RF Module Overview Guide

Linx strives to make every engineer a hero in record time™ by minimizing the risk, delays and technical challenges for design engineers to implement wireless in their products. Unlike other module producers, every aspect of our product and design experience is specifically crafted to achieve Wireless Made Simple®.
RF Module Overview Guide

**Linx RF Module Parameters**

<table>
<thead>
<tr>
<th>Type</th>
<th>Transparent (Radio-only, no built-in protocol or software configuration)</th>
<th>Packetized Wireless Data (Serial UART interface with built-in protocol for data transfer)</th>
<th>Remote Control &amp; Sensor (Built-in encoder/decoder/transcoder)</th>
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<td><strong>Picture</strong></td>
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**Remote Control & Sensor (Built-in encoder/decoder/transcoder)**

- Remote control, keyless entry, sporting, lighting, irrigation, consumer, security/safety, proximity sensing, home and industrial automation, signage, sensors, telemetry
- Consumer, home, sporting
- Consumer, home, sporting, cost sensitive applications
- Digital and analog sensor input, acknowledgement, robust
- Plug & play, integrated encoder/decoder

**Applications**

- Data transfer, sensors/telemetry, home and industrial automation, M2M, lighting, irrigation, security/safety, proximity sensing, healthcare, signage, automotive, alternative
- Remote control, keyless entry, sporting, consumer, home and industrial automation, signage, lighting

**Series**

- HumData™™ (DT)
- HumRC™ (RC)
- LT
- IC

**Function**

- Transmitter, Receiver, Transceiver

**Product Positioning**

- Longest range, 12.5dBm
- Short range, worldwide acceptance
- Medium range, worldwide acceptance
- Plug & play for remote control with integrated MCU and FHSS protocol

**Size (mm)**

- 16.00 x 20.62
- 16.00 x 20.62
- 15.72 x 16.00

**Frequencies**

- 868–870MHz
- 902–928MHz
- 868–870MHz

**Modulation**

- FSK
- MSK

**Certifications**

- FCC, ANATEL
- FCC, IC, Cofetel
- FCC, IC, CE
- FCC, IC

**Applications**

- HumData™™ (DT)
- HumRC™ (RC)

**RTS**

- 20mA
- 20mA
- 15.72 x 16.00

**Max. Power**

- 0dBm
- 0dBm
- 0dBm

**RX Current**

- 2.0mA
- 2.0mA
- 2.0mA

**TX Current**

- 2.0mA
- 2.0mA
- 2.0mA

**RX Sensitivity**

- –113dBm
- –113dBm
- –113dBm

**Modulation**

- 90µA
- 1.5mA
- 1.5mA

**Current**

- 4mA
- 4mA
- 4mA

**RX**

- 3µA
- 3µA
- 3µA

**Operating Voltage**

- 2.0–3.6VDC
- 2.0–3.6VDC
- 2.0–3.6VDC

**RX**

- 3µA
- 3µA
- 3µA

**RTS**

- 25mA
- 25mA
- 25mA

**TX**

- 1.2–115.2kbps
- 1.2–115.2kbps
- 1.2–115.2kbps

**RX Sensitivity**

- –112dBm
- –112dBm
- –112dBm

**Operating Voltage Range**

- 2.5–5.5VDC
- 2.5–5.5VDC
- 2.5–5.5VDC

**Sleep Current**

- 3µA
- 3µA
- 3µA

**TX**

- 2.0–3.6VDC
- 2.0–3.6VDC
- 2.0–3.6VDC

**Line-of-Sight Range**

- 1600m
- 1600m
- 1600m

**Operating Temp Range**

- –30 to 70°C
- –40 to 85°C
- –40 to 107°C

**RX**

- 3µA
- 3µA
- 3µA

**Channel**

- Transparent Serial
- Transparent Serial
- Transparent Serial

**Channel Range**

- 1–101
- 32 or 64 DTS
- 1

**Interface**

- Transparent Serial
- Transparent Serial
- Transparent Serial

**Protocol**

- None
- Serial DTS
- None

**Data Rate**

- 11.5µA
- 11.5µA
- 11.5µA

**Certifications**

- None
- None
- None

**Applications**

- Data transfer, sensors/telemetry, home and industrial automation, M2M, lighting, irrigation, security/safety, proximity sensing, healthcare, signage, automotive, alternative
- Remote control, keyless entry, sporting, consumer, home and industrial automation, signage, lighting

**Power Dissipation**

- 868–870MHz
- 902–928MHz
- 902–928MHz

**Modulation**

- FSK
- MSK
- FSK

**Certifications**

- None
- None
- None

**Applications**

- Consumer, home, sporting
- Medium range telemetry, robust applications
- Long range, telemetry, robust applications
- Consumer, home, sporting, cost sensitive applications

**Certifications**

- EVM module: FCC, IC, CE
- Planned: FCC, IC, CE
- Planned: FCC, IC, CE

**Applications**

- Data transfer, sensors/telemetry, home and industrial automation, M2M, lighting, irrigation, security/safety, proximity sensing, healthcare, signage, automotive, alternative

**Applications**

- Digital and analog sensor input, acknowledgement, robust
- Analog sensor, robust, acknowledgement

**Applications**

- Consumer, home, sporting
Basic Evaluation Kits and Master Development Systems

The evaluation and development kits are not an afterthought to us at Linx. They are key to how we make Wireless Made Simple®. We do not consider a designer who purchases our kit to be a customer yet; they are potential customers who must be won over by our development experience and the support we provide. Linx kits are different in that they are:

1. **Intuitive** – We took inspiration from modern consumer products and usability best practices to design our kits to be extremely intuitive. Open the box and begin preliminary testing without reading the manual.

2. **Everything you need** – Contains everything a designer needs to make their product wireless including printed documentation, various Antenna Factor™ antennas, RF connectors and preloaded and configured firmware. There are no additional software licenses to buy. Master Development Kits include PC software to customize the module and troubleshoot the development.

3. **Ergonomic to develop** – Linx is unique in providing a hardware development area with easy to access lines and clips tied directly to output the RF module. The developer can easily switch between the benchmark provided in the kit and the prototype development to troubleshoot.

4. **Affordable** – The goal of Linx is to make it as easy as possible to try out our products, not to make a profit on the kit. We price most development and evaluation kits at $99 and our master development kits at $159 to $189.

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