

AFMG Reflex Report



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

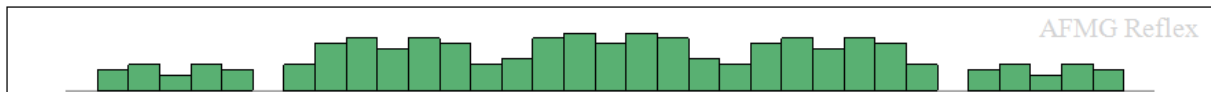
1. Models

1.1 New Model4

1.1.1 Description

Optimized Stepped Diffuser A1-LF (array of 5 modules)

1.1.2 Model Outline

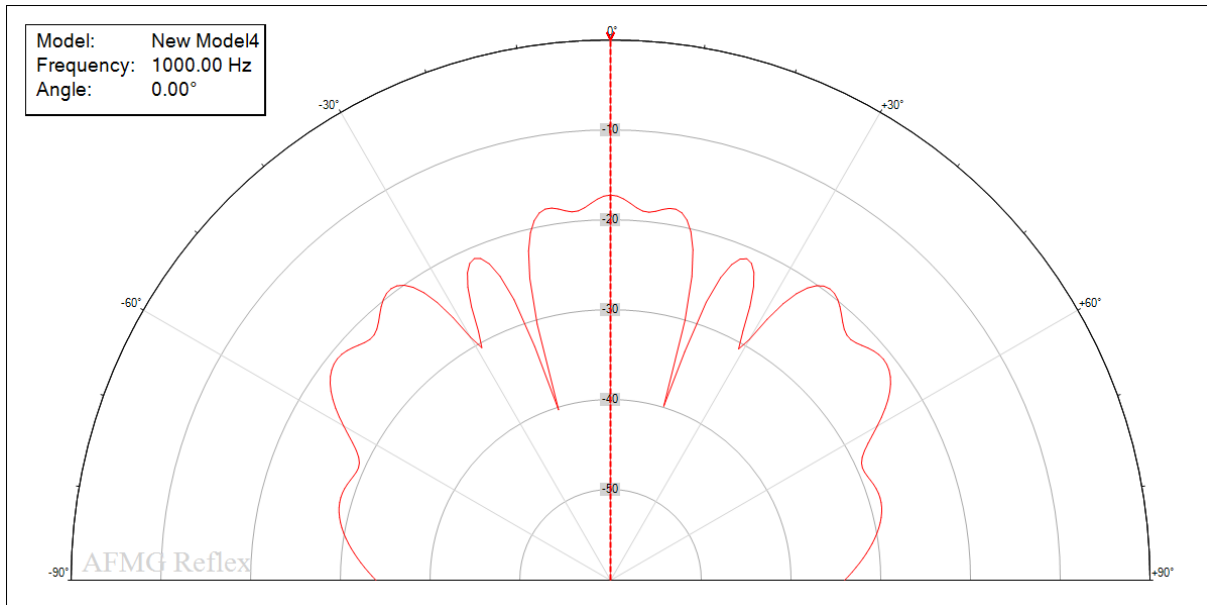


Model Outline

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	5.0	0.0
4	Rectangle	6.0	3.0	0.0
5	Rectangle	6.0	5.0	0.0
6	Rectangle	6.0	4.0	0.0
7	Rectangle	6.0	0.0	0.0
8	Rectangle	6.0	5.0	0.0
9	Rectangle	6.0	9.0	0.0
10	Rectangle	6.0	10.0	0.0
11	Rectangle	6.0	8.0	0.0
12	Rectangle	6.0	10.0	0.0
13	Rectangle	6.0	9.0	0.0
14	Rectangle	6.0	5.0	0.0
15	Rectangle	6.0	6.0	0.0
16	Rectangle	6.0	10.0	0.0
17	Rectangle	6.0	11.0	0.0
18	Rectangle	6.0	9.0	0.0
19	Rectangle	6.0	11.0	0.0
20	Rectangle	6.0	10.0	0.0
21	Rectangle	6.0	6.0	0.0
22	Rectangle	6.0	5.0	0.0
23	Rectangle	6.0	9.0	0.0
24	Rectangle	6.0	10.0	0.0
25	Rectangle	6.0	8.0	0.0
26	Rectangle	6.0	10.0	0.0
27	Rectangle	6.0	9.0	0.0

