



### Industrial Wireless Serial Device Server

■ ■ SW550X Series

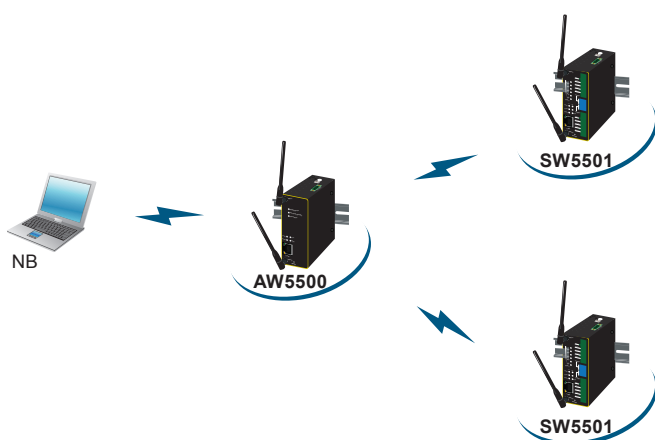
RoHS compliant

- Designed for 802.11a/b/g/n networks
- Embedded PCB coating protection
- Web server/Utility configuration (Serial Manager)
- Upgrade via Serial Manager or Web server
- 5 GHz frequency support to reduce interference on 2.4 GHz with other wireless devices
- FCC (United States), ETSI (Europe), and NCC (Taiwan) certified wireless equipment

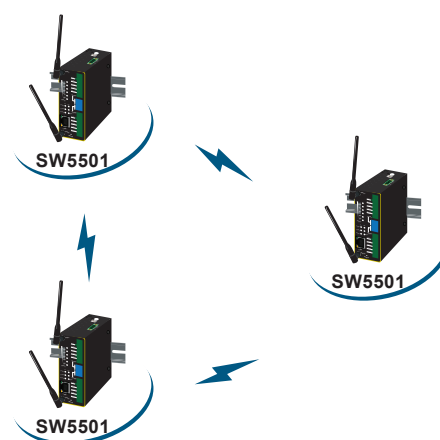
The SW550X Series is our latest addition to our Industrial Wireless products; its small size but powerful architecture makes it a perfect choice for industrial/manufacturing needs in which size is a decisive factor. It rewards our customers with superb connectivity withstanding all the harshness in your environment of choice. Among its many characteristics, we could mention:

- 5 GHz frequency support to reduce interference on 2.4 GHz with other wireless devices.
- Dual antenna design that offers better wireless coverage and reduces wireless blind spots.

#### Infrastructure Mode



#### Adhoc Mode



## Specifications

## Network Interface

Connector	RJ-45
Speed	IEEE802.3ab 10/100/1000Mbps

## Serial Interface

Connector	D-Sub9 RS-232/422/485 software selectable 5.08mm TB5 RS-232/422/485 software selectable (TB models) 5.08mm TB5 RS-422/485 software selectable (Sis models)
Ports	SW5501: 1 Port, SW5502: 2 Ports
Baud Rate	110~921600Kbps
Parity	None, Odd, Even, Space, Mark
Data Bits	5,6,7,8
Stop Bits	1,2
Flow Control	None, Xon/Xoff, RTS/CTS

## Power Characteristics

Input Voltage	9VDC-48VDC
Input Current(9VDC)	0.65A
Power Consumption	Approx. 5.85W (max)
Reverse Polarity Protection	Yes
Connection	5.08mm 3-pin Lockable Terminal Block

## Mechanicals

Dimensions(W X H x D)	47 mm x 110 mm x 90mm
Installation	DIN Rail, Wall Mount (optional)
Reset Button	Yes
Weight	500g

## Environmental Limits

Operating Temperature	-10°C ~ 60°C (14°F ~ 140°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 ~ 95% RH, (non-condensing)

## Software

Protocols	IPv4, ICMP, TCP, UDP, DHCP Client, SNMP, SMTP, HTTP, DNS, NTP, RADIUS, RFC2217, WPS
Wireless Security	WEP, WPA, WPA2, TKIP, AES, 802.1x
Configuration	Serial Manager, Web UI
Virtual COM	Windows / Linux redirection software

