Sub-Meter Positioning for Mass-Market Mobile

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Where Sub-Meter Demand Comes From

Apple's UWB chip integration (iPhone 11+), Google's emerging UWB-on-Android initiatives, AR/VR positioning (Apple Vision Pro, Meta Quest, emerging XR devices), automotive-app integration (digital-key, automated parking), and emerging mass-market autonomous-mobility (e-scooters, e-bikes, autonomous delivery) all benefit from sub-meter positioning.

Smartphone-class GPS produces 5-10 meter accuracy; sub-meter requires augmentation.

Mesh as the Augmentation Layer

Smartphone UWB chip plus credentialed-marker network plus cooperative-ranging across mobile devices plus optional BLE beacons compose into sub-meter positioning. Marker deployment economics (driven by dual-use highway and warehouse markets) produce augmentation-density sufficient for consumer use.

Apple, Google, Samsung, and emerging device OEMs face the architectural composition layer.

Where Mass-Market Positioning Is Heading

Emerging UWB-everywhere device integration plus emerging marker-deployment substrate plus emerging cooperative-mesh substrate produces a structural shift in mass-market positioning capability.