

# KENWOOD

## NX-5000 Series

NEXEDGE® VHF/UHF MULTI-PROTOCOL DIGITAL & ANALOGUE RADIOS



## Multi-Digital Operation for Public Safety and Enterprise



**NXDN™**

 **Bluetooth®**

**micro  
SD  
GB**

**GPS**



# NEXEDGE®



# **The NX-5000 Series – Ready to Digital Trunked Network System**





# Meet NEXEDGE Gen2 Multi-Site

Radios are a lifeline for those who work on the front lines – crews tackling a four-alarm fire, utility engineers repairing ice-storm damage, or school guards responding to a security alert. They demand and deserve equipment that is truly fit for purpose, and then some.

To meet this demand KENWOOD has drawn on its extensive experience, its renowned technologies, and an expert analysis of market needs to develop NEXEDGE®. This innovative digital solution satisfies the most stringent requirements of today's mission-critical radio users. And now NEXEDGE® leaps further ahead of the competition with NX-5000 Series portable and mobile radios, ready to serve in all public safety, public sector and commercial roles with flawless performance and advanced feature sets.

**The NX-5000 Series truly sets a new standard.**

# Public Safety

Round-the-clock public safety operations – police, fire and EMS – can be extremely demanding for both personnel and equipment. The NX-5000 Series radios are robust and offer clear mission-critical communications in numerous environments – even with sirens in the background. Advanced emergency features, such as man-down detection and ease of operation, even with gloves, make NX-5000 series radios the perfect choice to enhance safety in the line of duty.



## MISSION OR OPERATIONS CRITICAL –

“ We want to be able to communicate and coordinate with other public safety agencies and departments. ”



“ We often need to talk on a radio in noisy environments and cannot afford to miss a command or request for help. ”

“ We must have secure communications, free from monitoring or interception. ”

“ From a crime or accident scene, we need to be able to alert dispatch or the entire network instantly. ”



“ We use our radios day & night, 24/7. ”

## NX-5000 SERIES RADIOS DELIVER

“Can we keep our gloves on while operating the radio?”

“We need radios that are robust.”

“School buses may need to communicate directly with the police in an emergency.”

“We want advance warning when batteries are dying – and we also want batteries that last longer.”

“Our employees need to look smart in suits and uniforms, so no bulky radios.”



## Public Sector and Commercial Operations

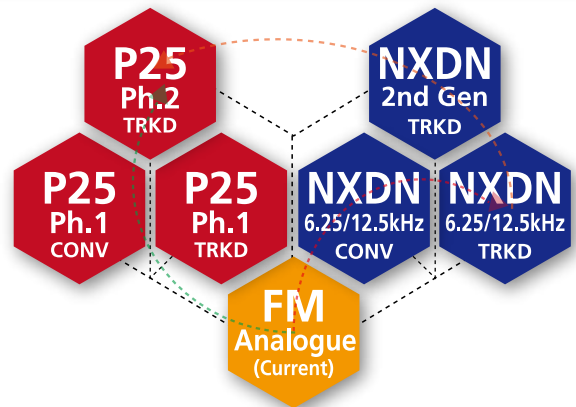
Thanks to multi-digital operation, NEXEDGE® offers a flexible communications system that is ideal for a wide range of industries and fields – ranging from utilities and traffic agencies to schools, taxi services and security companies. What's more, top-of-the-line features such as the transfective display for easy viewing in sunshine, GPS capability and Bluetooth® connectivity all contribute to enhanced efficiency and cost-effectiveness. From top to bottom, the NX-5000 Series means business.

# NXDN™

# NX-5000 SERIES FEATURES

## ONE-RADIO, MULTI-PROTOCOL SUPPORT

The NX-5000 Series offers unsurpassed interoperability as it supports 2 digital CAIs – NXDN and P25 (Phase 1 & 2) – plus FM analogue 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 analogue for a while.



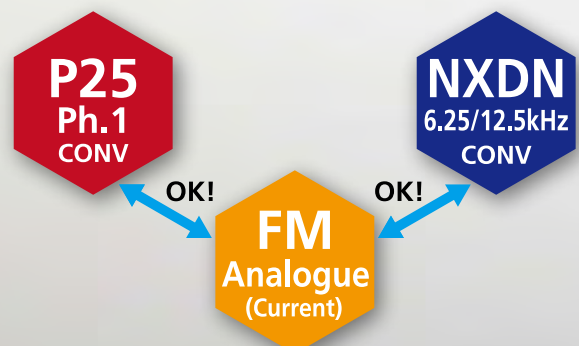
## NXDN & P25 FOR MISSION-CRITICAL USERS

P25 is a digital CAI to ensure interoperability among public safety agencies in North America, Australia and New Zealand. The NX-5000 Series is compatible with Phase 1 (conventional and trunked), and Phase 2 (trunked). But it also offers NXDN, expanding the envelope of interoperability for a wide variety of users.



