REDCELL TECHNOLOGIES

DATASHEET

Indoor Wi-Fi 6 access point

Edgecore EAP102

4x4 Wi-Fi 6. No subscription.

A high-capacity Wi-Fi 6 access point with 4×4 MU-MIMO on 5 GHz and two 2.5GbE ports, built for busy floors, conference rooms and lobbies. RedCell designs, pre-provisions and supports it from the US.



2.9 Gbps
Max aggregate data rate

4x4
MU-MIMO on 5 GHz

2.5GbE
PoE+ uplink, plus a 2.5GbE LAN port

OpenWiFi
Open-source version supported

OVERVIEW

More capacity for the busiest rooms.

The EAP102 pairs 2×2 on 2.4 GHz with 4×4 MU-MIMO on 5 GHz, serving more devices at once in lobbies, open offices and meeting spaces. Both Ethernet ports run at 2.5GbE. It runs standalone or under ecCLOUD and EWS controllers, with no license that has to stay paid for it to keep working.

4x4 Wi-Fi 6 on 5 GHz

2×2 on 2.4 GHz and 4×4 MU-MIMO on 5 GHz, with 80 MHz channels.

Up to 2.9 Gbps aggregate

574 Mbps on 2.4 GHz and 2,400 Mbps on 5 GHz.

Two 2.5GbE ports

802.3at PoE input on a 2.5GbE uplink, plus a 2.5GbE LAN port.

Enterprise security

WPA3 Personal and Enterprise, MAC authentication, captive portal and client isolation.

BLE radio built in

Bluetooth Low Energy for iBeacon applications.

Manage it your way

Standalone, Edgecore ecCLOUD or EWS controllers, with QR-code onboarding. OpenWiFi version available.

SPECIFICATIONS

Full specifications.

HARDWARE & PHYSICAL	
Power	12 V / 2.0 A DC (adapter included) 802.3at PoE (injector optional)
Power consumption	25 W max (22 W on DC power)
Uplink port	1 × 10/100/1000/2.5GBASE-T RJ-45, auto MDI-X, 802.3at PoE in
LAN port	1 × 10/100/1000/2.5GBASE-T RJ-45, auto MDI-X
Console & USB	1 x RJ-45 console; 2 x USB 2.0 (one active at a time)
Dimensions	195 × 201 × 39.8 mm (7.68 × 7.91 × 1.57 in)
Weight	0.7 kg (1.54 lb)
LED / buttons	Uplink, 2.4 GHz, 5 GHz and power LEDs; restart/reset button
Antenna	4 built-in; 5.5 dBi (2.4 GHz, BLE), 7.6 dBi (5 GHz)
Mounting	Wall, ceiling or T-bar; mounting kit included
Operating environment	0 to 45 °C (32 to 113 °F); 5–95% RH non-condensing
Certifications	FCC, CE, LVD, NCC, BSMI, VCCI, JATE, TELEC, IC, C-Tick, Philippines, Thailand

WI-FI & RADIO	
Standards	802.11ax (Wi-Fi 6), concurrent 2.4 and 5 GHz
Radio chains	2.4 GHz: 2×2 · 5 GHz: 4×4
Spatial streams	2.4 GHz: 2 · 5 GHz: 4; MU-MIMO
Supported data rates	802.11b: 1–11 Mbps · 802.11a/g: 6–54 Mbps 802.11n: 6.5–300 Mbps · 802.11ac: 6.5–1,733 Mbps 802.11ax: 3.6–574 Mbps (2.4 GHz) · 3.6–2,400 Mbps (5 GHz)
Channel widths	2.4 GHz: 20/40 · 5 GHz: 20/40/80 MHz
Conducted TX power[1]	Up to 23 dBm (2.4 GHz), 26 dBm (5 GHz)[2]
Frequency range	2.400–2.483 · 5.150–5.850 GHz
Operating channels	2.4 GHz: 1–11 (US) · 5 GHz: 36–165 (US)[3]
SSIDs	Up to 16 per radio (32 total)

[1] Aggregated across MIMO chains, excluding antenna gain. [2] Maximum power limited by local regulations. [3] Some channels restricted by local regulations and certifications.

PERFORMANCE & FEATURES

Software and performance.

574 Mbps
Physical data rate, 2.4 GHz

2,400 Mbps
Physical data rate, 5 GHz

32 SSIDs
Up to 16 per radio

Wireless

- 802.11k/v/r
- OFDMA
- Client isolation
- Open Mesh
- BSS coloring
- Band steering
- Wi-Fi Enhanced Open (OWE)
- Wireless site survey

Network

- Spanning Tree Protocol (STP)
- DHCP and DHCP relay
- 802.1Q and dynamic VLAN
- Access control lists (ACL)
- NAT
- LLDP
- Smart isolation
- IPv6 compatible
- Proxy ARP

Security

- WPA/WPA2/WPA3 Personal and Enterprise (AES)
- WPA3 transition modes
- Multi pre-shared key (MPSK)
- Dynamic pre-shared key (DPSK)
- MAC address authentication
- DHCP snooping and ARP inspection
- Layer 3 firewall

Management

- Standalone
- Edgecore ecCLOUD and ecCLOUD-VPC
- EWS-Series controllers (complete or split tunnel)
- Zero-touch provisioning and QR-code onboarding
- SSH, SNMP v1/v2c/v3, remote syslog, NTP
- Discovery tool

QoS & mobility

- RSSI threshold (optimal client filtering)
- Multicast-to-unicast conversion
- WME
- OpenRoaming (Hotspot 2.0 R1)

Other

- Target Wake Time (TWT)
- iBeacon
- Hotspot captive portal
- Dynamic authorization (DAE)
- BLE radio

USE CASES

Where the EAP102 fits.

Hospitality: lobbies and meeting space

4×4 MU-MIMO on 5 GHz handles crowds in lobbies, ballrooms and conference areas, with captive portal for guests.

Multi-site restaurants & retail

Larger stores and dining rooms get more capacity, with POS, staff and guest traffic kept apart by VLAN.

Education

Lecture halls, libraries and common areas where many devices connect at once, with WPA3-Enterprise.

Sports & venues

Suites, clubs and press areas. For concourses and open-air areas, RedCell specs the outdoor OAP101.

Warehousing: offices and indoor floors

Conditioned indoor space (0–45 °C). For docks and yards, RedCell specs the outdoor OAP101.

Offices & multi-tenant buildings

Open offices and shared floors, managed from ecCLOUD or an on-site controller.

REDCELL SUPPORT

The hardware is half the story.

01

Design.

Network and RF design reviews so access points land where coverage and capacity need them.

02

Pre-provision.

Units configured before they ship, so your installers hang them and go.

03

Support.

Advanced support from US-based engineers, plus firmware and configuration help across your whole fleet.

30-DAY EDGECORE TRIAL

Test it on your network before you buy.

We ship you an Edgecore access point and a PoE switch, configured by RedCell for your network. Run them for 30 days with a US-based engineer on call, then decide.

Request your trial: redcelltechnologies.com/contact · 813 885 2600

Specifications from Edgecore Networks' published EAP102 datasheet and product page; subject to change. Edgecore is a trademark of Edgecore Networks Corporation.