

NXR-5900/5901

NEXEDGE 800/900MHz Digital & Analog Base-Repeater

NXDN™



FOCUSED ON THE FUTURE

Over 7x faster processing speed and 15x more memory capacity than the previous models, these new NEXEDGE repeaters represent a breakthrough in performance. Extensive data storage means they can support everything from analog/digital conventional systems up to a highly sophisticated NEXEDGE Generation2 (Gen2) multi-site digital trunked network. Stay ahead of the curve, with cutting-edge communications.



Features

- 0.36/0.1 W Exciter Output Power
- Two-Digit LED Numeric Status Indicators
- USB 2.0 Type-B Interface
- IP LAN/WAN Connectivity
- Ethernet Network Interface
- 6 Programmable Function Keys
- 0.3 W Front Panel Speaker
- 3 W External Speaker Audio
- Audio Volume Control
- Program / Modem Interface
- Remote Termination Interface
- Programmable AUX I/O's
- DTMF Remote Control
- Flash Firmware Upgrading
- Remote System Firmware Updates
- Telephone Interconnect Option

Digital – General

NXDN Digital Air Interface	UID & GID Validation
AMBE+2TM VOCODER	NXR Over-the-Air Alias
6.25 & 12.5 kHz Bandwidth	SNMP Protocol Ready
Built-In 0.5 ppm TCXO	FER (Frame Error Rate) / RSSI Output

Digital – Trunking Mode

NEXEDGE Gen2 Network	Control Channel Rotation
Transmission Trunked Mode	Cross-Busy
Message Trunked Mode	Failsoft Mode
Busy Call Queuing	NXDN Traffic Channel Sharing
Call Queue Pre-emption	ESN Validation
Late Entry (UID & GID)	Auto-Roaming / Registration
Control / Traffic Channel Switching	Wide Area All Group Call

Digital – Conventional Mode

Mixed FM / Digital Operation	Site Roaming Capability
Conventional IP Networks	

FM Analog Mode

16 QT/DQTs Repeater Control Built-in	EIA Voter Tone Generation
Hang Timer / Time Out Timer / CW ID	External LTR® Controller Interface
External FM Controller Interface	External MPT1327 Controller Interface

NOTE: The NXR-5900/5901 works only as a duplex repeater or base station. This product does not support simplex base operation.

Accessories

All accessories may not be available in all markets.
Contact an authorized KENWOOD dealer for details and complete list of all accessories.

KMC-65M
Standard Microphone



KMC-66M
DTMF Microphone



KXK-3M3
High Stability
Internal Reference
Oscillator



KTI-4M
Telephone
Interconnect
Adapter



Specifications

General	NXR-5900	NXR-5901
Frequency Range		
Receive	806-825 MHz	450-520 MHz
Transmit	851-870 MHz	400-470 MHz
Channel Spacing		
Analog	25/12.5 kHz	
Digital	12.5/6.25 kHz	
PLL Channel Step	3.125 / 5 / 6.25 kHz	
Power Supply	13.6 V DC (10.8 - 15.6 V DC)	
Operating Temperature	-22 °F to + 140 °F (-30 °C to +60 °C)	
Frequency Stability		
Radio only	± 0.5 ppm	
With KXK03 (M2)	± 0.1 ppm	
Antenna Impedance	50 Ω	
Dimensions	(W x H x D) Projections Not Included 19.02 x 1.73 x 13.03 in (483 x 44 x 331 mm)	
Weight Radio	11.2 lb (5 kg)	

*Applies only for the NXR-5900.

Measurements made per CAI measurement procedures (digital) and TIA-603 (analog); are measured according to applicable standards. Specifications shown are typical and subject to change without notice, due to advancements in technology. Details and timing of firmware and software updates are subject to change without notice.

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AMBE+2™ is a trademark of Digital Voice Systems Inc.
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Receiver	NXR-5900	NXR-5901
Sensitivity		
Digital @ 6.25 kHz (3% BER)		0.27 µV
Digital @ 12.5 kHz (3% BER)		0.233 µV
Analog (12 dB SINAD)		0.30 µV
Selectivity		
Analog @ 25 kHz	81 dB	
Analog @ 12.5 kHz	73 dB	73 dB
FM Hum & Noise		
Analog @ 12.5kHz	55 dB	
Analog @ 25kHz	50 dB	50 dB
Intermodulation		
	84 dB	
	82 dB	82 dB
Spurious Rejection		93 dB
Audio Distortion		Less than 2% (at 0.3 W)
Audio Output		3 W (at 4 Ω Less than 5 % distortion)

Transmitter	NXR-5900	NXR-5901
RF Power Output High / Low		360 mW / 100 mW
Spurious & Harmonics		73 dB
FM Hum & Noise		
Analog @ 12.5kHz	45 dB	
Analog @ 25kHz	50 dB	45 dB
Audio Distortion		Less than 1% at 1000 Hz
Emission Designator	16K0F3E*, 14K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

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
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	502.3/Procedure I	502.4/Procedure II	502.5/Procedure II
Temperature Shock	503.1/Procedure I, II	503.2/Procedure I, II	503.3/Procedure I, II	503.4/Procedure I, II	503.5/Procedure I

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