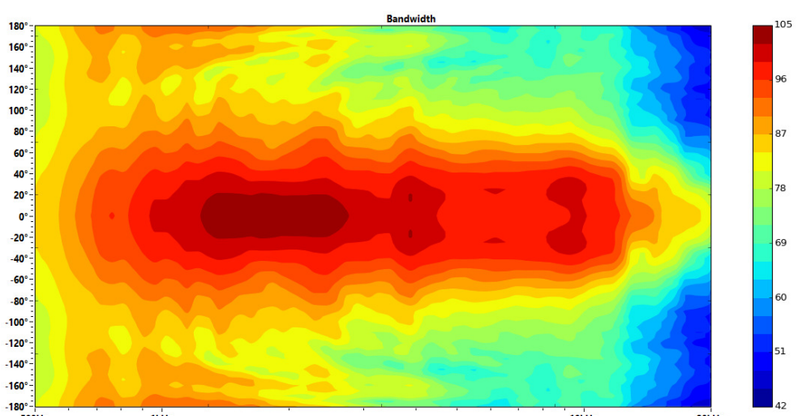
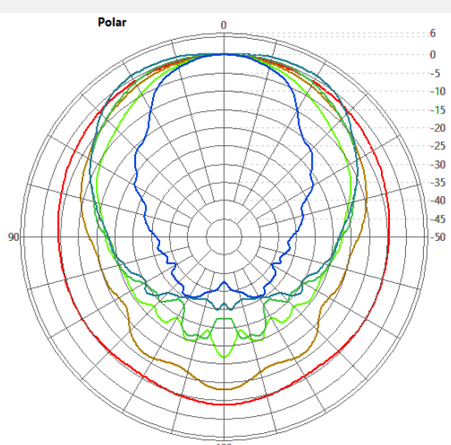


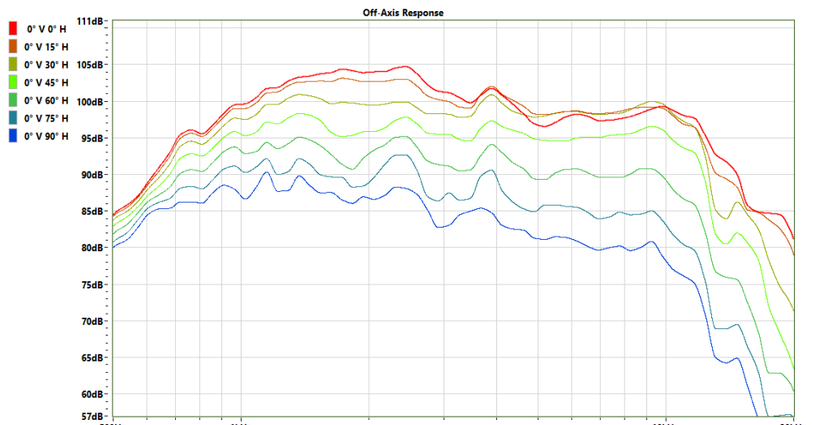


Nota de Aplicação AN-0015.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-040.
https://www.ludovico.com.br/271/cornetas/corneta-lc-040-ev-monitor-245-cm-x-20-cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V 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.

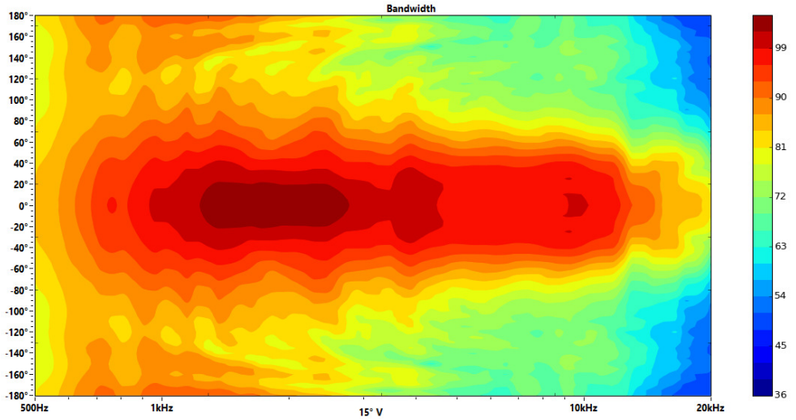


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,46	1,62dB
0° V	1023Hz	110°	2,36	3,72dB
0° V	2054Hz	72°	3,48	5,41dB
0° V	4120Hz	106°	2,90	4,63dB
0° V	8248Hz	110°	2,66	4,25dB
0° V	18527Hz	52°	5,81	7,64dB

