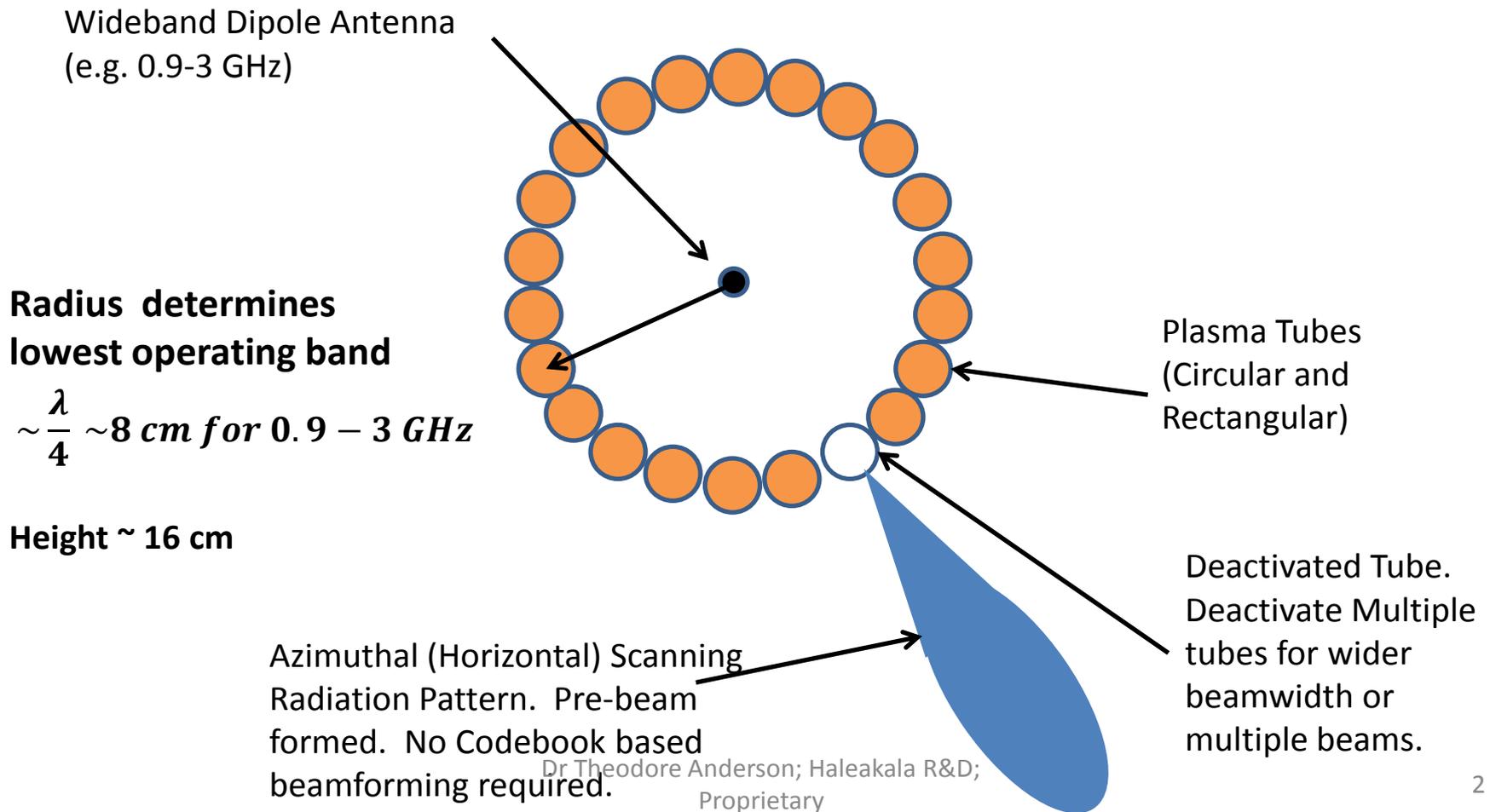




A 1XN VECTOR ARRAY OF SMART PLASMA ANTENNAS THAT SATISFIES BEAMFORMING AND MIMO FOR 5G.

