/1300NU and K3/K6 models) or DMR (NX-1200DV/1300DU and K3/K6 models) – to enhance business efficiency or FM analog for its simplicity, the NEXEDGE NX-1000 series radios have you covered. The model matrix includes basic and keypad variations, with or without a high-contrast backlit LCD. The K3/K6 models have a full keypad, a high-contrast backlit LCD, and IEC 60529 - IP67 waterproof.

Mixed-mode operation ensures seamless integration with legacy radios while smoothing the onward migration path to digital. But whatever your specific needs, audio quality is what determines clear voice communications – which is why KENWOOD radios are used under the most grueling conditions. Thanks to our extensive experience with professional systems, reliability is second to none. So whatever your radio requirements, KENWOOD's NEXEDGE NX-1000 series radios offer a single platform that's right for you.

NX-1700H/1800H

VHF/UHF TRANSCEIVERS

The NX-1700H/1800H mobile radio supports multiple protocols including NXDN and DMR as well as mixed digital & FM analog operation. It is packed with all the features essential for numerous enterprise and operation-critical applications. It's also equipped with optimizable TX/RX audio quality, and a customizable front panel that prioritizes simple convenience: operational status is clear at a glance from the white backlit LCD display and 7-color LED indicator.

KAS-20 AVL & Dispatch Software Standalone & Multi-Client Operation

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and dispatch for business, supporting both the NXDN and DMR digital protocols. The graphical user interface and map display are intuitive to the user allowing seamless operation for the control of multiple subscriber units on a network or the ability to work with multiple clients with the server configuration. Additional licenses allow the user to add features as needed as their system grows.


AVL: Unit Operation


AVL: Emergency-2


AVL: Voice Dispatch - Voice Logging

OPTIONAL ACCESSORIES

PORTABLES

■ **KNB-45L/K**
2,000mAh/7.4V
Li-ion Battery Pack

■ **KNB-69L**
2,550mAh/7.4V
Li-ion Battery Pack

■ **KNB-82LCM**
2,000mAh/7.4V
Intrinsically Safe
Li-ion Battery Pack

■ **KSC-35SK**
Fast Charger
For the KNB-45L/69L
82LCM (3-Hour)

■ **KSC-43K**
Dual Chemistry
Fast Charger
For the KNB-45L/69L/82LCM

■ **KVC-22**
DC Vehicular
Charger Adapter

■ **KRA-22/23**
VHF/UHF Helical
Antenna (Low Profile)

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

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

■ **KMC-45D**
Speaker Microphone
(IP54/55)


KHS-26 KHS-31C

■ **KHS-26/31C**
Headset (with Ear Bud
In-Line PTT / with C-Ring)

■ **KHS-27A**
D-Ring In-line PTT Headset

■ **KBH-10**
Bet Clip

MOBILES

■ **KMC-9C**
Desktop Microphone
(non TDMA)

■ **KMC-59C**
Desktop Microphone

■ **KMC-65M**
Microphone [IP54/55]

■ **KMC-66M**
12-Keypad Microphone
[IP54/55]

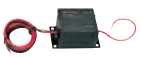
■ **KES-5A**
External Speaker
(Requires KCT-60)

■ **KES-8K**
External Speaker

■ **KCT-18**
Ignition Sense Cable
(Requires KCT-60)

■ **KCT-23**
DC Power Cable

■ **KCT-60**
Connection cable
(D-sub 15 to Molex
15 pin connector)



■ **KLF-2**
Line Filter

■ **KMB-10**
Key Lock Adapter

■ **KPS-15**
DC Power Supply
(23A max)

