SAMSUNG
WEA524i

Overview

The Samsung WEA524i is an 802.11ac Wave2 indoor Wi-Fi access point (AP) that delivers high throughput, with data rates of up to 1.7 Gbps on a 5-GHz band. With dual concurrent radio, 4x Multi-User MIMO, and Dynamic Frequency Selection (DFS) capabilities, the WEA524i AP enables high-performance wireless connectivity in high-density environments. The combination of 802.11ac standards and Samsung's innovative smart antenna solution, patented traffic schedule technology, and in-built security modules makes the WEA524i AP an ideal wireless solution for enterprises. Its seamless roaming capabilities without any packet loss ensures a continuous reliable mobile IP communication experience to improve employee productivity.

The WEA524i's 4x4 MIMO enables enterprises to transfer more concurrent data at higher speeds. This solves any network bottlenecks or hindrances to day-to-day productivity using both voice and data applications – an extremely essential feature, as Wi-Fi is becoming the primary connectivity node for a growing number of devices in the enterprise.

Enterprise-grade embedded security features are another crucial requirement for today's organizations. The Samsung WEA524i supports the WPA1/WPA2, TKIP, and AES security protocols to provide much-needed protection to enterprises.

The Samsung WEA524i's compact form factor and light weight design make it easy to install and mount.

Simplified Management

WEA524i access points can either be managed via a Command Line Interface (CLI) or centrally managed via a web interface by using high-performance controllers that are optimally designed to support both small and mid-scale enterprise deployment (WEC 8050) as well as large-scale deployments (WEC 8500).

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

Key Features

- **Optimum Performance** - Minimizes dead zones to deliver great coverage and throughput in concurrent multi-device traffic environments

- **Embedded Security** - Embedded comprehensive security protocols to offer optimum security to enterprises

- **Reliable Enterprise Connectivity** - Seamless roaming without packet loss – an essential characteristic for enterprises today, as more and more are using Wi-Fi as their primary form of connectivity

- **More Data and Higher Speeds** - 4x4 MIMO for higher data transfers at faster speeds in environments with concurrent devices and traffic

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WEA524i

Key Enabling Technologies

Intelligent Beam Selectable Antenna (IBSA)™

Expands service coverage and increases receiving sensitivity to ensure higher performance

Airequalizer

Guarantees airtime fairness to every device in crowded environments

Self-Organizing Network (SON)

Self-optimizes Wi-Fi connectivity and cell configurations to adapt to network conditions and manage overburdened networks

Voice Aware Traffic Scheduling (VaTS)[1]

Ensures optimized routing and QoS of real-time communication traffic as well as crystal-clear real-time voice collaboration over Wi-Fi

[1] Available only with access point deployments with controllers

WEA524i

Key Specifications

Item	Spec
Radio Specifications	• 802.11a/b/g/n/ac • Dual concurrent radio • 4 × 4 MIMO, 4 spatial streams, 4 Multiuser MIMO • PHY data rates up to 1.7 Gbps (5 GHz) • 802.11n high throughput (HT20/40) • 802.11ac very high throughput (VHT20/40/80/80+80/160) • Dynamic frequency selection (DFS)
Operation Mode	• Controller-based Mode: Central / Local Switching wit WEC8500 Series, WEC8050 Series • Standalone Mode (requires additional software) • Time Slicing Sniffer Mode • Time Slicing WIDS Mode: Monitor, Detection, Alert/Save, GUI Presentation
Supported Wireless LAN Controller	WEC8500 Series / WEC8050 Series
Data Rates	• 802.11b: 1, 2, 5.5 and 11 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps • 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps • 802.11n: MCS 0 to MCS 31 (6.5 Mbps to 600 Mbps) • 802.11ac: MCS 0 to MCS 9 (6.5 Mbps to 1,733 Mbps)
Frequency	• 802.11b/g/n: 2.412 GHz to 2.472 GHz 13 CH • 802.11a/n/ac: 5.180 GHz to 5.825 GHz 25 CH * Available Channels are compliant with local regulations
Maximum Transit Power	• 26 dBm with 4 streams (20 dBm/Path) * The maximum transmit power will vary by channel and according to individual country regulations (2.4 GHz MCS 0/Path)

