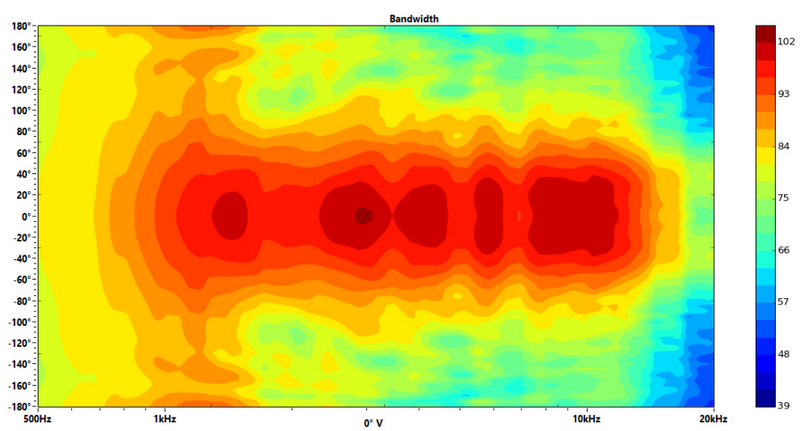
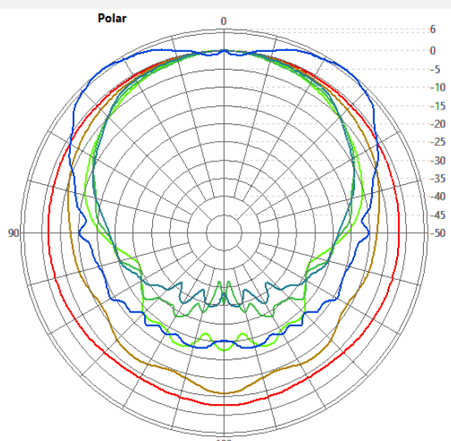


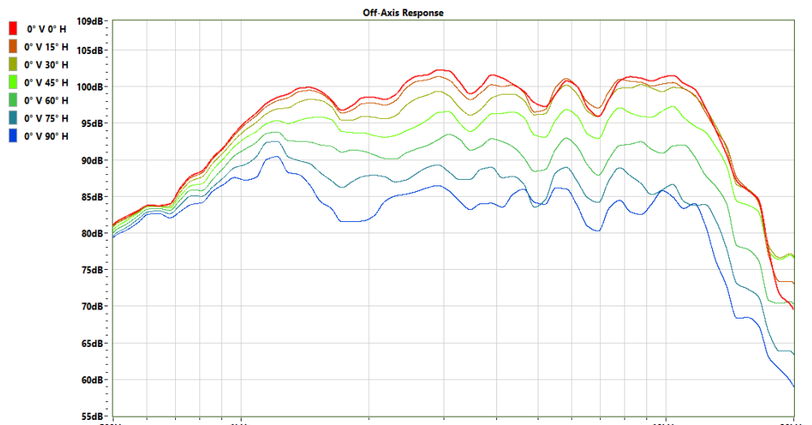


Nota de Aplicação AN-0018.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LG-01.
https://www.ludovico.com.br/839/guia-de-ondas/guia-de-ondas-lg-01
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 1m, medição automatizada em câmara anecóica no laboratório da:
OVERSOUND ALTO-FALANTES INDÚSTRIA E COMÉRCIO ELETRO ACÚSTICO.
Horizontal: Quadrante 1 e 2, simetricamente espelhados para quadrantes 3 e 4.
Vertical: Quadrante 1, simetricamente espelhado para quadrantes 2, 3 e 4.
Todas as características dimensionais originais dos e entre componentes foram mantidas, nenhum tipo de modificação visando melhora de desempenho foi efetuada.
Responsável:
Eng. Francisco Monteiro, CREA: 260400014-8.
3/11/2020.

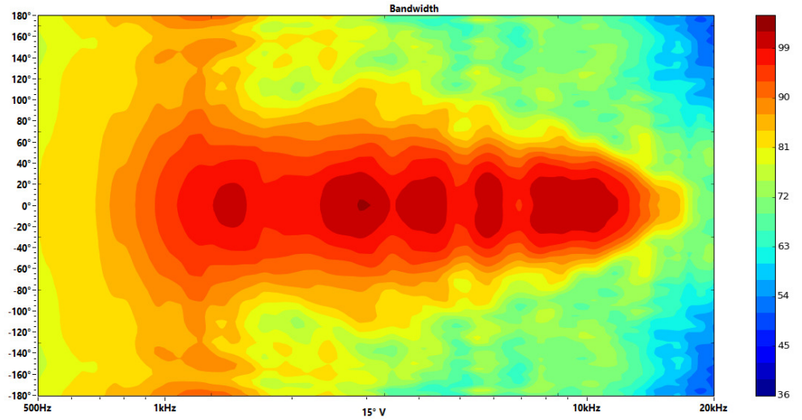


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,23	0,88dB
0° V	1023Hz	354°	1,78	2,52dB
0° V	2054Hz	100°	2,94	4,68dB
0° V	4120Hz	100°	3,20	5,05dB
0° V	8248Hz	96°	3,17	5,01dB
0° V	18527Hz	138°	1,58	1,99dB

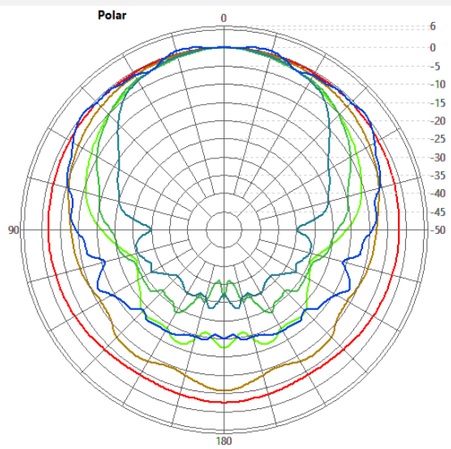


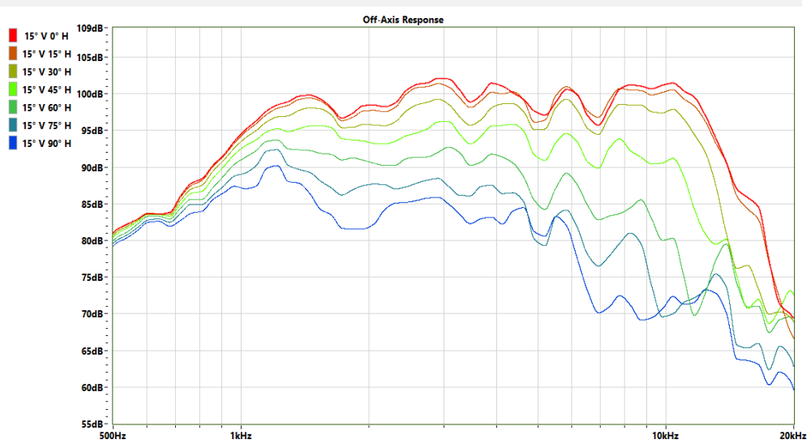


0° Vertical

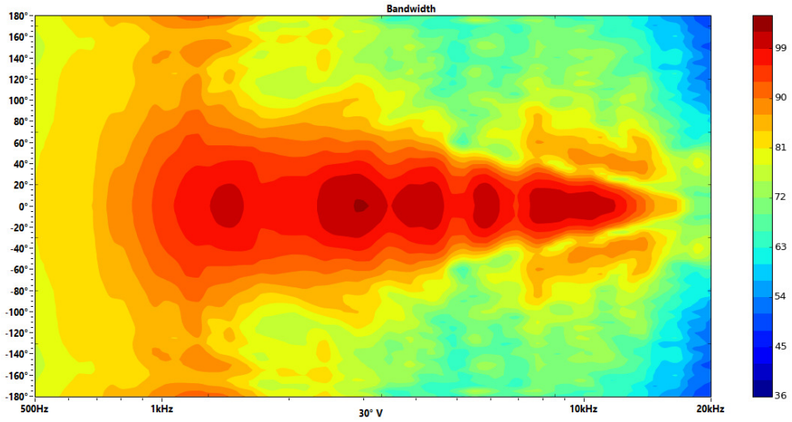


Ang	Freq	Cov	Q	Di
15° V	507Hz	300°	1,22	0,87dB
15° V	1023Hz	354°	1,79	2,53dB
15° V	2054Hz	98°	2,93	4,67dB
15° V	4120Hz	94°	3,34	5,24dB
15° V	8248Hz	80°	4,01	6,03dB
15° V	18527Hz	152°	2,06	3,13dB