■ **KMB-34**
Mounting Case
for KPS-15

■ **GPS15XL-W**
GPS Receiver Board

■ **GA25MCX**
GPS Antenna
for GPS15XL-W

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

		2W /5W VHF/UHF Analog/Digital Portables				VHF/UHF Transceivers	
GENERAL		**NX-1200AV/NV/DV**	**NX-1300AU/NU/DU**	**NX-1202AV**	**NX-1302AU**	**NX-1700H**	**NX-1800H**
Frequency Range Type 1 Type 2		136-174 MHz	450-520 MHz 400-470 MHz	136-174 MHz	450-520 MHz	136-174 MHz	400-470 MHz
Max. Channels per Radio		260 (64 for basic model)				260	
Number of Zones		128 (4 for basic model)				128	
Max. Channels per Zone		250 (16 for basic model)				250	
Channel Spacing	Analog	30*1 / 25*1 / 15 / 12.5 kHz				25* / 12.5 kHz	
	Digital	12.5 / 6.25 kHz				6.25/12.5 kHz	
Power Supply		7.5 V DC ±20 %				13.6 V DC ±15%	
Battery Life 5-5-90		DMR Approx. 14.5 hrs (15 hrs Basic Model) Approx. 19 hrs (19.5 hrs Basic Model)	Analog/NXDN Approx. 11 hrs (11.5 hrs Basic Model) Approx. 14 hrs (14.5 hrs Basic Model)	DMR Approx. 18 hrs Approx. 23 hrs	Analog/NXDN Approx. 15 hrs Approx. 19.5 hrs	Current Drain	
	KNB-45L (2000mAh)					Standby	0.45 A
	KNB-69L (2550mAh)					RX	2.4 A
						TX	13 A
Operating Temperature*3		-22°F to +140°F (-30°C to +60°C)				-22°F to +140°F (-30°C to +60°C)	
Frequency Stability		±0.5 ppm				±0.5 ppm	
Antenna Impedance		50 Ω					
Dimensions	Radio with KNB-45L/82LCM	(W x H x D) Projections Not Included 2.13 x 4.84 x 1.32 in (54 x 123 x 33.5 mm)				(W x H x D) Projections Not Included 6.34 x 1.69 x 6.62 in. (161 x 43 x 168.2 mm.)	
	Radio with KNB-69L	2.13 x 4.84 x 1.48 in (54 x 123 x 37.5 mm)					
Weight (net)	Radio Only - Basic / Standard	5.64 oz (160 g) / 6.17 oz (175 g)				2.67 lbs (1.21 kg)	
	Radio with KNB-45L - Basic / Standard	9.88 oz (280 g) / 10.41 oz (295 g)					
	Radio with KNB-69L - Basic / Standard	10.41 oz (295 g) / 10.93 oz (310 g)					
FCC ID Type 1 Type 2		K44501000*3 K44501001*4	K44501101*3 K44501103*4 K44501100*3 K44501102*4	K44501000*3 K44501001*4	K44501101*3 K44501103*4	K44517000	K44517100
RECEIVER		**NX-1200AV/NV/DV**	**NX-1300AU/NU/DU**	**NX-1202AV**	**NX-1302AU**	**NX-1700H**	**NX-1800H**
Sensitivity	NXDN 6.25 kHz Digital, 3 % BER	0.18 µV				0.18 µV	
	NXDN 12.5 kHz Digital, 3 % BER	0.22 µV				0.22 µV	
	DMR*2 @ 12.5 kHz Digital (1% BER)	0.25 µV				0.25 µV	
	DMR*2 @ 12.5 kHz Digital (5% BER)	0.18 µV				0.18 µV	
	Analog 12.5/25 kHz 12 dB SINAD	0.20 µV / 0.24 µV				0.20 µV / 0.24 µV	
Selectivity	Analog @ 12.5 kHz / 25kHz	68 dB / 74 dB				65 dB / 81 dB	
Intermodulation		70 dB				73 dB	
Spurious Rejection		70 dB				75 dB	
Audio Distortion		7%				3%	
Audio Output		1 W / 12 Ω (Internal Output) 500 mW / 8 Ω (External Output)				6 W / 4 W 4 Ω	
TRANSMITTER		**NX-1200AV/NV/DV**	**NX-1300AU/NU/DU**	**NX-1202AV**	**NX-1302AU**	**NX-1700H**	**NX-1800H**
RF Power Output*3		5 W / 4 W / 1 W		2 W / 1 W		50 W / 25 W / 5 W	45 W / 25W / 5W
Spurious Emission		-70 dB				-73 dB	-75 dB
FM Hum & Noise	Analog @ 12.5 kHz / 25kHz	40 dB / 45 dB				40 dB / 50 dB	
Audio Distortion		2%				3%	
Emission Designator		16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 7K60FXD, 7K60F7W, 7K60FXE				16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 7K60FXD, 7K60FXW, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W	

*1 25 / 30 kHz in VHF/UHF Bands excluding T-Band are not included in the models sold in the USA or US territories.
*2 Operating temperature specification for a Li-ion battery is -10°C to +60°C [14°F to +140°F].
*3 Productions before end of May, 2021 have this FCC ID and IC Certification.
*4 Productions after end of May, 2021 have this FCC ID and IC Certification.

Specifications shown are typical and subject to change without notice, due to advancements in technology
Details and timing of firmware and software updates are subject to change without notice.
Analog measurements made per TIA603. Specifications are measured according to applicable standards.
All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

APPLICABLE MIL-STD/IP

MIL Standard	Methods / Procedures					
	MIL 810C	**MIL 810D**	**MIL 810E**	**MIL 810F**	**MIL 810G**	**MIL 810H*1**
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	500.6/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	501.7/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	502.7/Procedure I, II
Temp. Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I	503.7/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I	505.7/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	506.6/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	507.6/Prcedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5	509.7
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I	510.7/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I	514.8/Procedure I
Shock	516.2/Procedure I, II, III*1, V	516.3/Procedure I, IV, V*1	516.4/Procedure I, IV, V*1	516.5/Procedure I, IV, V*1	516.6/Procedure I, IV, V*1	516.8/Procedure I, IV, V, VI
International Protection Standards						
Dust & Water Protection*	IP54, IP55* IP54*2 (per IEC60529)					

*To meet IP54/55, the 2-pin connector cover has to be connected on the radio or the locking bracket has to be attached to the external speaker microphone.
*1 NX-1700H/1800H only. *2 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

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