Beneftis

Ideal Applications

- Enterprise WLAN
- Retail WLAN for Inventory, Staff, and Guest
- Hospitality
- Transportation and Logistics Warehouses
- Manufacturing Plants
- Warehouse Freezers
- Outdoor Parks and Sports Fields

Key Value

- Light Weight, Compact
- Internal Antenna Option
- External Antenna Option
- Multiple Mounting Systems; Wall, Pole, Vehicle Mount
- 802.3af PoE Mode
- Extended Temperature Spec; -40C to 70C
- Public Safety Enable – 4.9 GHz*
- Japan 802.11j*
- Cellular Coexistence Filter (ACF)

Services

- WiNG 5 Distributed Intelligence
- Integrated DPI Engine
- NSiGHT™ Analytics
- AirDefense™ Security Sensor
- ExtremeLocation™
- BLE Push Notifications
- ExtremeCloud™ Cloud-Managed Networking Platform (future)

ExtremeWireless™ WiNG 7662 i/e

Outdoor Access Point

Product Overview

Designed for installation in harsh environments; from hurricane force winds to sub-zero temperature. The AP 7662 Wave 2 802.11ac IP67 outdoor rated access point extends the ExtremeWireless WiNG enterprise grade wireless coverage outdoors in a sleek form factor that is easy to install against an exterior wall, pole mounted, or vehicle mounted.

ExtremeWireless WiNG

ExtremeWireless WiNG enterprise grade OS includes a comprehensive feature set that delivers a self-optimizing, self-correcting Wi-Fi network to support devices from a consumer smartphone, enterprise laptop to a mobile computer and mobile printer.

High Performance Application Visibility and Control

With the integrated Deep Packet Inspection engine, the AP 7662 provides on-board application visibility and control right on the AP itself. By running the full application QoS on the AP in realtime, network bottlenecks are avoided when compared to solutions that require tunneling packets to a central access controller. Integrated sensor firmware in the AP extends the Extreme Networks AirDefense™ security suite across the network and outside the building.

With the new AP 7662, your network will get dual band, dual radio 802.11a/b/g/n/ac fully compatible with every wireless device from legacy 802.11abgn devices up to the newest 802.11ac MU-MIMO smartphones.

Cellular Coexistence Filter(ACF) - Minimizes interference from 3G/4G cellular networks, distributed antenna systems and commercial small cell/ femtocell equipment.

*Next regulatory release

Available in two form factors to meet different deployment use cases. The AP 7662i (internal antenna) features an IP67 outdoor rated enclosure with three distinct mounting options for easy installation. The AP 7662e (external antenna) features an outdoor rated IP67 enclosure and internal circuity to extend the operating temperature from -40C to 70C; ideal for maximum range and performance in demanding industrial applications.

ExtremeCloud Management

The AP 7662i/e is cloud-ready out of the box and supports future secure connectivity to ExtremeCloud™, a single pane of glass for cloud managing both the wired and wireless components of your network. Zero touch provisioning that significantly reduces deployment time. Select models enabled for use with ExtremeCloud in a future release.

See the ExtremeCloud Data Sheet for details and ordering part numbers.

Specifications

Product Features	AP 7662
802.11ac Capabilities	
802.11AC 2x2:2, MIMO, MU-MIMO 256-QAM, HT20/40/80 MHz	Packet Aggregation (AMSDU, AMPDU) RIFS, STBC, LDPC MIMO Power Save; 802.11ac Tx beamform; MRC
Bluetooth	Bluetooth Low Energy (BLE) v4.2, and IEEE 802.15.4 compliant
Physical Characteristics	
Dimensions	AP-7662i - 8.6" x 7.1" x 2.7" - 218 mm x 180 mm x 69mm AP-7662e - 8.6" x 7.8" x 2.7" - 218 mm x 198 mm x 69mm
Weight	AP-7662i - 2.4 lbs/ 1.1 kg AP-7662e - 2.8 lbs/ 1.3 kg
Housing	IP67 rated outdoor use
Available mounting	H-bracket (flush wall), Pole mount,
LEDs Activity Indication	4 side-mounted LEDs; activity indication
LAN Ethernet	2xIEEE 802.3 Gigabit Ethernet auto-sensing
Configuration	Internal antenna model: AP-7662-680B30 External antenna model, 5 N-type antenna ports: AP-7662-680B40
Antenna	AP-7662-680B30: 4.3 dBi - 2.4 GHz band; 5.3 dBi - 5GHz band with dual polarization capability
Antenna connectors	AP-7662-680B40: Five N-type connectors. See Antenna Guide for available external antennas
Console port	RJ45
Warranty	1 Year Hardware Replacement
User Environment	
Operating Temperature	-40° F to 158° F/ -40° C to 70° C No Solar Load -40° F to 140° F/ -40° C to 60° C with Solar Load
Storage Temperature	-40°F to 158°F/-40°C to 70°C
Operating Humidity	0%-95% (noncondensing)
Electrostatic Discharge	Condensing electrostatic
Operating Altitude	8,000 ft. at 54 °F/12 °C
Storage Altitude	30,000 ft. at 82 °F/28 °C
Wind Rating	165 Mph gusts
Power Specifications	
Operational Shock	IEC60721-3-4, Class 4M3, MIL STD 810G Method 516.6
Operation Vibration	ASTM D3580-95, IEC60721-3-4, Class 4M3 (IEC 60068-2-64)
Operating voltage	PoE-PD: 48VDC
Operating current	PoE-PD: 230 mA at 48V typical
PoE-PD class	802.3af, 802.3at

