

## NX-1200/1300 VHF/UHF TRANSCEIVERS

[Suffix on the model no. stands for CAI:  
N=NXDN and D=DMR Versions]

## NX-1000 series Radios – For each and every

**NXDN™** **DMR**

**FleetSync®**  
by KENWOOD

**DMR >>>>>**  
**Auto Slot**  
**Select >>>>>**

### ONE-“K”-FITS-ALL: A SINGULAR SOLUTION

If you are thinking of harnessing the latest digital protocols – NXDN or DMR – to enhance business efficiency, the NX-1200/1300 has you covered. Our One-“K”-Fits-All solution offers the widest selection of two-way radios for everyday use. The model matrix also includes basic and keypad variations, with or without a high-contrast backlit LCD. Other features include a 7-color LED indicator and the popular KENWOOD 2-pin audio accessory connector. Plus, 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, like the cockpit of a racing car. Thanks to our extensive experience with professional systems, reliability is second to none. So whatever your radio requirements, KENWOOD’s NX-1200/1300 offers a single platform that’s right for you.

#### ● GENERAL FEATURES

- **Wide variations, “One” platform:** To meet various demands — NXDN or DMR digital CAI models are available
- **Choose from direct & intuitive LCD with full keypad, standard keypad or basic enclosures**
- **Easy visible Display: 8-digit LCD models** featuring high-contrast, white backlit LCD
- **Large 7-Color LED indicator on the top panel**
  - Selective Power-on LED
  - Selective Call Alert LED
  - Battery Level Indication
  - Multi-status function indication
- **RF output power 5W both on VHF/UHF**
- **Wide band UHF 70MHz coverage**
- **Renowned KENWOOD Audio Quality:** TX/RX audio profile with optimizable digital processor
  - Audio Equalizer: Flat, High, Low
  - Auto Gain Control: On, High, Low, Off
  - Noise Suppressor
  - Microphone type settings
- **Multiple Scan Functions;** Dual Priority, Single Priority, Single Zone, Multi, Normal Scan
- **VOX & PTT –triggered Semi- VOX, Voice-operated TX**
- **Emergency Function:** Customizable Emergency Profile
- **Lone Worker**
- **Max / Min Volume setting & Volume control**
- **Voice Announcement**
- **Remote Stun / Kill / Check**
- **Front Panel Programming Mode** (for Keypad model)
- **Electronic Serial Number (ESN)**
- **MIL-STD-810 C/D/E/F/G**
- **IP54 / 55 and IP67<sup>\*3</sup>**
- **Intrinsically safe option**

#### ● DIGITAL – NXDN

- FDMA – Very narrow 6.25 kHz & narrow 12.5 kHz bandwidths
- NXDN Conventional Operation
- Site Roaming
- Digital / Analog Mixed mode
- Group / Individual Call
- Status / Short data, Paging Call
- Remote Stun / Kill, Monitor, Check & Control
- Digital Bit Scrambler
- Late Entry
- Over-the-Air Alias (OAA)

#### ● DIGITAL – DMR

- TDMA 2-slot 12.5 kHz bandwidth equivalent to 6.25 kHz very narrow bandwidth
- DMR Tier II Conventional Operation
- Site Roaming
- DMR Auto Slot Select
- Dual Slot Direct Mode
- Digital / Analog Mixed mode
- Call Interruption
- Group / Individual Call
- Status / Short data, Paging Call
- Remote Stun / Kill, Monitor, Check & Control
- Enhanced Encryption (ARC4)
- Digital Bit Scrambler
- Late Entry
- Over-the-Air Alias (OAA)

#### ● ANALOG – FM

- FM Conventional Operation
- FleetSync: PTT ID, Stun/Revive, Talk back, Selcall
- MDC1200: PTT ID, Radio Inhibit / Uninhibit, Radio check, Emergency
- QT / DQT, DTMF, 2-tone, 5-tone
- Built-in Programmable Voice Inversion Scrambler (per channel)
- Built-in Compressor (per channel)
- Voting



Standard Keypad model

Full Keypad model

Basic model

## OPTIONAL ACCESSORIES

- **KNB-45L/69L**  
Li-ion BATTERY PACK (7.4 V/2000 mAh, 7.4 V/2450 mAh)
- **KNB-53N**  
Ni-MH BATTERY PACK (7.2 V/1400 mAh)
- **KNB-82LC**  
Li-ion BATTERY PACK (7.4 V/1900 mAh) [Intrinsically Safe]
- **KNB-84L**  
Li-ion BATTERY PACK (7.4 V/1900 mAh) [IP67]
- **KSC-35S**  
RAPID CHARGER (for Li-ion KNB-45L/69L/82LC/84L)
- **KSC-43**  
RAPID CHARGER (for Li-ion KNB-45L/69L/82LC/84L & Ni-MH KNB-53N)
- **KSC-356A**  
MULTIPLE CHARGER (6-pocket for Li-ion KNB-45L/69L/82LC)
- **KSC-35SCR**  
CHARGER POCKET (6-pocket for KMB-35A)



- **KMB-35A**  
MULTI CHARGER ADAPTER (for KSC-35SCR)

- **KVC-22**  
DC VEHICULAR CHARGER ADAPTER (for KSC-35S)



- **EMC-11/12**  
CLIP MICROPHONE WITH EARPHONE (STD, EAR-HANGING)



- **KHS-35F**  
HEADSET (EAR-HOOK)



- **KMC-45D**  
SPEAKER MICROPHONE



- **KRA-22/23**  
VHF/UHF HELICAL ANTENNA (Low Profile)



- **KRA-26**  
VHF HELICAL ANTENNA (Standard Length)



- **KRA-27**  
UHF WHIP ANTENNA (Standard Length)



- **KRA-41/42**  
VHF/UHF STUBBY ANTENNA



- **KBH-10**  
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.

## SPECIFICATIONS

GENERAL		NX-1200	NX-1300
Frequency Range		136-174 MHz	Type 1: 450-520 MHz Type 2: 400-470 MHz
Max. Channels per Radio		260 (64 for Basic models)	
Number of Zones		128 (4 for Basic models)	
Max. Channels per Zone		250 (16 for Basic models)	
Channel Spacing	Analog	30 / 25 / 15 / 12.5 kHz	
	Digital	12.5 / 6.25 kHz	
Power Supply		7.5 VDC ±20 %	
Battery Life (5-5-90) for Std keypad model		TDMA	FDMA
	KNB-45L/84L	14.5 H	11 H
	KNB-53N	10 H	7 H
	KNB-69L	19 H	14 H
Operating Temperature (Radio only)*1		-30°C to +60°C	
Frequency Stability (-30 to +60°C; +25°C Ref.)		±0.5 ppm	
Dimensions (W x H x D) / Weight (net)	Radio only	54 x 123 x 33.5 mm / 175 g	
	With KNB-45L/84L	54 x 123 x 33.5 mm / 295 g	
Projections not included; for Std keypad model	With KNB-53N	54 x 123 x 33.5 mm / 365 g	
	With KNB-69L	54 x 123 x 37.5 mm / 310 g	

\*1 Operating temperature specification for a Li-ion battery is -10°C to +60°C.  
All specifications shown are typical.  
Analog measurements made per TIA-603 and specifications shown are typical.  
NXDN CAI & EN300-113, EN301 166 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.

RECEIVER		NX-1200	NX-1300
Sensitivity	NXDN@6.25 kHz 3 % BER	0.19 µV	
	NXDN@12.5 kHz 3 % BER	0.24 µV	
	DMR@12.5 kHz 1 % BER	0.28 µV	
	DMR@12.5 kHz 5 % BER	0.20 µV	
	Analog@12.5 / 25 kHz (12 dB SINAD)	0.22 / 0.26 µV	
Selectivity	Analog@12.5 / 25 kHz	67 / 74 dB	
Intermodulation		65 dB	
Spurious Rejection		70 dB	
Audio Distortion		7 %	
Audio Output (Internal)		1 W	
TRANSMITTER		NX-1200	NX-1300
RF Power Output		5 / 4 / 1 W	
Spurious Emission		-70 dB	
FM Hum & Noise	Analog@12.5 / 25 kHz	40 / 45 dB	
Audio Distortion		2 %	
DMR Digital Protocol		ETSI TS 102 361-1, -2, -3	
Emission Designator		16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 7K60FXE, 7K60FXD	

## MIL-STD & IP\*2

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
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
International Protection Standards	IP54/55 or IP67*3				
Dust & Water					

\*2 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories. \*3 Water & Dust tight IP67 models equipped with designated genuine batteries.

- NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc. • FleetSync® is a registered trademark of JVCKENWOOD Corporation.
- All other trademarks are the property of their respective holders.

JVCKENWOOD Singapore Pte. Ltd.

10 Ang Mo Kio Street 65 #03-18 Techpoint, Singapore  
https://www.kenwood.com/sg/com

JVCKENWOOD Australia Pty. Ltd.

Suite 4.02, City Views Business Park, 65 Epping Rd, Macquarie Park NSW 2113, Australia  
https://www.kenwood.com/au/com

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL877M-E-2\_230707i

## NX-1000 series Radios – For each and every

# NX-1700(H)/1800(H) VHF/UHF TRANSCEIVERS

[Suffix on the model no. stands for CAI:  
N=NXDN, D=DMR, and A=Analog Versions]

**NXDN™** **DMR**

**DMR >>>>>**  
**Auto Slot**  
**Select >>>>>**

**N X D N**  
**D**  
**T Y P E**

**FleetSync®**  
KENWOOD

## SOUND PERFORMANCE, SMOOTH OPERATION

Emulating the distinguished NX-3000 and NX-5000 series, the NX-1700(H)/1800(H) mobile radio supports multiple protocols – including NXDN and DMR – as well as mixed digital & FM analog operation. As it's packed with all the features essential for making the most of these digital CAIs, it clearly qualifies as a cost-effective solution for numerous enterprise- and operation-critical applications. It's also equipped with optimizable TX/RX audio quality, and a smart front panel that prioritizes simple convenience: operational status is clear at a glance from the white backlit LCD display and 7-color LED indicator.

### ● GENERAL FEATURES

- **"One Radio" with Multi-protocol Support:** Designed to operate under an NXDN or DMR digital CAI, and FM analog protocols
- **Upgradable Digital/Analog mode by software option** (no firmware upgrade required)
- **Easy visible, white backlit LCD display:** Alphanumeric, 10-digit, 13-character frame (aliases and icons)
- **7-color LED indicator** used to display various radio status
- **Renowned KENWOOD Audio Quality: 6 W (max) loud audio and optimizable TX/RX audio profile:** Audio Equalizer, Auto Gain Control (TX/RX) and Microphone type settings
- **Max. 260 Channels per radio, 128 Zones per radio, and 250 Channels per zone**
- **Wide band UHF 70 MHz coverage**
- **Various scan functions:** Dual/Single Priority scan, Multi/Single Zone scan and more
- **Orange-colored Emergency button & Customizable Emergency functions**
- **Lone Worker**
- **Remote Stun, Kill, Check**
- **Max/Min Volume setting**
- **Voice Announcement**
- **Electronic Serial Number (ESN)**
- **Display Customization**
- **D-sub, 15-pin connector** on the rear panel
- **GPS connectivity**
- **Horn Alert and Public Address**
- **Ignition Sense**
- **3.5 mm audio jack** for external speaker
- **IP54 and MIL-STD 810C/D/E/F/G/H**

### ● DIGITAL – NXDN

- FDMA – Very Narrow 6.25 kHz and Narrow 12.5 kHz Bandwidths
- NXDN Conventional: Voice and Data Services
- NXDN Type-D Trunking (Optional)
- Site Roaming
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status / Short Data, Paging Call
- Remote Stun Kill, Monitor, Check & Control
- GPS Combination with additional module
- Mixed mode
- Late Entry
- Digital Bit Scrambler
- Over-the-Air Alias (OAA)

### ● DIGITAL – DMR

- TDMA – 2-slot 12.5 KHz Bandwidth Equivalent to 6.25 KHz Very Narrow Bandwidths
- DMR Tier II Conventional: Voice and Data services

- Site Roaming
- DMR Auto Slot Select
- Dual-slot Direct Mode
- Call Interruption
- Group / Individual Call
- Status / Short Data, Paging Call
- Remote Stun Kill, Monitor, Check & Control
- GPS Combination with additional module
- Digital Analog Mixed Mode
- Digital bit Scrambler
- ARC4 Enhanced Encryption (Optional)
- Late Entry
- Over-the-Air Alias (OAA)

### ● ANALOG – FM

- FM Conventional
- FleetSync/II: PTT ID, Stun/Revive, Mute hold, Talk back, Selcall
- MDC-1200: PTT ID ANI / Radio Inhibit / Uninhibit, Radio Check, Emergency
- QT / DQT, DTMF, 2-Tone, 5-Tone
- Built-in Voice Inversion Scrambler per channel
- Componder Function per channel



## OPTIONAL ACCESSORIES

- **KMC-9C**  
DESKTOP MICROPHONE  
(non TDMA)



- **KMC-60**  
MICROPHONE

- **KMC-62**  
KEYPAD MICROPHONE  
(with 16-keypad)



- **KMC-65**  
MICROPHONE  
[IP54/55]



- **KMC-66**  
MICROPHONE  
[IP54/55]  
(with 12-keypad)



- **KES-5A**  
EXTERNAL SPEAKER  
(requires KCT-60)



- **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



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

GENERAL		NX-1700(H)	NX-1800(H)
Frequency Range		136-174 MHz	Type 1: 400-470 MHz Type 2: 450-520 MHz
Max. Channels per Radio		260	
Number of Zones		128	
Number of Channel per Zone		250	
Channel Spacing	Analog	25 / 20 / 12.5 kHz	
	Digital	12.5 / 6.25 kHz	
Operating Voltage		13.6 V DC +/-15 %	
Current Drain	Standby	0.45 A max	
	RX	2.4 A max	
	TX	50/45 W: 13 A / 25 W: 10 A	
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)	Incl. Projections	161 x 43 x 168.2 mm	
	Excl. Projections	160 x 43 x 137.7 mm	
Weight (net)		1.21 kg	

RECEIVER		NX-1700(H)	NX-1800(H)
Sensitivity	NXDN 12.5 kHz Digital, 3 % BER	0.22 µV	
	NXDN 6.25 kHz Digital, 3 % BER	0.18 µV	
	DMR 12.5 kHz Digital, 5 % BER	0.18 µV	
	Analog 25 kHz, 12 dB SINAD	0.24 µV	
	Analog 12.5 kHz, 12 dB SINAD	0.20 µV	
Selectivity	Analog @ 25 kHz	75 dB	
	Analog @ 12.5 kHz	65 dB	
Intermodulation (Analog)		73 dB	
Spurious Response (Analog)		75 dB	
Audio Output (Max / Rated) at 4 Ω		6 / 4 W	
Audio Distortion at Rated Audio		3 %	
TRANSMITTER		NX-1700(H)	NX-1800(H)
RF Power Output (High / Low)		50 / 5 W	45 / 5 W
Spurious Emission		-73 dB	-75 dB
FM Hum & Noise	Analog @ 25 kHz	45 dB	
	Analog @ 12.5 kHz	40 dB	
Audio Distortion		3 %	
Digital Protocol (DMR)		ETSI TS 102 361-1, -2, -3	
Emission Designator		16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 7K60FXD, 7K60FXW, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W	

Analog measurements made per TIA603. Specifications are measured according to applicable standards.  
Specifications shown are typical and subject to change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP

MIL Standards	Methods / Procedures					
	810C	810D	810E	810F	810G	810H
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II	500.6/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II	501.7/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II	502.7/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I	503.7/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I	505.7/ I
Rain*1	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III	506.6/ I, III
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II	507.6/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5	509.7
Dust*1	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I	510.7/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I	514.8/ I
Shock	516.2/ I, II, III, V	516.3/ I, IV, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V	516.8/ I, IV, V, VI
International Protection Standards						
Dust & Water	IP54*1 (per IEC60529)					

\*1: All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

• NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc. • NEXEDGE® is a registered trademark of JVCKENWOOD Corporation.  
• FleetSync® is a registered trademark of JVCKENWOOD Corporation. • All other trademarks are the property of their respective holders.

