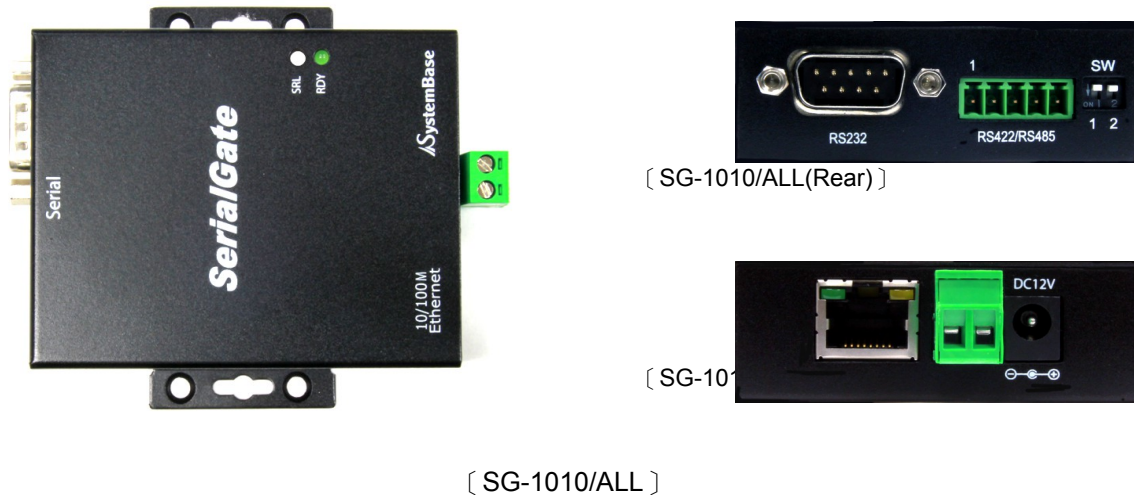# *SerialGate*

(SG-1010/ALL, SG-1010W/ALL, SG-1020/ALL, SG-1020W/ALL, Eddy-Zigbee Module)

Catalog Material

2012.11.22

SG-1010/ALL

〔SG-1010/ALL(Rear)〕

〔SG-10...〕

〔SG-1010/ALL〕

- Features

● Speed: Max 921.6Kbps

● Operating Temperature Suitable for Industrial Use (-40℃ ~ 85℃)

● RS232/RS422/RS485 All Serial Port * 1 (RS232(DB9), RS422/485(Terminal Block))

● 10/100Mbps Ethernet Port

● COM Port Redirector

● Extended Setting and monitoring through PortView™

● Firmware Update using Web, FTP

● Equipment Setting through Web, Telnet, SNMP, PortView™

● Various Setting Available (Developer can modify S/W)

● LED showing Link, LAN & Serial Status

● Metal Case

● DIN Rail can be installed

- Overview

SG-1010/ALL is a device server which consists of a serial port and 10/100M LAN port. There are all type of model, RS232/422/485, and they support communication speed of up to 921.6Kbps. SG-1010/ALL automatically converts data from serial devices to network packets so that it can be accepted by any application with socket communication enabled. It also provides function called COM port redirection which enables serial communication without socket

program. This device can be effectively applied in many fields; POS related device connection, various serial device connections in factory, remote monitoring/ control/data collection of serial device through web browser, building automation, etc.

Connect Serial Devices to LAN

All the serial devices with RS232/422/485 interface can be connected to LAN.

Easy Maintenance

In addition to the integrated web interface, Windows-based utility, Portview™, enables easy maintenance. For more precise analysis and setting, Telnet can be used.

Easy Installation

Rail affixed to the side enables semi-permanent installation on any surface, and the device can be installed on DIN rail using mounting bracket.

Various Utilities

SystemBase provides free utilities, Portview™, COM Port Redirector, and Testview, along with device server. COM Port Redirector is an automatic serial/LAN conversion driver installed on a PC. When installed, a user can use serial ports in Portbase that are connected through a network as if they were COM ports in the user PC. PortView™ is a real-time communication status-monitoring program for Portbase. From a Windows-based PC, Portbase communication status and all input/ output data through each serial port can be monitored from a remote site. TestView is a testing program that evaluates performance of serial port and LAN port

- Specification

Network

Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP, HTTP, SNMP 1/2/3, SSH, SSL
LAN Port	10/100 Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial Port

Port	1 Serial Port
Interface	RS232 (DB9), RS422/485 (Terminal Block)

Speed	Max 921.6 Kbps
Signals	TX, RX, DTR, DSR, CTS, RTS, DCD
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Software

| OS	Embedded LINUX
Management Tool	Portview™, Web, Telnet
Configuration	Web, Telnet
Security	SSH
COM Port Redirection	COM Port Redirector for Windows 200X/XP/7/Vista (32/64 bit)

Hardware

Processor	ARM926EJ-S(400MHz)
Flash Memory	8MB
SDRAM	32MB
LED	Ready, Serial, WiFi
Power Input	DC 9 ~ 48V Adapter, Terminal Block Power Consumption: 2W
Dimensions	65(W) x 79.5(L) x 24.3(H)mm
Weight	165g
Enclosure	Metal
Operating Temperature	-40℃ ~ 85℃
Storage Temperature	-60 ~ 150℃
Humidity	5 ~ 95% Non-condensing
Certification	KC, CE, FCC

