

NEXEDGE®

NXR-5900/5901

NXDN™



NEXEDGE 800/900MHz DIGITAL & ANALOG BASE-REPEATER

● GENERAL 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

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

● DIGITAL – GENERAL

- NXDN Digital Air Interface
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Bandwidth
- Built-In 0.5 ppm TCXO
- OCXO Unit Option (KXX-3)
- AES/DES Optional Board Capability
- UID & GID Validation
- NXR Over-the-Air Alias
- SNMP Protocol 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
- Failsoft 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

● FM ANALOG MODE

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



OPTIONAL ACCESSORIES

n **KXK-3**
OCXO UNIT



n **KMC-30**
MICROPHONE



n **KMC-35**
MICROPHONE



n **KT1-4**
TELEPHONE INTERCONNECT ADAPTER



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

SPECIFICATIONS

GENERAL		NXR-5900	NXR-5901
Frequency Range	Receive	806-825 MHz	896-902 MHz
	Transmit	851-870 MHz	935-941 MHz
Channel Spacing	Analog	25/12.5 kHz	12.5 kHz
	Digital	12.5/6.25 kHz	12.5/6.25 kHz
PLL Channel Step		6.25/5/3.125 kHz	6.25/5/3.125 kHz
Frequency Stability	Radio only	± 0.5 ppm	
	With KXK-3 (M3)	± 0.1 ppm	
Operating Voltage		10.8-15.9 V DC	
Operating Temperature Range		-22 °F to +140 °F (-30 °C to +60 °C)	
Antenna Impedance		50 Ω	
Dimensions (W x H x D), Projections not included		19 x 1.73 x 13.03 in (482.6 x 44 x 331 mm)	
Weight (net)		11 lb (5 kg)	
FCC ID		K44474700	K44474701
IC Certification		282F-474700	282F-474701

*Applies only for the NXR-5900.

Analog measurements made per TIA 603.

Specifications are measured according to applicable standards.

Specifications shown are typical and subject to change without notice, due to advancements in technology.

RECEIVER		NXR-5900	NXR-5901
Sensitivity	Digital @ 6.25 kHz (3 % BER)	0.27 μV	
	Digital @ 12.5 kHz (3 % BER)	0.33 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 @ 25 kHz	55 dB	—
	Analog @ 12.5 kHz	50 dB	50 dB
Intermodulation Distortion		84 dB	—
		82 dB	82 dB
Spurious Response		93 dB	
Audio Distortion (Ext. SP)		Less than 2 % (at 0.3 W)	
Audio Output (Ext. SP)		3 W (at 4 Ω, less than 5 % distortion)	
TRANSMITTER		NXR-5900	NXR-5901
RF Power Output		360 mW to 100 mW	
Spurious & Harmonics		73 dB	
FM Hum & Noise	Analog @ 25 kHz	50 dB	—
	Analog @ 12.5 kHz	45 dB	45 dB
Audio Distortion		Less than 1 % at 1000 Hz	
Emission Designator		16K0F3E*, 14K0F3E*, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

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NXDN is a trademark of JVCKENWOOD Corporation and Icom Inc.

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APPLICABLE MIL-STD

MIL Standard	MIL 810C/D/E/F Methods/Procedures	MIL 810G Methods/Procedures
High Temperature	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.4/Procedure II	502.5/Procedure II
Temperature Shock	503.4/Procedure I, II	503.5/Procedure I

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