## Link Modes

TCP Server	4 connections, Virtual COM, or Reverse Telnet
TCP Client	Dual destinations or Virtual COM
UDP	Up to 4 ranges of IPs

Warranty 5 years

## Regulatory Requirements

EMC	EN 301489-1 V1.8.1, EN301489-17 V2.1.1 (Class A), FCC 15B (Class A), CNS 13438
Radio	FCC 15C 15.247, FCC 15E 15.407, EN 301893 V1.5.1, EN 300328 V1.7.1, NCC LP00002
EMF	EN 62311: 2008, EN 50385: 2002

Test		Item	Value	Level
IEC 61000-4-2	ESD	Contact Discharge	±8KV	4
		Air Discharge	±15KV	4
IEC 61000-4-3	RS	Radiated(Enclosure)	10(V/m)	3
IEC 61000-4-4	EFT	AC Power Port	±2.0 KV	3
		LAN Port	±2.0 KV	4
		COM Port	±2.0 KV	4
IEC 61000-4-5	Surge	AC Power Port	Line-to-Line±1.0 KV	3
		AC Power Port	Line-to-Earth±2.0 KV	3
		LAN Port	Line-to-Earth±2.0 KV	3
		COM Port	Line-to-Earth±2.0 KV	3
IEC 61000-4-6	CS	Conducted(Enclosure)	10 V rms	3
IEC 61000-4-8	PFMF	(Enclosure)	10(A/m)	3
IEC 61000-4-11	DIP	AC Power Port	-	-

\*AC Ports are tested through an power adaptor available in the accessory.

<b>Safety</b>	UL60950-1/CB, EN60950-1, CNS 14336
<b>Shock</b>	IEC 60068-2-27
<b>Freefall</b>	IEC 60068-2-32
<b>Vibration</b>	IEC 60068-2-6
<b>MTBF</b>	22 years (MIL-HDBK-217F)
<b>RoHS</b>	Yes

**Wireless Characteristics**

<b>Wireless PCI-e Module</b>	Atheros AR9382
<b>Tx / Rx</b>	2T2R MIMO (2x2 with MCS 0-15)
<b>Standard Conformance</b>	802.11a, 802.11b, 802.11g, and 802.11n
<b>Antenna</b>	3/5 dBi Dual antenna design, SMA(R) Female connector

**Operating Frequency**

	2.4Ghz	5Ghz
<b>United States (FCC)</b>	2412-2462(20Mhz)/2422-2452(40Mhz)	5180-5240, 5745-5825(20Mhz)/5190-5230, 5755-5795(40Mhz)
<b>Europe (ETSI)</b>	2412-2472(20Mhz)/2422-2462(40Mhz)	5180-5240(20Mhz)/5190-5230(40Mhz)
<b>Taiwan (NCC)</b>	2412-2462(20Mhz)/2422-2452(40Mhz)	5280-5320, 5745-5825(20Mhz)/5310, 5755-5795(40Mhz)

**Data Rate**

<b>802.11a</b>	6, 9, 12, 18, 24, 36, 48, 54Mbps
<b>802.11b</b>	1, 2, 5.5 and 11Mbps
<b>802.11g</b>	6, 9, 12, 18, 24, 36, 48, 54Mbps
<b>802.11n</b>	20MHz bandwidth: 1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.) / 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.) 40MHz bandwidth: 1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.) / 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)

