

Eddy™ Serial Modules

Embedded Serial to Ethernet Module

Main Features

- 32-bit ARM9 CPU / 4MB Flash / 32MB SDRAM
- 10/100Mbps Ethernet Port
- RS232 or RS422/485 Serial Interface
- Max Serial Communication Speed : 921.6Kbps
- Pin Header / DB9 interface
- Supported by Dev Kit including SDK & API
- Operated by Real Time Linux, Lemonix™^c
- Supported by Eclipse based IDE, LemonIDE™
- Provides easy-to-use Windows utilities
 - COM Port Redirector, PortView™, TestView™
- Operating Temp : -40 ~ 85 °C



Eddy-Serial modules are embedded device servers. These compact-sized modules are easily integrated on to your hardware design, supporting RS232, RS422, and RS485 serial interfaces upto 921.6Kbps. OEMs & Engineers can add network connectivity to their hardware design with these high-performance modules at a fraction of the time with least amount of efforts. LemonIDE, IDE based on Eclipse framework is also available to aid developers with an easy and simple means of programming their customized applications.



Eddy modules mounted on the Development Kit Board

The best embedded solution for your customized application !

Eddys are distinguished with other embedded device servers in that it can upload and execute user's customized applications. With least amount of effort, developers can upload any socket / serial communication application that was designed on standard Linux environment with no or little modification.

Eddys can be deployed in various industrial fields immediately as an embedded device server without any customization using its default functionality.

Almost entire source codes for Eddy's functions are open to developers. Such openness provides users a chance to apply a wide variety of operations on Eddy, with considerably less limitations.

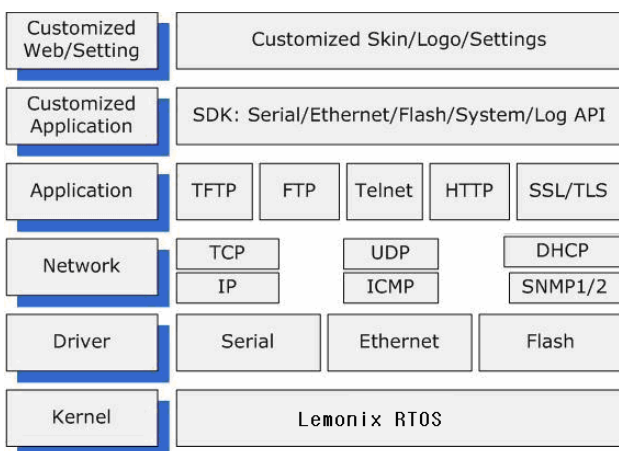
To help programmers work on their own application SDK (Software Development Kit) and LemonIDE an IDE (Integrated Development Environment) based on Eclipse is supported. With SDK, ready-to-run example codes and an easy to use LemonIDE, developers can easily build their own applications for Eddys.

Industry's Most Powerful Specs

Tired of constraints on your embedded device server's 8-bit CPU and 256KB memory? Eddy provides a simple and complete relief to these concerns by adopting a 32-bit ARM9 CPU with 180MHz clock, 4MB Flash memory, and 32MB SDRAM. Your applications can be large in size and will run faster, in a more stable manner under the real time embedded Linux operating system, Lemonix.

Real Time Linux - Lemonix™

Lemonix is a Real Time Linux built on Linux kernel 2.6.x. Standard Linux kernel 2.6.x has been revised to support Real Time capability while retaining the stable traits and merits of Linux kernel 2.6.x. Real time scheduler, preemptive kernel and lock-break methods have been implemented on Lemonix to guarantee a maximum response latency of under 37 us enabling a stable and reliable means of real time communication.



