EnGenius Outdoor Access Point and Bridges turbocharge high bandwidth wireless speed, coverage, and reliability in point-to-point and point-to-multipoint connections. It makes powerful, next generation Wave 2, business-class Wi-Fi affordably accessible for small to mid-size businesses and large residences.

**EnGenius EnJet™ 5 GHz Outdoor 802.11ac Wave 2 Wireless Access Point/Bridge**

that features ‘Time Division Multiple Access’ cuts through RF-congested environments by dividing a signal into different time slots and assigning them to every stations for Point-to-Point/MultiPoint applications.

**Optimizes Maximum Airtime Efficiency**

EnJet™ features ‘Time Division Multiple Access’ technology provides steady maximum throughput and high link reliability by dividing a signal into different time slots and assigning them to every stations even when bandwidth demands increase and devices are added. EnJet™ reduces collisions and interference when devices can’t “see” one another on a channel when transmitting to the same device at the same time. The EnJet™ AP & Bridge built-in Quality of Service prioritizes video and voice transmissions for a strong, uninterrupted streaming with low latency.

**Turbocharged Wireless Performance**

Reaching speeds up to 867 Mbps on the 5 GHz frequency band, the EnStationAC’s powerful Qualcomm® processor turbocharges wireless performance and efficiency.

**Features & Benefits**

- EnJet features ‘Time Division Multiple Access’ technology that cuts through RF-congested environments within point-to-point/multipoint applications.
- 11ac Wave 2 wireless speeds up to 867 Mbps on 5 GHz
- High 26 dBm transmit power extends Wi-Fi to yard or building-to-building.
- MU-MIMO improves performance & increases user device capacities.
- Beamforming optimizes antenna signal, reception & reliability for clients.
- IP55-Rated weatherproof & dustproof housing
- GigE PoE port & adapter included for placement where power is limited. Use the EnStationAC’s secondary PoE pass through Gigabit port to power an additional PoE-compliant device such as an IP surveillance camera.
- High Gain 19 dBi Integrated Directional Antennas extends wireless networks up to 5 miles point-to-point.
  - **[Model Number: EnStationAC and EnStation5-AC]**
- High Gain 14 dBi Integrated Directional Antennas extends wireless networks up to 2 miles point-to-point.
  - **[Model Number: ENS500-AC]**
- High Gain 16 dBi Integrated Directional Antennas wireless networks up to 5 miles Point-to-Point
  - **[Model Number = ENH500v3]**
- Two detachable, 5 dBi 360° SMA-type antenna.
  - **[Model Number: ENS500EXT-AC]**
- 3-Axis pivoting arm locks for precise alignment.
  - **[Model Number: EnStationAC and EnStation5-AC]**
- Includes a suite of advanced AP management & security features
- Flexible Operation Modes: AP, Client Bridge & WDS
- Simple, Intuitive interface via EnWiFi app for local AP configuring & monitoring.
- Remotely & centrally manage via EnGenius Managed Switches, SkyKey Mini-controller or ezMaster™ software
**Optimized Maximum Airtime Efficiency**

By dividing a signal into different time slots and assigning them, the EnJet™ system provides steady maximum throughput and high link reliability to every client—even when bandwidth demands increase & devices are added.

**Avoids Hidden Node Issues**

No more collisions and interferences caused by devices that can't "see" each other on a channel & transmit simultaneously.

**Retain Stable Performance**

With EnJet™ you can keep the total throughput consistently high while even when the number of wireless stations increase in your outdoor network department.

**Steady, Uninterrupted Streaming**

EnJet provides steady maximum throughput over long distances. Ideal for Video & Voice transmission for strong, uninterrupted streaming with low latency.

**Prioritize Your Important Data**

Achieve the speed your network needs for its most critical applications. Voice transmissions are latency-intensive and slotted at a higher priority than video recordings. Both receive higher priority than HTML pages.
Outdoor Access Points

Provide broad-reaching, fast 11ac Wave 2 access to users in a variety of settings. EnJet™ Outdoor APs are flexible and small enough for use in either indoor or outdoor environments. Achieve high-powered, long-range connections with integrated or detachable antenna options.

Create Wi-Fi Hot-Spots

The ENS500EXT-AC with EnGenius’ sector antennas to create a powerful wireless base station with 120° sector-wide coverage. Offer high-capacity, long-range, point-to-multipoint coverage and create large Wi-Fi hotspots for:

- Outdoor Shopping Centers
- Warehouses & Arenas
- Campus Quads & Stadiums
- Campgrounds & Marinas
- Outdoor Theaters & Recreational Facilities
- Internet Service Provider

Outdoor Long-Range Bridges

Extend the wireless network in locations where cabling is not possible or practical while eliminating the expense of extended cable runs. Connect a secondary device such as an IP surveillance camera or access point for greater deployment flexibility.