## AUTOMATIC CALL SIGNAL IDENTIFICATION

An NX-5000 Series radio automatically identifies a call signal – whether it's NXDN, P25, or FM analogue – and transmits in the same mode received. Setting your radio to Mixed Mode allows the radio to wait for a call in both digital and analogue modes in a digital/analogue environment. Moreover, the new Geographical Zone function allows these radios to operate in any mode – conventional or trunked in NXDN, P25, and FM – in the same zone.



## INTUITIVE DISPLAY & OPERABILITY

COLOUR  
LCD

TFT

The 65,536-colour TFT display allows the user to check at a glance on operating status, shown in multi-line text to convey more information.

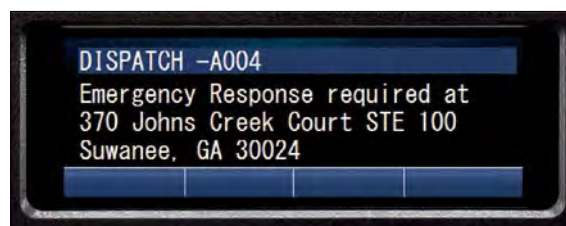
The portables feature a 1.74-inch (240 x 180 pixel) LCD that can be viewed clearly in direct sunlight or in the dark, even while wearing polarised sunglasses.

The mobile models feature a 2.55-inch (154 x 422 pixel) TFT display with integrated luminance sensor that automatically adjusts the brightness of the backlight. What's more, the optional remote control panel (KCH-20R) features a 2.75-inch (240 x 400 pixel) TFT display with Auto LCD Brightness mode to adjust display intensity for round-the-clock operation.

Further enhancing operating ease is the 4-way Directional-pad (D-pad) and 2-position lever switch, which offer intuitive control and can be operated with gloves on.



NX-5200/5300/5400 (actual size)



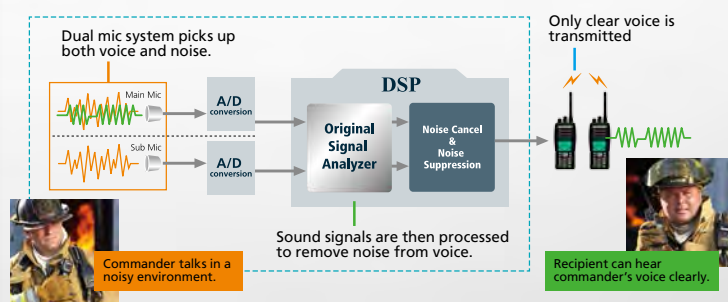
NX-5700/5800/5900 (actual size)

## RENOWNED KENWOOD AUDIO



DSP

Benefitting from decades of KENWOOD experience and expertise, the NX-5000 Series offers superb audio quality even in very noisy environments. In addition to sophisticated sound analysis and optimization technologies, these radios feature Active Noise Cancelling based on leading-edge digital technology. Clear communications are assured.



## TOUGH & ROBUST



MIL-810



IPX8



IPX5

During the development stage, NX-5000 Series radios go through a number of stringent tests to make sure they can withstand harsh usage. In addition to MIL-STD-810 C/D/E/F/G environmental standards, NX-5000 portable radios comply with IP67/68 immersion standards, offering max. 2 hour protection at a depth of 1 meter\*. The rugged mobile radios comply with IP54/55\*\* dust/water ingress protection standards.

\*Applies for IP68

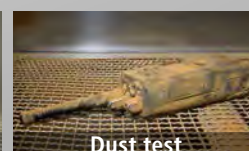
\*\* IP54: RF Deck of the mobile radio; IP55: Remote Control Head for the mobile radio



Immersion test



Extreme temperature test



Dust test

# NX-5000 SERIES FEATURES

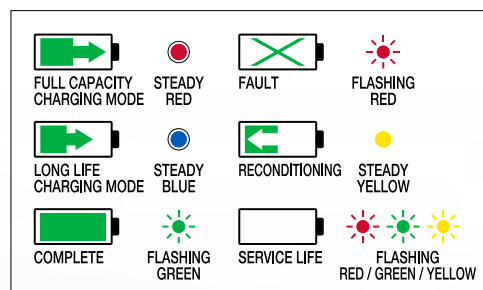
## INTELLIGENT BATTERY MANAGEMENT SYSTEM (Portables: option)

The Intelligent Battery System helps to extend battery lifetime and ensure that the batteries are optimally maintained so as to be ready for mission-critical operations. The system comprises the optional high-capacity Li-ion and Ni-MH Batteries (KNB-L1/L2/L3/N4), Intelligent Charger (KSC-Y32), and Battery Reader software (KAS-12). Up to 60 Intelligent Chargers can be chain-connected to a PC installed with the KAS-12 Battery Reader software, which can display and manage information: battery type, model name, voltage, temperature, discharge cycle, expected life, and remaining capacity.