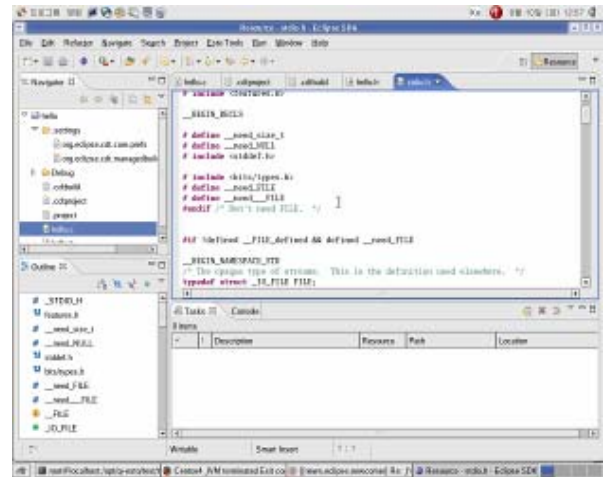
SDK, API & Source Codes Support

Eddy is distinguished with other embedded device servers in that it can upload and execute customized user applications. To enable developers to program their own socket/serial communication applications with least amount of time and effort, SystemBase provides arrays of development support including, SDK (Software Development Kit), API (Application Programming Interface) and Source Codes to assist developments.

Eclipse based IDE - LemonIDE™ Support

LemonIDE is an integrated development environment built on open source Eclipse framework. LemonIDE provides an easy & effective GUI (Graphical User Interface) for Application and Firmware Developments that runs on SystemBase's embedded real time Linux, Lemonix

LemonIDE encompasses GNU C/C++ Compiler, Source Code Editor and Debugger delivering a one-stop development environment solution to embedded developers with conveniences of simple mouse click execution.



Development Kit

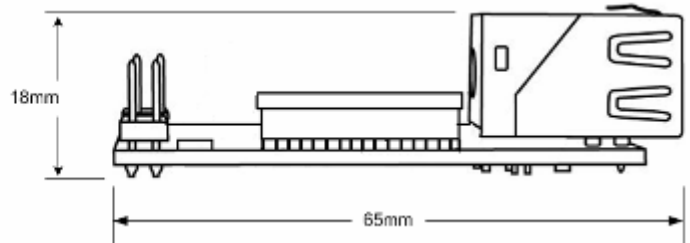
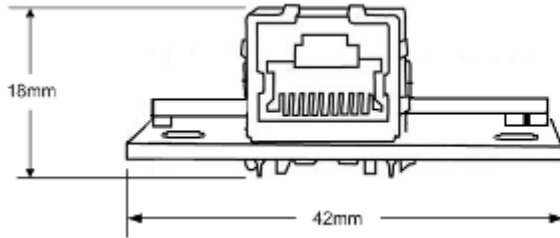
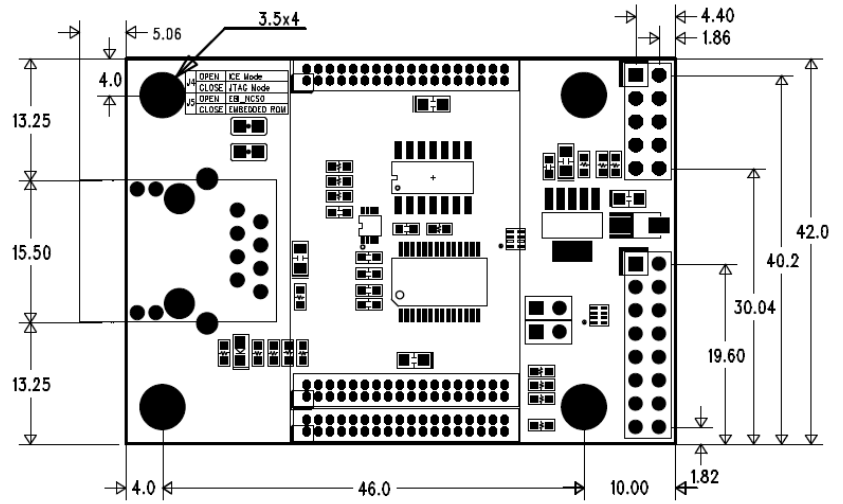
Eddy Development Kit provides an easy testing and evaluation environment for Eddy applications. Before integrating Eddy to user's hardware, applications are first programmed and tested on the development board. Power, Ready, Communication Interface, and GPIO Serial Signal Status LEDs on the development board provides a visual guide in understanding Eddy's operating status.

