

A new species of millimetre wave 5G antenna from Plasma Antennas.

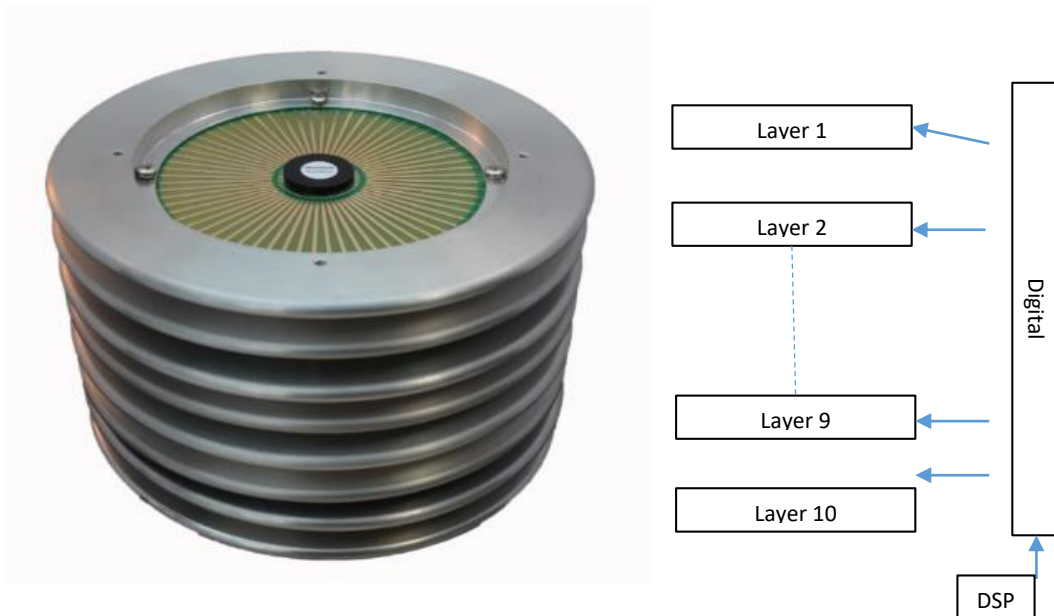


Plasma Antennas 28GHz 5W 16dBi gain 360° field of view beam forming and steering antenna

Time after time at Plasma Antennas we hear that cost and range are the big challenges facing mmWave 5G projects. Plasma Antennas patented Plasma Silicon technology reduces the cost of a 5G base station by 50% (according to our lead customers) by eliminating phase shifters, reducing and consolidating amplification and reducing computation. The image above is our concept for high power (long range), low loss small cell base station antennas for standalone and MIMO 5G, Fixed Wireless Access (FWA), and Connected Vehicle applications. At the heart of the antenna is a Plasma Silicon Device (PSiD) which has no moving parts, and is dynamically reconfigurable as it forms and steers beams. Plasma Silicon technology does not need calibration and can handle practically unlimited power (tested to 40 watts, 100 watt defence applications in concept phase). Plasma Silicon based products are smaller lighter and use less power than equivalent products using current state of the art technology.

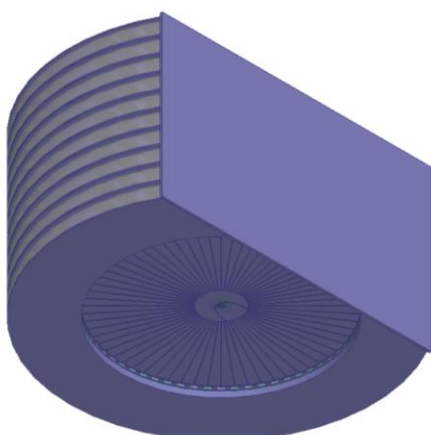
The device pictured above is a 360° field of view beam forming and steering 28GHz 5W 16dbi Plasma Silicon Antenna (PSiAN) useful for pole mounted small cells, indoor small cells, or on a vehicle. It also has an omni mode when it draws no power at all.

These devices can be stacked as in the picture below to be able to form and steer beams in two dimensions (azimuth and elevation), to form multiple beams and MIMO applications.



Plasma Silicon Antenna (PSiAN) stack for 2D, Multibeam and MIMO applications.

180° and 120° fields of view (diagram below) are also popular and make mounting the antenna to a radio simpler.



Plasma Silicon Antenna (PSiAN) stack for 120° and 180° Field of View 2D, Multibeam and MIMO applications.

To find out more visit www.Plasmaantennas.com.