Specifications (cont.)

Product Features	AP 7662
Networking Specification	
Layer 2 and Layer 3	Layer 3 routing, 802.1q, DynDNS, DHCP server/client, BOOTP client, PPPoE and LLDP
Security	Stateful Firewall, IP filtering, NAT, 802.1x, 802.11i, WPA2, WPA TripleMethodology Rogue Detection: 24x7 dual-band WIPS sensing, on-board IDS, and secure guest access (hotspot) with captive portal, IPSec, and RADIUS Server
Quality of Service (QoS)	WMM, WMM-UAPSD, 802.1p, Diffserv, and TOS
Radio Specification	
Wireless Medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), and Spatial Multiplexing (MIMO)
Network Standards	IEEE 802.11a/b/g/n/ac, 802.11d and 802.11i WPA2, WMM, and WMM-UAPSD, L2TPv3, Client VPN, MESH, Captive Portal server, Support SNMP v1, v2c, v3
Data Rates Supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48 and 54 Mbps; 802.11a: 6,9,12,18,24,36,48, and 54 Mbps; 802.11n: MCS 0-15 up to 300 Mbps; 802.11ac on 2G VHT MCS0-9 up to 400Mbps, 802.11ac on 5G: VHT MCS 0-9 up to 867 Mbps
Operating Channels	2.4 GHz band: channel 1 through channel 13 5 GHz band: channel 36 through channel 165 *Channel availability depends on local regulatory restriction
Antenna Configuration	802.11: 2X2 MIMO (transmit/receive on both antennas). Transmit power adjustment 1dB increment BTLE radio: 1x1
Operating Frequencies	802.11: 2412 to 2472 MHz, 5180 to 5825 MHz BTLE radio: 2402 to 24835 MHz in 40 2 MHz wide channels
GPS radio	Not available in first release
Performance and Capacity	
Concurrent Users	256 per radio
SSID	8 per radio, 16 per AP
Certifications	
Wi-Fi Alliance (WFA)	802.11a/b/g/n/ac
IoT Radio	Bluetooth® Low Energy (BLE) v4.2, and IEEE® 802.15.4 compliant
Regulatory	
Product Safety Certifications	IEC 60950-1, EN 60950-1, UL 60950-1, CSA 22.2 No.60950-1-03 AS/NZS 60950.1, RoHS Directive 2011/65/EU
Radio Approvals	FCC CFR 47 Part 15, Class B, ICES-003 Class B, FCC Subpart C 15.247, FCC Subpart E 15.407, RSS-247, EN 301 893, EN 300 328, EN 301 489 1 & 17, EN 50385, EN 55032 (CISPR 32), EN 60601-1-2, AS/NZS4268 + CISPR32
Maximum Total Conducted Transmit Power One Antenna Tx	
Internal Antenna (AP-7662-680B30-xx)	Band: 23 dBm, 5 GHz Band: 23 dBm , BLE: 3dBm
External Antenna (AP-7662-680B40-xx)	Band: 20 dBm, 5 GHz Band: 20 dBm , BLE: 3dBm
Maximum Total Conducted Transmit Power Two Antennas Tx	
Internal Antenna (AP-7662-680B30-xx)	Band: 26 dBm, 5 GHz Band: 26 dBm , BLE: 3dBm
External Antenna (AP-7662-680B40-xx)	Band: 23 dBm, 5 GHz Band: 23 dBm , BLE: 3dBm

Note: Actual available power would vary based on local regulatory requirement and actual channels used for operation.