**Output Power**

<b>802.11a</b>	+15dBm @ 6, 9, 12, 18, 24Mbps / +15dBm @ 36Mbps / +14dBm @ 48Mbps / +12dBm @ 54Mbps			
<b>802.11b</b>	+14dBm			
<b>802.11g</b>	+17dBm @ 6, 9, 12, 18, 24Mbps / +17dBm @ 36Mbps / +16dBm @ 48Mbps / +16dBm @ 54Mbps			
<b>802.11n 2.4GHz/HT20</b>	+16dBm @ MCS 0/8	+16dBm @ MCS 4/12	+16dBm @ MCS 1/9	+16dBm @ MCS 5/13
	+16dBm @ MCS 2/10	+16dBm @ MCS 6/14	+16dBm @ MCS 3/11	+15dBm @ MCS 7/15
<b>802.11n 2.4GHz/HT40</b>	+15dBm @ MCS 0/8	+15dBm @ MCS 4/12	+15dBm @ MCS 1/9	+15dBm @ MCS 5/13
	+15dBm @ MCS 2/10	+15dBm @ MCS 6/14	+15dBm @ MCS 3/11	+14dBm @ MCS 7/15
<b>802.11n 5GHz/HT20</b>	+15dBm @ MCS 0/8	+15dBm @ MCS 4/12	+15dBm @ MCS 1/9	+11 - 14dBm @ MCS 5/13
	+15dBm @ MCS 2/10	+9 - 12dBm @ MCS 6/14	+15dBm @ MCS 3/11	+7 - 10dBm @ MCS 7/15
<b>802.11n 5GHz/HT40</b>	+14dBm @ MCS 0/8	+14dBm @ MCS 1/9	+14dBm @ MCS 2/10	+14dBm @ MCS 3/11
	+14dBm @ MCS 4/12	+10 - 13dBm @ MCS 5/13	+8 - 11dBm @ MCS 6/14	+6 - 9dBm @ MCS 7/15

**Receiver Sensitivity**

	Data Rate	IEEE Spec(1 Rx dBm)	Typical/Maximum( 2Rx dBm)		Data Rate	IEEE Spec(1 Rx dBm)	Typical/Maximum( 2Rx dBm)
<b>802.11a</b>	6M	-82	-95/-85	<b>802.11a/n</b> <b>HT40</b>	MCS0	-79	-92/-82
	9M	-81	-94/-84		MCS1	-76	-90/-79
	12M	-79	-93/+82		MCS2	-74	-87/-77
	18M	-77	-90/-80		MCS3	-71	-84/-74
	24M	-74	-88/-77		MCS4	-67	-80/-70
	36M	-70	-84/-73		MCS5	-63	-76/-66
	48M	-66	-82/-69		MCS6	-62	-74/-65
	54M	-65	-81/-68	MCS7	-61	-72/-64	
<b>802.11b</b>	1M	not specified	-98/-85	<b>802.11b/g/n</b> <b>HT20</b>	MCS0	-82	-95/-85
	5.5M	not specified	-98/-85		MCS1	-79	-94/-82
	11M	not specified	-94/-85		MCS2	-77	-92/-80
<b>802.11g</b>	6M	-82	-96/-85	<b>802.11b/g/n</b> <b>HT40</b>	MCS3	-74	-89/-77
	9M	-81	-96/-84		MCS4	-70	-86/-73
	12M	-79	-95/-82		MCS5	-66	-82/-69
	18M	-77	-93/-80		MCS6	-65	-80/-68
	24M	-74	-90/-77		MCS7	-64	-78/-67
	36M	-70	-87/-73		MCS0	-79	-92/-82
	48M	-66	-83/-69		MCS1	-76	-92/-79
	54M	-65	-82/-68		MCS2	-74	-89/-77
<b>802.11a/n</b> <b>HT20</b>	MCS0	-82	-94/-85	MCS3	-71	-86/-74	
	MCS1	-79	-92/-82	MCS4	-67	-83/-70	
	MCS2	-77	-90/-80	MCS5	-63	-77/-66	
	MCS3	-74	-87/-77	MCS6	-62	-76/-65	
	MCS4	-70	-84/-73	MCS7	-61	-75/-64	
	MCS5	-66	-79/-69				
	MCS6	-65	-78/-68				
	MCS7	-64	-76/-67				

