



SPECTRA

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# Maximizing 6 GHz Standard Power

## Intelligence-Driven Wi-Fi for Real-World Deployment

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# OPPORTUNITY & CHALLENGE

<b>U-NII-5</b> 5925–6425 MHz · SP-eligible	<b>U-NII-6</b> LPI / VLP	<b>U-NII-7</b> 6525–6875 MHz · SP-eligible	<b>U-NII-8</b> LPI / VLP
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## The Opportunity

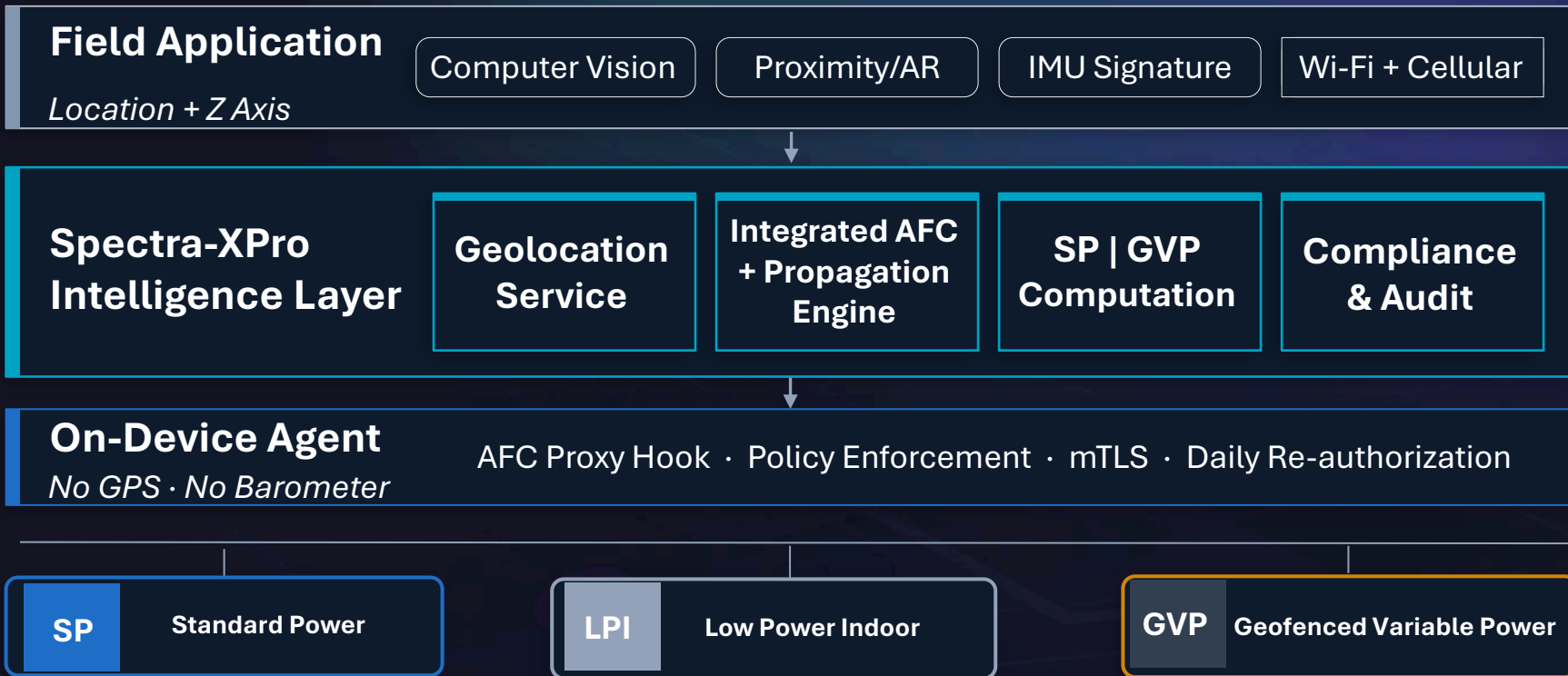
- 1,200 MHz of spectrum | 3× 5 GHz band
- Wi-Fi 7 + Wi-Fi 8 + 6 GHz = Headline Speed + MLO
- No DFS events, no co-channel neighbors
- GVP - Extends 6 GHz to mobile
- Independent analysts forecast AFC scaling in 2026

