

SAMSUNG



Smart WLAN



*Amplify Your Business with
Samsung Smart WLAN*



SAMSUNG
Wireless Enterprise

SAMSUNG

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Wireless Enterprise

Samsung Smart WLAN

Experience the most sophisticated enterprise mobility, created by the industry leader in mobile devices. Discover the ultimate wireless communications, employee productivity and enhanced security. Connectivity redefined to a whole new level.

Technology Above and Beyond Expectations


When it comes to the enterprise, Samsung delivers the most powerful and innovative products and solutions for today and into the future.

From smartphones with the security you need, to reliable, award-winning multifunction printers to wireless LAN infrastructure and voice networking, Samsung's commitment is to transform the way you work – Total freedom for maximum collaboration, enhanced productivity and business agility.


The mobile environment that you expect.

With Samsung WLAN, businesses and mobile users experience reliable, optimized and secure wireless access, allowing for maximum freedom and productivity throughout the workplace.

Intelligent Beam Selectable Antenna (IBSA)


 Samsung APs have a total of 15 antennas. Three antennas are used for monitoring, and the remaining 12 provide optimized RF patterns, selecting a beam for each environment. As a result, dead zones are minimized, service coverage is extended, and the receiving sensitivity is 2 dB higher than competitors. This means that the antenna can accurately receive signals from a mobile device with weak Tx power even from long distances.

AirMove*


 In legacy Wi-Fi handover, a device scans for other APs and connects to the appropriate AP when the AP signal detected by the device is below a certain threshold. This technology basically requires a long scan time and degrades service quality. Samsung AirMove uses LTE Handover technology that allows the AP controller to determine the best timing and target AP for the handover. This way, users enjoy seamless service during voice calls and video, and a greater throughput that is double than what legacy Wi-Fi handover guarantees.

* Availability depends on smartphone model.


AirEqualizer

 Samsung's Traffic Schedule technology ensures the most optimized Wi-Fi service by allocating equal airtime to multiple devices. Ideally suited for environments such as classrooms and lecture halls, this technology guarantees airtime fairness where multiple users need to simultaneously connect to the network. It also allows seamless service even in an environment with multiple devices with different traffic types, without compromising quality. In addition, it can maximize the AP's total cell throughput by more than 50% over competitor products, providing the best performance that adapts to the Wi-Fi connection specifications (11 a/b/g/n/ac) and signal intensity characteristics.

Self-Organizing Network (SON)


 By adding LTE technology to the existing Tx power and channel optimization technology through wireless resource management, cell configuration and coverage are automatically optimized to suit specific network requirements. This allows a high level of quality management during operations, dramatically shortening design schedule as well as reducing design cost.

Voice Aware Traffic Scheduling (VaTS)*

 VaTS, a Samsung's patented technology, efficiently sends voice frames to multiple devices using mobile communication traffic scheduling technology. This means that there is no voice quality degradation due to an increase of devices in concurrent calls. This technology enhances the concurrent call capacity and quality of voice service.

* Availability depends on smartphone model.

Dedicated Security Monitoring Module

 Samsung access points combine the advantages of the overlay and time slice split configurations and implements a dedicated security RF monitoring chip embedded independently of the RF service chip for continuous real-time monitoring of data service. This maximizes the RF sensing performance of the infrastructure and reduces the need of additional security equipment.

















Access Point Line-up

Samsung offers enterprise customers of all sizes higher throughput, more capacity and less interference for easy and reliable service and management.



Line-up

	802.11n	802.11ac (Wav e1)	802.11ac (Wav e2)			
Universal AP		 WEA412i				
Security AP	 WEA302i	 WEA303e	 WEA303i	 WEA403e	 WEA403i	 WEA504i
IoT AP			 WEA403Si			
Outdoor AP			 WEA453e	 WEA463e		
Wall Plate AP				 WEA412h		

Access Point Line-up

802.11ac Wave2 Access Point

WEA500 Series

Samsung WEA500 series Access Points are high performance APs that provide high speed even in environments where multiple terminals are connected or where large data such as video streaming are frequently transmitted.



