



# NEXEDGE<sup>TM</sup>

KENWOOD DIGITAL SYSTEMS

[ NEXEDGE<sup>TM</sup> Multiple Solutions, One System ]

- Digital Conventional
- Digital Trunking
- Digital Trunked Wide Area IP Networks
- FM Conventional & LTR<sup>®</sup> Trunking
- Advanced Digital Audio
- AMBE+2<sup>™</sup> VOCODER
- Secure Voice
- GPS with Voice
- Individual & Group Calling
- Over-the-Air Caller ID



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# NEXEDGE

**NEXE**  
DIGITAL



All NEXEDGE™ products use advance DSP-driven digital voice technologies and support both FM analog and new digital fleets. System type conversion or expansion only requires software options and/or additional base station units, i.e., no “forklift” upgrading. Kenwood offers high-power trunked NEXEDGE™ conventional, trunked and wide area trunked IP network solutions with secure digital voice and an array of advanced digital feature sets for business and government sectors.

### NXDN® Digital Air Interface

**NEXEDGE™ is powered by the NXDN® digital air interface, an FDMA digital access methodology generated with optimized DSP coding, AMBE+2™ voice coding technology, unique filtering and a 4-level FSK modulation technique producing an industry-leading low bit error rate (BER) digital.**

- **Natural Sounding Digital Voice** The AMBE+2™ VOCODER, a state-of-the-art voice digitization technology, replicates an individual's natural human speech nuances accurately unlike early technologies that sounded unnatural and synthesized. The AMBE+2™ offers superior voice quality at varying signal strengths even at highway speeds.
- **Extended Range over FM** As RF signal strength weakens with distance, FM analog reception becomes increasingly noisy and intermittent. NXDN®'s low BER improves reception in fringe areas, thereby increasing the effective range by as much as twenty percent over analog FM.
- **Large Group & Individual ID Capacity**  
The NXDN® subscriber air interface protocol supports 65,519 GIDs & 65,519 UIDs for system sharing and large organizations (maximum IDs available depend on operational mode). IDs can be organized by agencies, divisions, departments and individuals.
- **Spectrum Efficient Now** The NXDN® digital air interface and equipment are capable of all channel bandwidths.
  - FM Analog @ 25 & 12.5 kHz Channels
  - NXDN® Digital @ 12.5 & 6.25 kHz Channels

### Digital Common Features

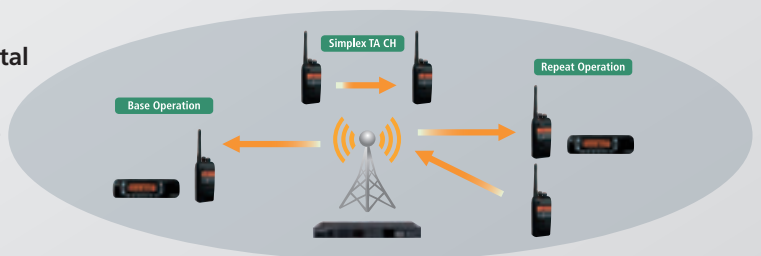
**NEXEDGE™ supports common call features in both digital conventional and trunked modes.**

- **Over-the-Air Alias** A calling unit's UID alphanumeric alias is sent over the air and displayed on a receiving unit's LCD, so there is no need to program every fleet alias in every radio.
- **Paging Call** Up to five UID unit-to-unit pages are dated, time-stamped and stored for recall and review - useful for unattended radio messages and non-voice selective paging operations.
- **Emergency Call** Subscriber units can declare an Emergency to a console, an individual, a group or all groups. This signal can be triggered by a manual key, a footswitch (mobiles) or man-down tilt-switch (portables).
- **Remote Stun/Kill** Enables a dispatcher to temporarily or permanently disable a lost, stolen or compromised radio unit over the air for system security and personnel safety.
- **Remote Check** Enables a dispatcher to check if a unit is on or in range.
- **All Group Call** A selectable All Call GID calls all talk groups on the system for facility wide announcements, emergencies and evacuation scenarios.

