

# KENWOOD

Listen to the Future

## NEXEDGE®

# NX-220E/320E

NEXEDGE® VHF/UHF Digital & FM Portable Radios

## NXDN®

FleetSync®  
by KENWOOD

5-tone



NX-220E2/320E2

NX-220E/320E

NX-220E3/320E3

### ● GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- Meets ETSI EN Standards
- 260 CH-GID / 128 Zones (LCD Models)
- 64 CH-GID / 4 Zones (Non LCD Models)
- 12-Key Keypad Models
- 8 Character Alphanumeric Aliases
- Backlit LCD & Keys
- Function / Status LCD Icons
- Transmit / Busy / Call Alert / Warn LED
- On / Off Volume Knob
- 16-Position Mechanical Selector
- 4 Front PF Keys (LCD Models)
- 3 Side PF Keys
- Emergency / AUX Key
- Built-in Motion Sensor
- 500 mW Speaker Audio
- Zone / CH Number Voice Announcement
- KMC-48GPS Speaker Mic Option
- KPG-141D Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input\*1
- Transparent Data Mode\*1

### ● DIGITAL – GENERAL

- NXDN® Digital Air Interface
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging\*1 \*2
- Remote Stun / Kill\*1
- Remote Check\*1
- Short & Long Data Messages\*1
- GPS Location with Voice\*1
- NXDN® Scrambler Included

### ● DIGITAL – CONVENTIONAL MODE

- 64 Radio Access Numbers (RAN)
- Individual & Group Selective Call\*3
- Mixed FM / Digital Operation
- Conventional IP Networks
- Site Roaming

### ● DIGITAL – TRUNKING MODE

- Individual Private Call
- Group Call & Broadcast Call
- Telephone Interconnect
- Transmission Trunked Mode\*4
- Message Trunked Mode\*4
- Call Queuing with Priority\*4
- Late Entry (UID & GID)\*4
- 4 Priority Monitor ID's\*4
- Remote Group Add\*1
- Failsoft Mode

### ● MULTI-SITE IP NETWORK COMPATIBLE

- 60,000 GIDs / UIDs
- Wide Area Group Call
- Auto Roaming Registration
- Group Registration

### ● SCAN

- Single Zone / Multi-Zone / List Scan
- Single Priority Scan (Conventional)

### ● FM MODES – GENERAL

- 25, 20 & 12.5 kHz Channels
- Conventional & LTR® Zones
- FleetSync® / II, MDC-1200, DTMF\*3
- QT / DQT & 2-Tone (Conventional Zones only)\*3
- 5-Tone Encode / Decode (Conventional Zones Only)\*3
- Voice Inversion Scrambler (16 Codes)

### ● FleetSync® / II (FM)

- PTT ID ANI / Caller ID\*3
- Selective / Group Call\*3
- Emergency, Status & Text Messages\*1

### ● MDC-1200

- PTT ID ANI / Caller ID\*3
- Emergency, Radio Check & Inhibit

\*1 Requires NX subscriber unit PC Serial Interface compatible software application (e.g. Kenwood AVL & Dispatch Messaging software) or hardware (e.g. console).

\*2 Non LCD Models -Pre-programmed key operation

\*3 Non LCD Models -Some screen / key-based functions are not available.

\*4 These trunked features are primarily system programming and operational dependent. Priority Monitor also requires NX subscriber settings.

