

Figure 1: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC Closed-Duct PRIME of length $L=9.1875$ in at frequency $f=2.58$ GHz.

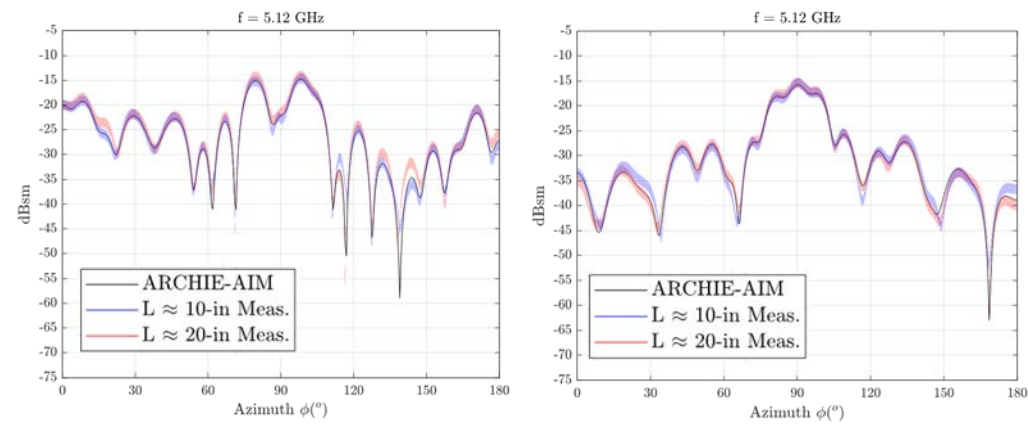


Figure 2: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC Closed-Duct PRIME of length $L=9.1875$ in at frequency $f=5.12$ GHz.

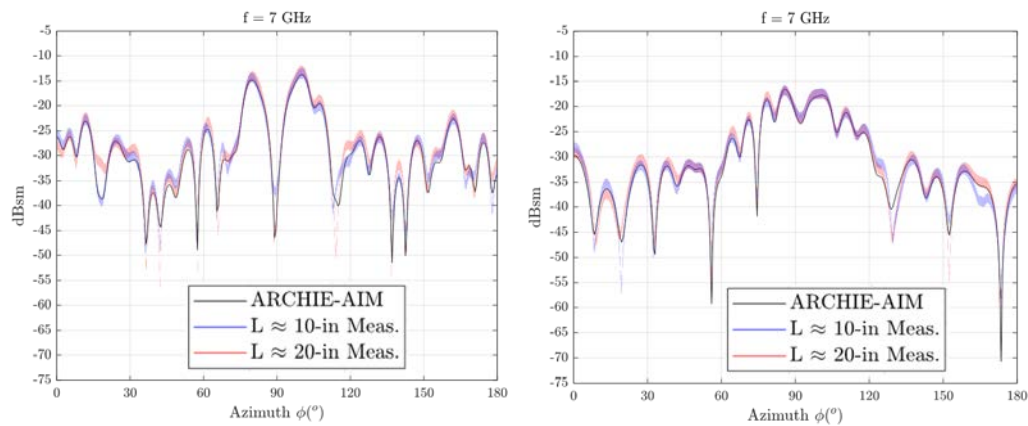


Figure 3: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC Closed-Duct PRIME of length $L=9.1875$ in at frequency $f=7$ GHz.

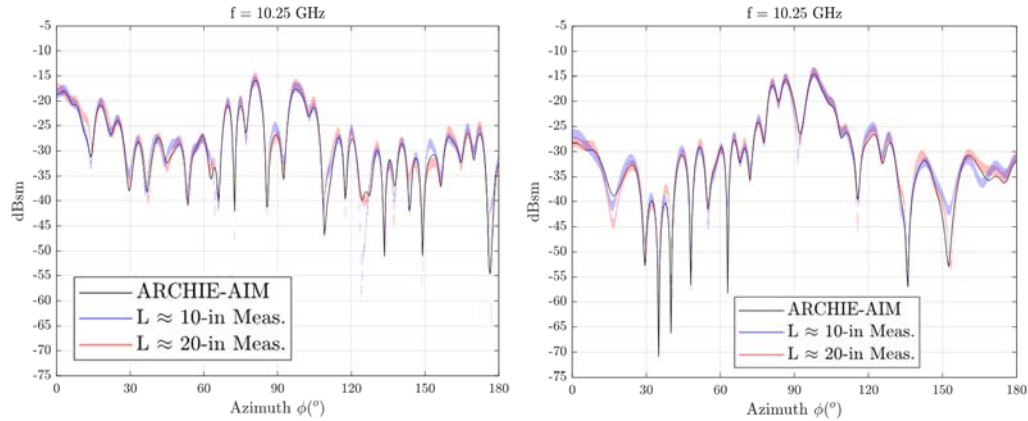


Figure 4: The HH ($\sigma_{\phi\phi}$, dB, left) and VV ($\sigma_{\theta\theta}$, dB, right) polarized RCS for the PEC Closed-Duct PRIME of length $L=9.1875$ in at frequency $f=10.25$ GHz.

The above RCS results are that of the reference measurement and simulation data in the benchmark suite.

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 Closed-Duct PRIME measurement data were actually obtained at half the frequency of the $L \approx 10$ -in Closed-Duct PRIME 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].

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.