

AFMG Reflex Report



Creation date: 26/08/2012
AFMG Reflex Version: 1.0.6

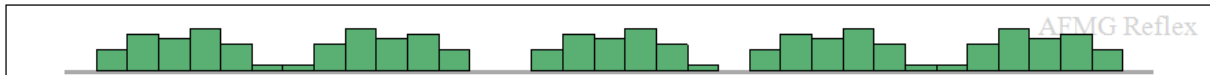
1. Models

1.1 New Model6

1.1.1 Description

Optimized Stepped Diffuser B2-LF (array of 5 modules)

1.1.2 Model Outline

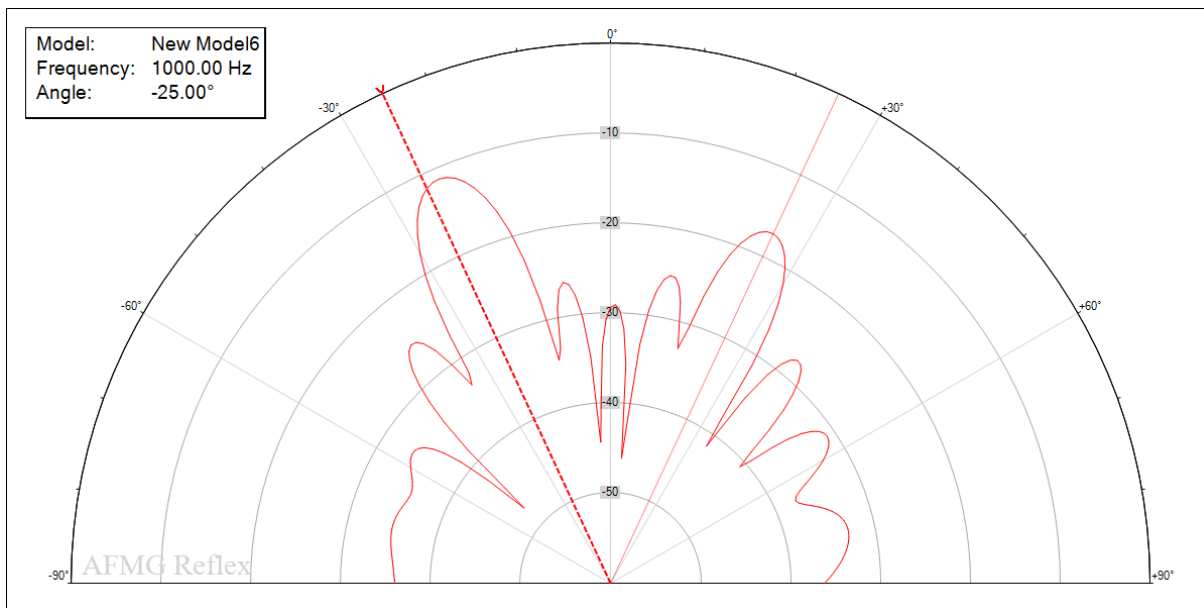


Model Outline

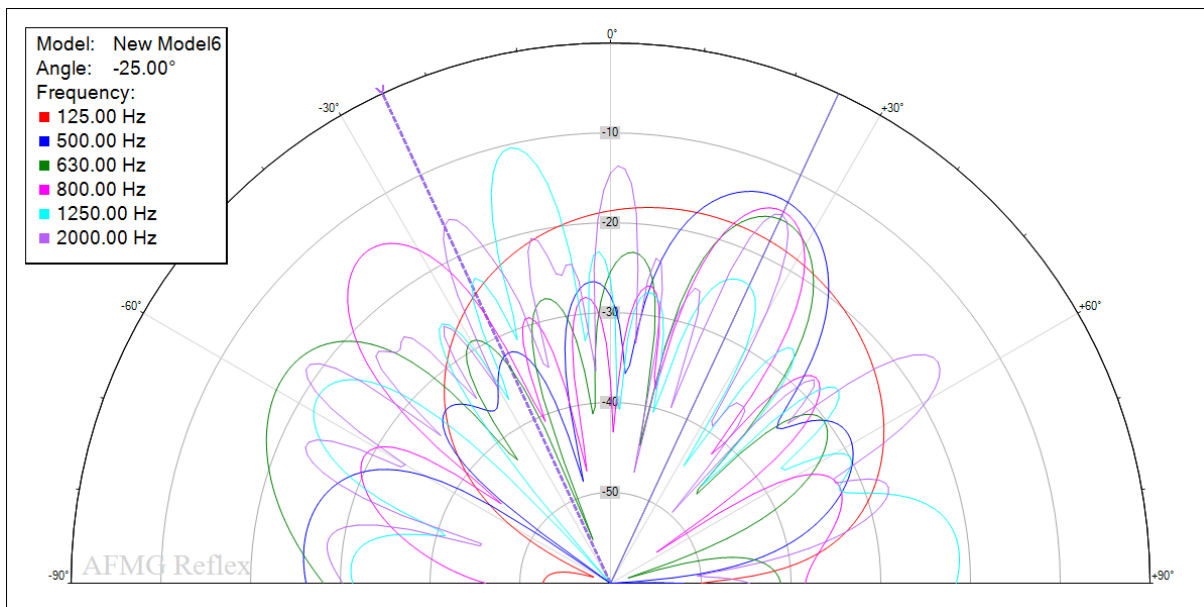
Element no.	Type	Width[cm]	Depth Base[cm]	Depth Top[cm]
1	Rectangle	6.0	0.0	0.0
2	Rectangle	6.0	4.0	0.0
3	Rectangle	6.0	7.0	0.0
4	Rectangle	6.0	6.0	0.0
5	Rectangle	6.0	8.0	0.0
6	Rectangle	6.0	5.0	0.0
7	Rectangle	6.0	1.0	0.0
8	Rectangle	6.0	1.0	0.0
9	Rectangle	6.0	5.0	0.0
10	Rectangle	6.0	8.0	0.0
11	Rectangle	6.0	6.0	0.0
12	Rectangle	6.0	7.0	0.0
13	Rectangle	6.0	4.0	0.0
14	Rectangle	6.0	0.0	0.0
15	Rectangle	6.0	0.0	0.0
16	Rectangle	6.0	4.0	0.0
17	Rectangle	6.0	7.0	0.0
18	Rectangle	6.0	6.0	0.0
19	Rectangle	6.0	8.0	0.0
20	Rectangle	6.0	5.0	0.0
21	Rectangle	6.0	1.0	0.0
22	Rectangle	6.0	0.0	0.0
23	Rectangle	6.0	4.0	0.0
24	Rectangle	6.0	7.0	0.0
25	Rectangle	6.0	6.0	0.0
26	Rectangle	6.0	8.0	0.0
27	Rectangle	6.0	5.0	0.0