Specifications

		WEA512i	WEA514i	WEA524i*	WEA504i
Features		-	-	-	Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
	# of Radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4GHz, 5GHz	2.4GHz, 5GHz	2.4GHz, 5GHz	2.4GHz, 5GHz
	Antennas	Internal Type	Internal Type	Internal Type	Internal Type
	MIMO	2X2 MIMO, 2 Spatial Streams, 2 Multiuser MIMO	4X4 MIMO, 4 Spatial Streams, 4 Multiuser MIMO	4X4 MIMO, 4 Spatial Streams, 3 Multiuser MIMO	4X4 MIMO, 4 Spatial Streams, 4 Multiuser MIMO
	Spectrum Analysis	-	Yes	-	Yes
	Multi SSID	Maximum 16	Maximum 16	Maximum 16	Maximum 16
	PHY Rate	867 Mbps	1.7 Gbps	1.7 Gbps	1.7 Gbps
H/W	Network I/F	1 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)
	USB	-	-	USB 2.0	-
	PoE	802.3af/at	802.3af/at	802.3af/at	802.3af/at
	Environment Class	Indoor	Indoor	Indoor	Indoor
Dimension	Diameter / Height	167.3 mm / 34.1 mm	205 mm / 45 mm	203 mm / 45 mm	205 mm / 45 mm
	Weight	270 g	840 g	620 g	860 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Encryption	DTLS	DTLS	DTLS	DTLS
	Rogue AP Detection / Blocking	Detection	Detection	Detection	Detection / Blocking
	Embedded Secure Element	Secure boot & data store	-	Secure boot & data store	-
QoS	Standard	802.11e	802.11e	802.11e	802.11e
	WMM	Yes	Yes	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC, CE	KC, FCC, CE	KC, FCC, CE	KC, FCC, CE

* WEA524i will be available in October 2017.

802.11ac Access Point

WEA400 Series

Samsung WEA400 series Access Points support 802.11ac, the next generation of Wi-Fi, offering higher throughput, more capacity, and less interference, while providing easy and reliable management. The WEA400 series offer dual concurrent radio access points with each radio capable of running in either 2.4 or 5GHz band.



Specifications

		WEA412h	WEA412i	WEA403i	WEA403e
Features		-	-	Dedicated WIPS Module	Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
	# of radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
	Antennas	Internal Type	Internal Type	Internal Type	External Type
	MIMO	2 x 2 MIMO, 2 Spatial Streams	2 x 2 MIMO, 2 Spatial Streams	3 x 3 MIMO, 3 Spatial Streams	3 x 3 MIMO, 3 Spatial Streams
	Spectrum Analysis	-	Yes (Time Sharing)	Yes	Yes
	Multi SSID	Maximum 16	Maximum 16	Maximum 16	Maximum 16
	PHY Rate	867 Mbps	867 Mbps	1.3 Gbps	1.3 Gbps
H/W	Network I/F	WAN : 1 x 1GE LAN : 4 x 1GE (Include 1 PoE output port)	2 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)
	PoE	802.3af/at	802.3af/at	802.3af/at	802.3af/at
	PoE PSE	48V DC : 15.4W 802.3at PoE : 10W 802.3af PoE : Disabled	-	-	-
	Environment Class	Indoor	Indoor	Indoor	Indoor
Dimension	Diameter / Height	96mm(W) x 144mm(H) x 36mm(D)	205 mm / 45 mm	205 mm / 45 mm	205 mm / 45 mm
	Weight	320 g	790 g	860 g	870 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Encryption	DTLS (Control plane)	DTLS	DTLS	DTLS
	Rogue AP Detection / Blocking	Detection	Detection (Time sharing)	Detection / Blocking	Detection / Blocking
	Embedded Secure Element	Secure boot & data store	-	Secure boot & data store	-
QoS	Standard	802.11e	802.11e	802.11e	802.11e
	WMM	Yes	Yes	Yes	Yes
Management	Operation	Controller-Based Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC, CE	KC, FCC, CE	KC, FCC, CE	KC, FCC, CE

802.11n Access Point

WEA300 Series

Samsung WEA300 series Access Points are compact and powerful access points with multiple spatial streams 802.11a/b/g/n that deliver data rates of 300/450 Mbps and ensure ultimate coverage, easy management and a secure wireless network.