28	Rectangle	6.0	5.0	0.0
29	Rectangle	6.0	0.0	0.0
30	Rectangle	6.0	4.0	0.0
31	Rectangle	6.0	5.0	0.0
32	Rectangle	6.0	3.0	0.0
33	Rectangle	6.0	5.0	0.0
34	Rectangle	6.0	4.0	0.0
35	Rectangle	6.0	0.0	0.0

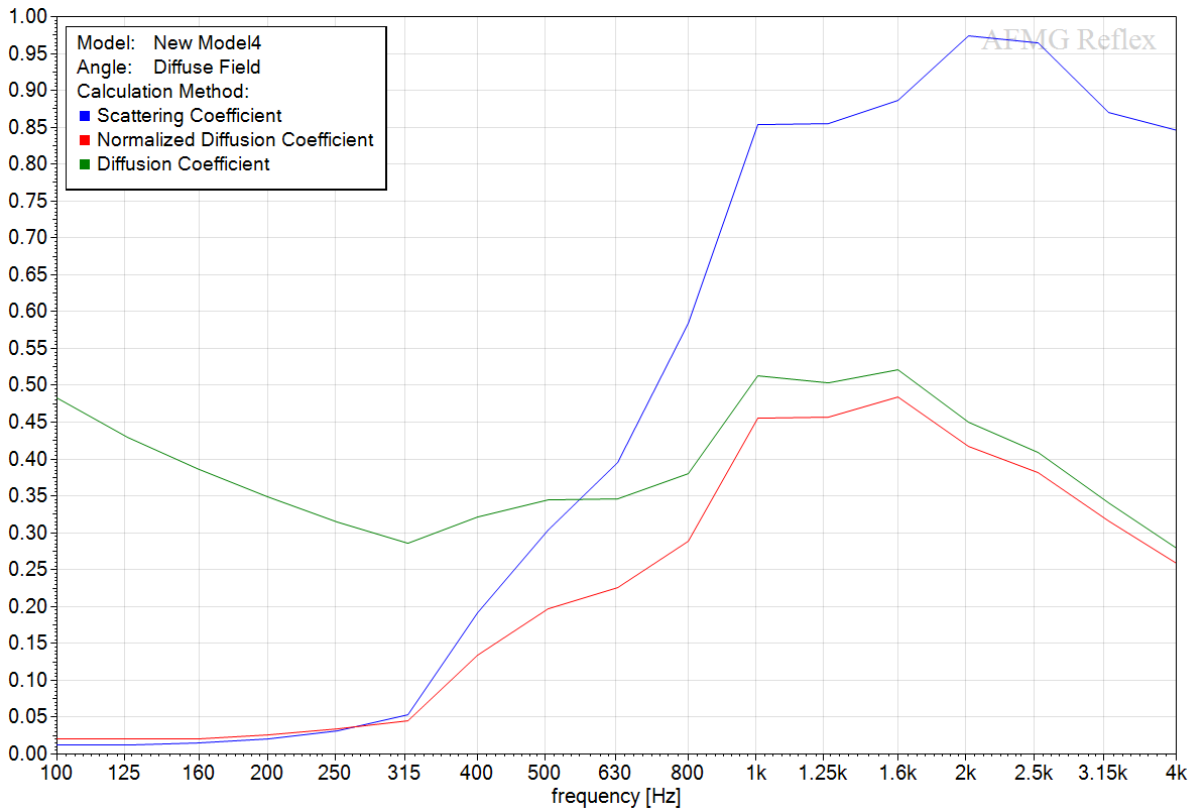
1.1.3 Spatial Response Plot



Spatial Response

1.1.4 Coefficients Plots

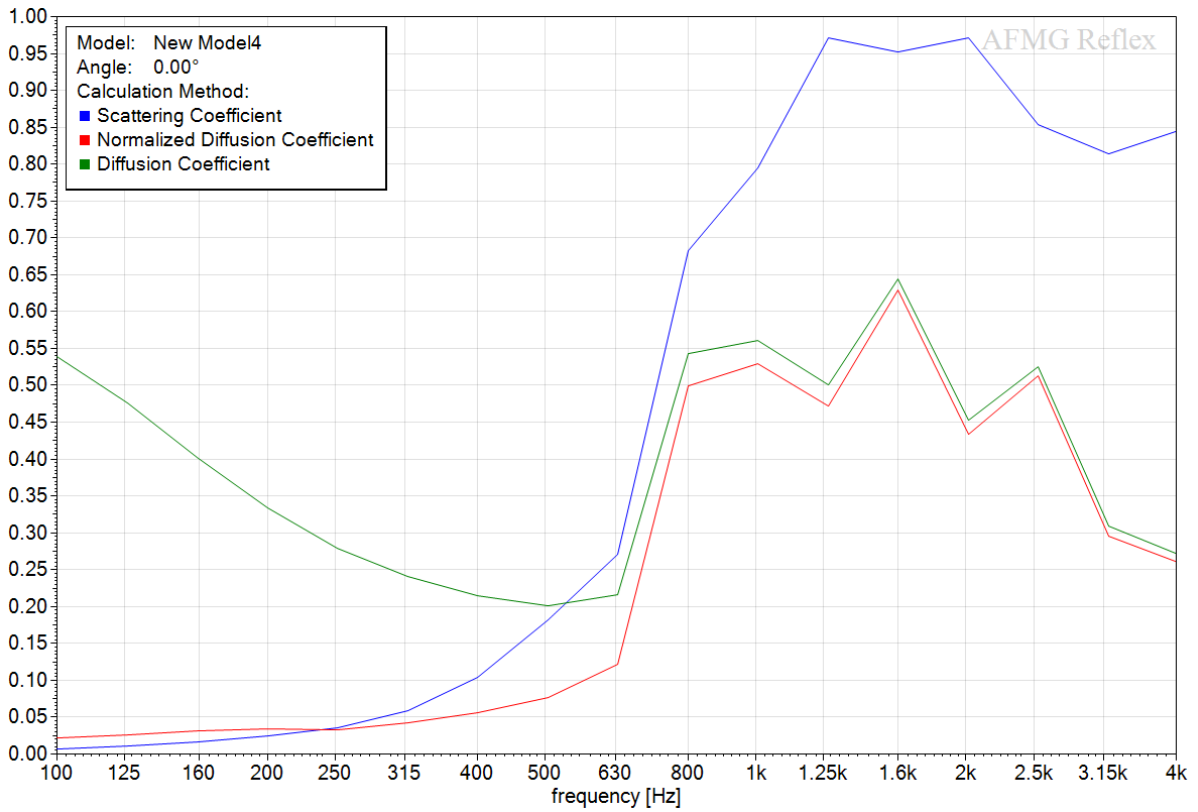
Angle: Random Incidence, Frequency Range: [100 Hz, 4000 Hz]



Coefficients

Frequency [Hz]	Scattering Coefficient	Normalized Diffusion Coefficient	Diffusion Coefficient
100	0.012	0.021	0.483
125	0.013	0.021	0.429
160	0.015	0.021	0.387
200	0.020	0.026	0.349
250	0.031	0.034	0.315
315	0.053	0.046	0.286
400	0.192	0.133	0.321
500	0.304	0.197	0.345
630	0.395	0.226	0.346
800	0.584	0.288	0.380
1000	0.854	0.456	0.513
1250	0.854	0.456	0.504
1600	0.887	0.484	0.521
2000	0.974	0.418	0.451
2500	0.964	0.381	0.409
3150	0.870	0.316	0.341
4000	0.846	0.257	0.277

Angle: 0°, Frequency Range: [100 Hz, 4000 Hz]



Coefficients

Frequency [Hz]	Scattering Coefficient	Normalized Diffusion Coefficient	Diffusion Coefficient
100	0.007	0.022	0.538
125	0.011	0.026	0.476
160	0.017	0.031	0.403
200	0.025	0.034	0.333
250	0.035	0.033	0.278
315	0.058	0.042	0.241
400	0.104	0.056	0.214
500	0.182	0.076	0.201
630	0.271	0.121	0.217
800	0.682	0.500	0.543
1000	0.795	0.529	0.561
1250	0.971	0.472	0.501
1600	0.952	0.629	0.645
2000	0.971	0.434	0.452
2500	0.854	0.513	0.525
3150	0.814	0.296	0.309
4000	0.846	0.261	0.271