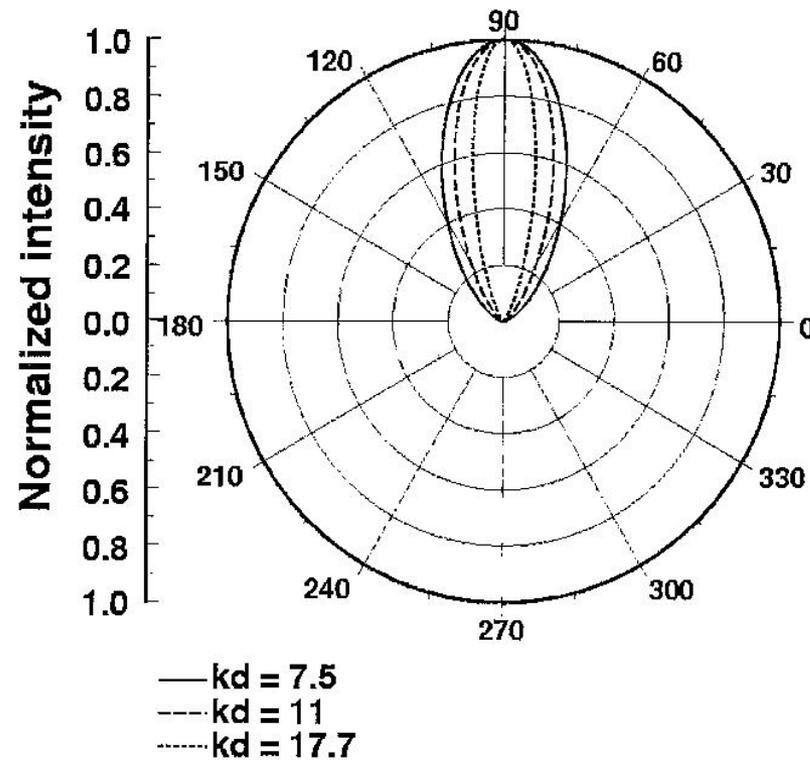
DR. THEODORE ANDERSON

360 Degree Plasma Antenna Top View



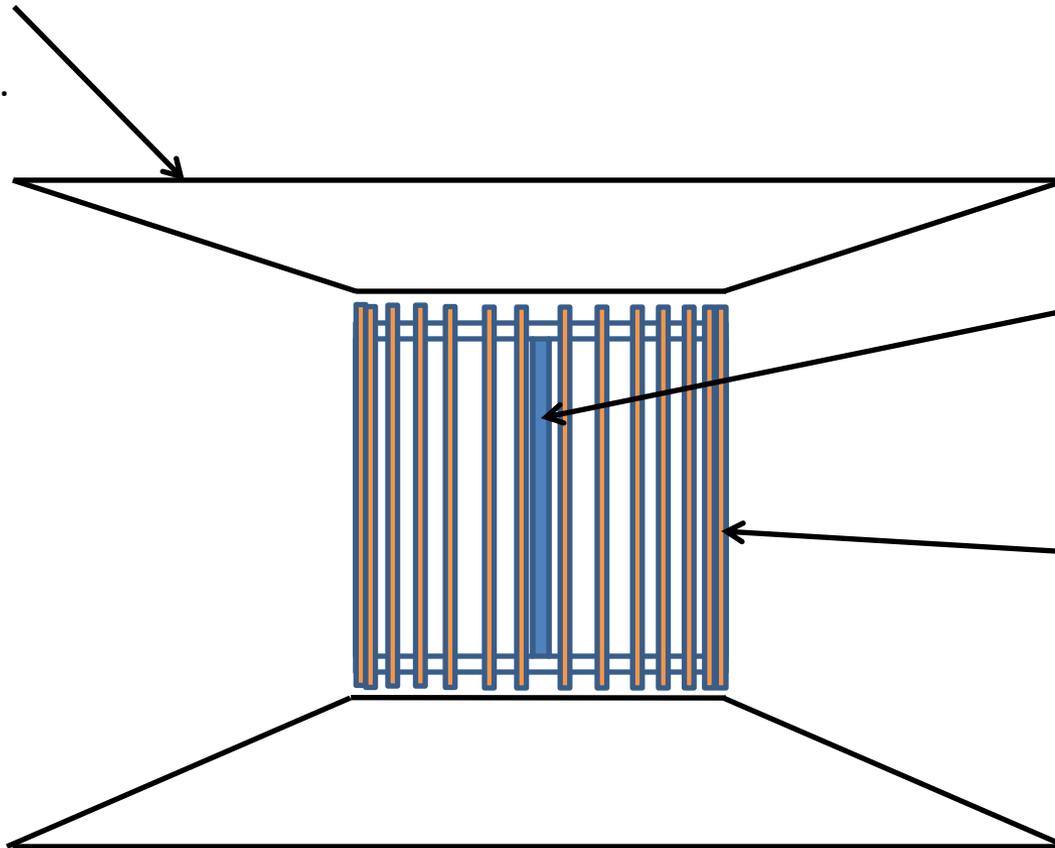
Plasma Antenna Radiation Pattern

Far field radiation pattern for 16 cylinders (one removed)