Receive Sensitivity

Rate	2G HT20	HT20	HT40	5GV VHT20	VHT40	VHT80
MCS 0	-94	-93	-90			
MCS 7	-75	-73	-71			
MCS 8	-92	-91	-88			
MCS 15	-72	-71	-68			
MCS 16	-90	-89	-85			
MCS 23	-70	-69	-65			
MCS 24	-87	-87	-83			
MCS 31	-68	-68	-65			
MCS0/NSS1				-93	-90	-87
MCS7/NSS1				-73	-71	-69
MCS8/NSS1				-69	-67	-65
MCS9/NSS1				N/A	-65	-63
MCS0/NSS2				-91	-88	-85
MCS7/NSS2				-71	-68	-67
MCS8/NSS2				-67	-66	-64
MCS9/NSS2				N/A	-63	-60
MCS0/NSS3				-89	-85	-82
MCS7/NSS3				-69	-65	-65
MCS8/NSS3				-65	-63	-61
MCS9/NSS3				-63	-61	-58
MCS0/NSS4				-87	-83	-80
MCS7/NSS4				-68	-65	-62
MCS8/NSS4				-64	-61	-58
MCS9/NSS4				-62	-59	-56
802.11 b						
1 Mbps	-99					
11 Mbps	-90					
802.11 a/g						
6 Mbps	-95	-94				
54 Mbps	-77	-76				

Item	Spec
Maximum Receive Sensitivity	- 93 dBm (5 GHz MCS 0/Path), - 94 dBm (2.4 GHz MCS 0/Path)
Security	• Secure boot and data store with Embedded Secure Element • iEEE 802.11i, WPA™/ WPA2™, Enterprise/Personal, TKIP, AES • 802.1x/EAP based Controller internal / external Radius, LDAP, Active Directory • CAPWAP
Integrated Antenna	2.4 GHz: 3 dBi; 5 GHz: 5 dBi

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Key Specifications

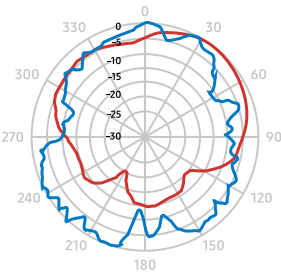|	
Interfaces	• Two 10/100/1000BASE-T Ethernet port: RJ-45, Link Aggregation - One PoE-PD port: 802.3af/at • One Management console port (RJ-45) • USB 2.0 Type A connector
Dimensions	Diameter × Height: 203 mm × 45 mm (excluding protrusions)
Weight	1.36 lbs (+5%)
Environmental	Storage temp: -13 to 158°F; Operating temp: 32 to 113°F; Operating Humidity: 0 to 90% (non-condensing)
Input Power Requirements	IEEE 802.3af/at PoE - 802.3at: Full Capability
Powering Options	Local power supply: 48 V / 0.75 A
Power Draw	Under 20 W
LED	System start status, Provisioning status, Operation status, Fault status
Reset button	Factory Reset
Lock Option	Kensington Lock Slot
Mounting	Included Mounting Bracket for Ceiling installation

