



Extricom RP-32EOn Three-Radio, 802.11n Outdoor Access Point



The Extricom Architecture

- Extremely easy to deploy and grow: No cell planning required.
- Zero-Handoff between access points (voice) and no Edge-User-Effect (data).
- Physical channel separation between services and applications, legacy and 802.11n devices or different levels of security.
- Most suitable 802.11n architecture for channel bonding and achieving optimal MIMO capacity.

The RP-32EOn brings Extricom's high throughput, zero-interference wireless connectivity to outdoor and high-density environments. Featuring three 802.11n dual-stream radios and a rugged design, the RP-32EOn supports bandwidth-intensive applications requiring high wireless capacity in outdoor locations such as stadiums, campuses and industrial areas.

Part of Extricom's Channel Blanket™ architecture, RP-32EOn access points are attached to the Extricom switch, creating three wireless channel blankets without running any software or requiring configuration. Co-channel interference and handoff are completely eliminated by

the integrated switch intelligence, which covers the entire blanket. Mobile devices traversing the blanket are attached to one homogeneous network and the association with the switch, rather than with a particular access point, ensures they never disconnect.

The RP-32EOn features a waterproof IP67-rated rugged die-cast aluminum enclosure with N-type connectors for external antennas, ensuring it performs flawlessly in outdoor weather and in harsh indoor conditions. In addition, the RP-32EOn has several mounting options such as pole-top and wall mounting.

Features and Benefits

Ease of Deployment and Zero Configuration

The unique Channel Blanket architecture eliminates the need for complex cell planning, reducing costs and accelerating implementation. The software-free RP-32EOn facilitates a true plug-and-play deployment, with all configurations performed through the central WLAN switch.

Guaranteed Service Level Agreement

The RP-32EOn enables physical separation of services (e.g. video, voice and data) by assigning a different channel to each service, and guaranteeing a quality of service.

Energy-Efficient Radios

Equipped with three integrated radios, the RP-32EOn is 802.3af PoE (Power over Ethernet) compliant. Using a highly-efficient energy design, all three radios can operate concurrently out of the given energy budget of 802.3af.

Increased Bandwidth and Reliability

With three radios running simultaneously - each on a different channel, the outdoor space can be covered with three homogeneous channel blankets, offering high capacity with no channel interference.

Any WLAN Switch

The RP-32EOn can work with any of Extricom's central switches, which provide the central management and control of all transmissions and RF interference levels across the deployment area.

Key Features

- The Extricom RP-32EOn is a small and rugged wireless outdoor Access Point
- Designed to withstand the toughest environments (IP67 rated)
- Tri-Radio Access Point with external Antennas - Works in Mixed 802.11 a/b/g/n Environments
- Up to 300 Mbps 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 Code (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
- AES hardware encryption
- 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
- Pole-top mounting bracket included, and optional wall-mount mounting bracket

* Future firmware upgrade required

WLAN Standards	
WLAN	EEE 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	
Number of simultaneous channels	Up to three simultaneous 802.11a/b/g/n channels
Operating Frequencies	2.412 – 2.484 GHz 5.180–5.825 GHz (Frequency range per each country regulatory domain)
Supported Rates (Mbps)	
802.11n data rates (2.4 GHz and 5 GHz)	
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	19 dBm
802.11b/g	20 dBm
802.11a	19 dBm
Antenna Specifications	
Per each Radio	Two N-Type 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 330 328 EN 331 893 Japan Type Certificate: Article 2, clause 1 FCC15.407 EN 301 893 (v1.6.1)

*Regulatory approvals are in process.

Physical Properties	
Enclosure	Die-Cast Aluminum, IP67 rated
Dimensions (W x H x D)	200 x 43 x 140 mm 7.9 x 1.7 x 5.5", excluding connectors
Weight	1.884 kg (4.15 lbs)
Installation Options	Pole-top (included) and wall-mount (optional) brackets
Power	PoE (IEEE 802.3af)

Environmental	
Operational	Temperature: -10°C to +40°C (14°F to 104°F) Humidity: 0% to 85%
Storage	Temperature: -20°C to +70°C (-4°F to 158°F) Humidity: 0% to 90%, non-condensing

Ordering Information	
Extricom RP-32EOn	Extricom Three-Radio Outdoor Access Point with three 802.11a/b/g/n dual streams radios, with connectors for external antennas

Related Products				
Product	Total No. of Radios	No. of radios for each Spatial Streams category		
		Single stream	Dual streams	Triple streams
RP-33n	3	-	-	3
RP-32n	3	-	3	-
RP-22n	2	-	2	-
RP-22En*	2	-	2	-
RP-30n	3	1	2	-
RP-40En*	4	2	2	-

*The AP consists of a metal enclosure with connectors for external antennas (not included)

About Extricom:

Extricom is a manufacturer of 4th generation enterprise wireless LAN solutions, based on its Channel Blanket™ technology. While adhering to the 802.11 a/b/g/n standard, Extricom's patented, Interference-Free architecture takes a completely new approach to the way the infrastructure is deployed. The Channel Blanket topology provides wire-like reliability, high throughput, seamless mobility, unparalleled noise immunity, and is easy to install and maintain. In an era of intensive wireless usage powered by the market explosion of smart phones, iPads, iPods, tablets and other communication devices, voice, data, video, and location services are delivered with an always-on, robust and mobile Wi-Fi connection to any client, in any environment. Extricom Interference-Free™ WLAN is purpose-built to slash wireless complexity and future-proof your network for tomorrow's multi-service demands.

Extricom solutions are in use by customers operating in numerous industries worldwide, including Education, Healthcare, Manufacturing, Logistics and Warehousing, Retail and Public Venues. They have discovered the uncompromising performance, reliability and ease of ownership that are the hallmark of the Extricom WLAN.

Extricom serves its growing global customer base through offices in the USA, Europe and Japan, and by working with a global network of distributors and partners.

For more information, visit us at www.extricom.com.

