Extreme Networks Altitude 4762/4763

Outdoor Mesh Dual/Tri Radio 802.11 abgn Wireless Access Point

Performance

- 3x3 MIMO
- 802.11 abgn (2.4/5GHz)
- 34 dBm Max Output Power
- GigE Uplink with PoE

Form Factor

- Dual Radio & Tri Radio
- Independent AP
- Wall or Pole Mount

Features

- Compact
- Mesh Networking
- Outdoor Rated IP67 Cast Aluminum Enclosure
- ASTM B1117 Salt, Fog, and Rust Resistance
- Band-unlocked Dual Band Design VPN Gateway
- SMART RF
- Wireless IPS
- VPN Gateway
- L2-L7 Stateful/Packet Filtering Firewall

Extreme Networks Altitude 4762 and Altitude 4763 are outdoor access points optimized for wireless mobility software to provide leading capacity, performance and design in outdoor Wi-Fi solutions with the latest in 802.11n 3x3 MiMO dual-radios and tri-radios and support for 2 spatial streams. Intrusion protection with dedicated sensor radio support is provided in the AP4763. These access points with NEMA 4X-modified housing are suitable for extended temperature range operation and can be paired with a wide variety of weatherized antennas for outdoor deployments.

Features Summary

The Altitude 4762 and 4763 access points provide comprehensive outdoor wireless features for mesh deployments, industrial and campus deployments as well as video surveillance applications. Delivering ruggedized outdoor performance and the ability to defend your perimeters from intrusion, the Altitude 4762 and 4763 access points bring together the latest in 802.11n 3x3 MiMO tri-radio design with 24x7 Intrusion protection system AirDefense both in software and dedicated sensor radio support.

Ideal Applications:

- Industrial and Warehouse operations
- Public Safety
- Municipal and Operator Access
- Smart Grid Applications
- Video surveillance applications
- Extended hotspots for public access
- Enterprise, Education and Healthcare campus facilities

Features and Benefits

Outdoor Wireless Services

CAPACITY AND PERFORMANCE LEADING MESH DEPLOYMENTS

The Altitude 4762 and 4763 Access Points have been optimized within the wireless mobility platform to provide leading capacity, performance and design and is ideal for industrial and enterprise campus, video surveillance and public safety deployments.

INDUSTRIAL AND ENTERPRISE CAMPUS DEPLOYMENTS

The Altitude 4762 and 4763 Access Points specifically designed for outdoor use, delivers enterprise-class wireless networking in harsh environments.

In addition to a NEMA 4X-modified housing, Altitude 4762 and 4763 Access Points have extended temperature range operation and an array of weatherized antenna and power accessories.

Altitude 4762 and 4763 Access Points give campus environments, self-forming, self-healing MESH capabilities, and support for Wi-Fi Multimedia (WMM) extensions to ensure Quality of Service (QoS) while cost-effectively extending networks beyond and between buildings — with no need to install additional Ethernet cable or fiber. With integrated router, firewall, DHCP, AAA and hotspot services, the Altitude 4762 and 4763 access points offer a superior outdoor WLAN solution.

VIDEO SURVEILLANCE NETWORKS

Capacity in video surveillance solutions is critical to the performance of many networks designed to monitor and provide safety. To assist with the deployment of video where the camera application resides, the Altitude 4762 and 4763 offers band unlocked radio flexibility letting the user choose the radio type, between2.4Ghz, 5Ghz and 4.9Ghzbands. The Altitude 4762/3 access points support 3x3 MIMO (Multiple Input Multiple Output) technology reaching a maximum data rate of 300 Mbps, to maintain high performance and better quality of transmission.

RELIABLE SECURE PUBLIC SAFETY NETWORKS

The Altitude 4762 and 4763 access points are designed to optimize network availability through its central and pre-emptive intelligence which dynamically senses weak or failing signals, securely moves mobile users to alternate APs, and boosts signal power to automatically fill RF holes and ensure uninterrupted mobile user access.