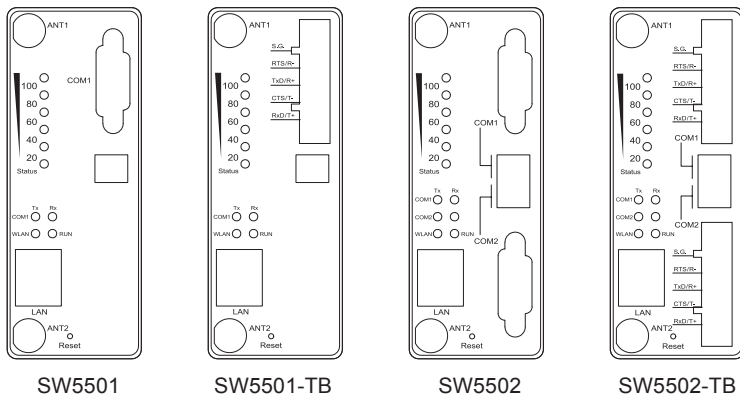
## Ordering Information

<b>SW5501</b>	P/N:1P1SW550100001G 1-port Industrial Wireless Serial Device Server, DB9
<b>SW5501-Sis</b>	P/N:1P1SW5501SIS01G 1-port Industrial Wireless Serial Device Server, TB5 with serial isolation
<b>SW5501-TB</b>	P/N:1P1SW5501TB001G 1-port Industrial Wireless Serial Device Server, TB5
<b>SW5502</b>	P/N:1P1SW550200001G 2-port Industrial Wireless Serial Device Server, DB9
<b>SW5502-Sis</b>	P/N:1P1SW5502SIS01G 2-port Industrial Wireless Serial Device Server, TB5 with serial isolation
<b>SW5502-TB</b>	P/N:1P1SW5502TB001G 2-port Industrial Wireless Serial Device Server, TB5

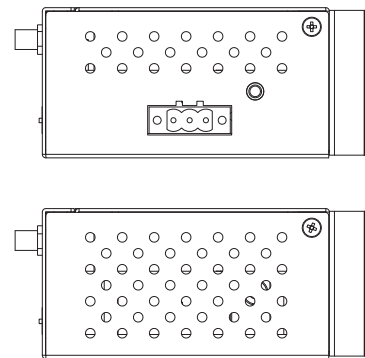
## Optional Accessories

<b>AD17-24C (US-Y)</b>	P/N: 50500151240002G Y-Type power adaptor, 100-240VAC input, 0.6A @ 24VDC output, US plug
<b>AD17-24D (EU-Y)</b>	P/N: 50500151240012G Y-Type power adaptor, 100-240VAC input, 0.6A @ 24VDC output, EU plug
<b>ADP-DB9(F)-TB5</b>	P/N: 59906231G Female DB9 to Female 3.81 TB5 Converter
<b>WMK-454-Black</b>	P/N: 7010000000043G Black Aluminum Wall Mount Kit

### Front View



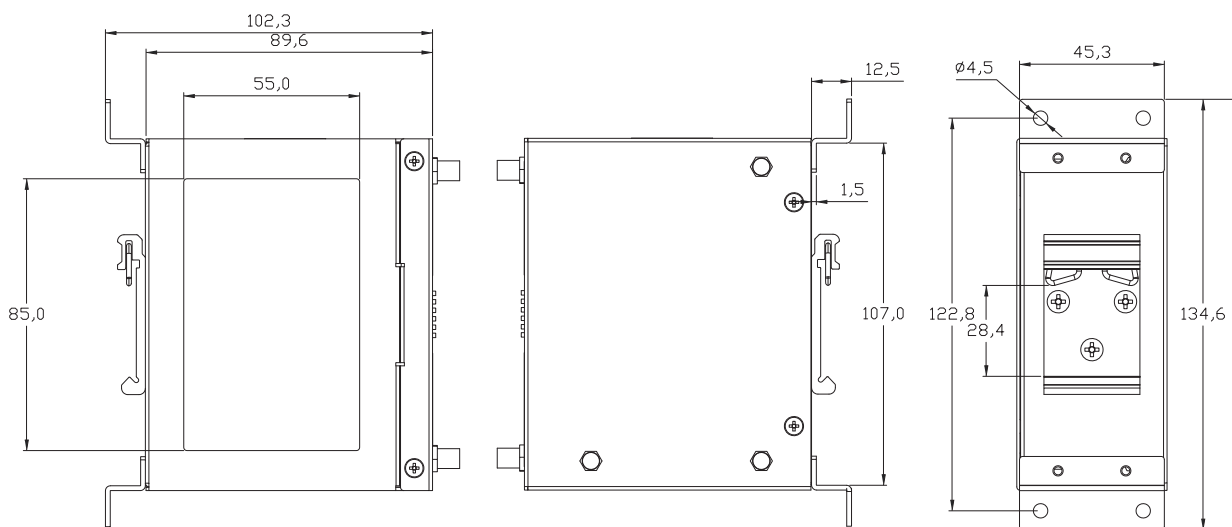
### Top and Bottom View



### Left Side View

### Right Side View

### Rear View



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