JVCKENWOOD Singapore Pte. Ltd.

10 Ang Mo Kio Street 65 #03-18 Techpoint, Singapore  
<https://www.kenwood.com/sg/com>

JVCKENWOOD Australia Pty. Ltd.

Suite 4.02, City Views Business Park, 65 Epping Rd, Macquarie Park NSW 2113, Australia  
<https://www.kenwood.com/au/com>

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL882-[M]-E-2-R1.01\_230707i

## NX-3200/3300

VHF/UHF DIGITAL TRANSCEIVER  
(Featuring universal audio connector)

**NXDN™** **DMR**



FleetSync®

5-tone

GPS

Bluetooth®

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. Additionally, for expansion capability a software license certification system facilitates extensive customization.

### PRODUCT HIGHLIGHTS

- **Multi-protocol digital radio:** Designed to operate under an NXDN or DMR digital, and FM analog protocols
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line Basic Frame** (2 lines of icon & key guide) / 14 Characters
- **5-Line Text Message Frame** (3 Lines of Text, icon & key guide)\*
- **7-Color Light Bar Indicator** on the top panel
- **4-way Directional-pad (D-pad)** for intuitive control and operation
- **Built-in GPS Receiver/Antenna** for effective fleet management
- **Built-in Bluetooth** for hands-free operation – Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option)
- **Renowned KENWOOD Audio Quality with Active Noise Reduction (ANR)** that utilizes built-in DSP
- Software **DES** and **AES** Encryptions for Digital protocols
- **Built-in Motion Sensor** (Man-down, Stationary and Motion Detection)
- **MIL-STD-810 C/D/E/F/G**

\*The number of lines may vary depending on the display language (character set).

### GENERAL FEATURES

- **Universal Audio Connector** with 14 contacts to connect with a variety of options, as well as loud audio output and dual mic Active Noise Reduction (ANR) capabilities

- Audio Output Power: 1 Watt
- Intrinsically Safe Option
- Paging Call
- Emergency Call
- Status/Text Message
- Remote Stun/Kill/Check

### DIGITAL - NXDN MODE

- NXDN Type-C & Gen2 Trunked
- NXDN Conventional
- 6.25 & 12.5 kHz Channels
- All Group Call
- Over-the-Air Alias (OAA)
- Over-the-Air Programming (OTAP)

### DIGITAL - DMR MODE

- 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

### ANALOG - FM MODE

- Conventional & LTR Trunking
- FleetSync/II: PTT ID ANI / Caller ID Display, Selective Group Call, Emergency Status / Text Messages
- MDC-1200: PTT ID ANI / Caller ID Display, Selective Call, Emergency, Radio Check / Inhibit
- QT / DQT, DTMF, 5-tone
- Built-in Voice Inversion Scrambler



Full Keypad Model

Standard Keypad Model

Basic Model



## OPTIONAL ACCESSORIES

- **KNB-55L/57L/78L**  
Li-ion BATTERY PACK  
(7.4 V/1480 mAh,  
7.4 V/2000 mAh,  
7.4 V/2860 mAh)



KNB-57L

- **KNB-79LC**  
Li-ion BATTERY PACK  
(7.4 V/2860 mAh,  
Intrinsically Safe)

- **KBP-5**  
BATTERY CASE (6 AA)

- **KSC-25LS/25S**  
RAPID CHARGER  
(Li-ion Only/Tri-Chem)



KSC-25S

- **KSC-526**  
6-UNIT CHARGER BASE  
(Req. KSC-52PC)



KSC-526

- **KSC-52PC**  
CHARGING POCKET



KSC-52PC

- **KRA-22/23**  
VHF/UHF HELICAL  
ANTENNA  
(Low Profile)



KRA-22 KRA-23

- **KRA-26**  
VHF HELICAL ANTENNA  
(Standard Length)



- **KRA-27**  
UHF WHIP ANTENNA  
(Standard Length)



- **KRA-41/42**  
VHF/UHF STUBBY  
ANTENNA



KRA-41 KRA-42

- **KBH-11**  
BELT CLIP (2.5 in)



- **KMC-70**  
SPEAKER  
MICROPHONE [IP68]  
(3-button, DSP Active  
Noise Reduction; Green  
Housing [GR] version is  
also available)



KMC-70

KMC-70GR

- **KMC-72**  
SPEAKER MICROPHONE [IP67]  
(2-button, Built-in noise canceler)



- **KPG-180AP**  
OTAP MANAGER (PC software)

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

GENERAL		NX-3200	NX-3300
Frequency Range		136-174 MHz	400-520 MHz
Max. Channels per Radio		Up to 1000 channels with option	
Number of Channels		512 (64 for no LCD models)	
Number of Zones		128 (4 for no LCD models)	
Channel Spacing	Analog	12.5/25*1 kHz	
	Digital	6.25/12.5 kHz	
Power Supply		7.5 V DC ±20 %	
Battery Life*2 (Average battery life at 5-5-90)		FDMA Conv. / Trunk.	TDMA Conv. / Trunk.
	KNB-55L (1480 mAh)	8.5 / 6.5 h	12.5 / 9.0 h
	KNB-56N (1400 mAh)	7.5 / 6.0 h	11.0 / 8.0 h
	KNB-57L (2000 mAh)	12.0 / 9.5 h	17.5 / 13.0 h
	KNB-78L (2860 mAh)	17.5 / 13.5 h	25.0 / 18.5 h
KNB-79LC (2860 mAh)*3	15.0 / 11.5 h	21.5 / 16.0 h	
Operating Temperature*4		-30°C to +60°C	
Frequency Stability (-30°C to +60°C; +25°C Ref.)		± 0.5 ppm	
Dimensions*5 (W x H x D) Projections not included	Radio only	56 x 119.6 x 36.4 mm	
	with KNB-55L	56 x 119.6 x 36.4 mm	
	with KNB-56N	56 x 119.6 x 42.7 mm	
	with KNB-57L	56 x 119.6 x 39.0 mm	
	with KNB-78L/79LC	56 x 119.6 x 44.9 mm	
Weight*6 (net)	Radio only	220 g	
	with KNB-55L	315 g	
	with KNB-56N	410 g	
	with KNB-57L	340 g	
	with KNB-78L with KNB-79LC	385 g 395 g	

RECEIVER		NX-3200	NX-3300
Sensitivity	NXDN 6.25 kHz Digital, 3 % BER	0.20 µV	
	NXDN 12.5 kHz Digital, 3 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 5 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 1 % BER	0.45 µV	
	Analog, 12 dB SINAD	0.25 µV	
Selectivity	Analog @ 12.5 kHz	65 dB	
	Analog @ 25 kHz	72 dB	
Intermodulation		70 dB	
Spurious Rejection		70 dB	
Audio Distortion		3 %	
Audio Output	3 % Distortion	500 mW	
	(Internal Speaker) 5 % Distortion	1000 mW	
TRANSMITTER		NX-3200	NX-3300
RF Power Output		5 W / 4 W / 1 W	
Spurious Emission		-70 dB	
FM Hum & Noise	Analog @ 12.5 kHz	40 dB	
	Analog @ 25 kHz	45 dB	
Audio Distortion		3 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E*1, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

\*1 Over 12.5 kHz channel spacings are not included in the models sold in the USA or US territories.

\*2 Battery Life is measured with factory default setting, GPS/ Bluetooth OFF.

\*3 Typical value under the condition charged with KCS-25S/25LS.

\*4 Operating temperature specification for a Li-ion battery is -10°C to +60°C.

\*5 Dimensions for Full Keypad/Std Keypad Models

\*6 Weight for Full Keypad Model

Specifications are measured according to applicable standards.

Specifications shown are typical and subject to change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP\*7

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
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
International Protection Standards					
Dust & Water		IP54, IP55, IP67			

\*7 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

• The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JVCKENWOOD Corporation is under license. • NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc.  
• NEXEDGE® is a registered trademark of JVCKENWOOD Corporation. • FleetSync® is a registered trademark of JVCKENWOOD Corporation. • All other trademarks are the property of their respective holders.

JVCKENWOOD Singapore Pte. Ltd.

10 Ang Mo Kio Street 65 #03-18 Techpoint, Singapore  
<https://www.kenwood.com/sg/com>

JVCKENWOOD Australia Pty. Ltd.

