

Figure 1: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the thin MagRAM-coated dielectric plate of width $W = 6$ in at frequency $f = 2.56$ GHz.

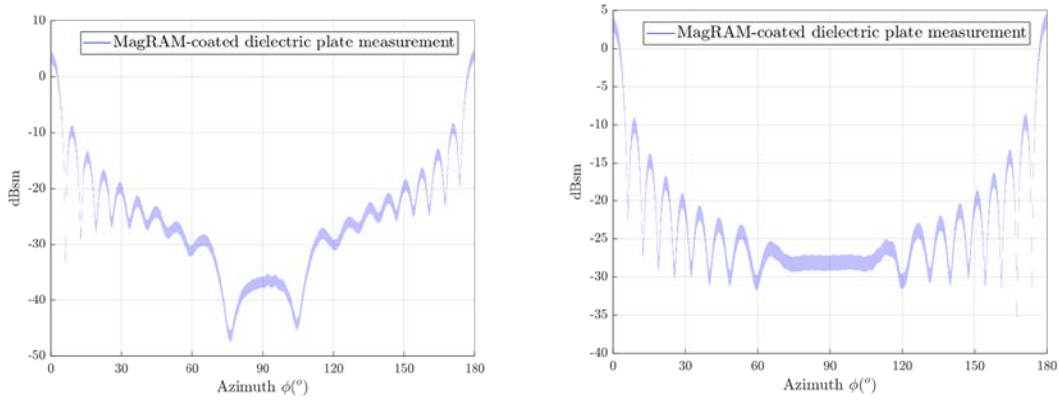


Figure 2: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the thin MagRAM-coated dielectric plate of width $W = 6$ in and frequency $f = 5.12$ GHz.

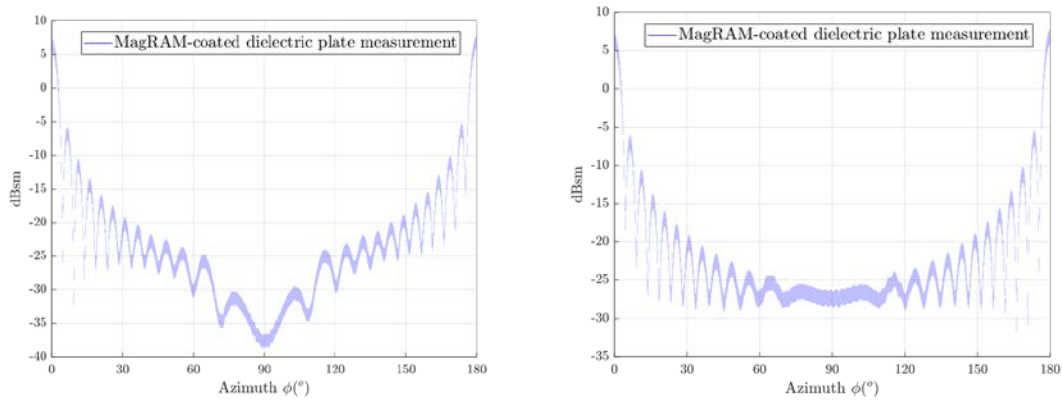


Figure 3: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the thin MagRAM-coated dielectric plate of width $W = 6$ in and frequency $f = 7$ GHz.

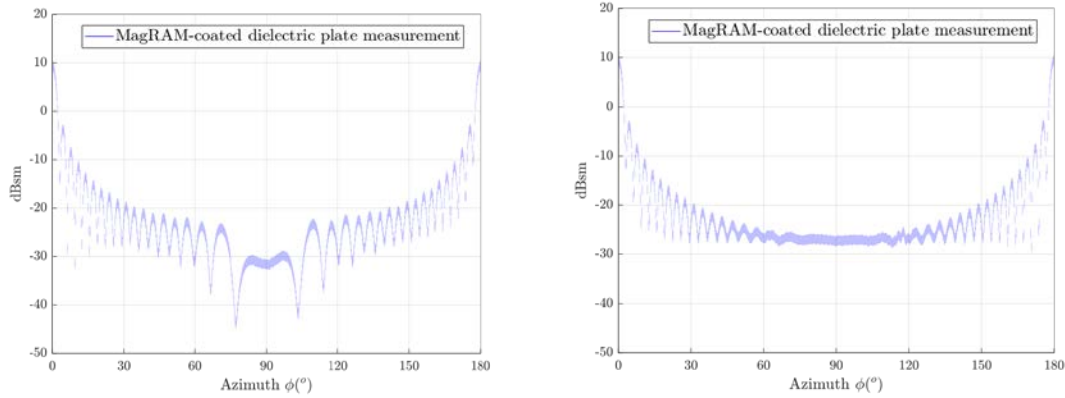


Figure 4: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the thin MagRAM-coated dielectric plate of width $W = 6$ in and frequency $f = 10.24$ GHz.

The above RCS results are that of the reference measurement data in the benchmark suite. The measurement data in the suite are the same as that shown in [1] and are plotted within a ± 1 dB window to represent the measurement uncertainties. Simulation results are currently not available for this problem; thus, until they are corroborated by simulations, the measurement data for this problem set should be considered less reliable than for the others in the benchmark suite.

Notes

1. The measurement data are provided at every 0.25° in the azimuthal range.

References

- [1] J. T. Kelley, D. A. Chamulak, C. Courtney, and A. E. Yilmaz, "Increasing the material diversity in the Austin RCS Benchmark Suite using thin plates," in *Proc. Ant. Meas. Tech. Assoc. (AMTA) Symp.*, Nov. 2020.