

# 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. 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
- Over-the-Air Alias (OAA)

### ANALOG - FM MODE

- Conventional & LTR Trunking
- FleetSync/II: PTT ID ANI / Caller ID Display, Selective Group Call, Emergency Status / TextMessages
- 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.

<ul style="list-style-type: none"> <li>■ <b>KMC-9C/59C</b> Desktop Microphone</li> <li>■ <b>KMC-35</b> Microphone</li> <li>■ <b>KMC-36</b> Keypad Microphone</li> <li>■ <b>KES-3S</b> External Speaker (compact low profile; 3.5 mm plug)</li> </ul>	   	<ul style="list-style-type: none"> <li>■ <b>KES-5</b> External Speaker (40 W max input, requires KAP-2)</li> <li>■ <b>KCT-18</b> Ignition Sense Cable (Requires KCT-60)</li> <li>■ <b>KCT-23</b> DC Power Cable M: 10ft (3m) / M3: 23ft (7m)</li> <li>■ <b>KCT-60</b> Connection Cable (D-sub 15 to Molex 15 Pin Connector)</li> </ul>	   	<ul style="list-style-type: none"> <li>■ <b>KLF-2</b> Line Filter</li> <li>■ <b>KMB-10</b> Key Lock Adapter</li> <li>■ <b>KRA-40G</b> GPS Active Antenna</li> <li>■ <b>KCT-73MIC</b> Visor Microphone</li> <li>■ <b>KCT-74PTT</b> Remote PTT Switch</li> <li>■ <b>KCT-71M2/3/4</b> 17ft/25ft/1.6ft Remote Control Cable</li> </ul>	     	<ul style="list-style-type: none"> <li>■ <b>KCT-72M</b> KCT-73MIC &amp; KCT-74PTT Connection cable for KRK-18H</li> <li>■ <b>KPS-15</b> DC Power Supply (23A max)</li> <li>■ <b>KMB-34</b> Mounting Case for KPS-15</li> <li>■ <b>KRK-18H</b> Control Head Adapter Panel</li> <li>■ <b>KRK-19B</b> RF Deck Remote Adapter Panel</li> </ul>	    
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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	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 ±15%	
Current Drain		
Standby	0.45 A	
RX	2.3 A	
TX	1.2 A	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)	
Frequency Stability	±1.0 ppm	
Antenna Impedance	50 Ω	
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		
IC Certification	282F-479200	282F-479301

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 µV
NXDN® 12.5 kHz Digital (3% BER)		0.25 µV
DMR 12.5 kHz Digital (5% BER)		0.30 µV
DMR 12.5 kHz Digital (1% BER)		0.45 µV
Analog (12dB SINAD)		0.25 µV
Selectivity		
Analog @ 12.5 kHz		70 dB
Analog @ 25 kHz		80 dB
Intermodulation		70 dB
Audio Distortion		2 %
Audio Output Power		4 W/4 Ω
<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, IP55** (Radio unit)				

\*Microphone KMC-35 or KMC-36 must be connected to the radio, and all accessory connectors must be covered.  
\*\*IP54: RF Deck of the mobile radio; IP54/IP55: Remote Control Head of the mobile radio.



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