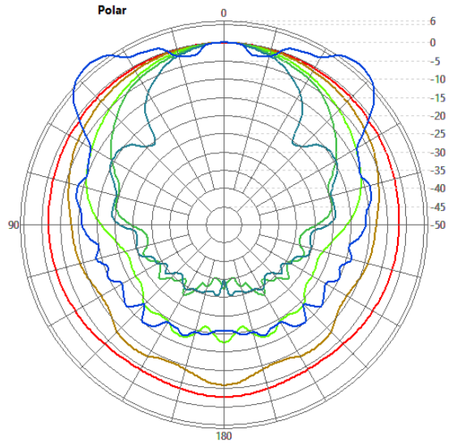


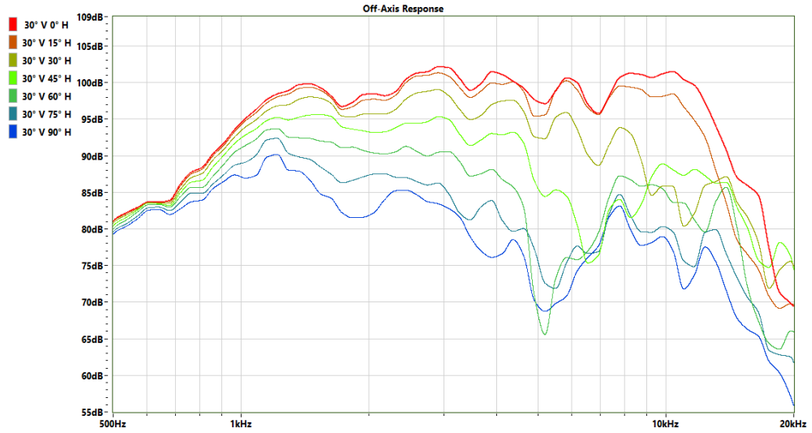


15° Vertical

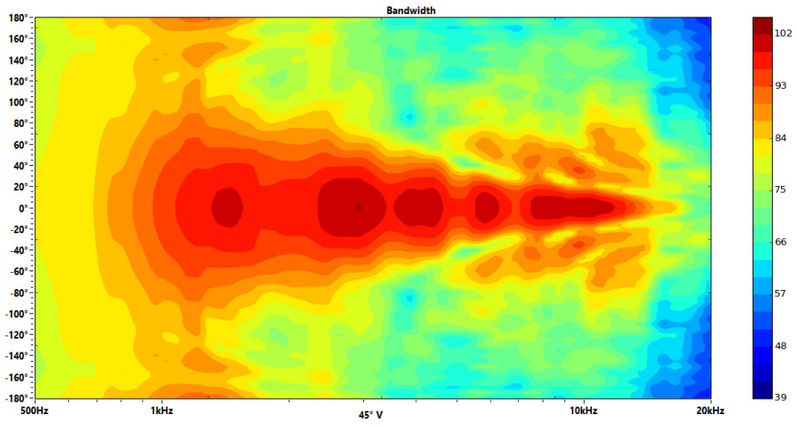


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,23	0,91dB
30° V	1023Hz	356°	1,80	2,56dB
30° V	2054Hz	98°	2,95	4,70dB
30° V	4120Hz	78°	4,09	6,11dB
30° V	8248Hz	52°	5,09	7,07dB
30° V	18527Hz	116°	1,72	2,35dB

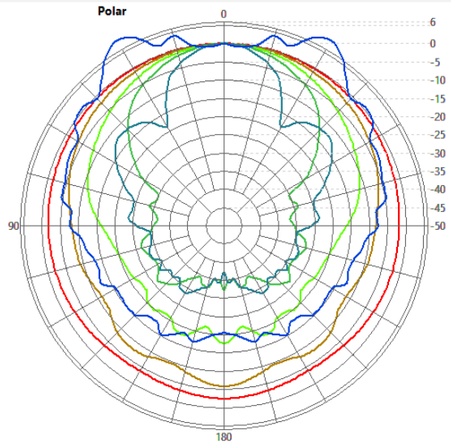


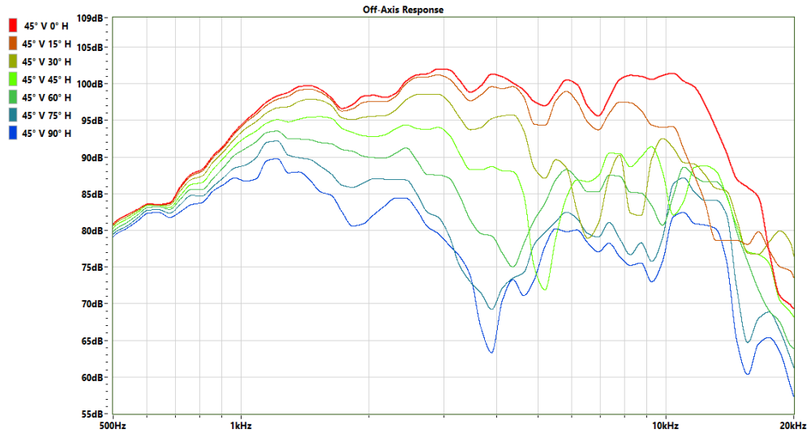


30° Vertical

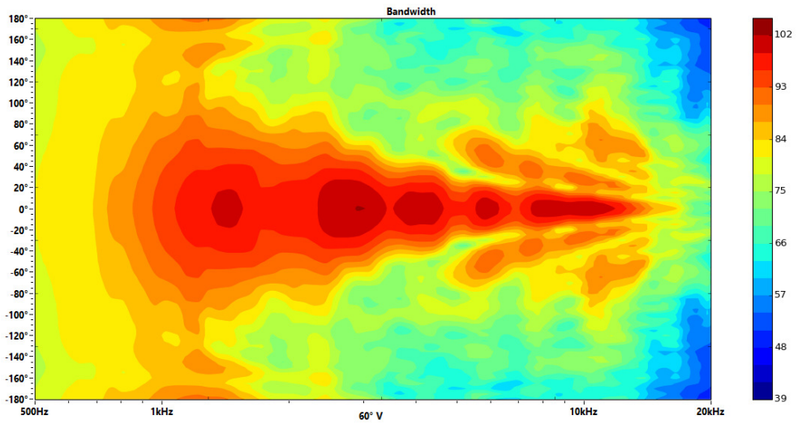


Ang	Freq	Cov	Q	Di
45° V	507Hz	300°	1,22	0,85dB
45° V	1023Hz	150°	1,80	2,56dB
45° V	2054Hz	94°	3,01	4,79dB
45° V	4120Hz	64°	5,02	7,00dB
45° V	8248Hz	38°	6,06	7,83dB
45° V	18527Hz	164°	1,53	1,84dB

