

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 Input¹
- Transparent Data Mode¹
- 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 Programming²
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging¹
- Remote Stun/Kill¹
- Remote Check¹
- Short & Long Data Messages¹
- GPS Location with Voice¹
- 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 Interconnect³
- Transmission Trunked Mode³
- Message Trunked Mode³
- Call Queuing with Priority³
- Late Entry (UID & GID)³
- 4 Priority Monitor ID's³
- Remote Group Add¹
- Failsoft Mode

MULTI-SITE IP NETWORKS COMPATIBLE

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

MULTI-SYSTEM COMPATIBLE

- 8 Trunked Networks⁴
- UID Lists for each network

SCAN

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

ANALOG MODE - GENERAL

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

MPT ZONES*

- Single-Site Trunking
- Multi-Site Network Trunking
- 8 Network Capacity
- Network Roaming / Registration

FleetSync®II (FM)

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency, Status & Text Messages¹

MDC-1200

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

* Optional feature



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-40G
GPS Antenna



KMC-9C
Desktop Microphone



KMB-10
Key Lock Adapter



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



KPS-15
DC Power Supply



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.

Main Specifications

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

		NX-720HG	NX-820HG
RECEIVER			
Sensitivity	Digital @ 6.25 kHz (3% BER)	0.20 μ V	
	Digital @ 12.5 kHz (3% BER)	0.28 μ V	
	Analog (12 dB SINAD)	0.25 μ V	
Selectivity	Analog @ 25 kHz	80 dB	
	Analog @ 12.5 kHz	70 dB	
Intermodulation	Analog	70 dB (\pm 50, 100 kHz)	
Spurious Response	Analog	85 dB	80 dB
Audio Distortion		Less than 3%	
Audio Output		4 W / 4 Ω	
TRANSMITTER			
RF Power Output		50-30-5 W	45-30-5 W
Spurious Response		73 dB	75 dB
FM Hum & Noise	Analog @ 25 kHz	50 dB	
	Analog @ 12.5 kHz	45 dB	
Audio Distortion		Less than 3%	
Modulation		16K0F3E*, 11K0F3E, 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)

Footnotes from front:

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

² Requires Kenwood OTAP Management software.

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

⁴ Up to 8 different Trunked networks can be configured per radio (each in a zone)

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, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV	516.6/Procedure I, IV
International Protection Standard					
Dust & Water Protection	IP54: Radio itself				

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

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