Suite 4.02, City Views Business Park, 65 Epping Rd, Macquarie Park NSW 2113, Australia  
<https://www.kenwood.com/au/com>

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL874M-E-2R\_230707i

## NX-3220/3320

VHF/UHF DIGITAL TRANSCEIVER  
(Featuring 2-pin audio connector)

**NXDN™** **DMR**



FleetSync®

5-tone

GPS

Bluetooth®

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. Additionally, for expansion capability a software license certification system facilitates extensive customization.

### PRODUCT HIGHLIGHTS

- **Multi-protocol digital radio:** Designed to operate under an NXDN or DMR digital, and FM analog protocols
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line Basic Frame** (2 lines of icon & key guide) / 14 Characters
- **5-Line Text Message Frame** (3 Lines of Text, icon & key guide)\*
- **7-Color Light Bar Indicator** on the top panel
- **4-way Directional-pad (D-pad)** for intuitive control and operation
- **Built-in GPS Receiver/Antenna** for effective fleet management
- **Built-in Bluetooth** for hands-free operation – Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option)
- Renowned **KENWOOD Audio Quality with Active Noise Reduction (ANR)** that utilizes built-in DSP
- Software **DES** and **AES** Encryptions for Digital protocols
- **Built-in Motion Sensor** (Man-down, Stationary and Motion Detection)
- **MIL-STD-810 C/D/E/F/G**

\*The number of lines may vary depending on the display language (character set).

### GENERAL FEATURES

- **2-pin audio connector** with 6 contacts to connect with a variety of options, and single mic Active Noise Reduction (ANR) capability



- Audio Output Power: 1 Watt
- Intrinsically Safe Option
- Paging Call
- Emergency Call
- Status/Text Message
- Remote Stun/Kill/Check

### DIGITAL - NXDN MODE

- NXDN Type-C & Gen2 Trunked
- NXDN Conventional
- 6.25 & 12.5 kHz Channels
- All Group Call
- Over-the-Air Alias (OAA)
- Over-the-Air Programming (OTAP)

### DIGITAL - DMR MODE

- 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

### ANALOG - FM MODE

- Conventional & LTR Trunking
- FleetSync/II: PTT ID ANI / Caller ID Display, Selective Group Call, Emergency Status / Text Messages
- MDC-1200: PTT ID ANI / Caller ID Display, Selective Call, Emergency, Radio Check / Inhibit
- QT / DQT, DTMF, 5-tone
- Built-in Voice Inversion Scrambler



Full Keypad Model

Standard Keypad Model

Basic Model

## OPTIONAL ACCESSORIES

- **KNB-55L/57L/78L**  
Li-ion BATTERY PACK  
(7.4 V/1480 mAh,  
7.4 V/2000 mAh,  
7.4 V/2860 mAh)



KNB-57L

- **KNB-79LC**  
Li-ion BATTERY PACK  
(7.4 V/2860 mAh,  
Intrinsically Safe)

- **KBP-5**  
BATTERY CASE (6 AA)

- **KSC-25LS/25S**  
RAPID CHARGER  
(Li-ion Only/Tri-Chem)



KSC-25S

- **KSC-526**  
6-UNIT CHARGER BASE  
(Req. KSC-52PC)



KSC-526

- **KSC-52PC**  
CHARGING POCKET



KSC-52PC

- **KRA-22/23**  
VHF/UHF HELICAL  
ANTENNA  
(Low Profile)



KRA-22

KRA-23

- **KRA-26**  
VHF HELICAL  
ANTENNA  
(Standard Length)



- **KRA-27**  
UHF WHIP ANTENNA  
(Standard Length)



- **KRA-41/42**  
VHF/UHF STUBBY  
ANTENNA



KRA-41

KRA-42

- **KMC-45D**  
SPEAKER  
MICROPHONE  
[IP54/55]



- **KBH-11**  
BELT CLIP (2.5 in)



- **KPG-180AP**  
OTAP MANAGER (PC software)

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

GENERAL		NX-3220	NX-3320
Frequency Range		136-174 MHz	400-520 MHz
Max. Channels per Radio		Up to 1000 channels with option	
Number of Channels		260 (64 for no LCD models)	
Number of Zones		128 (4 for no LCD models)	
Channel Spacing	Analog	12.5/25*1 kHz	
	Digital	6.25/12.5 kHz	
Power Supply		7.5 V DC ±20 %	
Battery Life*2 (Average battery life at 5-5-90)		FDMA Conv. / Trunk.	TDMA Conv. / Trunk.
	KNB-55L (1480 mAh)	8.5 / 6.5 h	12.5 / 9.0 h
	KNB-56N (1400 mAh)	7.5 / 6.0 h	11.0 / 8.0 h
	KNB-57L (2000 mAh)	12.0 / 9.5 h	17.5 / 13.0 h
	KNB-78L (2860 mAh)	17.5 / 13.5 h	25.0 / 18.5 h
	KNB-79LC (2860 mAh)*3	15.0 / 11.5 h	21.5 / 16.0 h
Operating Temperature*4		-30°C to +60°C	
Frequency Stability (-30°C to +60°C; +25°C Ref.)		± 0.5 ppm	
Dimensions*5 (W x H x D) Projections not included	Radio only	56 x 119.6 x 36.4 mm	
	with KNB-55L	56 x 119.6 x 36.4 mm	
	with KNB-56N	56 x 119.6 x 42.7 mm	
	with KNB-57L	56 x 119.6 x 39.0 mm	
	with KNB-78L/79LC	56 x 119.6 x 44.9 mm	
Weight*6 (net)	Radio only	220 g	
	with KNB-55L	315 g	
	with KNB-56N	410 g	
	with KNB-57L	340 g	
	with KNB-78L	385 g	
	with KNB-79LC	395 g	

RECEIVER		NX-3220	NX-3320
Sensitivity	NXDN 6.25 kHz Digital, 3 % BER	0.20 µV	
	NXDN 12.5 kHz Digital, 3 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 5 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 1 % BER	0.45 µV	
Selectivity	Analog, 12 dB SINAD	0.25 µV	
	Analog @ 12.5 kHz	65 dB	
Intermodulation	Analog @ 25 kHz	72 dB	
		70 dB	
Spurious Rejection		70 dB	
Audio Distortion		3 %	
Audio Output (Internal Speaker)	3 % Distortion	500 mW	
	5 % Distortion	1000 mW	
TRANSMITTER		NX-3220	NX-3320
RF Power Output		5 W / 4 W / 1 W	
Spurious Emission		-70 dB	
FM Hum & Noise	Analog @ 12.5 kHz	40 dB	
	Analog @ 25 kHz	45 dB	
Audio Distortion		3 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E*1, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

\*1 Over 12.5 kHz channel spacings are not included in the models sold in the USA or US territories.

\*2 Battery Life is measured with factory default setting, GPS/ Bluetooth OFF.

\*3 Typical value under the condition charged with KCS-26S/25S.

\*4 Operating temperature specification for a Li-ion battery is -10°C to +60°C.

\*5 Dimensions for Full Keypad/Std Keypad Models

\*6 Weight for Full Keypad Model

Specifications are measured according to applicable standards.

Specifications shown are typical and subject to change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP\*7

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
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
International Protection Standards					
Dust & Water		IP54, IP55, IP67			

\*7 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

- The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JVCKENWOOD Corporation is under license.
- NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc.
- NEXEDGE® is a registered trademark of JVCKENWOOD Corporation.
- FleetSync® is a registered trademark of JVCKENWOOD Corporation.
- All other trademarks are the property of their respective holders.

### JVCKENWOOD Singapore Pte. Ltd.

10 Ang Mo Kio Street 65 #03-18 Techpoint, Singapore  
<https://www.kenwood.com/sg/com>

### JVCKENWOOD Australia Pty. Ltd.

Suite 4.02, City Views Business Park, 65 Epping Rd, Macquarie Park NSW 2113, Australia  
<https://www.kenwood.com/au/com>

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL875M-E-2R\_230707i

## NX-3400/3420

800-900 MHz DIGITAL TRANSCEIVER

**NXDN™** **DMR**



**FleetSync®**  
by KENWOOD

**GPS**

**Bluetooth®**



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. Additionally, for expansion capability a software license certification system facilitates extensive customization.