Specifications

		WEA302i	WEA303i	WEA303e
Features		Dedicated WIPS Module	Dedicated WIPS Module	Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n
	# of radio	Dual Concurrent Radio	Dual Concurrent Radio	Dual Concurrent Radio
	Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
	Antennas	Internal Type	Internal Type	External Type
	MIMO	2 x 2 MIMO, 2 Spatial Streams	3 x 3 MIMO, 3 Spatial Streams	3 x 3 MIMO, 3 Spatial Streams
	Spectrum Analysis	Yes	Yes	Yes
	Multi SSID	Maximum 16	Maximum 16	Maximum 16
	PHY Rate	300 Mbps	450 Mbps	450 Mbps
H/W	Network I/F	1 x 1GE (RJ45), 1 Console (RJ45)	1 x 1GE (RJ45), 1 Console (RJ45)	1 x 1GE (RJ45), 1 Console (RJ45)
	PoE	802.3af/at	802.3af/at	802.3af/at
	Environment Class	Indoor	Indoor	Indoor
Dimension	Diameter / Height	174 mm / 34.1 mm	174 mm / 34.1 mm	174 mm / 34.1 mm
	Weight	560 g	640 g	650 g
Security	Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2	802.11i, WPA/WPA2
	Encryption	DTLS	DTLS	DTLS
	Rogue AP Detection / Blocking	Detection / Blocking	Detection / Blocking	Detection / Blocking
QoS	Standard	802.11e	802.11e	802.11e
	WMM	Yes	Yes	Yes
Management	Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC, CE	KC, FCC, CE	KC, FCC, CE

Multiple Access Point for the Internet of Things (IoT)

IoT AP



The Samsung IoT Access Points provide Giga-speed Wi-Fi access and wireless connectivity to the IoT sensors with their integrated Bluetooth (BLE) Low Energy and Zigbee chipsets. The IoT Access Points support location-based services, building energy management, lighting control, temperature management in a wide range of environments.

Major Functions and Benefits

BLE Beacon Hub

- Centralized beacon management unit
- Realtime coverage monitoring (Coverage holes & signal strength)
- Beacon analysis supporting user identification, location tracking and rogue beacon detection

Available BLE Beacon without Power Interruption

- BLE beacon as sending location information
- Cost reduction providing two services in one product Location based beacon service and WiFi data service
- Optimization and automation adjustment of beacon Tx power

IoT Sensor Gateway

- Real time monitoring & management of IoT sensors and devices
- Price competitiveness : Wireless sensor connectivity and simultaneous Wi-Fi data service supported (No sensor gateway installation required to support IoT services)
- Built-in BLE for location based services and user identification & sensor control and interaction with ZigBee technology (lighting control, temperature sensor management, etc.)

Specifications

		WEA403Si
Features		Dedicated WIPS Module
Wireless	Standard	802.11a/b/g/n/ac
	Bluetooth Low Energy	GATT (Generic Attribute) profile
	ZigBee	HA (Home Automation) profile
	# of radio	Dual concurrent radio
	Frequency	2.4 GHz, 5 GHz
	Antennas	Internal type
	MIMO	3 x 3 MIMO, 3 Spatial streams
	Spectrum Analysis	Yes
H/W	Multi SSID	Maximum 16
	PHY Rate	1.3 Gbps
	Network I/F	2 x 1GE (RJ45), 1 Console (RJ45)
Dimension	PoE	802.3af/at
	Environment Class	Indoor
	Diameter / Height	205 mm / 45 mm
Security	Weight	880 g
	Standard	802.11i, WPA/WPA2
	Encryption	DTLS
QoS	Rogue AP Detection / Blocking	Detection
	Standard	802.11e
Management	WMM	Yes
	Operation	Controller-Based Mode, Stand-Alone Mode
Certification	WiFi Certified	WPA/WPA2, WMM, WMM-PS
	Certification	KC, FCC, CE

Support to Giga WiFi Service for Outdoor Environments



Outdoor AP

The Samsung Outdoor AP is IP66 and IP67 certified which guarantees the highest levels of certification in the electrical equipment enclosure protection standard (IES-529 Standard). More than completely dustproof, It provides stable performance in frequently changing climates. The Samsung Outdoor AP weighs only 2.8 kg and is light enough to be held in one hand, allowing an easy installation. WEA463e can build an efficient wireless mesh network optimized path by mounting the original mesh protocol Samsung Electronics.