Windows Utility Support

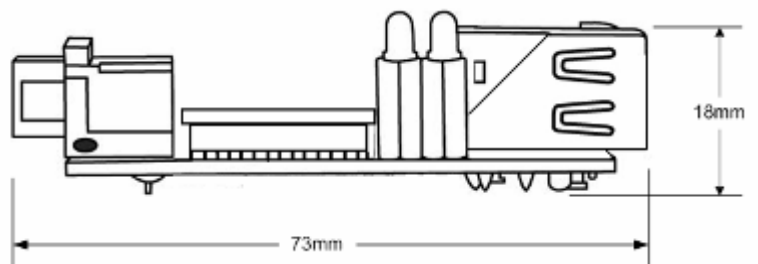
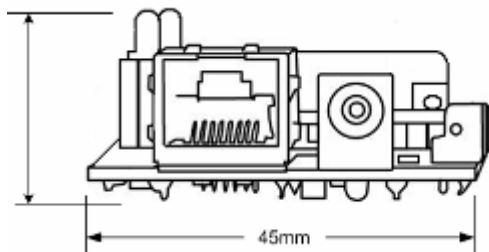
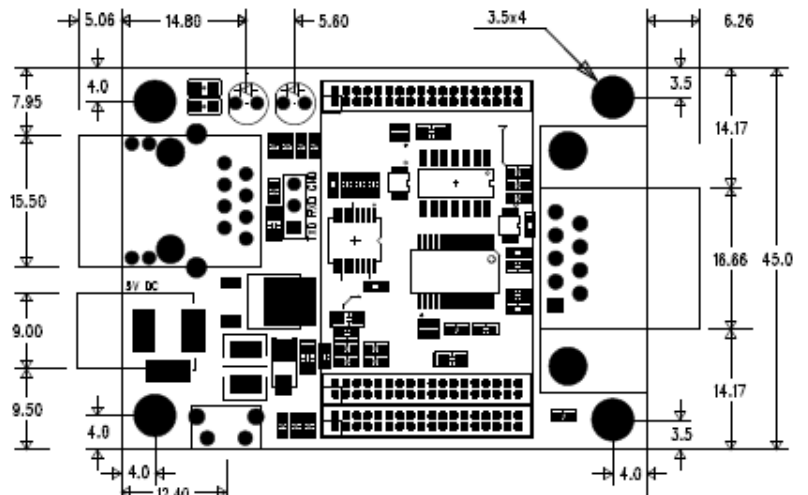
High featured and easy-to-use utilities to monitor and test your finalized products over network and serial interface are provided at no cost. SystemBase management utilities, COM port redirector, PortView and TestView enables an accurate monitor and full administration of your inventions.