## The Challenge

- Standard Power requires AFC — most CPE lack GPS
- LPI misses ~30% of HH: basements, courtyards, far rooms
- Assume GPS - it usually is not present
- Scaling Standard Power needs location accuracy
- GVP devices are mobile - continuous non-GPS is unsolved



# SOLUTION FOR ALL POWER TIERS NO GPS REQUIRED



C3Spectra AFC Integrated and Geo-Location enabled Architecture



# WHAT IS NOVEL

## FOUNDATIONAL CAPABILITIES

01

### **Integrated Stack | Deployed on the AP/Gateway**

On-Device Agent + Cloud Platform + Mobile App > Lower BOM / OEM Economics

02

### **Building Entry Loss (BEL) Waiver Opportunity**

Spectrum and Power Advantages

03

### **GVP-ready Architecture | Forward Ready**

Reuse Architecture for GVP/MLO when ready



# STANDARD POWER: OPERATOR-READY TODAY

**No GPS chip  
required**

**Ship This  
Quarter**

**Recover the HHs  
LPI Misses**

**Reuses existing  
gateway silicon**

- No new sensors
- Same BOM
- Flexible SDK

**SDK on shipping  
gateways**

- No new SKU
- No recertification
- Light compliance stack

**+55% throughput at the  
outdoor edge**

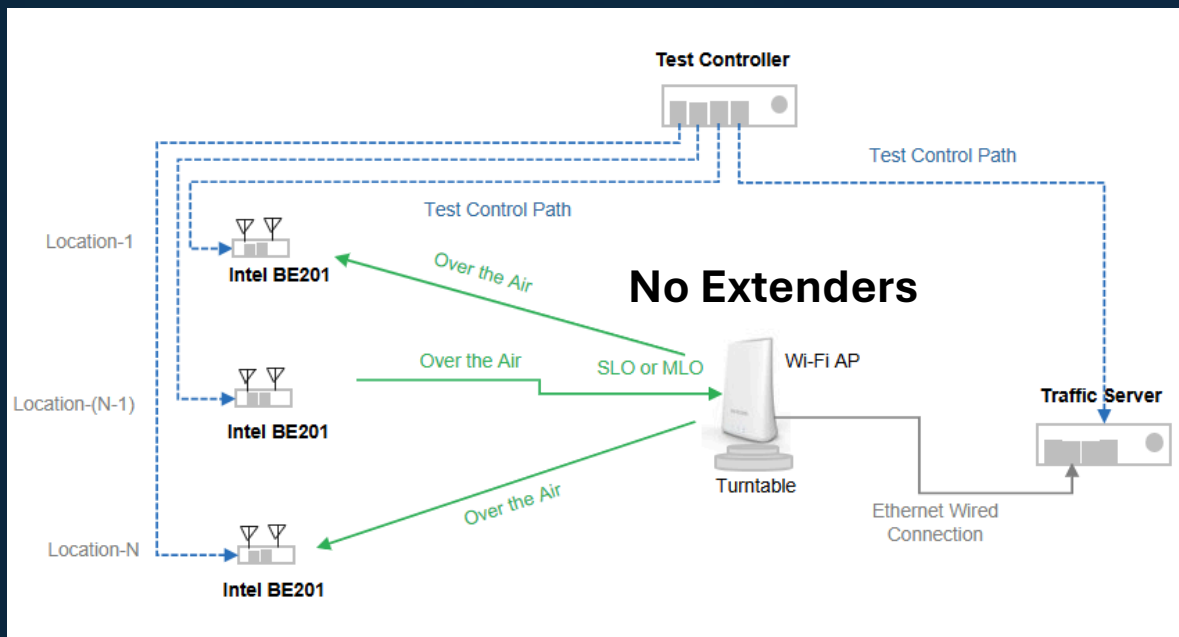
- Coverage: 25–35% gap vs LPI
- TP: +20%(M)· +55%(F)