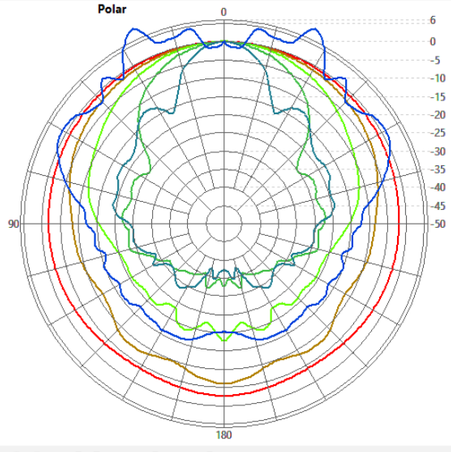


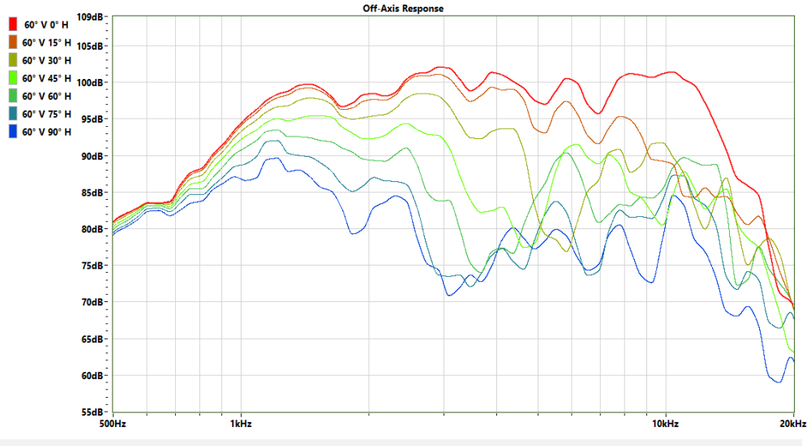


45° Vertical

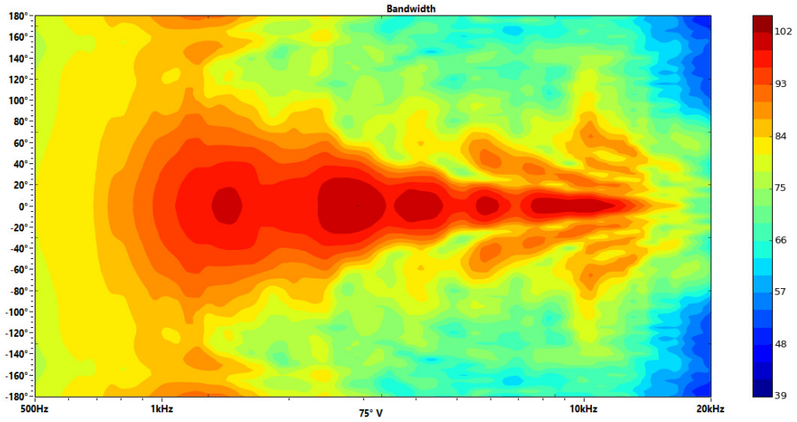


Ang	Freq	Cov	Q	Di
60° V	507Hz	300°	1,23	0,91dB
60° V	1023Hz	148°	1,83	2,64dB
60° V	2054Hz	88°	3,08	4,89dB
60° V	4120Hz	54°	5,42	7,34dB
60° V	8248Hz	30°	6,73	8,28dB
60° V	18527Hz	154°	1,64	2,14dB

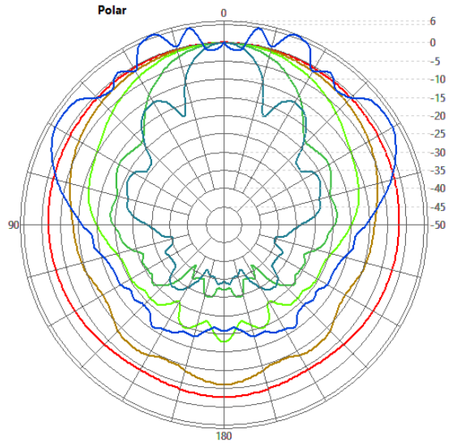


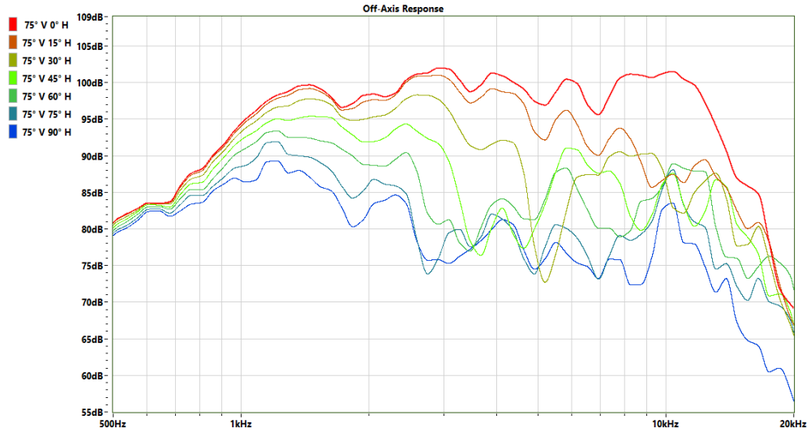


60° Vertical

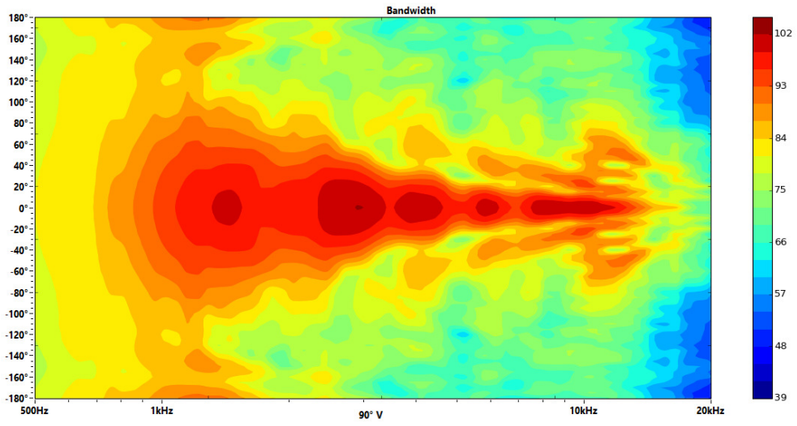


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,23	0,89dB
75° V	1023Hz	358°	1,84	2,65dB
75° V	2054Hz	86°	3,12	4,94dB
75° V	4120Hz	48°	5,14	7,11dB
75° V	8248Hz	26°	7,81	8,92dB
75° V	18527Hz	162°	1,61	2,07dB

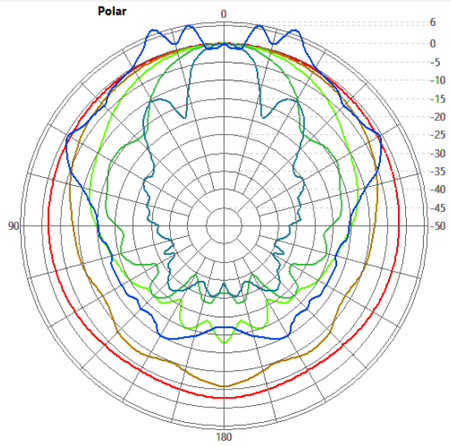


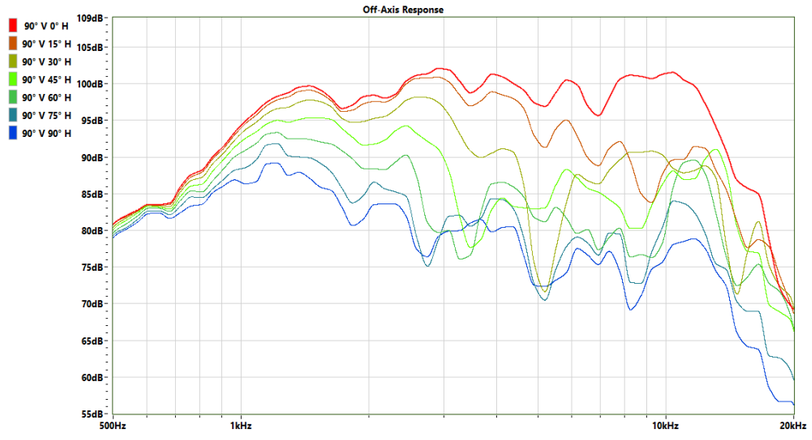


75° Vertical

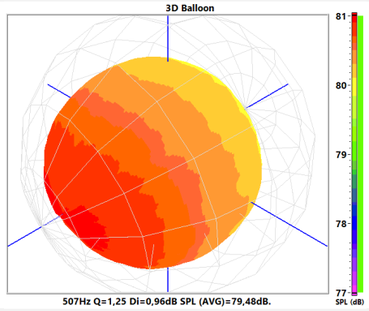


Ang	Freq	Cov	Q	Di
90° V	507Hz	300°	1,23	0,90dB
90° V	1023Hz	146°	1,84	2,65dB
90° V	2054Hz	84°	3,15	4,98dB
90° V	4120Hz	48°	4,93	6,93dB
90° V	8248Hz	24°	8,38	9,23dB
90° V	18527Hz	142°	1,95	2,90dB

