EWS850-FIT

Fit

EnGenius Fit Managed EWS850-FIT
Wi-Fi 6 2x2 Outdoor Access Point

Simple • Secure • Smart

Features & Benefits

- Dual concurrent 802.11ax architecture & backward-compatible with 11ac/a/b/g/n client devices; 2x2 antenna.

- Supports up to 1,200 Mbps in 5-GHz frequency band & 574 Mbps in 2.4-GHz frequency band.

- IP67-Rated weatherproof & dustproof housing withstands harsh environments.

- 2.5 GigE PoE+ compatible port for easy placement where power outlets are scarce.

- Manage your network onsite or on-the-go through our **FitXpress** cloud-based mobile app or web portal.

- **FitController** gives you greater control of your network using plug-n-play hardware with embedded network management software.

- Setup in minutes with app-based step by step instructions.

- Quick-scan device register, remote monitoring, and troubleshooting.

- Real-time system metrics, analytics, and remote configurations.

- No access point licensing or subscription fees.

- Uplink and downlink of OFDMA improves transmission to APs and client devices.

- Uplink & downlink of MU-MIMO for optimal signal & reception reliability for up to 2 devices.

- Target wake time for power-saving of client & IoT devices.

- BSS coloring for tagging packets with a "color" to differentiate between adjacent basic service sets.

- Spatial reuse identifies color sets via BSS coloring & simultaneously transmits on the same channel, reducing transmission waiting time and contention.

- GigE PoE-Compliance with 802.3af & 48V PoE input for flexible installation up-to 328 feet.

- Mesh wireless support simplifies setup, optimizes signals & self-heals.

- Four (4) (2x2) detachable 5dbi high-gain, 360° SMA-type antennas.

Product Highlights

The EnGenius Fit Managed EWS850-FIT Wi-Fi 6 2x2 dual band IP67 outdoor wireless access point is a business-class device that provides secure and reliable high performance while reducing capital and operating expenses for cost-conscious small businesses. With support for the latest 802.11ax technology, this access point is capable of delivering maximum speeds of 574 Mbps (2.4 GHz frequency) and 1,200 Mbps (5 GHz frequency).Designed for peak performance in harsh climates, EnGenius Fit Wi-Fi 6 outdoor access points feature IP67-rated waterproof and dustproof enclosures ensuring they can withstand harsh outdoor environments.

Manage your network onsite or on-the-go through our **FitXpress** cloud-based mobile app or web portal. Additionally, **FitController** gives you greater control of your network using plug-n-play hardware with embedded network management software. Admins can easily view detailed analytics from a single pane of glass as well as monitor and troubleshoot issues instantly.

Technical Specifications

EWS850-FIT

Standards
IEEE 802.11b/g/n/ax on 2.4GHz

IEEE802.11a/n/ac/ax on 5GHz

Processor
Qualcomm® Quad-Core CPU ARM Cortex A53s @ 1.8GHz

Antenna
Four (4) External 5 dBi Dual-Concurrent Omni-Directional Antenna

SMA-Type

Physical Interface
1 x 10/100/1000/2500 BASE-T, RJ-45 Ethernet Port

LED Indicators
1 x Power

1 x LAN

1 x 2.4 GHz

1 x 5 GHz

Power Source
Power-over-Ethernet: 802.3af/at

Proprietary 48V − 54V

IEEE 802.11e Compliant Source

Active Ethernet (PoE)

Maximum Power Consumption
15.9W

Surge Protection
1KV

ESD Protection
Contact: 4KV

Air: 8 KV

WIRELESS & RADIO SPECIFICATIONS

Operating Frequency
Dual-Radio Concurrent 2.4GHz & 5 GHz

Operation Modes
AP, Mesh

Frequency Radio
2.4GHz: 2400 MHz ~ 2482 MHz

5GHz: 5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz, 5725MHz ~ 5850MHz

Transmit Power
2.4GHz: 23dBm

5GHz: 25dBm

Maximum power is limited by regulatory domain

(Tx Beamforming (TxBF
2x2:2

SU-MIMO
Two (2) spatial streams SU-MIMO for 2.4GHz and two (2) spatial streams SUMIMO for 5GHz up to 1,774Mbps wireless data rate to a single 11ax wireless client device under both the 2.4G Hz and 5GHz radios.

MU-MIMO
Two (2) spatial streams multiple (MU)-MIMO for up to 1200 Mbps wireless data rate to transmit to one (1) two streams MU-MIMO 11ax capable wireless client devices under 5GHz simultaneously.

Two (2) multiple (MU)-MIMO for up to 574 Mbps wireless data rate to transmit to one (1) two streams MU-MIMO 11ax capable wireless client devices under 2.4GHz simultaneously.