Eddy™ Serial Modules SPEC SHEET

Eddy™ S1/PIN

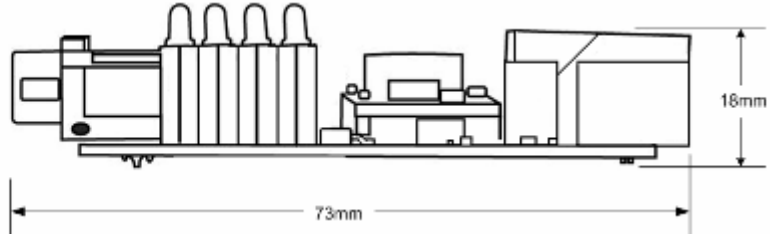
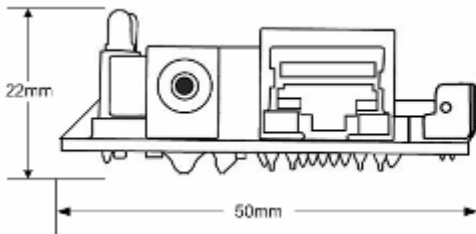
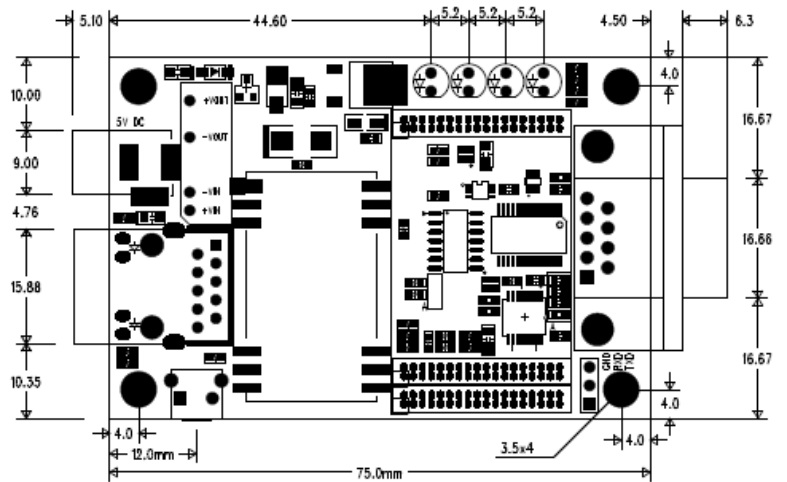


Eddy™ S1/DB9

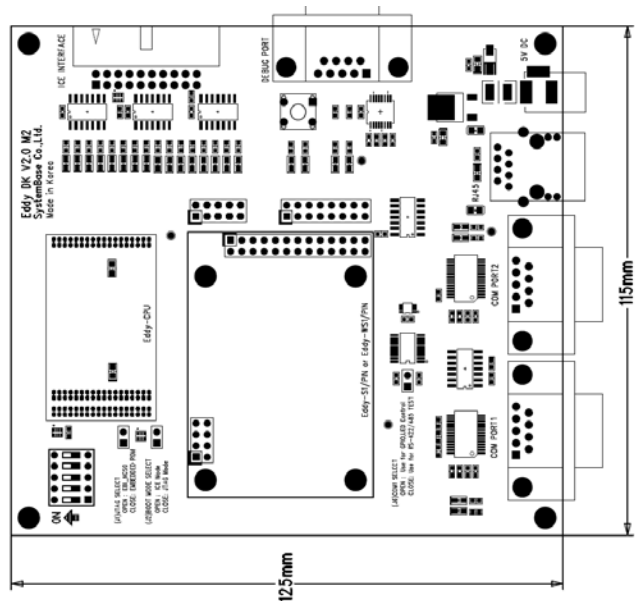
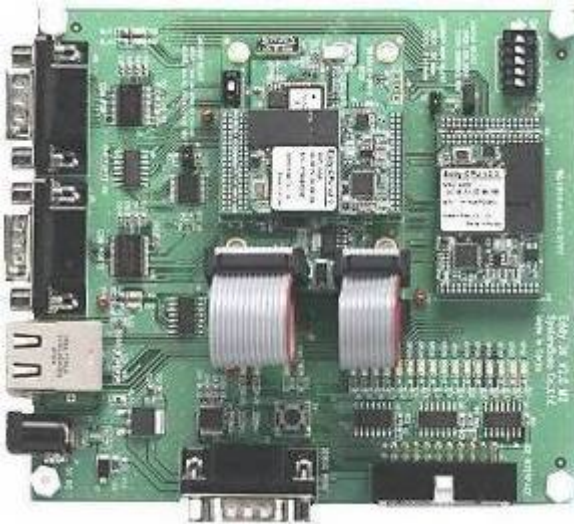