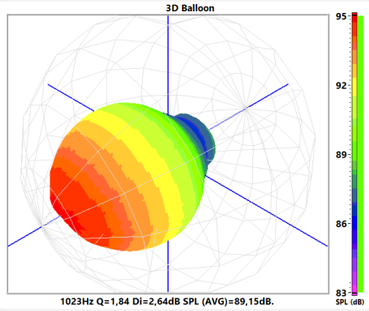




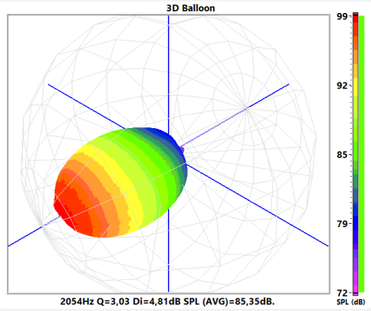
90° Vertical



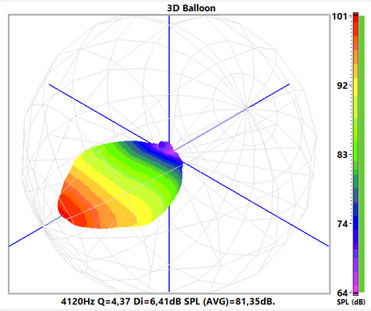
507Hz Q=1,25 Di=0,96dB SPL (AVG)=79,48dB.



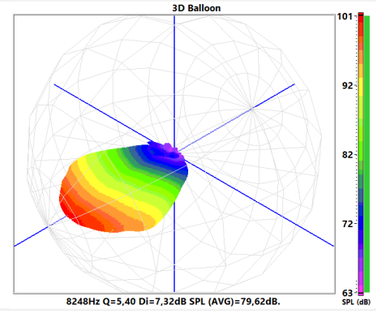
1023Hz Q=1,84 Di=2,64dB SPL (AVG)=89,15dB.



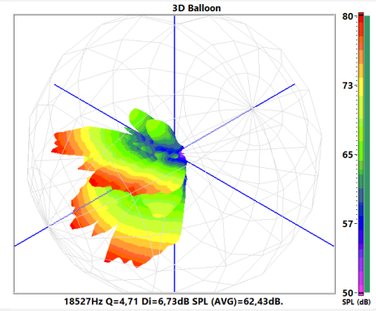
2054Hz Q=3,03 Di=4,81dB SPL (AVG)=85,35dB.



4120Hz Q=4,37 Di=6,41dB SPL (AVG)=81,35dB.



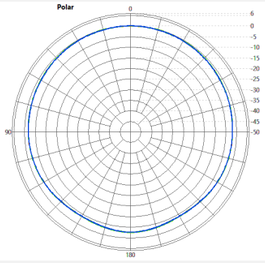
8248Hz Q=5,40 Di=7,32dB SPL (AVG)=79,62dB.



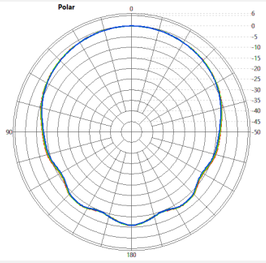
18527Hz Q=4,71 Di=6,73dB SPL (AVG)=62,43dB.

3D Balloon

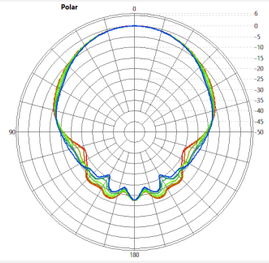
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,23	0,88dB
15° V	507Hz	300°	1,22	0,87dB
30° V	507Hz	300°	1,23	0,91dB
45° V	507Hz	300°	1,22	0,85dB
60° V	507Hz	300°	1,23	0,91dB
75° V	507Hz	300°	1,23	0,89dB
90° V	507Hz	300°	1,23	0,90dB



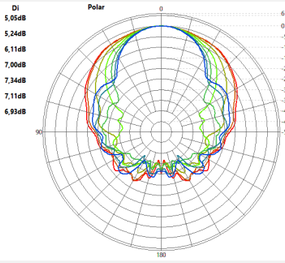
Ang	Freq	Cov	Q	Di
0° V	1023Hz	354°	1,78	2,52dB
15° V	1023Hz	354°	1,79	2,53dB
30° V	1023Hz	356°	1,80	2,56dB
45° V	1023Hz	150°	1,80	2,56dB
60° V	1023Hz	148°	1,83	2,64dB
75° V	1023Hz	358°	1,84	2,65dB
90° V	1023Hz	146°	1,84	2,65dB



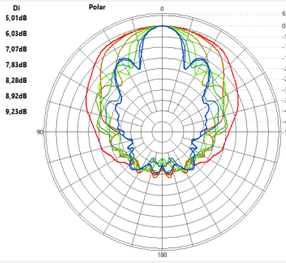
Ang	Freq	Cov	Q	Di
0° V	2054Hz	100°	2,94	4,68dB
15° V	2054Hz	98°	2,93	4,67dB
30° V	2054Hz	98°	2,95	4,70dB
45° V	2054Hz	94°	3,01	4,79dB
60° V	2054Hz	88°	3,08	4,89dB
75° V	2054Hz	86°	3,12	4,94dB
90° V	2054Hz	84°	3,15	4,98dB



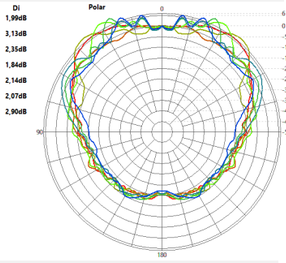
Ang	Freq	Cov	Q	Di
0° V	4120Hz	100°	3,20	5,05dB
15° V	4120Hz	94°	3,34	5,24dB
30° V	4120Hz	78°	4,09	6,11dB
45° V	4120Hz	64°	5,02	7,00dB
60° V	4120Hz	54°	5,42	7,34dB
75° V	4120Hz	48°	5,14	7,11dB
90° V	4120Hz	48°	4,93	6,93dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	96°	3,17	5,01dB
15° V	8248Hz	80°	4,01	6,03dB
30° V	8248Hz	52°	5,09	7,07dB
45° V	8248Hz	38°	6,06	7,83dB
60° V	8248Hz	30°	6,73	8,28dB
75° V	8248Hz	26°	7,81	8,92dB
90° V	8248Hz	24°	8,38	9,23dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	138°	1,58	1,99dB
15° V	18527Hz	152°	2,06	3,13dB
30° V	18527Hz	116°	1,72	2,35dB
45° V	18527Hz	164°	1,53	1,84dB
60° V	18527Hz	154°	1,64	2,14dB
75° V	18527Hz	162°	1,61	2,07dB
90° V	18527Hz	142°	1,95	2,90dB