Specifications

	WEA453e	WEA463e
Features	Dedicated WIPS module	Mesh Network
Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac
# of radio	Dual concurrent radio	Dual concurrent radio
Frequency	2.4 GHz, 5 GHz	2.4 GHz, 5 GHz
RF Connectors	3	6
Antenna	Dual band	Single band
Wireless		
Tx Power / Path	23 dBm	24 dBm
Max Tx Power	28 dBm	29 dBm
MIMO	3 x 3 MIMO, 3 Spatial streams	3 x 3 MIMO, 3 Spatial streams
Spectrum Analysis	Yes (Time Sharing)	Yes (Time Sharing)
Multi SSID	Maximum 16	Maximum 16
PHY Rate	1.3 Gbps	1.3 Gbps
H/W		
Network I/F	2 x 1GE (RJ45), 1 Console (RJ45)	2 x 1GE (RJ45), 1 Console (RJ45)
PoE	802.3af/at	802.3af/at
Environment Class	Outdoor, IP66, IP67	Outdoor, IP66, IP67
RSSI LED	-	Yes
Dimension		
Diameter / Height	267 mm / 184 mm / 57.5 mm	267 mm / 184 mm / 57.5 mm
Weight	2.6 kg	2.8 kg
Security		
Standard	802.11i, WPA/WPA2	802.11i, WPA/WPA2
Encryption	DTLS	DTLS
Rogue AP Detection / Blocking	Detection (Time sharing)	Detection (Time sharing)
QoS		
Standard	802.11e	802.11e
WMM	Yes	Yes
Management		
Operation	Controller-Based Mode, Stand-Alone Mode	Controller-Based Mode, Stand-Alone Mode
Certification		
WiFi Certified	WPA/WPA2, WMM, WMM-PS	WPA/WPA2, WMM, WMM-PS
Certification	KC, FCC, CE	KC, FCC, CE

Accessory for extended wireless coverage



Antenna

WDS-ATD2D

- Applicable Model : WEA303e, WEA403e
- Indoor AP Dipole Antenna
- Dual Band : 2.4GHz(2dBi), 5GHz(4dBi)



WDS-ATD4D

- Applicable Model : WEA303e, WEA403e
- Indoor AP Dipole Antenna
- Dual Band : 2.4GHz(4dBi), 5GHz(5.5dBi)



WDS-ANTD5U

- Applicable Model : WEA453e, WEA463e
- Outdoor AP Dipole Antenna
- Dual Band : 2.4GHz(5dBi), 5GHz(8dBi)



Centralized WLAN Controller

WEC8500/WEC8050

Samsung WLAN Controllers, WEC8500 and WEC8050, are specially designed with small to medium-sized businesses in mind, as well as, for mission-critical wireless networking for large enterprises. By applying LTE technology, these high-performing 802.11ac-ready controllers are optimized to ensure that users benefit from the most reliable connectivity.



Major Functions and Benefits

Optimized integration of mobile devices in the Enterprise

- The system self-optimizes to suit other APs, users and the environment.
- Less detailed RF planning needed : large throughput increase : resulting in higher efficiency and better user experience.
- Improved continuous coverage : less 'black spots' and interference (Seamless handover)*

Powerful and Efficient Network

- Built-in authentication server, stateful firewall, and L3 routing function.
- Scalable capacity through clustering.
- Greater potential revenues, always-on (connected) and higher efficiency (e.g. less employee downtime).
- Higher uptime, less time for network analyzing and reconfiguration leads to low total cost of ownership (TCO) vs. the competition.

* Supports All Galaxy series



WEC8500/WEC8050

WEC8500

- Enterprise WLAN controller optimized for large-scale organizations, headquarters, and branches.
- Capable of accommodating up to 3,000 APs when clustering in centralized processing mode (for single configuration: up to 1000 APs).
- Capable of accommodating up to 3,000 APs with one controller in a distributed processing mode.
- System stability secured by power redundancy.
- Two 10GE ports and eight GE ports.
- Built-in authentication server capable of accommodating up to 2,048 users.



WEC8050

- Special WLAN controller optimized for small-to-medium-scale organizations, branches as well as remote offices.
- Capable of accommodating up to 200 APs through clustering (for single configuration : up to 75 APs).
- Built-in authentication server capable of accommodating up to 512 users.
- Built-in stateful firewall.



