

# NX-3720HG/3820HG

## VHF/UHF MULTI-PROTOCOL DIGITAL & ANALOG MOBILE RADIOS

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. This model offers greater freedom of installation, the radio's front panel can be used as a remote control head (this requires an optional upgrade, to be available in the future). Additionally, for expansion capability a software license certification system facilitates extensive customization.

### FEATURES

- Multi-protocol digital radio: Designed to operate under NXDN® or DMR digital, and FM analog protocols
- NXDN Conventional and Type-C & Gen2 Trunking
- DMR Tier II & Site Roaming
- Mixed Digital & FM Analog Operation allows gradual migration at your own pace
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide) / 14 Characters
- 4-Line Text Message Frame (2 Lines of Text, icon & key guide)
- 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

- IP54 and MIL-STD-810 C/D/E/F/G
- 4 Watts Audio Output Power
- 512 CH/128 Zones
- 1000 Channel 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

- Complies with ETSI DMR Tier II standards
- Software DES and AES Encryptions for NXDN Conventional/Trunking and DMR Conventional protocols
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Dual-slot Direct Mode
- Optional ARC4 Encryption

### 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, 2-Tone
- Built-in Voice Inversion Scrambler



### Multi-Protocol

Unsurpassed interoperability for Public Safety and Enterprise radio users with the freedom to migrate at your own pace.



### Gen2

Scalable server-based system architecture for management of NEXEDGE wide area digital communications systems.









### Klarity

The ultimate level of sound clarity technology combining Optimization, advanced Sound Analysis and Active Noise Reduction.

## Accessories

## NX-3720HG/3820HG Mobile Radios

<b>KMC-9C/59C</b> Desktop Microphone 	<b>KES-5</b> External Speaker (40 W max input, requires KAP-2) 	<b>KCT-60</b> Connection Cable (D-sub 15 to Molex 15 Pin Connector) 	<b>KPS-15</b> DC Power Supply (23A max) 
<b>KMC-35</b> Microphone 	<b>KCT-18</b> Ignition Sense Cable (Requires KCT-60) 	<b>KLF-2</b> Line Filter 	<b>KMB-34</b> Mounting Case for KPS-15 
<b>KMC-36</b> Keypad Microphone 	<b>KCT-23</b> DC Power Cable M: 10ft (3m) / M3: 23ft (7m) 	<b>KMB-10</b> Key Lock Adapter 	<b>KPG-180AP</b> OTAP Manager 
<b>KES-3S</b> External Speaker (compact low profile; 3.5 mm plug) 		<b>KRA-40G</b> GPS Active Antenna 	

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

## Specifications

	NX-3720HG	NX-3820HG
<b>GENERAL</b>		
Frequency Range	136-174 MHz	Type 1 450-520 MHz Type 2 400-470 MHz
Max. Channels Per Radio	Up to 1,000 CH with option	
Number of Channels	512	
Number of Zones	128	
Channel Spacing		
Analog	12.5/15/20/25*/30* kHz	12.5/25* kHz
Digital	6.25/12.5 kHz	6.25/12.5 kHz
Power Supply	13.6 V DC $\pm$ 15%	
Current Drain		
Standby	0.45 A	
RX	2.3 A	
TX	12 A	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)	
Frequency Stability	$\pm$ 1.0 ppm	
Antenna Impedance	50 $\Omega$	
Dimensions	(W x H x D) Projections Not Included	
Radio w/Control Head	6.30 x 1.69 x 6.30 in (160 x 43 x 160 mm)	
Weight (net)	2.65 lbs (1.2 kg)	
Radio w/Control Head		
FCC ID		
Type 1	K44479200	K44479300
Type 2	-	K44479301
IC Certification		
Type 1	282F-479200	-
Type 2	-	282F-479301

\*1 25 and 30 kHz are not included in the models sold in the USA or US territories.  
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.

	NX-3720HG	NX-3820HG
<b>RECEIVER</b>		
Sensitivity		
NXDN® 6.25 kHz Digital (3% BER)		0.20 $\mu$ V
NXDN® 12.5 kHz Digital (3% BER)		0.25 $\mu$ V
DMR 12.5 kHz Digital (5% BER)		0.30 $\mu$ V
DMR 12.5 kHz Digital (1% BER)		0.45 $\mu$ V
Analog (12dB SINAD)		0.25 $\mu$ V
Selectivity		
Analog @ 12.5 kHz		70 dB
Analog @ 25 kHz		80 dB
Intermodulation		70 dB
Audio Distortion		2 %
Audio Output Power		4 W/4 $\Omega$
<b>TRANSMITTER</b>		
RF Power Output (High / Mid / Low)	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		45 dB
Analog @ 25 kHz		40 dB
Audio Distortion		2%
Digital Protocol	ETSI TS 102 361-1, -2, -3	
Emission Designator	16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

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## 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, V	516.4/Procedure I, IV, V	516.5/Procedure I, IV, V	516.6/Procedure I, IV, V
<b>International Protection Standard</b>					
Dust & Water*	IP54 (Radio unit)				

\*Microphone KMC-35 or KMC-36 must be connected to the radio, and all accessory connectors must be covered.

# KENWOOD

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