

NEXEDGE®

NX-5700/5800/5900

VHF/UHF/700-800MHz MULTI-PROTOCOL DIGITAL & ANALOG MOBILE RADIOS

The NX-5000 Series offers unsurpassed interoperability for a wide variety of users as it supports three digital CAIs — NXDN, DMR and P25 (Phase 1 & 2) — plus FM analog in a single radio. Best of all, a desired CAI can be selected at will, giving you the freedom to migrate at your own pace — whether you are intent on going fully digital, undecided about which digital system to pick, or just wanting to maintain both digital and analog for a while. A NX-5000 radio can simultaneously support two digital protocols plus analog, offering the following combinations: FM/DMR/NXDN, FM/NXDN/P25, and FM/DMR/P25.

FEATURES

- Multi-Digital operation in NXDN, DMR, and P25 (Phase 1 & 2) protocols
- Any combination of two digital protocols may be selected from NXDN. DMR, and P25
- Mixed Digital & FM Analog Operation allows intelligent migration in mixed sites and easy migration with digital radios in other sites
- Large, Color 2.55" (154 x 422 pixels) TFT Display for at-a-glance operational status
- Fasy to follow GUI and Multi-line Text to convey information
- Dual Remote Control Head and Multi-Band (Multi RF Deck) Control Option providing scalable configurations for various operations and applications
- Built-In GPS Receiver for effective fleet management
- Bluetooth® Module Built-in for hands-free operation
- Renowned KENWOOD Audio Quality achieved with Active Noise Reduction (ANR) that utilizes built-in DSP with two microphones for suppression of ambient noise
- Built-in 56-bit DES Encryption
- Optional 256-bit AES Encryption
- microSD/microSDHC Up to 2GB/32GB Memory Card Slot for increased memory capacity for "Voice & Data"
- 50 W to 5 W (136-174 MHz) Models
- 45 W to 5 W (380-470, 450-520 MHz) Models
- 30 W to 2 W (700 MHz) Model 35 W to 2 W (800 MHz) Model
- Maximum of 1024 CH/Zone, 128 Zones (4000 CH. Opt)
- DB-25 Accessory Connector
- AMBE+2™ Enhanced Vocoder
- 4 W Speaker Audio

DIGITAL – NXDN® MODE

- Gen2 & NXDN Type-C Trunked Operation
- NXDN Conventional Operation
- 6.25 & 12.5 kHz Channel Spacing
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check Short & Long Data Messages
- NXDN Digital Scrambler Included

DIGITAL – DMR MODE

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

DIGITAL – P25 MODE

- P25 Phase 1 Conventional/Trunked Operation
- P25 Phase 2 Trunked Operation
- Talk Group ID Lists

- Individual ID Lists
- Caller ID Display
- · Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 Over-the-Air Re-keving
- P25 Over-the-Air Programming

FM MODES – GENERAL

- Conventional & LTR Zones
- 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
- OT / DOT & Two-Tone
- Built-in Voice Inversion Scrambler

MULTIPLE CONFIGURATIONS (Option)

The NX-5000 mobile series allows users to create a variety of configurations to suit different requirements by combining different options. Some of the standard configurations are:

- Single Remote Control Head x Single RF Deck
- Dual Remote Control Heads x Single RF Deck • Dual Remote Control Heads x Multi RF Decks
- · Other combinations are available. Consult your local KENWOOD dealer for more





Multi-Protocol

Unsurpassed interoperability for Public Safety and Enterprise radio users with the freedom to migrate at your own pace.



Scalable server-based system architecture for management of NEXEDGE wide area digital communications systems.



The ultimate level of sound clarity technology combining Optimization, advanced Sound Analysis and Active Noise Reduction.

















Specifications

All accessories may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories.

| | NX-5700 | NX-5800 | NX-5900 | |
|----------------------------------|---------------------|------------------------------------|--------------------------|--|
| GENERAL | | | | |
| Frequency Range | | | RX: 763-776, 851-870 MHz | |
| | 136-174 MHz | Type 1 450-520 MHz | TX: 763-776, 793-806 | |
| | | Type 2 380-470 MHz | 806-825, 851-870 MHz | |
| Max. Channels Per Radio | 1 | 1,024 (Up to 4,000 CH with option) | | |
| Number of Zones | | 128 | | |
| Max. # of P25 Trunked Group ID's | | 512 | | |
| Channel Spacing | | | | |
| Analog | 12.5/15/25*/30* kHz | 12.5/25* kHz | 12.5/25 kHz | |
| Digital | 6.25/12.5 kHz | 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 | | 13 A | | |
| Operating Temperature | =) | -22°F to +140°F (-30°C to +60°C) | | |
| Frequency Stability | | ±1.0 ppm | | |
| Dimensions (W x H x D) | 6.69 x 1 | 6.69 x 1.89 x 6.93 in. | | |
| Radio w/Control Head | (170 x 48 | (170 x 48.0 x 176 mm.) | | |
| Weight (net) | 3.53 lb: | 3.53 lbs (1.6 kg) | | |
| Radio w/Control Head | | | | |
| FCC ID | | | | |
| Type 1 | K44471100 | K44471200 | K44478500 | |
| Type 2 | - | K44471201 | - | |
| IC Certification | | | | |
| Type 1 | 282F-471100 | - | 282F-478500 | |
| Type 2 | - | 282F-471201 | - | |

^{*25} and 30 kHz are not included in the models sold in the USA or US territories. Analog measurements made per IIA 603 and specifications shown are typical. P25 Digital measurements made per IIA 102CAAA and specifications shown are typical. Specifications are subject to change without notice, due to advancements in technology.

| | NX-5700 | NX-5800 | NX-5900 | |
|---------------------------------|---|--|---------------------|--|
| RECEIVER | | | | |
| Sensitivity | | | | |
| NXDN® 6.25 kHz Digital (3% BER) | | 0.20 μV | | |
| NXDN®12.5 kHz Digital (3% BER) | | 0.25 μV | | |
| DMR Digital (5% BER) | | 0.25 μV | | |
| DMR Digital (1% BER) | | 0.40 µV | | |
| P25 Digital (5% BER) | | 0.25 µV | | |
| P25 Digital (1% BER) | 0.40 μV | | | |
| Analog (12dB SINAD) | 0.25 μV | | | |
| Selectivity | | | | |
| Analog @12.5 kHz | 71 | dB | 70 dB | |
| Analog @ 25 kHz | 81 | 81 dB | | |
| Intermodulation | | 80 dB | | |
| Spurious Rejection | | 85 dB | | |
| Audio Distortion | | 2 % | | |
| Audio Output Power | 4 W/4 Ω | 4 W/4 Ω (Remote Control Head: 3 W/4 Ω) | | |
| TRANSMITTER | _ | | | |
| RF Power Output | 50 W to 5 W | 45 W to 5 W | 30 W to 2 W (700 MH | |
| | | | 35 W to 2 W (800 MH | |
| Spurious Emission | -73 dB | -75 dB | -80 dB | |
| FM Hum & Noise | | | | |
| Analog @ 12.5 kHz | 45 dB | | 40 dB | |
| Analog @ 25 kHz | 50 dB | | 45 dB | |
| Audio Distortion | 2% | | | |
| Emission Designator | 16K0F3E, 14K0F3E** 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, | | | |
| | 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD 4K00F1E, 4K00F1D, | | | |
| | | 4K00F7W, 4K00F2 | D | |

^{**}NX-5900 model only.

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| 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 |
| International Protection Standard | | | | | |
| Dust & Water | IP54/55*1 | • | _ | | |

1: IP54: RF Deck; IP55: Remote Control Head



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