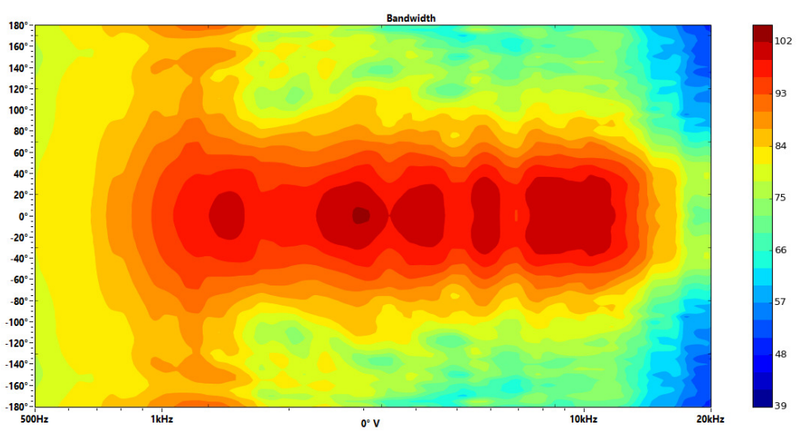


Polar Comparativa Vertical

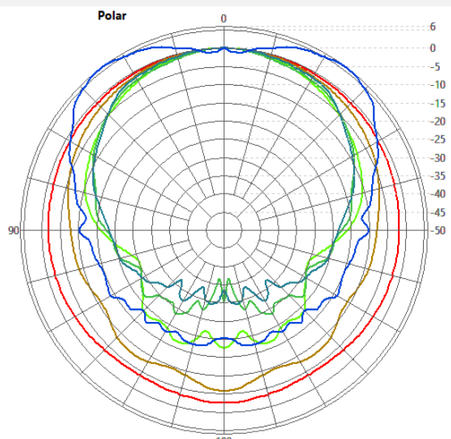


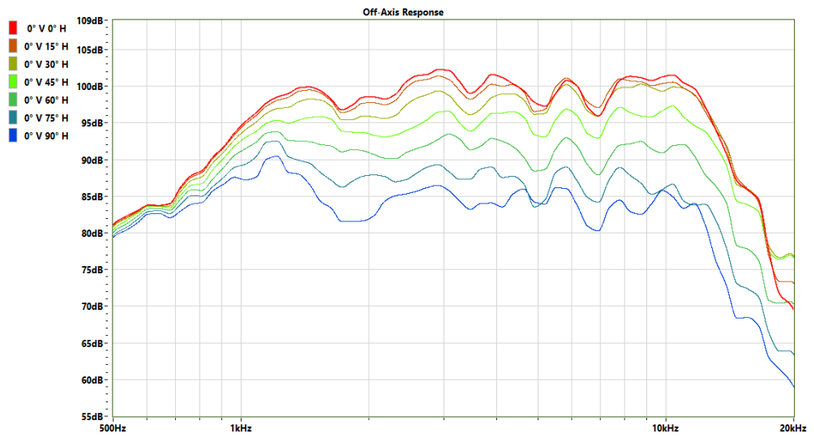


Application Note AN-0018.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LG-01 horn.
https://www.ludovico.com.br/839/guia-de-ondas/guia-de-ondas-lg-01
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Conditions:
Pink noise, 2.83V rms, 1m, automated measurement in an anechoic chamber at:
OVERSOUND SPEAKERS AND ELECTRO-ACOUSTIC INDUSTRY.
Horizontal: Quadrant 1 and 2, symmetrically mirrored for quadrants 3 and 4.
Vertical: Quadrant 1, symmetrically mirrored for quadrants 2, 3 and 4.
All original dimensional characteristics of and between components were maintained, no modifications were made to improve performance.
Developer:
Eng. Francisco Monteiro, CREA: 260400014-8.
3/11/2020.

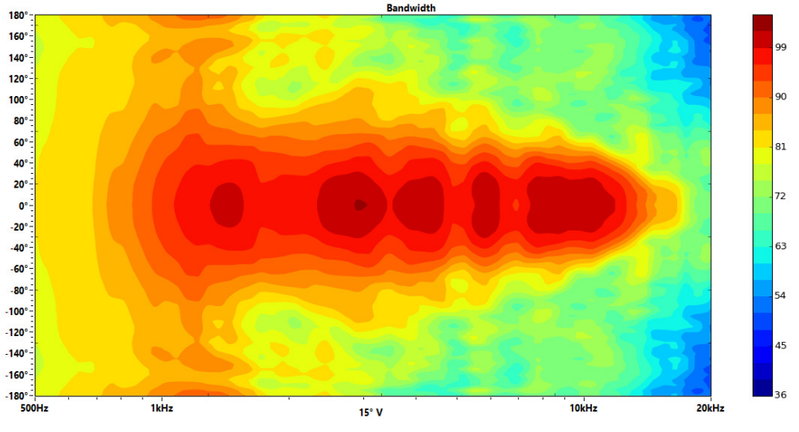


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,23	0,88dB
0° V	1023Hz	354°	1,78	2,52dB
0° V	2054Hz	100°	2,94	4,68dB
0° V	4120Hz	100°	3,20	5,05dB
0° V	8248Hz	96°	3,17	5,01dB
0° V	18527Hz	138°	1,58	1,99dB

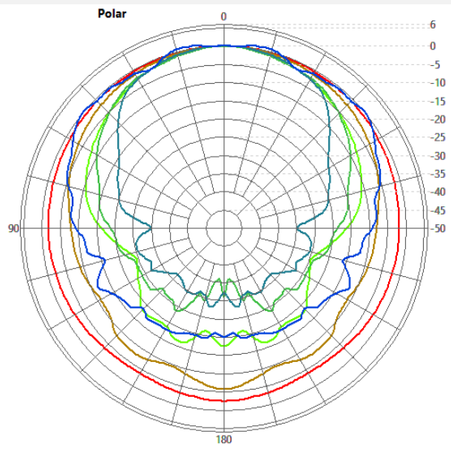


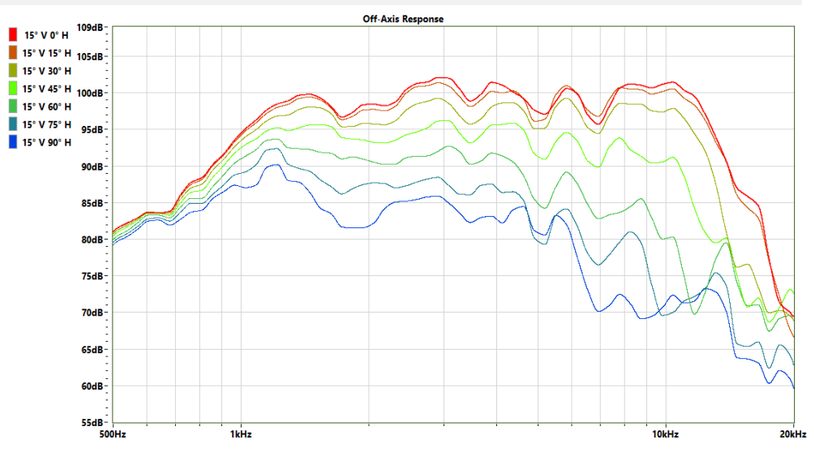


0° Vertical

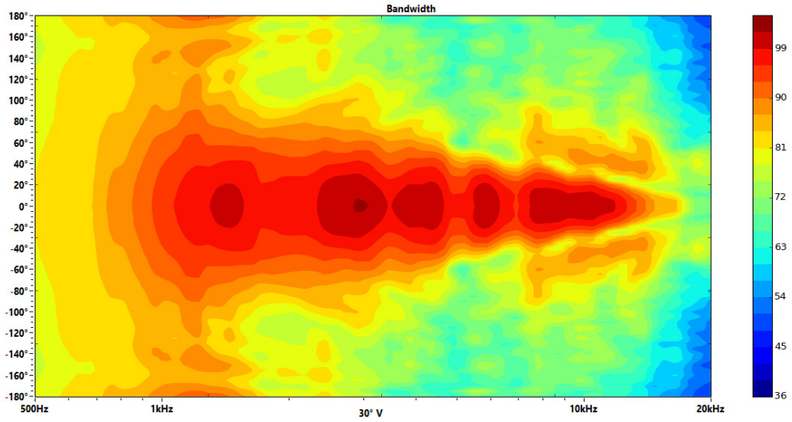


Ang	Freq	Cov	Q	Di
15° V	507Hz	300°	1,22	0,87dB
15° V	1023Hz	354°	1,79	2,53dB
15° V	2054Hz	98°	2,93	4,67dB
15° V	4120Hz	94°	3,34	5,24dB
15° V	8248Hz	80°	4,01	6,03dB
15° V	18527Hz	152°	2,06	3,13dB