- Long Life Charging Mode: stops recharging at 80 % capacity to extend life.
- Up to 5,000 batteries can be managed at a time (requires additional option - Available later).
- Deterioration (end-of-life) notification (requires additional option - Available later).



| No. | Serial Number | Charge Status | Time to Full [min] | Current Charge [%] | Battery Health [%] | Current Voltage [V] | Cycle Count | Temperature [°C] |
|-----|---------------|---------------|--------------------|--------------------|--------------------|---------------------|-------------|------------------|
| 1   | 0214400001    | Full          | 180                | 100                | 100                | 3.70                | 150         | 15.0             |
| 2   | 0214400002    | Charging      | 180                | 85                 | 75                 | 3.65                | 150         | 15.0             |
| 3   | 0214400003    | Charging      | 180                | 90                 | 75                 | 3.68                | 150         | 15.0             |
| 4   | 0214400004    | Charging      | 180                | 95                 | 75                 | 3.68                | 150         | 15.0             |
| 5   | 0214400005    | Charging      | 180                | 98                 | 75                 | 3.68                | 150         | 15.0             |
| 6   | 0214400006    | Charging      | 180                | 99                 | 75                 | 3.68                | 150         | 15.0             |
| 7   | 0214400007    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 8   | 0214400008    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 9   | 0214400009    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 10  | 0214400010    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 11  | 0214400011    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 12  | 0214400012    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 13  | 0214400013    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 14  | 0214400014    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 15  | 0214400015    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 16  | 0214400016    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 17  | 0214400017    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 18  | 0214400018    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 19  | 0214400019    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 20  | 0214400020    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 21  | 0214400021    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 22  | 0214400022    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 23  | 0214400023    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 24  | 0214400024    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 25  | 0214400025    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 26  | 0214400026    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 27  | 0214400027    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 28  | 0214400028    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 29  | 0214400029    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 30  | 0214400030    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 31  | 0214400031    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 32  | 0214400032    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 33  | 0214400033    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 34  | 0214400034    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 35  | 0214400035    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 36  | 0214400036    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 37  | 0214400037    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 38  | 0214400038    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 39  | 0214400039    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 40  | 0214400040    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 41  | 0214400041    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 42  | 0214400042    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 43  | 0214400043    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 44  | 0214400044    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 45  | 0214400045    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 46  | 0214400046    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 47  | 0214400047    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 48  | 0214400048    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 49  | 0214400049    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 50  | 0214400050    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 51  | 0214400051    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 52  | 0214400052    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 53  | 0214400053    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 54  | 0214400054    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 55  | 0214400055    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 56  | 0214400056    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 57  | 0214400057    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 58  | 0214400058    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 59  | 0214400059    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |
| 60  | 0214400060    | Charging      | 180                | 100                | 75                 | 3.68                | 150         | 15.0             |

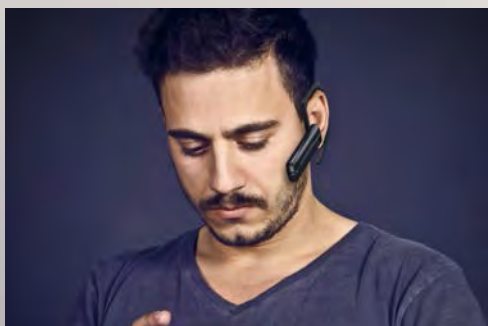


Battery conditions are displayed in colour illuminated indicators on the charger, which are also displayed on a connected PC with the same colour scheme. Colour-coordinated patterns provide users with at-a-glance information for comprehensive battery management.

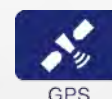
## BUILT-IN BLUETOOTH®



Hands-free operation is vital for many NX-5000 users. The radios' built-in Bluetooth® module is compatible with Headset and Serial Port Profiles (ver. 3.0) and keeps your hands open for other important tasks you are into.



