

# NXR-5900/5901

## 800/900MHz DIGITAL & ANALOG BASE REPEATER

NEXEDGE® repeaters maximize the performance of analog/digital conventional systems and scalable, server-based NEXEDGE Generation2 (Gen2) multi-site digital trunked networks. Powerful and flexible, these repeaters feature faster processing speed and extensive data storage. Take control of your transition from analog to digital operations with these highly versatile repeater and future proof your system.

### 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
- NXDN Digital Air Interface
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Bandwidth

- Built-In 0.5 ppm TCXO
- OCXO Unit Option (KXK-3)
- UID & GID Validation
- NXR Over-the-Air Alias
- SNMP Ready
- FER (Frame Error Rate) / RSSI Output

### DIGITAL - TRUNKING MODE

- NEXEDGE Gen2 & NXDN Type-C Network
- Transmission Trunked Mode
- Message Trunked Mode
- Busy Call Queuing
- Call Queue Pre-emption
- Late Entry (UID & GID)
- Control / Traffic Channel Switching
- Control Channel Rotation
- Cross-Busy
- Failsafe Mode
- NXDN Traffic Channel Sharing

- ESN Validation
- Auto-Roaming / Registration
- Wide Area All Group Call

### DIGITAL - CONVENTIONAL MODE

- Mixed FM / Digital Operation
- Conventional IP Networks
- Site Roaming Capability

### ANALOG - FM MODE

- QT/DQT Multi-Table Support
- Hang Timer / Time Out Timer / CW ID
- External FM Controller Interface
- EIA Voter Tone Generation
- External LTR® Controller Interface
- External MPT1327 Controller Interface



**Gen1**

Link multiple sites and multiple channels more simply, without the need for a site controller, for greater system integrity and reliability and lower cost.



**Gen2**

Scalable server-based system architecture for management of NEXEDGE wide area digital communications systems.



**OCXO**

Reliable very narrow banded 6.25kHz operation is assured with a temperature controlled crystal oscillator, locking in the highest level of frequency stability.

## Accessories

## NXR-5900/5901 Base Repeaters

■ KXK-3  
OCXO Unit



■ KMC-30  
Microphone



■ KMC-35  
Keypad Microphone



■ KTI-4  
Telephone Interconnect  
Adapter



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

## Specifications

	NXR-5900	NXR-5901		NXR-5900	NXR-5901
<b>GENERAL</b>			<b>RECEIVER</b>		
Frequency Range			Sensitivity		
Receive	806-825 MHz	896-902 MHz	NXDN® 6.25 kHz Digital (3% BER)	0.27 µV	
Transmit	851-870 MHz	935-941 MHz	NXDN® 12.5 kHz Digital (3% BER)	0.33 µV	
Channel Spacing			Analog (12dB SINAD)	0.30 µV	
Analog	25/12.5 kHz	12.5 kHz	Selectivity		
Digital		12.5/6.25 kHz	Analog @ 12.5 kHz	73 dB	
PLL Channel Step		6.25/5/3.125 kHz	Analog @ 25 kHz	81 dB	-
Operating Voltage		10.8-15.9 V DC	FM Hum & Noise		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)	Analog @ 12.5 kHz	50 dB	
Frequency Stability			Analog @ 25 kHz	55 dB	
Radio Only		±0.5 ppm	Intermodulation		
With KXK-3 (M3)		±0.1 ppm	Analog @ 12.5 kHz	82 dB	
Antenna Impedance		50 Ω	Analog @ 25 kHz	84 dB	-
Dimensions (W x H x D)		19 x 1.73 x 13.03 in (482.6 x 44 x 331 mm)	Spurious Response		93 dB
Weight (net)		11 lb (5 kg)	Audio Distortion (Ext SP)		Less than 2 % (at 0.3 W)
FCC ID	K44474700	K44474701	Audio Output Power (Ext. SP)		3 W (at 4 Ω, less than 5 % distortion)
IC Certification	282F-474700	282F-474701	<b>TRANSMITTER</b>		
			RF Power Output		360 mW to 100 mW
			Spurious Emission		73 dB
			FM Hum & Noise		
			Analog @ 12.5 kHz		45 dB
			Analog @ 25 kHz		50 dB
			Audio Distortion		Less than 1 % at 1000 Hz
			Emission Designator		16K0F3E*, 14K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D

\*Applies only to the NXR-5900.

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

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## 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 II	502.2/Procedure II	502.3/Procedure II	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

# KENWOOD

JVCKENWOOD USA Corporation  
Communications Sector Headquarters

3970 Johns Creek Court, Suite 100, Suwanee, GA 30024-1265

Order Administration/Distribution

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745

[www.kenwood.com/usa](http://www.kenwood.com/usa)

JVCKENWOOD Canada Inc.

Canadian Headquarters and Distribution

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

[www.kenwood.com/ca](http://www.kenwood.com/ca)



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