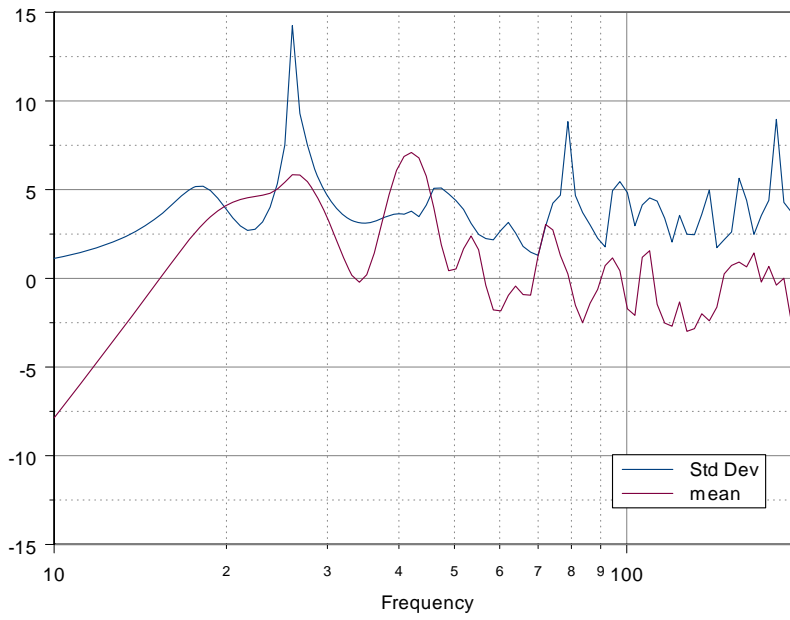
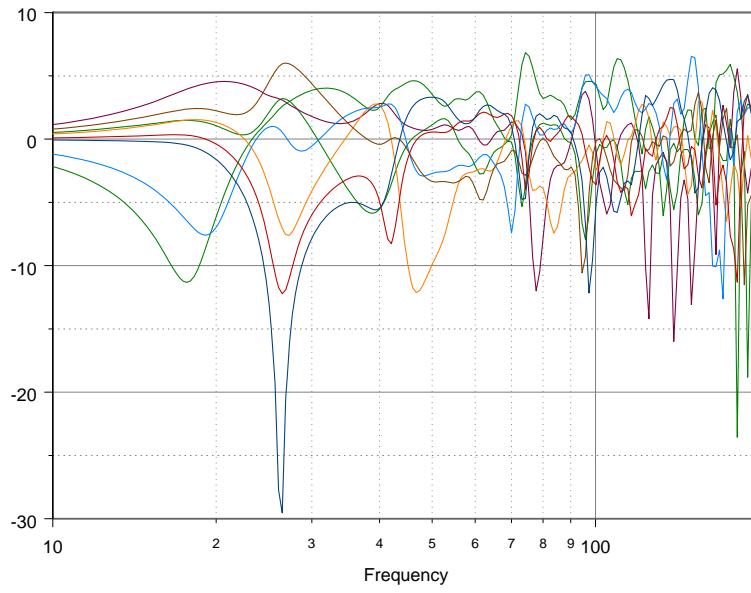


This paper contains only raw data. The first plot for each source type and location is the frequency response at each seating location. Each source has been "EQ'd" to yield a mean of 0 dB at every frequency for the mean of all the seating locations. This then is basically a flat power response in the room from each source. The second plot shows the EQ'd required for a flat power response as the lower curve and the upper curve is the variance across the seating locations at each frequency. The most important data is summarized in the table at the end.

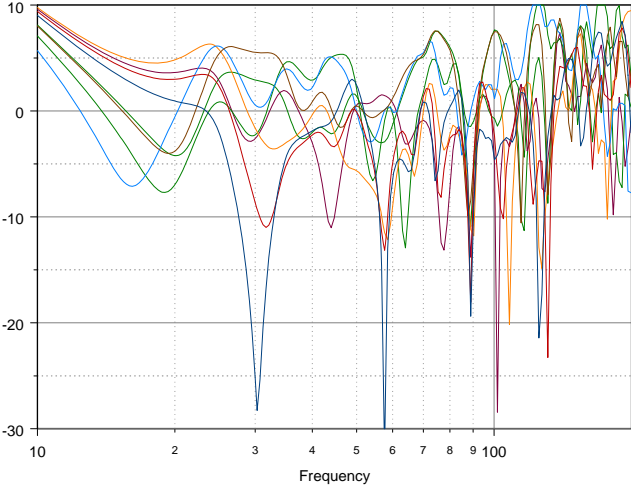
In the table the Total Variance is the "smoothness" of the frequency response for each source type and location. The Spatial Variance shows how sensitive the different seating locations are, i.e. how much they differ from the mean or power curve.

As you can see, there is no statistical difference in any of these sources, although some locations are clear better for some sources. But these being an "ideal room" one cannot expect that in a real room you will get the results shown.

