





# Wireless

## WizFi Module (Embedded Wi-Fi module)

	WizFi310	WizFi250	WizFi210	WizFi220	WizFi630A
					 (Order Base)
<b>Operation Mode</b>	Station(Client), Soft AP	Station(Client), Soft AP	Station(Client), Soft AP, Ad hoc	Station(Client), Soft AP, Ad hoc	Station(Client), AP, Gateway, Ad hoc
<b>Wireless Standard</b>	802.11b/g/n, 2.4Ghz	802.11b/g/n, 2.4Ghz	802.11b, 2.4Ghz	802.11b, 2.4Ghz	802.11b/g/n, 2.4Ghz
<b>Interface</b>	UART, GPIO, ADC	UART, SPI, GPIO, ADC	UART, SPI, GPIO, ADC	UART, SPI, GPIO, ADC	2xUART, 3xPHY, GPIO, I2C, u.FL
<b>Package</b>	SMD Type	SMD Type / Pin Header	SMD Type	SMD Type	Mini PCIe (electrical)
<b>Power Consumption</b>	Receive = 62mA (11n) Transmit = 162mA(11n) Peak = 240mA	Receive = 120mA Transmit = 265~385mA	Standby = 35µA Receive = 125mA Transmit = 135mA	Standby = 35µA Receive = 125mA Transmit = 250mA	240 ~ 600mA
<b>Configuration</b>	AT Command	AT Command, Web	AT Command	AT Command	Web, SSH, serial console
<b>IoT Protocol</b>	GMMP OneM2M(SKT,KT)	GMMP	-	-	-
<b>Output Power</b>	802.11b : 17dBm 802.11g : 14dBm 802.11n : 14dBm	802.11b : 16.5dBm 802.11g : 13 ~ 15 dBm 802.11n : 12 ~ 1.5dBm	8 dBm	17 dBm	802.11b : 17dBm 802.11g : 13dBm 801.11n : 13dBm
<b>Booting Time</b>	Under 100ms	Under 100ms	Under 100ms	Under 100ms	30 ~ 50sec
<b>Operation Temp (°C)</b>	-20 ~ 85	-20 ~ 85	-40 ~ 85	-40 ~ 85	0 ~ 50
<b>Dimension (mm)</b>	24.5 x 18.6 x 15	28 x 20 x 1.9	32 x 23.3 x 2.9	32 x 23.3 x 2.9	33 x 43 x 6.3
<b>Certification</b>	KCC, CE, FCC	KCC, CE, FCC	KCC, CE, FCC, TELEC	KCC, CE, FCC	CE, FCC
<b>Evaluation Board</b>	WizFi310-EVB	WizFi250-EVB	WizFi210-EVB	WizFi220-EVB	WizFi630A-EVB

### Main Features

- Proven, Ready-to-use Serial to WiFi : brings Wi-Fi connectivity to any device with UART or SPI
- No need of RF design
- High Efficiency in Operation : Ultra low-power consumption through dynamic power management
- Easy Configuration : comprehensive serial command or built-in web server
- Advanced Wi-Fi Security
- Regulatory Certification : CE (EU), KC (Korea), FCC (US), TELEC (Japan)