Plasma Window Antenna Side View

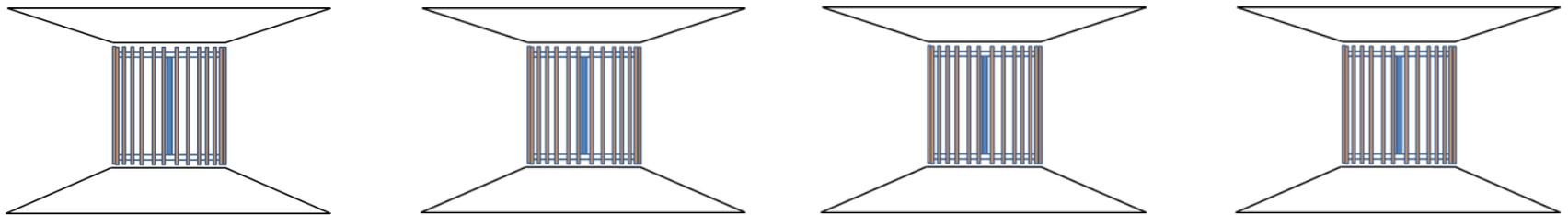
Cones or metal elements for vertical focusing and downward tilt.



Dipole or Phased Collinear Array (longer)

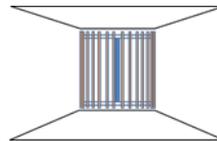
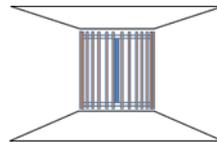
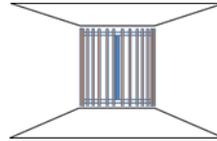
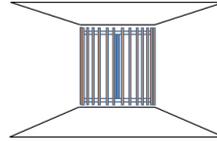
Plasma Tubes, (Quartz and Ceramic)

4x1 MIMO Plasma Window Antenna Linear Array with 360 Degree coverage

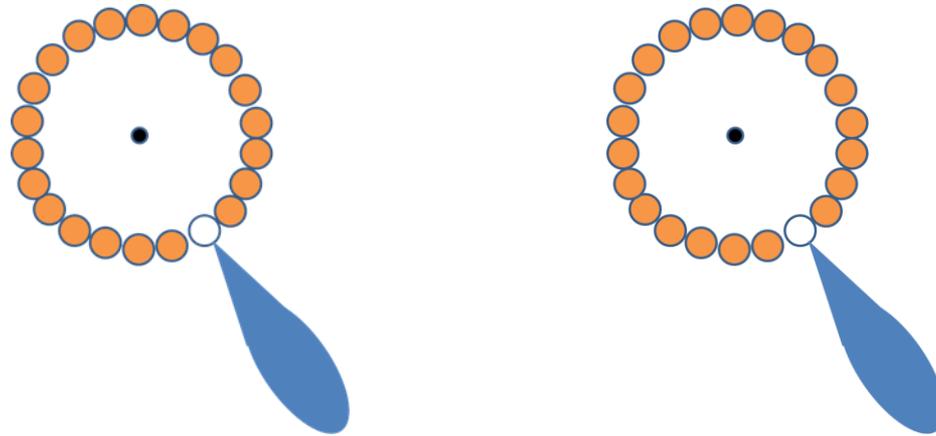


Very low sidelobes and very high Front to Back Ratio permits beams to be directed toward other Plasma Antennas without Coupling/Interference.