## GPS TO TRANSMIT YOUR POSITION



Featuring an integrated GPS module and antenna, NX-5000 portable radios can transmit positional data, enabling effective management when used with tracking applications like KAS-10 software. Mobile models can support GPS with the optional KRA-40G GPS Active Antenna.

## ENCRYPTION EQUIPPED



Secure communications are an essential requirement, especially for public safety applications. NX-5000 radios are equipped with 56-bit key Data Encryption Standard (DES) Encryption. For even higher protection there is the optional KWD-AE31 Secure Cryptographic Module, which supports the 256-bit Advanced Encryption Standard (AES) Encryption.

## MULTIPLE CONFIGURATION (Mobiles: option)

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

### 1. Single Remote Control Head x Single RF Deck

Suited for distribution and courier services, this is the simplest configuration. The detachable front control panel of the NX-5000 mobile series is used as a Remote Control Head.

### 2. Single Remote Control Head x Multi RF Decks

You can operate multiple radios (e.g. VHF and UHF) as if they were one by adding an NX-5000 mobile series RF Deck. This configuration is recommended for law enforcement agencies.

### 3. Dual Remote Control Heads x Single RF Deck

One controller can be mounted on the dashboard, with the other at the rear. Useful for EMS applications.

### 4. Dual Remote Control Heads x Multi RF Decks

This adds the convenience of a dual control head to the multi RF decks (3 max.) configuration. Two operators can control 2 radios (e.g. VHF and UHF) from separate control heads. Best suited for battalion chiefs.



## SD CARD SLOT

For storing voice and data, memory capacity can be increased by up to a huge 32 GB.\*

\* Purchase a card separately.



## SENSORS FOR USER SAFETY

Life-critical detection is built-in. When unusual behavior is detected by the acceleration and tilt sensors, one of three Emergency Modes – Man-down Detection, Stationary Detection, and Motion Detection – will be automatically engaged.

In addition to the built-in motion sensor, these portables feature a Lone Worker function that automatically places the radio in Emergency Mode if it is not operated for a certain period of time. Also the bright orange Emergency Button is located at the top (portables) or front (mobiles) of the radio for high visibility and instant access when needed.



# NX-5200/5300

NEXEDGE VHF/UHF

MULTI-PROTOCOL DIGITAL & ANALOGUE PORTABLE RADIOS



Choose between two portable configurations – one without a numeric keypad and the other with numeric keypad (16-key model).

## GENERAL FEATURES

- Multi-Digital + FM Analogue Operation
  - Gen2 & NXDN Conventional/Type-C Trunking Protocol
  - P25 Conventional Trunking (Phase 1/Phase 2) Protocol
  - FM Analogue Conventional & LTR Zones
- Large, Colour 1.74" (240 x 180 pixel) Transflective TFT Display
- Easy-to-follow GUI and Multi-line Text Display
- 1,000 mW Speaker Audio (@8 Ω, 5 % distortion)
- 4-way Directional-pad (D-pad) and 2-Position Lever Switch for intuitive control and operation
- 6 Front & 2 Side PF keys
- 12-Key Keypad Models Available
- Emergency / AUX Key
- FleetSync®/II, MDC-1200, QT/DQT, 2-Tone (Analogue mode)
- Frequency Range
  - VHF: 136-174 MHz (NX-5200)
  - UHF: 400-470 MHz, (NX-5300)
- RF Output
  - VHF: 6-1 W (NX-5200)
  - UHF: 5-1 W (NX-5300)
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones

The radio platform is ready for DMR and 5-Tone, software for these features will follow.

## OPTIONAL ACCESSORIES

### ■ KNB-L1/L2/L3

Li-ion BATTERY PACK (IP67/68 immersion)



KNB-L1  
7.4 V/2000 mAh



KNB-L2  
7.4 V/2600 mAh



KNB-L3  
7.4 V/3400 mAh

### ■ KNB-N4

Ni-MH BATTERY PACK  
(7.2V/2500 mAh)



### ■ KSC-Y32

RAPID CHARGER



### ■ KSC-32/32S

RAPID CHARGER



### ■ KSC-326/326S

MULTIPLE CHARGER  
(6-unit Rapid Rate)



### ■ KBP-8

BATTERY CASE  
(12 AA Alkaline Batteries  
not included)



### ■ KAS-12

BATTERY READER  
(PC Software)

### ■ KRA-27

UHF WHIP ANTENNA  
(Standard Length)



### ■ KRA-26

VHF HELICAL ANTENNA  
(Standard Length)



### ■ KMC-42WD

SPEAKER  
MICROPHONE (IP67)