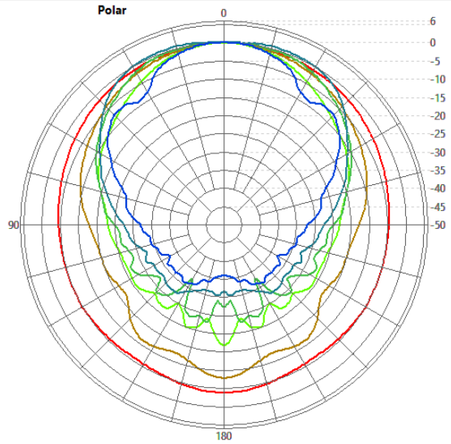


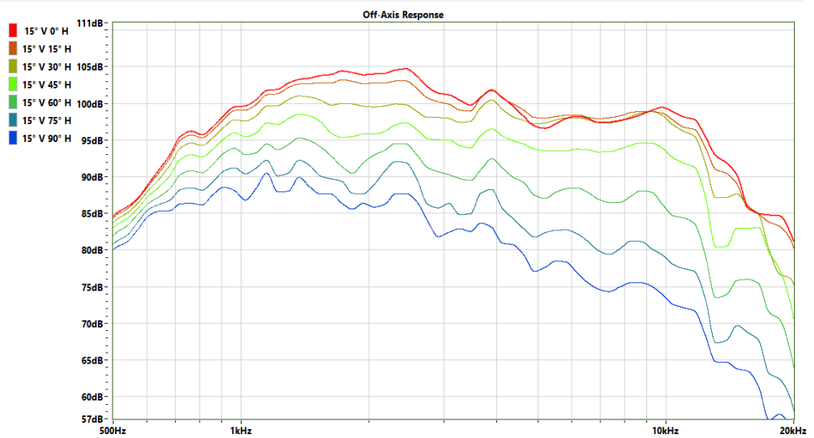


0° Vertical

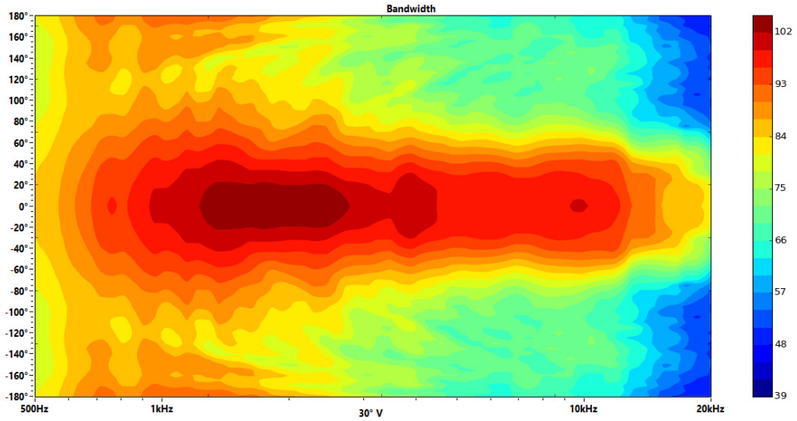


Ang	Freq	Cov	Q	Di
15° V	507Hz	290°	1,46	1,64dB
15° V	1023Hz	112°	2,34	3,68dB
15° V	2054Hz	72°	3,53	5,47dB
15° V	4120Hz	96°	3,15	4,99dB
15° V	8248Hz	100°	3,02	4,79dB
15° V	18527Hz	54°	4,49	6,52dB

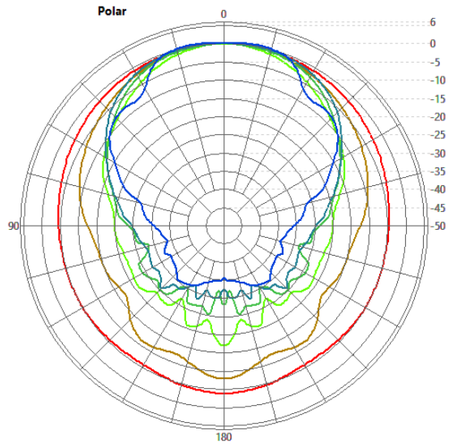


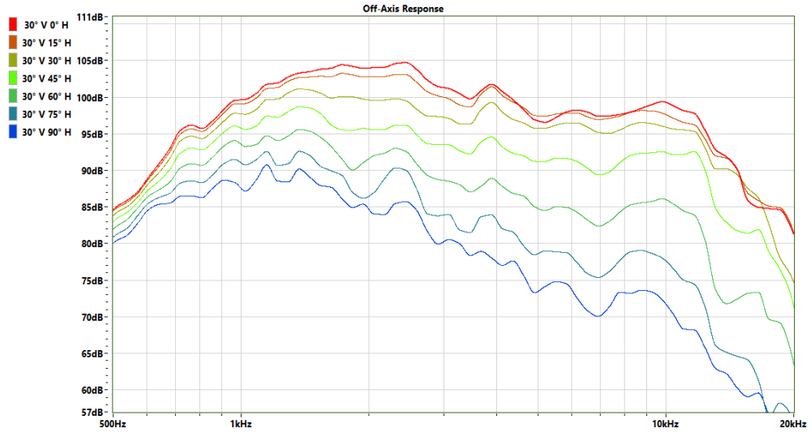


15° Vertical

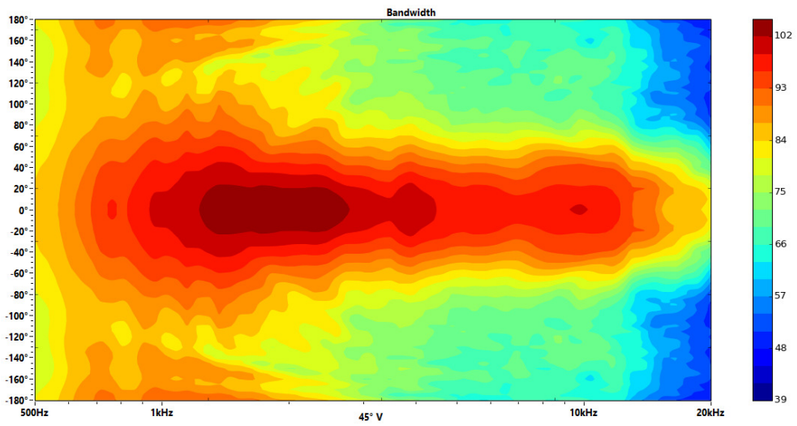


Ang	Freq	Cov	Q	Di
30° V	507Hz	290°	1,46	1,64dB
30° V	1023Hz	114°	2,31	3,65dB
30° V	2054Hz	72°	3,68	5,65dB
30° V	4120Hz	82°	3,70	5,68dB
30° V	8248Hz	90°	3,51	5,45dB
30° V	18527Hz	58°	4,23	6,26dB