- Ordering Information

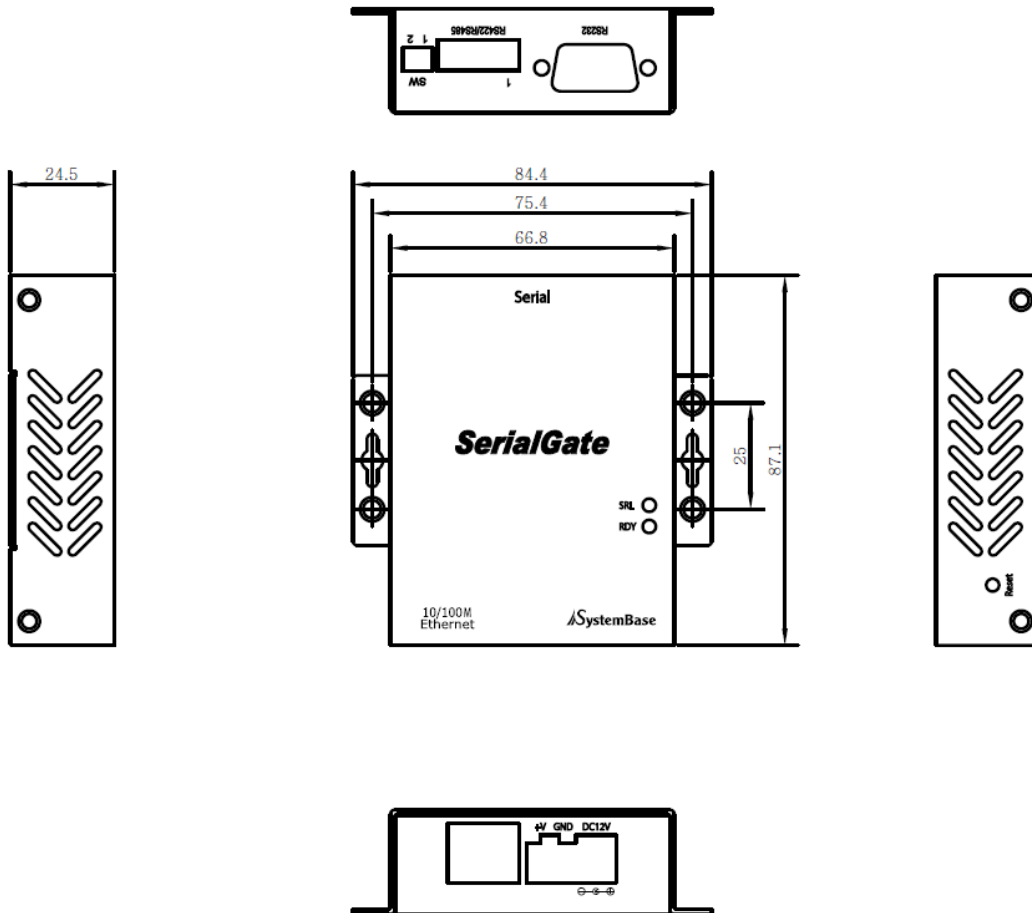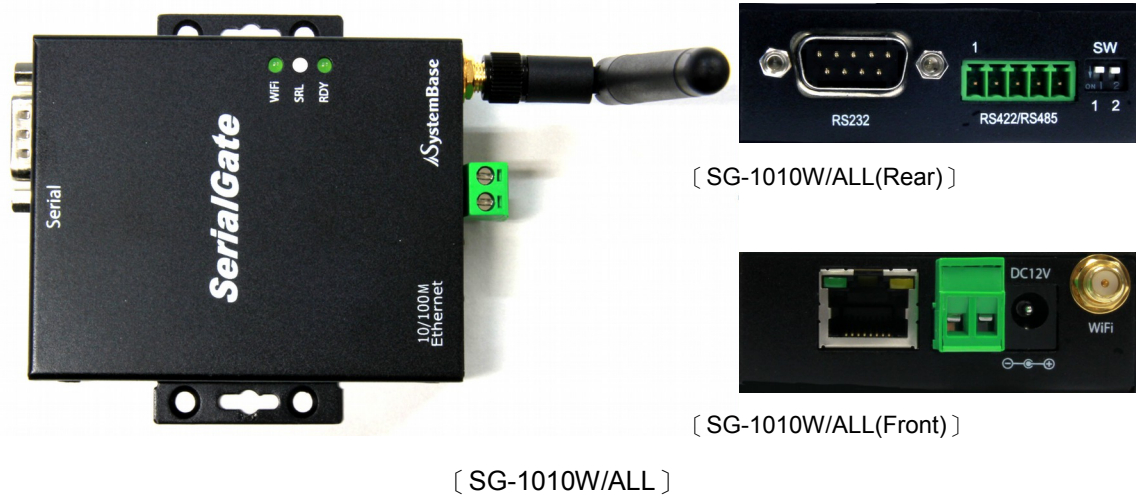| SG-1010/ALL	- 1 port RS232/422/485 to Ethernet Device Server - DC9~48V Power Input
Package Contents	SerialGate, Direct LAN Cable, Power Adapter (DC12V), CD (Manual and Utility

- Pin Assignment

DSR — 6
RTS — 7
CTS — 8
RI — 9
1 — DCD
2 — RXD
3 — TXD
4 — DTR
5 — GND

TX+   TX-   GND   RX+   RX-
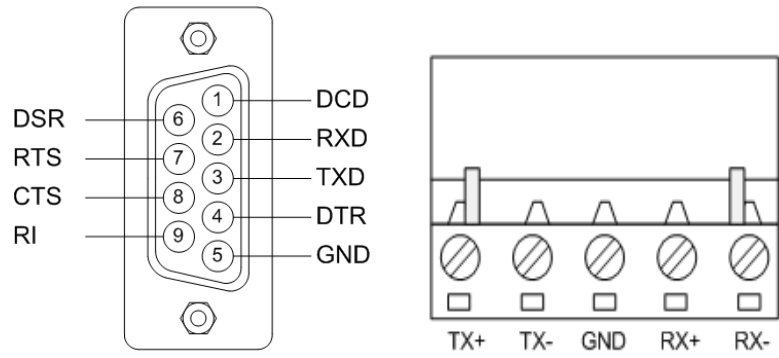
RS232 (DB-9)   RS422/RS485 (Terminal Block)

- Dimension

〔 SG-1010/ALL 〕

SG-1010W/ALL

〔 SG-1010W/ALL(Rear)〕

〔 SG-1010W/ALL(Front)〕

〔 SG-1010W/ALL 〕

- Features

● IEEE standards support: IEEE 802.11b/g/n

● Supports 64/128-bit WEP, WPA (TKIP with IEEE 802.1x), WPA2 (AES with IEEE802.1x) functions for high level of security.

● Speed: Max 921.6Kbps

● Operating Temperature Suitable for Industrial Use (-10℃ ~ 70℃)

● RS232/RS422/RS485 All Serial Port * 1 (RS232(DB9), RS422/485(Terminal Block))

● 10/100Mbps Ethernet Port

● COM Port Redirector

● Extended Setting and monitoring through PortView™

● Firmware Update using Web, FTP

● Equipment Setting through Web, Telnet, SNMP, PortView™

● Various Setting Available (Developer can modify S/W)

● LED showing Link, LAN & Serial Status

● Metal Case

● DIN Rail can be installed

- Overview

SG-1010W/ALL is a wireless serial device server, enabling serial devices to communicate on wireless LAN. With IEEE 802.11b/g/n wireless standard, maximum speed of up to 54Mbps can be achieved. Specialized security features make SG-1010W/ALL a feasible solution in industrial

automation, building automation, medical devices, point of sale, any M2M or SCADA application with serial connectivity. Included Serial Port Emulator allows for an easy integration with existing serial communication applications

Connect Serial Devices to LAN

All the serial devices with RS232/422/485 interface can be connected to LAN.

