Bluesocket

2020 ACCESS POINT
Cost Effective, High Performance
Dual Radio 802.11ac Indoor AP

Benefits

- **802.11a/b/g/n/ac wireless access points supporting 2x2:2 MIMO antenna technology**
- **Dual radio 2.4 GHz and 5 GHz**
- **Data rates up to 867 Mbps on 5 GHz radio and 300 Mbps on 2.4 GHz radio**
- **Fully functional with 802.3af (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 download configuration**
- **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 maximize performance**
- **Integrated wireless intrusion detection system to identify rogue access points and wireless attacks**
- **Supports stateful firewall for highest security at the edge**

Overview

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 organizations 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.

Cost Effective, High Performance, Reliable Connectivity

The Bluesocket 2020 indoor AP offers cost effective, enterprise-grade performance with two transmit and two receive streams providing data rates up to 867 Mbps on the 5 GHz radio and 300 Mbps on the 2.4 GHz radio for a total of 1.2 Gbps. The Bluesocket 2020 AP includes four MIMO internal antennas with up to 6 dBi gain on the 5 GHz and 3 dBi on the 2.4 GHz.

The Bluesocket 2020 AP provides cost-effective, high-performance, reliable coverage in medium density wireless environments such as classrooms, retail stores, hotel guest rooms and other medium traffic areas. The Bluesocket 2020 AP offers 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 2020 AP is fully functional with the power delivered by a single-port 802.3af 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 (ADTRAN's data center), private cloud (Customer's data center/on-premises) or partner cloud (Partner's data center) with the freedom to migrate among them.

ADTRAN's wireless solution is 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 Optimize

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

BLUESOCKET 2020 ACCESS POINT

Unmatched Visibility and Insight
Cloud management allows you to view, manage and optimize the Wi-Fi® network from any device—anytime.

- **Customizable Reporting and Analytics Dashboards** provide realtime and historical business insight into the network.

- **Multi-tenant Support** enables centralized 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 you to define security policies based on user credentials, 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.

PRODUCT SPECIFICATIONS

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

Antenna
- Four Internal MIMO Antennas with 6 dBi Gain on 5 GHz and 3 dBi gain on 2.4 GHz.

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 Transmit Power
  - **2.4 GHz:** 22 dBm
  - **5 GHz:** 23 dBm

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

Power
- 802.3af Compliant Power over Ethernet
- External 12V DC Power Adapter (Optional)

Mounting
- Wall/ceiling/T-bar Mount Kit Included
- Anti-Theft: Compatible with Kensington-style Locks

Environment
- **Operating:** 32° F to 104° F (0° C to 40° C)
- **Storage:** -4° F to 140° F (-20° C to 60° C)
- **Humidity:** 5% to 90% Typical

Physical
- **Dimensions:** DIA 6.3 in. (160 mm), H 1.5 in. (38 mm)
- **Weight:** .44 lbs (0.3 kg)

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
- Limited Lifetime Warranty

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

Cost Effective, High Performance Dual Radio 802.11ac Indoor AP

Maximum Aggregate Total Conducted Transmit Power
(May be limited by local regulatory domains (country) and band edge requirements) 2.4 GHz: 22 dBm 5 GHz: 23 dBm

|	Max TX Power*		Receive Sensitivity*		Max TX Power*		Receive Sensitivity*
802.11b 2.4 GHz				**802.11n 5 GHz HT20**			
1 Mbps	22 dBm	1 Mbps	-95 dBm	MCS0/8	23 dBm	MCS0/8	-93 dBm
11 Mbps	22 dBm	11 Mbps	-90 dBm	MCS7/15	22 dBm	MCS7/15	-73 dBm
802.11g 2.4 GHz				**802.11n 5 GHz HT40**			
6 Mbps	22 dBm	6 Mbps	-92 dBm	MCS0/8	23 dBm	MCS0	-91 dBm
54 Mbps	19 dBm	54 Mbps	-76 dBm	MCS7/15	22 dBm	MCS9	-72 dBm
802.11n 2.4 GHz HT20				**802.11ac 5 GHz HT20**			
MCS0/8	21 dBm	MCS0/8	-91 dBm	MCS0	23 dBm	MCS0	-93 dBm
MCS7/15	18 dBm	MCS7/15	-72 dBm	MCS8	20 dBm	MCS8	-68 dBm
802.11n 2.4 GHz HT40				**802.11ac 5 GHz HT40**			
MCS0/8	20 dBm	MCS0/8	-87 dBm	MCS0	23 dBm	MCS0	-91 dBm
MCS7/15	18 dBm	MCS7/15	-71 dBm	MCS9	18 dBm	MCS9	-65 dBm
802.11a 5 GHz				**802.11ac 5 GHz VHT80**			
6 Mbps	23 dBm	6 Mbps	-91dBm	MCS0	23 dBm	MCS0	-87 dBm
54 Mbps	22 dBm	54 Mbps	-74 dBm	MCS9	18 dBm	MCS9	-61 dBm

