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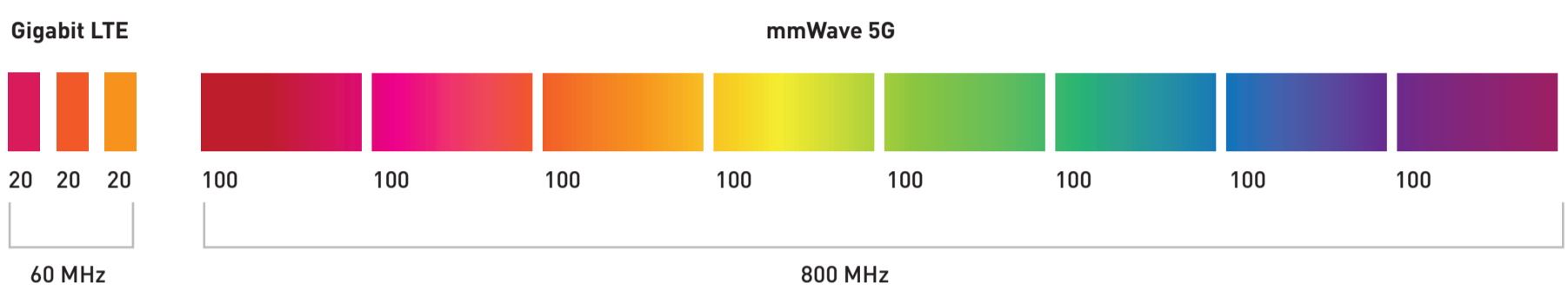
5G MODEM

QUALCOMM TECHNOLOGIES' FIRST 5G MODEM, DESIGNED FOR EARLY 5G NETWORKS

MOBILIZING mmWAVE

Thanks to abundant spectrum in mmWave frequencies previously unavailable for cellular use, mmWave 5G bandwidths can be much larger than what's possible with LTE. The challenge? Transmissions in mmWave can't travel very far. They typically cannot even penetrate a wall.

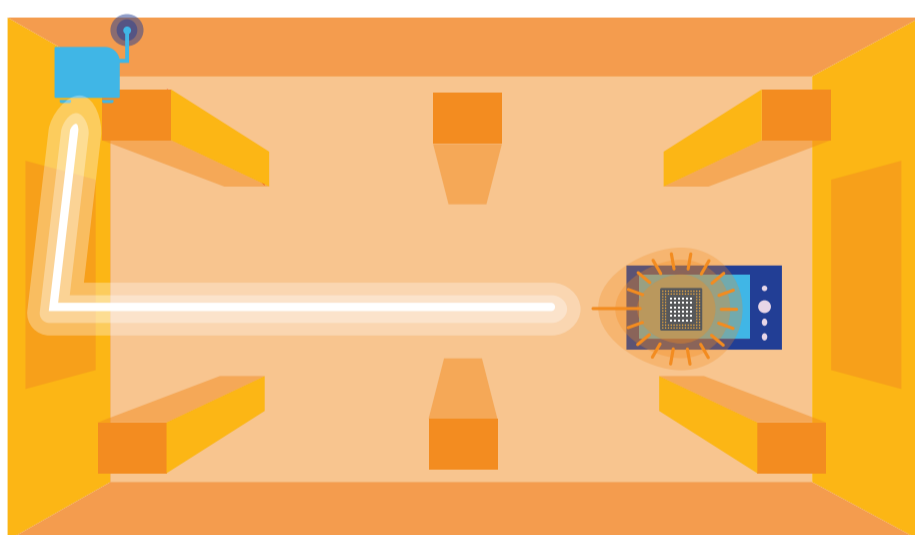
Here's how we can tap the increased capacity of mmWave and mobilize it too.



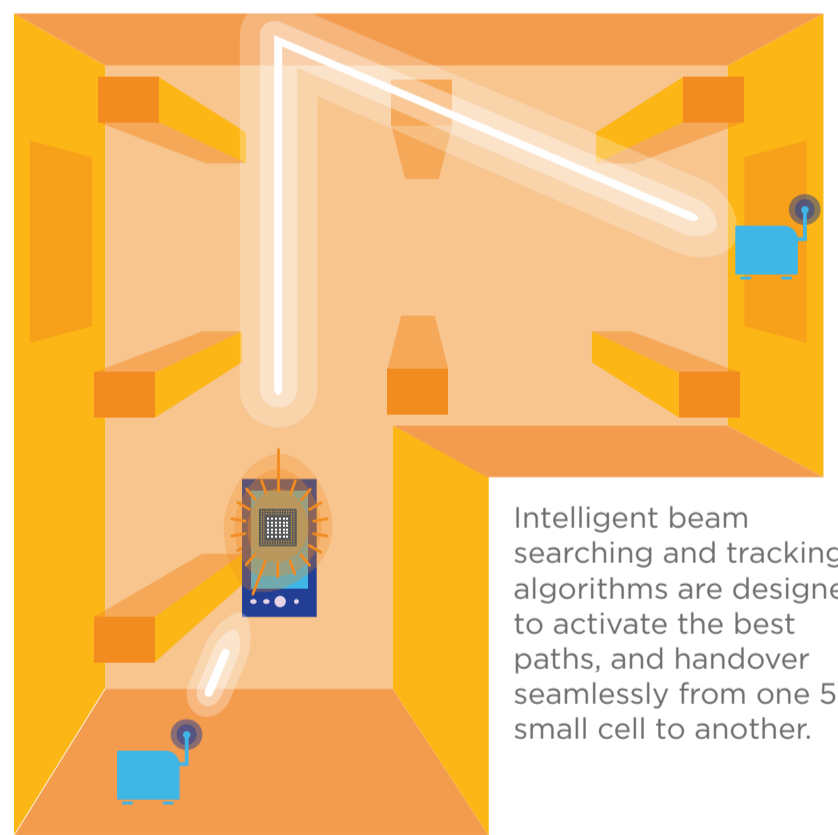
Adaptive beamforming and beam tracking find the best paths for energy to travel between mobile devices and small cells. And when the device moves out of range of the 5G wireless network, the Snapdragon platform is designed to automatically switch to Gigabit LTE, allowing for seamless connectivity.

Small wavelengths at these higher frequencies mean antennas can be made much smaller, so many more of them can be integrated into the device and used together intelligently.

At these extreme wavelengths, narrow, directional beams send and receive more energy, with antennas dynamically directing the energy via the most efficient paths.



What happens when there's no line-of-sight? We can direct energy along non-line-of-sight paths, including bouncing off walls and moving around corners.



Intelligent beam searching and tracking algorithms are designed to activate the best paths, and handover seamlessly from one 5G small cell to another.

Gigabit LTE

mmWave Base Station

As the modem moves out of range of the 5G wireless network, it is designed to switch to Gigabit LTE automatically and provide seamless connectivity.

And yes, it is engineered to work for fixed wireless as well as mobile broadband.



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