

Industrial Wireless Serial Device Server

■ ■ SW550X Series

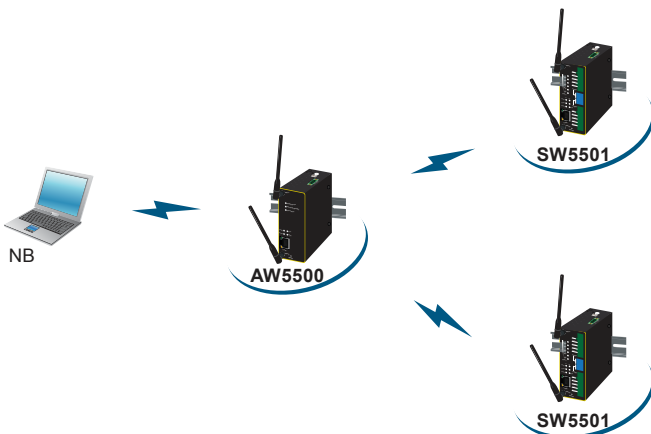
RoHS compliant

- 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

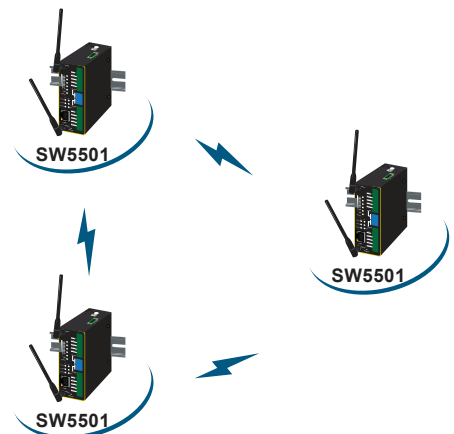
The SW550X Series is our latest addition to our Industrial Wireless products; its small size but powerful architecture makes it a perfect choice for industrial/manufacturing needs in which size is a decisive factor. It rewards our customers with superb connectivity withstanding all the harshness in your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

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

Wireless Characteristics

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

Operating Frequency

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

Data Rate

802.11a	6, 9, 12, 18, 24, 36, 48, 54Mbps
802.11b	1, 2, 5.5 and 11Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54Mbps
802.11n	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

802.11a	+15dBm @ 6, 9, 12, 18, 24Mbps / +15dBm @ 36Mbps / +14dBm @ 48Mbps / +12dBm @ 54Mbps			
802.11b	+14dBm			
802.11g	+17dBm @ 6, 9, 12, 18, 24Mbps / +17dBm @ 36Mbps / +16dBm @ 48Mbps / +16dBm @ 54Mbps			
802.11n 2.4GHz/HT20	+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
802.11n 2.4GHz/HT40	+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
802.11n 5GHz/HT20	+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
802.11n 5GHz/HT40	+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)
802.11a	6M	-82	-95/-85	802.11a/n HT40	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	
802.11b	1M	not specified	-98/-85	802.11b/g/n HT20	MCS0	-82	-95/-85
	5.5M	not specified	-98/-85		MCS1	-79	-94/-82
	11M	not specified	-94/-85		MCS2	-77	-92/-80
802.11g	6M	-82	-96/-85	802.11b/g/n HT40	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
802.11a/n HT20	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				

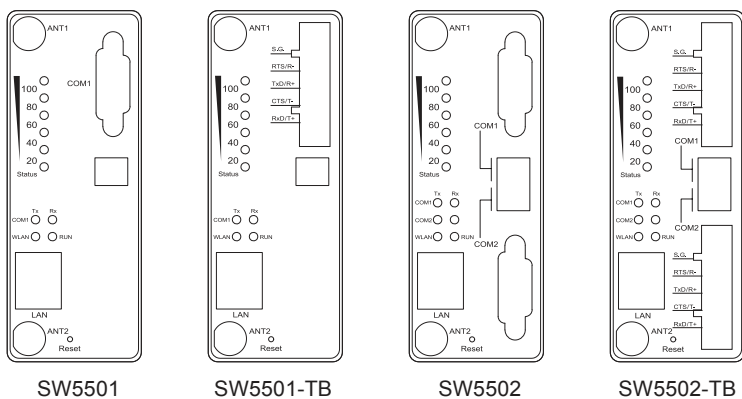
Ordering Information

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

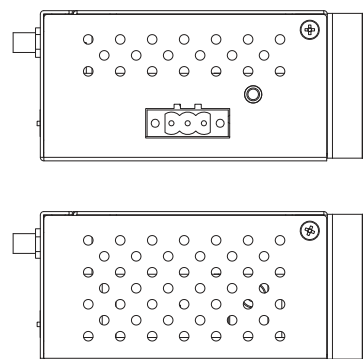
Optional Accessories

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

Front View



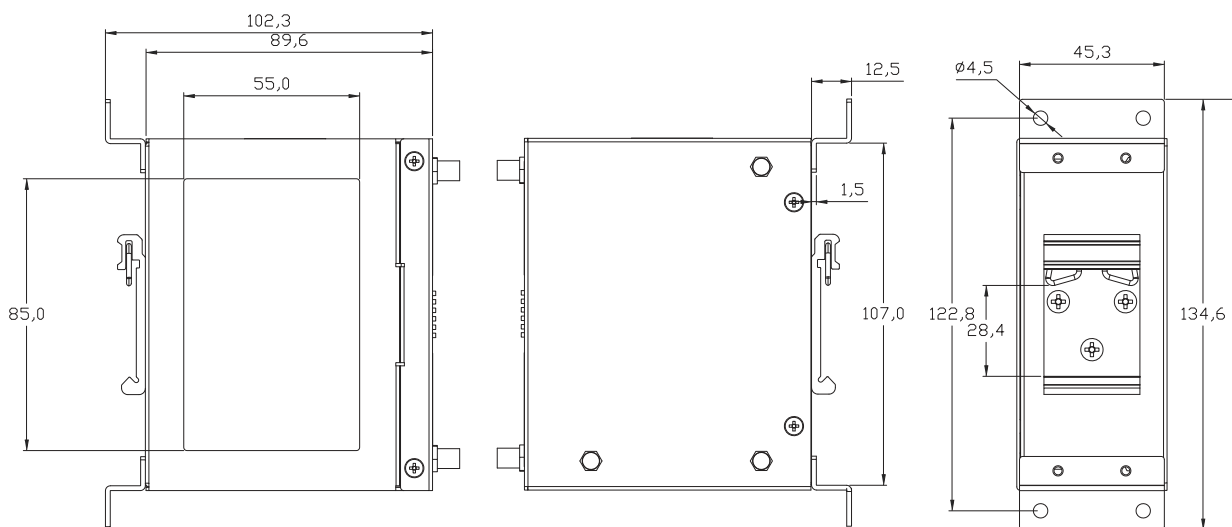
Top and Bottom View



Left Side View

Right Side View

Rear View



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