### ■ KMC-54WD

SPEAKER MICROPHONE

- 2-mic digital noise cancelling via the radio's DSP
- 3.5mm-diameter earphone jack
- Complies with MIL-STD 810C/D/E/F/G
- IP65/67 Dust & Water\*

\*The earphone jack cap must be closed tightly



### ■ KWD-AE31

SECURE CRYPTOGRAPHIC  
MODULE

### ■ KPG-180AP

OTAP MANAGER

### ■ KBH-11

BELT CLIP



# NX-5700/5800

NEXEDGE VHF/UHF

MULTI-PROTOCOL DIGITAL & ANALOGUE MOBILE RADIOS

## GENERAL FEATURES

- Multi-Digital + FM Analogue Operation
  - Gen2 & NXDN Conventional/Type-C Trunking Protocol
  - P25 Conventional/Trunking (Phase 1/Phase 2)
  - FM Analogue Conventional & LTR Zones
- Large, Colour 2.55" (154 x 422 pixel) TFT Display
- Easy-to-follow GUI and Multi-line Text Display
- Speaker Audio: 4 W/4  $\Omega$ ; 3 W/4  $\Omega$  for the Remote Control Head
- 6 Front PF keys & 4 Up / Down Selectors
- Emergency Button
- FleetSync<sup>®</sup>/II, MDC-1200, QT/DQT, 2-Tone (Analogue mode)
- Frequency Range
  - VHF: 136-174 MHz (NX-5700)
  - UHF: 400-470 MHz (NX-5800)
- RF Output
  - VHF: 50-5 W (NX-5700/5700B)
  - UHF: 45-5 W (NX-5800/5800B)
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones

The radio platform is ready for DMR and 5-Tone, software for these features will follow.

## OPTIONAL ACCESSORIES

- |                                                                                                                                                |                                                                                     |                                                                                                                  |                                                                                     |                                                                                                                                               |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>■ <b>KCH-19</b><br/>BASIC CONTROL HEAD KIT</li> </ul>                                                   |    | <ul style="list-style-type: none"> <li>■ <b>KCT-73MIC</b><br/>EXTERNAL MIC KIT<br/>(Cable length: 3m)</li> </ul> |    | <ul style="list-style-type: none"> <li>■ <b>KES-3</b><br/>EXTERNAL SPEAKER<br/>(Compact low profile; <math>\phi</math>3.5 mm plug)</li> </ul> |    |
| <ul style="list-style-type: none"> <li>■ <b>KCH-20R</b><br/>FEATURED CONTROL HEAD</li> </ul>                                                   |   | <ul style="list-style-type: none"> <li>■ <b>KCT-74PTT</b><br/>EXTERNAL PTT KIT<br/>(Cable length: 3m)</li> </ul> |   | <ul style="list-style-type: none"> <li>■ <b>KES-5</b><br/>EXTERNAL SPEAKER<br/>(40 W max input, Requires KAP-2)</li> </ul>                    |   |
| <ul style="list-style-type: none"> <li>■ <b>KRK-14H</b><br/>CONTROL HEAD INTERFACE KIT<br/>(Adapter for the Head)</li> </ul>                   |  | <ul style="list-style-type: none"> <li>■ <b>KWD-AE31</b><br/>SECURE CRYPTOGRAPHIC MODULE</li> </ul>              |                                                                                     | <ul style="list-style-type: none"> <li>■ <b>KCT-23</b><br/>DC POWER CABLE<br/>M: 3 m / 7 m</li> </ul>                                         |  |
| <ul style="list-style-type: none"> <li>■ <b>KRK-15B</b><br/>CONTROL HEAD REMOTE KIT<br/>(Adapter for the RF Deck)</li> </ul>                   |  | <ul style="list-style-type: none"> <li>■ <b>KPG-180AP</b><br/>OTAP MANAGER</li> </ul>                            |                                                                                     | <ul style="list-style-type: none"> <li>■ <b>KCT-46</b><br/>IGNITION SENSE CABLE</li> </ul>                                                    |  |
| <ul style="list-style-type: none"> <li>■ <b>KCT-71</b><br/>REMOTE CONTROL CABLE<br/>(Available in 3 lengths of 5.2 m, 7.6 m, 0.5 m)</li> </ul> |  | <ul style="list-style-type: none"> <li>■ <b>KMC-35</b><br/>MICROPHONE</li> </ul>                                 |  | <ul style="list-style-type: none"> <li>■ <b>KCT-72</b><br/>CONNECTION CABLE</li> </ul>                                                        |  |
|                                                                                                                                                |                                                                                     | <ul style="list-style-type: none"> <li>■ <b>KMC-36</b><br/>KEYPAD MICROPHONE</li> </ul>                          |  | <ul style="list-style-type: none"> <li>■ <b>KAP-2</b><br/>HORN ALERT/P.A. RELAY UNIT</li> </ul>                                               |  |
|                                                                                                                                                |                                                                                     | <ul style="list-style-type: none"> <li>■ <b>KMC-53</b><br/>DESKTOP MICROPHONE</li> </ul>                         |  | <ul style="list-style-type: none"> <li>■ <b>KRA-40G</b><br/>GPS ACTIVE ANTENNA</li> </ul>                                                     |  |
|                                                                                                                                                |                                                                                     |                                                                                                                  |                                                                                     | <ul style="list-style-type: none"> <li>■ <b>KPS-16</b><br/>DC POWER SUPPLY</li> </ul>                                                         |  |



