KENWOOD

NEXEDGE®

NX-220E/320E

NEXEDGE® VHF/UHF Digital & FM Portable Radios

NXDN® FleetSync® by KENWOOD 5-tone

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)

dPMR

- Kenwood NEXEDGE® mid tier digital two-way radios can now be adapted to operate as dPMR radios

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.

NX-220E2/320E2 NX-220E/320E NX-220E3/320E3

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-12** Clip Mic. w/Earphone & PTT (VOX Ready)
- **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
GENERAL			
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	
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) 56.0 x 110.5 x 39.5 mm (with KNB-57L)	
	Non LCD models	56.0 x 110.5 x 37.5 mm (radio only) 56.0 x 110.5 x 38.1 mm (with KNB-55L) 56.0 x 110.5 x 40.1 mm (with KNB-57L)	
Weight (net)	**LCD models**	210 g (radio only) 305 g (with KNB-55L) 330 g (with KNB-57L)	
	Non LCD models	205 g (radio only) 300 g (with KNB-55L) 325 g (with KNB-57L)	
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
RECEIVER			
Sensitivity (Analogue)	**EIA 12dB SINAD**	0.28 µV / 0.28 µV / 0.32 µV	
(25kHz / 20kHz / 12.5kHz)	**EN 20dB SINAD**	-3 dB µV (0.35 µV) / -3 dB µV (0.35 µV) / -1 dB µV (0.45 µV)	
Sensitivity (Digital)	**3% BER**	0.32 µV / 0.25 µV	
(12.5kHz / 6.25kHz)	**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	
TRANSMITTER			
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	
Modulation Distortion		Less than 3%	
Microphone Impedance		1.8 kΩ	
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.

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
International Protection Standard					
Dust & Water Protection	IP54/55				

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

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