<http://nexedge.kenwood.com>

## Options

**■ KNB-55L**  
Li-Ion Battery  
(1480mAh)



**■ KNB-56N**  
Ni-MH Battery  
(1400mAh)



**■ KNB-57L**  
Li-Ion Battery  
(2000mAh)



**■ KBP-5**  
6 AA Alkaline  
Battery Case



**■ KSC-25**  
Rapid Charger



**■ KSC-30**  
Regular Charger  
for Ni-MH Batteries



**■ KSC-256**  
Rapid Rate 6-Unit  
Charger



**■ KMC-45**  
Speaker Microphone



**■ KMC-21**  
Speaker Microphone



**■ KMC-48GPS**  
GPS Speaker  
Microphone



**■ KRA-22/23**  
VHF/UHF Helical  
Antenna



**■ KRA-26/27**  
VHF Helical/UHF  
Whip Antenna



**■ KMB-30**  
Wall Mount Bracket  
for KSC-256



**■ KEP-2**  
2.5mm Earphone  
Kit for KMC-45



**■ KHS-7/7A**  
Single Muff Headset



**■ KHS-8BL**  
2-wire Palm Mic.  
w/Earphone



**■ KHS-9BL**  
3-wire Palm Mic.  
w/Earphone



**■ KHS-10-OH**  
Heavy-Duty Noise  
Reduction Headset



**■ KHS-21**  
Headset w/Boom Mic.  
& PTT



**■ KHS-22**  
Headset w/Boom Mic.  
& PTT



**■ KHS-29F**  
Clip Mic. w/Earhanger



**■ EMC-7**  
Clip Mic. w/Earhanger  
& PTT



**■ KBH-12**  
Belt clip



**■ KWR-1**  
Water Resistant Bag



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-220	NX-320
<b>GENERAL</b>			
Frequency Range		136-174 MHz	400-470 MHz
Number of Channels	LCD models	260 ch	
	Non LCD models	64 ch	
Zones	LCD models	128 zone	
	Non LCD models	4 zone	
Max. Channels per Zone	LCD models	250 ch	
	Non LCD models	16 ch	
Channel Spacing	Analogue	12.5 / 20 / 25 kHz	
	Digital	6.25 / 12.5 kHz	
Operating Voltage		7.5 V DC ± 20%	
Battery Life (5-5-90)	KNB-55L (1480 mAh)	Approx. 8.5 hours	
	KNB-56N (1400 mAh)	Approx. 8.5 hours	
	KNB-57L (2000 mAh)	Approx. 11.5 hours	
		-30° C to +60° C	
Operating Temperature Range		-30° C to +60° C	
Frequency Stability		± 2.0 ppm	± 1.0 ppm
Antenna Impedance		50 Ω	
Dimensions (W x H x D) Projections not included	LCD models	56.0 x 110.5 x 36.9 mm (radio only)	
		56.0 x 110.5 x 37.5 mm (with KNB-55L)	
	Non LCD models	56.0 x 110.5 x 39.5 mm (with KNB-57L)	
		56.0 x 110.5 x 37.5 mm (radio only)	
Weight (net)	LCD models	210 g (radio only)	
		305 g (with KNB-55L)	
	Non LCD models	330 g (with KNB-57L)	
		205 g (radio only)	
Applicable Standards	ETSI R & TTE	EN 300 086, EN 300 113, EN 300 219,	
		EN 301 489, EN 301 166	
	ETSI Safety	EN 60065, EN 60950-1, EN 60215	

		NX-220	NX-320
<b>RECEIVER</b>			
Sensitivity (Analogue) (25kHz / 20kHz / 12.5kHz)	EIA 12dB SINAD	0.28 μV / 0.28 μV / 0.32 μV	
	EN 20dB SINAD	-3 dB μV (0.35 μV) / -3 dB μV (0.35 μV) / -1 dB μV (0.45 μV)	
Sensitivity (Digital) (12.5kHz / 6.25kHz)	3% BER	0.32 μV / 0.25 μV	
	1% BER	-1 dB μV (0.45 μV) / -4 dB μV (0.32 μV)	
Adjacent Channel Selectivity (Analogue) (25kHz / 20kHz / 12.5kHz)		76 dB / 74 dB / 68 dB	
Intermodulation (Analogue)		65 dB	
Spurious Response Rejection (Analogue)		75 dB	
Audio Distortion		Less than 3%	
Audio Output		500 mW / 8 Ω	
<b>TRANSMITTER</b>			
RF Power Output	High / Low	5 W / 1 W	
Modulation Limiting (Analogue)		± 5.0 kHz at 25 kHz	
		± 4.0 kHz at 20 kHz	
		± 2.5 kHz at 12.5 kHz	
Spurious Emission		-36 dBm ≤ 1 GHz, -30 dBm > 1 GHz	
FM Noise (EIA) (Analogue, 25 kHz / 20 kHz / 12.5 kHz)		45 dB / 45 dB / 40 dB	
		Less than 3%	
Modulation Distortion		1.8 kΩ	
Microphone Impedance			
Modulation		16K0F3E, 14K0F3E, 14K0F2D, 12K0F2D, 8K50F3E, 7K50F2D, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

Analogue 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 registered trademark of Kenwood Corporation and Icom Inc.

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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	MIL 810G Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III	506.5/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV	516.6/Procedure I, IV
<b>International Protection Standard</b>					
Dust & Water Protection	IP54/55				

To meet MIL-810 and IP grade, the 2-pin connector has to be connected.

## 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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