EXPLOSION PROOF WIFI MIMO DUAL RADIO ACCESS POINT

The Solexy SWA/SWS A1* is the most compact industrial WiFi MIMO 2x2 access point rated for installation in Zone 1 rated hazardous locations and harsh environments.
It is completely configurable through its Ethernet or WiFi port via your internet browser or through a dedicated configuration software and offers routing, filtering and advanced security features including 802.11i (EAP authentication with Radius server/WPA/WPA2 Enterprise), tunnels with fully encrypted data, firewall, VLAN...

The SWA/SWS A1* features several operating functions: WiFi access point, client, repeater & MESH point modes. It is available with three different radio configurations all of them 2.4/5GHz: 802.11/n MIMO 2x2 (A10) or 802.11/ac MIMO 2x2 (A11) or in a unique dual radio configuration 802.11/n MIMO 2x2 (WiFi1) + 802.11/ac (WiFi2) that allows all the different operating modes to be active simultaneously (A12). For instance one radio is used to maintain the connectivity backbone and the other radio is used as local access point.

It can be powered using the same Ethernet cable used for data (POE or PPOE) or independently through dedicated terminals.

With Solexy's SWA and SWS enclosures and their rugged construction water proof IP66, IP68, Nema 4 and 4X combined with Atex, IECEx and North America certificates, Solexy offers a wireless device solution for installation in classified Ex areas (gas, dust and mining) and harsh environments, including temporary submersion.

FEATURES

- **OPERATING FUNCTIONS**
  WiFi Access Point, WiFi Client, Repeater & MESH (A10 and A12 only)

- **WiFi**
  A10: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, ANI *(Adaptive Noise Immunity)*
  A11: 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5GHz, ANI *(Adaptive Noise Immunity)*
  A12: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, plus 802.11a/b/g/n/ac, 2.4/5GHz

- **ETHERNET CONNECTION**
  1-port Gigabit Ethernet 10/100/1000 Base TX auto-sensing, auto MDI/MDIX cross-over, RJ45

- **HEAVY DUTY CONSTRUCTION**
  Explosion proof enclosure made of aluminum (SWA series) or stainless steel (SWS series) weather proof IP66/68.

APPROVALS

ATEX / IECEX CERTIFICATION
Zone 1, 2, 21 & 22
⟨Ex⟩ II 2G Ex db IIC T5-T4 Gb
II 2D Ex tb IIIC T110°C/T140°C Db
I M2 Ex db I Mb (SWS only)

USA & CANADA CERTIFICATION
Class I, Division 1, Groups B, C and D
Class II, Division 1, Groups E, F and G
Class I, Zone 1, Groups IIB+H2 [For U.S. only]
Zone 21, Groups IIIC [For U.S. only]

AVAILABLE ACCESSORIES

ANTENNAS: ANF72: flexible dipole (2.4GHz/2dBi)
ANH73: heavy duty J-Pole (2.4GHz/4.35dBi)
ANH92: heavy duty dipole (2.4GHz/2dBi-5GHz/2dBi)

MOUNTING BRACKET: KM-01: mounting kit for 2" pipe
(see dedicated data sheet) KM-02: universal mounting kit

SPECIFICATIONS

GENERAL

Ethernet interface	1-port Gigabit Ethernet 10/100/1000 Base TX auto-sensing, auto MDI/MDIX cross-over, RJ45
WiFi interfaces	A10 (WiFi1) : 802.11a/b/g/n, MIMO 2x2, 2.4/5 GHz, ANI (Adaptive Noise Immunity) A11 (WiFi2): 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5 GHz, ANI (Adaptive Noise Immunity) A12 (WiFi1+ WiFi2,1 stream): 802.11n, MIMO 2x2, 2.4/5 GHz, plus 802.11a/b/g/n/ac, 2.4/5 GHz
WiFi radio data rate	A10 (WiFi1): up to 250 Mbps A11 (WiFi2): up to 600 Mbps A12 (WiFi1+ WiFi2): up to 250 Mbps (WiFi1) and up to 360 Mbps (WiFi2)
Operating frequencies	802.11a/n : 5GHz (5.170 to 5.835) 802.11b/g/n : 2.4GHz (2.42 to 2.494)
Output power	A10: (WiFi1) 2.4 GHz : up to 23.5 dBm (aggregate) / 5 GHz : up to 21 dBm (aggregate) $\pm$ 2 dB A11: (WiFi2) 2.4 GHz : up to 23.8 dBm (aggregate) / 5 GHz : up to 21 dBm (aggregate) $\pm$ 2 dB A12: (WiFi1) 2.4 GHz : up to 23.5 dBm (aggregate) / 5 GHz : up to 21 dBm (aggregate) $\pm$ 2 dB (WiFi2) 2.4 GHz : up to 20.8 dBm (aggregate) / 5 GHz : up to 18 dBm (aggregate) $\pm$ 2 dB
Security	Firewall, DoS, https, MAC filtering, WPA/WPA2-Personal & Enterprise (IEEE 802.1X/RADIUS), WEP, tunnels L2 (GRE), VPN (OpenVPN), SNMP V3
WiFi modes	Access point, client, MESH (IEEE 802.11s), infrastructure, AD-HOC, fast roaming (less than 30 ms), WMM QoS
Ethernet networking	Frames filtering, bridging, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS relay
Ethernet routing	Multicast (PIM), IP redundancy (VRRP), static routes, NAT router, router
Administration	http, https, SNMP agent (V1, V2C, V3), WaveManager administration software
Power supply	18-60 VDC Power Method: Dedicated terminals or POE or PPOE (Passive Power over Ehternet)
Power consumpion	8W

Ambient Temp Range	USA & CANADA SWA series -40°C (-40°F) +70°C (+158°F)
	                               SWS series -40°C (-40°F) +70°C (+158°F)
	
	ATEX & IECEx SWA series -40°C (-40°F) +60°C (+140°F)
	                               SWS series -40°C (-40°F) +50°C (+122°F)

■ NOMENCLATURE

SWA	A10	33	- 42	0	X0
a	b	c	d		e

a - Enclosure
SWA   Aluminum polyester powder coated
SWS   Stainless steel AISI 316 (CF8M) electropolish

b - Device
A10   802.11n, MIMO 2x2
A11   802.11ac, MIMO 2x2
A12   802.11n, MIMO 2x2 plus 802.11ac (1 stream)

c - Antenna connection [1]
30   n° 3 RXN antenna coupler (N Female) [2]
33   n° 2 RXN antenna coupler (N Female) [3]
40   n° 3 RXF antenna coupler (RP-SMA Female) [2]
44   n° 2 RXF antenna coupler (RP-SMA Female) [3]
50   n° 3 RXS antenna barrier (SMA Female) [2]
55   n° 2 RXS antenna barrier (SMA Female) [3]

d - Cable entrie
42   n° 4 3/4" npt-f (two used for antenna connection)
44   n° 4 M25x1.5 (two used for antenna connection)

e - Approvals
X0   Atex/IECEx Gas and Dust certified [4]
M0   Atex/IECEx Gas, Dust and mining certified [4]
N0   QPS CL1 DIV1 and North American Zones listed

Notes:

[1] Antenna not included
[2] Layout 4 (consult dimensional drawings for specific layout)
[3] Layout 3 (consult dimensional drawings for specific layout)
[4] Zone 1, 2, 21 & 22