

NX-3720E/(G)E//3820E/(G)E

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 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 accessories). 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 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)



- **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 authorised KENWOOD dealer for details and complete list of all accessories and options.

SPECIFICATIONS

| GENERAL | NX-3720E/(G)E | NX-3820E/(G)E |
|---|---------------------------------|--|
| 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 62368-1 |

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

| RECEIVER | NX-3720E/(G)E | NX-3820E/(G)E |
|---------------------|--|---|
| 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 |
| | Analog 20 kHz | 78 dB |
| Intermodulation | Analog 25 kHz | 80 dB |
| | | 70 dB |
| Spurious Rejection | 80 dB | |
| Audio Distortion | 2 % | |
| Audio Output | 4 W | |
| TRANSMITTER | NX-3720E/(G)E | NX-3820E/(G)E |
| 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, 11K0F3E, 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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