

# BLUESOCKET 1940

## High-Performance Dual Radio 802.11n Outdoor Access Point

### PRODUCT FEATURES

- 802.11a/b/g/n wireless access points supporting MIMO antenna technology
- Dual radio 2.4 GHz and 5 GHz
- 6 N-type Antenna Connectors
- Full 3x3:3 MIMO performance, offering data rates up to 450 Mbps per radio
- Powered by 802.3at Power over Ethernet (PoE+)
- Mesh Networking
- User configurable maximum-associated clients per radio
- “Zero-touch” AP deployment—APs automatically discover vWLAN, and 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 maximize performance
- Integrated wireless intrusion detection system to identify rogue APs and wireless attacks
- Integrated stateful firewall for highest security at the edge
- Provides greater range through beamforming



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.

#### High-Performance

The Bluesocket 1940 outdoor APs include three transmit and three receive streams providing data rates up to 450 Mbps per radio for a total of 900 Mbps per AP.

With a weather proof, salt spray resistant (IP67) enclosure, built-in carrier class antenna and Ethernet surge protection (GR-1089/6 kV), the Bluesocket 1940 APs provide the highest performance, extended range wireless coverage in the most harsh outdoor environments. The Bluesocket 1940 APs are ideal for warehouses, outdoor sports arenas, outdoor malls, campuses, and Municipal Wi-Fi deployments. The Bluesocket 1940 Series APs support the newer generation of laptops with three stream radio support, and 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 1940 outdoor AP includes six N-type connectors for external antennas. It is fully functional with the 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 ProServicesSM 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.
- **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 maximizes 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 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 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.

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## PRODUCT SPECIFICATIONS

### Interfaces

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

### Antenna

- Six N-type external connectors

### Radios

- 802.11a/n 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 and HT40 High Throughput
- Max Aggregate TX Power
  - 2.4Ghz: 27 dBm/500 mW
  - 5Ghz: 26 dBm/400 mW
- Beamforming

### Certifications

- Wi-Fi 802.11a/b/g/n 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
- Mesh Networking

### 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-FAST
- EAP-SIM
- EAP-PEAP
- EAP-TLS
- EAP-AKA

### Environment

- **Operating:** -40° F to 140° F (-40° C to 55° C)
- **Storage:** -58° F to 150° F (-40° C to 70° C)
- **Humidity:** 5% to 90% Typical
- **Weather Proof:**
  - Salt-spray resistant (IP67) Enclosure
  - Built-in Carrier-class Antenna
  - Built-in Ethernet Surge Protection (GR-1089/6 kV)

### Physical

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

### Power

- 802.3af Compliant Power over Ethernet

### 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)
- NCC (Taiwan) and IDA (Singapore)
- 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

\*Aggregate of chains. May be limited by local regulatory domains (country) and band edge requirements.

## High-Performance Dual Radio 802.11n Outdoor Access Point

### POWER AND SENSITIVITY TABLE

	Max TX Power*		Receive Sensitivity*
<b>802.11b 2.4 GHz</b>			
1~2 Mbps	27 dBm	1 Mbps	-95 dBm
5.5~11 Mbps	27 dBm	11 Mbps	-88 dBm
<b>802.11g 2.4 GHz</b>			
6~24 Mbps	26 dBm	6 Mbps	-91 dBm
36 Mbps	25 dBm		
48 Mbps	23 dBm		
54 Mbps	22 dBm	54 Mbps	-74 dBm
<b>802.11n 2.4 GHz HT20</b>			
MCS0/MCS8/MCS16	26 dBm	MCS0/8/16	-89 dBm
MCS1/MCS9/MCS17	25 dBm		
MCS2/MCS10/MCS18	25 dBm		
MCS3/MCS11/MCS19	25 dBm		
MCS4/MCS12/MCS20	25 dBm		
MCS5/MCS13/MCS21	24 dBm		
MCS6/MCS14/MCS22	23 dBm		
MCS7/MCS15/MCS23	21 dBm	MCS7/15/23	-72 dBm
<b>802.11n 2.4 GHz HT40</b>			
MCS0/MCS8/MCS16	25 dBm	MCS0/8/16	-89 dBm
MCS1/MCS9/MCS17	24 dBm		
MCS2/MCS10/MCS18	24 dBm		
MCS3/MCS11/MCS19	24 dBm		
MCS4/MCS12/MCS20	24 dBm		
MCS5/MCS13/MCS21	23 dBm		
MCS6/MCS14/MCS22	23 dBm		
MCS7/MCS15/MCS23	21 dBm	MCS7/15/23	-69 dBm

