

NEXEDGE® NX-3720(E/GE)/3820(E/GE)

NXDN™ **DMR**

NEXEDGE VHF/UHF
MULTI-PROTOCOL DIGITAL & ANALOGUE MOBILE RADIOS



This adaptable mobile radio supports both NXDN and DMR digital protocols as well as mixed digital & FM analogue 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 upgrade, to be available in future). Additionally, for expansion capability a software license certification system facilitates extensive customisation.

● PRODUCT HIGHLIGHTS

- **Multi-protocol digital** radio: Designed to operate under an NXDN or DMR digital, and FM analogue protocols
- **NXDN** Conventional and Type-C & Gen2 Trunking
- **DMR** Tier II & Site Roaming
- **Mixed Digital & FM Analogue 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) Note: The number of lines may vary depending on the display language (character set).
- **7-Colour** LED indicator
- External and Internal Speaker Switching
- **Built-in GPS Receiver** for effective fleet management. GE-model only
- **Built-in Bluetooth** for hands-free operation – Applicable Bluetooth profiles: HSP (Headset Profile provided) and SPP (Serial Port Profile available as an option; availability GE model only)
- Renowned **KENWOOD Audio Quality** with **Active Noise Reduction (ANR)** that utilises built-in DSP
- Software **DES** and **AES** Encryptions for **NXDN** Conventional/Trunking and **DMR** Conventional protocols
- **IP54** and **MIL-STD-810 C/D/E/F/G**

● GENERAL FEATURES

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

- Complies with ETSI DMR Tier II standards
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Dual-slot Direct Mode
- ARC4 Encryption
- Energy Efficient

● ANALOGUE - 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-53**
DESKTOP MICROPHONE



- **KES-3**
EXTERNAL SPEAKER
(compact low profile;
3.5 mm plug)



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



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



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



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



- **KES-5**
EXTERNAL SPEAKER
(40 W max input,
requires KAP-2)



- **KCT-23**
DC POWER CABLE



- **KLF-2**
LINE FILTER



- **KPG-180AP**
OTAP MANAGER

- **KMB-10**
KEY LOCK
ADAPTER



All accessories and options may not be available in all markets.
Contact an authorised KENWOOD dealer for details and complete list of all accessories and options.

SPECIFICATIONS

GENERAL	NX-3720(G)	NX-3820(G)
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	Analogue	12.5/20/25 kHz
	Digital	6.25/12.5 kHz
Operating Voltage	13.2 VDC (10.8 ~ 15.6 VDC)	
Current Drain	Standby	0.45 A
	RX	2.3 A
	TX	9 A
Operating Temperature	-30°C to +60°C	
Frequency Stability	± 1.0 ppm	
Antenna Impedance	50 Ohms	
Dimensions (W x H x D) Radio with Control Head *Projections not included	160 x 43 x 160 mm	
Weight (net) Radio with Control Head	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 60065, EN 60215, EN 60950-1

Specifications are measured according to applicable standards.
Specifications shown are typical and subject to change without notice, due to advancements in technology.

RECEIVER	NX-3720(G)	NX-3820(G)
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	-4.5 dBµV (0.30 µV)
	DMR 12.5 kHz Digital, 1 % BER	-2 dBµV (0.40 µV)
	Analogue, EIA 12 dB SINAD (12.5/20 & 25 kHz)	0.25 µV
Selectivity	Analogue, EN 20 dB SINAD (12.5/20 & 25 kHz)	-1 dBµV (0.45 µV) / -3 dBµV (0.35 µV)
	Analogue 12.5 kHz	70 dB
	Analogue 20 kHz	78 dB
Intermodulation	70 dB	
Spurious Rejection	80 dB	
Audio Distortion	2 %	
Audio Output	4 W/4 Ohms	
TRANSMITTER	NX-3720(G)	NX-3820(G)
RF Power Output (High / Low)	25 W / 5 W	
Spurious Emission	-36 dBm ≤1 GHz, -30 dBm >1 GHz	
FM Hum & Noise	Analogue @ 25 kHz	50 dB
	Analogue @ 20 kHz	50 dB
	Analogue @ 12.5 kHz	45 dB
Audio Distortion	2 %	
Digital Protocol	ETSI TS 102 361-1, -2, -3	
Emission Designator	16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 8K50F3E, 8K30F1E, 8K30F1D, 8K30F7W, 7K50F2D, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

APPLICABLE MIL-STD & IP

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	IP54 (Radio unit itself)				
Dust & Water*	IP54 (Radio unit itself)				

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

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JVCKENWOOD U.K. Limited

12 Priestley Way, London NW2 7BA, United Kingdom

<http://kenwoodcommunications.co.uk>



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JVCKENWOOD Corporation

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