Comprehensive Security

MESHPATROL PERIMETER INTRUSION SECURITY Extending the indoor network to the outdoors increases the need to guard against unwanted intruders and attackers, and monitor the performance and availability of mesh networks. In addition to industry standard security for clients and radio backhaul, the Altitude 4762 and 4763 access points provide true perimeter security using either dedicated dual-band sensor or software mode in 2.4GHz and 5Ghz bands. Concurrent around-the-clock dual-band Network Assurance sensing and wireless traffic is provided together with spectrum analysis — eliminating the need for separate devices. The Integrated Wireless IP Sensor option enables the configuration of one radio for 24x7 rogue detection and termination, and two others can simultaneously be dedicated to wireless client access and/or meshing. As a result, enterprises can now deploy the most robust Wireless IPS solution while saving money — the cost to purchase, deploy and manage dedicated sensor hardware is eliminated.

Security: The AP includes a layer 2-7 stateful packet filtering firewall. AAA Radius client services, built in wireless IPS, VPN Gateway, and location based access control are also included.

Deployment: The Altitude 4762 and Altitude 4763 support wireless controller autodiscovery. Upon activation each AP communicates with the controller and automatically downloads configuration parameters and firmware. This reduces installation, maintenance and troubleshooting costs for layer 2 and layer 3 deployments.

Intelligence: The Altitude 4762 and Altitude 4763 uses SMART RF to adjust power and channel selection to prevent channel overlap or co-channel interference. This is done automatically reduces the chance of human error or interference. SMART RF is a standard feature on the Altitude 4762 and Altitude 4763.

Direct Forwarding: The Altitude 4762 and Altitude 4763 allow for direct forwarding of data traffic to reduce the bottleneck at the wireless controller, which can reduce latency and jitter issues for voice and video applications. An SSID is easily mapped to a VLAN with direct forwarding, separating the control and data planes.

WING OS: The Altitude 4762 and Altitude 4763 are controlled by the WM 3000 series wireless controllers and uses the advanced WING wireless operating system for configuration, management and monitoring.

SPECIFICATIONS CHART

PHYSICAL CHARACTERISTICS	Altitude 4762	Altitude 4763
Dimensions:	28.1 cm W x 21.8 cm H x 9.4 cm D 11.1 in. W x 8.6 in. H x 3.7 in. D	28.1 cm W x 21.8 cm H x 9.4 cm D 11.1 in. W x 8.6 in. H x 3.7 in. D
Weight:	6.4 lbs/ 2.9 kg	6.4 lbs/ 2.9 kg
Wind Rating:	241 kph / 150 mph	241 kph / 150 mph
Available mounting configurations:	Pole-mount; wall mount	Pole-mount; wall mount
Outdoor Ratings:	IP67 Cast Aluminum Enclosure; ASTM B117 Salt, Fog, and Rust Resistance	IP67 Cast Aluminum Enclosure; ASTM B117 Salt, Fog, and Rust Resistance
LED indicators:	6 LED indicators with multiple modes indicating 2.4GHz/5 GHz Activity Power, Adoption and Errors	6 LED indicators with multiple modes indicating 2.4GHz/5 GHz Activity Power, Adoption and Errors

WIRELESS DATA COMMUNICATIONS AND NETWORKING

Data rates supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48, and 54Mbps 802.11a: 6,9,12,18,24,36,48, and 54Mbps 802.11n: MCS 0-15 up to 300Mbps
Network Standard:	802.11a, 802.11b, 802.11g, 802.11n
Wireless Medium	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM), and Spatial Multiplexing (MIMO)
Uplink	Auto-sensing 10/100/1000Base-T ETHERNET

POWER SPECIFICATIONS

Operating voltage:	802.3at supply: 48 VDC @ 25.5W (typical), 36 VDC to 57 VDC (range)
Operating current:	750mA rms at 48V
Integrated Power-over-Ethernet Plus support:	Standards-based IEEE 802.3at

