

# Agile Beam Radars seek Key MetaLens Antennas

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**Abstract**—This paper addresses key solutions to defense and aerospace system developers’ projects on enabling their radars to have agility in beam coverage now that targets to be detected move from one position to another in the coordinates. They are represented by the work of realizing the function of beam-steering in an on-vehicle radar system together with avoidance of adding a large volume and weight to the payload. To meet these objectives, metamaterial antennas are adopted to secure high directivity and beam-steerability in the antenna system by prohibiting it from being tremendously bigger.

*Keywords*—Radar, Defense, Aerospace, Antenna, Radiated Wave

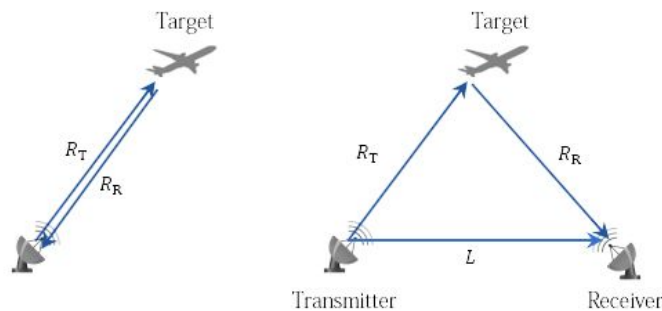


Fig. 1. The sketch of what the radar system does[1]

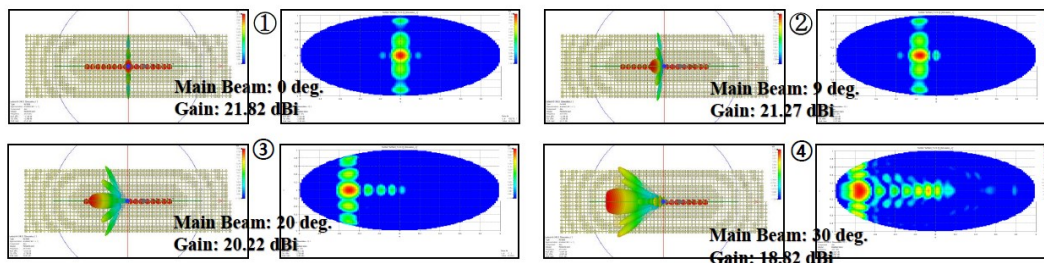


Fig. 2. The proposed antenna as the Metalens

## Acknowledgement

This was also supported by the MSIT (Ministry of Science and ICT), Korea under the ITRC (Information Technology Research Center) support program (IITP-2023-RS-2023-0025906112182103820101) supervised by the IITP (Institute for Information & Communications Technology Planning & Evaluation).

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