Easy Maintenance

In addition to the integrated web interface, Windows-based utility, Portview™, enables easy maintenance. For more precise analysis and setting, Telnet can be used.

Easy Installation

Rail affixed to the side enables semi-permanent installation on any surface, and the device can be installed on DIN rail using mounting bracket.

Various Utilities

SystemBase provides free utilities, Portview™, COM Port Redirector, and Testview, along with device server. COM Port Redirector is an automatic serial/LAN conversion driver installed on a PC. When installed, a user can use serial ports in Portbase that are connected through a network as if they were COM ports in the user's PC. PortView™ is a real-time communication status-monitoring program for Portbase. From a Windows-based PC, Portbase communication status and all input/output data through each serial port can be monitored from a remote site. TestView is a testing program that evaluates performance of serial port and LAN port.

- Specification

Network

Communication	IEEE 802.11b/g/n
Speed	Max 54Mbps
Output	802.11b: 16 dBm
	802.11g: 14 dBm
	802.11n: 14 dBm (40MHz BW)
Range	Up to 100 meters (in open areas)
Modulation	802.11b: CCK, DQPSK, DBPSK
	802.11g: 64 QAM, 16 QAM, QPSK, BPSK

	802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Receive Sensitivity	802.11b: -84dBm
	802.11g: -73dBm
	802.11n: -71dBm
Frequency	ISM band 2.4GHz ~ 2.4884GHz
Security	WEP 64bit/128bit data encryption
	WPA, WPA-PSK, WPA2, WPA2-PSK (with TKIP/AES)
Antenna	ANT 2.4Ghz 3DB, 1 x U.FL
Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP, HTTP, SNMP 1/2/3, SSH, SSL
LAN Port	10/100 Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial Port

Port	1 Serial Port
Interface	RS232 (DB9), RS422/485 (Terminal Block)
Speed	Max 921.6 Kbps
Signals	TX, RX, DTR, DSR, CTS, RTS, DCD
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Software

|	
OS	Embedded LINUX
Management Tool	Portview™, Web, Telnet
Configuration	Web, Telnet
Security	SSH
COM Port Redirection	COM Port Redirector for Windows 200X/XP/7/Vista (32/64 bit)

Hardware

Processor	ARM926EJ-S(400MHz)
Flash Memory	8MB
SDRAM	32MB
LED	Ready, Serial, WiFi

| Power Input	DC 9 ~ 48V Adapter, Terminal Block Power Consumption: 2W
Dimensions	65(W) x 79.5(L) x 24.3(H)mm
Weight	180g
Enclosure	Metal
Operating Temperature	-10℃ ~ 70℃
Storage Temperature	-55 ~ 125℃
Humidity	5 ~ 95% Non-condensing
Certification	KC, CE, FCC

- Ordering Information

SG-1010W/ALL	- 1 port RS232/422/485 to Wireless LAN Device Server - DC9~30V Power Input
Package Contents	SerialGate, Direct LAN Cable, Power Adapter (DC12V), CD (Manual and Utility

- Pin Assignment

RS232 (DB-9)   RS422/RS485 (Terminal Block)
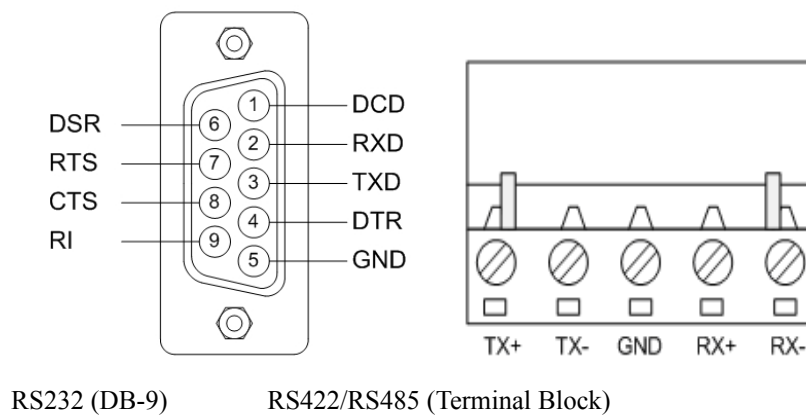
- Dimension