(Supported Data Rates (Mbps
802.11ax:
   2.4 GHz: 9 to 574 (MCS0 to MCS11, NSS = 1 to 2)
   5 GHz: 18 to 1200 (MCS0 to MSC11, NSS = 1 to 2)

802.11b: 1, 2, 5.5, 11

802.11a/g: 6, 9, 12, 18, 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
802.11ax: Orthogonal Frequency Division Multiple Access (OFDMA)

802.11b: Direct-sequence spread-spectrum (DSSS)

802.11ac/a/g/n: Orthogonal Frequency Division Multiple (OFDM)

Channelization
802.11ax supports high efficiency (HE) —HE 20/40/80 MHz

802.11ac supports very high throughput (VHT) —VHT 20/40/80 MHz

802.11n supports high throughput (HT) —HT 20/40 MHz

802.11n supports very high throughput under the 2.4GHz radio —VHT40 MHz (256-QAM) 802.11n/ac/ax packet aggregation: A-MPDU, A-SPDU

Supported Modulation
802.11ax:
   BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM

802.11b: BPSK, QPSK, CCK

MANAGEMENT

Multiple BSSID
8 SSIDs for both 2.4GHz and 5GHz radios

VLAN Tagging
Supports 802.1q SSID-to-VLAN Tagging

Cross-band VLAN Pass Through

Management VLAN

Spanning Tree
Supports 802.1d Spanning Tree Protocol

(QoS (Quality of Service
Complaint With IEEE 802.11e Standard WMM

SNMP
v1, v2c, v3

MIB
I/II, Private MIB

Wireless Security
WPA3-PSK (SAE)

WPA3 Enterprise

WPA2 Enterprise (AES)

WPA2 AES-PSK

OWE

Hide SSID in Beacons

MAC Address Filtering, Up to 32 MACs per SSID

Wireless STA (Client) Connected List

SSH Tunnel

Client Isolation

ENVIRONMENT & PHYSICAL

Temperature Range
Operating: -4°~140°F/-20°C~60°C

Storage: -40F°~176°F/-40°C~80°C

(Humidity (non-condensing
Operating: 90% or less

Storage: 90% or less

Waterproof & Dustproof
IP67-Rated Enclosure

DIMENSIONS & WEIGHTS

EWS850-FIT Device
Weight: 1.54 lbs. (0.7 kg)

Width: 4.07" (124 mm)

Length: 7.48" (190 mm)

Height" 2.07" (52.5 mm)

Packaging
Weight: 3.96 lbs. (1.8kg)

Width: 9.21" (234 mm)

Length: 11.18" (284 mm)

Height: 5.67" (144 mm)

