



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# ZP8D-24RM-LR

## *Industrial Long Range 868 MHz Radio Modem*

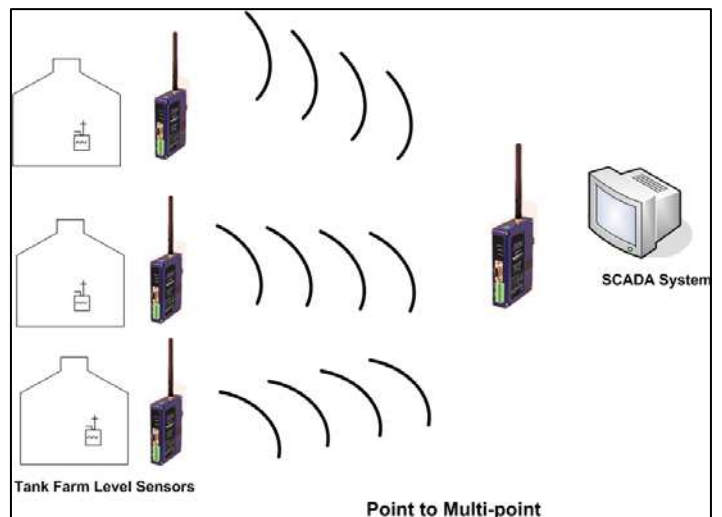
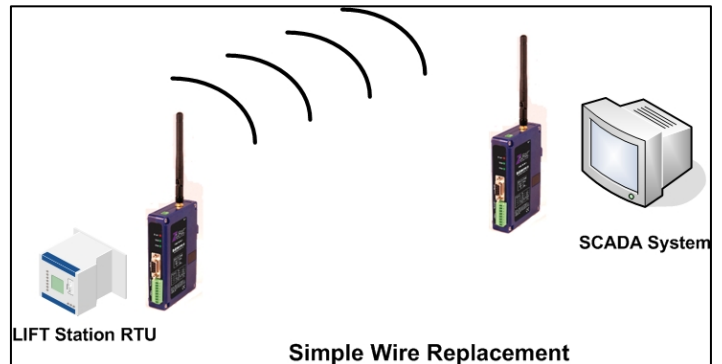
- ✓ RS-232/422/485 Wire Replacement
- ✓ Serial Data Rates up to 230.4 Kbps
- ✓ Modbus ASCII/RTU
- ✓ Long Range
- ✓ Adjustable Transmitter Power
- ✓ Wide Operating Temperature
- ✓ 10 – 48 VDC or 18 – 30 VAC Operation



Ideally suited for applications in which running cable is either too expensive or not practical. If you need to get a serial signal across a river, highway, or just to the other end of your warehouse Zlinx™ Radio Modems can do the job easier, faster, and less expensive than running cable. Easy plug-and-play setup saves installation time. Since they are Modbus compatible, no external converters are required.

Setting up and programming the modem is easy with the Zlinx™ Manager software. The software covers everything from basic to advanced settings and firmware updates.

- Long Range
- Industrial Grade DIN Mount Case
- European SRD G3 868 MHz Band
- Wide Operating Temperature, -40 to 85 C
- FSK Modulation
- LED Signal Strength Display
- Compact Omni Directional Antenna Included
- Software Adjustable Transmitter Output
- Point to point or point to multi-point operation





## Specifications

### RS-232

Connector	DB9 F, DCE
Signals	TD, RD, RTS, CTS, GND
Connector	Removable Terminal Block
Signals	TD, RD, GND

### RS-422

Connector	Removable Terminal Block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Termination	120 Ohm, DIP Switch Selectable

### RS-485

Connector	Removable Terminal Block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Modes	2 or 4 Wire
SD Control	Bit wise enabled
Termination	120 Ohm, DIP Switch Selectable

### Serial Data

Baud	1200 to 230.4
Data bits	7, 8
Parity	None, even, odd, mark, space
Stop bit	1, 2

### Link Failure Output

Connector	Removable Terminal Block
Type	Open Collector (PNP), Dry Contact
Current	40 mA

### Industrial Bus

Modbus ASCII/RTU Compatible

### Power

Connector	Removable Terminal Block
Voltage	10 to 48 VDC or 18 to 30 VAC
Power Consumption	6.0W Maximum
Source	External – Power supply is not included

### Terminal Blocks

Wire Size	28 to 16 AWG
Torque	0.2 Nm (Newton-Meters)

### LED Indicators

Power (RED)	ON = Power Applied, OFF = No Power
RSSI / Signal Level	GEEEN = Strong Yellow = Adequate Red = Weak
Wireless Data	GREEN – Flashes with data

### Enclosure

Material	Plastic
IP Rating	30
Dimensions	3.05 x 8.38 x 11.94 cm (without antenna)
Mounting	35 mm DIN Rail, Panel mount adapter is available, see ordering information

### Environmental

Intended use	Indoor outdoor within an enclosure
Op Temperature	-40 to 85 C
Storage Temp	-40 to 85 C
Op Humidity	10 to 95% Non-condensing
MTBF	172981 hours
MTBF Calc Method	Parts Count Reliability Prediction

### Agency Approvals

CE	Declaration of Conformity available For download
RoHS	Yes

### Radio Frequency

Standard	Proprietary RF
Range	Range depends on various conditions Ranges up to 40 km are possible
Frequency Band	869.4 to 869.65 (868 ) MHz
Transmitter Power	1mW, 23mW, 100mW, 158mW, 316mW
Receiver Sensitivity	-112dBm @ 24Kbps
RF Data Rate	24 Kbps
Duty Cycle	10% hourly duty cycle restriction

### Included Antenna

Connector	RP-SMA
Gain	3 dBi
Horizontal Beam	360 degrees
Impedance	50 Ohm
VSWR	< 2.0
Length	21.9 cm
Polarization	Vertical
Other	Articulated to allowing it to be used vertically, at a right angle, or any angle in between

### Security

Number of Channels	Single Channel
Addressing	PAN ID, 64-bit addresses
Encryption	128 bit AES

### Software

Programming OS	Zlinx Manager Software on CD Windows 2000, 2003 Server, XP, and Vista
Features	AT Command Terminal Emulation RSSI Signal Range Test Modem Emulation

### Ordering Information

ZP8D-24RM-LR	868 MHz Long Range Radio Modem
RM-LR824-KIT	868 MHz Radio Modem Kit Includes two radio modems, two 30W, 24V, DIN Rail Power Supplies, and one 6 foot serial cable for programming.

Power Supply  
An external power supply is required but not included. Model DR-30-24 (30W, 24V, DIN Mount) should work in most applications.

DRPM25  
High Gain Antennas  
Panel Mount Adapter  
B&B Electronics has a full line of optional high gain antennas

### Replacement Items

ZP9D-ANT1	Replacement antenna
ZP9D-DIN1	Replacement DIN clip and spring
ZP9D-TB1	Replacement terminal block and DIP Switch cover