### PRODUCT HIGHLIGHTS

- **Multi-protocol digital radio:** Designed to operate under an NXDN or DMR digital, and FM analog protocols
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line Basic Frame** (2 lines of icon & key guide) / 14 Characters
- **5-Line Text Message Frame** (3 Lines of Text, icon & key guide)\*
- **7-Color Light Bar Indicator** on the top panel
- **4-way Directional-pad (D-pad)** for intuitive control and operation
- **Built-in GPS Receiver/Antenna** for effective fleet management
- **Built-in Bluetooth** for hands-free operation – Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option)
- Renowned **KENWOOD Audio Quality with Active Noise Reduction (ANR)** that utilizes built-in DSP
- Software **DES** and **AES** Encryptions for Digital protocols
- **Built-in Motion Sensor** (Man-down, Stationary and Motion Detection)
- **MIL-STD-810 C/D/E/F/G**

\*The number of lines may vary depending on the display language (character set).

### GENERAL FEATURES

- Audio Output Power: 1 Watt
- Dual band, 800-900 MHz capability
- Two models with different audio connectors are available:
  - NX-3400: Universal audio connector model with 14 accessory contact points to connect with a variety of options, as well as loud audio output and dual mic ANR capabilities
  - NX-3420: 2-pin audio connector model with 6 contact points to connect with a variety of options, and single mic ANR capability



- Intrinsically Safe Option
- Paging Call
- Emergency Call
- Status/Text Message
- Remote Stun/Kill/Check

### DIGITAL - NXDN MODE

- NXDN Type-C & Gen2 Trunked
- NXDN Conventional
- 6.25 & 12.5 kHz Channels
- All Group Call
- Over-the-Air Alias (OAA)
- Over-the-Air Programming (OTAP)

### DIGITAL - DMR MODE

- 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

### ANALOG - FM MODE

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

## OPTIONAL ACCESSORIES

- **KNB-55L/57L/78L**  
Li-ion BATTERY PACK  
(7.4 V/1480 mAh,  
7.4 V/2000 mAh,  
7.4 V/2860 mAh)



KNB-57L

- **KNB-56N**  
Ni-MH BATTERY PACK  
(7.4 V/2860 mAh)

- **KNB-79LC**  
Li-ion BATTERY PACK  
(7.4 V/2860 mAh,  
Intrinsically Safe)

- **KBP-5**  
BATTERY CASE (6 AA)

- **KSC-25LS/25S**  
RAPID CHARGER  
(Li-ion Only/Tri-Chem)



KSC-25S

- **KSC-256/256A**  
MULTIPLE CHARGER  
(6-pocket)



KSC-256

- **KRA-38**  
800/900 MHz  
Whip Antenna



- **KBH-11**  
BELT CLIP (2.5 in)



- **KPG-180AP**  
OTAP MANAGER (PC software)

### For NX-3420 2-pin audio connector model

- **KMC-45D**  
SPEAKER  
MICROPHONE  
(IP54/55)



### For NX-3400 Universal audio connector model

- **KMC-41D**  
SPEAKER MICROPHONE [IP54/55]



KMC-41D

- **KMC-54WD**  
SPEAKER  
MICROPHONE  
(with dual-sided  
2-mic for superior  
ANR, IP67)



KMC-54WD

- **KMC-70**  
SPEAKER MICROPHONE (with IP68, 3-button and Digital  
NR; Green Housing [GR] version is also available)

- **KMC-72**  
SPEAKER MICROPHONE (with IP67, and 2-button)

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

GENERAL		NX-3400/3420	
Frequency Range		TX/RX: 851-870, 935-941 MHz TX: 806-825, 896-902 MHz	
Max. Channels per Radio		Up to 1000 channels with option	
Number of Channels		NX-3400: 512 / NX-3420: 260	
Number of Zones		128	
Channel Spacing	Analog	12.5/25*1 kHz	
	Digital	6.25/12.5 kHz	
Power Supply		7.5 V DC ±20 %	
Battery Life*2 (Average battery life at 5-5-90)		FDMA Conv. / Trunk.	TDMA Conv. / Trunk.
	KNB-55L (1480 mAh)	9 / 7 h	12 / 9 h
	KNB-56N (1400 mAh)	8 / 6 h	10.5 / 8 h
	KNB-57L (2000 mAh)	13 / 10 h	17 / 13 h
	KNB-78L (2860 mAh)	18.5 / 14 h	24 / 18.5 h
	KNB-79LC (2860 mAh)*3	15.5 / 12 h	20.5 / 16 h
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) Projections not included	Radio only	56 x 119.6 x 36.4 mm	
	with KNB-55L	56 x 119.6 x 36.4 mm	
	with KNB-56N	56 x 119.6 x 42.7 mm	
	with KNB-57L	56 x 119.6 x 39.0 mm	
	with KNB-78L/79LC	56 x 119.6 x 44.9 mm	
Weight (net)	Radio only	220 g	
	with KNB-55L	315 g	
	with KNB-56N	410 g	
	with KNB-57L	340 g	
	with KNB-78L	385 g	
	with KNB-79LC	395 g	

RECEIVER		NX-3400/3420	
Sensitivity	NXDN 6.25 kHz Digital, 3 % BER	0.20 µV	
	NXDN 12.5 kHz Digital, 3 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 5 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 1 % BER	0.45 µV	
	Analog, 12 dB SINAD	0.25 µV	
Selectivity	Analog @ 12.5 kHz	60 dB	
	Analog @ 25 kHz	70 dB	
Intermodulation		70 dB	
Spurious Rejection		70 dB	
Audio Distortion		3 %	
Audio Output (Internal Speaker)	3 % Distortion	500 mW	
	5 % Distortion	1000 mW	
TRANSMITTER		NX-3400/3420	
RF Power Output		3 W / 1 W	
Spurious Emission		-70 dB	
FM Hum & Noise	Analog @ 25 kHz	45 dB	
	Analog @ 12.5 kHz	40 dB	
Audio Distortion		3 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E**1, 14K0F3E**4, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

\*1 25 kHz is not included in 900 MHz band.

\*2 Battery life is measured by battery save ON, GPS/Bluetooth OFF.

\*3 Typical value under the condition charged with KSC-25S/25LS.

\*4 800 MHz band only

Analog measurements made per TIA603. Specifications are measured according to applicable standards.  
Specifications shown are typical and subject to change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
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, II	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
International Protection Standards					
Dust & Water*5	IP54, IP55, IP67				

\*5 Audio accessory connector must be covered.

- The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JVCケンウッド Corporation is under license.
- NXDN™ is a trademark of JVCケンウッド Corporation and Icom Inc.
- NEXEDGE® is a registered trademark of JVCケンウッド Corporation.
- FleetSync® is a registered trademark of JVCケンウッド Corporation.
- All other trademarks are the property of their respective holders.

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCケンウッド Corporation

CL872M-E-2\_230707i

## NX-3720HG/3820HG

VHF/UHF DIGITAL TRANSCEIVER

**NXDN™** **DMR**



This adaptable mobile 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. Designed with flexibility in mind, it's packed with convenient features like Bluetooth® for hands-free operation and built-in GPS. And providing greater freedom of installation, the radio's front panel can be used as a remote control head (this requires an optional accessories). Additionally, for expansion capability a software license certification system facilitates extensive customization.

