TALK

# Why You Shouldn't Hang APs on the Wall Like a Clock

**Keith Parsons** · WLAN Pros channel · 2020-11-09

A short Wi-Fi design rules video: hang access points down from the ceiling, the way they are designed to work, not on the wall like a clock. Keith Parsons shows why.

## Key points

- Part of the Wireless LAN Design Rules series: most ceiling-mount access points are designed to hang from the ceiling pointing down, not on a wall.
- Uses the AP's published antenna pattern (azimuth and elevation views) in a design tool to show the coverage it was built to give.
- Turning the AP 90 degrees onto a wall rotates the pattern so it covers the floors above and below, leaving holes on the floor you meant to cover.
- It also changes polarization from vertical to horizontal; in his example, the cross-polarized receivers hear about 6 dB less signal.
- Some APs, such as wall-plate models made for hotels, are designed for wall mounting; the rule applies to ceiling-mount models.

## Chapters

1. 00:00 The rule: don't hang APs like a clock
2. 01:39 The AP's antenna pattern
3. 03:03 Mounting it on the wall
4. 04:30 Polarization and the 6 dB loss

Watch on YouTube (https://www.youtube.com/watch?v=uz17lfqQNK4). More conference talks: wlan-talks.net (index by Victor Gatuna).

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