## Digital Conventional Mode

**NEXEDGE™ conventional systems offer extended system sharing conventional systems. Also both FM analog & digital units can share the same NEXEDGE™ RF channel!**

- **RAN (Radio Access Number)** NXR-700/800 base units include a 16 RAN capacity conventional repeater controller for 16 user group site sharing [RAN range: 64 (1-63+None) ; analogous to CTCSS/DCS use in FM].
- **Mixed Channel Type** FM & NXDN® conventional units can share the same RF channel. Both subscriber units and bases demodulate incoming analog FM or NXDN® digital calls and talkback or repeat the same mode (conventional channels only; must use 12.5 kHz narrow bandwidth).



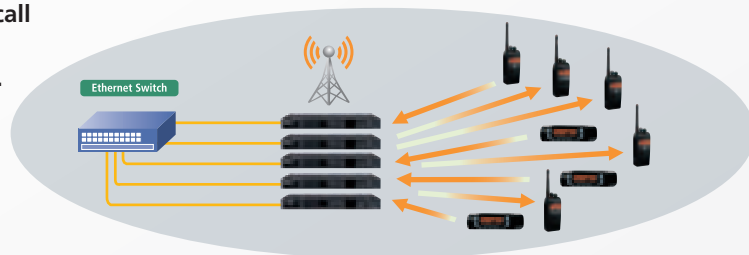
- **65,519 GIDs** Large talk group ID capacity for group selective calling.
- **65,519 UIDs** Large unit ID capacity for individual selective calling.



## Digital Trunking Mode

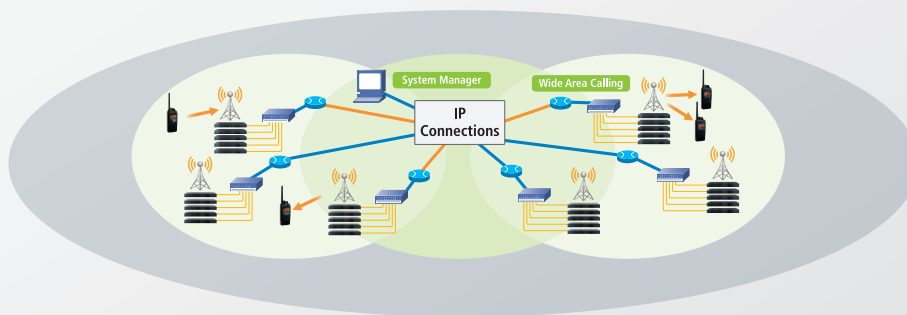
**NEXEDGE™ trunking provides increased capacity, enhanced call capabilities, improved security and faster communications with less user operation than conventional systems require.**

- **Fast System Access** Channels selection is automatic and no user monitoring is required.
- **Enhanced Efficiency** Users share a pool of channels per site and thereby experience less busies during peak hours.
- **30 Channels @ Site** NEXEDGE™ sites can be operated as single-channel sites to take advantage of the trunking feature sets or as many as 30 channels for full trunked efficiency.
- **Message Trunked** Users are granted a traffic channel for the length of a two-way call thereby reducing interruptions (utilizes more system resources).
- **Transmission Trunked** Users are granted a traffic channel only during each push-to-talk, thus optimizing channel resources during peak traffic hours.
- **3,000 GIDs @ Site** Large talk group capacity for fleet dispatch operations.
- **3,000 UIDs @ Site** Large unit ID capacity for private unit-to-unit calling.
- **Call Queuing** Automatically stacks call requests when the system is busy and processes calls when a channel becomes available.  
\* Pre-emption will soft terminate a lower priority call and allocate the traffic channel for very important personnel, dispatchers or emergency calls.
- **8 Priority Levels with Pre-emption** Processes the call queue in order of priority. Pre-emption allocates a talk path for priority personnel, dispatch and emergency calls.



- **4 Priority Monitor IDs** Automatically switches radios to a higher priority call such as a dispatcher or supervisor, even when on a low priority call.
- **Late Entry** Permits subscriber units to join a call already in progress after powering on or entering system coverage.
- **Broadcast Call** Calls all fleets or all units in a fleet for emergencies and incident response scenarios.
- **Remote Group Add** Adds a new GID to subscriber units remotely over-the-air to form a workgroup for emergencies, special events, operations or incidents (available in multi-site release).
- **Failsoft Mode** If trunking capability is disabled, the system reverts to conventional operation so basic communications can continue.
- **ESN Validation** Each subscriber unit has a unique factory-embedded ESN validated by the system to protect against unauthorized access.
- **Control/Traffic Channel Switching** Designates a Traffic Channel as a new Control Channel should the original become disabled. Disabled Traffic Channels are automatically removed from service.