### PRODUCT HIGHLIGHTS

- **Multi-protocol digital radio:** Designed to operate under an NXDN or DMR digital, and FM analog protocols
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line** Basic Frame (2 lines of icon & key guide) / 14 Characters
- **4-Line** Text Message Frame (2 Lines of Text, icon & key guide) Note: The number of lines may vary depending on the display language (character set).
- **7-Color LED** indicator
- External and Internal Speaker Switching
- **Built-in GPS** Receiver for effective fleet management
- **Built-in Bluetooth** for hands-free operation
  - Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option; availability depends on the model)
- Renowned **KENWOOD Audio Quality with Active Noise Reduction (ANR)** that utilizes built-in DSP
- Software **DES** and AES Encryptions for Digital protocols
- **MIL-STD-810 C/D/E/F/G**



- **Single Remote Head** operation (Requires optional control head interface kit)

### GENERAL FEATURES

- Audio Output Power (4 Watts at 4Ω)
- Paging Call
- Emergency Call
- Status / Text Message
- Remote Stun / Kill / Check

### DIGITAL - NXDN MODE

- NXDN Type-C & Gen2 Trunked
- NXDN Conventional
- 6.25 & 12.5 kHz Channels
- All Group Call
- Over-the-Air Alias (OAA)
- Over-the-Air Programming (OTAP)

### DIGITAL - DMR MODE

- 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

### ANALOG - FM MODE

- Conventional & LTR Trunking
- 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, DTMF, 5-tone
- Built-in Voice Inversion Scrambler



## OPTIONAL ACCESSORIES

- KMC-35/36**

MICROPHONE [IP54/55]  
(without/with 12-keypad)



- KMC-65/66**

MICROPHONE [IP54/55]  
(without/with 12-keypad)



- KES-5 (A)**

EXTERNAL SPEAKER  
(40 W max input, requires KCT-60)



- KRK-18H**

CONTROL HEAD  
INTERFACE KIT



- KRK-19B**

CONTROL HEAD  
REMOTE KIT



- 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)



- KCT-71**

REMOTE CONTROL  
CABLE  
(M2: 5.2m, M3: 7.6m)



- KCT-72**

CONNECTION CABLE  
(for Remote Control Head)



- KCT-73MIC**

EXTERNAL MIC KIT  
(Requires KCT-60 or  
KCT-72)



- KCT-74PTT**

EXTERNAL PTT KIT  
(Requires KCT-60 or  
KCT-72)



- KLF-2**

LINE FILTER



- KMB-10**

KEY LOCK  
ADAPTER



- KRA-40G**

GPS ACTIVE ANTENNA



- KPG-180AP**

OTAP MANAGER  
(PC software)

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

GENERAL	NX-3720HG	NX-3820HG
Frequency Range	136-174 MHz	400-470 MHz
Max. Channels per Radio	Up to 1000 channels with option	
Number of Channels	512	
Number of Zones	128	
Channel Spacing	Analog 12.5 / 25*1 kHz Digital 6.25 / 12.5 kHz	
Operating Voltage	13.6 V DC ± 15 %	
Current Drain	Standby 0.45 A RX 2.3 A TX 9 A	
Operating Temperature	-30°C to +60°C	
Frequency Stability (-30°C to +60°C; +25°C Ref.)	± 0.5 ppm	
Antenna Impedance	50 Ohms	
Dimensions (W x H x D) *Projections not included	160 x 43 x 160 mm	
Weight (net)	1.2 kg	

\*1 Over 12.5 kHz channel spacings are not included in the models sold in the USA or US territories.  
Specifications are measured according to applicable standards.  
Specifications shown are typical and subject to change without notice, due to advancements in technology.

RECEIVER	NX-3720HG	NX-3820HG	
Sensitivity	NXDN 6.25 kHz Digital, 3 % BER	0.20 µV	
	NXDN 12.5 kHz Digital, 3 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 5 % BER	0.25 µV	
	DMR 12.5 kHz Digital, 1 % BER	0.45 µV	
Analog, 12 dB SINAD	0.25 µV		
Selectivity	Analog @ 12.5 kHz	70 dB	68 dB
	Analog @ 25 kHz	80 dB	78 dB
Intermodulation	70 dB		
Spurious Rejection	80 dB		
Audio Distortion	2 %		
Audio Output	4 W		
TRANSMITTER	NX-3720HG	NX-3820HG	
RF Power Output	50 W / 30 W / 5 W	45 W / 30 W / 5 W	
Spurious Emission	-73 dB	-75 dB	
FM Hum & Noise	Analog @ 12.5 kHz	40 dB	
	Analog @ 25 kHz	45 dB	
Audio Distortion	2 %		
Digital Protocol	ETSI TS 102 361-1, -2, -3, -4		
Emission Designator	16K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

## APPLICABLE MIL-STD & IP\*2

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
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, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V
International Protection Standards					
Dust & Water	IP54: RF Deck; IP55: Remote Control Head				

\*2 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

• The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JVCKENWOOD Corporation is under license. • NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc.  
• NEXEDGE® is a registered trademark of JVCKENWOOD Corporation. • FleetSync® is a registered trademark of JVCKENWOOD Corporation. • All other trademarks are the property of their respective holders.

JVCKENWOOD Singapore Pte. Ltd.

10 Ang Mo Kio Street 65 #03-18 Techpoint, Singapore  
https://www.kenwood.com/sg/com

JVCKENWOOD Australia Pty. Ltd.

Suite 4.02, City Views Business Park, 65 Epping Rd, Macquarie Park NSW 2113, Australia  
https://www.kenwood.com/au/com

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL876M-E-2R\_2307071

## NX-5200/5300/5400

VHF/UHF/700-800 MHz TRANSCEIVERS

**NXDN™**

**DMR**



**DMR-based T3**  
TRUNKING

**DMR >>>>>**  
Auto Slot  
Select >>>>>



**GPS**

**FleetSync®**  
by KENWOOD



Full Keypad Model

Limited Keypad Model

### FEATURE HIGHLIGHTS

- **Multi-Digital** operation in NXDN, DMR, and P25 (Phase 1 & 2) protocols
- Any combination of two digital protocols can be selected from NXDN, DMR, and P25
- **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 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**
- Over-the-Air Programming (OTAP)
- **Built-in Motion Sensor** for life-critical man down detection
- **microSD/SDHC (up to 2GB/32GB) Memory Card Slot**
- **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
- 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
- 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 Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Enhanced Encryption (40-bit)
- Site Roaming
- Two-slot TDMA in 12.5kHz channels
- Call Interruption
- Dual-slot Direct Mode
- 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 Enhanced Encryption (ARC4)
- Over-the-Air Re-keying

### 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

- 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/L2/L3 Li-ion BATTERY PACK (IP67/68 immersion)



### • KNB-L11 Li-ion BATTERY PACK 7.2 V/3900 mAh (IP67/68 Immersion)



### • KBP-8 BATTERY CASE (12AA Alkaline Battery)



Intrinsically Safe Batteries are also available.

### • KSC-52A/B SINGLE UNIT CHARGER



### • KSC-526 6-UNIT CHARGER BASE



### • KSC-52PA/B CHARGING POCKET



### • KAS-12/12PRO BATTERY READER (PC Software)

### • 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



### • KWD-AE30/AE31 SECURE CRYPTOGRAPHIC MODULE



### • KPG-180AP OTAP MANAGER



### • KMC-70 SPEAKER MICROPHONE [IP68] (3-button, DSP Active Noise Reduction; Green Housing [GR] version is also available)



### • KMC-72 SPEAKER MICROPHONE [IP67] (2-button, Built-in noise canceler)



### • 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.

## SPECIFICATIONS

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 <sup>1</sup> / 30 <sup>1</sup> kHz Digital: 6.25 / 12.5 kHz	12.5 / 25 <sup>1</sup> kHz	12.5 / 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	
	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 (Radio only)*	-22 °F to +140 °F (-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)	2.28 x 5.47 x 1.44 in (58.0 x 138.9 x 36.5 mm)	
	KNB-L2 (2,600 mAh)	2.28 x 5.47 x 1.56 in (58.0 x 138.9 x 39.5 mm)	
	KNB-L3 (3,400 mAh)	2.28 x 5.47 x 1.77 in (58.0 x 138.9 x 44.9 mm)	
	KNB-N4 (2,500 mAh)	2.28 x 6.55 x 1.78 in (58.0 x 166.4 x 45.2 mm)	
KBP-8 (w/ AA x12)	2.64 x 8.59 x 2.12 in (67.0 x 218.3 x 53.9 mm)		
Weight	Radio Only	8.85 oz (251 g)	
	KNB-L1 (2,000 mAh)	13.5 oz (382 g)	
	KNB-L2 (2,600 mAh)	14.3 oz (406 g)	
	KNB-L3 (3,400 mAh)	15.8 oz (449 g)	
KNB-N4 (2,500 mAh)	20.4 oz (579 g)		
FCC ID	Type 1	K44431400	K44431500
	Type 2	—	K44431501
IC Certification	Type 1	282F-431400	—
	Type 2	—	282F-431501

