

BLUESOCKET 2135

Premium, High Density, High Performance Dual Radio Outdoor 802.11ac Access Point

PRODUCT FEATURES

- 802.11a/b/g/n/ac wireless access points supporting MIMO antenna technology
- Dual radio 2.4 GHz and 5 GHz
- Full 3x3:3 MIMO performance
- Data rates up to 1.3 Gbps on 5 GHz radio and 450 Mbps on 2.4 GHz radio
- Built-in carrier class antenna and Ethernet surge protection
- Powered by 802.3at (PoE+)
- User configurable maximum associated clients per radio
- Increased receive sensitivity to compensate for mobile devices with less transmit power
- Zero-touch AP deployment—APs automatically discover vWLAN, download firmware, and configurations
- Layer 7 Device Fingerprinting provides reporting and analytics of device types and device-specific policies
- Supports WMM/802.11e and QoS for Enterprise-class Voice over Wi-Fi
- DynamicRF Radio Resource Management Technology—automatically configures optimal radio settings to maximise performance
- Integrated wireless intrusion detection system to identify rogue access points and wireless attacks
- Supports stateful firewall for highest security at the edge

ADTRAN's wireless portfolio includes a family of 802.11n and 802.11ac high-performance Access Points (APs) that are a perfect fit for enterprises of all sizes, including educational institutions, retail, hospitality, and healthcare providers who are looking to move their organisations to a pervasive mobility environment. Bluesocket APs are completely plug-and-play requiring no manual configuration and deliver optimal performance. Whether you want to add wireless to your office or deploy across an entire campus, the Bluesocket APs are designed to meet your needs.

High-Performance, Reliable Connectivity

The Bluesocket 2135 outdoor 802.11ac AP offers enterprise-grade performance with three transmit and three receive streams providing data rates up to 1.3 Gbps on the 5 GHz radio and 450 Mbps on the 2.4 GHz radio for a total of 1.75 Gbps. With a weather resistant, industrial-grade enclosure and built-in carrier class antenna and Ethernet surge protection, the BSAP 2135 APs provide the highest performance, extended range wireless coverage in the most harsh outdoor environments.

The Bluesocket 2135 APs provide high performance, reliable coverage in ultra-high density wireless environments with laptops, mobile phones and tablets. The BSAP 2135s offer higher receive sensitivity on both the 2.4 GHz and 5 GHz radios to compensate for Bring Your Own Device (BYOD) type mobile devices such as smartphones and tablets that have a fraction of the transmit power of traditional laptops.

The Bluesocket 2135 APs include six N-type connectors for external antennas, and are fully functional with power delivered by a single port 802.3at (PoE+) solution.

Flexible, Cloud-Managed Options

The Bluesocket APs operate in conjunction with ADTRAN's flexible portfolio of cloud-managed deployment options including public cloud, private cloud or partner cloud with the freedom to migrate among them.

ADTRAN's wireless solutions are built on Bluesocket virtual Wireless LAN (vWLAN), the industry's premier cloud-managed wireless LAN. vWLAN is simple yet powerful: simple in that it is intuitive, easy to learn, setup and use, and powerful with unmatched visibility,

security, reliability, scalability and performance. In addition, ADTRAN's ProServices offer the most robust lifecycle professional services—from initial designs, to onsite surveys, to installations, all the way to end-user Help Desk.

Deployments Made Simple—Auto Provision, Auto Configure, Auto Optimise

- **Zero-touch AP Deployment:** APs automatically discover vWLAN in the cloud, download firmware and download configuration.
- **Zero-IT Setup:** Enjoy a fully functional employee and guest network in minutes with just a few clicks and keystrokes.
- **DynamicRF:** Radio Resource Management (RRM) technology maximises performance, adapts to interference, and provides seamless L2/L3 mobility by automatically setting channel and TX power settings, discovering neighbors and load balancing.

Unmatched Visibility and Insight

Cloud management allows you to view, manage and optimise the Wi-Fi network from any device—anytime.

- **Customisable Reporting and Analytics Dashboards** provide realtime and historical business insight into the network.
- **Multi-tenant Support** enables centralised management of multiple customers or business entities from a single software instance.

Unsurpassed Security, Reliability, Scalability and Performance

- **Context-aware Access Control (with Layer 7 Device Fingerprinting)** allows for defining security policies based on users, device type, ownership, location and schedules. Businesses can now support BYOD or allow guest access while ensuring highest levels of network security.
- **Built-in Wireless Intrusion Detection (W-IDS)** to detect and isolate rogue access points in the network.
- **Built-in High-Availability (HA)** with zero packet loss failover ensures a reliable, always-on network.
- **Elastic Scalability** allows the network to quickly scale without the constraints of legacy hardware controllers.