## Multi-Site Trunked IP Network



- **32 Site Network** Multiple trunked sites can be linked together as one network for campus, citywide, countywide, regional or inter-state communications.
- **LAN/WAN Connectivity** Scalable networks can be created over existing IT assets, private microwave, spread-spectrum links or carrier services using standard 10/100 Base-T Ethernet switches and routers. IPSEC VPN tunneling provides encryption and authentication for secure communications links within any IP network.
- **Off-the-Shelf 10/100 Base-T ethernet Switching & Routers** Uses standard IT telecom-grade network equipment - no proprietary servers, gateways or audio-switching hardware required.
- **Virtual Private Network** Inter-site data routing uses VPN tunneling techniques with IPsec encryption and authentication for independent secure communications links within any IP network.
- **60,000 GIDs & 60,000 UIDs @ Network** Large subscriber capacity for shared networks and large fleets.
- **Automatic Roaming** Subscriber units automatically search for the best accessible sites while moving throughout a network. Subscriber units use advanced control channel hunting algorithms and RF signal strength (RSSI) monitoring to make accurate and prudent roaming and registration decisions.



## Multi-Mode Flexibility/Migration Guaranteed

**NEXEDGE™ equipment supports analog FM and NXDN® digital modes providing operators a self-paced migration path from analog to fully digital.**

- **All Mode Capable** All NEXEDGE™ subscriber equipment includes analog conventional, analog LTR® trunked, NXDN® conventional and trunked digital modes. All NEXEDGE™ base /repeater units include analog conventional, NXDN® conventional and upgrade to NXDN® Trunked & Multi-Site capability.

- **NXDN® Traffic Channel Sharing** “Shared” repeater operation allows NXDN® trunked Traffic Channels to be shared with analog Conventional channels or with analog LTR® trunked logic providing a migration path from analog to all digital fleets.
- **High-power Coverage** NEXEDGE™ systems use analog FM power amps and site management equipment for both analog FM and NXDN® digital modes saving on migration or build out costs while retaining a large coverage system footprint.

## Secure Voice

**NEXEDGE™ offers voice security that enhances personnel safety reduces risk exposure and thwarts competitive breeches by protecting sensitive communications for your facilities and operations.**

- **Inherent Level of Security** The NXDN® digital air interface itself prevents casual eavesdropping.
- **FM & NXDN® Voice Security Options** Protects against more sophisticated eavesdropping.

## Integrated Data Services

**NEXEDGE™ includes unit ID, emergency, GPS location, status and messaging capabilities in both FM and NXDN® digital modes.**

- **Fleet Management & Location**
- **Messaging & Data**
- **Emergency**

## System Management

**The NEXEDGE™ KPG-110SM System Manager reduces operational and maintenance costs with remote programming, firmware uploading privileging, monitoring & diagnostics capability from an operator-friendly secure Windows® application (for NXDN® Trunked sites and networks only).**

- **Secure Access** USB encrypted hardware keys limit System Manager and site access to authorized personnel only.
- **System Parameters** Operators are provided with full site and network configuration control by remote connection. Sites can be accessed directly on-site or through dialup modem or IP connection.
- **Subscriber Privileging** UID/GID validation, 127 UID/127 GID Class-of-Service entries and 5000 Fleet UID/GID lists permit operators to grant certain access privileges, call types, Inter-site Call capabilities and queue priority for all group and individuals on a system.
- **Real-Time Activity Monitoring** All sites traffic can be monitored real time for management and troubleshooting purposes.
- **Call Logs** Operators can download detailed call activity of any channel, site, individual or group for traffic, security and incident analysis.
- **Channel Loading** Graphs peak usage and blocking statistics to identify possible system traffic / capacity issues.
- **NXR Diagnostics** Operators can remotely monitor each NXR units' hardware and Ethernet network interface to identify possible problems at any site.
- **NXR Firmware Uploading** Operators can remotely update operational firmware in all NXR units without ever having to drive to a site.