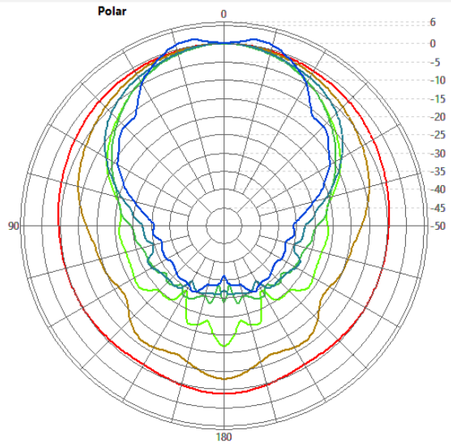


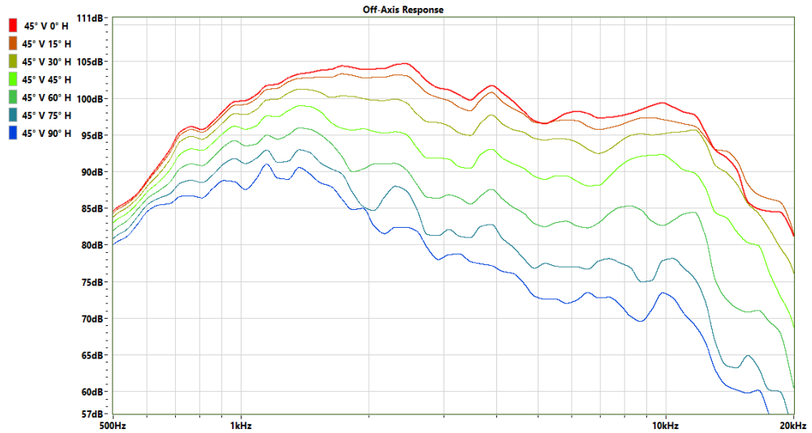


30° Vertical

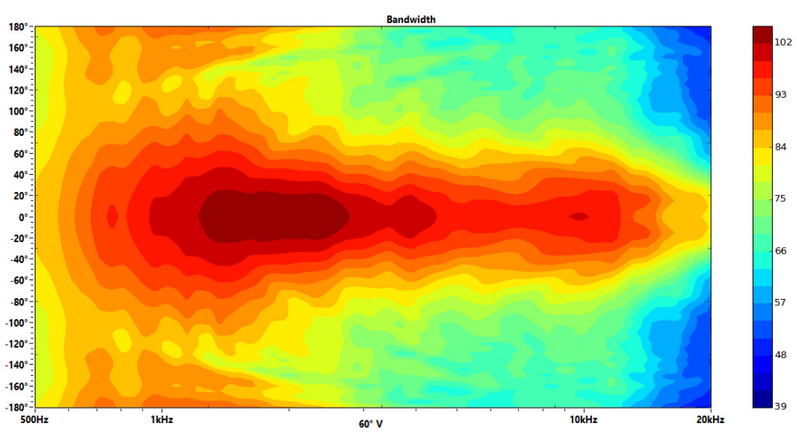


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,46	1,64dB
45° V	1023Hz	118°	2,27	3,57dB
45° V	2054Hz	72°	3,76	5,75dB
45° V	4120Hz	72°	4,13	6,16dB
45° V	8248Hz	88°	3,83	5,83dB
45° V	18527Hz	64°	4,18	6,22dB

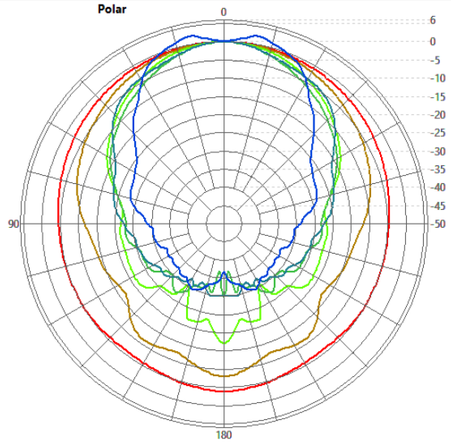


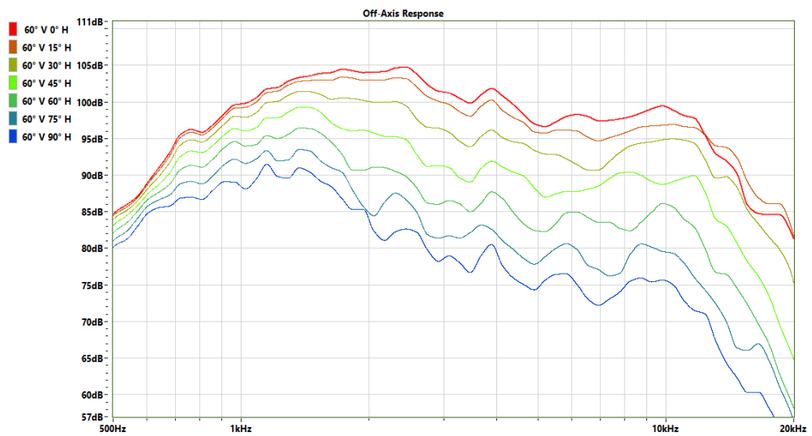


45° Vertical

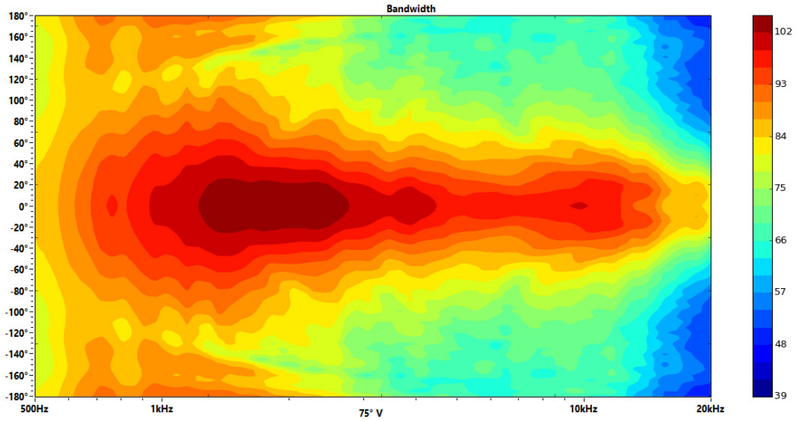


Ang	Freq	Cov	Q	Di
60° V	507Hz	286°	1,46	1,63dB
60° V	1023Hz	122°	2,26	3,53dB
60° V	2054Hz	74°	3,76	5,75dB
60° V	4120Hz	62°	4,41	6,44dB
60° V	8248Hz	82°	4,12	6,15dB
60° V	18527Hz	64°	4,28	6,32dB

