

# KENWOOD

## NEXEDGE®

# NX-720HG/820HG

NEXEDGE® VHF/UHF Digital & FM Mobile Radios

**NXDN®** **FleetSync®**

### ● GENERAL FEATURES

- 50W (136-174 MHz) Model
- 45W (400-470, 450-520 MHz) Models
- 260 CH-GID / 128 Zones
- 10 Character Alphanumeric Aliases
- Backlit LCD & Keys
- Function/Status LCD Icons
- Transmit/Busy/Call Alert/Warn LED
- Blue Function/Status LED
- On/Off Power Control
- 4 Up/Down Selectors
- 6 Front PF Keys
- Emergency/AUX Key
- 4W Speaker Audio
- Zone / CH Number Voice Announcement
- DB-15 Accessory Connector
- 6 Programmable AUX I/Os
- KPG-141D Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP-54 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input<sup>1</sup>
- Transparent Data Mode<sup>1</sup>
- Built-in GPS Receiver

### ● DIGITAL COMMON

- NXDN® Digital Air Interface
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming<sup>2</sup>
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging<sup>1</sup>
- Remote Stun/Kill<sup>1</sup>
- Remote Check<sup>1</sup>
- Short & Long Data Messages<sup>1</sup>
- GPS Location with Voice<sup>1</sup>
- NXDN® Scrambler Included

### ● DIGITAL CONVENTIONAL MODE

- 64 Radio Access Numbers (RAN)
- Individual & Group Selective Call
- Mixed FM/Digital Operation
- Conventional IP Networks
- Site Roaming

### ● DIGITAL TRUNKING MODE

- Individual Private Call
- Group Call & Broadcast Call
- Telephone Interconnect<sup>3</sup>
- Transmission Trunked Mode<sup>3</sup>
- Message Trunked Mode<sup>3</sup>
- Call Queuing with Priority<sup>3</sup>
- Late Entry (UID & GID)<sup>3</sup>
- 4 Priority Monitor ID's<sup>3</sup>
- Remote Group Add<sup>1</sup>
- Failsoft Mode

### ● MULTI-SITE IP NETWORKS COMPATIBLE

- 60,000 GIDs / UIDs
- Wide Area Group Call
- Auto Roaming Registration
- Group Registration

### ● SCAN

- Single Zone / Multi-Zone / List Scan
- Dual Priority Scan (Conventional)

### ● ANALOG MODES - GENERAL

- 25\* & 12.5 kHz Channels
- Conventional & LTR® Zones
- FleetSync®/II, MDC-1200, DTMF
- QT / DQT & Two-Tone (Conventional Zones Only)
- Voice Inversion Scrambler (16 Codes)

### ● FleetSync®/II (FM)

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency, Status & Text Messages<sup>1</sup>

### ● MDC-1200

- PTT ID ANI / Caller ID
- Emergency, Radio Check & Inhibit



## Options

■ **KMC-35**  
Microphone  
(Supplied)



■ **KES-3**  
External Speaker



■ **KLF-2**  
Line Filter



■ **KCT-60**  
DB 15-to-15 Pin  
Molex Adaptor Cable



■ **KMC-36**  
Microphone  
with Keypad



■ **KES-5**  
External Speaker  
(requires KCT-60 option)



■ **KCT-18**  
Ignition Sense Cable  
(requires KCT-60 option)



■ **KRA-40**  
GPS Antenna



■ **KMC-9C**  
Desktop Microphone



■ **KMB-10**  
Key Lock Adapter



■ **KCT-36**  
3m Extension Cable  
(for KCT-60)



■ **KPS-15**  
DC Power Supply



## Main Specifications

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.