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	
	DMR Digital (5 % BER)	0.25 µV	
	DMR Digital (1 % BER)	0.40 µV	
	P25 Digital (5 % BER)	0.25 µV	
	P25 Digital (1 % BER)	0.40 µV	
Selectivity	Analog @ 12.5 kHz	67 dB	64 dB
	Analog @ 25 kHz	73 dB	75 dB
Intermodulation	73 dB		75 dB
Spurious Rejection	80 dB	75 dB	
Audio Distortion	3 %		
Audio Output Power	500 mW (3 % Distortion)/1,000 mW (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, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

\*1 25 and 30 kHz are not included in the models sold in the USA or US territories.  
\*2 Operating temperature specification for a Li-ion battery is 14°F to +140°F (-10°C to +60°C).  
P25 Digital measurements made per TIA 102CAAA, analog measurements made per EN Standards or TIA 603 and specifications shown are typical.  
Specifications are subject change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP\*3

MIL Standards	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/I, III	507.3/I, III	507.4	507.5/I, 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 Standards					
Dust & Water	IP54, IP55				
Immersion	IP67, IP68				

\*3 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

• The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. • SD and microSD are trademarks of SD-3C, LLC in the United States, and/or other countries • AMBE+2™ is a trademark of Digital Voice Systems Inc.  
• Windows® is a registered trademark of Microsoft Corporation. • NXDN™ is a trademark of JVCKENWOOD Corporation and Icom Inc. • NEXEDGE® is a registered trademark of JVCKENWOOD Corporation. • FleetSync® is a registered trademark of JVCKENWOOD Corporation.

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCKENWOOD Corporation

CL854K-E-2R3.2(tw)2307071

## NX-5700/5800/5900

VHF/UHF/700-800 MHz TRANSCEIVERS

**NXDN™**

**DMR**



**DMR<sup>T3</sup>**  
-based  
TRUNKING

**DMR>>>>**  
Auto Slot  
Select>>>>



**GPS**

**FleetSync™**

### FEATURE HIGHLIGHTS

- **Multi-Digital** operation in NXDN, DMR, and P25 (Phase 1 & 2) protocols
- **Any combination of two digital protocols** can be selected from NXDN, DMR, and P25
- **Mixed Digital & FM Analog Operation** allows intelligent migration in mixed sites and easy migration with digital radios in other sites
- **Large, Color 2.55" (154 x 422 pixels) TFT Display** for at-a-glance operational status checking
- **Easy to follow GUI** and **Multi-line Text** to convey more information
- **Dual Remote Control Head** and **Multi-Band (Multi RF Deck) Control** Option providing scalable configurations for various operations and applications
- **Built-In GPS Receiver** 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**
- Over-the-Air Programming (OTAP)
- **microSD/SDHC (up to 2GB/32GB) Card Slot**
- **IP54/55** and **MIL-STD-810 C/D/E/F/G**

### GENERAL FEATURES

- 50 W to 5 W (136-174 MHz) Models
- 45 W to 5 W (380-470, 450-520 MHz) Models
- 30 W to 2 W (700 MHz) Model
- 35 W to 2 W (800 MHz) Model
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- DB-25 Accessory Connector
- AMBE+2™ Enhanced Vocoder
- 4 W Speaker Audio

### DIGITAL – NXDN MODE

- Gen2 & NXDN Type-C Trunked Operation
- NXDN Conventional Operation
- 6.25 & 12.5 kHz Channel Spacing
- Over-the-Air Alias
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check
- Short & Long Data Messages
- NXDN Digital Scrambler Included

### DIGITAL – DMR MODE

- DMR Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Enhanced Encryption (40-bit)
- Site Roaming
- Two-slot TDMA in 12.5kHz channels
- Call Interruption
- Dual-slot Direct Mode
- 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 Enhanced Encryption (ARC4)
- Over-the-Air Re-keying
- P25 Over-the-Air Programming

### FM MODES – GENERAL

- 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 & Two-Tone
- Built-in Voice Inversion Scrambler

### MULTIPLE CONFIGURATIONS

The NX-5000 mobile series allows users to create a variety of configurations to suit different requirements by combining different options. Some of the standard configurations are:

- Single Remote Control Head x Single RF Deck
- Dual Remote Control Heads x Single RF Deck
- Dual Remote Control Heads x Multi RF Decks
- Other combinations are available. Consult your local KENWOOD dealer for more.



## OPTIONAL ACCESSORIES

- **NX-5700B/5800B/5900B**  
RF DECK

- **KCH-19**  
BASIC CONTROL HEAD KIT

- **KCH-20R**  
FEATURED CONTROL HEAD

- **KRK-14H**  
CONTROL HEAD INTERFACE KIT  
(Adapter for the Head)

- **KRK-15B**  
CONTROL HEAD REMOTE KIT  
(Adapter for the RF Deck)



- **KCT-71**  
REMOTE CONTROL CABLE  
(Available in 3 lengths of 17 ft (5.2 m), 25 ft (7.6 m), 1.6 ft (0.5 m))

- **KCT-72**  
REMOTE CONTROL CABLE

- **KWD-AE30/AE31**  
SECURE CRYPTOGRAPHIC MODULE

- **KPG-180AP**  
OTAP MANAGER

- **KMC-35/36\***  
MICROPHONE [IP54/55] (without / with 12-keypad)  
\*To be discontinued

- **KMC-65/66**  
MICROPHONE [IP54/55] (without / with 12-keypad)



- **KES-5 (A)**  
EXTERNAL SPEAKER  
(40 W max input, Requires KAP-2)



- **KCT-23**  
DC POWER CABLE  
M: 10 ft (3 m) / M3: 23 ft (7 m)



- **KCT-46**  
IGNITION SENSE CABLE



- **KLF-2**  
LINE FILTER



- **KMB-10**  
KEY LOCK ADAPTER



- **KAP-2**  
HORN ALERT/P.A. RELAY UNIT



- **KRA-40G**  
GPS ACTIVE ANTENNA



- **KPS-15**  
DC POWER SUPPLY  
(23 A max)



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

GENERAL	NX-5700	NX-5800	NX-5900
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 Digital: 6.25 / 12.5 kHz	12.5 / 25* kHz 6.25 / 12.5 kHz	12.5 / 25 kHz 6.25 / 12.5 kHz
Power Supply	13.6 V DC ±15%		
Current Drain	Standby: 0.45 A RX: 2.3 A TX: 13 A		
Operating Temperature	-22° F to +140 °F (-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 with Control Head, Projections Not Included	6.69 x 1.89 x 6.93 in. (170 x 48 x 176 mm)		6.73 x 1.89 x 7.72 in. (171.0 x 48.0 x 196 mm)
Weight: Radio with Control Head	3.53 lbs (1.6 kg)		
FCC ID	Type 1: K44471100 Type 2: —	K44471200 K44471201	K44478500
IC Certification	Type 1: 282F-471100 Type 2: —	— 282F-471201	282F-478500

\*25 and 30 kHz are not included in the models sold in the USA or US territories. P25 Digital measurements made per TIA 102CAA, analog measurements made per EN Standards or TIA 603 and specifications shown are typical. Specifications are subject change without notice, due to advancements in technology.

RECEIVER	NX-5700	NX-5800	NX-5900
Sensitivity	NXDN 6.25 kHz Digital (3 % BER)	0.20 µV	
	NXDN 12.5 kHz Digital (3 % BER)	0.25 µV	
	DMR Digital (6 % BER)	0.25 µV	
	DMR Digital (1 % BER)	0.40 µV	
	P25 Digital (5 % BER)	0.25 µV	
	P25 Digital (1 % BER)	0.40 µV	
Selectivity	Analog (12dB SINAD)	0.25 µV	
	Analog @ 12.5 kHz	71 dB	70 dB
	Analog @ 25 kHz	81 dB	78 dB
Intermodulation	80 dB		
Spurious Rejection	85 dB		
Audio Distortion	2 %		
Audio Output Power	4 W (Remote Control Head: 3 W)		
TRANSMITTER	NX-5700	NX-5800	NX-5900
RF Power Output Power	50 to 5 W	45 to 5 W	30 W to 2 W (700 MHz) 35 W to 2 W (800 MHz)
Spurious Emission	-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	45 dB	
	Analog @ 25 kHz	50 dB	
Audio Distortion	2 %		
Emission Designator	16K0F3E, 14K0F3E**, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

\*\*NX-5900 model only.