28	Rectangle	6.0	1.0	0.0
29	Rectangle	6.0	1.0	0.0
30	Rectangle	6.0	5.0	0.0
31	Rectangle	6.0	8.0	0.0
32	Rectangle	6.0	6.0	0.0
33	Rectangle	6.0	7.0	0.0
34	Rectangle	6.0	4.0	0.0
35	Rectangle	6.0	0.0	0.0

1.1.3 Spatial Response Plots



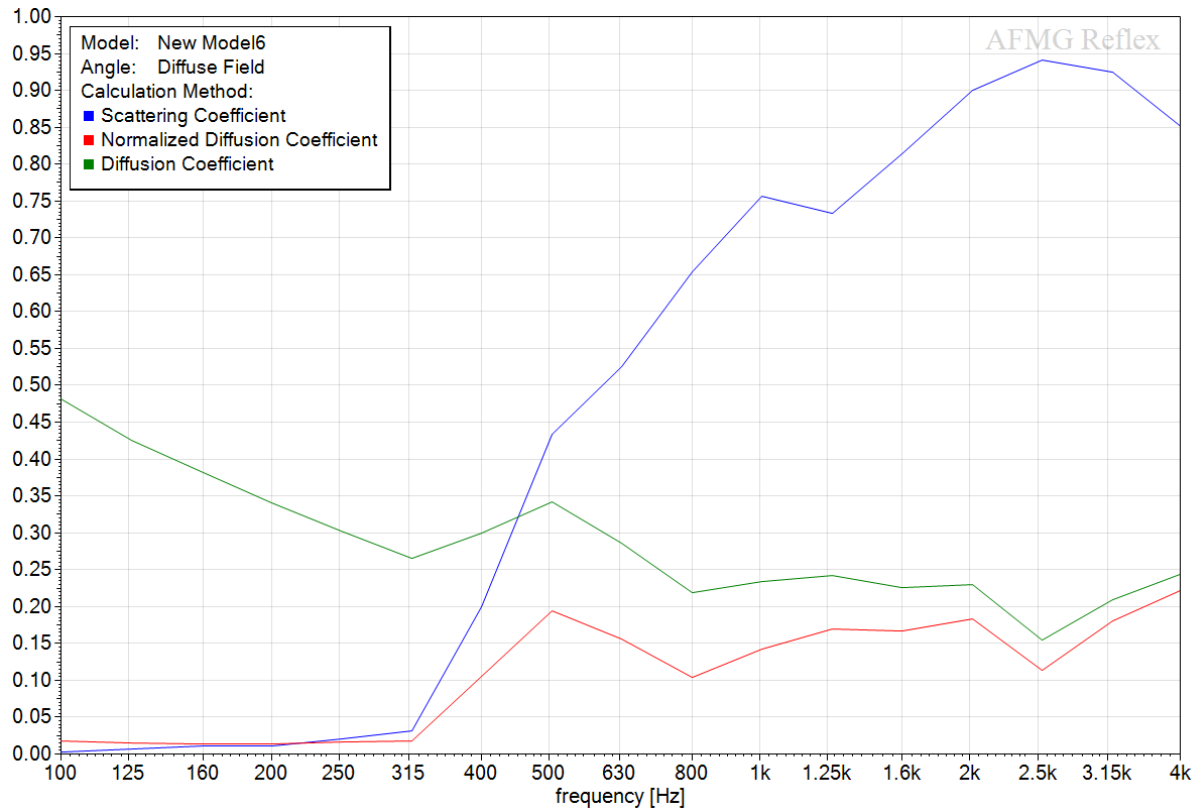
Spatial Response



Spatial Response

1.1.4 Coefficients Plots

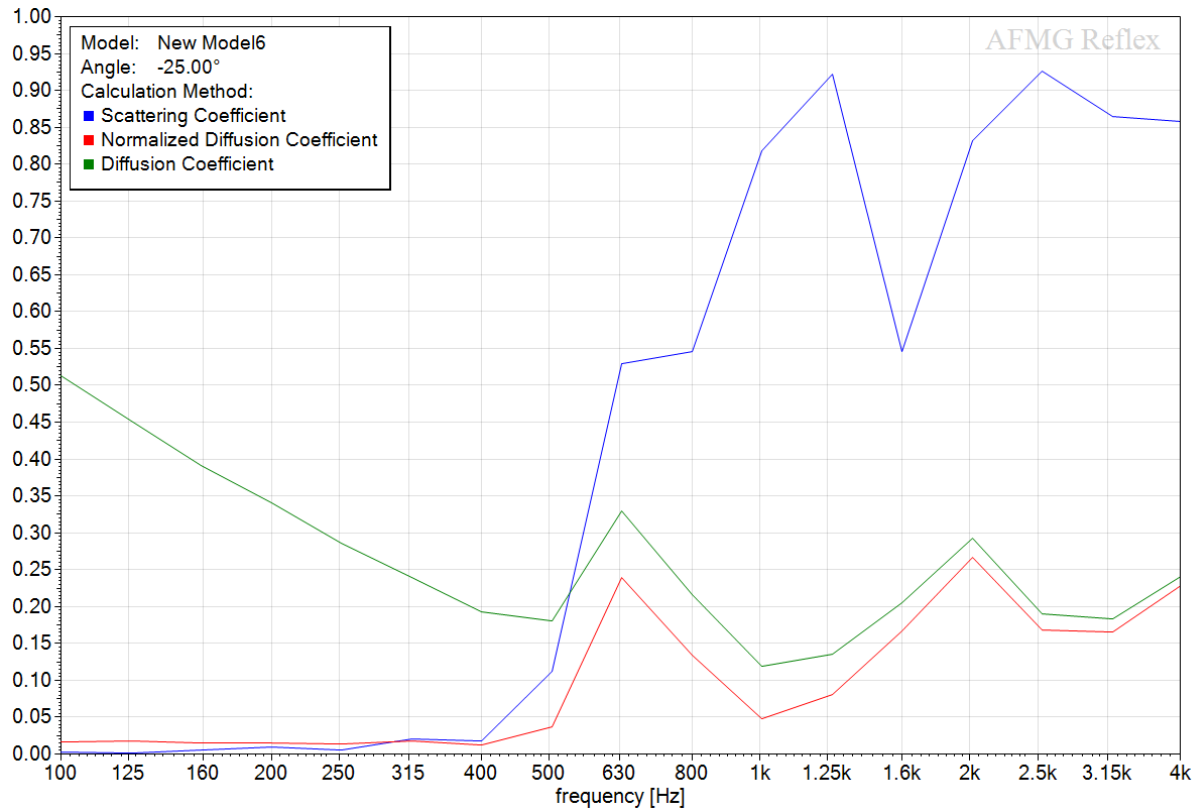
Angle: Random Incidence, Frequency Range: [100 Hz, 4000 Hz]



Coefficients

Frequency [Hz]	Scattering Coefficient	Normalized Diffusion Coefficient	Diffusion Coefficient
100	0.002	0.017	0.481
125	0.006	0.014	0.426
160	0.011	0.014	0.383
200	0.012	0.014	0.340
250	0.021	0.016	0.302
315	0.031	0.017	0.265
400	0.199	0.106	0.299
500	0.433	0.194	0.342
630	0.525	0.156	0.286
800	0.654	0.103	0.219
1000	0.757	0.142	0.233
1250	0.733	0.169	0.242
1600	0.814	0.167	0.226
2000	0.901	0.183	0.230
2500	0.942	0.114	0.154
3150	0.925	0.180	0.210
4000	0.850	0.223	0.245

Angle: -25°, Frequency Range: [100 Hz, 4000 Hz]



Coefficients

Frequency [Hz]	Scattering Coefficient	Normalized Diffusion Coefficient	Diffusion Coefficient
100	0.002	0.017	0.513
125	0.002	0.018	0.451
160	0.005	0.015	0.391
200	0.009	0.015	0.341
250	0.006	0.014	0.286
315	0.021	0.018	0.239
400	0.018	0.013	0.193
500	0.112	0.037	0.180
630	0.529	0.239	0.330
800	0.546	0.134	0.216
1000	0.819	0.048	0.119
1250	0.921	0.081	0.136
1600	0.546	0.167	0.205
2000	0.831	0.267	0.293
2500	0.926	0.168	0.191
3150	0.864	0.166	0.183
4000	0.858	0.230	0.242