# KENWOOD



**Digital Two-Way Radio** 

NXDN<sup>®</sup> DMR DMR Auto Slot FleetSync

## NX-1200/1300

MULTI-PROTOCOL DIGITAL & ANALOG PORTABLE RADIOS

#### A SINGULAR SOLUTION

If you are thinking of harnessing the latest digital protocols – NXDN or DMR – to enhance business efficiency or FM analog for its simplicity, the NEXEDGE NX-1200/1300 radios have you covered. Our singular solution offers the widest selection of two-way radios for everyday use. The model matrix also includes basic and enhanced keypad variations, with or without a high-contrast backlit LCD. Other features include a 7-color LED indicator and the popular KENWOOD 2-pin audio accessory connector. Plus, mixed-mode operation ensures seamless integration with legacy radios while smoothing the onward migration path to digital. But whatever your specific needs, audio quality is what determines clear voice communications – which is why KENWOOD radios are used under the most grueling conditions, like the cockpit of a racing car. Thanks to our extensive experience with professional systems, reliability is second to none. So whatever your radio requirements, KENWOOD's NEXEDGE NX-1200/1300 radios offer a single platform that's right for you.



#### Features

Multi-protocol digital radio: Designed to operate under NXDN or DMR digital and FM analog protocols

Choose from direct & intuitive LCD with full keypad, standard keypad or basic enclosures Easy visible Display: 8-digit LCD models featuring high-contrast, white backlit LCD Large 7-Color LED indicator on the top panel

Selective Power-on LED Selective Call Alert LED Battery Level Indication Multi-status function indication RF output power 5W both on VHF/UHF Mixed Zone - analog and digital Renowned KENWOOD Audio Quality: TX/RX audio profile with optimizable digital processor Audio Equalizer: Flat, High, Low Auto Gain Control: On, High, Low, Off Noise Suppressor Microphone type settings Multiple Scan Functions; Dual Priority, Single Priority, Single Zone, Multi, Normal Scan VOX & PTT -triggered Semi- VOX, Voice-operated TX Emergency Function: Customizable Emergency Profile Lone Worker Max / Min Volume setting & Volume control Voice Announcement Remote Stun / Kill / Check Electronic Serial Number (ESN) MIL-STD-810 C/D/F/F/G IP-54 and IP55 NX-1200xK,xK2/NX-1300xK4, xK5 Models IP-67 NX-1200xK3, NX-1300xK6 Models

#### Digital - DMR Mode

TDMA 2-slot 12.5 kHz bandwidth equivalent to 6.25 kHz very narrow bandwidth DMR Tier II Conventional Operation Site Roaming DMR Auto Slot Select Dual Slot Direct Mode Digital / Analog Mixed mode Call Interruption Group / Individual Call Status / Short data, Paging Call Remote Stun / Kill, Monitor, Check & Control Enhanced Encryption (ARC4) Digital Bit Scrambler Late Entry Over-the-Air Alias (OAA)

#### Digital - NXDN® Mode

FDMA – Very narrow 6.25 kHz & narrow 12.5 kHz bandwidths NXDN Conventional Operation Site Roaming Digital / Analog Mixed mode Group / Individual Call Status / Short data, Paging Call Remote Stun / Kill, Monitor, Check & Control Digital Bit Scrambler Late Entry Over-the-Air Alias (OAA)

#### Analog – FM

FM Conventional Operation FleetSync: PTT ID, Stun/Revive, Talk back, Selcall MDC1200: PTT ID, Radio Inhibit/Uninhibit, Radio check, Emergency QT / DQT, DTMF, 2-tone Built-in Programmable Voice Inversion Scrambler (per channel) Built-in Compander (per channel)

| Accessories                                     | All accessories may not be available in all markets.<br>Contact an authorized Kenwood dealer for details and complete list of all accessories. |  |  |                               |  |
|---|--|--|--|-------------------------------|--|
| KNB-29N<br>1,500mAh/7.2V<br>Ni-MH Battery Pack  | KNB-84L<br>1,900mAh/7.4V<br>IP-67 Li-Ion Battery Pack  | KVC-22<br>DC Vehicular<br>Charger Adapter<br>(For KSC-35SK Only)         | KRA-26/27<br>VHF Helical Antenna<br>UHF Whip Antenna | KMC-45D<br>Speaker Microphone |  |
| KNB-45L<br>2,000mAh/7.4V<br>Li-Ion Battery Pack | KSC-35SK<br>Fast Charger<br>For the KNB-45L/69L<br>84L (3-Hour)  | KMB-28A<br>Six Unit Charger<br>Adapter<br>(For six KSC-35SK<br>chargers) | KRA-28<br>VHF Broadband<br>Antenna<br>(140-174Mhz)   | KBH-10<br>Belt Clip           |  |
| KNB-69L<br>2,550mAh/7.4V<br>Li-Ion Battery Pack | KSC-43K<br>Dual Chemistry<br>Fast Charger<br>For the KNB 29N/45L/69L/84L   | KRA-22/23<br>VHF/UHF Low Profile<br>Helical Antenna                      | KRA-29P<br>UHF Broadband Antenna<br>(406-470MHz)     |                               |  |