RADIO CHARACTERISTICS

	Altitude 4762	Altitude 4763
Operating channels:	4.94 GHz - 4.99GHz 5GHz: All channels from 5180 MHz to 5825 MHz 2.4GHz: 2412-2472 MHz Actual operating frequencies depend on national regulatory limits	4.94 GHz - 4.99GHz 5GHz: All channels from 5180 MHz to 5825 MHz 2.4GHz: 2412-2472 MHz Actual operating frequencies depend on national regulatory limits
Transmit power Adjustment:	1dB increments	1dB increments
Antenna configuration:	6 antennas used for 3x3 MIMO (transmit on three and receive on three antennas)	8 antennas used – 2 for sensors and 6 for 3x3 MIMO (transmit on three and receive on three antennas)
Operating bands:	FCC EU 2.412 to 2.462 GHz 2.412 to 2.472 GHz 5.150 to 5.250 (UNII -1) 5.150 to 5.250 GHz 5.725 to 5.825 (UNII -3) 5.150 to 5.350 GHz 5.725 to 5.850 (ISM) 5.470 to 5.725 GHz	FCC EU 2.412 to 2.462 GHz 2.412 to 2.472 GHz 5.150 to 5.250 (UNII -1) 5.150 to 5.250 GHz 5.725 to 5.825 (UNII -3) 5.150 to 5.350 GHz 5.725 to 5.850 (ISM) 5.470 to 5.725 GHz

USER ENVIRONMENT	Altitude 4762	Altitude 4763
Operating temperature:	-40°F to 158° F/-40°C to 70° C	-40°F to 158° F/ -40°C to 70° C
Storage temperature:	-40°F to 158° F/ -40°C to 185°	-40°F to 158° F/ -40°C to 185°
Operating humidity:	5%-95% (non-condensing)	5%-95% (non-condensing)
Operating altitude:	8,000 ft./2438 m	8,000 ft./2438 m
Storage altitude:	30,000 ft./9144 m	30,000 ft./9144 m
Electrostatic discharge:	+/- 15 kV (Air), +/- 8 kV (contact)	+/- 15 kV (Air), +/- 8 kV (contact)

MAXIMUM RADIO TRANSMIT POWER:

BAND	Altitude 4762	Altitude 4763
2400MHZ	+32 dBm	+32 dBm
5200MHZ	+34 dBm	+34 dBm

ANTENNA PORT SPECIFICATON

Type:	Integrated 2.4 GHz and 5.2 GHz Dual-Antenna Elements Two RP-SMA connectors for external antennas (not included)
Band:	2.4 GHz to 2.5 GHz; 5.180 GHz to 5.850 GHz (actual operating frequencies depend on regulatory rules and certification agency)

ANTENNA INFORMATION

ANTENNA DESCRIPTION	VALUES
Peak gain, 2.4GHz band	**8.0dBi**
Peak gain, 5.0GHz band	10.0dBi

REGULATORY

Safety:	UL 60950-1,-22; CSA C22.2 No. 60950-1-07,-22,CB-IEC 60950-1, 22; EN 60950-1:2006+ A11:2009 RoHS/WEEE/CMM;CE
Radio:	FCC (USA), Industry Canada, CE (Europe), China SRRC, Australia/New Zealand

CONDUCTED RECEIVER SENSITIVITY

(ANTENNA ELEMENT NOT INCLUDED) (typical) at antenna housing connector, 2400MHz band

Rate/MCS	Mode	Sensitivity (dBm)
1	Legacy	-95
2	Legacy	-94
5.5	Legacy	-93
11	Legacy	-90
6	Legacy	-94
9	Legacy	-94
12	Legacy	-95
18	Legacy	-94
24	Legacy	-90
36	Legacy	-87
48	Legacy	-83
54	Legacy	-82
MCS0	HT20	-95
MCS1	HT20	-93
MCS2	HT20	-91
MCS3	HT20	-87
MCS4	HT20	-85
MCS5	HT20	-81
MCS6	HT20	-79
MCS7	HT20	-78
MCS8	HT20	-94
MCS9	HT20	-91
MCS10	HT20	-88
MCS11	HT20	-85
MCS12	HT20	-82
MCS13	HT20	-79
MCS14	HT20	-77
MCS15	HT20	-75
MCS0	HT40	-90
MCS1	HT40	-89
MCS2	HT40	-87
MCS3	HT40	-84
MCS4	HT40	-82
MCS5	HT40	-78
MCS6	HT40	-76
MCS7	HT40	-75
MCS8	HT40	-87
MCS9	HT40	-87
MCS10	HT40	-85
MCS11	HT40	-83
MCS12	HT40	-80
MCS13	HT40	-75
MCS14	HT40	-74
MCS15	HT40	-72

CONDUCTED RECEIVER SENSITIVITY

(ANTENNA ELEMENT NOT INCLUDED) (typical) at antenna housing connector, 5200MHz band