Specifications

		WEC8500	WEC8050
Scalability	Maximum # of Aps (Central Processing Method)	1,000	75
	Maximum # of Aps (Clustering Structure)	3,000 (Up to 6)	150 (Up to 2)
	Maximum # of Aps (Distributed Processing Method)	3,000	200
H/W	# of Clients	20,000	1,500
	Network I/F	2 x 10GE, 8 x 1GE, 1 Console	4 x 1GE, 1 Console
	USB	1	-
Network	System Redundancy	System redundancy	System redundancy
	Redundant Power	Yes (Optional)	-
	Routing	Yes	Yes
Security	VLANs	1,024	128
	DHCP	Server, Relay, Proxy	Server, Relay, Proxy
	QoS	Shaping, Policing, 802.1p, Voice quality monitoring	Shaping, Policing, 802.1p, Voice quality monitoring
RF Manager	Firewall	Yes (License required)	Yes (License required)
	Authentication	802.1x	802.1x
	MAC Filtering, ACL	Yes	Yes
Management	Encryption (APC-AP)	DTLS	DTLS
	AAA	Radius Server	Radius Server
	RM	Power, Channel, Coverage hole	Power, Channel, Coverage hole
Management	RF Spectrum Analysis	Yes	Yes
	CLI	Yes	Yes
	GUI	Yes	Yes
	SNMP	Yes	Yes
	Syslog	Yes	Yes

Easy-to-Use WLAN Manager for System Administrators

WEM (Wireless Enterprise Manager)

Samsung's Wireless Enterprise Manager (WEM) provides operational convenience by enabling system administrators to monitor failure situations anywhere, at any time and quickly resolve them via integrated wire/wireless remote management using their smartphones.



Major Functions and Benefits

Integrated wire/wireless management

- Supports access switch management in addition to access point and WLAN controller management.
- Capable of managing general switches that provide standard management information base (MIB), as well as Samsung's own L2 switches.

Intuitive and user-friendly UI

- Supports dashboard and menu structure, designed for effective viewing so that the device status and network status can be clearly grasped.
- Provides a simple and clean layout to enable the full attention to data.
- Alerts administrators by marking important data in primary colors.
- Intuitive icons that facilitate easy understanding of features.

Specifications

		WEM
Scalability	Maximum # of Network Elements (AP, APC, Switch)	3,000
	OS	Linux
	Form Factor	Server software
Security	Rogue AP Detection / Interception Monitoring	Yes
Location	Location Tracking Monitoring	Yes
Management	General	High availability, Monitoring, Status / Statistics, Database, Self diagnostics
	Fault	Alarm history, Alarm statistics, Alarm monitoring
	Configuration	APC configuration, AP configuration
	Performance	Status monitoring, Statistics
	Security	User ID / Password management, IP access control
	QoS	Voice quality monitoring
	Reporting	Network Status, Performance, Device, Station, etc. File (Excel, PDF) save, print

Wireless Intrusion Prevention System

WES (Wireless Enterprise Security)



Samsung Wireless Enterprise Security (WES) is an embedded system for continuous real-time monitoring of wireless services and optimization of the infrastructure's RF sensing performance.

It effectively prevents a wide array of wireless threats such as rogue AP and Denial of Service (DoS) attacks, among others. Samsung WES solution consists of embedded sensors and a WIPS server. Samsung's built-in WIPS sensors in the AP provide low total cost of ownership (TCO), high-resolution monitoring, and optimized blocking.

Major Functions and Benefits

Integrated AP / WIPS sensors through dedicated WIPS module

- Wi-Fi service performance is hardly affected because of the dedicated built-in WIPS module.
- An increase in the number of working sensors enhances the detection performance and enables accurate location information.
- Detection and prevention algorithm are executed immediately after the scanning process, blocking any potential threats.

Key Detection / Prevention Functions

- Detection / Prevention of rogue APs
- Detection / Prevention of ad-hoc devices
- Detection of RF interference sources
- Detection / Prevention of smartphone tethering
- Detection of MAC spoofing APs / Stations
- Detection of DoS attacks
- Detection of threats from Air attack tools

Quick Response to User Demands

- Provide a variety of user information (Device type, model name, user name, personnel information, etc.)
- Security policy setting function

WIPS Sensor

	802.11n	802.11ac wave 1	802.11ac wave 2
Model	WEA302i, 303i, 303e	WEA403i, 403e, 403Si, 453e*	WEA504i

* For the WEA453e model, two modules are used.

WIPS Server

	WES-Express	WES-Enterprise	WES-Ultimate
# of supported sensors	200	1,000	3,000
Redundancy	Power / Server Redundancy	Power / Server Redundancy	Power / Server Redundancy