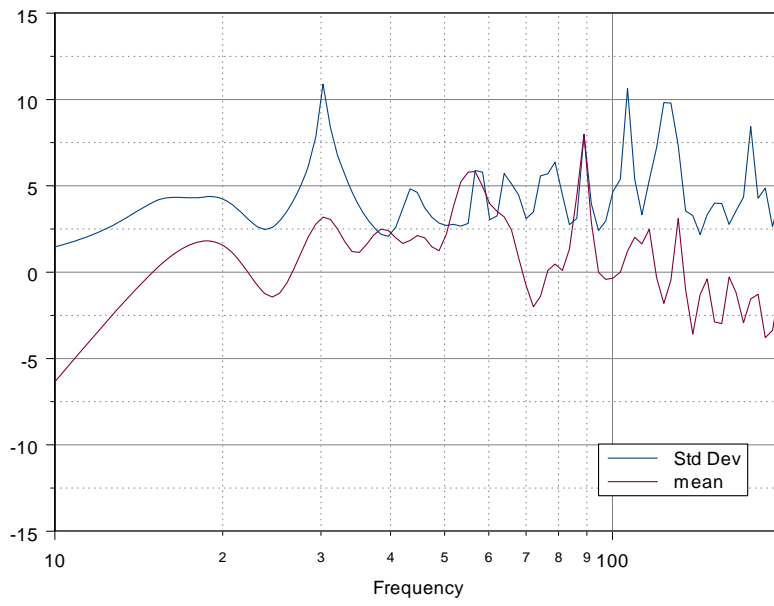
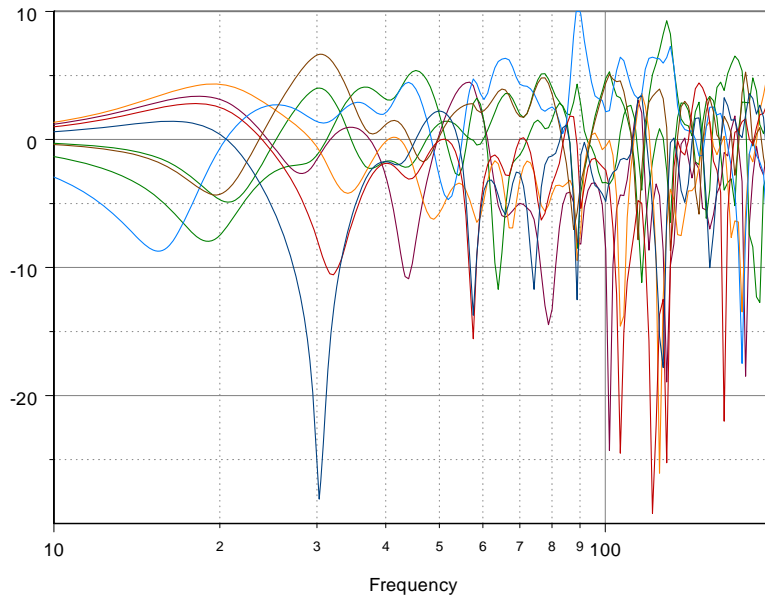
# Monopole along side wall normalized



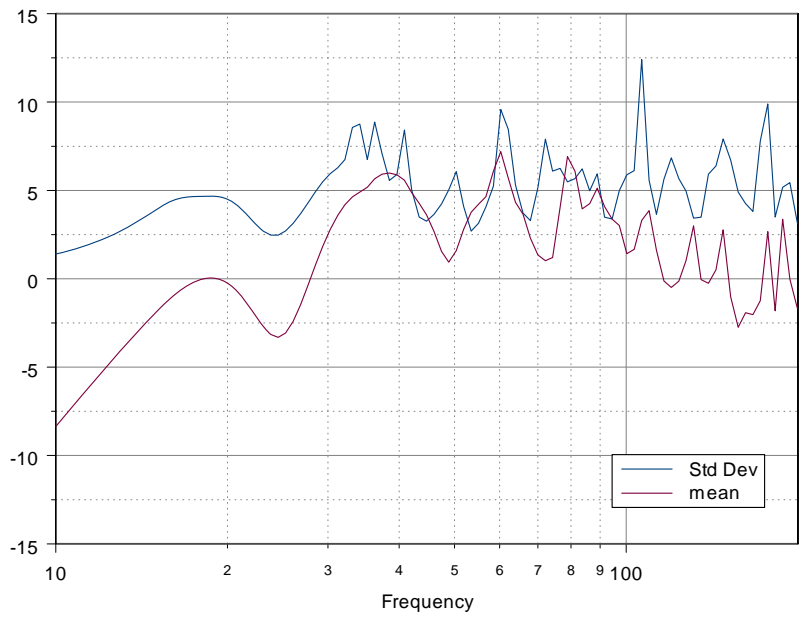
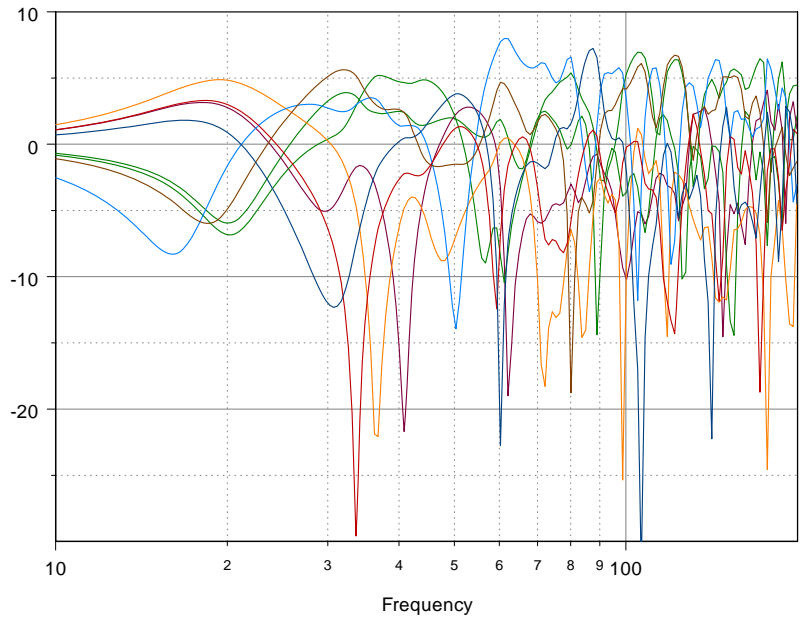
Monopole – corner unnormalized