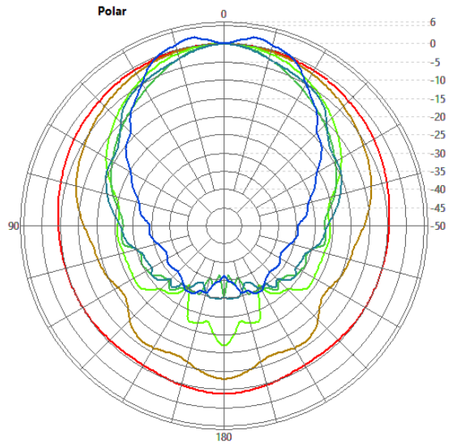


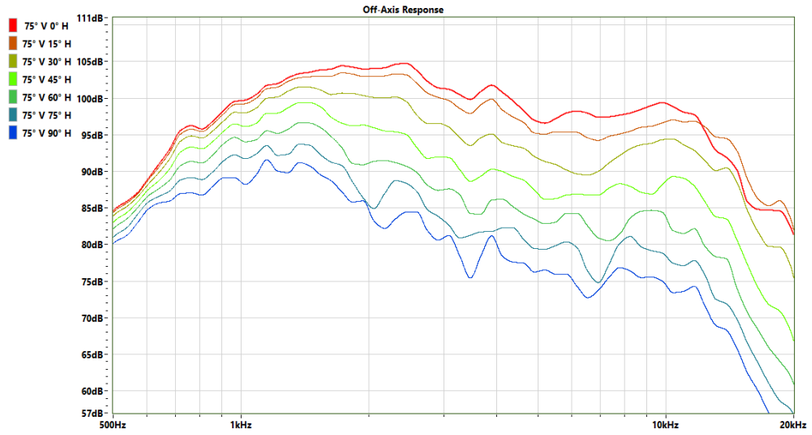


60° Vertical

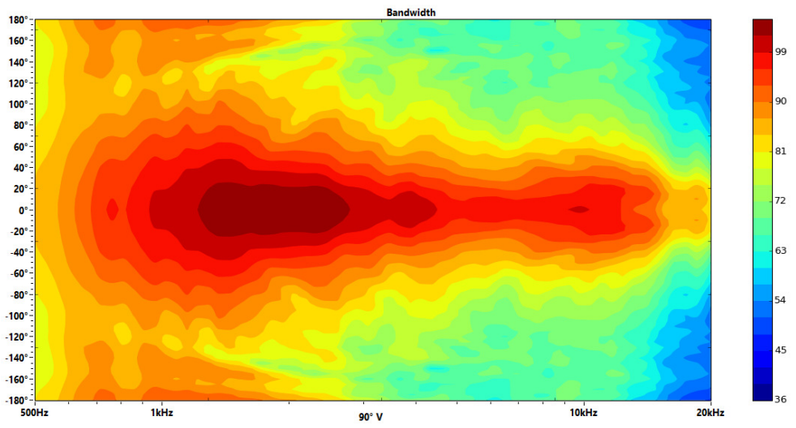


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,45	1,60dB
75° V	1023Hz	124°	2,21	3,45dB
75° V	2054Hz	76°	3,69	5,67dB
75° V	4120Hz	54°	4,61	6,64dB
75° V	8248Hz	72°	4,31	6,35dB
75° V	18527Hz	64°	4,13	6,16dB

