SmartAir DVW-4126/4128

High-performance, Dual-band 802.11ac Wi-Fi Access Points

Key features & Benefits

802.11ac Compliant Explicit Beamforming
Significantly reduces coverage cold spot and increases throughput to mobile devices incorporating 1x1, 2x2, 3x3 802.11ac WiFi devices. And it delivers a increase in Wi-Fi signal coverage minimizing the number of APs required to service any area

802.11ac LDPC and TxBF technologies
802.11ac LDPC and TxBF technologies are supported. With both technologies, tcp throughput is increased up to 200% more.

Flexible deployment options
Standalone or controller-based deployment

802.3af Compliant without upgrading PoE switch
Adapts to available 802.3af power-over-Ethernet (PoE) instead of requiring customers to upgrade to 802.3at PoE+

Learn More (Controller-based Only)

Smart Channel™ manages the 2.4-GHz and 5-GHz radio bands and ensures that APs stay clear of RF interference.

Smart Power™ manages RF output power of APs belonged to the specific AP Group. When coverage hole is detected, it increases output power of adjacent Aps.

Smart Access™ optimizes Wi-Fi client performance as users roam and RF conditions change. If a mobile device moves out of range of an AP or RF interference impedes performance, it automatically steers it to a better AP.

Smart Speed™ monitors and measures the throughput between controller and APs to make sure that enough bandwidth is guranteed between them.

Smart Path™ monitors the wired path between controller and APs by sending ICMP packets to detect the failure of wired network.

Product Overview

The DVW-4100 series is a high-performance 802.11ac and 802.11abgn indoor access point purpose built for high-density deployments. This access point is designed to operate in heavy-user and mission critical environments such as healthcare facilities, universities, conference centers, arenas, and stadiums.

This high-performance access point is equally adept at serving high-bandwidth video applications as well as low-latency voice applications. The DVW-4126 comes with an integrated two antenna for ease of installation. The DVW-4126 requires additional installation and includes two RP-SMA antenna connectors supporting wide-band(both 2.4GHz and 5GHz) antennas. Unique to this class of access point, the power efficient DVW-4100 series uses 802.3af Power over Ethernet (PoE) without reducing its performance nor degrading its enterprise-grade capabilities. An optional external power supply is available for deployments that do not support Power over Ethernet.

The DVW-4100 series are built on the newest Wi-Fi technology including 802.11ac, dynamic radio management, and spectrum analysis with interference classification, beam forming, self-forming and self-healing, security, role-based authentication, Authorization, and access control. The 2x2:2 platform is capable of delivering 867Mbps over-the-air-performance. The use of a dual core CPU and a network co-processor for offloading frame processing ensures that there are no bottlenecks in the data path when packets are processed through the slow path from the air-to-the wire.

Features

General

Åsupports 2 radios(2.4GHz and 5GHz)
Å2x2 MIMO implementation for high-performance
Å2 spatial streams
ÅMax link rate 300Mbps 2.4GHz radio
ÅMax link rate 867Mbps 5GHz radio
Å16 SSIDs per each radio

Radio Resource Management

ÅDynamic Channel Control/Selection
ÅAutomatic transmit power and channel control
ÅSelf-healing with coverage hole detection
ÅBand steering with multiple steering modes
ÅLoad balancing of clients
ÅAirtime fairness
ÅAdaptive Noise Immunity
ÅAnalyzing RF Spectrum
ÅSmart Mesh with indoor/outdoor APs
ÅPerformance protection in congested RF environments
ÅMitigates co-channel interference with coordinated access
ÅMitigates adjacent channel interference with optimized receiver sensitivity
ÅEfficient reuse of channels at shorter intervals
ÅMitigates non 802.11 interference without dedicated radios

Service and Networking

ÅL2 fast roaming
- Opportunistic Key Caching
- PMK Key Caching

ÅL3 Roaming
- GRE tunnel between APs

ÅBridging or NAT for LAN/Wireless
ÅDHCP Server/Client
ÅVLAN assignment per SSID
- Optionally, by filer-id of external RADIUS server

ÅQ-in-Q tagging

Management and Configuration

ÅMultiple user interface options :
- Centralized management via SmartAir Controller
- Built-in web-based management
- Command line interface (CLI)

ÅRemote firmware upgrade and configuration

Security, Authentication and Encryption

ÅStateful inspection firewall
- TCP/UDP flooding
- SYN flooding
- ARP flooding
- IP Spoofing
- IP Sweeping
- Port Scanning
- Session Limit by source or destination

ÅAP access control from remote device
ÅACL policy with IP address, port of source and destination

ÅWPA-PSK / WPA2-PSK
ÅIEEE 802.11i / WPA2 with passphrase (WPA2-Personal)
ÅIEEE 802.1X (WPA2-Enterprise) and hardware-accelerated AES
ÅEAP Types
- EAP-TLS
- EAP-TTLS/MSCHAPv2
- PEAPv0/EAP-MSCHAPv2
- PEAPv1/EAP-GTC
- EAP-SIM
- EAP-AKA/EAP-AKA Prime
- EAP-FAST

ÅTKIP/AES
ÅHigh availability for authentication
- When disconnecting with controller, AP try to authenticate RADIUS server directly for wireless stations