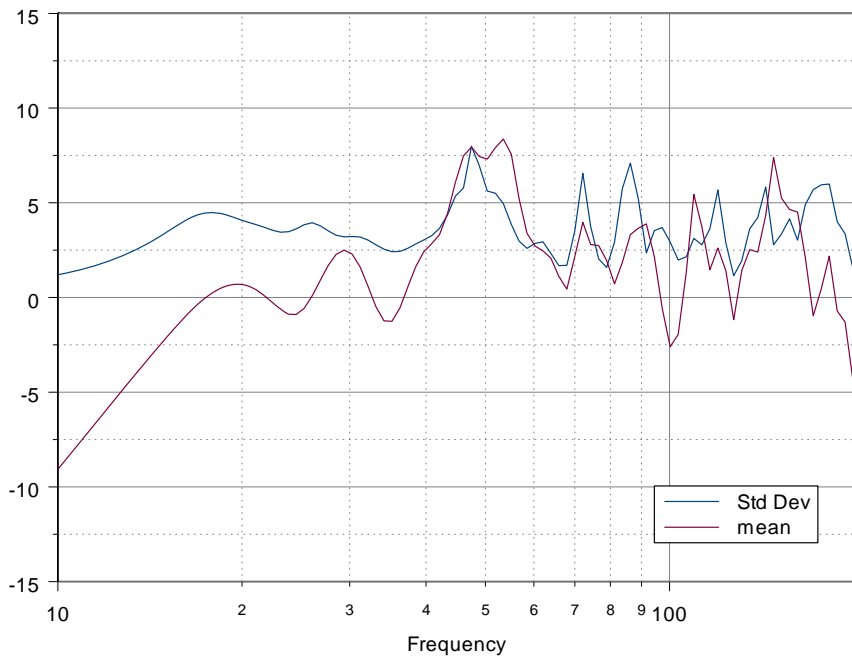
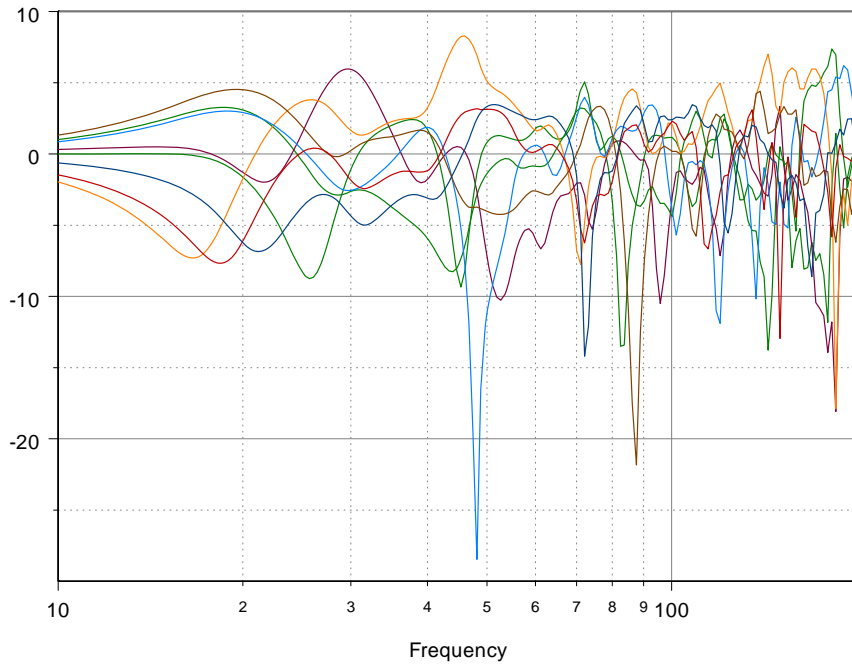
Monopole corner – normalized



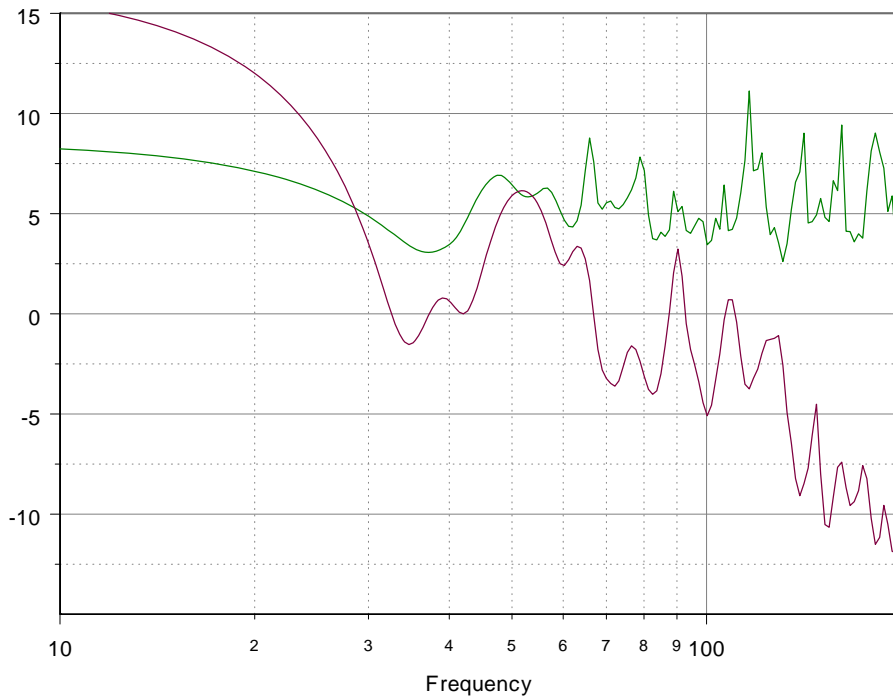
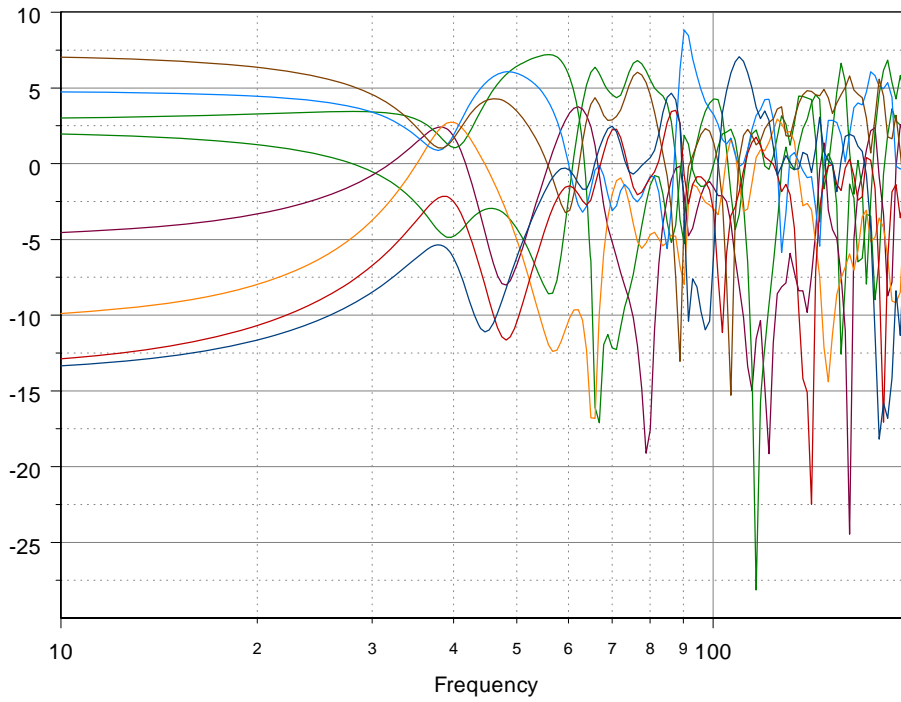
# Monopole front wall



