KENWOOD

NEXEDGE®

One Radio with Multi-Protocol Support

NX-5700/5800/5900

NXDN® P25 DMR Gen2 Bluetooth® FleetSync® microSD HC GPS

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
Multi Deck Repeater Relay Option
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 (138-174 MHz) Models
45 W to 5 W (406.1 to 470 MHz) Models
30 W to 2 W (700 MHz) Model 35 W to 2 W (800 MHz) Model
1,024 Channels, Maximum 512CH/Zone, 128 Zones. Option: 4,000 CH with License
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
Remote Monitor/Remote Check
Radio Inhibit
Enhanced Encryption. Key Zeroize & Retention
P25 Over-the-Air Re-keying
P25 Over-the-Air Programming
P25 Two-Tone Paging Decode

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

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.

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

KCH-19
Basic Control Head Kit

KCH-20R
Featured Control Head

KCH-21R
Handheld Control Head

KRK-14H
Control Head Interface Kit (Adapter for the Head)

KRK-15B
Control Head Remote Kit (Adapter for the RF Deck)

KCT-71
Remote Control Cable (available in 3 lengths of 17ft (5.2m), 25ft (7.6m), 1.6ft (0.5m)

KCT-72
External Accessory ConnectionCable for the KCH-19/20R

KMC-65M
Microphone

KMC-66M
Keypad Microphone

KES-5A
External Speaker (40 W max input, requires KAP-2)

KES-7P
5 Watt External Speaker

KCT-23M
10 ft DC Power Cable

KCT-46
Ignition Sense Cable

KLF-2
Line Filter

KMB-10
Key Lock Adapter

KAP-2
Horn Alert/P.A. Relay Unit

KMB-33
NX-5700/5800/5900 RF Deck Mounting Bracket

KRA-40G
GPS Active Antenna

KMB-34
Mounting Case for KPS-15

KPS-15K
DC Power Supply (23A max)

KWD-AE30/AE31
Secure Cryptographic Module

KPG-180AP
OTAP Manager

Specifications

General	NX-5700	NX-5800	NX-5900
Frequency Range	138-174 MHz	406.1-470 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. Channels per Zone	512		
Number of Zones	128		
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	± 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)
Radio with Control Head			
IC Certification			
Type 1	282F-471100		282F-478500
Type 2		282F-471201	

*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)		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 @ 12.5kHz	71 dB		70 dB
Analog @ 25kHz	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)		

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	45 dB		40 dB
Analog @ 25kHz	50 dB		45 dB
Audio Distortion	2%		
Emission Designator	16K0F3E, 14K0F3E* 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

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 Protection*1	IP54, IP55*2				

*1 Applicable microphone must be connected to the radio, and all accessory connectors must be covered. *2 IP54: RF Deck; IP55: Remote Control Head.

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