



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

KMC-35 Microphone



KMC-32 16-key Keypad Microphone



KES-5 External Speaker



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



KMC-36 Keypad Microphone



KMC-9C Desktop Microphone



KMB-10 Key Lock Adapter



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



KMC-30 Microphone



KES-3 External Speaker



KLF-2 Line Filter



KCT-60 Connection Cable



KRA-40G GPS Active Antenna (required for GPS functions featured on the NX-720G/820G)



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)
GENERAL			
Frequency Range	Type 1	136 - 174 MHz	400 - 470 MHz
Number of Channels		260	
Zones		128	
Max. Channels per Zone		250	
Channel Spacing	Analogue	12.5 / 20 / 25 kHz	
	Digital	6.25 / 12.5 kHz	
Operating Voltage		13.2 V DC (10.8 - 15.6 V DC)	
Operating Temperature Range		-30°C ~ +60°C	
Frequency Stability		± 1.0 ppm	
Antenna Impedance		50 Ω	
Dimensions (W x H x D) Projections not included		160 x 43 x 136 mm	
Weight (net)		1.2 kg	
Applicable Standards	ETSI R&TTE	EN 300 086, EN 300 113, EN 300 219, EN 300 440** , EN 301 489, EN 301 166	
	ETSI Safety	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.

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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)
RECEIVER			
Sensitivity (Analogue)	EIA 12 dB SINAD	0.25 μV	
	EN 20 dB SINAD	-3 dB μV (0.35 μV)	
Sensitivity (Digital)	3% BER	0.28 μV / 0.20 μV	
	1% BER	-2 dB μV (0.40 μV) / -5 dB μV (0.28 μV)	
Adjacent Channel Selectivity (Analogue)	(25 kHz / 20 kHz / 12.5 kHz)	80 dB / 78 dB / 70 dB	78dB / 76 dB / 68 dB
Intermodulation (Analogue)		65 dB	
Spurious Response Rejection (Analogue)		80 dB	
Audio Distortion		Less than 3%	
Audio Output		4 W / 4 Ω	
TRANSMITTER			
RF Power Output		5 - 25 W	
Modulation Limiting (Analogue)		±5.0 kHz at 25 kHz ±4.0 kHz at 20 kHz ±2.5 kHz at 12.5 kHz	
Spurious Emission		-36 dBm ≤ 1 GHz, -30 dBm > 1 GHz	
FM Noise (EIA)	(Analogue, 25 kHz / 20 kHz / 12.5 kHz)	50 dB / 50 dB / 45 dB	
Modulation Distortion		Less than 3%	
Modulation		16K0F3E, 14K0F3E, 14K0F2D, 12K0F2D, 8K50F3E, 7K50F2D, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	
GPS			
TIFF (Time to First Fix) - Cold Start		< 60 seconds	
TIFF (Time to First Fix) - Hot Start		< 10 seconds	
Horizontal Accuracy		< 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
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III	506.5/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
Shock	516.2/Procedure I, II, 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
International Protection Standard					
Dust & Water Protection	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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Professional Systems Business Group
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