

NX-5700/5800/5900

NXDN™



FleetSync®



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 (Tier 2 & 3) 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 (Tier 2 & 3), 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
- Easy 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 and incident management
- Bluetooth® Module Built-in for hands-free and IoT applications 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 – DMR Mode

- Two-slot TDMA in 12.5 kHz channels
- DMR Tier 2 Conventional
- DMR Tier 3 Trunking
- DMR Over-the-Air Programming
- Call Interruption
- Dual-slot Direct Mode
- Spectrum Efficient
- Optional ARC4 encryption

Digital – P25 Mode

- P25 Phase 1 Conventional/Trunked Operation
- P25 Phase 2 Trunked Operation
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- 2-Tone (Digital)
- Remote Monitor / Check / Inhibit
- Encryption Key Zeroize & Retention
- P25 Over-the-Air Re-keying
- P25 Over-the-Air Programming
- Optional ARC4 encryption

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
- QT / DQT & Two-Tone
- Built-in Voice Inversion Scrambler

Digital – NXDN™ Mode

- NXDN Conventional
- NXDN Type-C & Gen2 Trunking
- 6.25 & 12.5 kHz Channels
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check
- Over-the-Air Alias (OAA)
- Over-the-Air Programming (OTAP)
- Short & Long Data Messages
- NXDN Digital Scrambler
- 2-Tone (Digital)

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 Head x Single RF Deck
- Dual Remote Control Head x Multi RF Decks

Other combinations are available. Consult your local KENWOOD dealer for more.

Accessories

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

NX-5700B/5800B/5900B RF Deck	KRK-14H Control Head Interface Kit (Adapter for the Head)	KMC-65M Microphone	KCT-46 Ignition Sense Cable	KRA-40G GPS Active Antenna
KCH-19 Basic Control Head Kit	KRK-15B Control Head Remote Kit (Adapter for the RF Deck)	KMC-66M Keypad Microphone	KLF-2 Line Filter	KMB-34 Mounting Case for KPS-15
KCH-20R Featured Control Head	KCT-71 Remote Control Cable (available in 3 lengths of 17ft (5.2m), 25ft (7.6m), 1.6ft (0.5m))	KES-5A External Speaker (40 W max input, requires KAP-2)	KMB-10 Key Lock Adapter	KPS-15 DC Power Supply (23A max)
KCH-21RM Handheld Control Head	KCT-72 External Accessory Connection Cable for the KCH-19/20R	KCT-23 DC Power Cable (for High Power) M2: [10 ft/3 m] / M4: [23 ft/7 m]	KAP-2 Horn Alert/PA Relay Unit	KWD-AE30/AE31 Secure Cryptographic Module
			KPG-180AP OTAP Manager	

Specifications

General	NX-5700	NX-5800	NX-5900
Frequency Range	136-174 MHz	Type 1 450-520 MHz Type 2 400-470 MHz	RX: 763-776, 851-870 MHz TX: 763-776, 793-806 806-825, 851-870 MHz
Max. Channels Per Radio	1,024 (Up to 4,000 CH with option)		
Max. # of P25 Trunked Group ID's	512		
Number of Zones	128		
Channel Spacing	Analog 12.5/15/25*/30* kHz Digital 6.25/12.5 kHz	12.5/25* kHz 6.25/12.5 kHz	12.5/25 kHz 6.25/12.5 kHz
Power Supply	13.6 V DC ±15%		
Current Drain		0.45 A 2.3 A 13 A	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)		
Frequency Stability	± 0.5 ppm		
Dimensions	(W x H x D) Projections Not Included		
Radio with Control Head	6.69 x 1.89 x 6.93 in. (170 x 48.0 x 176 mm.)		6.73 x 1.89 x 7.72 in. (171 x 48 x 196 mm.)
Weight Radio	3.53 lbs (1.6 kg)		3.53 lbs (1.6 kg)
FCC ID	Type 1 Type 2	K44471100 K44471200 K44471201	K44478500
IC Certification	Type 1 Type 2	282F-471100 282F-471201	282F-478500

*25/30 kHz in VHF/UHF Bands (except T-Band) are not included in the models sold in the USA or US territories.
**NX-5900 model only.
Analog measurements made per TIA603. Specifications are measured according to applicable standards.
P25 Digital measurements made per TIA 102CAAA and specifications shown are typical.
Specifications shown are typical and subject to change without notice, due to advancements in technology.

Receiver	NX-5700	NX-5800	NX-5900
Sensitivity	NXDN 6.25 kHz Digital (3% BER) NXDN 12.5 kHz Digital (3% BER) DMR Digital (5% BER) DMR Digital (1% BER) P25 Digital (5% BER) P25 Digital (1% BER) Analog (12dB SINAD)	0.20 µV 0.25 µV 0.25 µV 0.40 µV 0.25 µV 0.40 µV 0.25 µV	
Selectivity	Analog @ 12.5kHz Analog @ 25kHz	71 dB 81 dB	70 dB 78 dB
Intermodulation	80 dB		
Spurious Rejection	85 dB		
Audio Distortion	2%		
Audio Output Power	4 W/4 Ω (Remote Control Head: 3 W/4 Ω)		

Transmitter	NX-5700	NX-5800	NX-5900
RF Power Output	50 W to 5 W	45 W to 5 W	30 W to 2 W (700 MHz) 35 W to 2 W (800 MHz)
Spurious Emission	-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5kHz Analog @ 25kHz	45 dB 50 dB	40 dB 45 dB
Audio Distortion	2%		
Emission Designator	16K0F3E, 14K0F3E** 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

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MIL-STD & IP

MIL Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures	MIL 810G Methods/Procedures
Low Pressure	5001/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	5011/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	5021/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	5031/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	5051/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	5061/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III	506.5/Procedure I, III
Humidity	5071/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog	5091/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	5101/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 Protection* IP54, IP55** * Applicable microphone must be connected to the radio, and all accessory connectors must be covered. ** IP54: RF Deck; IP55: Remote Control Head.

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