Deliver precise short and long-range point-to-point links in settings such as:

- Between Buildings
- Across Large Campuses & Stadiums
- Over Vast Acreage: Parks, Golf Courses, Ranches
- City Blocks, Parking Lots & Marinas
- In Sizeable Indoor Structures: Distribution Centers & Arenas

Improved Signal Reliability

Beamforming Antenna technology directs and adjusts signal beams ensuring optimal signal and reception reliability for users moving through outdoor coverage areas.

Increased User Capacities

Multi-User (MU) MIMO sends dedicated wireless streams to multiple user devices at the same time, improving your network’s efficiency.

EnStation-AC & EnStation5-AC: Precise, Long-Range Point-to-Point Connectivity

The EnJet™ EnStation-AC & EnStation5-AC offers high 26 dBm output power and high receive sensitivity. This coupled with its embedded 19 dBi high-gain directional antennas that emit a narrow signal beam, deliver stable connectivity, optimal bandwidth and high-speed data rates over extremely long distances – up to 5 miles in clear, line of sight point-to-point deployments.

Position for Maximum Connectivity

Easily position EnStation5-AC/EnStationAC for maximum connectivity with its 360-degree, 3-axis pivoting arm that locks in place to ensure precise alignment between other EnStation5-AC/EnStationAC devices.

PoE Supports Flexible Power Options

Connect and power EnJet™ Outdoor APs and Bridges via their dual-PoE Gigabit ports and included PoE Adapter for placement in locations where power outlets are unavailable such as on roofs, poles or other remote areas.

Flexible Operation & Configuration Options

Access Point, Client Bridge, and WDS mode configurations broaden the Outdoor APs and Bridge’s adaptability to your network needs. With multiple operation modes, these flexible devices offer versatility in point-to-point or point-to-multipoint deployments.

Optimal Performance in Harsh Environments

EnJet™ Outdoor APs and Bridges are designed to perform in harsh conditions and feature ruggedized IP55-rated enclosures. Ensure your network operates in extreme outdoor climates and indoor industrial environments where temperature is a factor. EnJet™ is protected from prolonged exposure to sunlight, cold, frost, snow, rain, hail, heat and humidity.
EnSky Network Management Solution

The EnJet outdoor can operate as a stand-alone AP or as part of EnGenius Wireless Network Management Solution, locally managed by EnWiFi app, locally managed by EnGenius Switch (monitor only when EnJet™ disabled), centrally managed by SkyKey and ezMaster™ (monitor only when EnJet disabled). Users can get an overall view of their network or dive into the most granular data from via ezMaster or SkyKey.

Management via EnWiFi Mobile Application

Easily install, configure and manage EnStationAC with the intuitive EnWiFi mobile app. With EnWiFi app, you can easily configure a single or group of EnJet outdoor AP, view the status of your EnGenius wireless network at a glance, quickly identify healthy or offline EnJet outdoor devices.

Management via EnSky Switch

Any EnGenius Gigabit Managed Switch can manage up to 50 EnSky indoor and outdoor. APs. Through the switch, gain access to all connected EnGenius APs and a full array of wireless and Layer 2 management tools. Choose between 8/24/48 Ports PoE+ switch models with flexible deployment and management options with no AP license or subscription fees.

Local & Remote Network Management via SkyKey Mini-Controller or ezMaster Software

The SkyKey mini-controller is an integrated computer with ezMaster Network Management Software. It features Qualcomm® Qual-Core processor with 1GB DRAM and 4GB eMMC flash. No need for a dedicated server or computer, simply connect the SkyKey to a PoE (802.3af) switch port and locally manage up to 100 EnSky Access Points and switches.

EnGenius ezMaster Software's simple, intuitive Web-based interface allows flexible access point monitoring locally or remotely. Quickly and easily set up, manage, monitor, and troubleshoot multiple APs at the same time. See real-time network performance and monitor AP traffic through ezMaster's at-a-glance dashboard.

ezMaster provides business-class features, unlimited scalability and centralized management of hundreds of EnGenius access points and switches locally, remotely or via a cloud-based service with no licensing or subscription fees.