Monopole along side wall, elevated to ear level

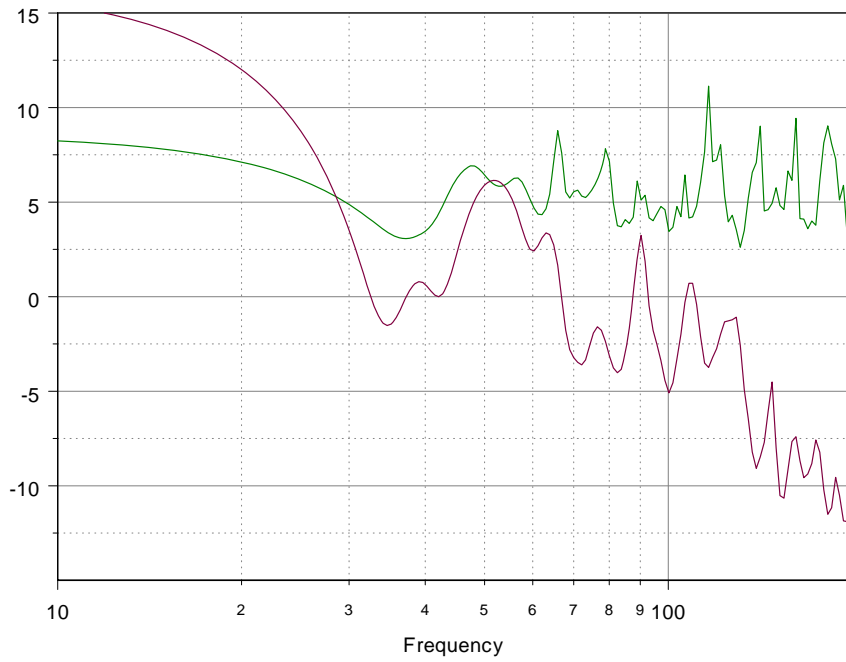
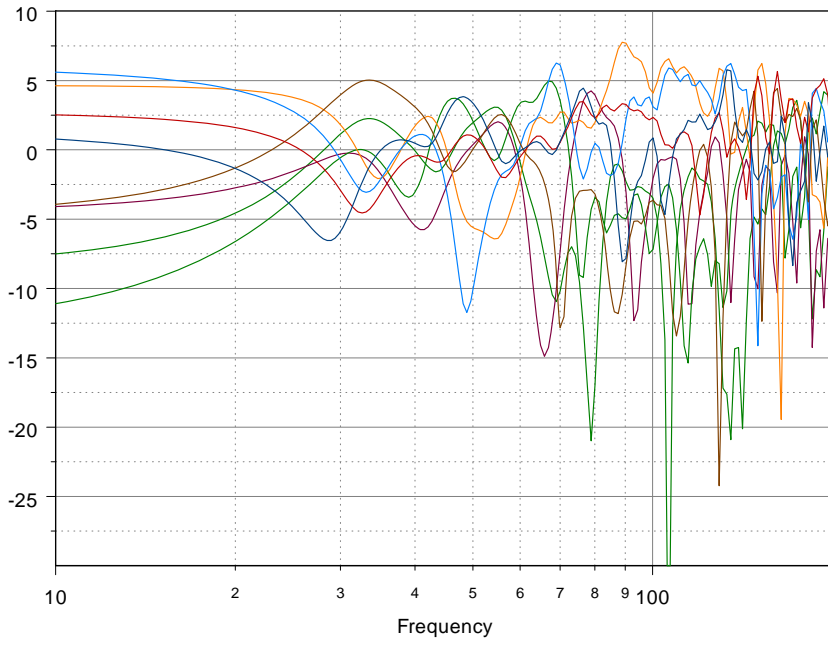


