OneWireless RF Lite Planning Tool

For ISA100 Wireless and Wi-Fi Networks
Honeywell OneWireless RF Lite R100 is a graphical, standalone software tool to plan and estimate an ISA100 Wireless or Wi-Fi network using real device or network configuration parameters.

With the growing propagation of wireless and RF networks in the process automation industry, wireless users and implementers need a simple but effective tool to help create a preliminary network design in advance of a detailed wireless project plan or a wireless site survey. This preliminary network design provides the basis for a budgetary project plan or a conceptual wireless network layout.

By using these practices and conservative rules, RF Lite helps to guide and identify potentially problematic areas well in advance of the actual wireless network and field implementation, thus avoiding additional unplanned costs and idle time.

RF Lite displays the communications connectivity path and RSSI values between wireless devices.

OneWireless RF Lite R100 Overview
Honeywell OneWireless™ RF Lite addresses the needs of wireless users and implementers by focusing on key wireless network activities, including planning, optimization, assessment and documentation.

RF Lite R100 uses best engineering practices and very conservative RF and device connectivity rules to plan a wireless network.

The graphical user interface is pre-populated with icons representing Honeywell OneWireless Network infrastructure components, Honeywell OneWireless XYR™ 6000 field devices, Honeywell wireless products, general ISA100 Wireless devices and Wi-Fi access points.

Device defaults help simplify the usage of RF Lite for users just getting started with wireless network planning. The defaults can be modified for users that need customization in order to reflect real world conditions or unique site requirements or restrictions.
OneWireless RF Lite Benefits
RF Lite offers key benefits to users and implementers, including the ability to:

- Minimize risk in creating an accurate wireless field network estimate.
  RF Lite allows the import of a location map or image of the actual site. The network layout area is then quantified to approximate the site environmental conditions. After placement of access points, field routers and ISA100 Wireless compatible devices, RF Lite analyzes and predicts the communication coverage formed by the wireless network components and field devices. Trouble areas are identified so that users can address problem areas well in advance of actual device installation.

- Develop a preliminary wireless network with less effort and greater consistency.
  RF Lite uses conservative engineering best practice guidelines, which are captured within the tool. The simple graphical user interface, with validity checking, ensures that users with different backgrounds and knowledge levels can all achieve the same level of success as they develop and plan the wireless network.

Users can share projects and the entire organization can use one tool to develop a consistent methodology for creating wireless layouts.

How RF Lite Works
RF Lite uses captured knowledge and engineering best practices to analyze and predict the wireless network coverage of the proposed network layout. The tool quickly evaluates the coverage area, generates heat maps, and guides the user through a simulation of RF coverage and how the devices will work with one another.

The validation function identifies any trouble spots for unreliable wireless communication. With the warning areas identified, the user can change or enhance the network layout by moving or adding additional access points for routing devices.

RF Lite provides an estimate of the RSSI value, a key metric to gauge wireless coverage, and is saved as part of the RF Lite project.

Key Specifications
Honeywell’s OneWireless RF Lite R100 supports the following devices, each with specific custom parameters:

- Honeywell OneWireless Field Device Access Point (acting as an access point or field outer)
- OneWireless XYR 6000 wireless transmitters
- Honeywell OneWireless Adapter
- Honeywell Enraf FlexLine tank gauging transmitter
- Honeywell Sensing & Control wireless push-button
- Generic ISA100 Wireless device
- Wi-Fi routing access point, and
- Wi-Fi mesh access point

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