WizFi310 shield

Feb, 2018

# PRODUCT GUIDE

## Table of Contents

### Chip

IOP (Internet Offload Processor) 2p

iEthernet (Ethernet Controller) 3p

### Module

Serial to Ethernet module 4p

Network module 6p

Application Module & External Device Server 7p




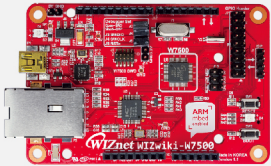
WIZnet OSHW Products 7p

### Wireless

WizFi (Embedded Wi-Fi module) 8p

# Chip

## IOP (Internet Offload Processor)

	W7500P	W7500	W7100A
			
<b>Embedded Core</b>	ARM Cortex-M0, TCP/IP, Ethernet MAC, <b>PHY</b>	ARM Cortex-M0, TCP/IP, Ethernet MAC	Fast 8051, TCP/IP, Ethernet MAC, PHY
<b>Flash</b>	128KB	128KB	64KB
<b>SRAM</b>	16KB	16KB	64KB
<b>Tx/Rx Buffer</b>	32KB (available for SRAM)	32KB (available for SRAM)	32KB
<b>Socket #</b>	8	8	8
<b>Network Performance</b>	Up to 25Mbps	Up to 25Mbps	Up to 20Mbps
<b>Operation Temp (°C)</b>	0 ~ 80	-40 ~ 85	-40 ~ 85
<b>Package</b>	64TQFP : 7x7 (mm)	64TQFP : 7x7 (mm)	100LQFP : 14 x 14 (mm) 64QFN : 10 x 10 (mm)
	<b>WIZwiki-W7500P</b>	<b>WIZwiki-W7500</b>	<b>iMCU7100-EVB</b>
<b>Evaluation Board</b>			

### Main Features

- Ethernet SoC solution with MCU and Hardwired TCP/IP Core
- Optimized for the embedded application platform requiring 'Internet of Things'
- Industrial standard MCU core integrated
- Market-proven hardwired TCP/IP stack supports TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE

## iEthernet (Ethernet Controller)

	W5500	W5300	W5100	W3150A+
				
<b>Embedded Core</b>	TCP/IP, MAC, PHY	TCP/IP, MAC, PHY	TCP/IP, MAC, PHY	TCP/IP, MAC
<b>Host I/F</b>	Fast SPI	8/16bit BUS	8bit BUS, SPI	8bit BUS, SPI
<b>Tx/Rx Buffer</b>	32KB	128KB	16KB	16KB
<b>Socket #</b>	8	8	4	4
<b>Process</b>	0.13µm	0.18µm	0.18µm	0.18µm
<b>Network Performance</b>	Up to 15Mbps	Up to 80Mbps	Up to 25Mbps	Up to 25Mbps
<b>Low Power &amp; WoL</b>	Yes	No	No	No
<b>Auto-MDIX</b>	No	Yes	Yes	N/A
<b>Operation Temp (°C)</b>	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85
<b>Package</b>	48LQFP : 7x7 (mm)	100LQFP : 14x14 (mm)	80LQFP : 10x10 (mm)	64LQFP : 10x10 (mm)
	<b>W5500-EVB</b>	<b>W5300-EVB</b>	<b>W5100E01-AVR</b>	<b>EVB-B1+</b>
<b>Evaluation Board</b>				

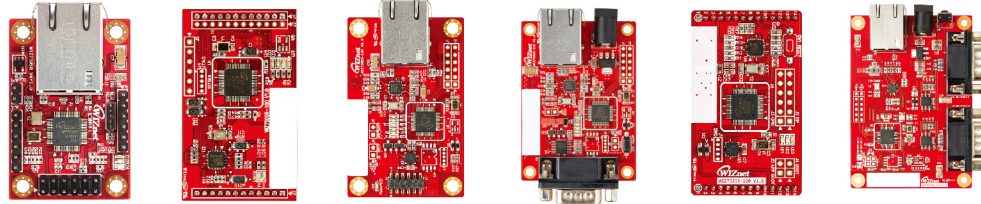
### Main Features

- Un-attackable hardware network engine for preventing network attacks such as flooding spoofing, injection
- Supports hardwired TCP/IP protocols : TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE
- Easy to use (Easy & simple control like memory)
- Guarantee stable & high network performance & data communication
- 3.3 V operation with 5V I/O signal tolerance