QoS

ÅWireless Multimedia Extensions(WME, subnet of IEEE 802.11e)
ÅU-APSD/WMM Power Save
ÅPrioritizes voice over data for both tagged and untagged traffic
ÅRule and role based QoS processing
ÅQoS policy and Rate Limitation per group, station
- DSCP
- 802.1P
- 802.1P/WMM

Regulatory & Certifications

ÅKCC certified
ÅCE Marked
ÅWi-Fi Alliance-certified 802.11a/b/g/n/ac

Wi Fi CERTIFIED

DAVOLINK contact-us

- Business inquiry
  internal : domestic_sales@davolink.co.kr
  overseas : overseas_sales@davolink.co.kr
- Technical : technical@davolink.co.kr

DAVOLINK Overview

Name : DAVOLINK Inc.
Foundation : 26, June, 2000
Business Area : Broadband Convergence Solution
Employee : 51 persons
Product : VoIP G/W, Broadband Access G/W
Location : 864-7 Gwanyang-Dong Dongan-Gu Anyang-Si Gyeonggi-Do, KOREA
Web Site : http://www.davolink.co.kr

General Specifications

Physical Characteristics	
Physical Size	Å175 mm x 175 mm x 45 mm
Weight	Å450 g
LED	ÅPower (Blue/Red : Noraml/Booting, Alarm) ÅInternet (Blue : Link/Active) ÅWLAN (Blue : Active)

Power	
Power	ÅExternal Power Adaptor Input : 110-240V AC Output : 12V DC, 2A(DC-038 Type) ÅPower over Ethernet 802.3af, 48V DC
Comsumption	Å12W(typical), 15.4W(Max)

Interfaces	
WAN port	ÅOne 10/100/1000M base-T interfaces with POE+ (RJ-45 Tap down & Yellow color)
LAN port	ÅOne 10/100/1000M base-T interfaces with auto MDI/MDI-X (RJ-45 Tap down & Black color)
USB port	ÅOne USB 3.0 Host Port for AUX interface
WLAN	ÅInternal PCB ANT 2T2R : 2dBi PCB type (DVW-4128) ÅExternal SMA ANT 2T2R : 5dBi SMA type (DVW-4126)
Console port	ÅRS-232C interface for management, RJ-45

Environmental Conditions	
Operating temperature	Å0°C to 50°C
Storage temperature	Å-20°C to 60°C
Operating Humidity	Å10% to 85% Non-Condensing
Storage Humidity	Å95%

Radio Specifications

Wireless Modulation	
802.11a	ÅBPSK, QPSK, 16QAM, 64QAM with OFDM
802.11b	ÅDirect-sequence spread-spectrum(DSSS)
802.11g	ÅDSSS and Orthogonal frequency-division multiplexing (OFDM)
802.11n	ÅBPSK, QPSK, 16QAM, 64QAM, 256QAM* with OFDM ÅHigh-throughput (HT) support: HT 20/40 ÅPacket aggregation: A-MPDU, A-MSDU ÅAdvanced Features: LDPC, STBC and TxBF
802.11ac	ÅBPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM ÅPacket aggregation: A-MPDU, A-MSDU ÅVery High-Throughput (VHT): VHT20/40/80 ÅAdvanced Features: LDPC, STBC, Maximum Likelihood (ML) Detection

Output Power	
2.4 GHz	Å802.11b : ☐ > 17.0dBm @ all rates Å802.11g : ☐ > 14.0dBm @ all rates Å802.11n HT20 / HT40: ☐ > 14.0dBm @ MCS0 / MCS8 ☐ > 13.0dBm @ MCS7 / MCS15
5 GHz	Å802.11a : ☐> 14.0dBm @ all rates Å802.11n HT20 / HT40: ☐ > 14.0dBm @ MCS0 / MCS8 ☐ > 13.0dBm @ MCS7 / MCS15 Å802.11ac VHT20 : ☐> 13.0dBm @ NSS=2, all rates Å802.11ac VHT40 : ☐> 13.0dBm @ NSS=2, all rates Å802.11ac VHT80 : ☐> 13.0dBm @ NSS=2, all rates

Receiver Sensitivity	
2.4 GHz	Å802.11b : ☐ -84dBm (min) @ 11Mbps ☐ -92dBm (min) @ 1Mbps Å802.11g : ☐ -89dBm (min) @ 6Mbps ☐ -70dBm (min) @ 54Mbps Å802.11n HT20 : ☐ -89dBm (min) @ MCS0 ☐ -65dBm (min) @ MCS7 ☐ -89dBm (min) @ MCS8 ☐ -65dBm (min) @ MCS15 Å802.11n HT40 : ☐ -86dBm (min) @ MCS0 ☐ -62dBm (min) @ MCS7 ☐ -86dBm (min) @ MCS8 ☐ -62dBm (min) @ MCS15
5 GHz	Å802.11a : ☐ -89dBm (min) @ 6Mbps ☐ -70dBm (min) @54Mbps Å802.11ac VHT20 : ☐ -60dBm (min) @ MCS8 ☐ -58dBm (min) @ MCS9 Å802.11ac VHT40 : ☐ -57dBm (min) @ MCS8 ☐ -55dBm (min) @ MCS9 Å802.11ac VHT80 : ☐ -54dBm (min) @ MCS8 ☐ -52dBm (min) @ MCS9

* Note 1 : Turbo-QAM can be enabled on 2.4GHz radio, but it was not enabled because heavy interference is in 2.4GHz radio and it make the performance degrade.

DAVOLINK
Wireless Solution Provider