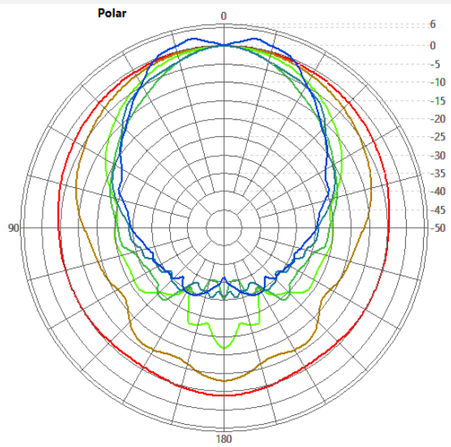


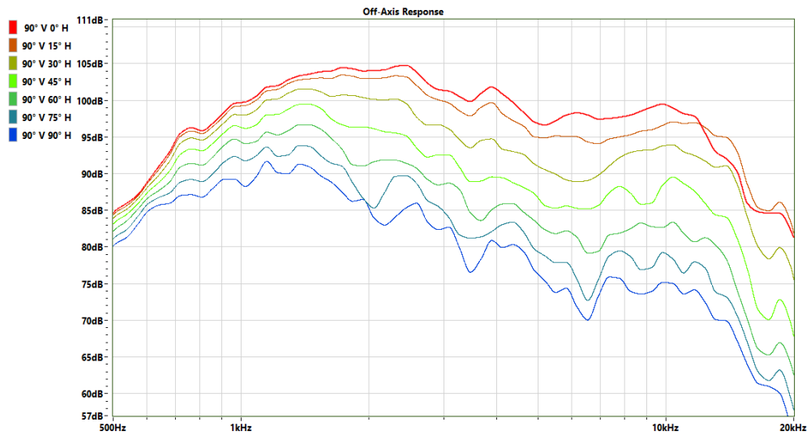


75° Vertical

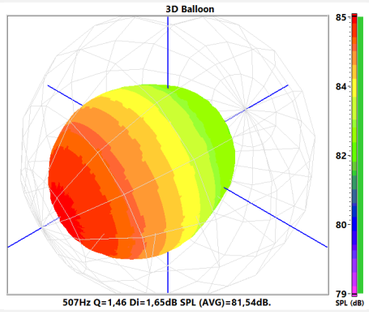


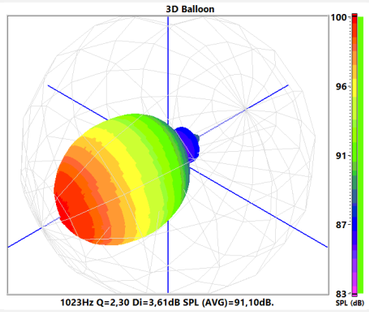
Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,45	1,61dB
90° V	1023Hz	124°	2,22	3,46dB
90° V	2054Hz	76°	3,65	5,63dB
90° V	4120Hz	50°	4,70	6,72dB
90° V	8248Hz	68°	4,60	6,62dB
90° V	18527Hz	66°	3,84	5,84dB

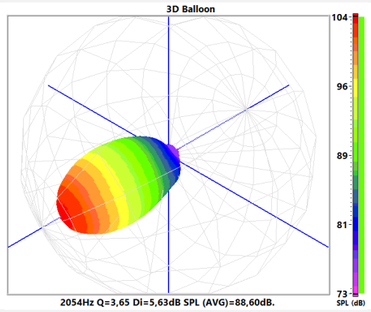


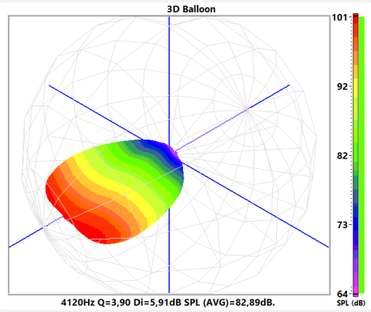


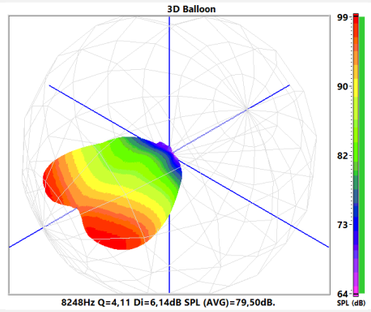
90° Vertical

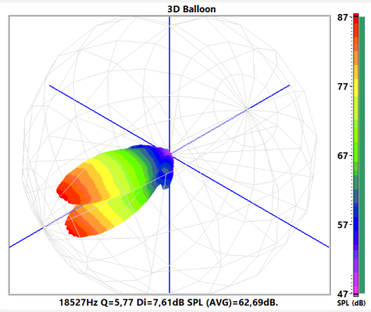






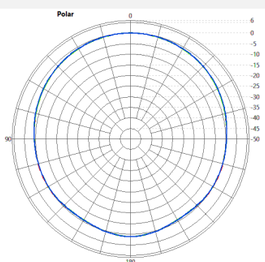




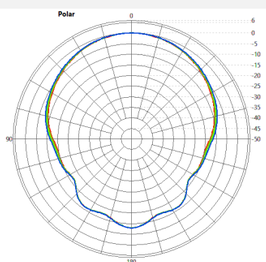


3D Balloon

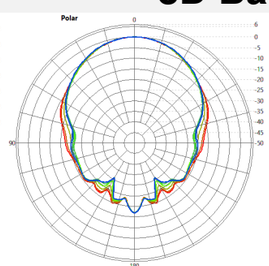
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,45	1,62dB
15° V	507Hz	290°	1,46	1,64dB
30° V	507Hz	290°	1,46	1,64dB
45° V	507Hz	290°	1,46	1,64dB
60° V	507Hz	286°	1,46	1,63dB
75° V	507Hz	290°	1,45	1,60dB
90° V	507Hz	290°	1,45	1,61dB



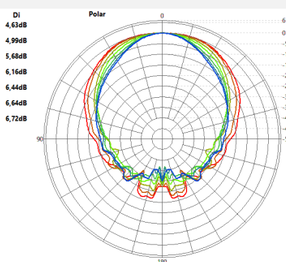
Ang	Freq	Cov	Q	Di
0° V	1023Hz	110°	2,36	3,72dB
15° V	1023Hz	112°	2,34	3,68dB
30° V	1023Hz	114°	2,31	3,65dB
45° V	1023Hz	118°	2,27	3,57dB
60° V	1023Hz	122°	2,26	3,53dB
75° V	1023Hz	124°	2,21	3,45dB
90° V	1023Hz	124°	2,22	3,46dB



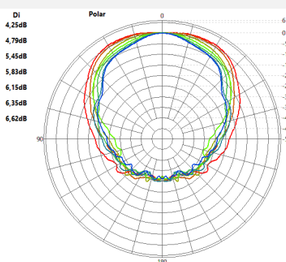
Ang	Freq	Cov	Q	Di
0° V	2054Hz	72°	3,48	5,41dB
15° V	2054Hz	72°	3,53	5,47dB
30° V	2054Hz	72°	3,68	5,65dB
45° V	2054Hz	72°	3,76	5,75dB
60° V	2054Hz	74°	3,76	5,75dB
75° V	2054Hz	76°	3,69	5,67dB
90° V	2054Hz	76°	3,65	5,63dB



