6 GHZ & REGULATORY

LPI or Standard Power: What Your 6 GHz Client Inherits

By **Keith Parsons, CWNE #3** · 2026-07-24 · originally on LinkedIn

LPI vs Standard Power: What It Means for Your 6 GHz Clients Your 6 GHz client never picks its own power. It inherits whatever access point it joins. Attach to a Low Power Indoor (LPI) AP and your client is capped at 24 dBm EIRP with a –1 dBm/MHz PSD ceiling. Attach to a Standard Power (AFC-coordinated) AP and that ceiling rises to 30 dBm EIRP and 17 dBm/MHz, and the cell can go outdoors.

The headline is "+6 dB." That number is honest only on the widest channel. On the narrow channels where your clients actually sit, Standard Power buys them far more, up to 18 dB at 20 MHz.

That is Part 3, and it ties the first two together. Part 1 showed why narrow channels are PSD-limited. Part 2 showed why the client transmits 6 dB below the AP. Put those two facts side by side and the LPI-vs-Standard-Power decision turns into a direct call on your clients' uplink budget.

The client inherits from the AP Start with the rule that surprises people: the client does not choose. Under 47 CFR §15.407(d)(5)(i), a 6 GHz client operates under the control of the access point it associates with. So the question is really an AP question.

Why "+6 dB" undersells it The EIRP ceilings are 6 dB apart: 24 vs 30. But the PSD ceilings are 18 dB apart: –1 vs 17. That second gap is the whole story.

Run that math and the LPI client falls off its 24 dBm ceiling the moment the channel drops below 320 MHz, because its –1 dBm/MHz PSD binds first. The Standard Power client, sitting on a PSD ceiling 18 dB higher, stays pinned at 30 dBm all the way down.

+6 dB" is the minimum, and it only shows up at 320 MHz. Standard Power's biggest gift to the client lands exactly where LPI is most PSD-starved: the 20, 40, and 80 MHz channels

most 6 GHz clients actually use. Narrow the channel and LPI bleeds power fast, while the Standard Power client holds its full 30 dBm.

Standard Power's 30 dBm is only a ceiling If AFC authorizes the AP to only 30 dBm at that location, the client sits at 24 dBm, dead even with LPI. Authorize the AP lower and the SP client drops below an LPI client. The gain is real, but it is conditional on what AFC actually grants.

Second, the client has to support Standard Power at all. Many first-generation Wi-Fi 6E clients shipped LPI-only. Deploying Standard Power APs does not hand every associated client the 30 dBm ceiling. The client needs the capability too.

The bookend The client inherits the AP's authorzied cap, and that single choice sets its uplink budget. LPI gives you a guaranteed but lower ceiling, indoors only, with no AFC to manage. Standard Power gives you a higher ceiling and outdoor cells, but only where AFC and the client both cooperate, and its real payoff grows as your channels get narrower.

Which raises the question every 6 GHz design now has to answer: do you know the channel width your clients will actually land on, and have you sized their uplink for that width, or for the 320 MHz best case that almost never shows up?

By Keith Parsons, CWNE #3, Wireless LAN Professionals. Free to read and share. Facts