Ordering Information

Part Number	Product Name	Product Description
37121	AP-7662-680B30-US	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, internal antenna, Domain: United States, Puerto Rico
37122	AP-7662-680B30-WR	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, internal antenna Domain:Canada, Colombia, EMEA, Rest of World
37123	AP-7662-680B40-US	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, external antenna, Domain: United States, Puerto Rico
37124	AP-7662-680B40-WR	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, external antenna Domain: Canada, EMEA, Rest of World
37129	AP-7662-680B40-EG	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, external antenna Domain: Egypt
37130	AP-7662-680B30-IL	WiNG 802.11ac Outdoor Wave 2, Access Point, 2x2:2, Dual Radio 802.11ac/abgn, external antenna Domain: Israel

Accessories	Part Number	Product Description
H-Type Mounting Bracket	30519	WS-MBO-H01 H-Type Mtg Brkt (used for ceiling or wall mount)
Pole Mounting Bracket	30520	WS-MBO-POLE01 Pole Mtg Brkt (used for mounting on pole)
10" Extension Arm	30514	WS-MBO-ART01 2 Axis Ext. Mtg Bkt (must have Pole Mount - 30520)
PoE Outdoor injector, US	AP-PSBIAS-7161-US	OUTDOOR POE INJECTOR US
PoE Outdoor injector, WW	PD-9001GO-ENT	OUTDOOR POE INJECTOR ROW
Legacy Pole Mount	KT-153143-01	OUTDOOR POE MOUNTING KIT (can use existing WiNG mounting hardware)
Existing Extension Arm	KT-150173-01	OUTDOOR AP 12 IN EXT ARM FOR MNTG KIT (can use existing WiNG mounting hardware)
Legacy Mount Kit	KT-147407-01	OUTDOOR AP MOUNTING HARDWARE KIT (can use existing WiNG mounting hardware)

Antennas for 7662e

Antenna Type	Part Number	Description
Dipole		
Dipole	ML-2452-HPAG5A8-01	ML-2452-HPAG5A8-01
Dipole	ML-2452-HPAG4A6-01	ML-2452-HPAG4A6-01
Dipole	ML-2452-HPA6X6-036	802.11ABG 6-Port Omni Dipole Array
Dipole	30724	WS-AO-DQ04360N 4dbi Omni / Outdoor, 2.4-2.5/5.15-5.875GHz, 4dBi, Omni antenna with standard N-type plug connector
Dipole	ML-2499-HPA4-01	ANTENNA OUTDOOR 4dBi 2.4HGZ
Dipole	ML-2452-HPA6-01	5.3dBi/6.1dBi N-type male, dual band
Dipole	ML-5299-HPA5-01	ANTENNA, OUTDOOR,5dBi 5GHZ
Dipole	ML-2499-HPA8-01	ANTENNA OUTDOOR 8dBi 2.4GHZ
Dipole	ML-2499-FHPA5-01R	ANTENNA, OUTDOOR,5dBi 2.4GHZ
Dipole	ML-5299-FHPA6-01R	Antenna 5G6dBOmni
Panel		
Panel	ML-2452-PNA5-01R	Antenna: 2.4/5 GHz, Outdoor, Panel, 5 dBi, Beam Width: E-Plane: 65 degrees, H-Plane: 120 degrees, Connector Type N-Male
Panel	ML-2452-PNA7-01R	Antenna: 2.4/5 GHz, Outdoor, Panel, 7 dBi, Beam Width: E-Plane: 66 degrees, H-Plane: 68 degrees, Connector Type N-Male
Polarized Panel		
Polarized Panel	ML-2452-PNL6M4-N36	DUAL POLARIZED DUAL BAND NARROW BEAM DIRECTIONAL ANTENNA WITH 36 INCH CABLE, AND N-MALE CONNECTOR
Polarized Panel	ML-2452-SEC6M4-N36	DUAL POLARIZED DUAL BAND WIDE BEAM DIRECTIONAL ANTENNA WITH 36 INCH CABLE AND N-MALE CONNECTOR
Polarized Panel	ML-2452-SEC6M4-N30	DUAL BAND SECTOR WITH 30 INCH CABLE AND N CONNECTORS
Polarized Panel	ML-2452-PNL9M3-N36	Outdoor, 3-Port,Dual-Band, 2V 1H, 11/10.7 dBi, 75/55 deg, CBL 36, N-Male

Note: External antenna AP models need to order external antennas. Please refer to WLAN Antenna Guide for antenna details and other accessories.

