

# 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
- 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 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-keying
- P25 Over-the-Air Programming

### FM MODES – GENERAL

- Conventional & LTR Zones
- FleetSync®/I: 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

### 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.



### Gen2

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



### Klarity

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



NXDN®

DMR



Bluetooth®



GPS FleetSync®

JV KENWOOD

<ul style="list-style-type: none"> <li>■ NX-5700B/5800B/5900B RF Deck</li> <li>■ KCH-19 Basic Control Head Kit</li> <li>■ KCH-20R Featured Control Head</li> <li>■ KCH-21RM Handheld Control Head</li> <li>■ KRK-14H Control Head Interface Kit (Adapter for the Head)</li> <li>■ KRK-15B Control Head Remote Kit (Adapter for the RF Deck)</li> </ul>	<ul style="list-style-type: none"> <li>■ KCT-71 Remote Control Cable (available in 3 lengths of 17ft (5.2m), 25ft (7.6m), 1.6ft (0.5m))</li> <li>■ KCT-72 Remote Control Cable</li> <li>■ KWD-AE30/AE31 Secure Cryptographic Module</li> <li>■ KPG-180AP OTAP Manager</li> <li>■ KMC-35 Microphone</li> <li>■ KMC-36 Keypad Microphone</li> </ul>	<ul style="list-style-type: none"> <li>■ KES-3S External Speaker (compact low profile; 3.5 mm plug)</li> <li>■ KES-5 External Speaker (40 W max input, requires KAP-2)</li> <li>■ KCT-23 DC Power Cable M: 10ft (3m) / M3: 23ft (7m)</li> <li>■ KCT-46 Ignition Sense Cable</li> <li>■ KLF-2 Line Filter</li> </ul>	<ul style="list-style-type: none"> <li>■ KMB-10 Key Lock Adapter</li> <li>■ KAP-2 Horn Alert/P.A. Relay Unit</li> <li>■ KRA-40G GPS Active Antenna</li> <li>■ KMB-34 Mounting Case for KPS-15</li> <li>■ KPS-15 DC Power Supply (23A max)</li> </ul>
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All accessories may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories.

Specifications

	NX-5700	NX-5800	NX-5900
<b>GENERAL</b>			
Frequency Range	136-174 MHz	Type 1 450-520 MHz Type 2 380-470 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)		
Number of Zones	128		
Max. # of P25 Trunked Group ID's	512		
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	
Standby		2.3 A	
RX		13 A	
TX			
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 1.89 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.)
Radio w/Control Head			
Weight (net)	3.53 lbs (1.6 kg)		3.53 lbs (1.6 kg)
Radio w/Control Head			
FCC ID	Type 1 K44471100 Type 2 -	K44471200 K44471201	K44478500 -
IC Certification	Type 1 282F-471100 Type 2 -	- 282F-471201	282F-478500 -

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

	NX-5700	NX-5800	NX-5900
<b>RECEIVER</b>			
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 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)		
<b>TRANSMITTER</b>			
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 @ 12.5 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, 4K00F2D		

\*\*NX-5900 model only.

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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	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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