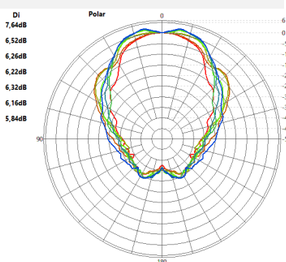
Ang	Freq	Cov	Q	Di
0° V	4120Hz	106°	2,90	4,63dB
15° V	4120Hz	96°	3,15	4,99dB
30° V	4120Hz	82°	3,70	5,68dB
45° V	4120Hz	72°	4,13	6,16dB
60° V	4120Hz	62°	4,41	6,44dB
75° V	4120Hz	54°	4,61	6,64dB
90° V	4120Hz	50°	4,70	6,72dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	110°	2,66	4,25dB
15° V	8248Hz	100°	3,02	4,79dB
30° V	8248Hz	90°	3,51	5,45dB
45° V	8248Hz	88°	3,83	5,83dB
60° V	8248Hz	82°	4,12	6,15dB
75° V	8248Hz	72°	4,31	6,35dB
90° V	8248Hz	68°	4,60	6,62dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	52°	5,81	7,64dB
15° V	18527Hz	54°	4,49	6,52dB
30° V	18527Hz	58°	4,23	6,26dB
45° V	18527Hz	64°	4,18	6,22dB
60° V	18527Hz	64°	4,28	6,32dB
75° V	18527Hz	64°	4,13	6,16dB
90° V	18527Hz	66°	3,84	5,84dB

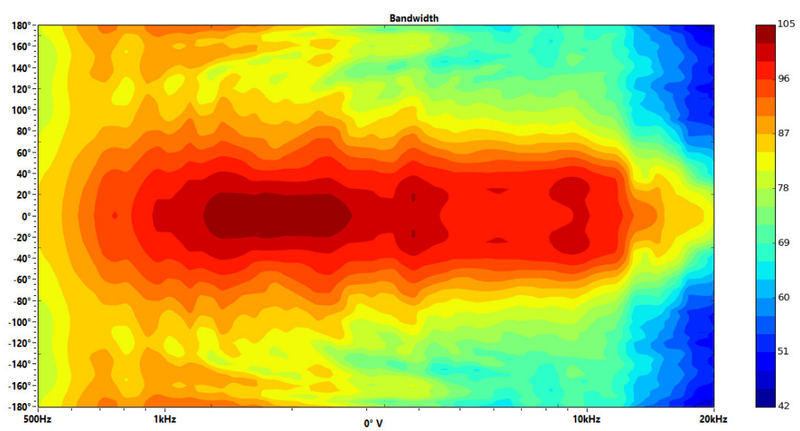


Polar Comparativa Vertical





Application Note AN-0015.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-040 horn.
https://www.ludovico.com.br/271/cornetas/corneta-lc-040-ev-monitor-245-cm-x-20-cm
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.



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0° V	507Hz	290°	1,46	1,62dB
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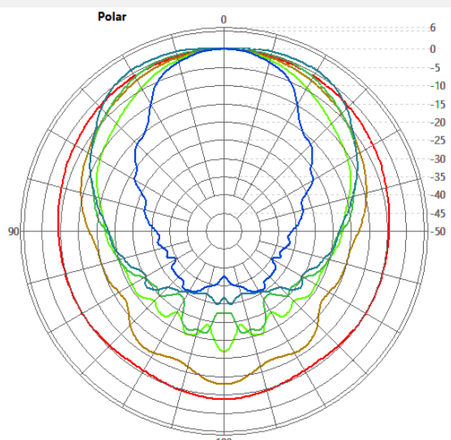
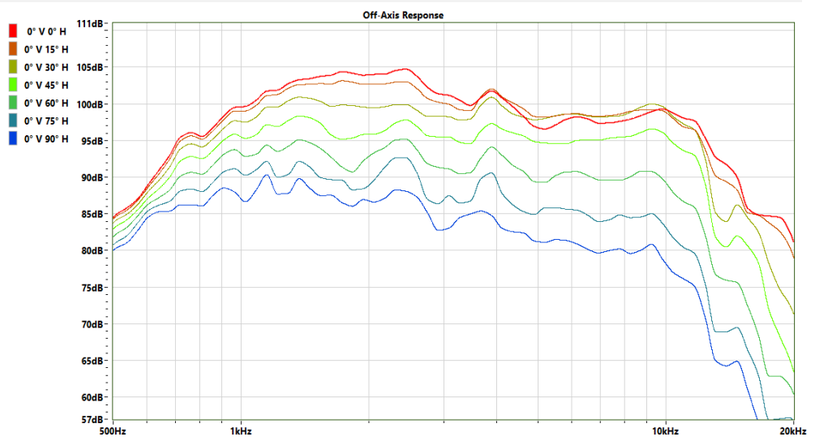
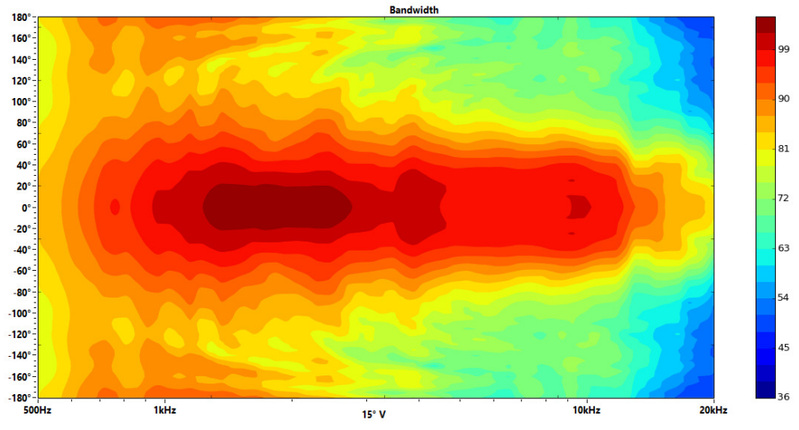