## APPLICABLE MIL-STD & IP\*

MIL Standards	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, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V
International Protection Standards					
Dust & Water	IP54: RF Deck of the mobile radio; IP55: Remote Control Head for the mobile radio				

\*All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

• The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. • SD and microSD are trademarks of SD-3C, LLC in the United States, and/or other countries • AMBE+2™ is a trademark of Digital Voice Systems Inc. • Windows® is a registered trademark of Microsoft Corporation. • NXDN™ is a trademark of JVCENWOOD Corporation and Icom Inc. • NEXEDGE® is a registered trademark of JVCENWOOD Corporation. • FleetSync® is a registered trademark of JVCENWOOD Corporation.

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCENWOOD Corporation

CL855K-E-2R3\_2307071

# NXR-1700/1800

## VHF/UHF REPEATER

**NXDN™** **DMR**

### MULTI-MODE, SINGLE-MINDED, SPACE-SAVING SOLUTION

This compact, multi-mode conventional repeater – key digital communications equipment that is a KENWOOD specialty – supports the features and performance to make it a worthy successor to the existing DMR and NXDN repeaters such as the TKR-D710/D810 and NXR-710/810. The digital protocol is digital protocol when ordering to set up individual units for either DMR or NXDN, with the option of keeping the factory default setting of FM analog.

#### GENERAL FEATURES

- 50/40 W – 1 W RF Output Power (Up to 50/40 W@50%, 25 W@100% Duty Cycle)
- Light, Compact and Space-Efficient to Fit 2 Repeaters in a 1U Height, 19-inch Rack
- Large 1.71-inch OLED with Icons and Numeric Displays
- Thermal-Controlled Cooling Fan
- External Power Supply
- Up to 32 Channels
- Selectable Digital Protocol: DMR Tier II / NXDN Conventional (programmable one at a time)
- USB-A Connector for Audio Accessories
- External In/Out Pin from DB25
- Non-repeat Simplex / Semi-Duplex Mode for Analog and NXDN Digital
- Hot Standby System Redundancy
- Built-in IP Network Adapter
- Multicast Routing
- SNMP Protocol for Direct Reporting to a Generic System
- Supports G.711 Audio Codec (for Test Console and Third-party Applications)
- IP Remote Management (Monitor / Control / Programming / Test Console)
- IPIF to External Applications (for IP Console, OTAP) / Voice Logging
- Built-in SIP IF without External Gateway (Digital Only)<sup>\*1, \*2</sup>
- IP Remote Control Interface (IPRCI)
- Enhanced Security (HTTPS)
- CW ID
- Hang Timer

- Multi-Site Conventional IP Network (for both Digital and Analog)<sup>\*2</sup>
- Voting Repeater + Up to 15 Receivers (Analog / NXDN / DMR)<sup>\*2</sup>
- IP Networking Compatible with NXR-710/810 & TKR-D710/D810 Series Repeaters (Able to Swap/ Add-on as a part of existing digital conventional systems in the field)

#### DIGITAL – COMMON

- Built-in AMBE+2™ Vocoder
- Mixed Analog / Digital Operation
- Site Roaming
- RF-Link: NXDN / DMR
- Repeat Encrypted Voice/Data (AES / DES)
- User List / Site Group Table

#### DIGITAL – NXDN

- FDMA – Very narrow 6.25 kHz & narrow 12.5 kHz bandwidths
- NXDN Conventional Operation<sup>\*2</sup>
- Radio Access Control<sup>\*1</sup>

#### DIGITAL – DMR

- TDMA 2-slot 12.5 kHz bandwidth equivalent to 6.25 kHz very narrow bandwidth
- DMR Tier II Conventional Operation<sup>\*2</sup>
- Repeat Encrypted Voice/Data (DMR Enhanced Encryption)
- Call Interruption

#### FM ANALOG

- FM Conventional Operation
- Multiple QT/DQT

<sup>\*1</sup>: Requires version upgrade of terminal to obtain compatibility with this model  
<sup>\*2</sup>: Software option



## Informative Front OLED Display



A large OLED display featured on the front panel is capable of displaying the following information: MAC/IP Address, RSSI/TX Power Setting Icon, Channel Number/Name, and RF Frequency as well as Firmware/ESN/License/Error information and other statuses.

## Size Comparison with Conventional Repeaters

Volumetric capacity can be reduced even when compared with the NXR-710/810 and TKR-D710/D810 repeaters.



The NXR-1000 Series repeaters require only a quarter of the rack space compared to the NXR-710/810 or TKR-D710/D810 Series models.

In addition, the NXR-1000 Series repeaters take up only half the rack space of other 1U repeaters that are 19-inch wide.

## SPECIFICATIONS

GENERAL	NXR-1700	NXR-1800	
		Type 1	Type 2
Frequency Range	136 - 174 MHz	450 - 520 MHz	400 - 470 MHz
Channel Capacity	32		
Channel Spacing	Analog	30 / 25 / 15 / 12.5 kHz	25 / 12.5 kHz
	Digital	12.5 / 6.25 kHz	12.5 / 6.25 kHz
PLL Channel Step	6.25 / 5 / 3.125 / 2.5 kHz	6.25 / 5 / 3.125 kHz	
Frequency Stability	± 0.5 ppm		
Power Supply	10.8 - 15.6 V DC		
Current Drain	Standby	0.6 A	0.7 A
	Transmitting	12.0 A (Max. power), 9.0 A (25 W)	
Operating Temperature	-30 °C to +60 °C		
Antenna Impedance	50 Ω		
Dimensions (W x H x D)	Incl. Projections	214.5 x 44.0 x 242.9 mm	
	Excl. Projections	208.5 x 44.0 x 211.5 mm	
Weight (net)	1.9 kg		

Specifications are measured according to applicable standards.  
Analog measurements made per TIA603.  
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.

RECEIVER		NXR-1700	NXR-1800
Sensitivity	DMR (5 % BER)	0.22 μV	
	DMR (1 % BER)	0.28 μV	
	NXDN (3 % BER) 12.5 / 6.25 kHz	0.25 / 0.20 μV	
	Analog (12 dB SINAD)	0.25 μV	
Selectivity	Analog 25 / 12.5 kHz (TIA603)	83 / 77 dB	80 / 74 dB
	Analog 25 / 12.5 kHz (TIA603E)	80 / 50 dB	80 / 50 dB
FM Hum & Noise	Analog 25 / 12.5 kHz	55 / 50 dB	
Intermodulation	80 dB		
Spurious Rejection	90 dB		
TRANSMITTER		NXR-1700	NXR-1800
RF Output Power		50 - 1 W (50 W @ 50% Duty, 25 W @ 100 % Duty)	40 - 1 W (40 W @ 50% Duty, 25 W @ 100 % Duty)
Spurious Emission	-80 dB		
FM Hum & Noise	Analog 25 / 12.5 kHz	55 / 50 dB	
Audio Distortion	1 %		
Digital Protocol (DMR)	ETSI TS 102 361-1, -2, -3		
Emission Designator	16K0F3E, 11K0F3E, 7K60FXD, 7K60F7D, 7K60FXE, 7K60F7E, 7K60FXW, 7K60F7W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

## APPLICABLE ENVIRONMENTAL SPECIFICATIONS

MIL-STD	810F	810G	810H
High Temperature	501.4/Procedure I, II	501.5/Procedure I, II	501.7/Procedure I, II
Low Temperature	502.4/Procedure II	502.5/Procedure II	502.7/Procedure II
Temperature Shock	503.4/Procedure I, II	503.5/Procedure I	503.7/Procedure I

- NXDN™ is a trademark of JVCケンウッド Corporation and Icom Inc.
- NEXEDGE® is a registered trademark of JVCケンウッド Corporation.
- All other trademarks are the property of their respective holders.

KENWOOD Communications  
Global Website



comms.kenwood.com



ISO9001 Registered  
Communications Systems Division  
JVCケンウッド Corporation

CL883-OceAsia-E-2-r1.4\_240403i