AP-7662i Radio Performance Summary

7662i

Mode	SS	Bandwidth	Max Conducted Power Per Antenna	Receiver Sensivitity
2G, DSSS,1Mbps	-	20	23	-101
2G, DSSS,11Mbps	-	20	23	-95
2G, OFDM,54Mbps	-	20	23	-82
2G, VHT MCS0	1	20	23	-94
	2		23	-93
2G, VHT MCS0	1	40	23	-91
	2		23	-90
2G, VHT MCS7	1	20	23	-79
	2		23	-76
2G, VHT MCS7	1	40	23	-76
	2		23	-73
2G, VHT MCS8	1	20	22	-74
	2		22	-71
2G, VHT MCS9	1	40	21	-69
	2		21	-68
5G, OFDM, 6Mbps	-	20	23	-94
5G, OFDM, 54Mbps	-	20	23	-82
5G, VHT MCS7	2	20	23	-75
		40	23	-73
		80	23	-70
5G, VHT MCS8	2	20	22	-72
		40	22	-69
		80	22	-66
5G, VHT MCS9	2	40	21	-66
		80	21	-63

AP-7662e Radio Performance Summary

7662e

Mode	SS	Bandwidth	Max Conducted Power Per Antenna	Receiver Sensivitity
2G, DSSS,1Mbps	-	20	20	-100
2G, DSSS,11Mbps	-	20	20	-94
2G, OFDM,54Mbps	-	20	20	-81
2G, VHT MCS0	1	20	20	-93
	2		20	-92
2G, VHT MCS0	1	40	20	-90
	2		20	-89
2G, VHT MCS7	1	20	20	-78
	2		20	-75
2G, VHT MCS7	1	40	20	-74
	2		20	-72
2G, VHT MCS8	1	20	20	-73
	2		20	-70
2G, VHT MCS9	1	40	20	-68
	2		20	-68
5G, OFDM, 6Mbps	-	20	20	-92
5G, OFDM, 54Mbps	-	20	20	-81
5G, VHT MCS7	2	20	20	-73
		40	20	-72
		80	20	-69
5G, VHT MCS8	2	20	19	-70
		40	19	-68
		80	19	-65
5G, VHT MCS9	2	40	18	-65
		80	18	-62

AP-7662i Internal Antenna Patterns

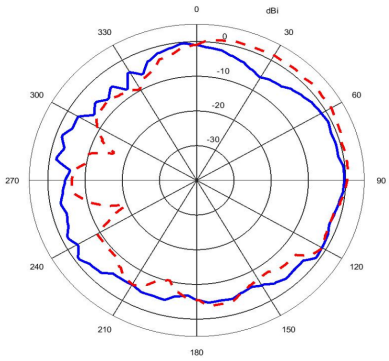

Figure 1: AP 7662i – 2.4 GHz

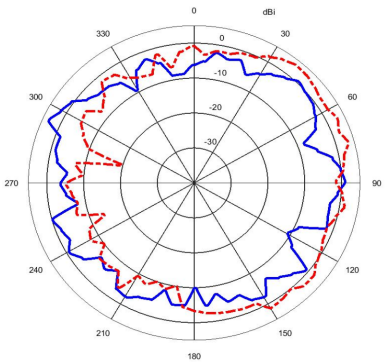

Figure 2: AP 7662i – 5 GHz

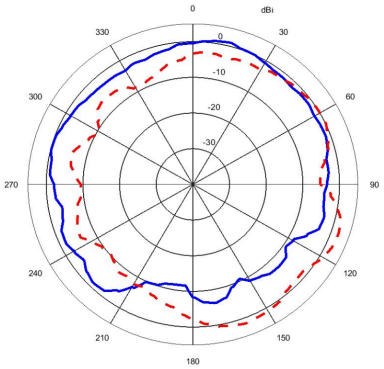

Figure 3: AP 7662i – IoT Antenna

Legend
Solid line: Azimuth
Broken line: Elevation

Note: Specifications based on preliminary data. Subject to change until product release

Warranty

As a customer-centric company, Extreme Networks is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or media replaced as soon as possible. For full warranty terms and conditions please go to: support.extremenetworks.com

Service and Support

Extreme Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimization of customer networks, customized technical training, to service and support tailored to individual customer needs.

Please contact your Extreme Networks account executive for more information about Extreme Networks Service and Support.

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