Dipole front wall

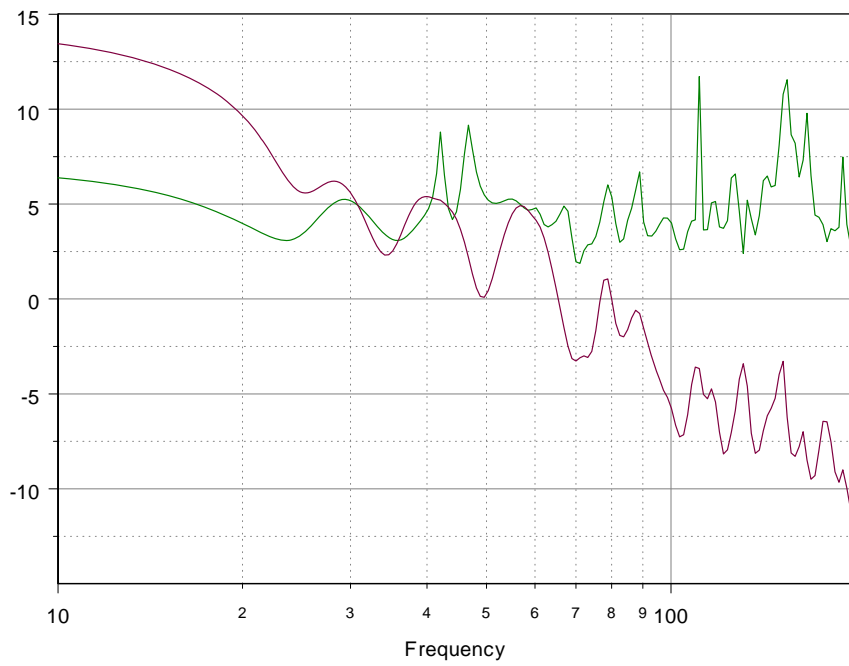
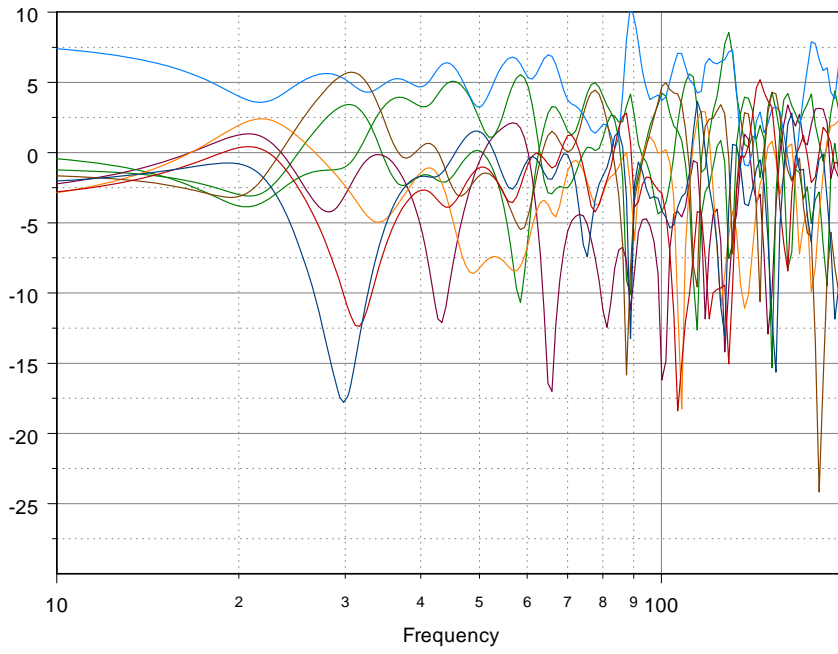




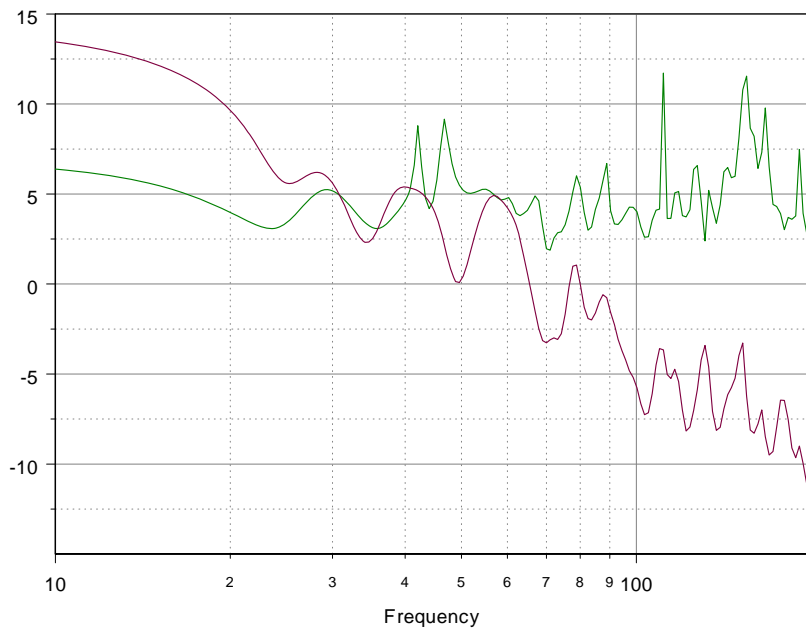
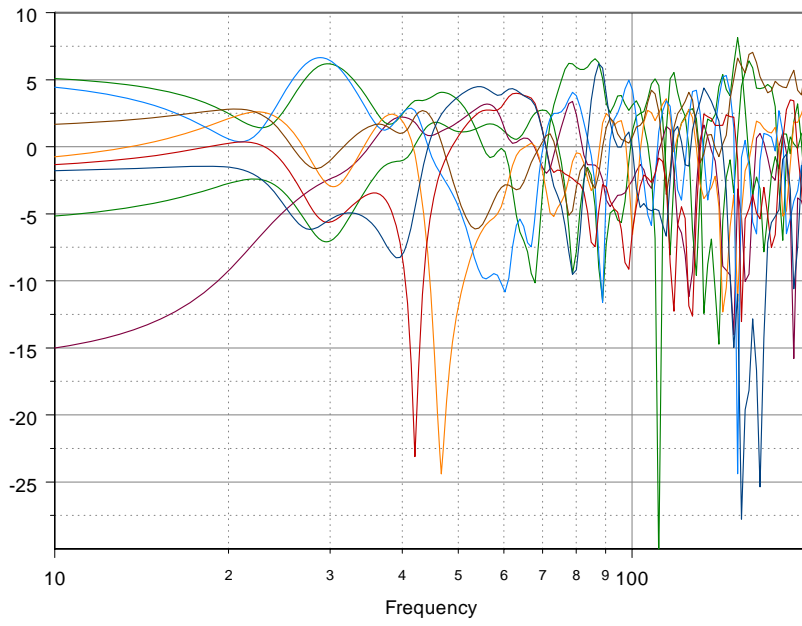
Dipole – side wall