### ezMaster Software Features

- **Centralized Management**
  - Configure, Manage & Monitor
  - Cross-Network AP Management
  - AP Group Configuration

- **Access Point Configuration & Management**
  - Band Steering
    - Auto Band Steering
    - Band Balancing
  - Client Isolation
  - Client Limiting
  - Fast Roaming
  - L2 Isolation
  - VLAN Isolation
  - VLAN Tag

- **Comprehensive Monitoring**
  - Device Status Monitoring
  - Floor Plan View
  - Map View
  - System Status Monitoring
  - Visual Topology View

- **Management & Maintenance**
  - Bulk Firmware Upgrade
  - Email Alert
  - Kick/Ban Clients
  - One-Click Update
  - LED On/Off Control
  - Multiple SSID
  - RSSI Threshold
  - Secure Guest Network
  - Traffic Shaping
  - Wireless Traffic
  - Wireless Coverage View
  - Wireless Client Monitoring
  - Wireless Client Monitoring
  - Wireless Traffic & Usage Statistics
  - Remote Logging
  - Seamless Migration
  - Syslog

### System Requirements

**Recommended environment for managing up to 500 APs**

- **CPU:** Intel® Core™ i7 quad-core or above
- **RAM:** 4 GB minimum
- **HDD:** 500 GB (actual requirement dependent on log size)
- **OS:** Microsoft® Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

**Recommended environment for managing up to 1,000+ APs**

- **CPU:** Intel® Xeon® Processor E3 or above
- **RAM:** 4 GB minimum
- **HDD:** 500 GB (actual requirement dependent on log size)
- **OS:** Microsoft® Windows® 7 or later + VMware® Player 7.0 or compatible virtualization software

**Browser Requirements**

- Internet Explorer 10 or better
- Firefox 34.0 or better
- Chrome 31.0 or better
- Safari 8.0 or better

**Network Topology Requirements**

At sites where APs are deployed: A DHCP-enabled network for APs to obtain an IP address.
## EnTurbo Series Outdoor APs & Bridges

### Access Point

<table>
<thead>
<tr>
<th>Models</th>
<th>ENS500EXT-AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>802.11ac Wave 2</td>
</tr>
<tr>
<td>Frequency</td>
<td>5 GHz</td>
</tr>
<tr>
<td>Max. Data Rates</td>
<td>867 Mbps</td>
</tr>
<tr>
<td>Radio Chains/Streams</td>
<td>2 x 2:2</td>
</tr>
<tr>
<td>Transmit Power</td>
<td>26 dBm</td>
</tr>
<tr>
<td>Ethernet Ports</td>
<td>2x Gigabit PoE</td>
</tr>
<tr>
<td>Power-over-Ethernet</td>
<td>24V Propriety PoE</td>
</tr>
<tr>
<td>Power Consumption (Peak)</td>
<td>6.3W</td>
</tr>
<tr>
<td>Antennas</td>
<td>2 x 5 dBi Omni-Directional SMA-Type (Detachable)</td>
</tr>
<tr>
<td>Ingress Protection Rating</td>
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</table>

### Bridges

<table>
<thead>
<tr>
<th>Models</th>
<th>EnStationAC</th>
<th>EnStation5-AC</th>
<th>ENS500-AC</th>
<th>ENH500v3</th>
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<tbody>
<tr>
<td>Standard</td>
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<td>802.11ac Wave 2</td>
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<td>Max. Data Rates</td>
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<td>867 Mbps</td>
<td>867 Mbps</td>
</tr>
<tr>
<td>Streams</td>
<td>2 x 2:2</td>
<td>2 x 2:2</td>
<td>2 x 2:2</td>
<td>2 x 2:2</td>
</tr>
<tr>
<td>Transmit Power</td>
<td>26 dBm</td>
<td>26 dBm</td>
<td>26 dBm</td>
<td>27 dBm</td>
</tr>
<tr>
<td>Ethernet Ports</td>
<td>2x Gigabit PoE (Secondary PoE Pass Through Gigabit Port)</td>
<td>2x Gigabit PoE</td>
<td>2x Gigabit PoE</td>
<td>2x Gigabit PoE</td>
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<tr>
<td>Power-over-Ethernet</td>
<td>802.3 at</td>
<td>24V Propriety PoE</td>
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<td>24V Propriety PoE</td>
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<tr>
<td>Power Consumption (Peak)</td>
<td>8.3W</td>
<td>6.9W</td>
<td>6.9W</td>
<td>8.9W</td>
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<tr>
<td>Antennas</td>
<td>19 dBi Directional (Integrated)</td>
<td>19 dBi Directional (Integrated)</td>
<td>14 dBi Directional (Integrated)</td>
<td>16 dBi Directional (Integrated)</td>
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<tr>
<td>Ingress Protection Rating</td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>
## Technical Specifications

