

## **NEXEDGE**

# 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

- 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<sup>™</sup> 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 Gen1 Network
- NEXEDGE Gen2 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
- 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
- EIA Voter Tone Generation
- External LTR® Controller Interface
- External MPT1327 Controller Interface







### Main Specifications

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.

		NXR-5700	NXR-5800	
GENERAL				
Frequency Range	Type 1	136-174 MHz	-	
	Type 2	-	400-470 MHz	
Channel Spacing	Analog	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	nna Impedance 50 Ω		Ω	
Dimensions (W x H x D	Projections Not Included	19.02 x 1.73 x 13.0	3 in (483 x 44 x 331 mm)	
Weight (net)		5 k	g	
IC Certification	Type 1	282F-474500	-	
	Type 2	-	282F-474601	

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.

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AMBE+2™ is a trademark of Digital Voice Systems Inc.

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		NXR-5700	NXR-5800		
RECEIVER					
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	92 dB (± 30 kHz)	86 dB (± 25 kHz)		
	Analog @ 12.5 kHz	84 dB (± 12.5 kHz)	80 dB (± 12.5 kHz)		
FM Hum & Noi	FM Hum & Noise Analog @ 25/12.5 kHz		55 / 50 dB		
Intermodulation Distortion		85 dB (± 50/100 kHz)			
Spurious Response		100 dB			
Audio Distortio	on (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 @ 25/12.5 kHz		55 / 50 dB			
Audio Distortion		Less than 1% at 1000 Hz			
Modulation		16K0F3E, 11K0F3E, 8K30F1E,			
		8K30F1D, 8K3	0F7W, 4K00F1E,		
		4K00F1D, 4K0	0F7W, 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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