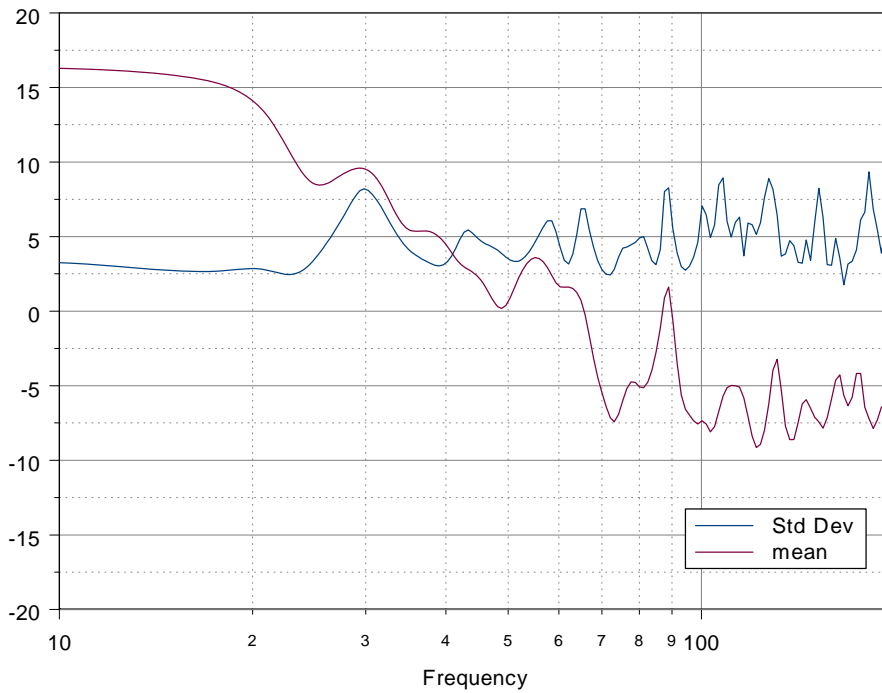
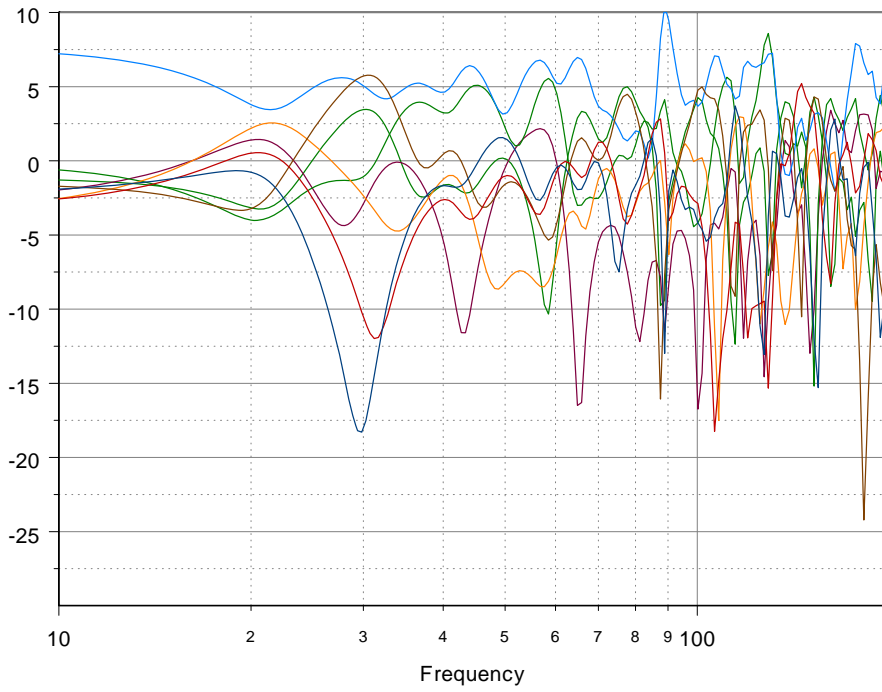
Dipole out from corner, axis 45°