## FM Approved Radios - Intrinsically Safe/Non-Incendive



**APPROVED**

The radios and battery pack with an FM Approval label is identified as being FM Approved for specified hazardous atmospheres. This label specifies the hazardous Class/Division/Group(s) along with the battery pack(s) part or model number(s) specified by Kenwood that must be used. The FM label is located on the back of the radio chassis under the battery pack and on the bottom of the battery pack. The FM Approval Mark is shown above.

The transceiver conforms to intrinsically safe ratings of FM

- Intrinsically safe: Class I, II, III, Division 1, Groups C, D, E, F, G
- Non-incendive: Class I, Division 2, Groups A, B, C, D
- Approved battery pack: Kenwood KNB-50NC
- Temperature Code: T3C at Ta = -30°C to +60°C



## High-performance NEXEDGE™ accessories & software



**KMC-38GPS**

### GPS Speaker Microphone

A rugged MILSTD/IP54/55 compliant microphone, its built-in GPS receiver will display the users coordinates in the portable LCD for navigation or field work.

The radio can be programmed to send its position per user control, automatically along with voice, and/or on command from a dispatch mapping software such as Kenwood's KAS-10 AVL software.



**KSC-326**

### Six Unit Rapid Charger

Essential for portable users small and large, the KSC-326 charges up to 6 portables with battery attached in under 2 hours. The in-line design and wall mount option conserves desk space and provides a between-shift drop station.



**KAS-10**

### AVL & Dispatch Software

AVL, a powerful fleet management tool, provides timely movement and location for better scheduling of deliveries, jobs assignment, re-routes, customer service and personnel safety. The KAS-10 provides single control station AVL, PTT ID and dispatch messaging on digital NEXEDGE™ or analog FleetSync® systems. The KAS-10 can use imported raster-based maps or business-grade metropolitan maps with Microsoft® MapPoint® 2006/2009\* installed.

\*MapPoint® version compatibility varies by region: 2009 for the US, 2006 for Europe.

For details and specifications, refer to the individual product catalogs.

# NX-200/300

NEXEDGE™ VHF/UHF Digital & FM Portable Radios

**NXDN™** **FleetSync®**

Clear Communication,  
Optimum Coverage.

► Step Into The Digital Edge



## MAIN FEATURES

- VHF Models (136-174 MHz)
- UHF Models (400-470 MHz, 450-520 MHz)
- Compatibility with NXDN™ Air Interface
- Available for both Digital and Analog mode
- 5 W RF Output Power
- 512 Channel / Group ID with 128 Zones
- Backlit Dot Matrix LCD & Backlit Keys
- 14 Character Alphanumeric Aliases Display
- Emergency / AUX Key
- 500 mW Speaker Audio
- VOX (Voice Operating) ready
- IP67 option

Front View



Back View



With Battery

Universal Connector

Top View



Selector

Power Switch / Volume Control

## GENERAL FEATURES

- 12-Key keypad Models
- RSSI Indicator
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- Off/On Volume Knob
- 6 Front PF & Menu Keys
- 2 Side PF Keys
- Low Battery Alert
- Battery Saver
- MIL-STD-810 C/D/E/F
- IP-54/55 Water & Dust Intrusion

## DIGITAL - CONVENTIONAL MODE

- 63 Radio Access Numbers (RAN)
- Individual & Group Selective Call
- Mixed FM/Digital Operation

## DIGITAL - TRUNKING MODE

- Individual Private Call
- Group Call
- Priority Monitor ID 1 & 2
- Late Entry
- Broadcast Call