Combination of DC Power Supply KPS-16 and Desktop Microphone KMC-53 for the mobile radio. Suitable for applications such as taxi dispatching system etc.



## SPECIFICATIONS

| Portable Radios                                                               |                                                                                                                                                                  |                                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| GENERAL                                                                       | NX-5200                                                                                                                                                          | NX-5300                                                                          |
| Frequency Range                                                               | 136-174 MHz                                                                                                                                                      | 400-470 MHz                                                                      |
| Max. Channels Per Radio                                                       | 1024 (Up to 4000 channels with option)                                                                                                                           |                                                                                  |
| Number of Zones                                                               | 128                                                                                                                                                              |                                                                                  |
| Max. Channels Per Zone                                                        | 512                                                                                                                                                              |                                                                                  |
| Channel Spacing                                                               | Analogue                                                                                                                                                         | 12.5/20/25 kHz                                                                   |
|                                                                               | Digital                                                                                                                                                          | 6.25/12.5 kHz                                                                    |
| Power Supply                                                                  | 7.5 V DC $\pm$ 20 %                                                                                                                                              |                                                                                  |
| Battery Life<br>(5-5-90/10-10-80<br>duty cycle)                               | KNB-L1 (2,000 mAh)                                                                                                                                               | 10 hours / 6.5 hours                                                             |
|                                                                               | KNB-L2 (2,600 mAh)                                                                                                                                               | 12.5 hours / 8.5 hours                                                           |
|                                                                               | KNB-L3 (3,400 mAh)                                                                                                                                               | 17 hours / 11 hours                                                              |
|                                                                               | KNB-N4 (2,500 mAh)                                                                                                                                               | 12.5 hours / 8.5 hours                                                           |
|                                                                               | KBP-8<br>(w/ AA battery x12)                                                                                                                                     | High Power: Approx. 11 hours / 8 hours,<br>Low Power: Approx. 25 hours/ 18 hours |
| Operating Temperature                                                         | -30 °C to +60 °C                                                                                                                                                 |                                                                                  |
| Frequency Stability                                                           | $\pm$ 2.0 ppm                                                                                                                                                    | $\pm$ 1.0 ppm                                                                    |
| Dimensions<br>(W x H x D)<br>Radio w/ Battery,<br>Projections Not<br>Included | KNB-L1 (2,000 mAh)                                                                                                                                               | 58.0 x 138.9 x 39.8 mm                                                           |
|                                                                               | KNB-L2 (2,600 mAh)                                                                                                                                               | 58.0 x 138.9 x 42.8 mm                                                           |
|                                                                               | KNB-L3 (3,400 mAh)                                                                                                                                               | 58.0 x 138.9 x 48.2 mm                                                           |
|                                                                               | KNB-N4 (2,500 mAh)                                                                                                                                               | 58.0 x 166.4 x 48.5 mm                                                           |
|                                                                               | KBP-8                                                                                                                                                            | 67.0 x 218.3 x 44.6 mm                                                           |
| Weight (Net)<br>Radio w/ Battery                                              | KNB-L1 (2,000 mAh)                                                                                                                                               | 382 g                                                                            |
|                                                                               | KNB-L2 (2,600 mAh)                                                                                                                                               | 406 g                                                                            |
|                                                                               | KNB-L3 (3,400 mAh)                                                                                                                                               | 449 g                                                                            |
