KENWOOD

NXR-5700/5800

NEXEDGE VHF/UHF DIGITAL & FM BASE-REPEATER



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. And further adding to their future-proof credentials is upcoming support for Digital Simulcast. Stay ahead of the curve, with cutting-edge communications.

GENERAL FEATURES

NEXEDGE

- Wideband Coverage
- 25/5/0.5 W RF Output Power (100% Duty Cycle)
- Two-Digit Numeric Display
- LED 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
- 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
- AMBE+2[™] VOCODER
- 6.25 & 12.5 kHz Bandwidth
- Built-In 0.5 ppm TCXO
- UID & GID Validation
- NXR Over-the-Air Alias
- SNMP Protocol Ready
- FER (Frame Error Rate) / RSSI Output

DIGITAL – TRUNKING MODE

- NEXEDGE Gen2 Network
- * NXDN Type-C Trunking (Gen1) will be supported later
- 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
- Digital Voting
- RF Link
- Digital Simulcast
- (To be supported in future)

FM ANALOG MODE

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





Options



Main Specifications

		NXR-5700	NXR-5800	
GENERAL				
Frequency Range	Туре 1	136-174 MHz	450-520 MHz	
	Туре 2	-	400-470 MHz	
Channel Spacing	Analog	30*/25*/15/12.5 kHz	25*/12.5 kHz	
	Digital	12.5/6.25 kHz		
PLL Channel Step		6.25/5/3.125/2.5 kHz	6.25/5/3.125 kHz	
Operating Voltage		13.6 V DC (10.8 - 15.6 V DC)		
Operating Temperature Range		-22° F ~ +140° F (-30° C ~ +60° C)		
Frequency Stability		± 0.5 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 (net)		11 lb (5 kg)		
FCC ID	Type 1	K44474500	K44474600	
	Type 2		K44474601	
IC Certification	Type 1	282F-474500	-	
	Type 2	-	282F-474601	

*25 and 30 kHz are not included in the models sold in the USA or US territories. Measurements made per CAI measurement procedures (digital) and TIA-603 (analog); specifications are typical. Details and timing of firmware and software updates are subject to change without notice. Specifications are subject to change without notice, due to advancements in technology.

LTR® is a registered trademark of EFJohnson Technologies. AMBE+2™ is a trademark of Digital Voice Systems Inc. NXDN® is a trademark of JVCKENWOOD Corporation and Icom Inc. NEXEDGE® is a registered trademark of JVCKENWOOD Corporation.

Contact our authorized dea	aler for details and complete li	, st of all accessories and options.
	NXR-5700	NXR-5800

All accessories and options may not be available in all markets.

