NXDN™

Liberty™ Repeater

Ultra-small and self-contained. 2-10 Watt Adjustable Transmit Power.

RLR-465NX

The NXDN Liberty Repeater is the perfect wireless solution to bolster coverage in:

• Schools • Hospitals • Nursing Homes • Shopping Malls • Manufacturing Plants • Warehouses • Amusement Parks • Golf Courses • Retail Stores • Special Events

For any organization to be effective, you need reliable voice communication that extends to every corner of your operation. The Ritron NXDN Digital Liberty Repeater offers the right features and is built to deliver high quality, dependable 2-way radio communication that will keep your workforce connected at all times. With its small size, high performance capability and low power consumption, the NXDN Liberty Repeater is engineered for low total cost of ownership.

The NXDN Liberty's adjustable transmit power setting allows the repeater to be programmed for 2 Watts, for use on low power frequencies, or up to a full 10 Watts of transmit power (13.8VDC input required for 10 Watts TX). When paired with an appropriate antenna and positioned in an optimal location, the NXDN Liberty Digital Repeater will boost overall radio system coverage for portables, mobiles, and radio callboxes, while eliminating marginal areas and dead spots.

Available in the UHF, 450-470 MHz frequency band @ 6.25kHz super narrowband. Supports up to 10 different RAN codes to provide a maximum of 10 separate groups. Includes built-in, 4-cavity notch-type duplexer and 110VAC to 13.8VDC power supply. The unit is also capable of 12VDC battery back-up operation (TX power reduced to approx. 8 Watts at 12VDC).

NXDN™ Digital Liberty Repeater

Optional
RAM-45
Antenna
(w/ BNC to Type "N" adapter)

- Full Duplex UHF Repeater
- 2-10 Watts Transmit Power
- 6.25 kHz channel bandwidth
- 12VDC Back-Up Capable (at reduced TX power)
- Up to 10 RAN codes
- Includes Built-in Duplexer and Power Supply

XD Series NXDN™ Digital Callbox

Increase the benefits of any radio system with a Ritron callbox. Talk to locations near and far...from the main gate, secured lobby area, the plant floor, delivery door, or the parking lot. Get answers quickly, respond faster and increase safety.

Provides instant 2-way communication to radio-equipped staff. Easy to deploy—no wires, no trenching. Built-in relay allows remote control of entry/exit gates, locked doors, or an emergency strobe light. Recordable voice messages make the product customizable and user-friendly.

- 1 Channel (VHF or UHF)
- NXDN Digtial/Analog, Conventional
- 12.5kHz narrowband and 6.25kHz super narrowband
- Rugged, Gasket-Sealed Housing
- Battery Powered or
  External Power (110VAC-12VDC) Capable
- Built-In Remote Controlled Relay

SPECIFICATIONS:

Model:	RLR-465NX
Power:	10 Watts, Adustable down to 2 Watts using PC Programmer.
FCC ID:	AIERIT44-465
IC ID:	1084A-RIT44465
Dimensions:	2.125"H x 8.0"W x 5.75"D
Weight:	3.5 lbs
Emission Designator:	4K00F1E (NXDN voice), 4K00F1D (NXDN data), 4K00F7W (NXDN voice & data)
Operating Frequency:	450-470 MHz
Frequency Separation:	TX/RX 5 MHz
RF Channels:	1 TX/RX Channel
Synthesizer Steps:	6.25 kHz Super Narrowband
Power consumption:	13.8VDC Nominal, 2.5 Amps
Time-out-timer:	0 to 30 minutes, programmable
RF/Antenna Connector:	"N" type
Aux RJ-45 Connector:	PTT input, Discriminator output, de-emphasized discriminator output, RSSI
DC Power Connector:	P-5 (2.1mm x 5.51 mm x 9.5mm)
USB Connector:	PC Programming
Antenna Impedance:	50 ohms
LED Indicators:	Green = Pwr ON, Red = Transmit Yellow = RX/Busy

TRANSMITTER:

Power Output:	10 Watts (measured at output of antenna connector @ 13.8VDC)
Frequency Stability:	+/- 1 ppm (-30 C to +50 C)
Modulation:	4FSK
Spurious & Harmonics:	< -25 dBm
Duty Cycle:	Degraded linearly to 10% duty cycle at 50^0 C (122^0 F)

RECEIVER:

Receiver system:	Fixed tuned, dual conversion super-heterodyne
IF system:	43.65 MHz/450 kHz
Local Oscillator:	Low side injection
Sensitivity:	0.3 uV through Duplexer with 3% BER
Selectivity:	-40 dB @ 6.25 kHz offset
Spurious rejection:	-75 dB
Image rejection:	-80 dB
Intermod rejection:	-70 dB
Frequency Stability:	+/- 1 ppm (-30 C to +50 C)