Extricom™ Series RP-22En

UltraThin Dual-Radio Access Point

The Allied Telesis Extricom RP-22En UltraThin™ access point is a dual-radio 802.11n solution. It is ideal for customers with bandwidth-intensive applications that require a WLAN solution with high capacity and throughput, in a competitive package. The AT-EXRP-22En 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-22En is an advanced radio Access Point (AP) and part of the Extricom Series Channel Blanket™ architecture.

When attached to an Extricom Series switch, the APs create two 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 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-22En 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-22En 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

- Extricom Series UltraThin AP deployment does not require cell planning, and facilitates true plug-and-play deployment. The AT-EXRP-22En is software-free and requires absolutely no configuration.

Versatile installation with external antennas

- The AT-EXRP-22En, plenum-rated and equipped with multiple SMA connectors for external antennas, can be mounted on walls, ceilings, or even outdoors in weather-proof enclosures. Depending on the installation, antennas can be high gain directional or omni-directional for achieving the optimal coverage.

Guaranteed Service Level Agreements

- The AT-EXRP-22En 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-22En AP deployment density delivers blanket seamless coverage and a guaranteed communications rate everywhere.

Standard PoE

- The AT-EXRP-22En is 802.03af PoE (Power over Ethernet) compliant. Since the AT-EXRP-22En is highly energy efficient, both 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.

Features

- Dual-radio access point with connectors for external antennas — works in mixed 802.11 a/b/g/n environment
- 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 WPA2 security and Rogue Detection
- Integral hanging brackets and optional ceiling-mounted brackets

Specifications

WLAN Standards

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 two (802.11a/b/g/n)
Operating frequencies	2.412 – 2.484GHz 5.180 – 5.825GHz

Frequency range per each country regulatory domain

Supported Rates

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

802.11n	19dBm (max)
802.11g/b	20dBm (max)
802.11a	19dBm (max)

Rogue AP Detection

Infrastructure	Optional choice of radio on each AP
Functionality	Automated, continuous monitoring ensures fast detection of rogue APs
Additional features	onfigurable white list of allowed BSSIDs

Antenna Specifications

Per each radio	The number of antennas matches the number of streams — two connectors for external antennas

Regulations Approval

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 301 893 (v1.7.1) EN 330 328 (v1.8.1) EN 331 893 Japan Type Certificate: Article 2, clause 1 FCC15.407

Physical Specifications

Dimensions (W × D × H)	232 mm × 125 mm × 41 mm (9.13 in × 4.92 in × 1.61 in)
Weight	573g (1.26 lbs)
Installation options	Horizontal (desktop) Vertical (wall mount) Top (ceiling)
Power	PoE (IEEE 802.3af) Power supply (optional): 48VDC

Environmental

Operating temperature	-5°C to 45°C (23°F to 113°F)
Operating humidity	0% to 95%, 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-22En
Extricom UltraThin access point, 2 × 802.11a/b/g/n dual-stream radios, connectors for external antennas, metal enclosure

Related Products

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

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

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

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