# REAL-WORLD. OPERATOR-LIKE DEPLOYMENT SCENARIO

Demonstrate Standard Power Improvements: Usable Coverage + Customer QoE versus LPI



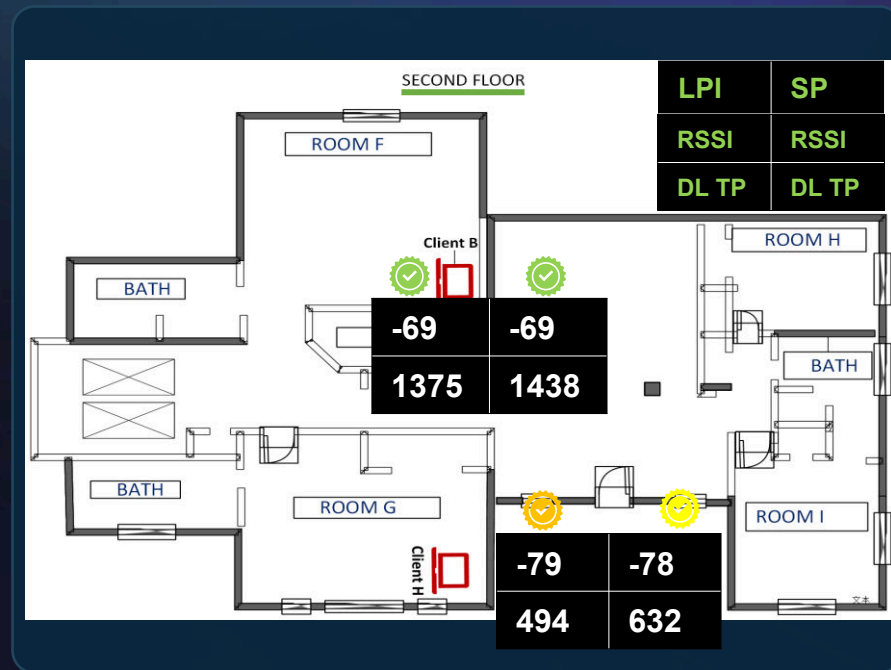
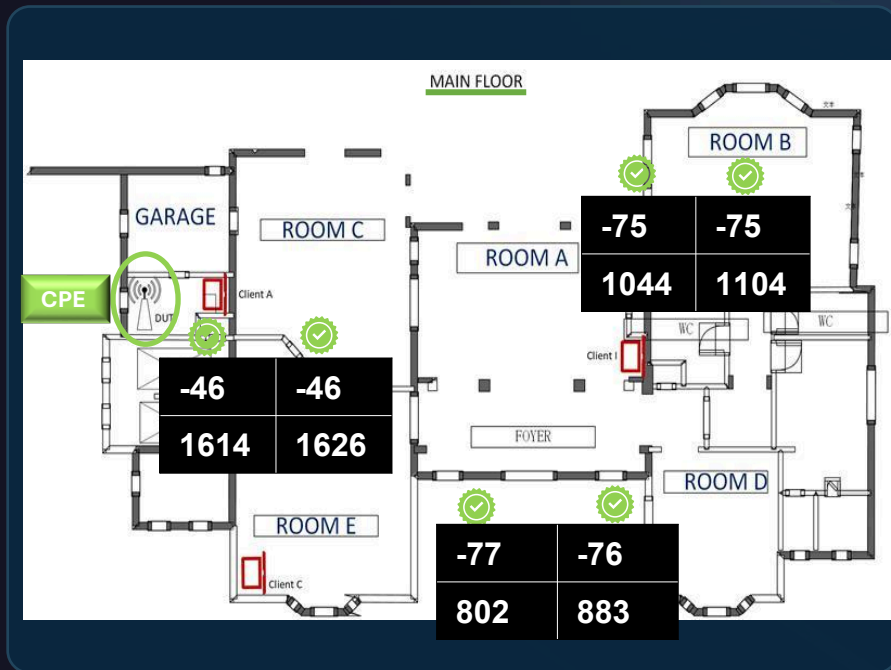
- SBE1V1R Wi-Fi 7 Tri-Band 4x4
- Client: iPhone 16 Pro Max
- Indoor (Mid | Far) + Outdoor
- IXChariot TCP + Ookla