〔 SG-1010W/ALL 〕
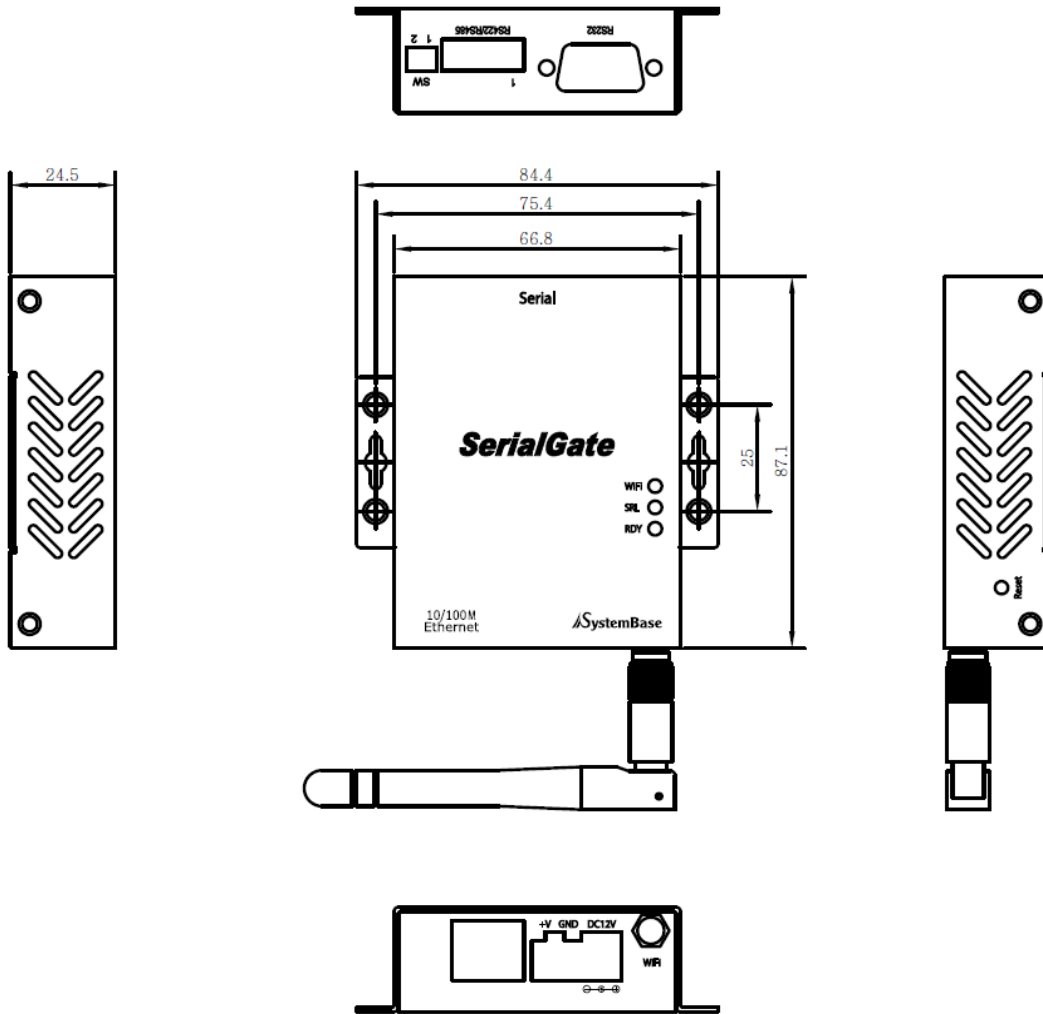
SG-1020/ALL

〔 SG-1020/ALL(Front)〕

〔 SG-1020/ALL 〕

- Features

- Speed: Max 921.6Kbps
- Operating Temperature Suitable for Industrial Use (-40℃ ~ 85℃)
- RS232/RS422/RS485 All Serial Port * 2 (RS232(DB9), RS422/485(Terminal Block))
- 10/100Mbps Ethernet Port
- COM Port Redirector
- Extended Setting and monitoring through PortView™
- Firmware Update using Web, FTP
- Equipment Setting through Web, Telnet, SNMP, PortView™
- Various Setting Available (Developer can modify S/W)
- LED showing Link, LAN & Serial Status
- Metal Case
- DIN Rail can be installed

- Overview

SG-1020/ALL is a device server which consists of a serial port and 10/100M LAN port. There are all type of model, RS232/422/485, and they support communication speed of up to 921.6Kbps. SG-1020/ ALL automatically converts data from serial devices to network packets so that it can be accepted by any application with socket communication enabled. It also provides function called COM port redirection which enables serial communication without socket program. This device can be effectively applied in many fields; POS related device connection, various serial device connections in factory, remote monitoring/ control/data collection of serial device through web browser, building automation, etc. various serial device

connections in factory, remote monitoring/ control/data collection of serial device through web browser, building automation, etc.

Connect Serial Devices to LAN

All the serial devices with RS232/422/485 interface can be connected to LAN.

Easy Maintenance

In addition to the integrated web interface, Windows-based utility, Portview™, enables easy maintenance. For more precise analysis and setting, Telnet can be used.

Easy Installation

Rail affixed to the side enables semi-permanent installation on any surface, and the device can be installed on DIN rail using mounting bracket.

Various Utilities

SystemBase provides free utilities, Portview™, COM Port Redirector, and Testview, along with device server. COM Port Redirector is an automatic serial/LAN conversion driver installed on a PC. When installed, a user can use serial ports in Portbase that are connected through a network as if they were COM ports in the user PC. PortView™ is a real-time communication status-monitoring program for Portbase. From a Windows-based PC, Portbase communication status and all input/ output data through each serial port can be monitored from a remote site. TestView is a testing program that evaluates performance of serial port and LAN port

- Specification

Network

Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP, HTTP, SNMP 1/2/3, SSH, SSL
LAN Port	10/100 Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial Port

Port	2 Serial Port
Interface	RS232 (DB9), RS422/485 (Terminal Block)
Speed	Max 921.6 Kbps

Signals	1st Port: TX, RX, DTR, DSR, CTS, RTS, DCD
	2nd Port: TX, RX, CTS, RTS
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Software

| OS	Embedded LINUX
Management Tool	Portview™, Web, Telnet
Configuration	Web, Telnet
Security	SSH
COM Port Redirection	COM Port Redirector for Windows 200X/XP/7/Vista (32/64 bit)

Hardware

Processor	ARM926EJ-S(400MHz)
Flash Memory	8MB
SDRAM	32MB
LED	Ready, Serial, WiFi
Power Input	DC 9 ~ 48V Adapter, Terminal Block Power Consumption: 2W
Dimensions	80.9(W) x 110.5(L) x 24.3(H)mm
Weight	241g
Enclosure	Metal
Operating Temperature	-40℃ ~ 85℃
Storage Temperature	-60 ~ 150℃
Humidity	5 ~ 95% Non-condensing
Certification	KC, CE, FCC

- Ordering Information

SG-1020/ALL	- 2 port RS232/422/485 to Ethernet Device Server
	- DC9~48V Power Input
Package Contents	SerialGate, Direct LAN Cable, Power Adapter (DC12V),
	CD (Manual and Utility

- Pin Assignment
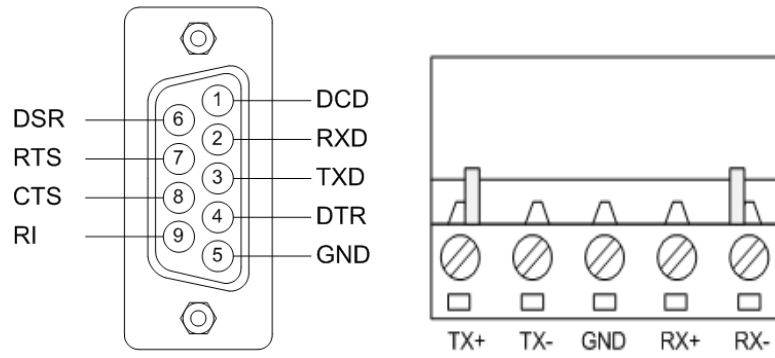
RS232 (DB-9)   RS422/RS485 (Terminal Block)

- Dimension

〔 SG-1020/ALL 〕

SG-1020W/ALL

〔SG-1020W/ALL〕

〔SG-1020W/ALL(Front)〕

- Features

● IEEE standards support: IEEE 802.11b/g/n

● Supports 64/128-bit WEP, WPA (TKIP with IEEE 802.1x), WPA2 (AES with IEEE802.1x) functions for high level of security.

