MLB-Z4001

Ethernet to 900 MHz RF Modem

MLiS MLB-Z4001 is an Ethernet to 900 MHz RF modem designed for Ethernet 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-Z4001 modem uses the RJ45 connector to provide data communication interface and the DC jack to provide power input. LEDs are used to indicate the status of the terminal. MLB-Z4001 is taking advantage of the specific Mesh networking protocol, featuring dense network operation and supporting for sleeping routers, and are also available in a proprietary point-to-multipoint configuration.

MLB-Z4001 modem can be used to provide wireless communication link for many applications, including warehouse, building automation, and street light applications.

Strong Penetrating	**Features**
	■ 900 MHz RF signal
	■ Automatically build up Mesh Network (Auto-Mesh)
-40 ~ +85°C	■ Longer distance to 2000ft (610m)
	■ RF data rate up to 200 Kbps
AutoMesh Network	■ Configuration utility/Web console

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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)	86x76x25mm (excluding connectors)
Power Consumption	Normal mode: mA
Humidity	5~95% (non-condensing).
Weight	218g (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
Protocol	TCP/IP, UDP, HTTP, ICMP, IPv4, IGMP, DHCP, Telnet
Encryption	128 bit AES
Configuration tool	Web console/utility
Spread Spectrum	FHSS (Software Selectable Channels)

Interfaces

RF Antenna Socket	50ohm SMA
Power Connector	DC jack connector
Network Interface	RJ45 connect for Ethernet 10/100M
LED	1 x Power 1 x Tx/Rx 1 x Ethernet 10/100M Indicator
Reset	HW Reset

Reliability

MTBF	2,039,188hrs

Approval

Certification	EMC EN55022/24