|                                                                               | KNB-N4 (2,500 mAh)                                                                                                                                               | 579 g                                                                            |
|                                                                               | KBP-8 (w/AA x 12)                                                                                                                                                | Approx. 712 g                                                                    |
| Applicable<br>Standards                                                       | ETSI (EMC)                                                                                                                                                       | EN 301 489-3, EN 301 489-5, EN 301 489-17                                        |
|                                                                               | ETSI (Spectrum)                                                                                                                                                  | EN 300 086, EN 300 113, EN 300 219, EN 300 328,<br>EN 300 440, EN 301 166        |
|                                                                               | ETSI Safety                                                                                                                                                      | EN 60065, EN 60215, EN 60950-1                                                   |
| RECEIVER                                                                      | NX-5200                                                                                                                                                          | NX-5300                                                                          |
| Sensitivity<br>(Digital)                                                      | NXDN 3 % BER (6.25 kHz/12.5 kHz)                                                                                                                                 | 0.25 $\mu$ V / 0.32 $\mu$ V                                                      |
|                                                                               | NXDN 1 % BER (6.25 kHz/12.5 kHz)                                                                                                                                 | -4 dB $\mu$ V (0.32 $\mu$ V) / -1 dB $\mu$ V (0.45 $\mu$ V)                      |
|                                                                               | P25 5 % BER                                                                                                                                                      | 0.28 $\mu$ V                                                                     |
| Sensitivity<br>(Analogue)                                                     | 12 dB SINAD (12.5/20&25 kHz)                                                                                                                                     | 0.32 $\mu$ V / 0.28 $\mu$ V                                                      |
|                                                                               | 20 dB SINAD (12.5/20&25 kHz)                                                                                                                                     | -1 dB $\mu$ V (0.45 $\mu$ V) / -3 dB $\mu$ V (0.35 $\mu$ V)                      |
| Selectivity                                                                   | P25 Digital                                                                                                                                                      | 63 dB                                                                            |
|                                                                               | Analogue 12.5 kHz                                                                                                                                                | 68 dB                                                                            |
|                                                                               | Analogue 20 kHz                                                                                                                                                  | 74 dB                                                                            |
|                                                                               | Analogue 25 kHz                                                                                                                                                  | 76 dB                                                                            |
| Intermodulation                                                               | 65 dB                                                                                                                                                            |                                                                                  |
| Spurious Rejection                                                            | 75 dB                                                                                                                                                            |                                                                                  |
| Audio Distortion                                                              | 3 %                                                                                                                                                              |                                                                                  |
| Audio Output Power                                                            | 500 mW/8 $\Omega$ (3 % Distortion)/<br>1,000 mW/8 $\Omega$ (5 % Distortion)                                                                                      |                                                                                  |
| TRANSMITTER                                                                   | NX-5200                                                                                                                                                          | NX-5300                                                                          |
| RF Power Output Power                                                         | 6 to 1 W                                                                                                                                                         | 5 to 1 W                                                                         |
| Spurious Emission                                                             | -36 dBm $\leq$ 1 GHz, -30 dBm > 1 GHz                                                                                                                            |                                                                                  |
| FM Hum & Noise (Analogue): @12.5/20/25 kHz                                    | 40/45/45 dB                                                                                                                                                      |                                                                                  |
| Audio Distortion                                                              | 2 %                                                                                                                                                              |                                                                                  |
| Emission Designator                                                           | 16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 11K0F3E,<br>8K50F3E, 7K50F2D, 8K30F1E, 8K30F1D, 8K30F7W,<br>8K10F1E, 8K10F1D, 8K10F1W, 4K00F1E, 4K00F1D,<br>4K00F7W, 4K00F2D |                                                                                  |