		NX-720HG	NX-820HG
<b>GENERAL</b>			
<b>Frequency Range</b>	Type 1	136-174 MHz	450-520 MHz
	Type 2		400-470 MHz
<b>Number of Channels</b>		260	
<b>Zones</b>		128	
<b>Max. Channels per Zone</b>		250	
<b>Channel Spacing</b>	<b>Analog</b>	12.5 / 15 / 25* / 30* kHz	12.5 / 25* kHz
	<b>Digital</b>	6.25 / 12.5 kHz	6.25 / 12.5 kHz
<b>Operating Voltage</b>		13.6 V DC ± 15%	
<b>Operating Temperature Range</b>		-22° F to +140° F (-30° C to +60° C)	
<b>Frequency Stability</b>		± 1.0 ppm	
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D)</b>	Projections not included	6.30 x 1.69 x 5.35 in (160 x 43 x 136 mm)	
<b>Weight (net)</b>		2.87 lb (1.3 kg)	
<b>FCC ID</b>	Type 1	K44431100	K44431200
	Type 2		K44431201
<b>IC Certification</b>	Type 1	282F-431100	
	Type 2		282F-431201

Analog measurements made per TIA/EIA 603 and specifications shown are typical.  
Specifications are subject to change without notice, due to advancements in technology.  
\*25 kHz is not for sale in the USA or US territories.

FleetSync® is a registered trademark of JVC/KENWOOD Corporation.  
LTR® is a registered trademark of Transcript International.  
AMBE+2™ is a trademark of Digital Voice Systems Inc.  
Windows® is a registered trademark of Microsoft Corporation.  
NXDN® is a trademark of JVC/KENWOOD Corporation and Icom Inc.  
NEXEDGE® is a trademark of JVC/KENWOOD Corporation.

		NX-720HG	NX-820HG
<b>RECEIVER</b>			
<b>Sensitivity</b>	Digital @ 6.25 kHz (3% BER)	0.20 µV	
	Digital @ 12.5 kHz (3% BER)	0.28 µV	
	Analog (12 dB SINAD)	0.25 µV	
<b>Selectivity</b>	Analog @ 25 kHz	80 dB	
	Analog @ 12.5 kHz	70 dB	
<b>Intermodulation</b>	Analog	70 dB (±50,100 kHz)	
<b>Spurious Response</b>	Analog	85 dB	80 dB
<b>Audio Distortion</b>		Less than 3%	
<b>Audio Output</b>		4 W / 4 Ω	
<b>TRANSMITTER</b>			
<b>RF Power Output</b>		50-30-5 W	45-30-5 W
<b>Spurious Response</b>		73 dB	75 dB
<b>FM Hum &amp; Noise</b>	Analog @ 25 kHz	50 dB	
	Analog @ 12.5 kHz	45 dB	
<b>Audio Distortion</b>		Less than 3%	
<b>Modulation</b>		16K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	
<b>GPS**</b>			
<b>TIFF (Time to First Fix) - Cold Start</b>		< 60 seconds	
<b>TIFF (Time to First Fix) - Hot Start</b>		< 10 seconds	
<b>Horizontal Accuracy</b>		< 10 meters	

\*\* Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal - 130 dBm signal strength)

Footnotes from front:

<sup>1</sup> Require NX subscriber unit PC Serial Interface compatible software application (e.g. Kenwood AVL & Dispatch Messaging software) or hardware (e.g. console).

<sup>2</sup> Requires Kenwood OTAP Management software.

<sup>3</sup> These trunked features are primarily system programming and operational dependent. Priority Monitor also requires NX subscriber settings.

## Applicable 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
<b>Low Pressure</b>	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
<b>High Temperature</b>	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
<b>Low Temperature</b>	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
<b>Temperature Shock</b>	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
<b>Solar Radiation</b>	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
<b>Rain</b>	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
<b>Humidity</b>	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
<b>Salt Fog</b>	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
<b>Dust</b>	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
<b>Vibration</b>	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
<b>Shock</b>	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
<b>International Protection Standard</b>					
<b>Dust &amp; Water Protection</b>	IP54: Radio itself				

To meet MIL-810 and IP grade, Microphone & Cover for D-sub15 & SP connector have to be connected.

# KENWOOD

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Professional Systems Business Group  
JVC KENWOOD Corporation

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