

Figure 1: The HH ($\sigma_{\phi\phi,\text{dB}}$, left) and VV ($\sigma_{\theta\theta,\text{dB}}$, right) polarized RCS for the PEC Closed-Duct Camera Box at frequency $f = 2.56$ GHz.

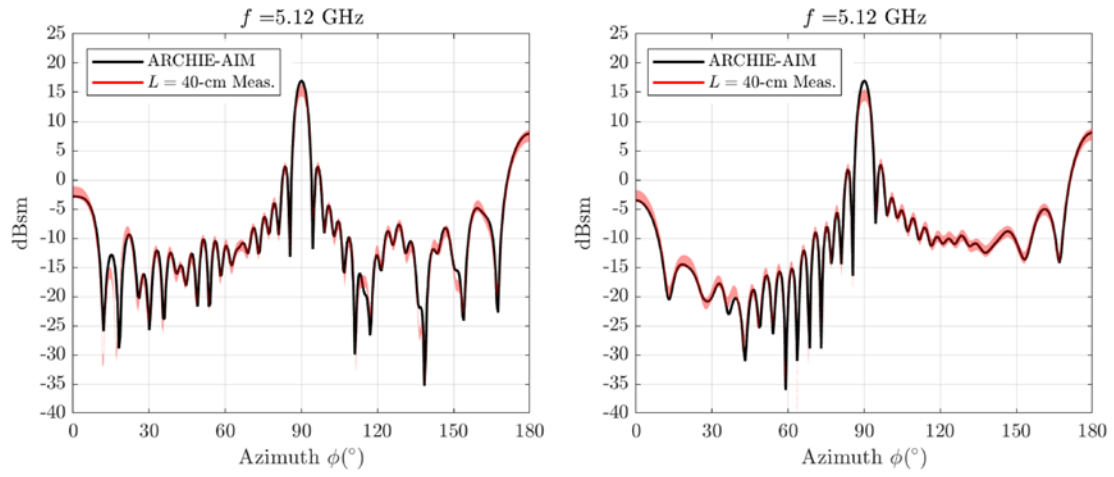


Figure 2: The HH ($\sigma_{\phi\phi,\text{dB}}$, left) and VV ($\sigma_{\theta\theta,\text{dB}}$, right) polarized RCS for the PEC Closed-Duct Camera Box at frequency $f = 5.12$ GHz.

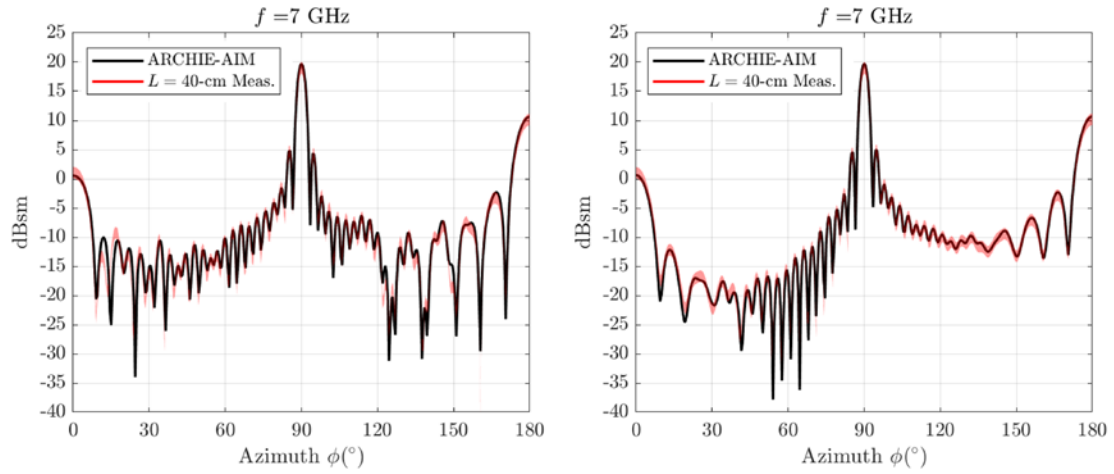


Figure 3: The HH ($\sigma_{\phi\phi,\text{dB}}$, left) and VV ($\sigma_{\theta\theta,\text{dB}}$, right) polarized RCS for the PEC Closed-Duct Camera Box at frequency $f = 7$ GHz.

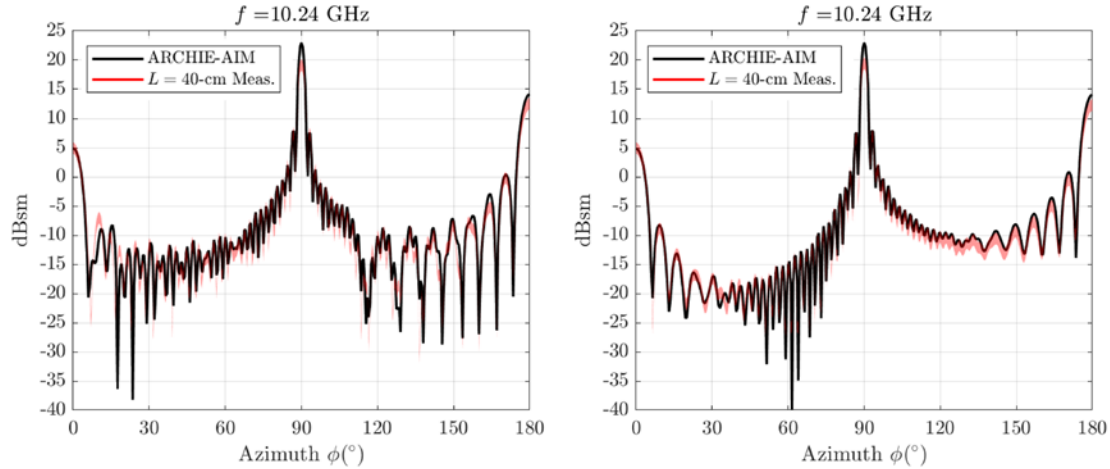


Figure 4: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC Closed-Duct Camera Box at frequency $f = 10.24$ GHz.

The above RCS results are that of the reference measurement and simulation data in the benchmark suite. The measurement data are plotted with a ± 1 dB uncertainty window to represent the measurement uncertainties.

Notes

1. Both the measurement and simulation data are provided at every 0.5° in the azimuthal range.
2. The instrumentation radar used in the measurements were saturated by the high return at 90° for the 10.24 GHz measurement. Thus, the measured RCS values near that look angle are inaccurate. The same phenomenon can be observed in Fig. 3 in [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].

References

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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.