

NEXEDGE®

## NX-720(G)/820(G)

NEXEDGE® VHF/UHF Digital & FM Mobile Radios

**NXDN**® FleetSync® 5-tone GPS

### ● GENERAL FEATURES

- 25 W (136-174 MHz) Models
- 25 W (400-470 MHz) Models
- Meets ETSI EN Standards
- 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
- IP54 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input\*1
- Transparent Data Mode\*1
- Built-in GPS Receiver Models Available (Optional KRA-40G GPS Active Antenna required for GPS functions)

### ● DIGITAL – GENERAL

- NXDN® Digital Air Interface
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming\*2
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging\*1
- Remote Stun/Kill\*1
- Remote Check\*1
- Short & Long Data Messages\*1
- GPS Location with Voice\*1
- 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\*3
- Transmission Trunked Mode\*3
- Message Trunked Mode\*3
- Call Queuing with Priority\*3
- Late Entry (UID & GID)\*3
- 4 Priority Monitor ID's\*3
- Remote Group Add\*1
- Failsoft Mode

### ● MULTI-SITE IP NETWORK COMPATIBLE

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

### ● SCAN

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

### ● FM MODES – GENERAL

- 25, 20 & 12.5 kHz Channels
- Conventional & LTR® Zones
- FleetSync®/II, MDC-1200, DTMF
- QT / DQT & 2-Tone (Conventional Zones Only)
- 5-Tone Encode / Decode (Conventional Zones Only)
- Voice Inversion Scrambler (16 Codes)

### ● FleetSync®/II (FM)

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency, Status & Test Messages\*1

### ● MDC-1200

- PTT ID ANI / Caller ID\*3
- Emergency, Radio Check & Inhibit



## Options

<p><b>KMC-35</b> Microphone</p> 	<p><b>KMC-32</b> 16-key Keypad Microphone</p> 	<p><b>KES-5</b> External Speaker</p> 	<p><b>KCT-18</b> Ignition Sense Cable (requires KCT-60 option)</p> 
<p><b>KMC-36</b> Keypad Microphone</p> 	<p><b>KMC-9C</b> Desktop Microphone</p> 	<p><b>KMB-10</b> Key Lock Adapter</p> 	<p><b>KCT-36</b> 3m Extension Cable (for KCT-60)</p> 
<p><b>KMC-30</b> Microphone</p> 	<p><b>KES-3</b> External Speaker</p> 	<p><b>KLF-2</b> Line Filter</p> 	<p><b>KCT-60</b> Connection Cable</p> 
			<p><b>KRA-40G</b> GPS Active Antenna (required for GPS functions featured on the NX-720G/820G)</p> 

All accessories and options may not be available in all markets. Contact our authorized dealer for details and complete list of all accessories and options.

## Main Specifications

		NX-720(G)	NX-820(G)
<b>GENERAL</b>			
<b>Frequency Range</b>	<b>Type 1</b>	136 - 174 MHz	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>Analogue</b>	12.5 / 20 / 25 kHz	
	<b>Digital</b>	6.25 / 12.5 kHz	
<b>Operating Voltage</b>		13.2 V DC (10.8 - 15.6 V DC)	
<b>Operating Temperature Range</b>		-30°C ~ +60°C	
<b>Frequency Stability</b>		± 1.0 ppm	
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D) Projections not included</b>		160 x 43 x 136 mm	
<b>Weight (net)</b>		1.2 kg	
<b>Applicable Standards</b>	<b>ETSI R&amp;TTE</b>	EN 300 086, EN 300 113, EN 300 219, EN 300 440** , EN 301 489, EN 301 166	
	<b>ETSI Safety</b>	EN 60065, EN 60950-1, EN 60215	

Analogue measurements made per EN Standards or TIA/EIA 603 and specifications shown are typical. Specifications are subject to change without notice, due to advancements in technology.

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 registered trademark of JVC KENWOOD Corporation and Icom Inc.  
 NEXEDGE® is a registered trademark of JVC KENWOOD Corporation.

### Footnotes

\*1 Requires NX subscriber unit PC Serial Interface compatible software application (e.g. KENWOOD AVL & Dispatch Messaging software) or hardware (e.g. console).

\*\* Requires KENWOOD OTAP Management software.

\*\* These trunked features are primarily for system programming and operational dependent. Priority Monitor also requires NX subscriber settings.

\*\* Receiver Category 3

		NX-720(G)	NX-820(G)
<b>RECEIVER</b>			
<b>Sensitivity (Analogue)</b>	<b>EIA 12 dB SINAD</b>	0.25 µV	
	<b>EN 20 dB SINAD</b>	-3 dB µV (0.35 µV)	
<b>Sensitivity (Digital)</b>	<b>3% BER</b>	0.28 µV / 0.20 µV	
	<b>1% BER</b>	-2 dB µV (0.40 µV) / -5 dB µV (0.28 µV)	
<b>Adjacent Channel Selectivity (Analogue)</b>	<b>(25 kHz / 20 kHz / 12.5 kHz)</b>	80 dB / 78 dB / 70 dB	78dB / 76 dB / 68 dB
<b>Intermodulation (Analogue)</b>		65 dB	
<b>Spurious Response Rejection (Analogue)</b>		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>		5 - 25 W	
<b>Modulation Limiting (Analogue)</b>		±5.0 kHz at 25 kHz ±4.0 kHz at 20 kHz ±2.5 kHz at 12.5 kHz	
<b>Spurious Emission</b>		-36 dBm ≤ 1 GHz, -30 dBm > 1 GHz	
<b>FM Noise (EIA)</b>	<b>(Analogue, 25 kHz / 20 kHz / 12.5 kHz)</b>	50 dB / 50 dB / 45 dB	
<b>Modulation Distortion</b>		Less than 3%	
<b>Modulation</b>		16K0F3E, 14K0F3E, 14K0F2D, 12K0F2D, 8K50F3E, 7K50F2D, 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).

## 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, III, V	516.3/Procedure I, IV, V	516.4/Procedure I, IV, V	516.5/Procedure I, IV, V	516.6/Procedure I, IV, V
<b>International Protection Standard</b>					
<b>Dust &amp; Water Protection</b>	IP54: Radio itself				

To meet MIL-810 and IP grade, microphone and cover for the D-sub15 and SP connector have to be connected. (Do not use the KCT cable and/or SP cable.)

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JVC KENWOOD Corporation