## ACCESSORIES OPTIONS

<ul style="list-style-type: none"> <li>● <b>KNB-50NC</b> Li-Ion Battery (2000mAh)</li> </ul>  <p><b>FM APPROVED</b> Intrinsically Safe</p>	<ul style="list-style-type: none"> <li>● <b>KNB-47L / KNB-48L</b> Li-Ion Battery (1950 / 2550mAh)</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KSC-32</b> Tri-Chemistry Rapid Rate Charger</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KMC-25</b> Microphone</li> </ul> 
<ul style="list-style-type: none"> <li>● <b>KHS-11</b> Heavy Duty Earphone</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KNB-47L</b> Heavy Duty Earphone</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KRA-22/23</b> VHF/UHF Helical Antenna</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KRA-26/27</b> VHF/UHF Whip Antenna</li> </ul> 
<ul style="list-style-type: none"> <li>● <b>KRA-16/17</b> VHF/UHF Standby Antenna</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KRA-25</b> VHF High Gain Antenna</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KRA-25</b> VHF High Gain Antenna</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>VGS-1</b> Voice Guide &amp; Storage Unit</li> </ul> 
			<ul style="list-style-type: none"> <li>● <b>KBH-11</b> Belf Clip (2.5")</li> </ul> 

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.

## MAIN SPECIFICATIONS

		NX-200	NX-300
<b>GENERAL</b>			
<b>Frequency Range</b>	Type 1 Type 2	136-174 MHz	450-520 MHz 400-470 MHz
<b>Number of Channels</b>		512	
<b>Zones</b>		128	
<b>Max. Channels per Zone</b>		250	
<b>Channel Spacing</b>	Analog Digital	12.5 / 15 / 25 / 30 kHz 6.25 / 12.5 kHz	12.5 / 25 kHz 6.25 / 12.5 kHz
<b>Operating Voltage</b>		7.5V DC ± 20%	
<b>Battery Life ( with KNB-48L)</b>	5-5-90 10-10-80	More than 12.5 hours More than 8.5 hours	
<b>Operating Temperature Range</b>		-22° F to +140° F (-30° C to +60° C)	
<b>Frequency Stability</b>		± 2.0 ppm	± 1.0 ppm
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D)</b>	Projections not included		
	<b>Radio only with KNB-47L with KNB-48L</b>	2.28 x 5.02 x 1.63 in (58 x 127.5 x 41.3 mm) 2.28 x 5.02 x 1.63 in (58 x 127.5 x 41.3 mm) 2.28 x 5.02 x 1.91 in (58 x 127.5 x 48.5 mm)	
<b>Weight (net)</b>	<b>Radio only with KNB-47L with KNB-48L</b>	8.82 oz (250 g) 13.23 oz (375 g) 14.29 oz (405 g)	
<b>FCC ID</b>	Type 1 Type 2	ALH378400	ALH378500 (Pending)
<b>IC Certification</b>	Type 1 Type 2	282D-378400	282D-378500 (Pending)

		NX-200	NX-300
<b>RECEIVER</b>			
<b>Sensitivity</b>	<b>Digital @ 6.25kHz (3% BER)</b> <b>Digital @ 12.5kHz (3% BER)</b> <b>Analog (12 dB SINAD)</b>	0.20 μV 0.25 μV 0.25 μV	
<b>Selectivity</b>	<b>Analog @ 25 kHz</b> <b>Analog @ 12.5 kHz</b>	72 dB 65 dB	
<b>Intermodulation Distortion</b>	<b>Analog</b>	70 dB (±50,100 kHz)	
<b>Spurious Response</b>	<b>Analog</b>	70 dB	
<b>Audio Distortion</b>		Less than 3%	
<b>Audio Output</b>		500 mW / 8 Ω	
<b>TRANSMITTER</b>			
<b>RF Power Output</b>		5 W / 1 W	
<b>Spurious Response</b>		70 dB	
<b>FM Hum &amp; Noise</b>	<b>Analog @ 25 kHz</b> <b>Analog @ 12.5 kHz</b>	45 dB 40 dB	
<b>Audio Distortion</b>		Less than 3%	
<b>Modulation</b>		16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

Analog measurements made per TIA/EIA 603 and specifications shown are typical. Kenwood reserves the right to change specifications without prior notice or obligation.

FleetSync® is a registered trademark of Kenwood Corporation.  
LTR® is a registered trademark of Transcript International.  
AMBE+2™ is a trademark of Digital Voice Systems Inc.  
Windows® is a registered trademark of Microsoft Corporation.  
NXDN™ is a trademark of Kenwood Corporation and Icom Inc.  
NEXEDGE™ is a trademark of Kenwood Corporation.