0° Vertical



Ang	Freq	Cov	Q	Di
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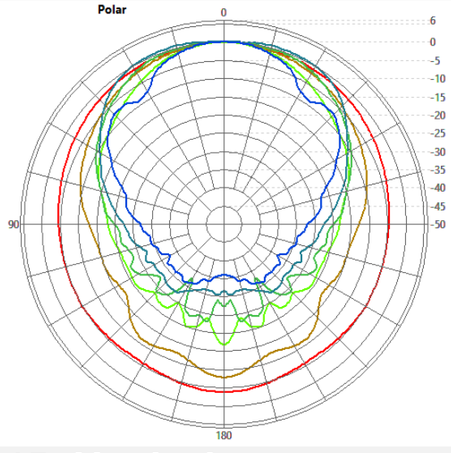
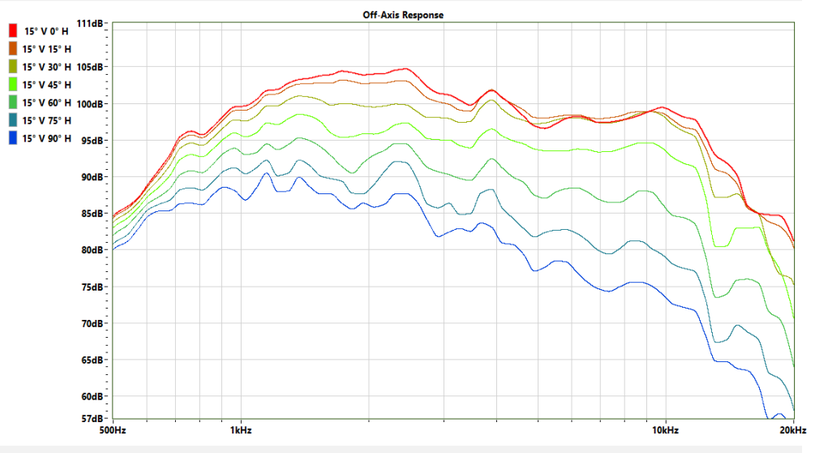
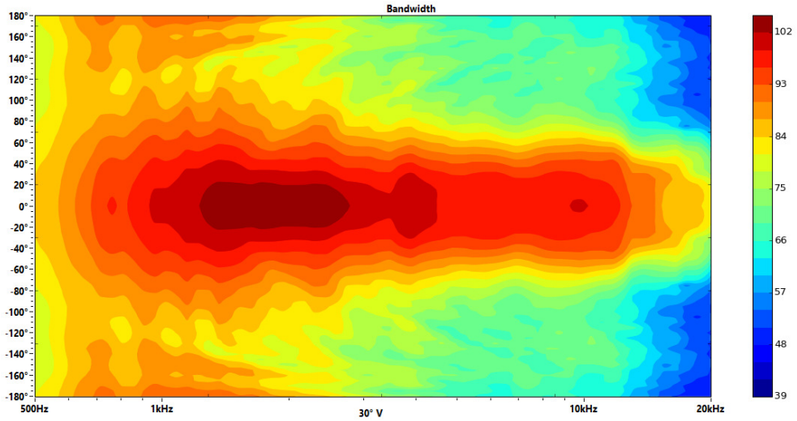
15° V	18527Hz	54°	4,49	6,52dB





15° Vertical



Ang	Freq	Cov	Q	Di
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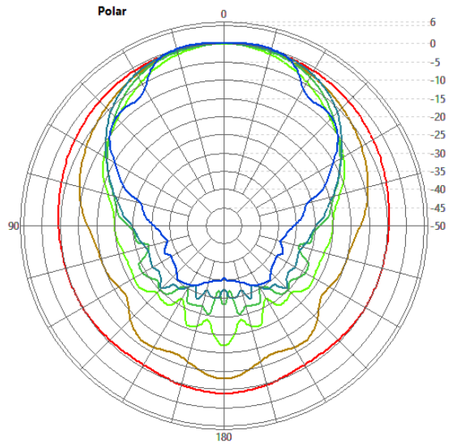
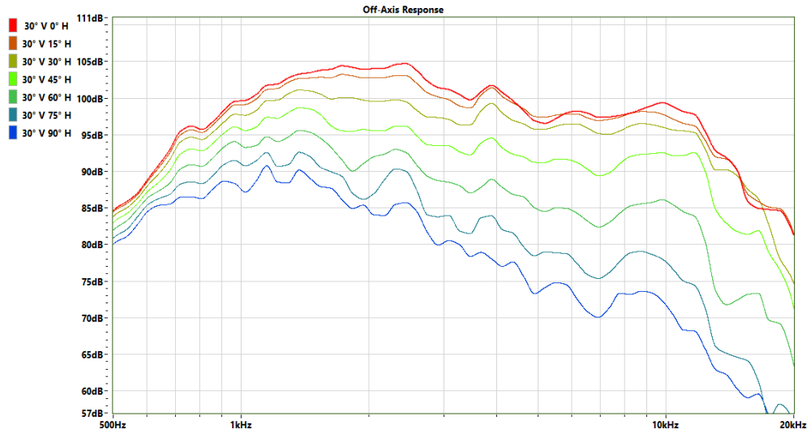
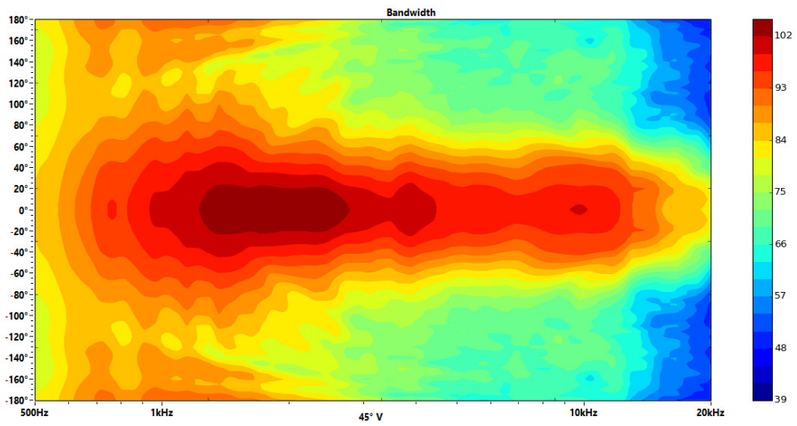
30° V	8248Hz	90°	3,51	5,45dB
30° V	18527Hz	58°	4,23	6,26dB

