Product Specification Sheet

WNC-RHP

High Power Wireless Repeater



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The Wireless Repeater WNC-RHP High Power is an essential range-extension component engineered specifically for complex wireless nurse call architectures. Designed to bridge performance gaps across sprawling facility floorplans, structural barriers, or multi-wing clinical environments, this high-power module serves as an advanced intermediate link within 900 MHz spread spectrum wireless topographies. The WNC-RHP acts as a high-efficiency relay by intercepting, decoding, and re-transmitting RF signals sent from field stations (such as emergency pull cords, pendants, and check-in terminals) and passing them securely to central master consoles or PC-based logging systems.

Specifications

- **Operating Frequency:** 900 MHz Spread Spectrum Band
- **Processing Technology:** Automatic Intercept, Dechipher, and Re-transmit Matrix
- **Console Integration Compatibility:** 200Z/200Plus/400Z/500Z/PC-Based Consoles
- **Enclosure Composition:** Commercial Grade Surface-Mount Housing
- **Programming Status:** Pre-coded/Pre-programmed at Factory
- **Primary Power Intake:** Standard AC Power Transformer Wall-Adapter
- **Diagnostics/Monitoring:** Supervised RF link loop reporting

Architects' and Engineers' Specifications

- The wireless range-extension hardware shall be model WNC-RHP or approved equivalent. The device shall be a high-power, standalone radio frequency repeater operating within the 900 MHz spread spectrum band to ensure signal integrity and robust penetration through standard commercial construction.
- The repeater shall feature integrated signal decoding and error-checking intelligence to automatically accept, decipher, and re-transmit RF telemetry from any compatible system peripheral without adding processing latency. The unit shall feature structural housing compatible with surface mounting on walls or ceilings and must communicate natively with MV 200Z, 200Plus, 400Z, or 500Z wireless console receivers and PC-based management heads.
- The electrical architecture shall incorporate dedicated primary line voltage inputs paired with internal power monitoring circuitry. In accordance with clinical safety parameters, the device shall maintain a supervised status loop, transmitting periodic operational heartbeats and health data directly to the central logging database to guarantee uptime and link preservation.

Compliance and Certification

- **FCC Classification:** Fully compliant under FCC Part 15 regulations for intentional radiators within the 900 MHz industrial, scientific, and medical (ISM) band.

- UL Standards: Designed to comply with UL 1069 or UL 2560 signaling standards when deployed as an underpowered component within a certified wireless console environment.

- **RoHS Directive:** Built using compliant, lead-free components meeting environmental safety parameters to safeguard clinical environments.

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Features

• **High-Power 900 MHz Architecture:** Utilizes a high-output spread spectrum design to drastically increase signal propagation over long physical distances.

• **Intelligent Telemetry Filtering:** Deciphers inbound data blocks completely before re-transmitting, blocking localized radio noise from polluting the system's primary frequency lanes.

• **Zero-Cost Factory Configuration:** Units arrive fully pre-programmed and matched to system specifications, cutting field installation times and eliminating complex on-site programming requirements.

• **Broad Peripheral Compatibility:** Extends coverage seamlessly for any matching wireless peripheral device deployed within the facility perimeter.

• **Scalable Infrastructure Footprint:** Allows facilities to expand their care capacity or retrofit legacy wings without the exorbitant capital expenditures associated with conduit and cable runs.

• **Continuous System Supervision:** Automatically pairs into the system's health-check routine, ensuring any power loss or tampering triggers a real-time maintenance warning at the master console.

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