### Standards
- IEEE802.11a/n/ac on 5 GHz

### Processor
- Qualcomm®

### Antenna
- EnStation5-AC
  - 2 x 19 dBi Directional Integrated
- EnStation5-AC
  - 2 x 19 dBi Directional Integrated
- ENS500EXT-AC
  - 2 x 5 dBi Omni-Directional Detachable (SMA-Type)
- ENS500-AC
  - 2 x 14 dBi Directional Integrated
- ENH500v3
  - 2 x 16 dBi Directional Integrated

### Physical Interface
- 2 x 10/100/1000 Gigabit Ethernet Ports
- Reset Button

### LED Indicators
- ENS500EXT-AC/ENS500-AC
  - Power
  - LAN 1
  - LAN 2
  - WLAN
  - Signal
- EnStation5-AC/EnStationAC
  - Power
  - WLAN
  - LAN
  - ENH500v3
  - Power
  - LAN
  - WLAN
  - Link Quality

### Power Source
- Power-over-Ethernet: Proprietary 24V PoE
- IEEE 802.11e Compliant Source
- Active Ethernet (PoE)

### Maximum Power Consumption
- ENS500EXT-AC/ENS500-AC/EnStation5-AC: 6.3 W
- EnStationAC: 8.3 W
- ENH500v3: 8.9 W

### Surge Protection
- Line to Line: 1 KV
- Line to Ground: 2 KV

### ESD Protection
- Contact: 4 KV
- Air: 8 KV

### Wireless & Radio Specifications
#### Operating Frequency
- 5 GHz

#### Operation Modes [EnJet Disable]
- Access Point Mode (AP mode)
- Client Bridge Mode (CB Mode)
- WDS: WDS AP, WDS Bridge, WDS Station

#### Operation Modes [EnJet Enable]
- Access Port Mode (AP Mode)
- Client Bridge Mode (CB Mode)
- WDS: WDS AP and WDS Station

### Frequency Radio
- 5 GHz: 5180 MHz~5260 MHz, 5280 MHz~5320 MHz, 5500 MHz~5745 MHz, 5765 MHz~5805 MHz

### Transmit Power
- ENS500-AC, ENSS-AC, EnStationAC, ENH500EX-AC
  - 5 GHz: 26 dBm
- ENH500v3
  - 5 GHz: 27 dBm

### TX Beamforming (TxBF)
- 2x2

### Radio Chains/Spatial Stream
- 2x2:2

#### SU-MIMO
- Two (2) spatial streams SU-MIMO for 5GHz up to totally 867 Mbps wireless data rate to a single 11ac wireless client device under 5GHz radio.

#### MU-MIMO
- Two (2) spatial streams multi-user (MU)-MIMO for up to 867 Mbps wireless data rate to transmit to one (1) two streams MU-MIMO 11ac capable wireless client devices under 5GHz simultaneously.

### Supported Data Rates (Mbps)
- 5 GHz: Max 867 Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n: 6.5 to 300 Mbps (MCS0 to MCS15)
- 802.11ac: 6.5 to 867 Mbps (MCS0 to MCS9, NSS = 1 to 2)

### Supported Radio Technologies
- 802.11a/n/ac: Orthogonal Frequency-Division Multiplexing (OFDM) [EnJet Disabled]
- 802.11n: 802.11n/ac: 2x2 MIMO With 2 Streams

### Channelization
- 802.11ac Supports Very High Throughput (VHT) — VHT 20/40/80 MHz
- 802.11n Supports High Throughput (HT) — HT 20/40 MHz
- 802.11n/ac Packet Aggregation: AMPDU, ASPDU

### Supported Modulation
- 802.11a/n: BPSK, QPSK, 16-QAM, 64-QAM
- 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

### Management
#### Multiple BSSID
- Supports 8 SSIDs [EnJet Disable]
- Supports 1 SSID [EnJet Enable]

#### VLAN Tagging
- Supports 802.1q SSID-to-VLAN Tagging
- Management VLAN

#### Spanning Tree
- Supports 802.1d Spanning Tree Protocol

### QoS (Quality of Service)
- Compliant With IEEE 802.11e Standard
- WMM

### SNMP
- v1, v2c, v3

### MIB
- I/L, Private MIB

### Management Features

### Deployment Options
- Stand-Alone (Individually Managed/EnWiFi App)
- Managed Mode (w/ezMaster/EWS Series Switch/Skykey)

