

## NX-3720HG/3820HG

VHF/UHF DIGITAL TRANSCEIVER

**NXDN™**

**DMR**



**DMR T3**  
-based  
TRUNKING

**DMR >>>>>**  
Auto Slot  
Select >>>>>

**FleetSync®**

**5-tone**

**GPS**

**Bluetooth®**

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. And providing greater freedom of installation, the radio's front panel can be used as a remote control head (this requires an optional accessories). Additionally, for expansion capability a software license certification system facilitates extensive customization.

### PRODUCT HIGHLIGHTS

- **Multi-protocol digital radio:** Designed to operate under an NXDN or DMR digital, and FM analog protocols
- **Mixed Digital & FM Analog Operation** allows gradual migration at your own pace
- **4-Line** Basic Frame (2 lines of icon & key guide) / 14 Characters
- **4-Line** Text Message Frame (2 Lines of Text, icon & key guide) Note: The number of lines may vary depending on the display language (character set).
- **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
- Software **DES** and AES Encryptions for Digital protocols
- **MIL-STD-810 C/D/E/F/G**



- **Single Remote Head** operation (Requires optional control head interface kit)

### GENERAL FEATURES

- Audio Output Power (4 Watts at 4Ω)
- 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

- DMR Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Site Roaming
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Dual-slot Direct Mode
- Enhanced Encryption
- Energy Efficient

### 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, DTMF, 5-tone
- Built-in Voice Inversion Scrambler



## OPTIONAL ACCESSORIES

- **KMC-35/36**  
MICROPHONE [IP54/55]  
(without/with 12-keypad)



- **KMC-65/66**  
MICROPHONE [IP54/55]  
(without/with 12-keypad)



- **KES-5 (A)**  
EXTERNAL SPEAKER  
(40 W max input, requires KCT-60)



- **KRK-18H**  
CONTROL HEAD  
INTERFACE KIT



- **KRK-19B**  
CONTROL HEAD  
REMOTE KIT



- **KCT-18**  
IGNITION SENSE CABLE  
(requires KCT-60)



- **KCT-23**  
DC POWER  
CABLE



- **KCT-60**  
CONNECTION CABLE  
(D-sub 15 to Molex  
15 Pin Connector)



- **KCT-71**  
REMOTE CONTROL  
CABLE  
(M2: 5.2m, M3: 7.6m)



- **KCT-72**  
CONNECTION CABLE  
(for Remote Control Head)



- **KCT-73MIC**  
EXTERNAL MIC KIT  
(Requires KCT-60 or  
KCT-72)



- **KCT-74PTT**  
EXTERNAL PTT KIT  
(Requires KCT-60 or  
KCT-72)



- **KLF-2**  
LINE FILTER



- **KMB-10**  
KEY LOCK  
ADAPTER



- **KRA-40G**  
GPS ACTIVE ANTENNA



- **KPG-180AP**  
OTAP MANAGER  
(PC software)

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.

## SPECIFICATIONS

GENERAL	NX-3720HG	NX-3820HG
Frequency Range	136-174 MHz	400-470 MHz
Max. Channels per Radio	Up to 1000 channels with option	
Number of Channels	512	
Number of Zones	128	
Channel Spacing	Analog	12.5 / 25*1 kHz
	Digital	6.25 / 12.5 kHz
Operating Voltage	13.6 V DC $\pm$ 15 %	
Current Drain	Standby	0.45 A
	RX	2.3 A
	TX	9 A
Operating Temperature	-30°C to +60°C	
Frequency Stability (-30°C to +60°C; +25°C Ref.)	$\pm$ 0.5 ppm	
Antenna Impedance	50 Ohms	
Dimensions (W x H x D) *Projections not included	160 x 43 x 160 mm	
Weight (net)	1.2 kg	

\*1 Over 12.5 kHz channel spacings are not included in the models sold in the USA or US territories.  
Specifications are measured according to applicable standards.  
Specifications shown are typical and subject to change without notice, due to advancements in technology.

RECEIVER	NX-3720HG	NX-3820HG
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	0.25 $\mu$ V
	DMR 12.5 kHz Digital, 1 % BER	0.45 $\mu$ V
	Analog, 12 dB SINAD	0.25 $\mu$ V
Selectivity	Analog @ 12.5 kHz	70 dB
	Analog @ 25 kHz	80 dB
Intermodulation	70 dB	
Spurious Rejection	80 dB	
Audio Distortion	2 %	
Audio Output	4 W	
TRANSMITTER	NX-3720HG	NX-3820HG
RF Power Output	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	40 dB
	Analog @ 25 kHz	45 dB
Audio Distortion	2 %	
Digital Protocol	ETSI TS 102 361-1, -2, -3, -4	
Emission Designator	16K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXD, 7K60FXE, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

## APPLICABLE MIL-STD & IP\*2

MIL Standards	Methods / Procedures				
	810C	810D	810E	810F	810G
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, II, V	516.3/ I, IV, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V
International Protection Standards					
Dust & Water	IP54: RF Deck; IP55: Remote Control Head				

\*2 All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

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