# Module

## Serial to Ethernet Module

WIZ750SR | WIZ750SR-100 | WIZ750SR-105 | WIZ750SR-110 | WIZ752SR-120 | WIZ752SR-125



MCU	W7500P	W7500	W7500	W7500	W7500	W7500
TCP/IP & PHY	W7500P	PHY	PHY	PHY	PHY	PHY
UART	1xTTL (3.3V) or 1x232 or 1x485/422	1xTTL (3.3V)	1xTTL (3.3V)	1xRS232 (DB-9)	2xTTL (3.3V)	2xRS232 (DB-9)
LAN Interface	RJ-45	PHY	RJ-45	RJ-45	PHY	RJ-45
Pin Header & Pitch	Two 1x6, 2x6, 1x2, 2.54mm	Two 1x12, 2mm	2x6, 2mm	N/A	Two 1x14, 2mm	N/A
Input Voltage	3.3V	3.3V	3.3V	5V	3.3V	5V
Max. Power Consumption	95mA (at the RS-422/485)	90mA	90mA	95mA	90mA	95mA
Operation Temp (°C)	0 ~ 70	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85
Dimension (mm)	48 x 30 x 18	50x30x12	40x62x17	75x50x17	50x30x9	60x89x18
Evaluation Board	WIZ750SR-EVB TTL/RS-232 Type RS-422/485 Type	WIZ750SR-100-EVB	WIZ750SR-105-EVB	N/A	WIZ752SR-120-EVB	N/A

### Main Features

#### Open Source Policy

- FW Source open
- HW Schematic open

#### Support Customizing Service

- HW customization
- FW customization

#### Plenty of Tools

- CLI(Command Line Interface) Tool
- WIZvsp

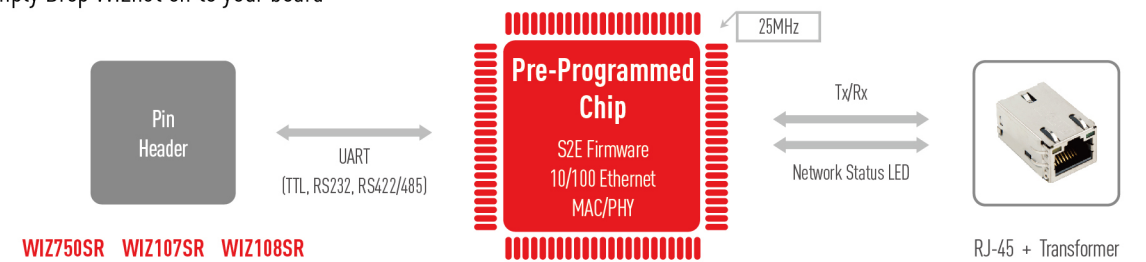
WIZ550SR | WIZ550S2E | WIZ107SR | WIZ108SR | WIZ140SR | WIZ145SR



MCU	Cortex-M3	Cortex-M0	W7100A	W7100A	Cortex-M3	Cortex-M3
TCP/IP & PHY	W5500	W5500	W7100A	W7100A	W5300	W5300
UART	1xTTL (3.3V)	1xTTL (3.3V)	1xTTL (3.3V) 1xRS232 (Optional)	1xRS422/485	4xTTL (3.3V)	4xTTL (3.3V)
LAN Interface	PHY	RJ-45	RJ-45	RJ-45	PHY	RJ-45
Pin Header & Pitch	Two 1x11 / 2mm	1x9, 1x9 / 2.54mm	2x6, 2.54mm	2x6 2.54mm	1x14, 2.54mm	1x14, 2x14, 2.54mm
Input Voltage	3.3V	3.3V	3.3V	3.3V	-	-
Max. Power Consumption	TBD	179mA	250mA	250mA	-	-
Operation Temp (°C)	-40 ~ 80	0 ~ 80	-40 ~ 85	-40 ~ 85	0 ~ 70	0 ~ 70
Dimension (mm)	22 x 24 x 13	55x30x23.49	48x30x18	48x30x18	48x36x16	48x61x25
Evaluation Board	WIZ550SR-EVB	WIZ550S2E-EVB	WIZ107SR-EVB	WIZ108SR-EVB	WIZ140SR-EVB	WIZ145SR-EVB