#### Specifications

| Frequency Range<br>Type 1<br>Type 2   | 138-174 MHz   | 4061-470 MHz  |  |
|---|---|---|--|
| Max. Channels per Radio   | 260 (6  | 4 for basic model)  |  |
| Number of Zones   | 128 (4  | for basic model)  |  |
| Max. Channels per Zone  | 250 (1  | 6 for basic model)  |  |
| Channel Spacing<br>Analog<br>Digital  | 30 / 25 / 15 / 12.5 kHz<br>12.5 / 625 kHz   |   |  |
| Power Supply  | 7.5 VDC ±20 %   |   |  |
| Battery Life<br>KNB-29N (1500mAh)<br>KNB-45L (2000mAh)<br>KNB-49L (2550mAh)<br>KNB-84L (1,900mAh) | DMR<br>Approx. 11 hours<br>Approx. 14.5 hours<br>Approx. 19 hours<br>Approx. 13.7 hours   | Analog/NXDN<br>Approx. 8 hours<br>Approx. 11 hours<br>Approx. 14 hours<br>Approx. 105 hours |  |
| Operating Temperature (Radio only)*1  | -22°F to +1   | 40°F (-30°C to +60°C)   |  |
| Frequency Stability (-30 to +60°C; +25°C  | C Ref.)   | ±0.5 ppm  |  |
| Antenna Impedance   |   | 50 Ω  |  |
| Dimensions<br>Radio with KNB-29N/45L/84L<br>Radio with KNB-69L                                    | (W x H x D) Projections Not Included<br>2.13 x 4.84 x 1.32 in (54 x 123 x 33.5 mm)<br>2.13 x 4.84 x 1.48 in (54 x 123 x 375 mm) |   |  |
| Weight<br>Radio Only<br>Radio with KNB-29N/KNB-45L/84L<br>Radio with KNB-69L                      | (Basic model)<br>5.64 oz (160 g)<br>9.88 oz (280 g)<br>10.41 oz (295 g)   | (Standard and full keypad model)<br>617 oz (175 g)<br>10.41 oz (295 g)<br>10.93 oz (310 g)  |  |
| IC Certification 282F-  | 501000*2 / 282F-501001*3  | 282F-501100*2 / 282F-501102*3   |  |

\*1 Operating temperature specification for a Li-ion battery is -10°C to +60°C [14°F to +140°F]. \*2 Productions before end of May 2021 have this ISED Certification number. \*3 Productions after end of May 2021 have this ISED Certification number.

Analog measurements made per TIA603. Specifications are measured according to applicable standards. Specifications are subject change without notice, due to advancements in technology.

| Receiver  | NX-1200   | NX-1300            |  |
|---|---|--------------------|--|
| Sensitivity<br>NXDN* @ 6.25 kHz Digital (3% BER)<br>NXDN* @ 125 kHz Digital (3% BER)<br>DMR* @ 125 kHz Digital (3% BER)<br>DMR* @ 12.5 kHz Digital (5% BER)<br>Analog @ 12.5/25 kHz (12 dB SINAD) | 0.18 µV<br>0.22 µV<br>0.25 µV<br>0.18 µV<br>0.20 µV / 0.24 µV |                    |  |
| Selectivity<br>Analog @ 12.5 / 25 kHz   |   |                    |  |
| Intermodulation Distortion  | 70 dB   |                    |  |
| purious Rejection 70 dB   |   |                    |  |
| Audio Distortion 7%   |   |                    |  |
| Audio Output Power 1 W / 12 Ω (Internal Output)   |   |                    |  |
| Transmitter   | NX-1200   | NX-1300            |  |
| RF Power Output<br>(High / Low)   | 5 W / 4 W / 1 W   | 5 / 4 / 1 / 0.25 W |  |
| Spurious Emission -70 dB  |   |                    |  |
| FM Hum & Noise<br>Analog @ 12.5 / 25 kHz  | 40 dB / 45 dB   |                    |  |
|   |   |                    |  |

| nalog @ 12.5 / 25 kHz | 40 dB / 45 dB   |  |
|-----------------------|---|--|
| Distortion            | 2%  |  |
| Digital Protocol      | ETSI TS 102 361-1, -2, -3   |  |
| ion Designator        | 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D,<br>8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W,<br>4K00F2D, 7K60FXD, 7K60F7W |  |

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### MIL-STD & IP

| 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 |
| lumidity          | 5071/Procedure I, II     | 507.2/Procedure II, III | 507.3/Procedure II, III | 507.4                  | 507.5/Prcedure II      |
| alt 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      |
| /ibration         | 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  |

ust & Water Protection\*

IP-54/55/67 - NX-1200xK3/NX-1300xK6

IP-54/55 - NX-1200xK,xK2/NX-1300xK4,

54/55, the 2-pin connector cover must be connected on the radio, or the locking bracket must be attached to the external speak To meet MIL Standard and IP67 specification, the 2-pin connector must be fully sealed with supplied connector cover. IP67 is only applicable when radio is equipped with KNB-84L



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