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Characterizing 5G Leakage on Passive Weather Sensing Spectrum Bands

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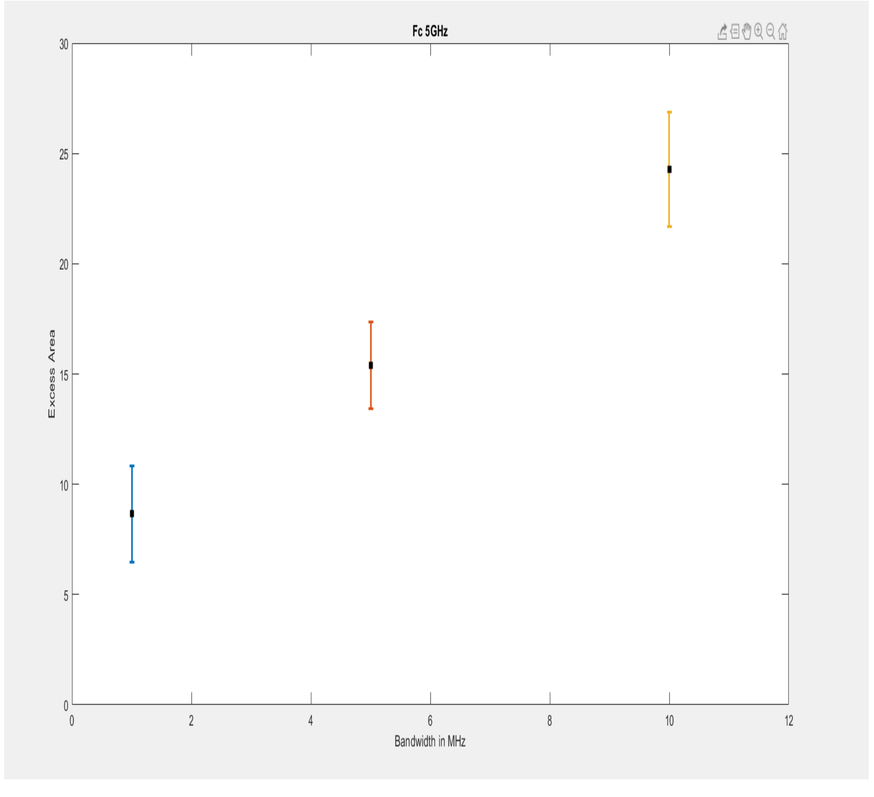
Objective

- Weather Sensing is currently done at 23.8 GHz.
- 5G will use frequencies near there.
- General goal of the project is to measure how much leakage from 5G might affect that band
- Specifically wanted to analyze how sampling rate affects leakage

Experiment Overview

- Done at 5 GHz because transmitter wasn't available
- 20 runs of each sampling rate and 16 control runs of just noise
- Showed a clear increase in leakage as sampling rate increased

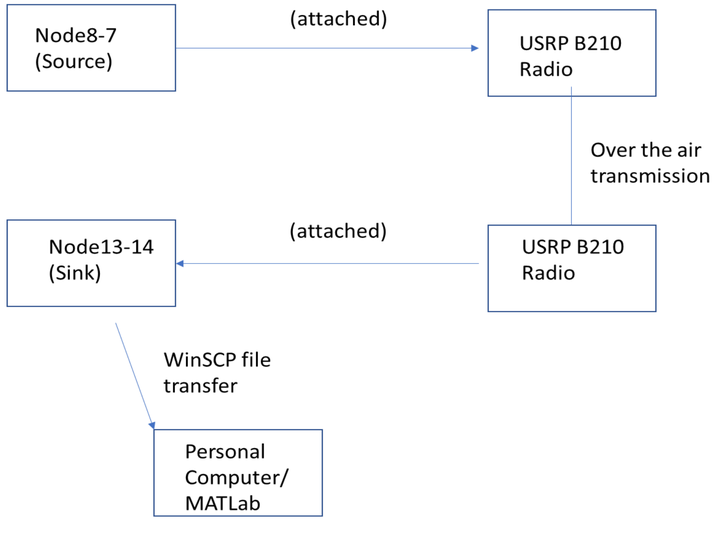
Experiment Result



Next Steps

- Perform the same Experiment at 25-30 GHz and mark the impact at 23.8 GHz
- Work with weather predicting services to determine how that might affect them and what can be done to minimize problems.

Experiment Layout



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