



# MLB-Z1001

## Serial to 900 MHz RF Modem

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**MLiS MLB-Z1001** is a 900 MHz RF modem designed for RS232/422/485 communication via any readily available ZigBee networks. Overall, it offers a more cost effective and time to market solution for bridging remote machine to machine over diverse locations without first having to invest and engineer a huge complex network.

**MLB-Z1001** modem uses the DB9 & Terminal block connector to provide data communication interface and the DC jack to provide power input. LEDs are used to indicate the status of the modem.

**MLB-Z1001** modem can be used to provide wireless communication link for many applications, including warehouse, AGV, and street light applications.

**Strong  
Penetration**

**-40 ~ +75°C**

**AutoMesh  
Network**

### Features

- 900 MHz RF signal
- Automatically build up Mesh Network (Auto-Mesh)
- Longer distance to 2000ft. (610m)
- RF data rate up to 200 Kbps
- Configuration utility

## General Features

Frequency Band	902~928 MHz, software selectable channel mask for interference immunity
Power Input	5~32VDC
Operating Temperature	-40~+75°C
ESD Protection	15KV
Dimension (L) x (W) x (H)	86 x 76 x 25mm (excluding connectors)
Power Consumption	60mA @ Working Mode 28mA @ Standby Mode
Humidity	5~95% (non-condensing).
Weight	212g (without antenna)
Casing Material	Metal

## Data Transmission

RF Data Rate	10 Kbps or 200 Kbps
Indoor/Urban Range	Up to 2000ft. (610m)
Outdoor/Line-of-Sight Range	Up to 9 miles (14km) w/ dipole antenna; up to 28 miles (45km) w/ high-gain antenna
Transmit Power	Up to 24 dBm (250 mW) software selectable
Receiver Sensitivity	-101 dBm @ 200 Kbps -110 dBm @ 10 Kbps
Power Level	+7 dBm (5 mW) +15 dBm (32 mW) +18 dBm (63 mW) +21 dBm (125 mW) +24 dBm (250 mW)

## Special Features

Networking Topologies	Mesh, Repeater, Point-to-Point, Point-to-Multipoint, Peer-to-Peer
Number of Channels, User Selectable Channels	64 channels available
Encryption	128 bit AES
Configuration tool	Yes
Spread Spectrum	FHSS (Software Selectable Channels)

## Interfaces

RF Antenna Socket	50ohm SMA
Power Connector	DC jack connector
Serial Interface	DB9 connector for RS-232 (female) Terminal block for RS422/485
LED	1 x Power 1 x Tx 1 x Indicator
Reset	HW Reset

## Reliability

MTBF	2,073,734hrs
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## Approval

Certification	EMC EN55022/24
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## Regional Contact

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## Official Website



MLiS Website | [www.schmidtm2m.com](http://www.schmidtm2m.com)

Support | [www.schmidtm2m.com/support](http://www.schmidtm2m.com/support)

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