	Max TX Power*		Receive Sensitivity*
<b>802.11a 5 GHz</b>			
6~24 Mbps	26 dBm	6 Mbps	-92 dBm
36 Mbps	25 dBm		
48 Mbps	24 dBm		
54 Mbps	23 dBm	54 Mbps	-76 dBm
<b>802.11n 5 GHz HT20</b>			
MCS0/MCS8/MCS16	26 dBm	MCS0/8/16	-92 dBm
MCS1/MCS9/MCS17	25 dBm		
MCS2/MCS10/MCS18	25 dBm		
MCS3/MCS11/MCS19	25 dBm		
MCS4/MCS12/MCS20	25 dBm		
MCS5/MCS13/MCS21	24 dBm		
MCS6/MCS14/MCS22	23 dBm		
MCS7/MCS15/MCS23	20 dBm	MCS7/15/23	-76dBm
<b>802.11n 5 GHz HT40</b>			
MCS0/MCS8/MCS16	26dBm	MCS0/8/16	-86 dBm
MCS1/MCS9/MCS17	24dBm		
MCS2/MCS10/MCS18	24dBm		
MCS3/MCS11/MCS19	24dBm		
MCS4/MCS12/MCS20	24dBm		
MCS5/MCS13/MCS21	23dBm		
MCS6/MCS14/MCS22	23dBm		
MCS7/MCS15/MCS23	20dBm	MCS7/15/23	-72 dBm

\*Aggregate of chains. May be limited by local regulatory domains (country) and band edge requirements.

# Bluesocket 1940

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## ORDERING INFORMATION

### Choose Your Access Point

Choose Your AP	Part Number
<b>Outdoor AP</b>	
<b>Bluesocket 1940:</b> 802.11a/b/g/n, 3x3:3, six external N-type connectors	<b>1700952F1</b>

### Choose Your Cloud

Public Cloud – ProCloud	Part Number	Part Number
<b>ProCloud for Outdoor AP</b>	<b>NBD</b>	<b>7x24x4</b>
One Year	<b>1100MSPH210112</b>	<b>1100MSPH310112</b>
Three Years	<b>1100MSPH210136</b>	<b>1100MSPH310136</b>
Five Years	<b>1100MSPH210160</b>	<b>1100MSPH310160</b>
Public Cloud – ProCloud Plus	Part Number	Part Number
<b>ProCloud Plus for Outdoor AP</b>	<b>NBD</b>	<b>7x24x4</b>
One Year	<b>1100MSPM210112</b>	<b>1100MSPM310112</b>
Three Years	<b>1100MSPM210136</b>	<b>1100MSPM310136</b>
Five Years	<b>1100MSPM210160</b>	<b>1100MSPM310160</b>
Private Cloud	Part Number	Part Number
<b>FREE vWLAN Virtual Appliance (VMware) (\$1995 value)</b>		<b>Download Only</b> ( <a href="http://www.adtran.com/downloadvwan">www.adtran.com/downloadvwan</a> )
<b>vWLAN 1U Rackmount Appliance (Hardware)</b>		<b>1700900F2</b>
<b>vWLAN Desktop Appliance (Hardware)</b>		<b>1700918F1</b>

### Licenses

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

### Accessories

Power Supply and Antennas	Part Number
<b>802.3af Compliant PoE Injector for BSAP 1940</b>	<b>1700923F1</b>
<b>AC/DC Power Adapter for BSAP 1940</b>	<b>1700930F1</b>

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