KENWOOD

NEXEDGE® NX-5700/NX-5800

NXDN™ DMR

VHF/UHF DIGITAL TRANSCEIVER
P25 (I&II)//NXDN™ MULTI-DIGITAL & FM ANALOGUE MOBILE RADIOS

Gen2 Bluetooth® microSD HC GPS FleetSync® by KENWOOD P25 DMR -based TRUNKING T3 & S DMR Auto Slot Select

MAIN FEATURES

- **MULTI-Digital** operation in P25 (Phases 1 & 2) and 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 access 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** for effective fleet management
- **Bluetooth® Module built-in** for hands-free operation
- Renowned KENWOOD Audio Quality can be achieved with **Active Noise Cancelling** 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 Memory Card Slot** for increased memory capacity for "Voice & Data"
- **IP54/55** and **MIL-STD-810 C/D/E/F/G**

GENERAL FEATURES

- 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 Phase 1 Conventional/Trunked
- P25 Phase 2 Trunked
- 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
- P25 Over-the-Air Programming*2
- P25 Enhanced Encryption

DIGITAL – NXDN MODE

- NXDN Conventional
- Gen2 & NXDN Type-C Trunked Operation
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channel Spacing
- Over-the-Air Alias
- Over-the-Air Programming*1
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill*2
- Remote Check*2
- Short Data Messages
- Long Data Messages*2
- GPS Location
- NXDN Digital Scrambler Included

*1 Requires KENWOOD OTAP Management software.
*2 Requires NX subscriber unit PC serial interface compatible software application (e.g. KENWOOD AVL & Dispatch Messaging software) or hardware (e.g. console).

DIGITAL - DMR MODE

- DMR-S Trunking
- DMR Tier III Trunking
- DMR Tier II conventional, DMR Auto Slot Select & Site Roaming
- 12.5 kHz Two-slot TDMA channels
- Call Interruption
- Dual-slot Direct Mode
- Enhanced Encryption
- Energy Efficient
- DMR Over-the-Air-Programming

ANALOGUE - FM MODE

- 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-5700/5800 allows users to create a variety of configurations to suit different requirements by combining different options.

- **Single Remote Control Head x Single RF Deck:** The simplest configuration can be achieved by turning the front control panel of the NX-5700/5800 into a Remote Control Head.
- **Dual Remote Control Heads x Single RF Deck:** By combining an optional Remote Head (KCH-19 or KCH-20R) to a radio, one controller can be mounted on the dashboard, with the other at the rear.
- **Dual Remote Control Heads x Multi RF Decks:** By having two radios (e.g. NX-5700 and NX-5800), user can enjoy the convenience of controlling 2 radios from 2 controllers. Of course, a panel can be replaced with optional Remote Control Head (KCH-20R).
- Other combinations are available. Consult your local KENWOOD dealer for more.

OPTIONAL ACCESSORIES

- **NX-5700B/5800B** RF DECK
- **KCH-19** BASIC CONTROL HEAD KIT

- **KCH-20R** FEATURED CONTROL HEAD

- **KRK-15B** CONTROL HEAD REMOTE KIT (Adapter for the RF Deck)

- **KRK-14H** CONTROL HEAD INTERFACE KIT (Adapter for the Head)

- **KCT-71** REMOTE CONTROL CABLE (Available in 3 lengths of 5.2 m, 7.6 m, and 0.5 m)

- **KWD-AE31** SECURE CRYPTOGRAPHIC MODULE
- **KMC-35** MICROPHONE

- **KMC-36** KEYPAD MICROPHONE

- **KCT-73MIC** EXTERNAL MIC KIT (Cable length: 3 m)

- **KCT-74PTT** EXTERNAL PTT KIT (Cable length: 3 m)

- **KES-3** EXTERNAL SPEAKER (Compact low profile; ϕ3.5 mm plug)

- **KES-5** EXTERNAL SPEAKER (40 W max input, Requires KAP-2)

- **KCT-23** DC POWER CABLE M: 3m / M3: 7m

- **KCT-46** IGNITION SENSE CABLE

- **KLF-2** LINE FILTER

- **KMB-10** KEY LOCK ADAPTER

- **KAP-2** HORN ALERT/P.A. RELAY UNIT

- **KRA-40G** GPS ACTIVE ANTENNA

- **KPG-180AP** OTAP MANAGER

SPECIFICATIONS

		Mobile Radios	
GENERAL		**NX-5700**	**NX-5800**
Frequency Range		136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz
Max. Channels Per Radio		1024 (Up to 4000 channels with option)	
Number of Zones		128	
Max. Channels Per Zone		512	
Channel Spacing	Analogue	12.5/15/20/25*/30* kHz	12.5/25* kHz
	Digital	6.25/12.5 kHz	6.25/12.5 kHz
Power Supply		13.6 V DC ±15%	
Current Drain	Standby	0.45A	
	RX	2.3A	
	TX	13A	
Operating Temperature		-22°F to +140°F (-30°C to +60°C)	
Frequency Stability (-30°C to +60°C; +25°C Ref.)		±0.5 ppm	
Dimensions (W x H x D) Radio with Control Head, Projections Not Included		6.69 x 1.89 x 6.93 in. (170 x 48 x 176 mm)	
Weight: Radio with Control Head		3.53 lbs (1.6 kg)	

*25 and 30 kHz are not included in the models sold in the USA or US territories. Analogue measurements made per TIA 603 and specifications shown are typical. Digital measurements made per TIA 102CAAA and specifications shown are typical.
Details and timing of firmware and software updates are subject to change without notice. Specifications are subject change without notice, due to advancements in technology.

		Mobile Radios	
RECEIVER		**NX-5700**	**NX-5800**
Sensitivity	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	
	Analogue (12dB SINAD)	0.25 µV	
Selectivity	P25 Digital	63 dB	
	Analogue @ 12.5 kHz	71 dB	
	Analogue @ 25 kHz	81 dB	
Intermodulation		80 dB	
Spurious Rejection		87 dB	85 dB
Audio Distortion		2%	
Audio Output Power		4 W/4 Ω (Remote Control Head: 3 W/4 Ω)	
TRANSMITTER		**NX-5700**	**NX-5800**
RF Power Output Power		50 to 5 W	45 to 5 W
Spurious Emission		-73 dB	-75 dB
FM Hum & Noise	Analogue @ 12.5 kHz	45 dB	
	Analogue @ 25 kHz	50 dB	
Audio Distortion		2%	
Emission Designator		16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

APPLICABLE MIL-STD & IP

MIL Standard	810C Methods/ Procedures	810D Methods/ Procedures	810E Methods/ Procedures	810F Methods/ Procedures	810G Methods/ Procedures
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain*1	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, II, V	516.3/ I, IV, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V
International Protection Standard					
Dust & Water	IP54, IP55*2				

*1: Blowing rain protection for the mobile radio's Remote Control Head only. *2: IP54: RF Deck of the mobile radio; IP55: Remote Control Head for the mobile radio

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