# REAL-WORLD. OPERATOR-LIKE DEPLOYMENT SCENARIO

Demonstrate Standard Power Improvements: Usable Coverage + Customer QoE versus LPI

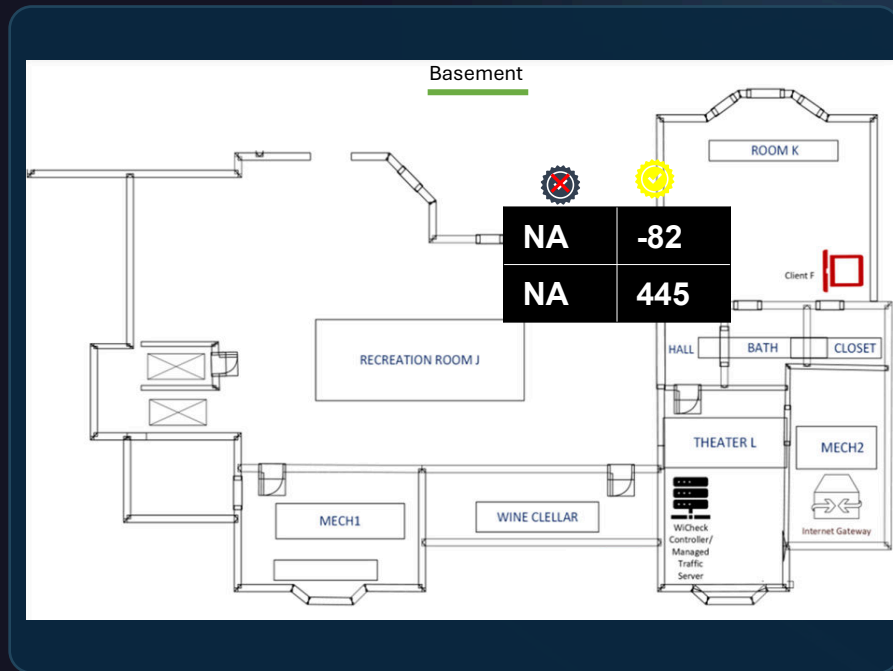


Device: iPhone Pro Max: 6 GHz 160 MHz : DL TP