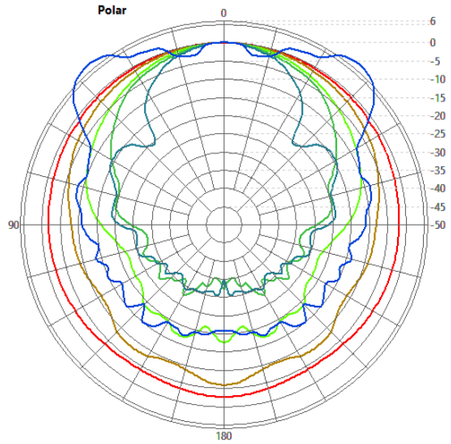


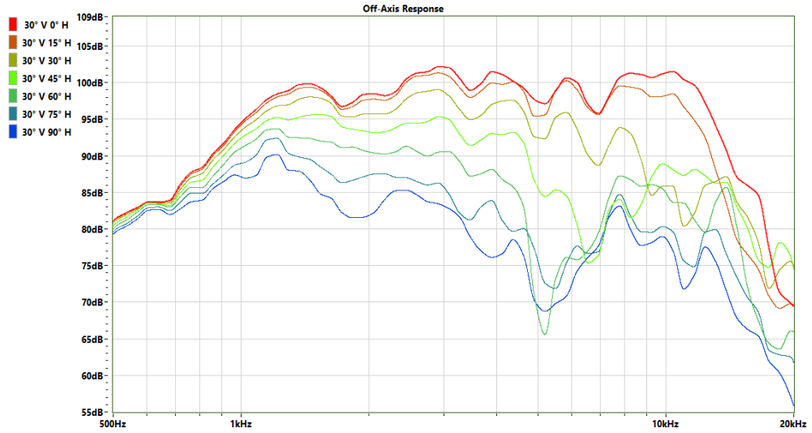


15° Vertical

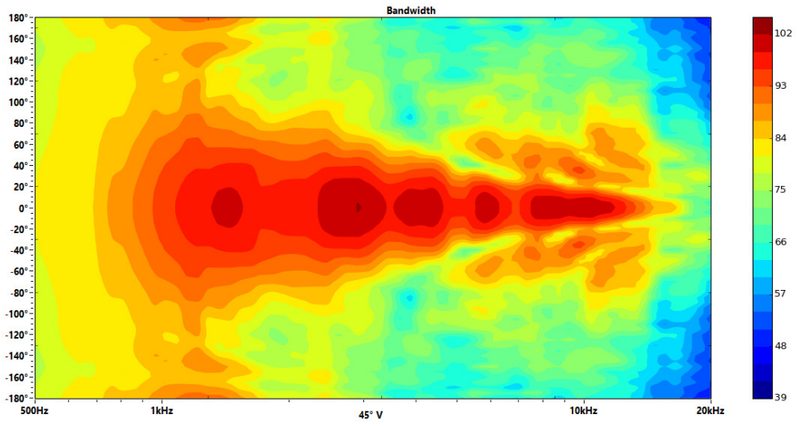


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,23	0,91dB
30° V	1023Hz	356°	1,80	2,56dB
30° V	2054Hz	98°	2,95	4,70dB
30° V	4120Hz	78°	4,09	6,11dB
30° V	8248Hz	52°	5,09	7,07dB
30° V	18527Hz	116°	1,72	2,35dB

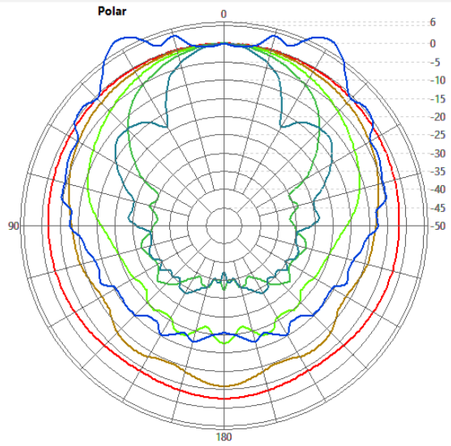


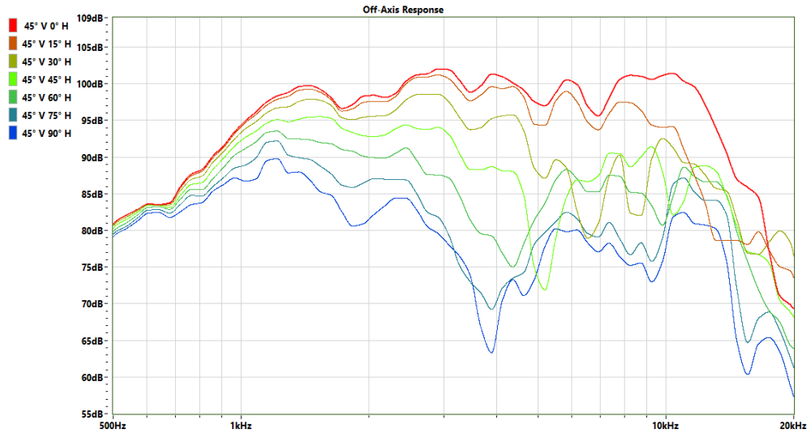


30° Vertical

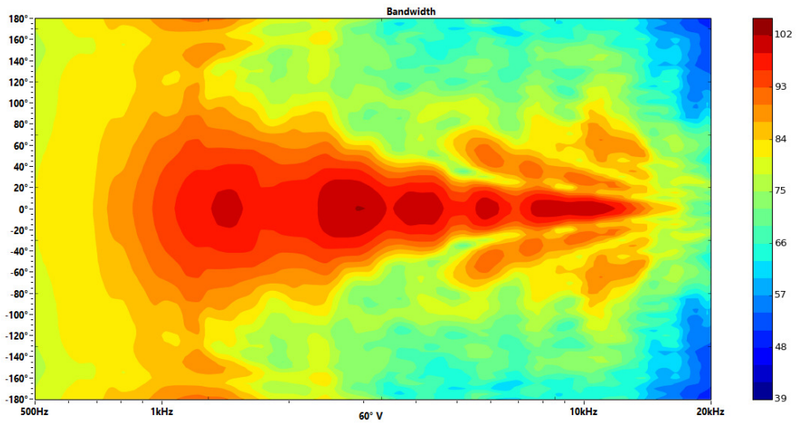


Ang	Freq	Cov	Q	Di
45° V	507Hz	300°	1,22	0,85dB
45° V	1023Hz	150°	1,80	2,56dB
45° V	2054Hz	94°	3,01	4,79dB
45° V	4120Hz	64°	5,02	7,00dB
45° V	8248Hz	38°	6,06	7,83dB
45° V	18527Hz	164°	1,53	1,84dB