## APPLICABLE MIL-STD & IP

MIL Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
<b>Low Pressure</b>	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
<b>High Temperature</b>	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
<b>Low Temperature</b>	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
<b>Temperature Shock</b>	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
<b>Solar Radiation</b>	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
<b>Rain</b>	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
<b>Humidity</b>	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4
<b>Salt Fog</b>	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
<b>Dust</b>	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
<b>Vibration</b>	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
<b>Shock</b>	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV
<b>International Protection Standard</b>				
<b>Dust &amp; Water Protection</b>	IP54 IP55			

Listen to the Future

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery, inspiration and enjoyment.

**Kenwood Corporation**

2967-3, Ishikawa-machi, Hachioji, Tokyo 192-8525, Japan



# NX-700/800

NEXEDGE™ VHF/UHF Digital & FM Mobile Radios

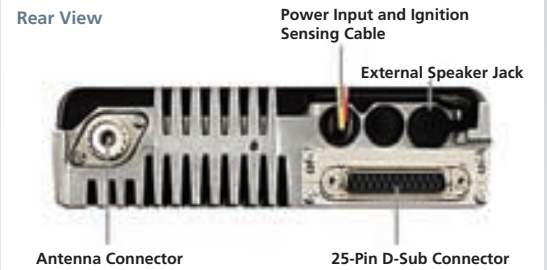
**NXDN™**

**FleetSync®**  
KENWOOD



Stay Connected,  
While On The Go.

► Step Into The Digital Edge



## MAIN FEATURES

- VHF Models (136-174 MHz)
- UHF Models (400-470 MHz, 450-520 MHz)
- Compatibility with NXDN™ Air Interface
- Available for both Digital and Analog mode
- 30 W RF Output Power
- 50 W (VHF), 45 W (UHF) RF Output Power\*
- 512 Channel / Group ID with 128 Zones
- Backlit Dot Matrix LCD & Backlit Keys
- 14 Character Alphanumeric Aliases Display

- Detachable Front Panel
- Emergency / AUX Key
- DB-25 Accessory Connector
- MIL-STD-810 C/D/E/F
- MIL-STD "Driven Rain"
- IP-54/55 Water & Dust Intrusion
- Easy Option Port
- GPS Receiver Option
- VGS-1 Voice Guide/Storage Option

## GENERAL FEATURES

- 3-Digit Sub-Display
- Function/Status LCD Icons
- RSSI Indicator
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- 4 Up/Down Selector
- 6 Front PF Keys
- 4W Speaker Audio
- Special Alert Tone Patterns
- MIL-Spec Standard Mic
- MIL-Spec 12-Key DTMF Mic Option

## DIGITAL - CONVENTIONAL MODE

- 63 Radio Access Numbers (RAN)
- Individual & Group Selective Call
- Mixed FM/Digital Operation

## DIGITAL - TRUNKING MODE

- Priority Monitor ID 1 & 2
- Late Entry
- Broadcast Call
- Remote Group Add\*
- Multi-Site IP Network Compatible\*

## ACCESSORIES OPTIONS

<ul style="list-style-type: none"> <li>● <b>KMC-35</b> Microphone</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KMC-36</b> Microphone With Keypad</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KMC-9C</b> Control Station Desktop Microphone</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KES-5</b> External Speaker</li> </ul> 
<ul style="list-style-type: none"> <li>● <b>VGS-1</b> Voice Guide &amp; Storage Unit</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KRK-10</b> Panel Remote Kit</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KPS-15</b> DC Power Supply</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KAP-2</b> Horn Alert / PA Relay Unit</li> </ul> 
<ul style="list-style-type: none"> <li>● <b>KCT-23M / KCT-23M3</b> DC Cable (10 / 23 Feet)</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KCT-46</b> Ignition Sense Cable</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KMB-10</b> Key Lock Adapter</li> </ul> 	<ul style="list-style-type: none"> <li>● <b>KLF-2</b> Line Noise Filter</li> </ul> 