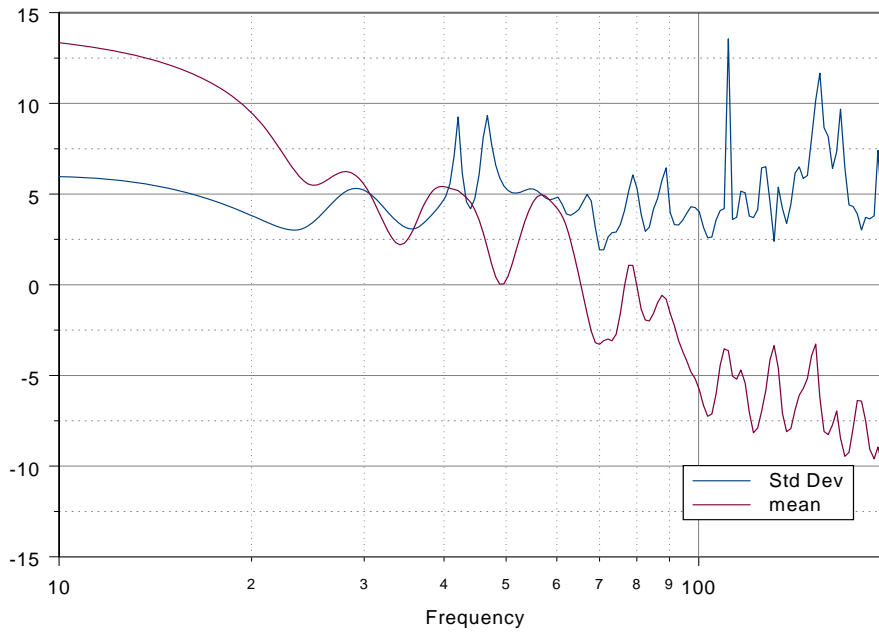
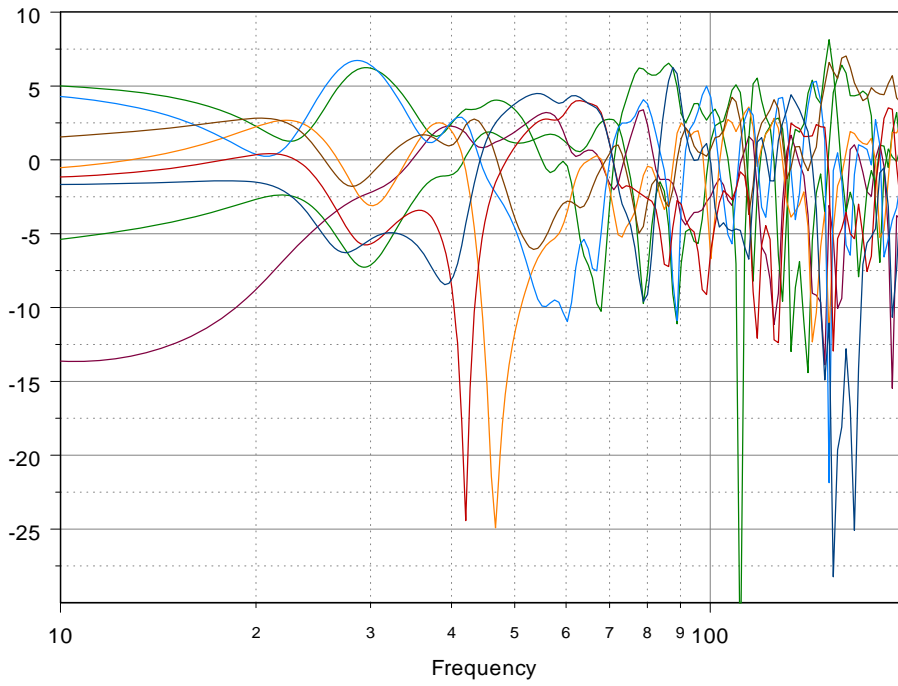
Dipole near corner, axis  $-45^\circ$



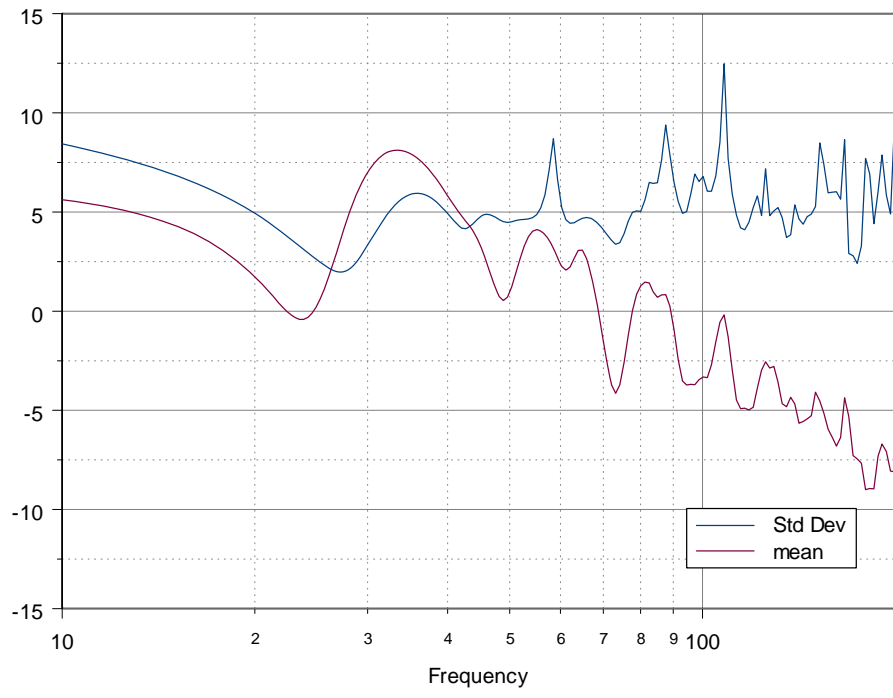
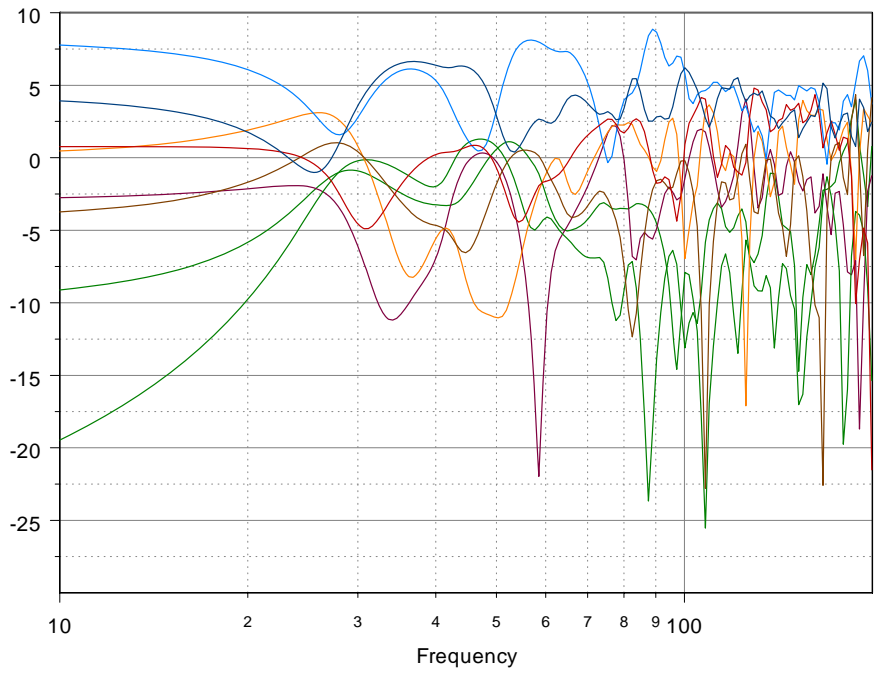
Cardiod near corner 45°



