Allied Telesis™

Extricom™ Series RP-32EOn

Triple-Radio, High Performance Ultrathin 802.11N Access Point

The Allied Telesis Extricom RP-32EOn UltraThin™ access point is a triple-radio 802.11n solution. It is ideal for customers with bandwidth-intensive applications that require a WLAN solution with high capacity and throughput and in outdoor environments. In addition, the AT-EXRP-32EOn features the ability to use external antennas, optimal when high gain antennas are needed as in high ceiling deployments.

The Extricom architecture
The AT-EXRP-32EOn is an advanced radio Access Point (AP) and part of the Extricom Series Channel Blanket™ architecture.

When attached to an Extricom switch, the APs create three wireless blankets without running any software or requiring individual tuning or configuration. The Channel Blanket operates in such a way that it eliminates interference between APs, enabling straightforward deployments — even under harsh Radio Frequency (RF) environments such as open plan offices, large public venues, and warehouses. Another major advantage is that mobile devices traversing the Blanket are attached to one homogeneous network and are associated with the switch, and not to a particular AP. This ensures they

never disconnect, enabling uninterrupted VoIP calls and video streaming, with zero handoff disconnections.

The AT-EXRP-32EOn is equipped with the latest best-of-breed silicon and radio modules. Among the advanced radio layer features provided are Transmit Beam Forming (TxBF), Space-Time BlockCode (STBC), Low Density Parity Check (LDPC), Maximum Likelihood (ML) detection, Maximum Ratio Combining (MRC), and Cyclic Delay Code (CDC).

The AT-EXRP-32EOn and Extricom switch combination delivers multi-layered security, including standards-based WPA2 security and rogue detection. In addition, it provides a customizable Captive Portal for providing additional user authentication and acknowledging the usage policy.

Key Features

Patented Channel Blanket architecture provides an unprecedented ease of installation
▶ Allied Telesis Extricom Series UltraThin AP deployment does not require cell planning, and facilitates true plug-and play deployment. The AT-EXRP-32EOn is software-free and requires absolutely no configuration.

Versatile installation with external antennas
▶ The AT-EXRP-32EOn, plenum-rated and equipped with multiple N-type connectors for external antennas, can be mounted on walls and ceilings. It was designed and tested for installation outdoors in open environments. Depending on the installation type, antennas can be high gain directional or omni-directional for achieving the optimal coverage.

Guaranteed Service Level Agreements
▶ The AT-EXRP-32EOn enables physical separation between different services (e.g. video, voice, and data) by assigning them to different frequency channels. Physical separation between very slow devices, e.g. 802.11b wireless clients, and very fast devices such as dual stream 802.11n wireless clients, overcomes the "weakest link" effect, detrimental to aggregate network throughput.

▶ AT-EXRP-32EOn AP deployment density delivers blanket seamless coverage and a guaranteed communications rate everywhere.

Standard PoE
▶ The AT-EXRP-32EOn is 802.3af Power over Ethernet (PoE) compliant. Since the AT-EXRP-32EOn is highly energy efficient, its three radios can operate concurrently out of the given energy budget of 802.11.af.

Immune to MIMO coverage variability
▶ The Extricom Series unique patented technology for improved transmission on MIMO deployments results in reliably high throughput and black hole-free MIMO blanket coverage. All APs receive traffic on the same channel. As a direct result, the Extricom blanket WLAN provides uplink path diversity for lower delay latency and higher uplink throughput.

AT-EXRP-32EOn | Three-Radio High Performance 802.11n UltraThin Outdoor Access Point

Features

- ▶ Triple-radio access point with connectors for external antennas — works in mixed 802.11 a/b/g/n environments
- ▶ Up to 300Mbps air rate (Up to 200Mbps TCP traffic) with 2x2:2 Spatial Stream MIMO
- ▶ Transmit Beam Forming (TxBF) for signal phase alignment and improved range
- ▶ Space Time Block Cycle (STBC) provides added robustness for an environment where there are multiple transmit chains and only a single receiver chain
- ▶ Low Density Parity Check (LDPC) technology provides improved performance in error detection and correction
- ▶ Maximum Likelihood (ML) detector to achieve higher accuracy demodulation
- ▶ Maximal Ratio Combining (MRC)

