

Summary of Low-Band Residuals

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Summary

Here we show residuals of Low-Band averages over GHA 6-18 Hrs using different number of polynomial terms and over different frequency ranges.

The purpose is to compare the residuals between the two Low-Band instruments, and their different calibrations and states, as well as the evolution with GHA.

We process six cases:

1. low-band 1, calibration 2015, original ground plane
2. low-band 1, calibration 2015, extended ground plane
3. low-band 1, calibration 2017 over 50-100 MHz
4. low-band 1, calibration 2017 over 50-120 MHz
5. low-band 2, calibration 2017, orientation NS
6. low-band 2, calibration 2017, orientation EW

In all cases, the full calibration procedure has been applied, including receiver, antenna S11, losses, and beam chromaticity.

Summary of residuals

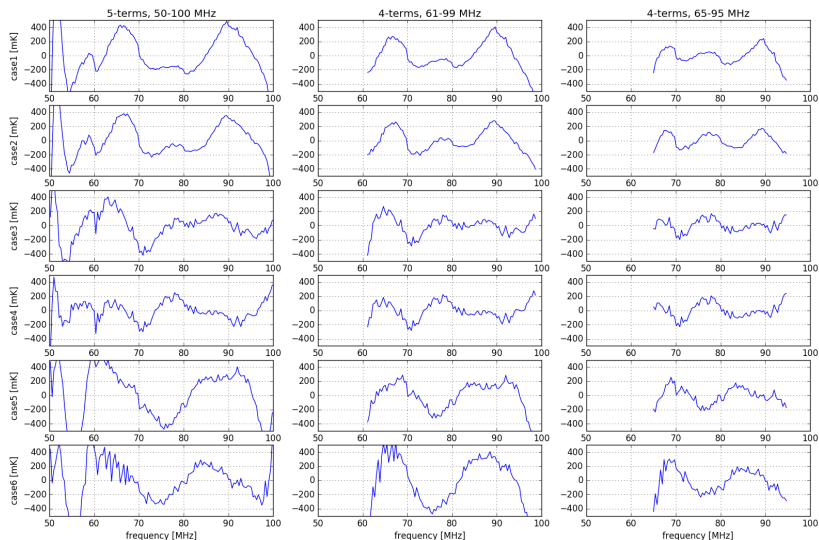


Figure: (1) Residuals for averages over GHA 6-18 Hrs.

CASE 1: Low-Band 1, Calibration 2015, Original Ground Plane

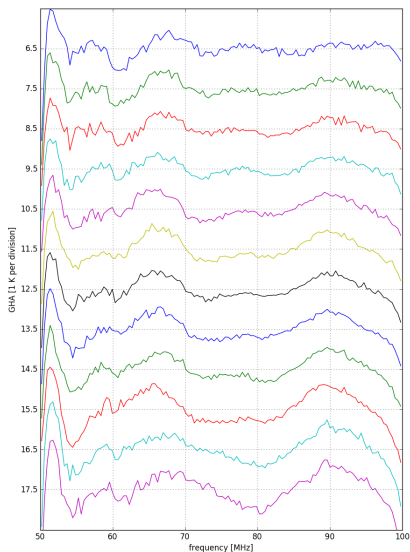


Figure: (2) Residuals as a function of GHA, to 5-term polynomial fit.

CASE 3: Low-Band 1, Calibration 2017 50-100 MHz, Extended Ground Plane

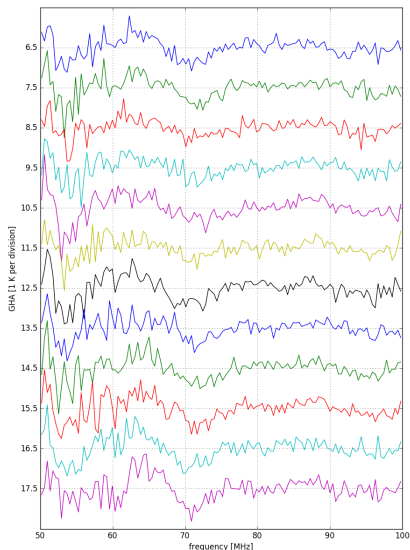


Figure: (3) Residuals as a function of GHA, to 5-term polynomial fit.

CASE 6: Low-Band 2, EW Orientation

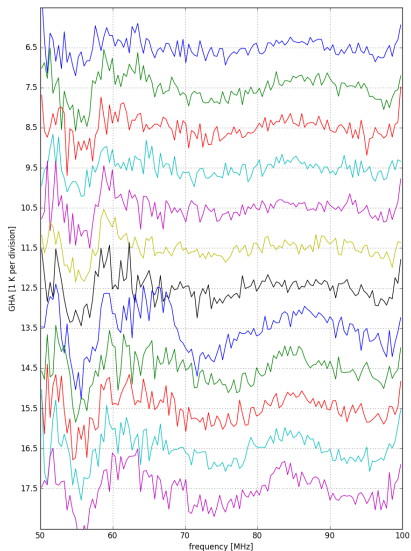


Figure: (4) Residuals as a function of GHA, to 5-term polynomial fit.