Cardiod near corner 90°



# Cardiod side wall



Cardiod – front wall

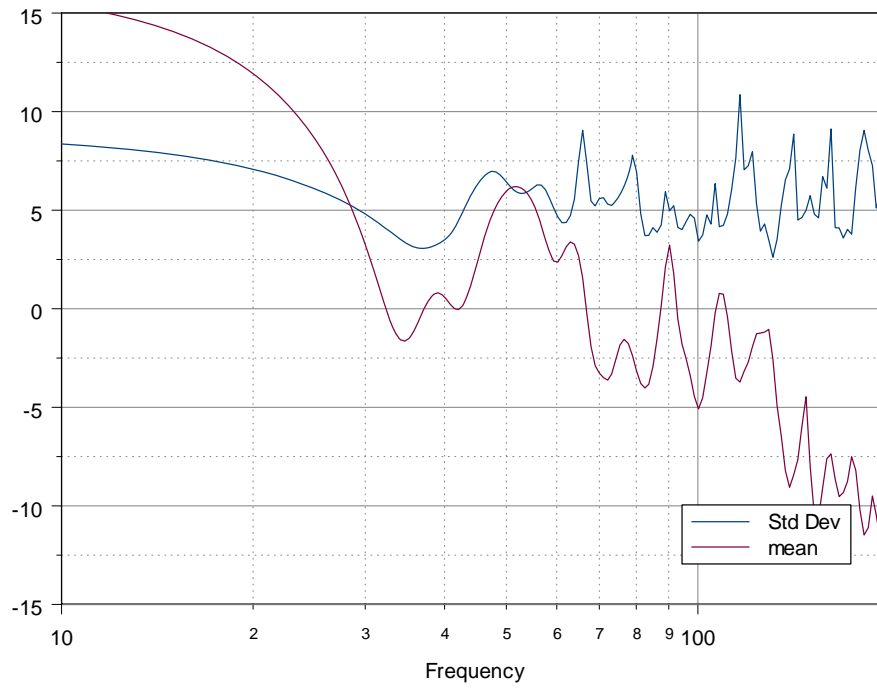
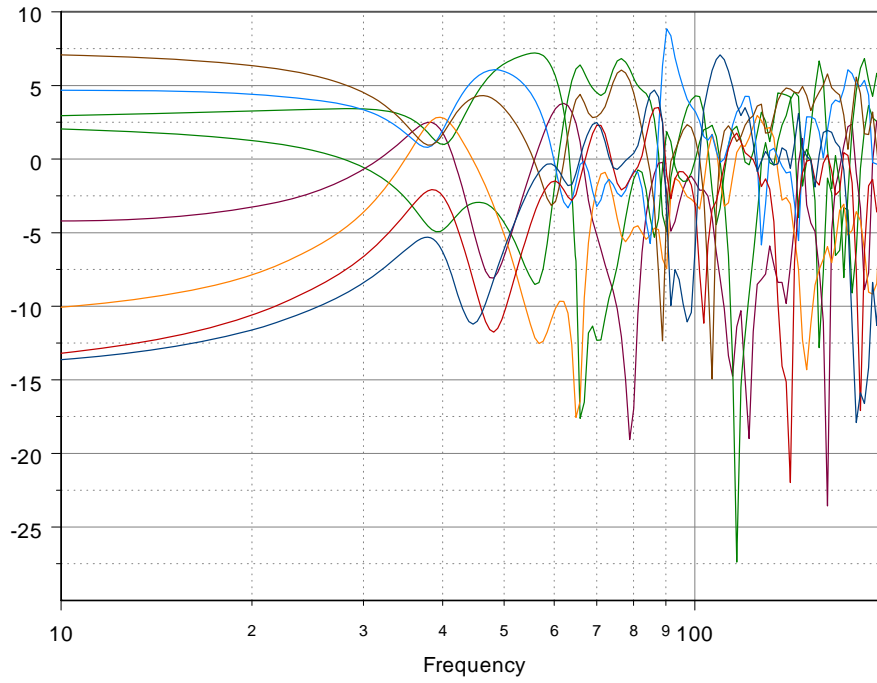


Table of data - Total Variance is the average variance across frequency from the mean response.  
 Variance in Space is the variance of the frequency response at the seating locations

source	Place	Total Variance	Variance in space
Mono	corner	4.31	.971
Mono	Side wall	3.65	.769
Mono	Front wall	4.69	.977
Mono	Side wall high	3.58	.47
MONO	ALL	4.06	.53
dipole	Front wall	4.13	1.099
dipole	sidewall	3.83	1.108
dipole	Near corner	3.49	.773
Dipole	Near corner rotated 90°	4.3	.932
DIPOLE	ALL	3.94	.36
cardiod	Near corner	3.51	.785
Cardiod	Near corner rotated 90°	4.310	.87
Cardiod	Side wall	3.47	1.33
Cardiod	Front wall	4.33	1.11
CARDIOD	ALL	3.91	.48