

NX-3720HG/3820HG

VHF/UHF DIGITAL TRANSCEIVER

NXDN™ **DMR**



DMR
-based
TRUNKING **T3&S**

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)
- 512 CH/128 Zones
- 1000 CH 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

- S-Trunking
- 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)
*To be discontinued

- **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 / 20 / 25 kHz	
	Digital	6.25 / 12.5 kHz	
Operating Voltage		13.6 V DC ± 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.)		± 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	
Applicable Standards	ETSI (EMC)	EN 301 489-3, EN 301 489-5, EN 301 489-17	
	ETSI (Spectrum)	EN 300 086, EN 300 113, EN 300 219, EN 300 328, EN 300 440, EN 301 166	
	ETSI Safety	EN 60215, EN 60950-1, EN 6238-1	

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 3 % BER (6.25 kHz / 12.5 kHz)	0.20 µV / 0.28 µV	
	NXDN 1 % BER (6.25 kHz / 12.5 kHz)	-5.0 dBµV (0.28 µV) / -2 dBµV (0.40 µV)	
	DMR 12.5 kHz Digital, 5 % BER	-6 dBµV (0.25 µV)	
	DMR 12.5 kHz Digital, 1 % BER	-2 dBµV (0.40 µV)	
	Analog, EIA 12 dB SINAD (12.5 / 20 & 25 kHz)	0.25 µV	
Selectivity	Analog, EN 20 dB SINAD (12.5 / 20 & 25 kHz)	-1 dBµV (0.45 µV) / -3 dBµV (0.35 µV)	
	Analog 12.5 kHz	70 dB	68 dB
	Analog 20 kHz	78 dB	76 dB
	Analog 25 kHz	80 dB	78 dB
Intermodulation		70 dB	
Spurious Rejection		80 dB	
Audio Distortion		2 %	
Audio Output		4 W	
TRANSMITTER		NX-3720HG	NX-3820HG
RF Power Output		25 W / 5 W	
Spurious Emission		-36 dBm ≤1 GHz, -30 dBm >1 GHz	
FM Hum & Noise	Analog @ 12.5 kHz	45 dB	
	Analog @ 20 kHz	50 dB	
	Analog @ 25 kHz	50 dB	
Audio Distortion		2 %	
Digital Protocol		ETSI TS 102 361-1, -2, -3, -4	
Emission Designator		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 8K50F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K50F2D, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

APPLICABLE MIL-STD & IP*1

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*1	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.				

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

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JVCKENWOOD U.K. Limited

12 Priestley Way, London NW2 7BA, United Kingdom
<https://kenwoodcommunications.co.uk/comm/>

KENWOOD Communications
Global Website



comms.kenwood.com



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JVCKENWOOD Corporation

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