# REAL-WORLD. OPERATOR-LIKE DEPLOYMENT SCENARIO

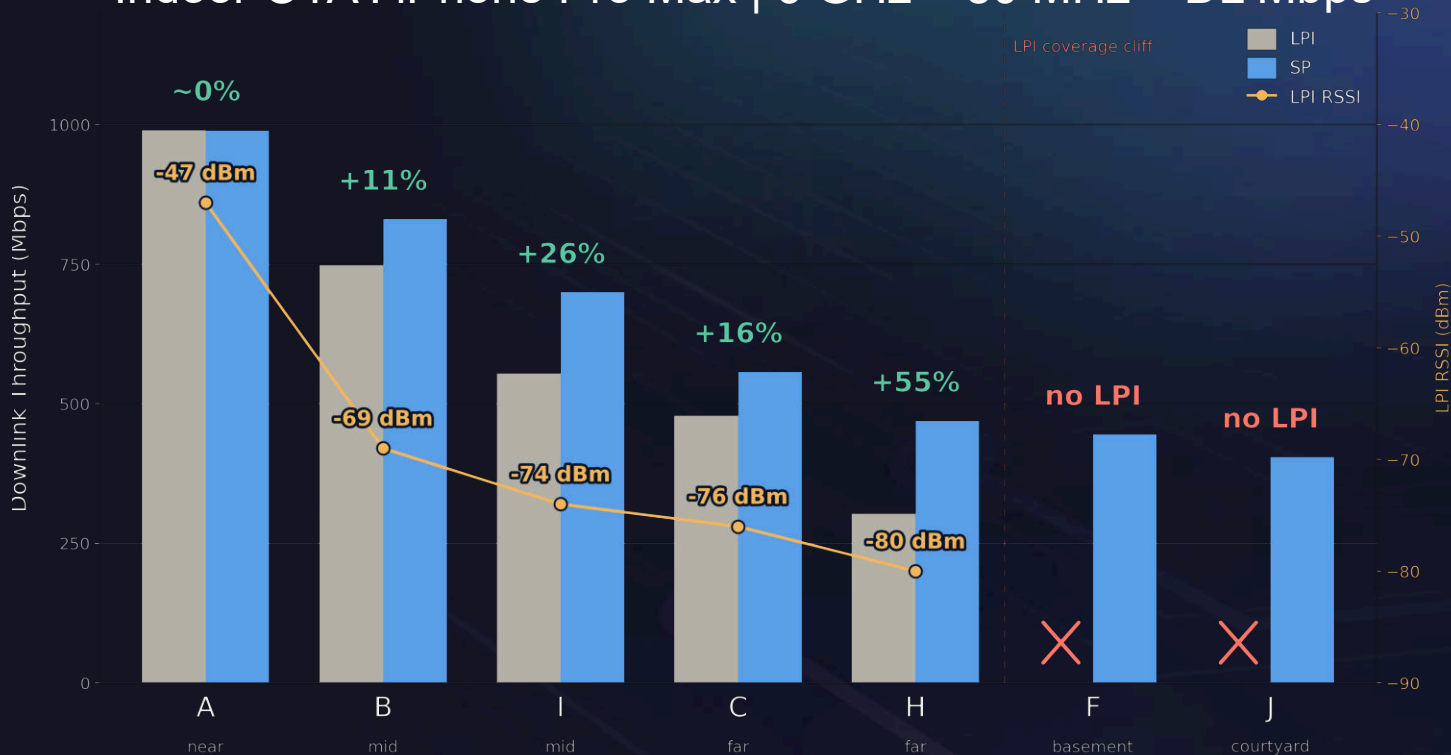
Demonstrate Standard Power Improvements: Usable Coverage + Customer QoE versus LPI