● Speed: Max 921.6Kbps

● Operating Temperature Suitable for Industrial Use (-10℃ ~ 70℃)

● RS232/RS422/RS485 All Serial Port * 2 (RS232(DB9), RS422/485(Terminal Block))

● 10/100Mbps Ethernet Port

● COM Port Redirector

● Extended Setting and monitoring through PortView™

● Firmware Update using Web, FTP

● Equipment Setting through Web, Telnet, SNMP, PortView™

● Various Setting Available (Developer can modify S/W)

● LED showing Link, LAN & Serial Status

● Metal Case

● DIN Rail can be installed

- Overview

SG-1020W/ALL is a wireless serial device server, enabling serial devices to communicate on wireless LAN. With IEEE 802.11b/g/n wireless standard, maximum speed of up to 54Mbps can be achieved. Specialized security features make SG-1020W/ALL a feasible solution in industrial automation, building automation, medical devices, point of sale, any M2M or SCADA application with serial connectivity. Included Serial Port Emulator allows for an easy integration with existing serial communication applications

Connect Serial Devices to LAN

All the serial devices with RS232/422/485 interface can be connected to LAN.

Easy Maintenance

In addition to the integrated web interface, Windows-based utility, Portview™, enables easy maintenance. For more precise analysis and setting, Telnet can be used.

Easy Installation

Rail affixed to the side enables semi-permanent installation on any surface, and the device can be installed on DIN rail using mounting bracket.

Various Utilities

SystemBase provides free utilities, Portview™, COM Port Redirector, and Testview, along with device server. COM Port Redirector is an automatic serial/LAN conversion driver installed on a PC. When installed, a user can use serial ports in Portbase that are connected through a network as if they were COM ports in the user's PC. PortView™ is a real-time communication status-monitoring program for Portbase. From a Windows-based PC, Portbase communication status and all input/output data through each serial port can be monitored from a remote site. TestView is a testing program that evaluates performance of serial port and LAN port.

- Specification

Network

Communication	IEEE 802.11b/g/n
Speed	Max 54Mbps
Output	802.11b: 16 dBm
	802.11g: 14 dBm
	802.11n: 14 dBm (40MHz BW)

Range	Up to 100 meters (in open areas)
Modulation	802.11b: CCK, DQPSK, DBPSK
	802.11g: 64 QAM, 16 QAM, QPSK, BPSK
	802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Receive Sensitivity	802.11b: -84dBm
	802.11g: -73dBm
	802.11n: -71dBm
Frequency	ISM band 2.4GHz ~ 2.4884GHz
Security	WEP 64bit/128bit data encryption
	WPA, WPA-PSK, WPA2, WPA2-PSK (with TKIP/AES)
Antenna	ANT 2.4Ghz 3DB, 1 x U.FL
Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP, HTTP, SNMP 1/2/3, SSH, SSL
LAN Port	10/100 Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial Port

Port	2 Serial Port
Interface	RS232 (DB9), RS422/485 (Terminal Block)
Speed	Max 921.6 Kbps
Signals	1st Port: TX, RX, DTR, DSR, CTS, RTS, DCD
	2nd Port: TX, RX, CTS, RTS
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Software

| OS	Embedded LINUX
Management Tool	Portview™, Web, Telnet
Configuration	Web, Telnet
Security	SSH
COM Port Redirection	COM Port Redirector for Windows 200X/XP/7/Vista (32/64 bit)

Hardware

Processor	ARM926EJ-S(400MHz)
Flash Memory	8MB
SDRAM	32MB
LED	Ready, Serial, WiFi
Power Input	DC 9 ~ 48V Adapter, Terminal Block Power Consumption: 2W
Dimensions	80.9(W) x 110.5(L) x 24.3(H)mm
Weight	256g
Enclosure	Metal
Operating Temperature	-10℃ ~ 70℃
Storage Temperature	-55 ~ 125℃
Humidity	5 ~ 95% Non-condensing
Certification	KC, CE, FCC

- Ordering Information

SG-1010W/ALL	- 2 port RS232/422/485 to Wireless LAN Device Server
	- DC9~30V Power Input
Package Contents	SerialGate, Direct LAN Cable, Power Adapter (DC12V),
	CD (Manual and Utility