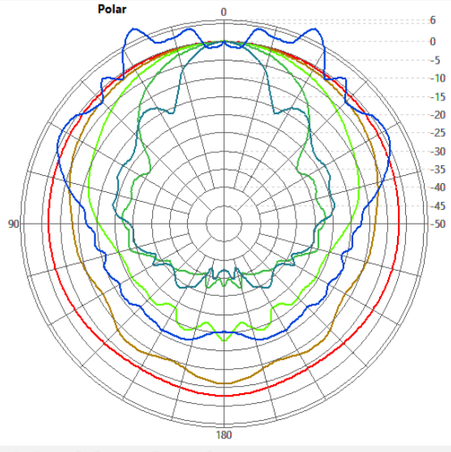


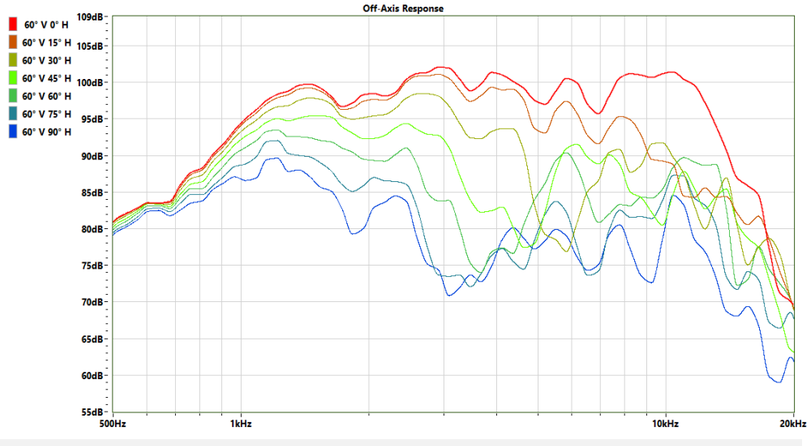


45° Vertical

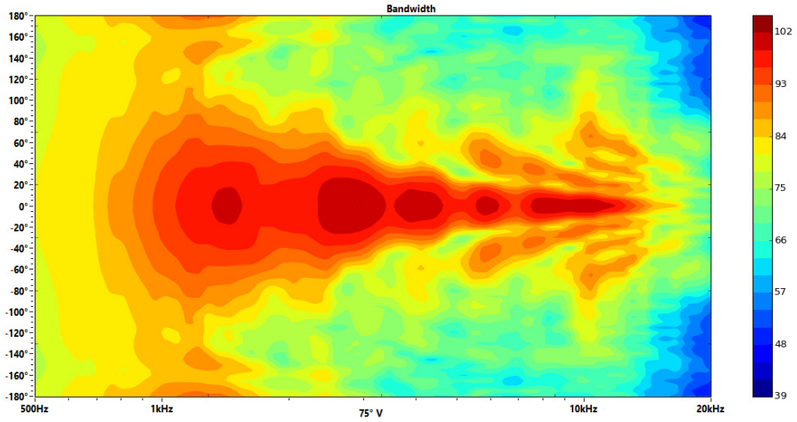


Ang	Freq	Cov	Q	Di
60° V	507Hz	300°	1,23	0,91dB
60° V	1023Hz	148°	1,83	2,64dB
60° V	2054Hz	88°	3,08	4,89dB
60° V	4120Hz	54°	5,42	7,34dB
60° V	8248Hz	30°	6,73	8,28dB
60° V	18527Hz	154°	1,64	2,14dB

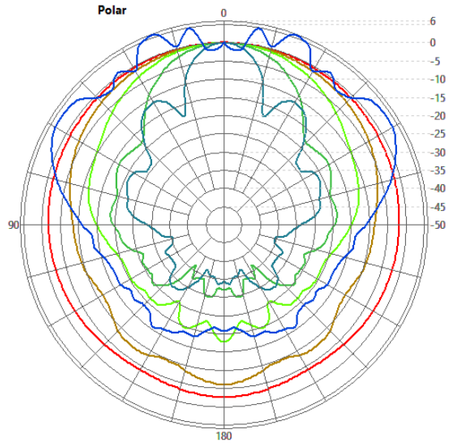


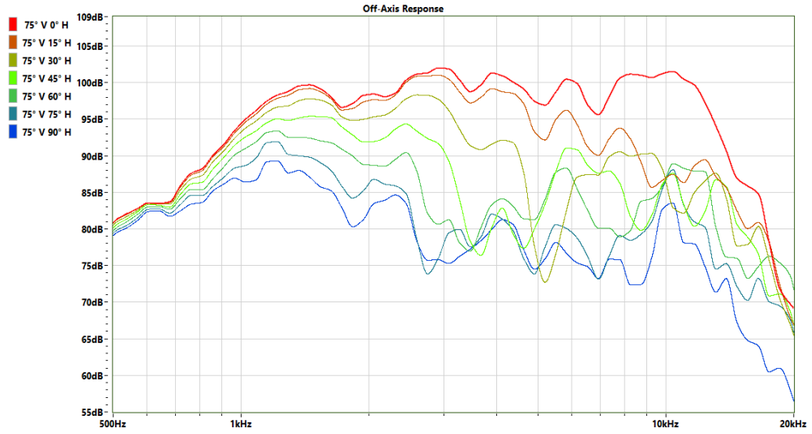


60° Vertical

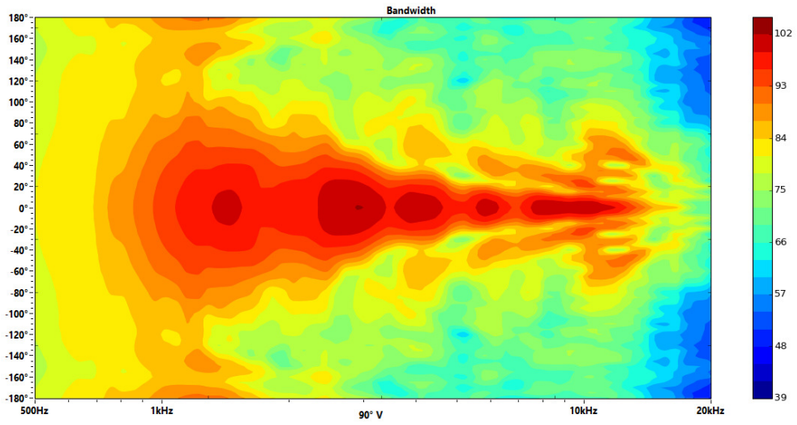


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,23	0,89dB
75° V	1023Hz	358°	1,84	2,65dB
75° V	2054Hz	86°	3,12	4,94dB
75° V	4120Hz	48°	5,14	7,11dB
75° V	8248Hz	26°	7,81	8,92dB
75° V	18527Hz	162°	1,61	2,07dB

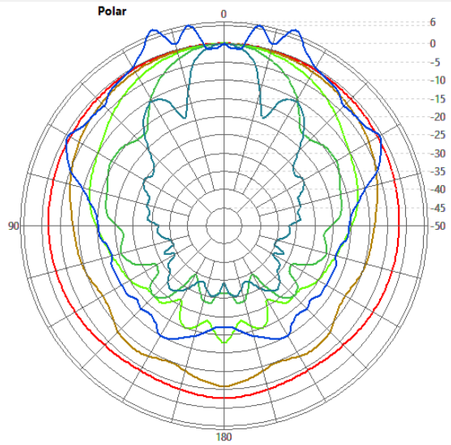


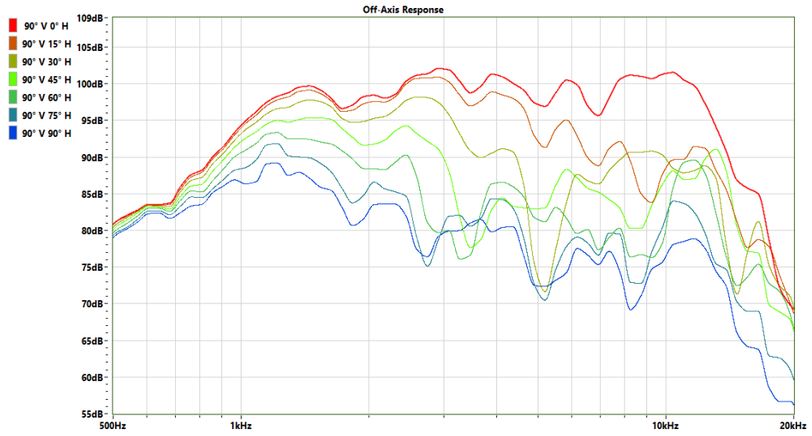


75° Vertical

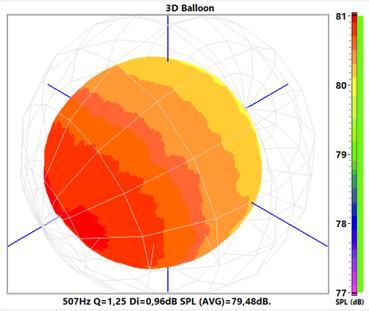


Ang	Freq	Cov	Q	Di
90° V	507Hz	300°	1,23	0,90dB
90° V	1023Hz	146°	1,84	2,65dB
90° V	2054Hz	84°	3,15	4,98dB
90° V	4120Hz	48°	4,93	6,93dB
90° V	8248Hz	24°	8,38	9,23dB
90° V	18527Hz	142°	1,95	2,90dB