# STANDARD POWER PROTECTS PERFORMANCE AT DISTANCE

Indoor OTA : iPhone Pro Max | 6 GHz – 80 MHz – DL Mbps



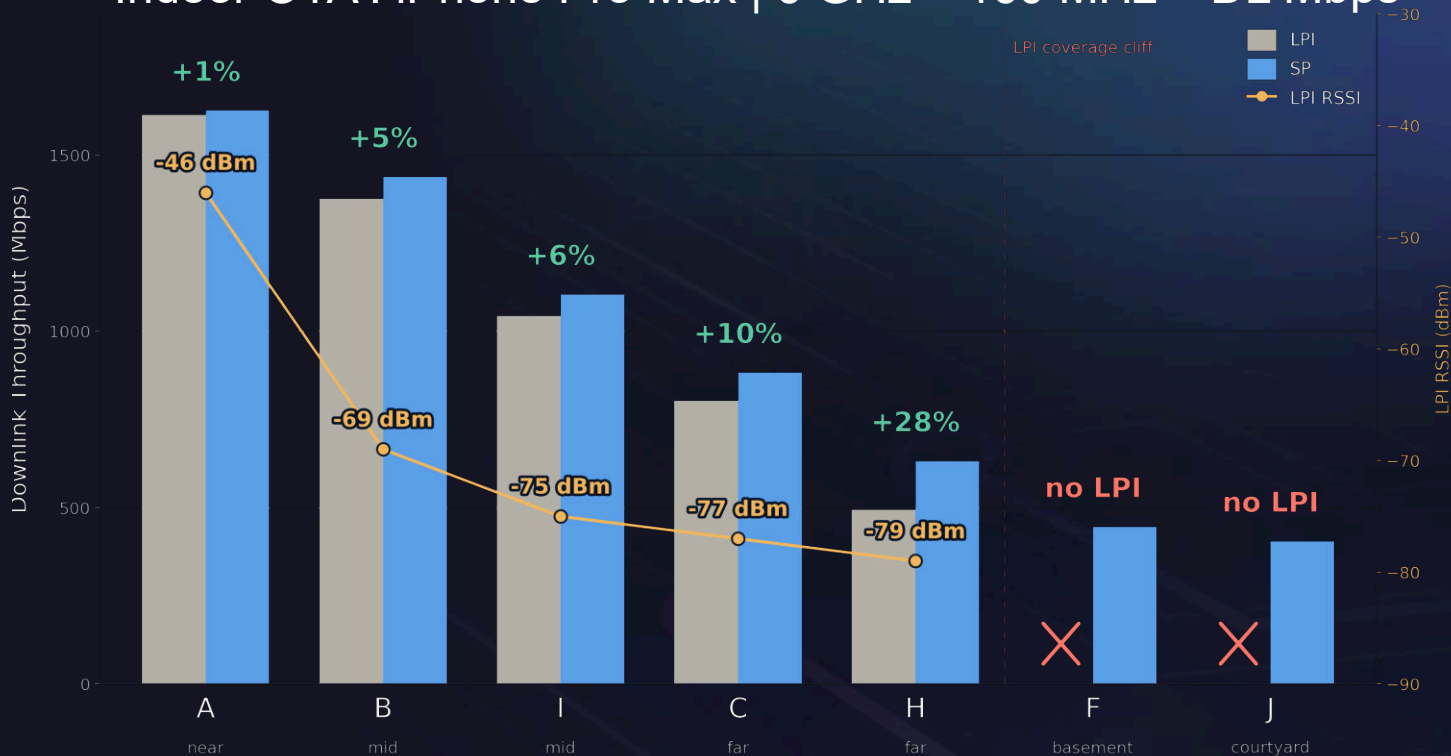
**+55%**

Ookla DL gain  
outdoor edge  
point



# STANDARD POWER PROTECTS PERFORMANCE AT DISTANCE

Indoor OTA : iPhone Pro Max | 6 GHz – 160 MHz – DL Mbps

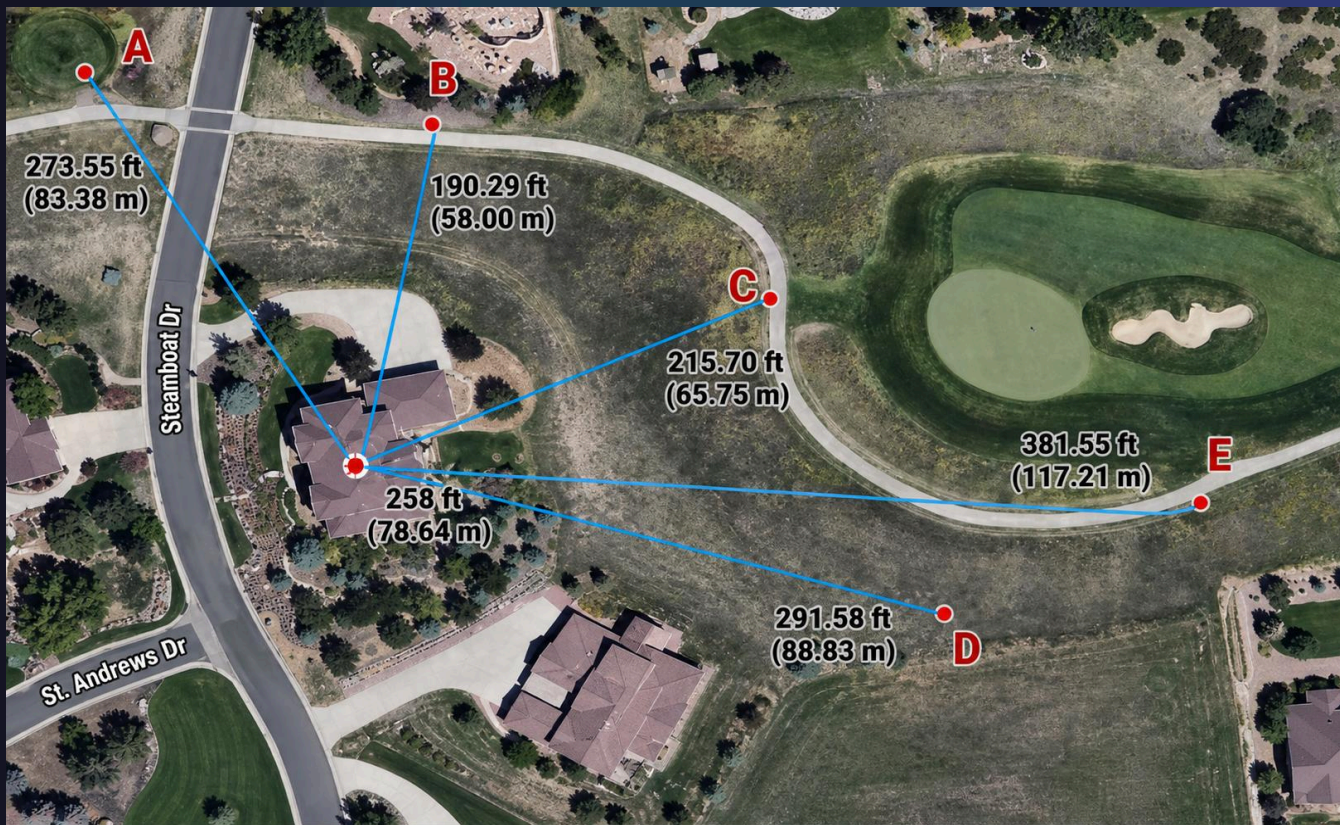


**+28%**

Ookla DL gain  
outdoor edge  
point

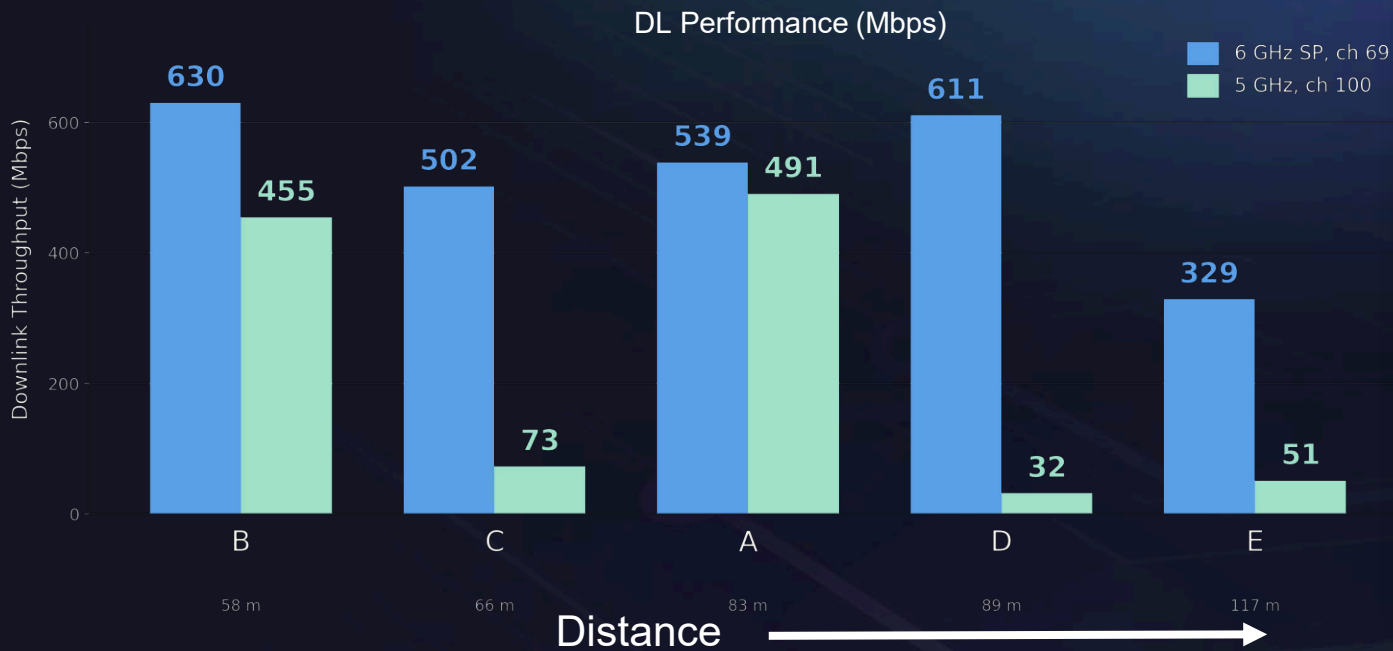
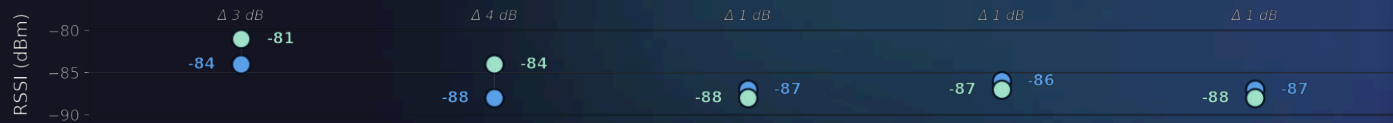


# 6 GHz SP vs 5 GHz - OUTDOOR PERFORMANCE





# 6 GHz SP vs 5 GHz - OUTDOOR PERFORMANCE



6 GHz SP vs 5GHz  
Similar Coverage

Cleaner Band -  
Better Performance