Compliance Standards	• Safety:
	  - KN 60950-1 (Korea)
	  - UL 60950-1 (Europe)
	  - EN 60950-1 (USA)
	• EMC:
	  - KN 301 489-1/KN 301 489-17, KN 32, KN 24 (Korea)
	  - EN 301 489-1/EN 301 489-17, EN 55032, EN 55024 (Europe)
	  - FCC Part 15 Subpart B (USA)
	• Radio approvals:
	  - Radio Equipment Specifications (Korea)
	  - EN 300 328, EN 301 893, EN 300 440, EN 62311 (Europe)
	  - FCC Part 15 Subpart C, Subpart E (USA)
	• Wi-Fi Alliance Certified:
	  - Wi-Fi CERTIFIED™ a, b, g, n, ac
	  - WPA™ – Enterprise, Personal
	  - WPA2™ – Enterprise, Personal
	  · EAP Type(s)
	  · EAP-TLS
	  · EAP-TTLS/MSCHAPv2
	  · PEAPv0/EAP-MSCHAPv2
	  · PEAPv1/EAP-GTC
	  · EAP-SIM
	  · EAP-AKA
	  · EAP-AKA Prime
	  · EAP-FAST
	  - Protected Management Frames
	  - WMM®
	  - WMM®-Power Save
	  - Wi-Fi CERTIFIED™ ac
	    · Rx MCS 8-9 (256-QAM)
	    · Tx STBC 2x1
	    · Rx A-MPDU of A-MSDU
	    · Tx SU beamformer
	    · Low Density Parity Check coding
	    · Tx DL MU-MIMO
	    · RTS with BW Signaling

Part Numbers	WDS-A524I/KOR WDS-A524I/XAR WDS-A524I/EUS

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WEA524i Integrated Antenna

Key Specifications

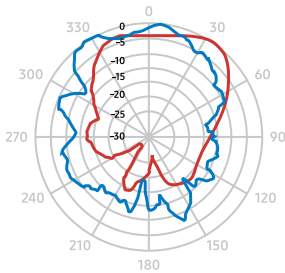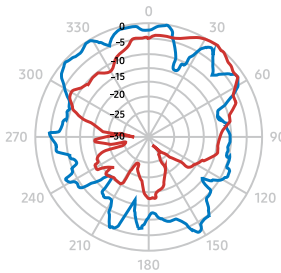| Item	Spec
Frequencies [MHz]	2,400-2,495/4,900-5,925
Configuration	4 of 2.4GHz, 4 of 5GHz
Gain [dBi]	3 @2.4GHz/ 5.5 @5GHz
VSWR (max)	2 @2.4GHz/ 2 @5GHz
Polarization	Linear
Antenna Type	Omni-directional
Mounting	Integrated

Radiation Patterns
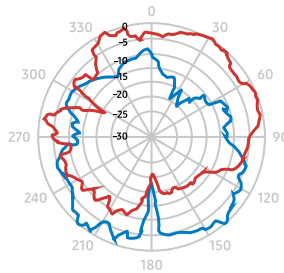
■ Azimuth
■ Elevation
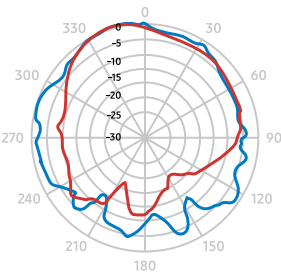
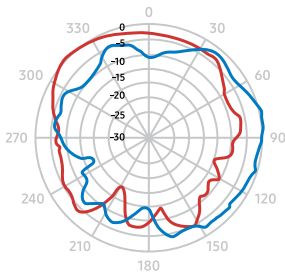

WEA524i
Service A51 | 5GHz

WEA524i
Service A52 | 5GHz

WEA524i
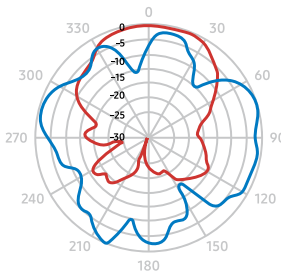Service A53 | 5GHz

WEA524i
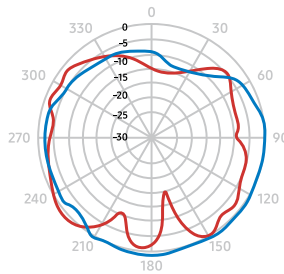Service A54 | 5GHz

WEA524i
Service A21 | 2.4GHz

WEA524i
Service A22 | 2.4GHz

WEA524i
Service A23 | 2.4GHz

WEA524i
Service A24 | 2.4GHz