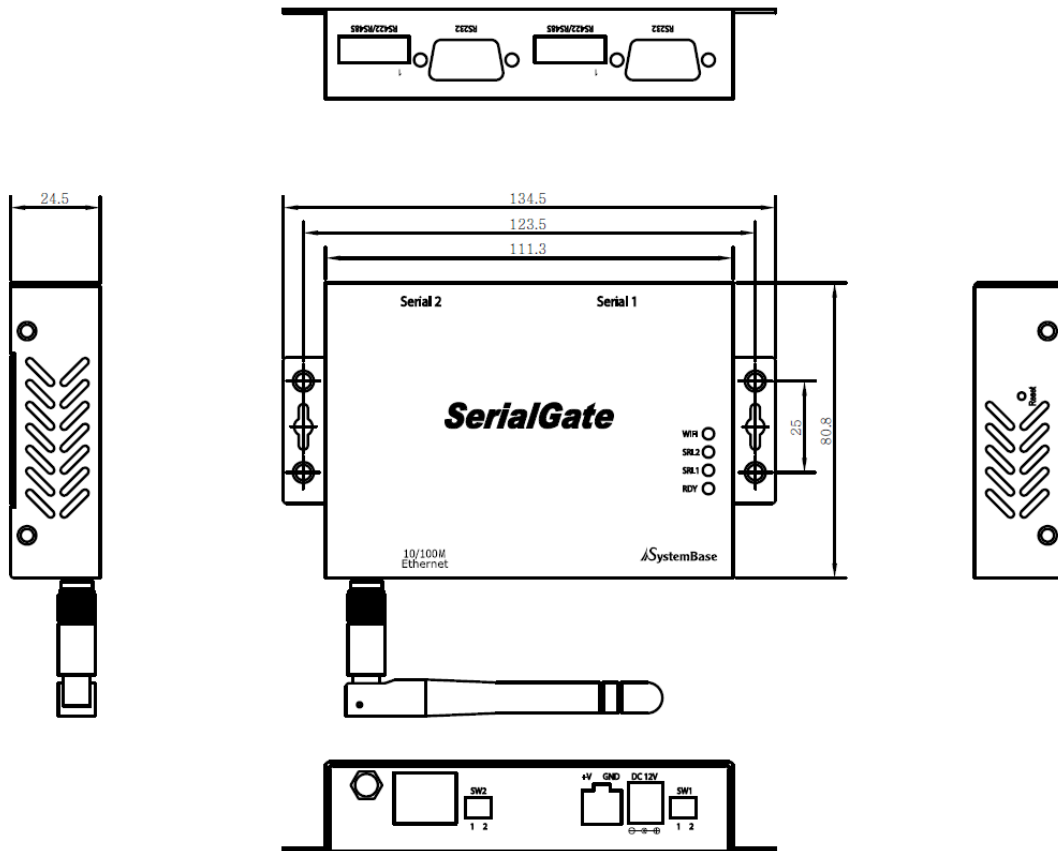## - Pin Assignment

1st RS232 (DB-9)   2nd RS232 (DB-9)
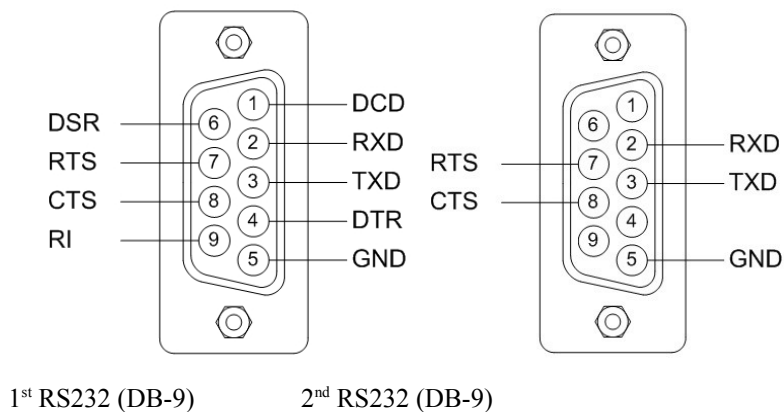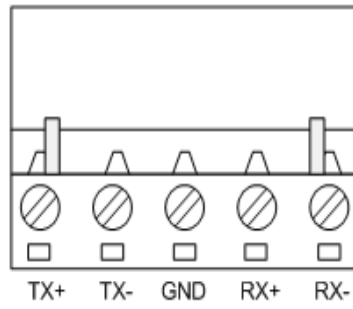
RS422/RS485 (Terminal Block)

- Dimension

〔 SG-1020W/ALL 〕

SG–1010Z/ALL

Image

1 Port Serial to Zigbee Device Server

Highlights

- Support IEEE standards: IEEE 802.15.4 ZigBee PRO Standard
- Modulation: DSSS
- Supports AES
- Speed: Max 250Kbps
- 10/100Mbps Ethernet Port
- Operating Temperature suitable for industrial use (-40~85℃)
- RS232/RS422/RS485 Serial Port *1
  RS232(DB9), RS422/RS485(Terminal Block)
- COM Port Redirector
  Extended setting and monitoring through PortView™
- Firmware Update using Web, TFTP, Telnet
- Management through Web, Telnet, SSH, SNMP, PortView™
- Various configuration settings available
  (Developers can modify S)
- LED showing Link, LAN & Serial status
- DIN rail can be installed.

Overview

SG-1010Z/ALL is a wireless serial device server, enabling serial devices to communicate

on wireless LAN. With IEEE 802.15.4 ZigBee PRO standard, it can achieve maximum

speed of up to 256Kbps. Specialized security features make SG-1010Z/ALL a feasible

solution in industrial automation, manufacturing automation, medical devices, point of

sale, any M2M2 or SCADA application with serial connectivity. Included Serial Port

Emulator allows easy integration with existing serial communication applications.

Connect Serial Devices to Ethernet

Easily connect RS-232/422/485 serial devices to your network using the SG-1010Z/ALL
which can be conveniently placed next to your serial equipment.

SystemBase

Manageability

Configuration and management are quickly done by accessing the internal, secure web server or with PortView™ a Windows-based utility offers powerful tools for SerialGate device servers.

Mounting Flexibility

Integrated "mounting ears" affixed to the side enables easy and secure placement on any surface or to install on a DIN rail using a mounting bracket.

Powerful Management Utilities

SystemBase provides powerful and free utilities. COM port redirection software creates virtual COM ports so your application can talk to your serial devices over the Ethernet without any customization. PortView™ is a real-time management application that simplifies port status monitoring, diagnostics and managing devices attached to your SerialGate ports. TestView™ is a Windows based program used to test and evaluate the communication performance and stability of serial and LAN ports on SerialGate device servers.

Specification

Network

Communication	IEEE 802.15.4 and ZigBee
Speed	Max 250Kbps
Output	Power Up to 4.5dBm
Range	Up to 100 meters (in open areas)
Modulation	DSSS
Receive Sensitivity	-97dBm
Frequency	2.394GHz ~ 2.507GHz
Security	AES
Antenna	ANT 2.4Ghz 3DB, 1 x U.FL antenna
Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP,

	HTTP, SNMP, SSH, SSL
LAN Port	10/100Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial

Port	1 Port Serial
Interface	RS232(DB9), RS422/485 (Terminal Block)
Speed	Max 921.6 Kbps
signals	RS232: TX, RX, DTR, DSR, CTS, RTS, DCD
	RS422: TX+, TX−, RX+, RX−
	RS485: TRX+, TRX,−
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Software

O/S	Embedded LINUX
Management	PortView™, Web, Telnet
Setting	Web, Telnet
Security	SSH
COM Port Redirection	COM Port Redirector for Windows
	2000 / XP / 2003 / Vista / 7 / 2008

Hardware

Processor	ARM926EJ−S(400MHz)
Flash Memory	8 MB
SDRAM	32 MB
LED	Ready, Serial, Zigbee
Power Input	DC 12V Adapter, Terminal Block
	Power Consumption: 2W
Dimensions	2.63(W) * 3.43(L) * 0.96(H) in
	66.8(W) * 87.1(L) * 24.5(H) mm
Weight	6.5 oz / 186 g

Environmental

Dimension	−40℃ ~ 85℃
Weight	−55℃ ~ 125℃
Power	5 ~ 95% Non-condensing

Approvals

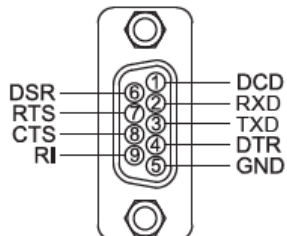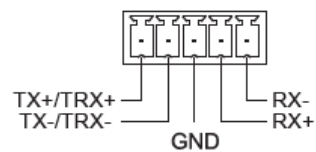| CE, FCC, KC |
|---|