BLUESOCKET 2135

PRODUCT SPECIFICATIONS

Interfaces

- One Auto-sensing, 10/100/1000Base-T, RJ-45 Connector

Antenna

- Six N-type Connectors

Radios

- 802.11a/n/ac and 802.11b/g/n
- Configurable for Sensor-mode RF Scanning
- DynamicRF (Radio Resource Management) for Automatic Channel, TX Power and Neighbor Discovery
- Configurable Maximum Associated Clients per Radio
- Multicast/Broadcast to Unicast Conversion
- A-MPDU and A-MSDU Frame Aggregation
- HT20, HT40 (High Throughput) and VHT80 (Very High Throughput)
- Max Aggregate TX Power*
 - 2.4 GHz: 29 dBm/800 mW
 - 5 GHz: 27 dBm/500 mW

Certifications

- Wi-Fi 802.11a/b/g/n/ac Certification

Mobility Services

- Eight SSIDs Per Radio
- Support for Apple Bonjour-based Services (Airprint, Airplay), Apple CNA, and Microsoft NCSI
- Wireless Client Load Balancing
- Secure Fast Roaming with Opportunistic Key Caching (OKC)
- Seamless Layer 2 and Layer 3 Roaming
- High Availability

QoS for Voice, Data, and Video

- Smart Bandwidth Management (Incoming, Outgoing)
- WMM (802.11e)
- 802.1p or Differentiated Service Code Point (DSCP)
- WMM Power Save (U-APSD)

Security

- 802.1X Port-based Authentication
- Open System (WEP-64/128)
- Shared System (WEP-64/128)
- WPA/WPA2-Personal
- WPA/WPA2-Enterprise
- EAP-TTLS
- EAP-PEAP
- EAP-FAST
- EAP-TLS
- EAP-SIM
- EAP-AKA

Environment

- **Operating:** -40° C to 55° C (-40° F to 140° F)
- **Storage:** -40° C to 70° C (-58° F to 150° F)
- **Humidity:** 5% to 90% Typical
- **Waterproof:**
 - IP67
 - Salt-spray resistant
- Built-in Carrier Class Antenna and Ethernet Surge Protection

Physical

- **Dimensions:** 245 mm x 200 mm x 75 mm (9.6 in. x 7.8 in. x 1.9 in.) (L x W x H)
- **Weight:** 1.45 kg (3.2 lbs)

Power

- 802.3af Compliant Power over Ethernet

Mounting

- Wall/Pole/Ceiling Mount Kit Included

Agency Approvals

Electrical/Safety Compliance

- UL 1950
- CSA 22.2
- IEC 60950
- EN 60950

Radio Approvals

- FCC Part 15.247
- RSS-210 (Canada)
- EN 300.328 (Europe)
- AS/NZS 4771 (Australia & New Zealand)
- EMI and Susceptibility (Class A)
- FCC Part 15.107 and 15.109
- ICES-003 (Canada)
- EN 301.489-1 and -17 (Europe)
- AS/NZS 3548

Warranty

- One Year Warranty

*Aggregate of chains. Max TX power may be limited by local regulatory domains (country) and band edge requirements.



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POWER AND SENSITIVITY TABLES