### Stand-Alone Management Features
- Auto Channel Selection
- Auto Transmit Power
- Wireless STA (Client) Connected List
- Guest Network (Support When EnJet Disabled)
- Fast Roaming (802.11k & 802.11r)
- Pre-Authentication (802.11i, 802.11x)
- PMK Caching (802.11i)
- RSSI Threshold
- Traffic Shaping
- VLANs for Access Point – Multiple SSIDs
- Backup/Restore Settings
- Auto Reboot
- E-Mail Alert
- Site Survey
- Save Configuration as Users Default
### Technical Specifications

#### Control Features
- Operation Mode
- Distance Control (ACK Timeout)
- Multicast Supported
- Wi-Fi Scheduler
- Client Traffic Status
- RADIUS Accounting
- Power Save Mode (U-APSD Support)
- CLI Support
- HTTPS

#### Wireless Security
- WPA2 PSK & Enterprise (AES)
- Hide SSID in Beacons
- MAC Address Filtering, Up to 32 MACs per SSID
- Wireless STA (Client) Connected List
- SSH Tunnel
- Client Isolation

#### Wireless Management Features (w/ezMaster & EWS Switch) (Available in AP Mode) (Monitor When EnJet Enabled) (Support When EnJet Disabled)
- AP Auto Discovery and Provisioning
- AP Auto IP Assignment
- AP Group Management
- Auto AP Rebooting
- AP Device Name Editing
- AP Radio Settings
- Traffic Shaping
- Fast Roaming (802.11k & 802.11r)
- Pre-Authentication (802.11i, 802.11x)
- PMK Caching (802.11i)
- RSSI Threshold
- AP Client Limiting
- Client Fingerprinting
- AP VLAN Management
- VLANS for AP - Multiple SSIDs
- Secured Guest Network
- Access Point Status Monitoring
- Wireless Client Monitoring
- Email Alert
- Wireless Traffic & Usage Statistics
- Real-Time Throughput Monitoring
- Visual Topology View
- Floor Plan View
- Map View
- Wireless Coverage Display
- Secure Control Messaging (SSL Certificate)
- Local MAC Address Database
- Remote MAC Address Database (RADIUS)

#### Dimensions & Weights

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (lbs.)</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
<th>Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENS500EXT-AC/ENS500-AC</td>
<td>0.65</td>
<td>100</td>
<td>185</td>
<td>27</td>
</tr>
<tr>
<td>EnStation5-AC/EnStationAC</td>
<td>1.11</td>
<td>190</td>
<td>38</td>
<td>1.49</td>
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<tr>
<td>ENH500v3</td>
<td>0.91</td>
<td>84</td>
<td>260</td>
<td>55</td>
</tr>
</tbody>
</table>

#### Power Cord
- Quick Installation Guide

#### EnStation5-AC
- EnStation5-AC Outdoor Wireless Bridge
- PoE Adapter (EPA2406GP)
- Pole-Mounting Brackets
- Wall-Mount Screw Set
- Quick Installation Guide

#### EnStationAC
- EnStation5-AC Outdoor Wireless Bridge
- PoE Adapter (EPA5000GR)
- Pole-Mounting Brackets
- Wall-Mount Screw Set
- Quick Installation Guide

#### Certifications
- FCC, CE

#### Warranty
- 1-Year Standard
ENS500EXT-AC Outdoor Access Point

- Detachable Antenna (SMA Type)
- Gigabit Ethernet Port
- Top Cover (UL Certified Plastic)
- Gigabit Ethernet Port (Proprietary 24V PoE Input)
- Mounting Holes

ENS500-AC Outdoor Bridge

- Mounting Holes
- Gigabit Ethernet Port
- Top Cover (UL Certified Plastic)
- Gigabit Ethernet Port (Proprietary 24V PoE Input)
- Cover
EnStation5-AC/EnStationAC Outdoor Bridge

- UV Resistant Cover
- Wall/Pole Mounting Bracket
- 360° 3D-Array Rotation
- Sealing Nut
- LED Indicators (Power, Wireless & LAN Status)
- Port Cover
- Bracket
- Rotating Hinge
- Sealing Nut
- Lock Washer
- Gigabit Ethernet & Data Port
- PoE Port
- Reset Button
- Top Cover (UL Certified Plastic)
- Mounting Holes
- Main LAN (PoE)
- 2nd LAN
- Reset Button

Maximum data rates are based on IEEE 802.11 standards. Actual throughput and range may vary depending on distance between devices or traffic and bandwidth load in the network.