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## MAIN SPECIFICATIONS

		NX-700(H) K	NX-800(H) K
<b>GENERAL</b>			
<b>Frequency Range</b>	Type 1 Type 2	136-174 MHz	450-520 MHz 400-470 MHz
<b>Number of Channels</b>			512
<b>Zones</b>			128
<b>Max. Channels per Zone</b>			250
<b>Channel Spacing</b>	Analog Digital	12.5 / 15 / 25 / 30 kHz 6.25 / 12.5 kHz	12.5 / 25 kHz 6.25 / 12.5 kHz
<b>Operating Voltage</b>		13.6 V DC ± 15%	
<b>Operating Temperature Range</b>		-22° F to +140° F (-30° C to +60° C)	
<b>Frequency Stability</b>		± 2.0 ppm ± 1.0 ppm	
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D)</b>	Projections not included	6.30 x 1.77 x 6.18 in (160 x 45 x 157 mm)	
<b>Weight (net)</b>		3.04 lb (1.38 kg)	
<b>FCC ID</b>	K Type 1 K Type 2 HK Type 1 HK Type 2	K44378600 K44378601	K44378700 (Pending) K44378702 (Pending)
<b>IC Certification</b>	K Type 1 K Type 2 HK Type 1 HK Type 2	282F-378600 282F-378601	282F-378700 (Pending) 282F-378702 (Pending)

		NX-700(H) K	NX-800(H) K
<b>RECEIVER</b>			
<b>Sensitivity</b>	Digital @ 6.25 kHz (3% BER) Digital @ 12.5 kHz (3% BER) Analog (12 dB SINAD)	0.20 μV 0.28 μV 0.25 μV	0.20 μV 0.28 μV 0.25 μV
<b>Selectivity</b>	Analog @ 25 kHz Analog @ 12.5 kHz	80 dB 70 dB	80 dB 70 dB
<b>Intermodulation</b>	Analog	75 dB (±50, 100 kHz)	
<b>Spurious Response</b>	Analog	90 dB	85 dB
<b>Audio Distortion</b>		Less than 3%	
<b>Audio Output</b>		4 W / 4 Ω	
<b>TRANSMITTER</b>			
<b>RF Power Output</b>	Mid Power	30 W to 1 W	30 W to 1 W 25 W to 1 W (490-520 MHz)
	High Power	50 W to 10 W	45 W to 10 W 40 W to 10 W (490-512 MHz) 35 W to 10 W (512-520 MHz)
<b>Spurious Response</b>		73 dB	75 dB
<b>FM Hum &amp; Noise</b>	Analog @ 25 kHz Analog @ 12.5 kHz	50 dB 45 dB	50 dB 45 dB
<b>Audio Distortion</b>		Less than 3%	
<b>Modulation</b>		16K0F3E, 14K4F1D, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

Analog measurements made per TIA/EIA 603 and specifications shown are typical. Kenwood reserves the right to change specifications without prior notice or obligation.

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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
<b>Low Pressure</b>	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
<b>High Temperature</b>	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
<b>Low Temperature</b>	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
<b>Temperature Shock</b>	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
<b>Solar Radiation</b>	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
<b>Rain</b>	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
<b>Humidity</b>	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4
<b>Salt Fog</b>	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
<b>Dust</b>	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
<b>Vibration</b>	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
<b>Shock</b>	516.2/Procedure I, II, III, V	516.3/Procedure I, IV, V	516.4/Procedure I, IV, V	516.5/Procedure I, IV, V
<b>International Protection Standard</b>				
<b>Dust &amp; Water Protection</b>	IP54: Radio itself IP54/55: Remote head with KRK-10			

Listen to the Future

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery, inspiration and enjoyment.

**Kenwood Corporation**

2967-3, Ishikawa-machi, Hachioji, Tokyo 192-8525, Japan



# NXR-700/800

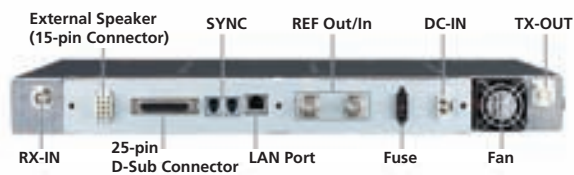
NEXEDGE™ VHF/UHF Digital & FM Base Units

**NXDN™** **FleetSync®**  
KENWOOD

An Exceptional Blend  
of Clarity and Reliability.  
▶ Step Into The Digital Edge



