



## AMPLIFIED HUMPRO™ SERIES LONG-RANGE TRANSCEIVER MODULE

The Amplified HumPRO™ Series RF transceiver module is the easiest-to-implement solution for simple long range wireless connections. Unlike other pre-certified modules, it has a **best-in-class real-world range of over 12.9km (8 miles) with sustained data rates 200 - 1,500 times higher than competing protocols.** The Amplified HumPRO's pre-compiled software supports many common use cases out-of-the-box at 50% of the total cost of implementation of comparable solutions.

Designed to transmit digital data across a long-range wireless link, the module is a completely integrated RF transceiver and processor. With a built-in frequency hopping protocol that manages all of the transmission functions, no on-chip programming is required. Simply configure a few registers with a binary command set.

### BENEFITS



**EXTRAORDINARY RANGE  
OVER 12.9 KM (8 MILES)**



**PRE-COMPILED SOFTWARE**



**STANDARD UART INTERFACE**



**FULLY INTEROPERABLE WITH ALL  
HUMPRO™ & HUMPRC™ DEVICES  
& GATEWAYS**



**128-BIT AES ENCRYPTION**



**PRE-CERTIFIED**

### APPLICATIONS

✓ **ROBUST RANGE WITH NO INTERFERENCE**

✓ **INTERNET OF THINGS (IOT)**

✓ **MACHINE TO MACHINE**

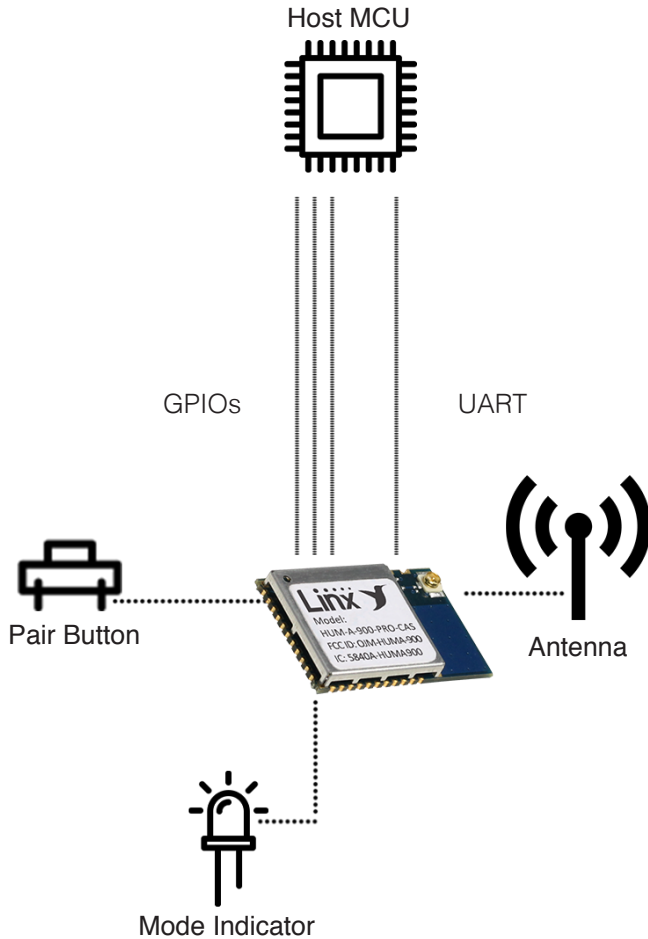
✓ **WIRELESS SENSOR NETWORKS**

✓ **REMOTE CONTROL AND STATUS MONITORING**

✓ **INDUSTRIAL AUTOMATION**

**CONTACT LINX ENGINEERING FOR MORE INFORMATION**

## BLOCK DIAGRAM



## SPECIFICATIONS

|  |  |
|--|--|
| Operating Voltage                            | 2.7 to 3.6VDC                                      |
| Dimensions                                   | 25.70 x 16.66 x 2.90 mm<br>(1.01 x 0.66 x 0.12 in) |
| Max Output Power                             |  |
| @ 19.2kbps RF Rate                           | 25dBm  |
| @ 153.6kbps RF Rate                          | 22dBm  |
| TX Supply Current                            |  |
| @ 25dBm                                      | 380mA  |
| @ 22dBm                                      | 260mA  |
| RX Supply Current                            | 39mA   |
| Power Down Current                           | <1μA   |
| RX Sensitivity                               |  |
| @ 19.2kbps RF Rate                           | -108dBm  |
| @ 153.6kbps RF Rate                          | -101dBm  |
| Operating Frequency Band                     | 902 - 928MHz                                       |
| Real-World Range                             | Up to 12.9km (8 miles)*                            |
| Operating Temperature Range                  | -40 to +85°C                                       |
| *Depending on implementation and environment |  |

## ORDERING INFORMATION

| Part Number       | Description   |
|-------------------|---|
| HUM-A-900-PRO-CAS | Amplified HumPRO™ Series High Power Data Transceiver, Castellatation Interface, External Antenna Connection |
| HUM-A-900-PRO-UFL | Amplified HumPRO™ Series High Power Data Transceiver, Castellatation Interface, u.FL Connector              |
| EVM-A-900-PRO-CAS | Amplified HumPRO™ Series Carrier Board, Thru-Hole Pin Interface, RPSMA Connector                            |
| EVM-A-900-PRO-UFL | Amplified HumPRO™ Series Carrier Board, Thru-Hole Pin Interface, u.FL Connector                             |
| MDEV-A-900-PRO    | Amplified HumPRO™ Series Master Development System  |

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