1x4 MIMO Plasma Antenna Vertical Array with 360 Degree coverage

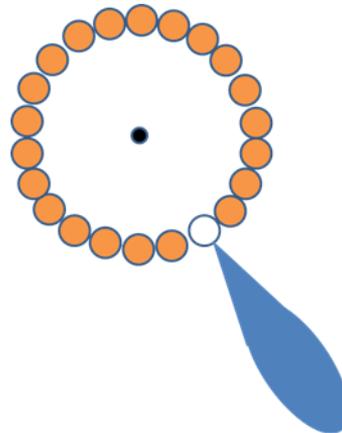


Triangular 3x0 (Circular) MIMO Plasma Window Antenna with 360 Degree Coverage



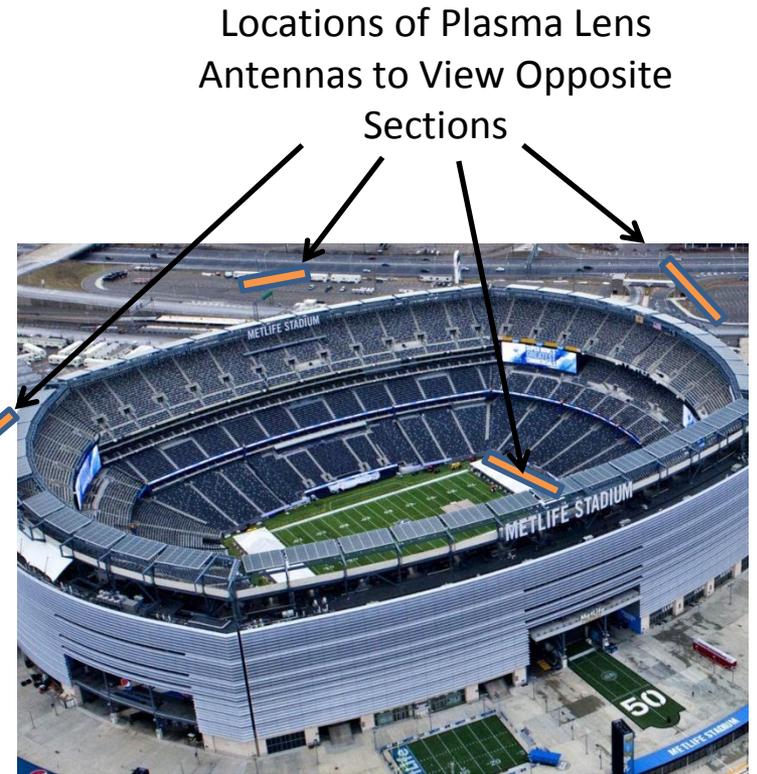
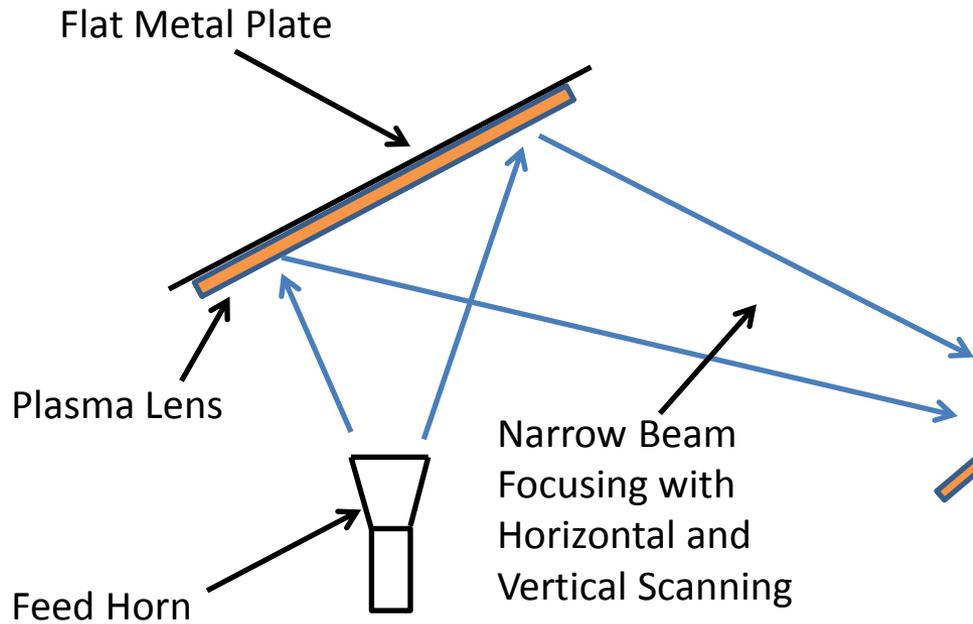
Simplified
Top View

Very low sidelobes and very high Front to Back Ratio permits beams to be directed toward other Plasma Antennas without Coupling/Interference



More Plasma Antennas ,
e.g. 8x0 Circular MIMO

Refraction Focusing Microwave and MMW Plasma Lens Antenna



Multiple Plasma Lenses can be installed on a single plate for MIMO system