Back Style



Front Detail



## MAIN FEATURES

- VHF Models (146-174 MHz)
- UHF Models (450-480 MHz, 480-512 MHz)
- Compatibility with NXDN™ Air Interface
- Available for both Digital and Analog mode
- RF & Controller packed in an 1U height (44 mm) unit
- Repeater or Base Station Operation Available
- Max. 250 W Output Power\*
- Maximum 30 Channels Programmable per site
- 16-Site Trunked IP Network Capability

## GENERAL FEATURES

- 6 Programmable Function Keys
- Two-Digit LED Display
- LED Status Indicators
- 3W Front Panel Speaker
- Volume Control
- Microphone Jack
- Program/Modem Interface
- Remote Termination Interface
- DTMF Front Panel PF Key Control

## DIGITAL - CONVENTIONAL MODE

- 16 RAN Repeater Controller Built-in
- 1,000 GIDs Per Site
- 1,000 UIDs Per Site
- Individual & Group Selective Call
- Mixed FM/Digital Operation

## DIGITAL TRUNKING OPTION

- 3,000 GIDs Per Site
- 3,000 UIDs Per Site
- 30 Channels Per Site
- Transmission Trunked Mode
- Message Trunked Mode
- Busy Call Queuing Priority
- Late Entry
- Control/Traffic Channel Switching
- Control Channel Rotation
- Cross-Busy

## ACCESSORIES OPTIONS

- **KXK-3**  
OCXO Unit (Required for 6.25 kHz operation)



- **KMC-35**  
Microphone



- **KMC-9C**  
Desktop Microphone



- **KES-5**  
External Speaker



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.

## MAIN SPECIFICATIONS

		NXR-700	NXR-800
<b>GENERAL</b>			
<b>Frequency Range</b>	K K2 K3	146-174 MHz 136-154 MHz	450-480 MHz 480-512 MHz (RX) / 477-512 MHz (TX) 400-430 MHz
<b>Channel Spacing</b>	Analog Digital	12.5 / 15 / 25 / 30 kHz 6.25 / 12.5 kHz	12.5 / 25 kHz 6.25 / 12.5 kHz
<b>PLL Channel Step</b>		2.5 / 3.125 / 5 / 6.25 kHz	3.125 / 5 / 6.25 kHz
<b>Frequency Stability</b>	With KXK-3 (M) With KXK-3 (M2)		± 1.5 ppm ± 0.5 ppm ± 1.0 ppm
<b>Operating Voltage</b>			10.8 - 15.9 V DC
<b>Operating Temperature Range</b>			-30° C to +60° C (-22° F to + 140° F)
<b>Antenna Impedance</b>			50 Ω
<b>Dimensions (W x H x D)</b>	Projections not included		483 x 44 x 331 mm
<b>Weight (net)</b>			5 kg
<b>RECEIVER</b>			
<b>Sensitivity</b>	Digital @ 6.25kHz (3% BER) Digital @ 12.5kHz (3% BER) Analog (12 dB SINAD)		0.27 μV 0.33 μV 0.30 μV
<b>Selectivity</b>	Analog @ 25/30 kHz Analog @ 12.5 kHz	93 dB (± 30 kHz) 85 dB (± 12.5 kHz)	87 dB (± 25 kHz) 81 dB (± 12.5 kHz)
<b>FM Hum &amp; Noise</b>	Analog @ 25/30 kHz Analog @ 12.5 kHz		60 dB 55 dB
<b>Intermodulation Distortion</b>			85 dB (± 50 / 100 kHz)
<b>Spurious Response</b>			100 dB
<b>Audio Distortion (Ext. SP)</b>			Less than 2% (at 0.3 W)
<b>Audio Output (Ext. SP)</b>			3 W (at 4Ω, less than 5% distortion)
<b>TRANSMITTER</b>			
<b>RF Power Output</b>			5 W to 0.5 W
<b>Spurious &amp; Harmonics</b>			73 dB
<b>FM Hum &amp; Noise</b>	Analog @ 25/30 kHz Analog @ 12.5 kHz		55 dB 50 dB
<b>Audio Distortion</b>			Less than 1% at 1000 Hz
<b>Modulation</b>			16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

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Communications Equipment Division  
Kenwood Corporation  
ISO9001 certification



**KENWOOD**  
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