

Figure 1: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC almond of length $L = 9.936$ in at frequency $f = 3.5$ GHz.

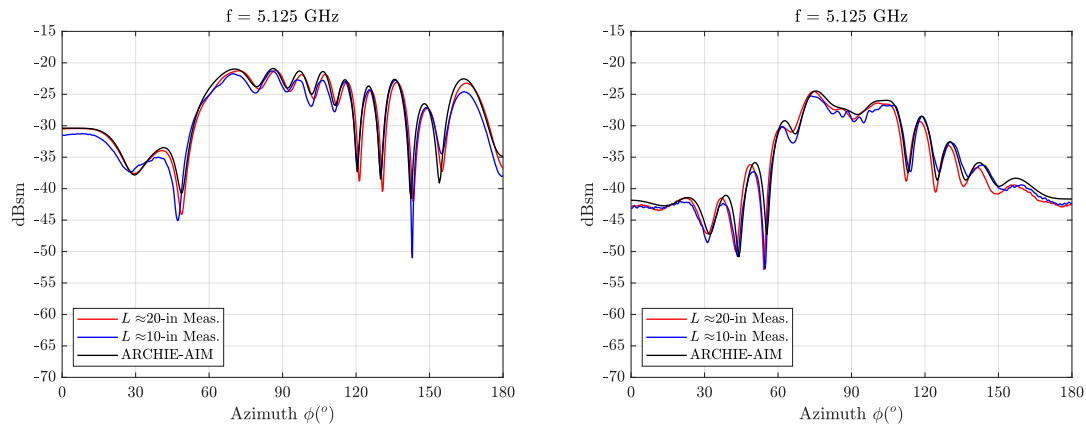


Figure 2: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC almond of length $L = 9.936$ in at frequency $f = 5.125$ GHz.

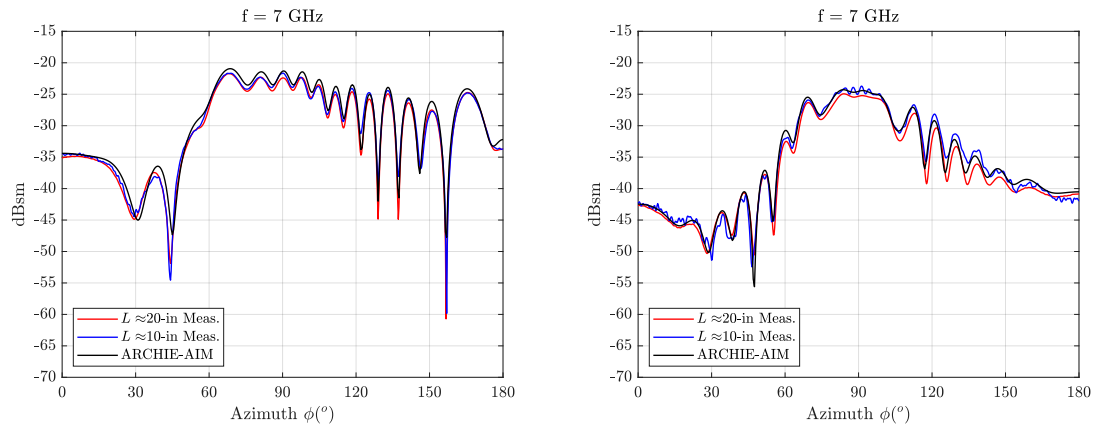


Figure 3: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC almond of length $L = 9.936$ in at frequency $f = 7$ GHz.

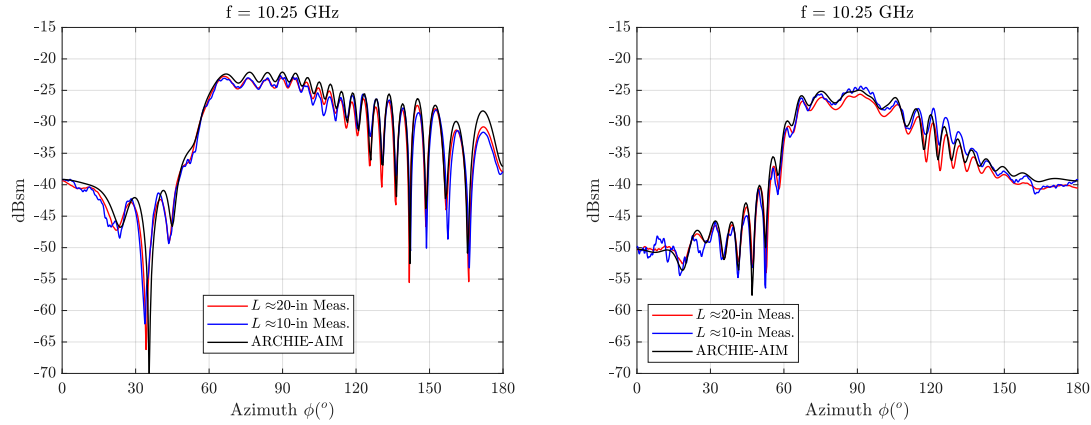


Figure 4: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC almond of length $L = 9.936$ in at frequency $f = 10.25$ GHz.

The above RCS results are that of the reference measurement and simulation data in the benchmark suite. They are the same as those plotted in Figs. 11-12 of [1].

Notes

1. The measurement data are provided at every 0.25° in the azimuthal range; the simulation data are at every 0.5° .
2. The $L \approx 20$ in almond's measurement data were actually obtained at half the frequency of the $L \approx 10$ in almond for each case and shifted down by $10\log 4$ dB [1].
3. The simulation data were calculated by using the ARCHIE-AIM code, a frequency-domain FFT-accelerated integral-equation solver developed at UT Austin [2]-[4], and are the same as the finest mesh (≈ 0.6 -mm average edge length) results in [1].

References

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- [2] M. F. Wu, G. Kaur, and A. E. Yilmaz, "A multiple-grid adaptive integral method for multi-region problems," *IEEE Trans. Antennas Propag.*, vol. 58, no. 5, pp. 1601-1613, May 2010.
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- [4] J. W. Massey, V. Subramanian, C. Liu, and A. E. Yilmaz, "Analyzing UHF band antennas near humans with a fast integral-equation method," in *Proc. EUCAP*, Apr. 2016.