

Supporting Information

Integrating Vortex Wave Generation with Broadband Microwave Attenuation

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Supporting Figures

Fig. S1. Preparation of HEA ribbons.

Fig. S2. Three-dimensional bistatic RCS distributions

Fig. S3. Near-field characteristics of the multilayer vortex metasurface.

Fig. S4. Three-dimensional far-field radiation patterns

Supporting Figures

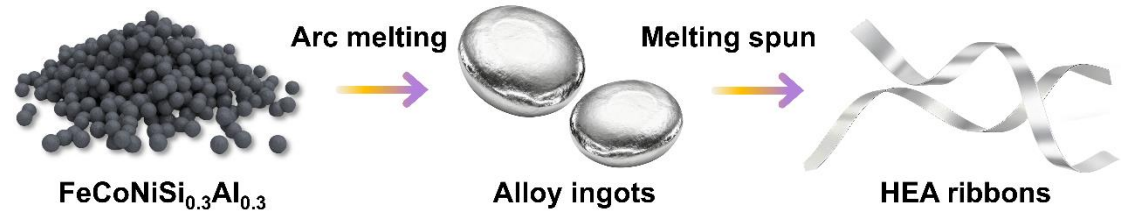


Fig S1. Preparation of HEA ribbons.

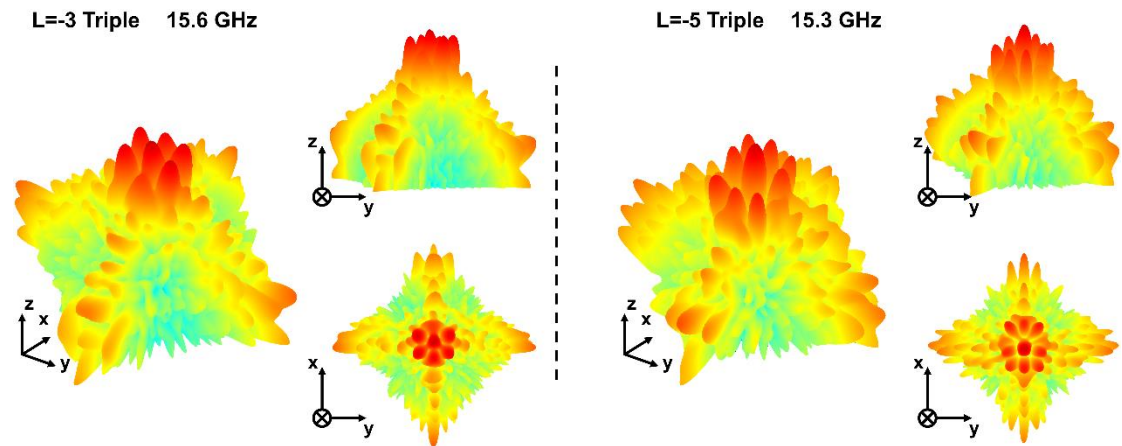


Fig S2. Three-dimensional bistatic RCS distributions at 15.6 GHz for the $l = -3$ MLCGP metasurface and at 15.3 GHz for the $l = -5$ MLCGP metasurface.

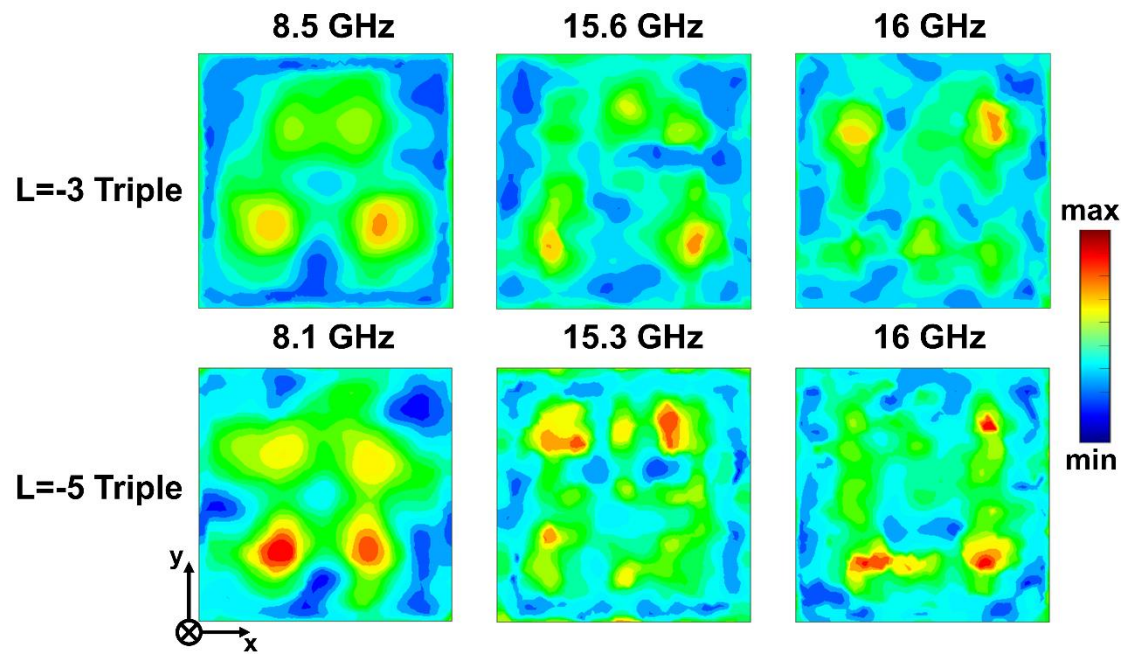


Fig S3. Electric field amplitude distributions in the near-field region for the multilayer vortex metasurfaces with $l = -3$ and $l = -5$.

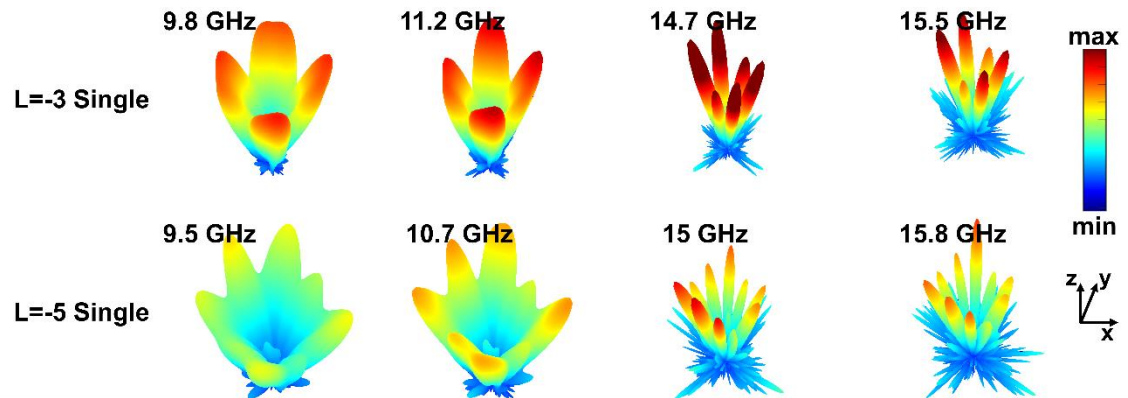


Fig S4. Three-dimensional far-field radiation patterns for the multilayer vortex metasurfaces with $l = -3$ and $l = -5$.