RECEIVER Digital @ 6.25 kHz (3% BER) Digital @ 12.5 kHz (3% BER) 0.27 μV Sensitivity Digital @ 12.5 kHz (3% BER) 0.33 μV Analog (12 dB SINAD) 0.30 μV Selectivity Analog @ 30*/25* kHz 92 dB (± 30 kHz) 86 dB (± 25 kHz) Analog @ 12.5 kHz 92 dB (± 30 kHz) 80 dB (± 12.5 kHz) 80 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz 55 dB			11/11-3700	11/11-3000	
Sensitivity Digital @ 6.25 kHz (3% BER) Digital @ 12.5 kHz (3% BER) 0.27 μV Digital @ 12.5 kHz (3% BER) Analog @ 30*/25* kHz 0.33 μV Selectivity Analog @ 30*/25* kHz 92 dB (± 30 kHz) 86 dB (± 25 kHz) Selectivity Analog @ 30*/25* kHz 92 dB (± 30 kHz) 80 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz 84 dB (± 12.5 kHz) 80 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 85 dB (± 50/100 kHz) Spurious Response Analog 85 dB (± 50/100 kHz) Audio Distortion Ext.SP) Less than 2% (at 0.3 W) Audio Output (Ext.SP) 3 W (at 4 Ω Less thar) 5 % distortion RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Analog @ 12.5 kHz 50 dB Analog @ 12.5 kHz 50 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB	RECEIVER				
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Analog (12 dB SINAD) 0.30 μV Selectivity Analog @ 30*/25* kHz Analog @ 12.5 kHz 92 dB (± 30 kHz) 84 dB (± 12.5 kHz) 86 dB (± 25 kHz) 84 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz Analog @ 12.5 kHz 55 dB Analog @ 12.5 kHz 50 dB Intermodulation Distortion Analog 85 dB (± 50/100 kHz) Spurious Response Analog 100 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 100 dB 100% Spurious & Harmonics 73 dB 100% Spurious & Harmonics 73 dB 50 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Audio Distortion Less than 1% at 1000 Hz 50 dB Audio Distortion Less than 1% at 1000 Hz 50 dB Audio Distortion Less than 1% at 1000 Hz 50 dB Audio Distortion Less than 1% at 1000 Hz 50 dB Audio Distortion Less than 1% at 1000 Hz 50 dB Audio Distortion Less than 1% at 10		Digital @ 12.5 kHz (3% BER)	0.33 µV		
Selectivity Analog @ 30*/25* kHz Analog @ 12.5 kHz 92 dB (± 30 kHz) 86 dB (± 25 kHz) 80 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz Analog @ 12.5 kHz 55 dB Analog @ 12.5 kHz 50 dB Intermodulation Distortion Analog Spurious Response Analog Audio Distortion (Ext.SP) Less than 2% (at 0.3 W) Audio Output (Ext.SP) TRANSMITTER 25/5/0.5 W RF Power Output High / Low 25/5/0.5 W Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Audio Distortion Less than 1% at 1000 Hz Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F2D		Analog (12 dB SINAD)	0.30 µV		
Analog @ 12.5 kHz 84 dB (± 12.5 kHz) 80 dB (± 12.5 kHz) FM Hum & Noise Analog @ 30*/25* kHz Analog @ 12.5 kHz 55 dB Intermodulation Distortion Analog 85 dB (± 50/100 kHz) Spurious Response Analog 85 dB (± 50/100 kHz) Spurious Response Analog 80 da (± 10.3 W) 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 RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1E, 8K30F1E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F2D	Selectivity	Analog @ 30*/25* kHz	92 dB (± 30 kHz)	86 dB (± 25 kHz)	
FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Intermodulation Distortion Analog 85 dB (± 50/100 kHz) Spurious Response Analog 100 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 8 RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16KOF3E, 11KOF3E, 8K30F1E, 8K30F1E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F2D		Analog @ 12.5 kHz	84 dB (± 12.5 kHz)	80 dB (± 12.5 kHz)	
Analog @ 12.5 kHz 50 dB Intermodulation Distortion Analog 85 dB (± 50/100 kHz) Spurious Response Analog 100 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 RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F2D	FM Hum & Noise Analog @ 30*/25* kHz		55 dB		
Intermodulation Distortion Analog 85 dB (± 50/100 kHz) Spurious Response Analog 100 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 TRANSMITTER RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F1D, 4K00F2D	Analog @ 12.5 kHz		50 dB		
Spurious Response Analog 100 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	Intermodulation Distortion Analog		85 dB (± 50/100 kHz)		
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	Spurious Respor	nse Analog	100 dB		
Audio Output (Ext.SP) 3 W (at 4 Ω Less than 5 % distortion) TRANSMITTER	Audio Distortion (Ext.SP)		Less than 2% (at 0.3 W)		
TRANSMITTER RF Power Output High / Low 25/5/0.5 W RMax Duty Cycle 100% Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1E, 8K30F1E, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F2D	Audio Output	(Ext.SP)	3 W (at 4 Ω Less than 5 % distortion)		
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Spurious & Harmonics 73 dB FM Hum & Noise Analog @ 30*/25* kHz Analog @ 12.5 kHz 55 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	RMax Duty Cycle		100%		
FM Hum & Noise Analog @ 30*/25* kHz 55 dB Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	Spurious & Harmonics		73 dB		
Analog @ 12.5 kHz 50 dB Audio Distortion Less than 1% at 1000 Hz Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F1D, 4K00F2D	FM Hum & Noise Analog @ 30*/25* kHz		55 dB		
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Emission Designator 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	Audio Distortion		Less than 1% at 1000 Hz		
8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	Emission Designator		16K0F3E, 11K0F3E, 8K30F1E,		
4K00F1D, 4K00F7W, 4K00F2D	-		8K30F1D, 8K30F7W, 4K00F1E,		
			4K00F1D, 4K00F7W, 4K00F2D		

Applicable MIL-STD

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 I	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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