*Aggregate of Chains

ANTENNA PATTERNS
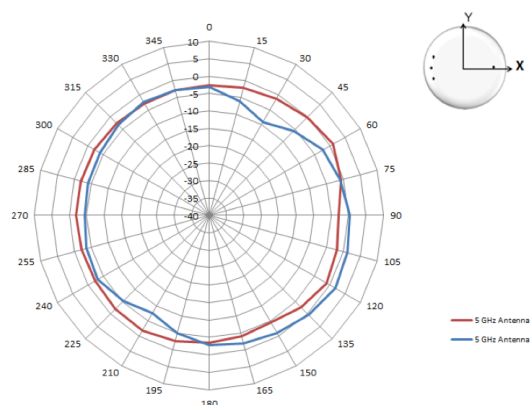
2.4 GHz (3 dBi)
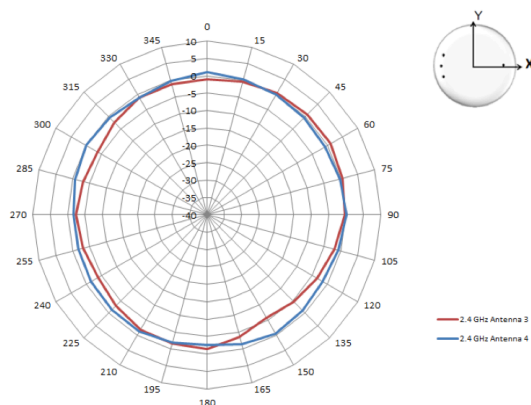
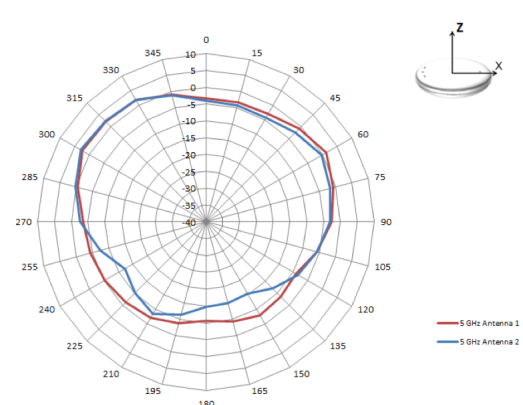**Horizontal or Azimuth (Top View)**
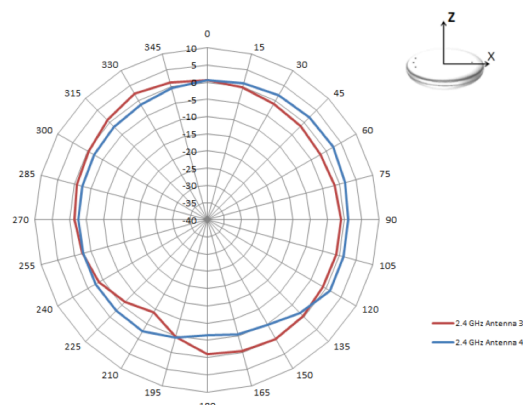
Elevation (Side View)

5 GHz (6 dBi)

Horizontal or Azimuth (Top View)

Elevation (Side View)

ORDERING INFORMATION

Choose Your Access Point

Choose Your AP	Part No.
Indoor APs	
Bluesocket 2020: 802.11a/b/g/n/ac, 2x2:2, four internal MIMO antennas	**1700945F1**

Choose Your Cloud

Public Cloud – ProCloud	Part No.	Part No.
ProCloud for Indoor AP	**NBD**	**7x24x4**
One Year	**1100MSPH200112**	**1100MSPH300112**
Three Years	**1100MSPH200136**	**1100MSPH300136**
Five Years	**1100MSPH200160**	**1100MSPH300160**

Public Cloud – ProCloud Plus	Part No.	Part No.
ProCloud Plus for Indoor AP	**NBD**	**7x24x4**
One Year	**1100MSPM200112**	**1100MSPM300112**
Three Years	**1100MSPM200136**	**1100MSPM300136**
Five Years	**1100MSPM200160**	**1100MSPM300160**

Private Cloud	Part No.
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 No.
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	Part No.
802.3af Compliant PoE Injector for BSAP 2020	**1700926F1**
AC/DC Power Adapter for BSAP 2020	**1700928F1**