



Industrial Wireless Serial Device

- 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

PRODUCT DESCRIPTION

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.

Industrial Wireless Access Point

Technical Specifications	
Model Name	SW550X
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)	47x110x90 mm
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	UL60950-1 , CB IEC/EN60950-1, IEC/EN 62368-1, CNS 14336-1			
Radio	FCC 15C 15.247, FCC 15E 15.407, EN 301893 V2.1.1, EN 300328 V2.1.1, NCC LP00002			
EMF	EN 62311: 2008, EN 50385: 2002			
Test	Description		Test Levels	Levels
EN61000-4-2	ESD	Contact Discharge Air Discharge	±8KV ±15KV	4 4
EN61000-4-3	RS	Radiated (Enclosure)	10(V/m)	3
EN61000-4-4	EFT	AC Power Port LAN Port	±2.0 KV ±2.0 KV	3 4
EN61000-4-5	Surge	AC Power Port AC Power Port LAN Port	Line-to-Line±1.0 KV Line-to-Earth±2.0 KV Line-to-Earth±2.0 KV	3 3 3
EN61000-4-6	CS	Conducted (Enclosure)	10 V rms	3
EN61000-4-8	PFMF	(Enclosure)	10(A/m)	3
Safety	UL60950-1 , CB IEC/EN60950-1, IEC/EN 62368-1, CNS 14336-1			
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			
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.)			
Antenna (5GHz)				
Gain	5 dBi			
Connector	Dual SMA(R) Female			
Output Power (5GHz)				
802.11a	+15dBm @ 6, 9, 12, 18, 24Mbps / +15dBm @ 36Mbps / +14dBm @ 48Mbps / +12dBm @ 54Mbps			
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			

Antenna (2.4GHz)	
Gain	3 dBi
Connector	Dual SMA(R) Female
Output Power (2.4GHz)	
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

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/h 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/h 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/h 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/h HT20	MCS0	-82	-94/85	802.11b/g/h HT40	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				

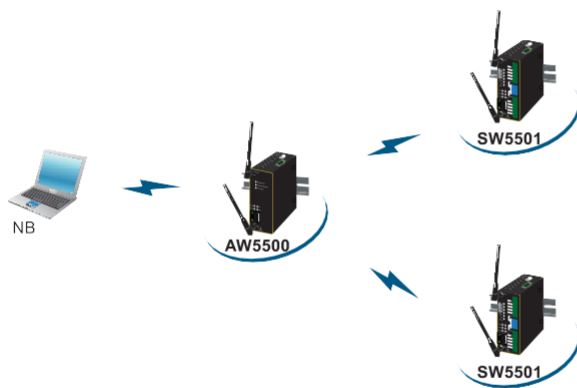
Ordering Information

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

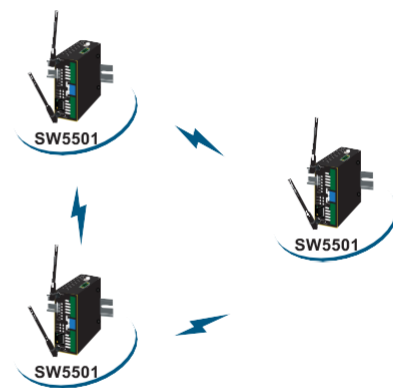
Optional Accessories

AD17-24C (US-Y) Power Adapter	P/N: 50500151240002G Y-Type power adaptor,100-240VAC input, 0.6A @ 24VDC output, US plug
AD17-24D (EU-Y) Power Adapter	P/N: 50500151240012G 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: 70100000000043G Black Aluminum Wall Mount Kit

Infrastructure Mode

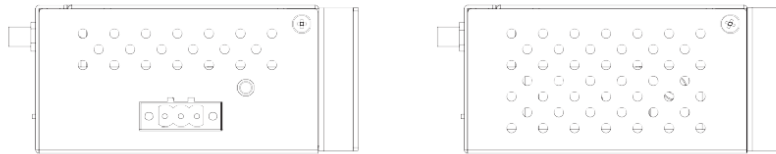


Adhoc Mode

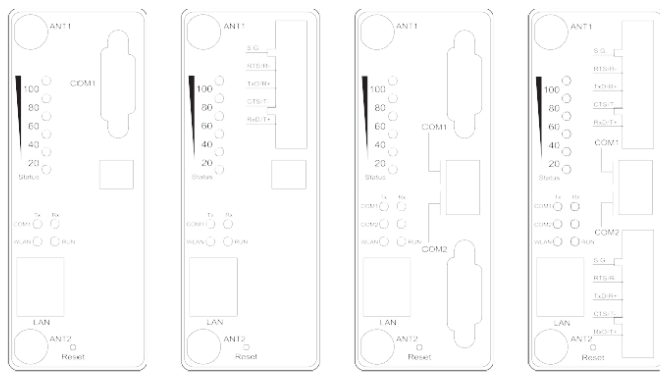


DIMENSIONS & LAYOUT

Top and Bottom View



Front View



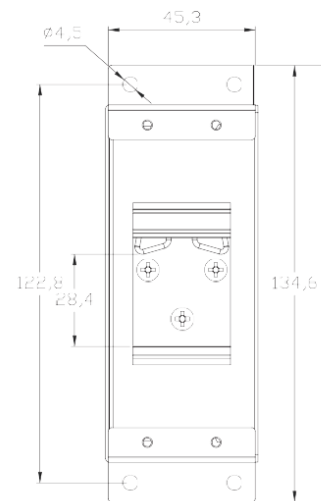
SW5501

SW5501-TB

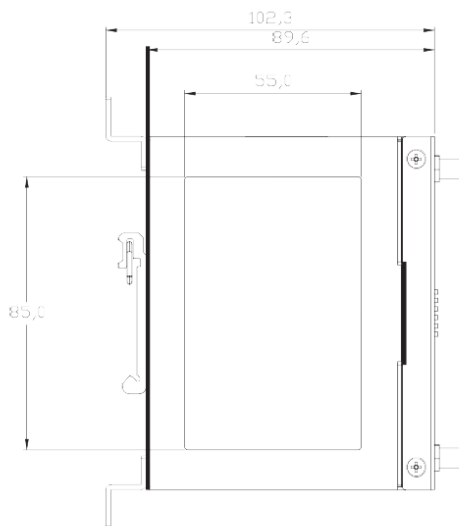
SW5502

SW5502-TB

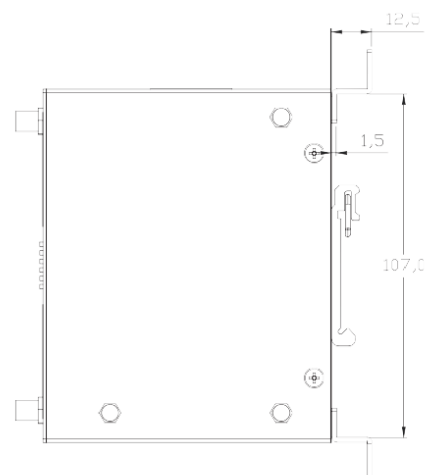
Rear View



Left Side View



Right Side View



Industrial Communication Products Ltd

Tel: +44(0) 203 086 9569

Web: www.industrialcomms.com

Email: sales@industrialcomms.com