

# KENWOOD

Listen to the Future

## Kenwood Digital System

Digital Systems & Networks



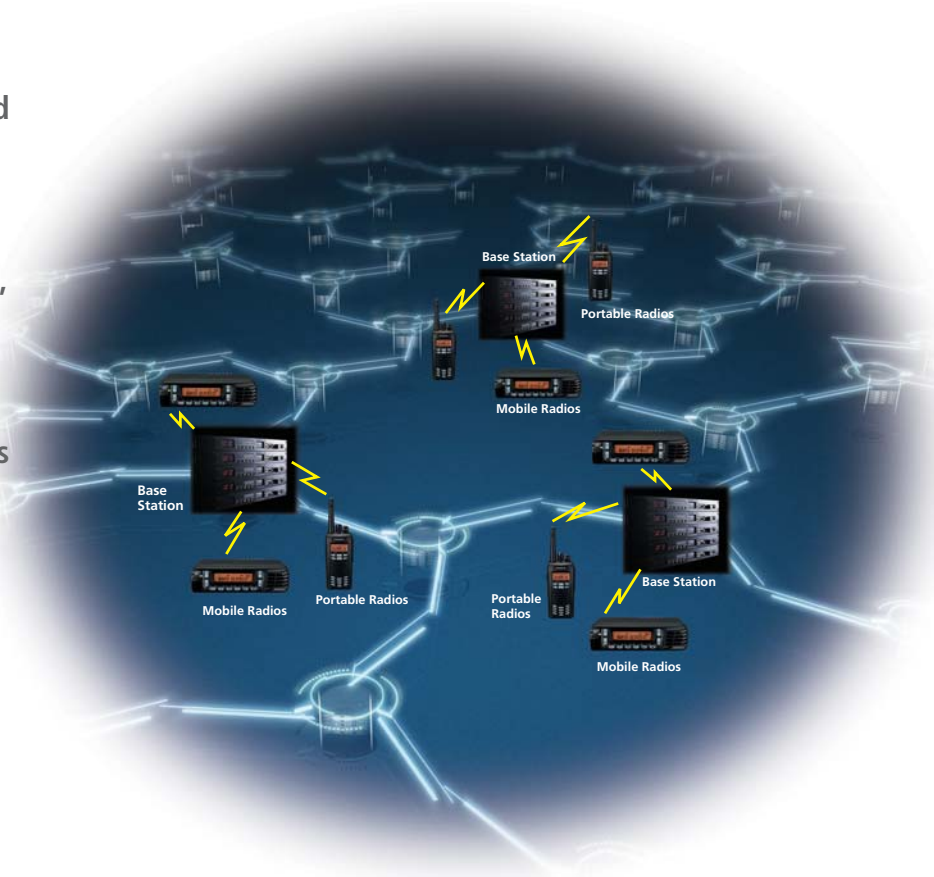
- NXDN™ Digital Trunking
- NXDN™ Digital Conventional
- FM Conventional
- IP Wide Area Networks
- Advanced Digital Audio
- AMBE+2™ VOCODER
- Secure Voice
- GPS with Voice
- Individual & Group Calling
- Over-the-Air Caller ID



# Advanced digital communications at

Kenwood Digital System networks are designed to provide all the benefits of the latest DSP-driven LMR digital voice technologies, trunked system efficiency, IP network, wide area calling, secure digital voice and an array of advanced digital communications feature sets.

All Kenwood Digital System equipment includes FM and digital modes for multi-system use and graceful fleet migration.



## General Features

### Multi-Mode

All equipment supports NXDN™ trunking, NXDN™ conventional and FM conventional for mixed system use and graceful migration. Base units include FM conventional repeater control and external interface for conventional or LTR® trunking controllers. Subscriber units also include LTR® operation.

### Advanced Digital Audio

The NXDN™ FDMA air interface utilizes advanced DSP coding, DVSI AMBE+2™ VOCODER technology and a field-proven low BER rate modulation method resulting in high quality digital audio performance that extends the effective communication range more than FM.

### Secure Voice

Kenwood Digital System provides an inherent level of security via its digitally encoded NXDN™ air interface. These radios also include a digital voice scrambler for NXDN™ modes and an inversion scrambler for basic security in FM mode. The option port accommodates higher-level encryption modules for FM mode. Securing sensitive communications enhances personnel safety, reduced risk and liability exposure and secures facilities and operations for governments and corporations.

### Integrated Data Services

In NXDN™ digital modes, GPS location data can be sent for fleet management tracking and emergency location\*. NXDN™ also supports status and text messaging features for routine canned and free-form text messaging. In FM mode, Kenwood's FleetSync® protocol offer parallel GPS location, status, text and PTT ID services.

\* NXDN mode dispatch and AVL software applications available in 2008.

### System Management

The Windows® System Manager provides local or remote PSTN or LAN/WAN site provisioning, activity monitoring, firmware updates and call log retrieval. Call logs are downloadable in standard formats for traffic loading and security analysis.

### Mission Critical Assurance

Kenwood Digital System provides conventional failsoft operation for continued communications and self-healing control channel switching in the event disaster disables certain channels or network resources.

### Spectrum Efficient Technology

The NXDN™ digital air interface operates in 12.5 kHz narrow bandwidth mode for current channels assignments and in 6.25 kHz bandwidth mode if future regulatory mandates require.

# your pace.

## Digital Trunking Features

### IP Multi-Site Networking

IP network connectivity leverages the power of LAN / WAN assets, VOIP technologies and can eliminate costly leased line expenses. Kenwood Digital System networks use commercial 10/100 Base-T Ethernet switches and routers eliminating costly hardware switch solutions.