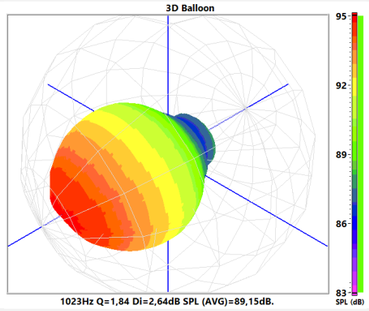




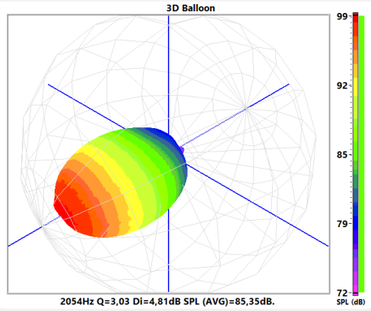
90° Vertical



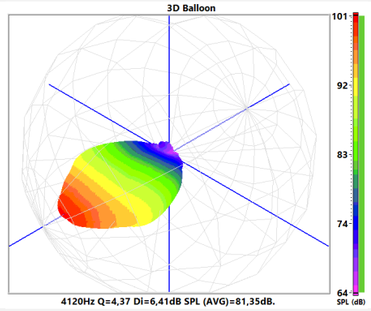
507Hz Q=1,25 Di=0,96dB SPL (AVG)=79,48dB.



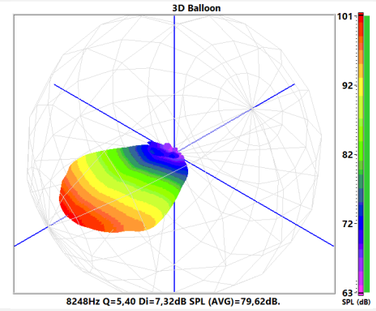
1023Hz Q=1,84 Di=2,64dB SPL (AVG)=89,15dB.



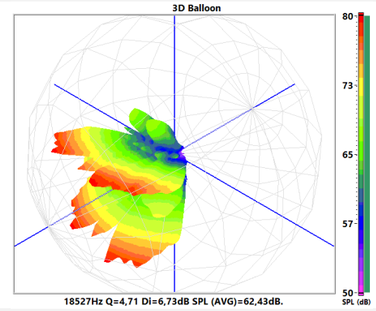
2054Hz Q=3,03 Di=4,81dB SPL (AVG)=85,35dB.



4120Hz Q=4,37 Di=6,41dB SPL (AVG)=81,35dB.



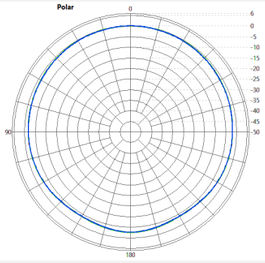
8248Hz Q=5,40 Di=7,32dB SPL (AVG)=79,62dB.



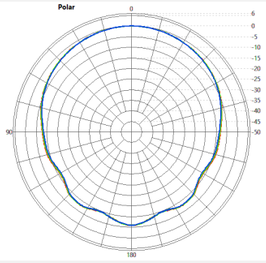
18527Hz Q=4,71 Di=6,73dB SPL (AVG)=62,43dB.

3D Balloon

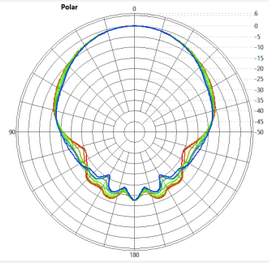
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,23	0,88dB
15° V	507Hz	300°	1,22	0,87dB
30° V	507Hz	300°	1,23	0,91dB
45° V	507Hz	300°	1,22	0,85dB
60° V	507Hz	300°	1,23	0,91dB
75° V	507Hz	300°	1,23	0,89dB
90° V	507Hz	300°	1,23	0,90dB



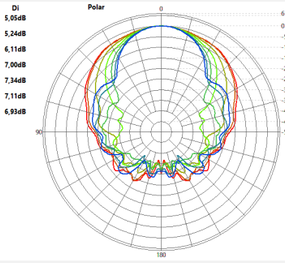
Ang	Freq	Cov	Q	Di
0° V	1023Hz	354°	1,78	2,52dB
15° V	1023Hz	354°	1,79	2,53dB
30° V	1023Hz	356°	1,80	2,56dB
45° V	1023Hz	150°	1,80	2,56dB
60° V	1023Hz	148°	1,83	2,64dB
75° V	1023Hz	358°	1,84	2,65dB
90° V	1023Hz	146°	1,84	2,65dB



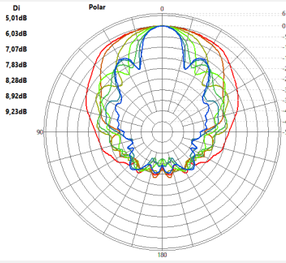
Ang	Freq	Cov	Q	Di
0° V	2054Hz	100°	2,94	4,68dB
15° V	2054Hz	98°	2,93	4,67dB
30° V	2054Hz	98°	2,95	4,70dB
45° V	2054Hz	94°	3,01	4,79dB
60° V	2054Hz	88°	3,08	4,89dB
75° V	2054Hz	86°	3,12	4,94dB
90° V	2054Hz	84°	3,15	4,98dB



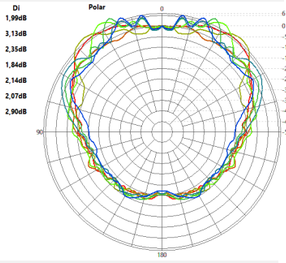
Ang	Freq	Cov	Q	Di
0° V	4120Hz	100°	3,20	5,05dB
15° V	4120Hz	94°	3,34	5,24dB
30° V	4120Hz	78°	4,09	6,11dB
45° V	4120Hz	64°	5,02	7,00dB
60° V	4120Hz	54°	5,42	7,34dB
75° V	4120Hz	48°	5,14	7,11dB
90° V	4120Hz	48°	4,93	6,93dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	96°	3,17	5,01dB
15° V	8248Hz	80°	4,01	6,03dB
30° V	8248Hz	52°	5,09	7,07dB
45° V	8248Hz	38°	6,06	7,83dB
60° V	8248Hz	30°	6,73	8,28dB
75° V	8248Hz	26°	7,81	8,92dB
90° V	8248Hz	24°	8,38	9,23dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	138°	1,58	1,99dB
15° V	18527Hz	152°	2,06	3,13dB
30° V	18527Hz	116°	1,72	2,35dB
45° V	18527Hz	164°	1,53	1,84dB
60° V	18527Hz	154°	1,64	2,14dB
75° V	18527Hz	162°	1,61	2,07dB
90° V	18527Hz	142°	1,95	2,90dB



Polar Vertical Comparative