

# KENWOOD

## NX-5700/5800/5900

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



**NXDN**®

NEXEDGE® Bluetooth® **GPS** **FleetSync**®  
by KENWOOD

### ● FEATURE HIGHLIGHTS

- **Multi-Protocol** operation in P25 (Phase I&II), NXDN® protocols
- **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 checking
- **Easy to follow GUI** and Multi-line Text to convey more information
- **Dual Remote Control Head Option** and **Multi-Band (Multi RF Deck) Control Option** providing scalable configurations for various operations and applications
- **Built-In GPS Receiver/Antenna** for effective fleet management
- **Built-in Bluetooth® Module**
- **Active Noise Reduction (ANR)** utilizing built-in DSP for suppression of ambient noise
- Renowned **KENWOOD Digital Audio Quality**
- **Built-in 56-bit DES Encryption**
- **Optional 256-bit AES Encryption**
- **microSD/microSDHC Memory Card Slot** for increased memory capacity for "Voice & Data"
- **IP54/55** and **MIL-STD-810 C/D/E/F/G**

### ● GENERAL FEATURES

- 2 W – 35 W (700-800 MHz) Models
- 5 W – 50 W (136-174 MHz) Models
- 5 W – 45 W (380-470, 450-520 MHz) Models
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- DB-25 Accessory Connector
- 4 W Speaker Audio

### ● DIGITAL – P25 MODE

- P25 Conventional/Trunking (Phase 1/Phase 2) Protocol
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- P25 Over-the-Air Re-keying
- Over-the-Air Programming<sup>\*1</sup>

### ● DIGITAL – NXDN® MODE

- NXDN® Conventional/Type-C Trunking Protocol
- AMBE+2™ Enhanced Vocoder
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming<sup>\*1</sup>
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging<sup>\*2</sup>
- Remote Stun/Kill<sup>\*2</sup>
- Remote Check<sup>\*2</sup>
- Short & Long Data Messages<sup>\*2</sup>
- GPS Location
- NXDN® Digital Scrambler Included

<sup>\*1</sup> Requires KENWOOD OTAP Management software.

<sup>\*2</sup> Requires NX subscriber unit PC serial interface compatible software application (e.g. KENWOOD AVL & Dispatch Messaging software) or hardware (e.g. console).

### ● 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

### ● MULTIPLE CONFIGURATIONS (Option)

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



- **Single RF Deck/Single Remote Control Head:** The simplest configuration can be achieved by turning the front control panel of the NX-5000 mobile series into a Remote Control Head.
- **Single RF Deck/Dual Remote Control Heads:** One controller can be mounted on the dashboard, with the other at the rear.
- **Multiple RF Decks/Single Remote Control Head:** You can operate multiple radios (up to three) as if they were one by adding additional NX-5000 mobile series RF Decks.
- **Multiple RF Decks/Dual Remote Control Heads:** This adds the convenience of a dual control head to the above configuration.



# Options

<ul style="list-style-type: none"> <li><b>NX-5700B/5800B/5900B</b> RF Deck</li> <li><b>KCH-19</b> Basic Control Head Kit</li> <li><b>KCH-20R</b> Featured Control Head</li> <li><b>KRK-14H</b> Control Head Interface Kit (adapter for the Head)</li> <li><b>KRK-15B</b> Control Head Remote Kit (adapter for the RF Deck)</li> </ul>	<ul style="list-style-type: none"> <li><b>KCT-71</b> Remote Control Cable (available in 3 lengths of 17ft (5.2m), 25ft (7.6m), 1.6ft (0.5m))</li> <li><b>KCT-72</b> Remote Control Cable</li> <li><b>KWD-AE30/AE31</b> Secure Cryptographic Module</li> <li><b>KPG-180AP</b> OTAP Manager</li> <li><b>KMC-35</b> Microphone</li> <li><b>KMC-36</b> Keypad Microphone</li> </ul>	<ul style="list-style-type: none"> <li><b>KES-3</b> External Speaker (compact low profile; 3.5 mm plug)</li> <li><b>KES-5</b> External Speaker (40 W max input, requires KAP-2)</li> <li><b>KCT-23</b> DC Power Cable</li> <li><b>KCT-46</b> Ignition Sense Cable</li> </ul>	<ul style="list-style-type: none"> <li><b>KLF-2</b> Line Filter</li> <li><b>KMB-10</b> Key Lock Adapter</li> <li><b>KAP-2</b> Horn Alert/P.A. Relay Unit</li> <li><b>KRA-40G</b> GPS Active Antenna</li> <li><b>KPS-15</b> DC Power Supply (23A max)</li> </ul>
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# Main Specifications

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

	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	1024 (Up to 4000 CH with option)		
Number of Zones	128		
Max. Channels per Zone	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)	6.73 x 1.89 x 6.93 in. (171.0 x 48.0 x 176 mm.)		6.73 x 1.89 x 7.72 in. (171.0 x 48.0 x 196 mm.)
Weight (net)	3.53 lbs (1.6 kg)		3.75 lbs (1.7 kg)
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 TIA 603 and specifications shown are typical. P25 Digital measurements made per TIA 102CAAA 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>			
<b>Sensitivity</b>			
NXDN® 6.25 kHz Digital (3% BER)		0.20 µV	
NXDN® 12.5 kHz Digital (3% BER)		0.25 µV	
P25 Digital (5% BER)		0.25 µV	
P25 Digital (1% BER)		0.40 µV	
Analog (12dB SINAD)		0.25 µV	
<b>Selectivity</b>			
P25 Digital		63 dB	
Analog @12.5 kHz	71 dB		70 dB
Analog @ 25 kHz	81 dB		78 dB
<b>Intermodulation</b>			
		80 dB	
<b>Spurious Rejection</b>			
		85 dB	
<b>Audio Distortion</b>			
		2 %	
<b>Audio Output Power</b>			
	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)
<b>Spurious Emission</b>			
	-73 dB	-75 dB	-80 dB
<b>FM Hum &amp; Noise</b>			
Analog @ 12.5 kHz	45 dB		40 dB
Analog @ 25 kHz	50 dB		45 dB
<b>Audio Distortion</b>			
	2%		
<b>Emission Designator</b>			
	16K0F3E, 14K0F3E** 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

\*\*NX-5900 model only.

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# Applicable 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*1	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
<b>International Protection Standard</b>					
Dust & Water	IP54/55*2				

\*1: Blowing rain protection for the Remote Control Head only. \*2: IP54: RF Deck; IP55: Remote Control Head

# KENWOOD

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