Package Contents

1 – EWS850-FIT Cloud Managed Outdoor Access Point

1 - Pole-Mounting Brackets

1 - Wall-Mount Screw Set

2 - 2.4GHz 5dBi SMA Antennas

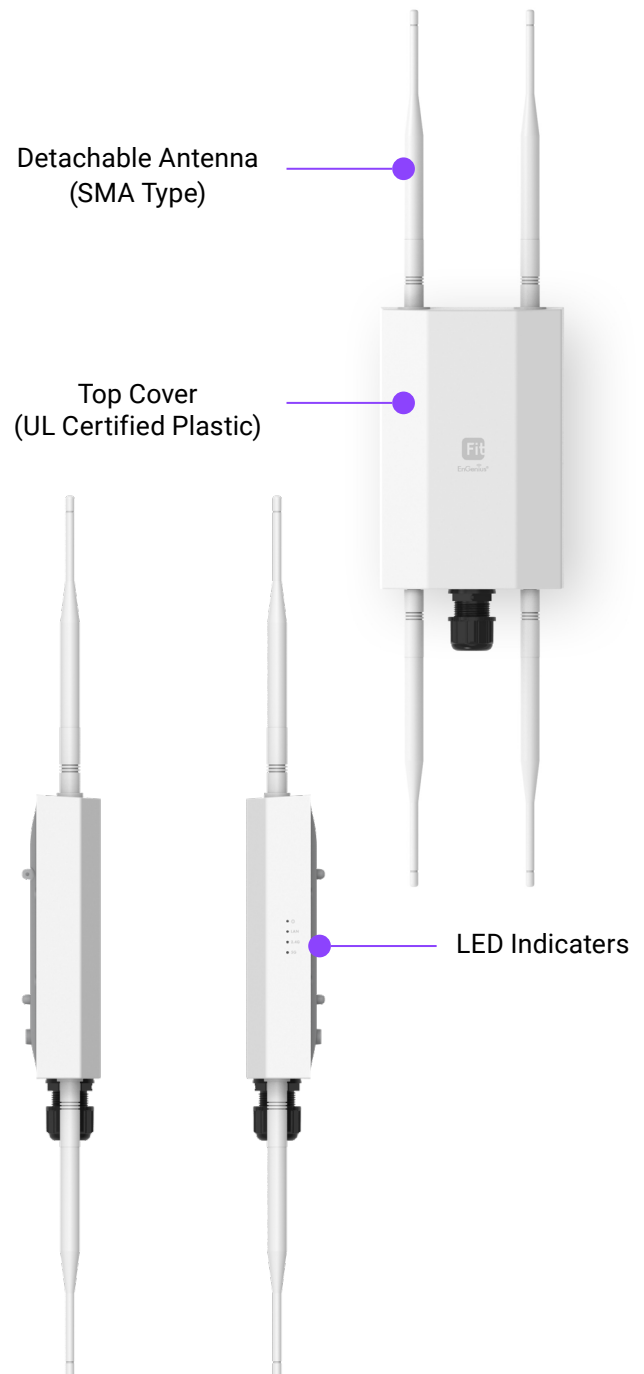2 - 5GHz 5dBi SMA Antennas

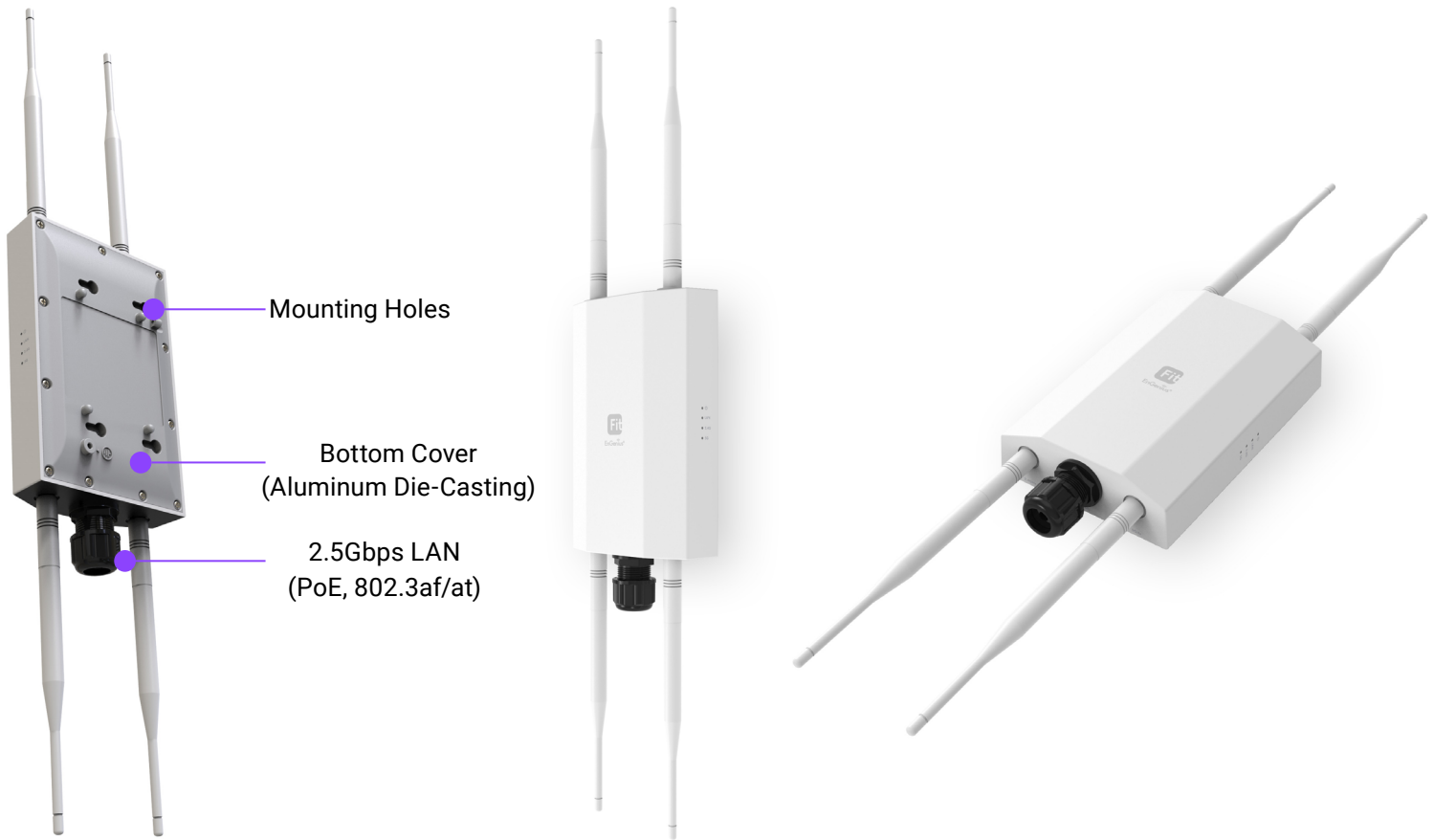1 - Quick Start Guide QR Code

Certifications
FCC, CE, IC

WARRANTY
1 Year

Product Images

Detachable Antenna
(SMA Type)

Top Cover
(UL Certified Plastic)

LED Indicaters

Product Images

Mounting Holes

Bottom Cover
(Aluminum Die-Casting)

2.5Gbps LAN
(PoE, 802.3af/at)

EWS850-FIT Outdoor Antenna Patterns