### Pre-Programmed Chip : W7500(P)-S2E / W7100-S2E

Simply Drop WIZnet on to your board



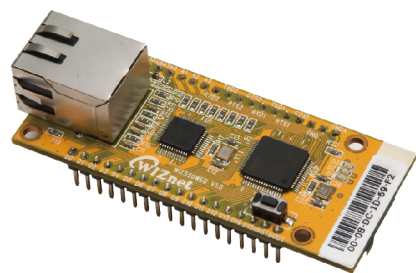
# Module

## Network Module

- Plug-in typed Internet Offload module with iEthernet chip & Mag Jack
- Usable without h/w design for iEthernet chip, transformer and RJ-45

	WIZ850io	WIZ550io	WIZ830MJ	WIZ810MJ	WIZ811MJ	WIZ812MJ	NM7010B+
<b>Embedded Block</b>	W5500, MagJack	W5500, MagJack	W5300, MagJack	W5100, MagJack	W5100, MagJack	W5100, MagJack	W3150A+, MagJack
<b>Host Interface</b>	SPI	SPI	8/16 bit BUS	8bit Bus, SPI	8bit Bus, SPI	8bit Bus, SPI	8bit Bus, SPI
<b>HW Socket</b>	8	8	8	4	4	4	4
<b>Auto MDIX</b>	No	No	Yes	Yes	Yes	Yes	Yes
<b>Pin Header</b>	Two 1x6	1x8, 1x6	Two 2x14	Two 2x14	Two 2x10	Two 2x10	Two 2x14
<b>Pin Pitch</b>	2.54mm	2.54mm	2.54mm	2mm	2.54mm	2.54mm	2mm
<b>MAC Address</b>	No	Yes	No	No	No	No	No
<b>Operation Temp (°C)</b>	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85	-40 ~ 85
<b>Dimension (mm)</b>	23x25x18	54x26x24	53.3x34x19.5	52x25x21	55.5x25x23.5	55.5x25x23.5	52x25x21

## Application Module



### WIZ550WEB

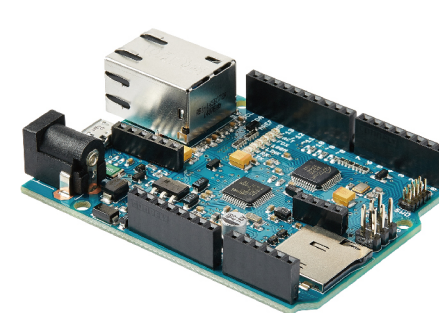
#### Main Features

- Web Server built-in module to control digital I/O or analog input on the web browser
- Customizable web page : provides various demo pages for PC & mobile device
- 16 digital I/Os & 4 analog inputs
- Supports "Serial to Web(Ethernet)" data transmission
- Module configuration : web, AT commands & configuration tool program
- Provides JAVA based configuration tool program
- Supports firmware uploading using TFTP

# WIZnet OSHW Products

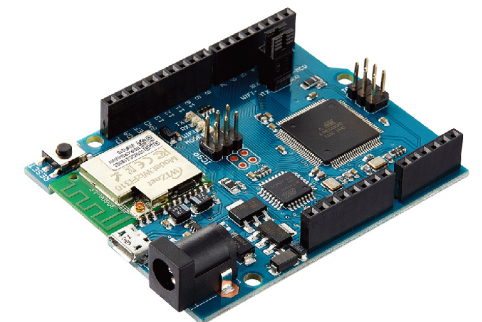
## WizArduino M0 ETH

WizArduino M0 ETH is the WIZnet's Arduino platform. As it is based on 32bit ARM Cortex-M0, it enables you to develop high performing applications.



## WizArduino MEGA WiFi

WizArduino MEGA WiFi is based on Arduino's MEGA 2560 board and added WizFi310, which is as simple as the Arduino UNO platform and has basic functions for implementing IoT function.



# External Device Server

## WIZ1000



## WIZ2000

