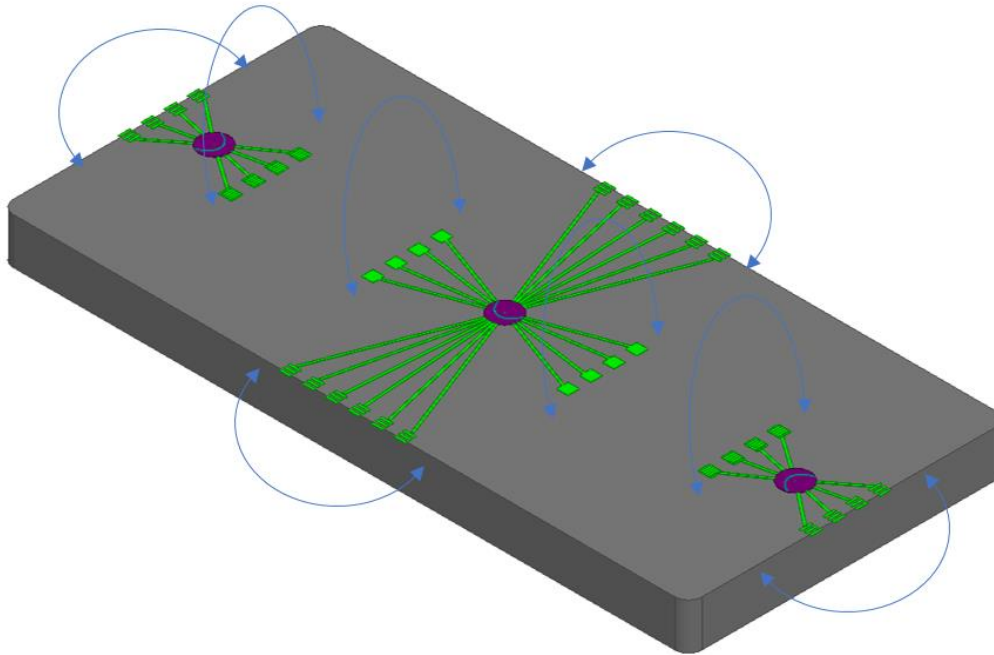


Millimetre wave 5G antennas in smartphones? Problem solved!



28GHz smartphone antenna concept using three plasma silicon devices (PSiD's)

The problem with millimetre waves in smartphones and other mobile devices is humans. Millimetre waves are blocked by fingers, hands, heads and bodies. Plasma Antennas patented Plasma Silicon technology has some unique properties. When used in combination with distributed radiating elements, Plasma Silicon Devices (PSiD's) can be used as a combination switch and beam former to utilise only elements that are able to receive and transmit line of sight or reflected signal.

Whether held in the left or right hand, against the users head, in portrait for video calls, surfing and e.mail, in landscape for video, in landscape, and even with both hands, for gaming. This system will cope and continue to provide the low latency and high throughput necessary for photo realistic AR/MR/VR, 3D gaming and similar demanding applications.

We have recently modelled Plasma Silicon corner antennas as replacements for array modules for our customers. This approach closely represented the publicly available solutions from Qualcomm and Samsung. We saw that there are many handling scenarios that would block the antennas.

The array we now propose solves the problem and brings the intrinsic qualities of Plasma Silicon. Plasma Silicon is very low loss, reducing and consolidating amplification requirements, eliminates phase shifters, needs no calibration and reduces the computation required to form and steer beams.

Find more at plasmaantennas.com