### 16 Site Networks

A Kenwood Digital System network can accommodate up to 16 sites of 30 channels per site for seamless wide area calling and fleet unit roaming.

### Individual & Group Calling

For dispatch operations, the NXDN™ protocol supports up to 60,000 Talk Group IDs per network and 3000 per site. Kenwood Digital System trunking supports 60,000 Individual Unit IDs per network and 3,000 per site for private unit-to-unit calling. These IDs can be partitioned for shared system use and agency, department and sub-user groupings.

### Advanced Trunked Features Sets

Kenwood Digital System supports traditional mission and business critical features such as call queuing for system busies, priority levels for preferred system access, emergency call and signaling for life-threatening incidents and broadcast all calls for all fleet calling during emergency and storm plan scenarios. Each subscriber unit has a unique factory embedded ESN that the system can validate to protect against unauthorized access. Remote Inhibit permit a dispatcher to disable a compromised unit in the field.



## Digital Conventional Features

### Individual & Group Calling

The NXDN™ conventional protocol supports up to 1,000 Talk Group IDs for dispatch operations and 1,000 Individual Unit IDs for private unit-to-unit calling. These IDs can be partitioned for shared system use, agency, department and sub-user groupings. NXDN™ conventional mode includes Group & Individual Unit Validation and 16 RAN (Radio Access Numbers) for added repeater access security.





## NX-200/300

### Compact VHF/UHF Digital Portable Radios

- 5 Watts ■ 136-174, 400-470\* & 450-520 MHz (\*2Q2008) ■ 512 CH-GID / 128 Zones ■ DTMF Keypad Models ■ NXDN™ Digital Conventional Zones ■ NXDN™ Digital Trunking Zones ■ FM Conventional & LTR Zones ■ NXDN™ Integrated Data Services ■ NXDN™ Individual & Group Calling ■ NXDN™ Over-the-Air Caller ID ■ NXDN™ Digital Scrambling ■ Inversion Scrambling (FM) ■ FM & NXDN™ Zone Scanning ■ Dual Priority Scan (FM & NXDN™ Conventional) ■ QT/DQT, 2-Tone, DTMF & FleetSync® I/II (FM) ■ Operator Selectable Tone (FM) ■ Encryption\* / ANI Board Control (FM- \*Future Option) ■ 16-Position Mechanical Selector ■ On/Off Volume Control ■ 6 Front PF & Menu Keys ■ 2 Side PF Keys ■ Emergency/AUX Key ■ Large Dot Matrix LCD Display ■ 14 Character Alphanumeric Aliases ■ Status LED ■ Easy Option Port ■ VGS-1 Voice Guide/Storage Option ■ Weather-Sealed ACC Connector ■ KMC-38GPS Speaker Mic Option ■ MIL-Spec Speaker Mic Option ■ MIL-STD-810 ■ IPx7 Immersion Option

## NX-700/800

### VHF/UHF Digital Mobile Radios



- 136-174 MHz, 30W\* / 50W\*\* Models (\*4Q2007 / \*\*1Q2008) ■ 400-470 MHz, 30W\* / 45W\*\* Models (\*2Q2008 / \*\*3Q2008) ■ 450-520 MHz, 30W\* / 45W\*\* Models (\*4Q2007 / \*\*1Q2008) ■ 512 CH-GID / 128 Zones ■ Dash & Remote Mount ■ NXDN™ Digital Conventional Zones ■ NXDN™ Digital Trunking Zones ■ FM Conventional & LTR Zones ■ NXDN™ Integrated Data Services ■ NXDN™ Individual & Group Calling ■ NXDN™ Over-the-Air Caller ID ■ NXDN™ Digital Scrambling ■ Inversion Scrambling (FM) ■ FM & NXDN™ Zone Scanning ■ Dual Priority Scan (FM & NXDN™ Conventional) ■ QT/DQT, 2-Tone, DTMF & FleetSync® I/II (FM) ■ Operator Selectable Tone (FM) ■ Encryption\* / ANI Board Control (FM- \*Future Option) ■ 6 Front PF & 4 UP/DN Selector Keys ■ Emergency/AUX Key ■ Large Dot Matrix LCD Display ■ 14 Character Alphanumeric Aliases ■ Status LED ■ Easy Option Port ■ VGS-1 Voice Guide/Storage Option ■ Internal GPS option ■ MIL-STD-810 & IP54/55 Environments

## NXR-700/800

### VHF/UHF Digital Repeater-Base Units



- 136-150\*, 146-174\*, 450-480, 480-512\*, 400-430\*\* MHz (\*1Q2008, \*\*2Q2008) ■ 1RU Low Profile Integrated FM & Digital 5W Transceiver ■ 40W, 110W & 250W VHF Systems ■ 40W, 100W & 250W UHF Systems ■ Repeater, Duplex or Simplex Base Operation ■ 30 Channel Base Mode ■ NXDN™ Conventional Mode ■ NXDN™ Trunking Mode Option ■ NXDN™ Trunked IP Network Option ■ FM Conventional Mode ■ FM Conventional Repeat Controller ■ FM Conventional & NXDN™ Scanning ■ Encryption and ANI Option Control ■ External Controller / Remote Termination Interface ■ Two-Digit LED Display ■ LED Status Indicators ■ 6 Programmable Function keys ■ Front Speaker & Volume Control ■ Microphone Jack ■ Program/Modem Interface ■ Network Interface Ethernet Jack ■ AUX I/O's ■ External Reference I/O (6.25 kHz) ■ High-Stability OCXO Option (6.25 kHz) ■ Windows® System Manager ■ Windows® PC Programming & Tuning

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.

## 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.

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