# STANDARD POWER OPERATIONS | VALUE CREATION

**01**

**Expand usable  
6 GHz coverage**

More rooms and edge  
locations

**02**

**Improve QoE  
consistency**

Gaming, video, work-  
from-home and AR/VR -  
Predictable links

**03**

**Reduce support  
friction**

Fewer :  
Dead-zones, Extender  
placement issues,  
Truck rolls

**04**

**Monetize  
Wi-Fi tiers**

Premium Wi-Fi 7, whole-  
home service assurance  
and add-on packages

Standard Power 6 GHz | Whole-home Service Layer



# IMPLICATIONS FOR SERVICE PROVIDERS & ECOSYSTEM

## For ISPs deploying home gateways

- Standard Power readiness varies by OEM design choices - RF architecture and system design
- LPI performance degrades in difficult propagation environments. SP closes 25–35% coverage gap

## For the Wi-Fi ecosystem

- Improved system designs expected to driver better performance
- RF front-ends maturity translates to better whole home high capacity

## For GVP and the mobile future

- Same AFC infrastructure and non-GPS location foundation extend to GVP
- Forward-ready architecture across all device types

**The hardware, the AFC system, and the location solution all exist today  
BEL and GVP extend the foundation**



# AI-powered solutions for simplified network deployment

## BOOTH 117

Technical brief download

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