Rate/MCS	Mode	Sensitivity (dBm)
6	802.11a	-93
9	802.11a	-93
12	802.11a	-93
18	802.11a	-92
24	802.11a	-89
36	802.11a	-86
48	802.11a	-82
54	802.11a	-80
MCS0	HT20	-93
MCS1	HT20	-92
MCS2	HT20	-90
MCS3	HT20	-86
MCS4	HT20	-83
MCS5	HT20	-79
MCS6	HT20	-78
MCS7	HT20	-76
MCS8	HT20	-92
MCS9	HT20	-90
MCS10	HT20	-87
MCS11	HT20	-84

CONDUCTED RECEIVER SENSITIVITY

(ANTENNA ELEMENT NOT INCLUDED) (typical) at antenna housing connector, 5200MHz band)Cont.

Rate/MCS	Mode	Sensitivity (dBm)
MCS12	HT20	-81
MCS13	HT20	-77
MCS14	HT20	-75
MCS15	HT20	-73
MCS0	HT40	-90
MCS1	HT40	-89
MCS2	HT40	-86
MCS3	HT40	-83
MCS4	HT40	-80
MCS5	HT40	-76
MCS6	HT40	-74
MCS7	HT40	-73
MCS8	HT40	-89
MCS9	HT40	-86
MCS10	HT40	-84
MCS11	HT40	-81
MCS12	HT40	-78
MCS13	HT40	-74
MCS14	HT40	-72
MCS15	HT40	-71

Ordering Information

Part Number	Description	Information
15794	AP4672 Outdoor US	Altitude AP4762 dual-radio Independent Outdoor Access Point for US regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE.
15795	AP4672 Outdoor ROW	Altitude AP4762 dual-radio Independent Outdoor Access Point for ROW regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE.
15811	AP4672 Outdoor EU	Altitude AP4762 dual-radio Independent Outdoor Access Point for EU regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE.
15796	AP4673 Outdoor US	Altitude AP4763 tri-radio Independent Outdoor Access Point for US regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE .
15910	AP4673 Outdoor ROW	Altitude AP4763 tri-radio Independent Outdoor Access Point for ROW regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE .
15812	AP4673 Outdoor EU	Altitude AP4763 tri-radio Independent Outdoor Access Point for EU regulatory domain, 802.11a/b/g/n, 3x3 MIMO. External antennas. Powered by 802.3at PoE .

Third Party Accessories:

Accessories for the Altitude 4762 and Altitude 4763 include mounting hardware, weatherized connector plugs, external power supplies, PoE+ injectors and external antennas. Ordering information can be found below.

Part Number	Description	Information
KT-147407-01	AP4760 MNT HW KIT	Altitude 4760 mounting hardware kit
KT-150173-01	AP4760 12" EXT ARM	Altitude 4760 12 inch extension arm for mounting kit
KT-153676-01	KT-153676-01	Altitude 4760 rj45 weatherized connector plug
AP-PSBIAS-7161-US	OUTDOOR POE INJECTOR US	Outdoor IP66 802.3at gigabit Ethernet power injector 100-240 VAC US
AP-PSBIAS-7161-WW	OUTDOOR POE INJECTOR ROW	Outdoor IP66 802.3at Gigabit Ethernet power injector 100-240 VAC INTL
KT-153143-01	KT-153143-01	Altitude 4760 outdoor POE mounting kit
ML-2499-HPA8-01	ML-2499-HPA8-01	Environment: outdoor rated; type: dipole; gain: 8 dbi @2.4ghz; connector: n-male
ML-2499-HPA4-01	ML-2499-HPA4-01	Outdoor rated; type: dipole; gain: 4dbi @ 2.4ghz; connector: n-male
RAN4054A	RAN4054A	Environment: outdoor rated down tilt; type: dipole; gain: 8 dbi @2.4ghz; connector: n-male
ML-5299-HPA5-01	ML-5299-HPA5-01	Environment: outdoor rated; type: dipole; gain: 5dbi @5.0ghz; connector: n-male
ML-5299-HPA10-01	ML-5299-HPA10-01	Environment: outdoor rated; type: dipole; gain: 10 dbi @5.0ghz@4.9ghz; connector: n-male
ML-2452-HPAG5A8-01	ML-2452-HPAG5A8-01	Dual-band WIPS sensor (required for sensor SKUs only)

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