Ordering Info

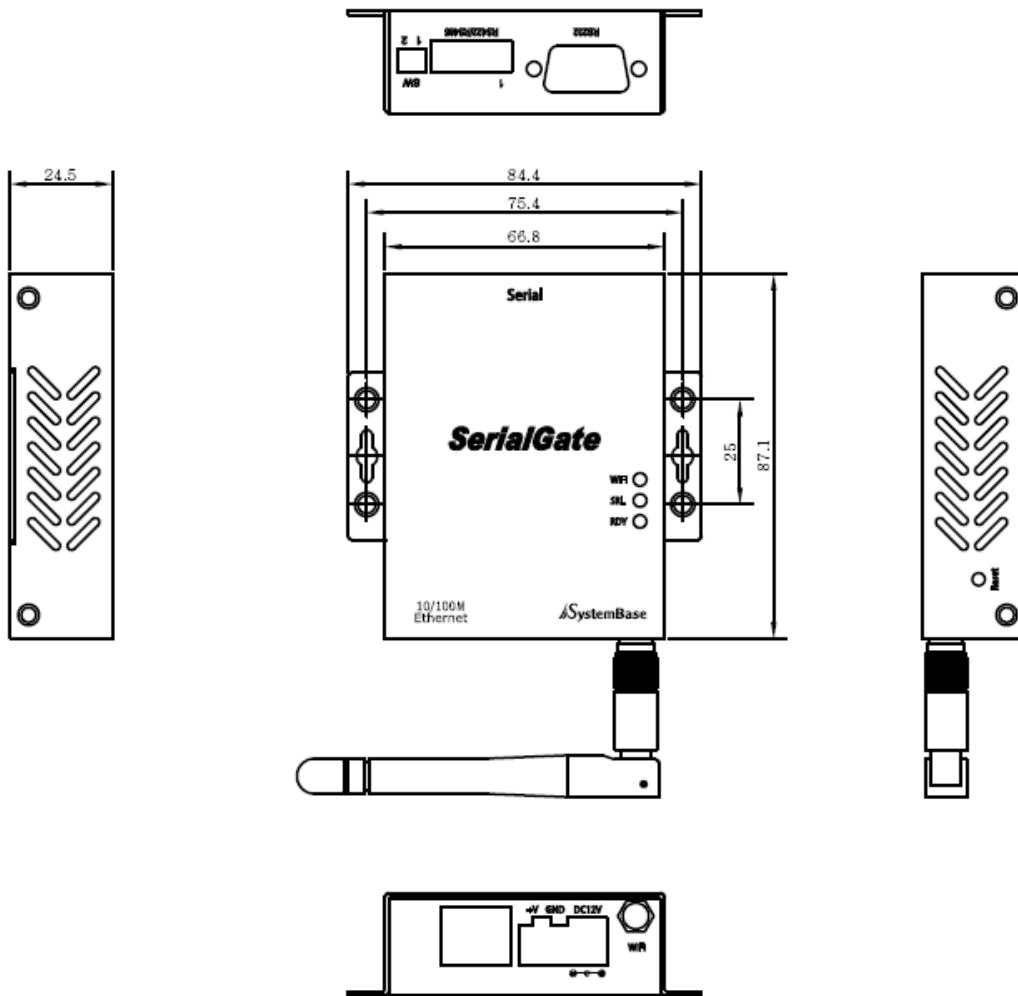| SG-1010Z/ALL	1 port RS232/422/485 to Zigbee & Ethernet Serial Device Server, DC9~30V Input Power
Package Contents	SerialGate, Direct LAN Cable, 3dBi antenna Power Adapter (DC12V), CD(Manual & Utility)

Pin Assignment

DB9M/RS232

Terminal Block RS422/485

Dimension

Eddy-CPU/ZigBee v1.0

Features

– Support IEEE standards: IEEE 802.15.4 Zigbee PRO Standard

– Modulation: DSSS, Supports AES & Shield CAN

– Speed: Max 250Kbps, Interface: RS232(TTL Level)

– Operating Temperature Suitable for Industrial Use (−40℃ ~ 125℃)

– 32bit ARM9 CPU core at 400MHz / 8MB DATA FLASH / 32MB SDRAM

– Pin Header Interface (144 pin)

– Operated by Embedded Linux

– Support USB2.0 host interface

– Supported by Dev Kit including SDK, API

– Portable and mini-size to fit into any hardware design.

– Operation Temp: −40 ~ 85 ℃

Overview

Using IEEE802.15.4 ZigBee Pro Standard mode to communicate with Serial Interface, Eddy-ZigBee V1.0 is ZigBee module which is one of Eddy-CPU v2.5 series used with extended connector. Its module size and Pin Assignment for Interface Pin are designed to make it compatible with our Eddy-CPU v2.5 series and SG-1010/ALL, SG-1020/ALL. To connect with Eddy-CPU v2.5 series, use RS-232 Interface(TXD3, RXD3, CTS3, RTS3).

High Performance Specification

Compared to the existing embedded modules with only an 8bit CPU and 256Kb memory, Eddy-CPU boasts its high performance design with 400MHz clock, 8MB DATA FLASH memory, 32MB SDRAM and 32bit ARM9 CPU. Embedded Linux operating system enables your applications to run faster and more stable.

LemonIDE™ Development Environment

LemonIDE™ is an Eclipse-based development environment. It provides a GUI that enables easy development of applications and firmware running on Linux. In addition, all the operations related to GNU C/C++ compiler, source code editor, remote debugging and remote monitoring can be processed in this environment.

Development Kit

The Eddy Development Kit provides an easy testing and evaluation platform for Eddy applications. Therefore, before integrating Eddy into the hardware environment, applications can be first programmed and tested on the development board. Power, Ready, Communication Interface and GPIO Serial Signal status LEDs on the development board provide a visual guide to understanding Eddy's operating status.

Specification

Hardware

Processor	ARM926EJ-S(400MHz)
Memory	8 MB DATA FLASH, 32 MB SDRAM
External Interface	19 bits Address / 16 bits Data Bus
Ethernet Interface	10/100 Base-T (MAC PHY, AUTO MDI/MDIX)
GPIO	Max. 56 Programmable I/O Pins
Interface	ADC (4 channel 10bit), SPI, TWI, USB 2.0 Full Speed, NAND Flash Attachable,

	Serial 4ports (MAX 921.6kbps)
UART	– 1: DCD, RXD, TXD, DTR, DSR, RTS, CTS, RI(Full Signal) – 2, 3 : RXD, TXD, RTS, CTS only
Power Input	3.3 V (200mA Max)
Dimensions	1.78(W) x 1.1(L) x 0.35(H) in 45.20(W) x 28(L) x 8.8(H) mm
Weight	0.51 oz / 14.5g