2.4 GHz: 29 dBm
5 GHz: 27 dBm

	Max TX Power*		Receive Sensitivity*
802.11b 2.4 GHz			
1 Mbps	29 dBm	1 Mbps	-93 dBm
11 Mbps	29 dBm	11 Mbps	-88 dBm
802.11g 2.4 GHz			
6 Mbps	28 dBm	6 Mbps	-91 dBm
54 Mbps	24 dBm	54 Mbps	-74 dBm
802.11n 2.4 GHz HT20			
MCS0/MCS8	28 dBm	MCS0/MCS8	-89 dBm
MCS1/MCS9	27 dBm		
MCS2/MCS10	27 dBm		
MCS3/MCS11	27 dBm		
MCS4/MCS12	27 dBm		
MCS5/MCS13	26 dBm		
MCS6/MCS14	25 dBm		
MCS7/MCS15	23 dBm	MCS7/MCS15	-67 dBm
802.11n 2.4 GHz HT40			
MCS0/MCS8	22 dBm	MCS0/MCS8	-89 dBm
MCS1/MCS9	22 dBm		
MCS2/MCS10	22 dBm		
MCS3/MCS11	22 dBm		
MCS4/MCS12	20 dBm		
MCS5/MCS13	25 dBm		
MCS6/MCS14	25 dBm		
MCS7/MCS15	24 dBm	MCS7/MCS15	-67 dBm
802.11a 5 GHz			
6 Mbps	27 dBm	6 Mbps	-95dBm
54 Mbps	23 dBm	54 Mbps	-79 dBm
802.11n 5 GHz HT20			
MCS0/MCS8	26 dBm	MCS0/MCS8	-91 dBm
MCS1/MCS9	26 dBm		
MCS2/MCS10	26 dBm		
MCS3/MCS11	26 dBm		
MCS4/MCS12	26 dBm		
MCS5/MCS13	25 dBm		
MCS6/MCS14	24 dBm		
MCS7/MCS15	23 dBm	MCS7/MCS15	-72 dBm

*Aggregate of chains. Max TX power may be limited by local regulatory domains (country) and band edge requirements.

	Max TX Power*		Receive Sensitivity*
802.11ac 5 GHz HT40			
MCS0/MCS8	26 dBm	MCS0/MCS8	-87 dBm
MCS1/MCS9	26 dBm		
MCS2/MCS10	26 dBm		
MCS3/MCS11	26 dBm		
MCS4/MCS12	26 dBm		
MCS5/MCS13	25 dBm		
MCS6/MCS14	24 dBm		
MCS7/MCS15	23 dBm	MCS7/MCS15	-71 dBm
802.11ac 5 GHz HT20			
MCS0	26 dBm	MCS0	-91 dBm
MCS1	26 dBm		
MCS2	26 dBm		
MCS3	26 dBm		
MCS4	26 dBm		
MCS5	25 dBm		
MCS6	24 dBm		
MCS7	23 dBm		
MCS8	21 dBm	MCS8	-67 dBm
MCS9			
802.11ac 5 GHz HT40			
MCS0	26 dBm	MCS0	-87 dBm
MCS1	26 dBm		
MCS2	26 dBm		
MCS3	26 dBm		
MCS4	26 dBm		
MCS5	25 dBm		
MCS6	24 dBm		
MCS7	23 dBm		
MCS8	21 dBm	MCS8	-66 dBm
MCS9	19 dBm	MCS9	-63 dBm
802.11ac 5 GHz VHT80			
MCS0	26 dBm	MCS0	-85 dBm
MCS1	26 dBm		
MCS2	26 dBm		
MCS3	26 dBm		
MCS4	26 dBm		
MCS5	25 dBm		
MCS6	24 dBm		
MCS7	23 dBm		
MCS8	21 dBm	MCS8	-63 dBm
MCS9	19 dBm	MCS9	-60 dBm

*Aggregate of chains. Max TX power may be limited by local regulatory domains (country) and band edge requirements.

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ORDERING INFORMATION

Choose Your Access Point

Choose Your AP	Part Number
Outdoor APs	
Bluesocket 2135: 802.11a/b/g/n/ac, 3x3:3, External N-type Antenna Connectors	1700962F1

Choose Your Cloud

Public Cloud – ProCloud	Part Number
ProCloud for Outdoor AP (BSAP 2135)	NBD
One Year	1100MSPH200112
Three Years	1100MSPH200136
Five Years	1100MSPH200160
Public Cloud – ProCloud Plus	Part Number
ProCloud Plus for Outdoor AP (BSAP 2135)	NBD
One Year	1100MSPM200112
Three Years	1100MSPM200136
Five Years	1100MSPM200160
Private Cloud	Part Number
FREE vWLAN Virtual Appliance (VMware) (\$1995 value)	Download Only (www.adtran.com/downloadvwlan)
vWLAN 1U Rackmount Appliance (Hardware)	1700900F2
vWLAN Desktop Appliance (Hardware)	1700918F1

Licenses

Software License	Part Number
Licenses purchase waived while covered by ProCloud/ProCloud Plus	
FREE Access Point vWLAN Software License (\$235 value)	1951901G1
Access Point Unified User Access (Wired and Third-Party AP Support) Software License (Optional)	1951910G1

Accessories

Power Supply and Antennas	Part Number
802.3af Compliant PoE Injector for BSAP 2135	1700923F1
Antenna Bundle for BSAP 2135	1700930F1

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