- ▶ Rx Peak Detection for interference detection, providing better performance in environments with a high level of interference
- ▶ Zero AP-to-AP Handoff Delay
- ▶ Link Resilience with AP Path Diversity
- ▶ Anti-Breach Security and built-in Rogue AP Detection
- ▶ Zero Configuration Device
- ▶ Standard 802.3af PoE on single cable supports full-rate on all radios concurrently
- ▶ Multi-layered security including standards-based RSN security and rogue detection
- ▶ Integral hanging brackets and optional ceiling-mounted brackets

Specifications

WLAN Standards

WLAN	IEEE 802.11n, 2.4GHz and 5GHz
	IEEE 802.11g, 2.4GHz
	(Pure mode, mixed mode)
	IEEE 802.11b, 2.4GHz
	(Short/long preamble support)
	IEEE 802.11a, 5GHz

Spectrum

Simultaneous channels	Up to three (802.11a/b/g/n)
Operating frequencies	2.412 – 2.484GHz
	5.180 – 5.825GHz

Supported Rates (Mbps)

802.11n data rates (2.4GHz and 5GHz)

20MHz (GI=800ns)	MCS 0-7: 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2
	MCS 8-15: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130, 144.4
40MHz (GI=800ns)	MCS 0-7: 13.5, 27, 40.5, 54, 81, 108, 121.5, 135
	MCS 8-15: 27, 54, 81, 108, 162, 216, 243, 270
40MHz (GI=400ns)	MCS 0-7: 15, 30, 45, 60, 90, 120, 135, 150
	MCS 8-15: 30, 60, 90, 120, 180, 240, 270, 300

Transmitter Power (max)

802.11n	19dBm
802.11b/g	20dBm
802.11a	19dBm

Antenna Specifications

Per each radio	The product includes six N-type connectors (two connectors per radio) for attaching external antennas. Any external antenna connected to this product should not exceed the maximum gain allowed in the user's regulatory domain.

Regulations Approval[1]

Safety	UL 60950-1
	EN 60950-1
	IEC 60950-1
EMC	FCC Part 15 class B
	EN 331 489
	VCCI Technical Requirements, V-3/2001.04
Radio (including Modular approval)	FCC Part 15 C and FCC Part 15 E
	EN 330 328
	EN 331 893
	Japan Type Certificate: Article 2, clause 1 FCC15.407
	EN 301 893 (v1.6.1)

[1]Regulatory approvals are in progress.

Physical Specifications

Dimensions (W × H × D)	232 mm × 125 mm × 41 mm (9.13 in × 4.92 in × 1.61 in)
Weight	1.88 kg (4.14 lbs)
Enclosure	Die-Cast Aluminum, IP67 rated
Installation options	Pole-top (included) desktop and wall-mount (optional) brackets
Power	PoE (IEEE 802.3af)

Environmental

Operating temperature	-10°C to 40°C (14°F to 104°F)
Operating humidity	0% to 85%, non-condensing
Storage temperature	-20°C to 70°C (-4°F to 158°F)
Storage humidity	0% to 90%, non-condensing

Ordering Information

AT-EXRP-32EOn
Extricom ruggedized outdoor access point, 3 × dual-stream 802.11n radios, with connectors for external antennas

Related Products

AT-EXRP-32n
Extricom access point, 3 × dual-stream 802.11n radios

AT-EXRP-22En
Extricom UltraThin access point, 2 × 802.11a/b/g/n dual-stream radios, connectors for external antennas, metal enclosure

AT-EXRP-22n
Extricom access point, 2 × dual-stream 802.11n radios

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NETWORK SMARTER

North America Headquarters | 19800 North Creek Parkway | Suite 100 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895
Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830
EMEA & CSA Operations | Incheonweg 7 | 1437 EK Rozenburg | The Netherlands | T: +31 20 7950020 | F: +31 20 7950021

alliedtelesis.com | info@alliedtelesiswireless.com