Zigbee Characteristics

Communication	IEEE 802.15.4 and ZigBee
Speed	Max 250Kbps
Output	Power Up to 4.5dBm
Range	Up to 100 meters (in open areas)
Modulation	DSSS
Receive Sensitivity	–97dBm
Frequency	2.394GHz ~ 2.507GHz
Security	AES
Antenna	ANT 2.4Ghz 3DB, 1 x U.FL antenna

Network

Protocols	TCP, UDP, Telnet, ICMP, DHCP, TFTP, HTTP, SNMP, SSH, SSL
LAN Port	10/100Mbps RJ45 Port x 1
Network	Static IP, DHCP

Serial

Port	1 Port Serial
Interface	RS232(DB9), RS422/485 (Terminal Block)
Speed	Max 921.6 Kbps
signals	RS232: TX, RX, DTR, DSR, CTS, RTS, DCD RS422: TX+, TX–, RX+, RX– RS485: TRX+, TRX,–
Data Bits	5, 6, 7, 8

Stop Bits	1, 2
Parity	None, Even, Odd
Flow Control	RTS/CTS, XON/XOFF

Environmental

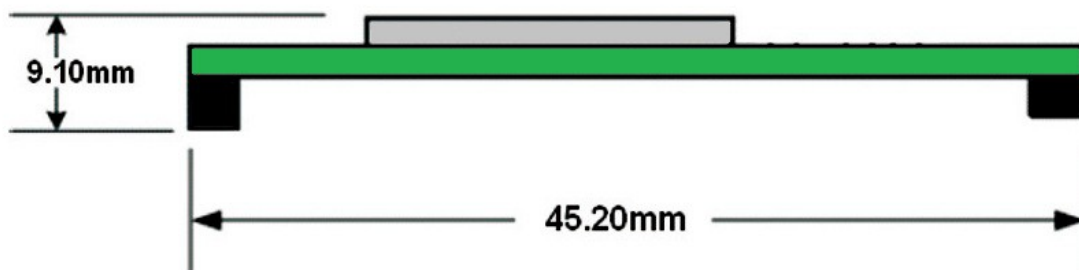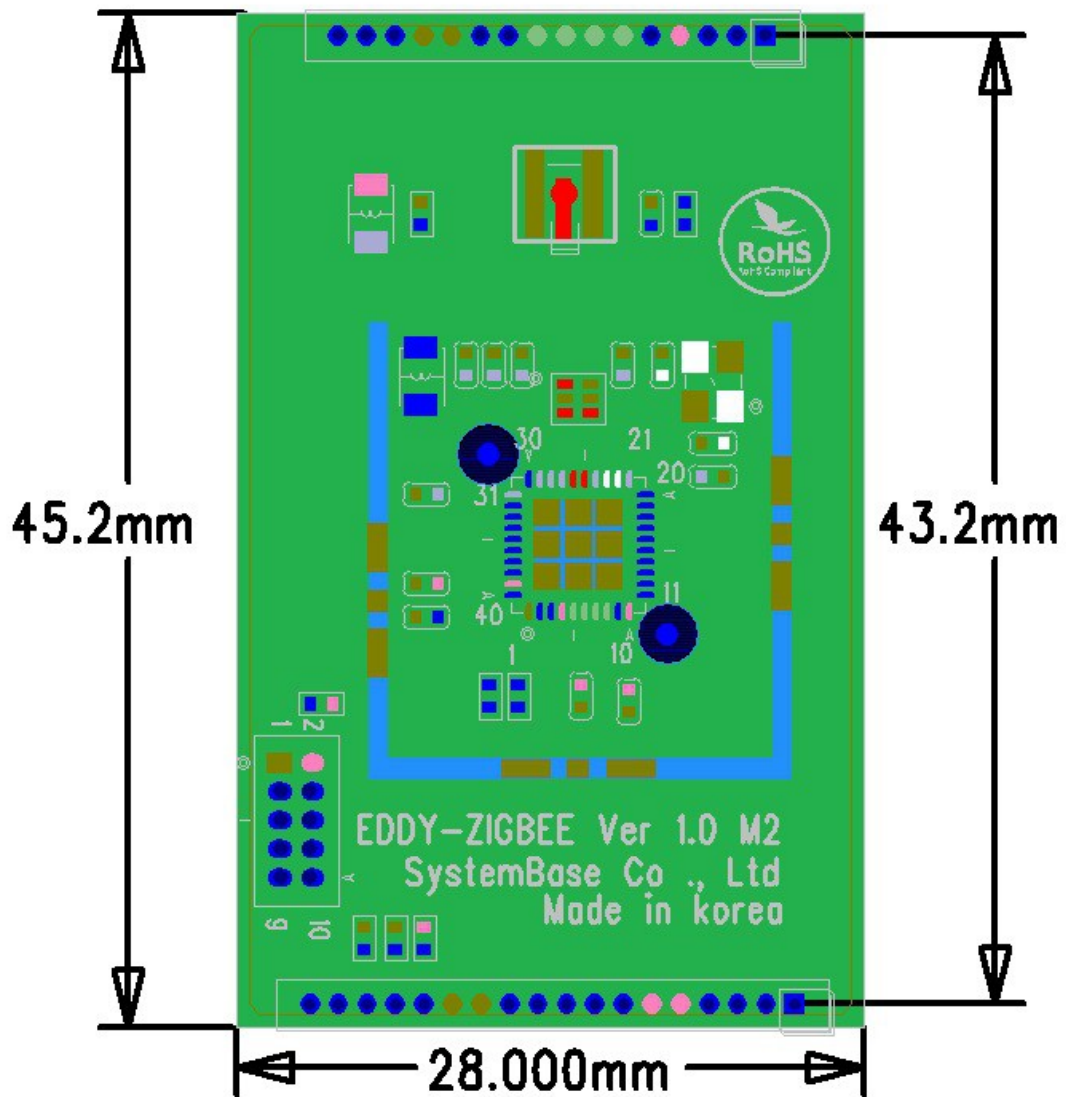| Operating Temp	−40℃ ~ 85℃
Operating Voltages	3.3V +_ 5% I/O Supply Voltage

Approvals

CE, FCC, KC

Ordering Infomation

Ordering Infomation

Eddy−CPU/Zigbee v1.0	Embedded CPU Zigbee Module
Package Contents	Eddy−Zigbee v1.0 Module U.FL to RF−SMA cable, Antenna & Utilities/Documents CD

Dimension (Zigbee Module Only)

EDDY-ZIGBEE Ver 1.0 M2
SystemBase Co ., Ltd
Made in korea

45.2mm

43.2mm

28.000mm

9.10mm

45.20mm

Unit : mm