Eddy™ Serial Modules SPEC SHEET

Eddy™ S1/DB9-PoE



Eddy™ Development Kit



Eddy™ Serial Modules SPEC SHEET

Eddy™ Serial Modules Specifications

		S1/Pin	S1/Pin-C	S1/DB9	S1/DB9-C	S1/DB9-PoE	S1/DB9-PoE-C
H/W	CPU	ARM926EJ-S (180MHz)					
	Memory	4MB Flash / 32 MB SDRAM					
	LED	None		Ready, DATA		Tx, Rx, Ready, Power	
	GPIO	4		N/A			
	Power Input	3.3V ~ 5V Pin Input		5V Power Jack		5V Power Jack or PoE	
	Power Consumption	5V / 290 mA (1.5 W Max)					
	Dimensions	60 x 42 x 16 mm		62 x 45 x 19 mm		75 x 50 x 19 mm	
	Weight	18.8 g		28.65 g		44.50 g	
S/W	Operating System	Real Time Linux Lemonix (Kernel 2.6.x)					
	Mgmt. Tools	SNMP, Portview, Web					
	Terminal	Telnet, SSH					
	Application Upload	TFTP, FTP, Web					
	Web Service	Embedded Web Server					
Serial	Serial Interface	RS232	RS422/485	RS232	RS422/485	RS232	RS422/485
	Serial Port	1 x Pin Header		1 x DB9			
	Serial Speed	150 ~ 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					
Network	Ethernet Interface	10/100 BASE-T (Auto MDIX)					
	Ethernet Port	RJ45					
	Connection Type	Static IP, DHCP					
	Protocol	TCP, UDP, Telnet, SSH, SSL/TLS, DDNS, ICMP, DHCP, TFTP, HTTP, SNMP 1 & 2					
Environ-mental	Operating Temp	-40° ~ 85°C					
	Storage Temp	-60° ~ 150°C					
	Humidity	5 ~ 95% Non-Condensing					
Programming		Support					
Approvals		CE Class A, FCC Class A, RoHS compliant					

Eddy™ Development Kit Specifications

	Eddy Development Kit
LED	Power, Ready, 16 Programmable IO Console and Serial TxLED, RxLED
Switch	Product Setting Switch
Jumper Switch	Boot Mode Select, JTAG Select, RS422/485 Select
Serial Port	2 x DB9 Male, Port 1 : (RS232, RS422, RS485), Port 2 : RS232 Only
Console Port	1 x DB9 Male (RS232)
LAN Port	1 x RJ45
ICE Port	Used for Flash Image uploads
Reset Button	Factory Default & warm boot
Serial Interface	RS232, RS422/RS485 Selectable (RS422 & RS485 selected by S/W)
Module Connection Socket	108 Pin header for Eddy-CPU® connections 26 Pin header for Eddy-S1/PIN or Eddy-WS1/PIN Connections 34 Pin TTL for Eddy-WS1/TTL Connections
Power Input	5V DC (400 mA)
Dimensions	115 X 125 mm

Ordering Information

S1/PIN	RS232 Pin Header Interface 3.3 ~ 5V Input Power
S1/PIN -C	RS422/485 Pin Header Interface 3.3 ~ 5V Input Power
S1/DB9	RS232 DB9 Serial Interface 5V Input Power
S1/DB9-C	RS422/485 DB9 Serial Interface 5V Input Power
S1/DB9-PoE	RS232 DB9 Serial Interface 5V(power jack) or PoE(48V)
S1/DB9-PoE-C	RS422/485 DB9 Serial Interface 5V(power jack) or PoE(48V)
Eddy DK	Eddy Development Kit

Package

S1/PIN	S1/Pin or S1/Pin-C Module,
S1/Pin-C	Manual / Utility CD
S1/DB9	S1/DB9 or S1/DB9-C Module
S1/DB9-C	Manual / Utility CD
S1/DB9-PoE-S	S1/DB9-PoE or S1/DB9-PoE-C Module
S1/DB9-PoE-C	Manual / Utility CD
Eddy DK	Test Board & 1 Eddy-Series Module SDK/IDE/Compiler/Documents/Utility CD LAN Cable, Serial Cable, Pin Header Cable, Board Support, Jumper, Power Adaptor, Power Cable