Analogue measurements made per EN Standards or TIA 603 and specifications shown are typical.

P25 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                                     |                                                                                                                                                                  |                                                                           |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| GENERAL                                           | NX-5700                                                                                                                                                          | NX-5800                                                                   |
| Frequency Range                                   | 136-174 MHz                                                                                                                                                      | 400-470 MHz                                                               |
| Max. Channels Per Radio                           | 1024 (Up to 4000 channels with option)                                                                                                                           |                                                                           |
| Number of Zones                                   | 128                                                                                                                                                              |                                                                           |
| Max. Channels Per Zone                            | 512                                                                                                                                                              |                                                                           |
| Channel Spacing                                   | Analogue                                                                                                                                                         | 12.5/20/25 kHz                                                            |
|                                                   | Digital                                                                                                                                                          | 6.25/12.5 kHz                                                             |
| Power Supply                                      | 13.2 V DC (10.8 - 15.6 V DC)                                                                                                                                     |                                                                           |
| Current Drain                                     | Standby                                                                                                                                                          | 0.45 A                                                                    |
|                                                   | RX                                                                                                                                                               | 2.3 A                                                                     |
|                                                   | TX                                                                                                                                                               | 9 A                                                                       |
| Operating Temperature                             | -30 °C to +60 °C                                                                                                                                                 |                                                                           |
| Frequency Stability                               | $\pm$ 1.0 ppm                                                                                                                                                    |                                                                           |
| Dimensions (W x H x D)<br>Radio with Control Head | 171 x 48 x 176 mm                                                                                                                                                |                                                                           |
| Weight: Radio with Control Head                   | 1.6 kg                                                                                                                                                           |                                                                           |
| Applicable Standards                              | ETSI (EMC)                                                                                                                                                       | EN 301 489-3, EN 301 489-5, EN 301 489-17                                 |
|                                                   | ETSI (Spectrum)                                                                                                                                                  | EN 300 086, EN 300 113, EN 300 219, EN 300 328,<br>EN 300 440, EN 301 166 |
|                                                   | ETSI Safety                                                                                                                                                      | EN 60065, EN 60215, EN 60950-1                                            |
| RECEIVER                                          | NX-5700                                                                                                                                                          | NX-5800                                                                   |
| Sensitivity<br>(Digital)                          | NXDN 3 % BER (6.25 kHz/12.5 kHz)                                                                                                                                 | 0.25 $\mu$ V / 0.32 $\mu$ V                                               |
|                                                   | NXDN 1 % BER (6.25 kHz/12.5 kHz)                                                                                                                                 | -4 dB $\mu$ V (0.32 $\mu$ V) / -1 dB $\mu$ V (0.45 $\mu$ V)               |
|                                                   | P25 5 % BER                                                                                                                                                      | 0.28 $\mu$ V                                                              |
| Sensitivity<br>(Analogue)                         | 12 dB SINAD (12.5/20&25 kHz)                                                                                                                                     | 0.32 $\mu$ V / 0.28 $\mu$ V                                               |
|                                                   | 20 dB SINAD (12.5/20&25 kHz)                                                                                                                                     | -1 dB $\mu$ V (0.45 $\mu$ V) / -3 dB $\mu$ V (0.35 $\mu$ V)               |
| Selectivity                                       | P25 Digital                                                                                                                                                      | 63 dB                                                                     |
|                                                   | Analogue 12.5 kHz                                                                                                                                                | 70 dB                                                                     |
|                                                   | Analogue 20 kHz                                                                                                                                                  | 78 dB                                                                     |
|                                                   | Analogue 25 kHz                                                                                                                                                  | 80 dB                                                                     |
| Intermodulation (Analogue)                        | 70 dB                                                                                                                                                            |                                                                           |
| Spurious Rejection (Analogue)                     | 80 dB                                                                                                                                                            |                                                                           |
| Audio Distortion                                  | 2 %                                                                                                                                                              |                                                                           |
| Audio Output Power                                | 4 W/4 $\Omega$ (Remote Control Head: 3 W/4 $\Omega$ )                                                                                                            |                                                                           |
| TRANSMITTER                                       | NX-5700                                                                                                                                                          | NX-5800                                                                   |
| RF Power Output Power                             | 25 to 5 W                                                                                                                                                        |                                                                           |
| Spurious Emission                                 | -36 dBm $\leq$ 1 GHz, -30 dBm > 1 GHz                                                                                                                            |                                                                           |
| FM Hum & Noise (Analogue): @25/20/12.5 kHz        | 45/50/50 dB                                                                                                                                                      |                                                                           |
| Audio Distortion                                  | 2 %                                                                                                                                                              |                                                                           |
| Emission Designator                               | 16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 11K0F3E,<br>8K50F3E, 7K50F2D, 8K30F1E, 8K30F1D, 8K30F7W,<br>8K10F1E, 8K10F1D, 8K10F1W, 4K00F1E, 4K00F1D,<br>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                              | 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/I, III             | 507.3/I, 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*1         | 516.4/I, IV, V*1         | 516.5/I, IV, V*1         | 516.6/I, IV, V*1         |
| Immersion*2                       | —                        | —                        | —                        | 512.4/I                  | 512.5/I                  |
| International Protection Standard |                          |                          |                          |                          |                          |
| Dust & Water                      | IP54, IP55*3             |                          |                          |                          |                          |
| Immersion*2                       | IP67, IP68*4             |                          |                          |                          |                          |

\*1: Shock (Crash Hazard) standard for 810D/E/F/G Method/Procedure V applies only for the mobile radios \*2: Immersion standard applies only for the portable radios

\*3: IP54: RF Deck of the mobile radio; IP55: Remote Control Head for the mobile radio \*4: Conditions: Portable radio immersed for 2 hours at a depth of 1 meter

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