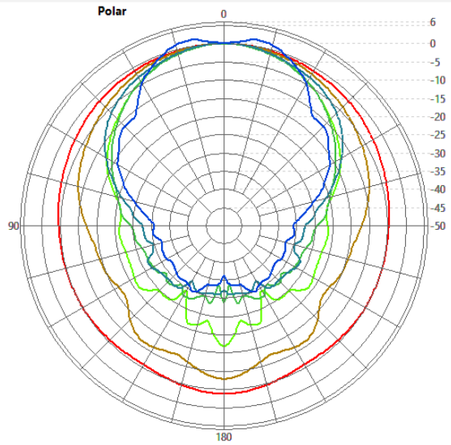


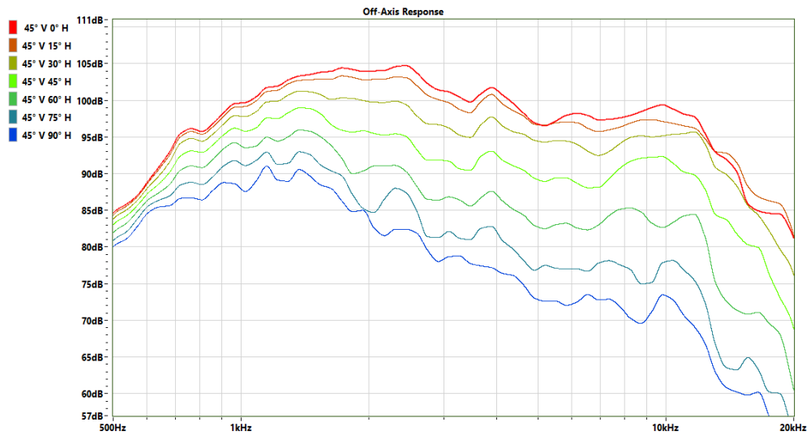


30° Vertical

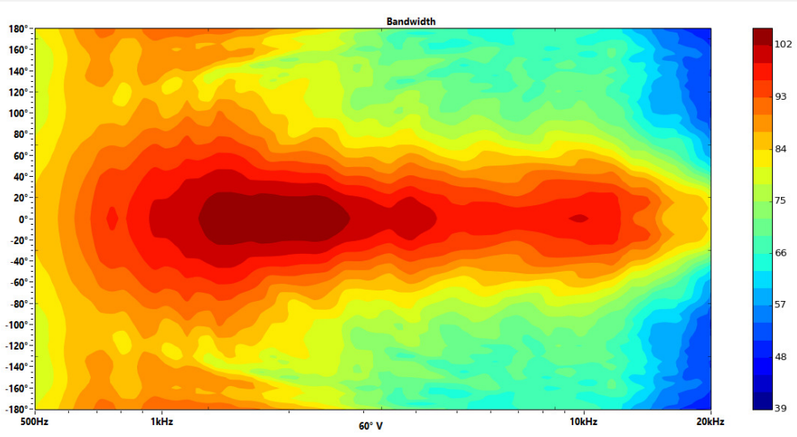


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,46	1,64dB
45° V	1023Hz	118°	2,27	3,57dB
45° V	2054Hz	72°	3,76	5,75dB
45° V	4120Hz	72°	4,13	6,16dB
45° V	8248Hz	88°	3,83	5,83dB
45° V	18527Hz	64°	4,18	6,22dB

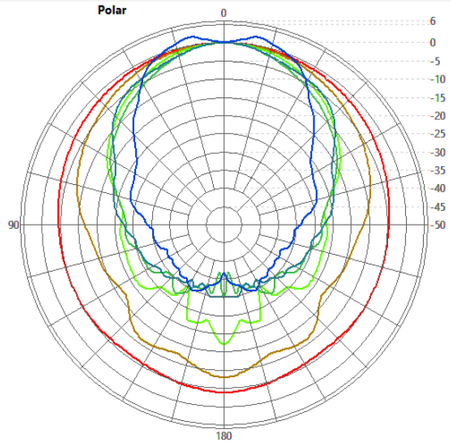


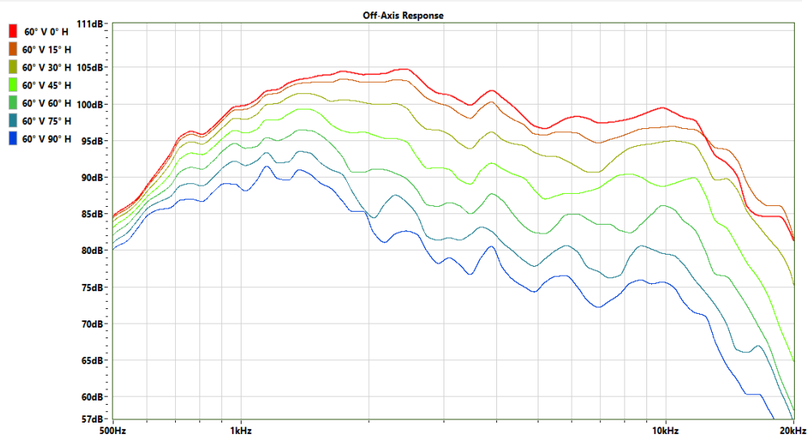


45° Vertical

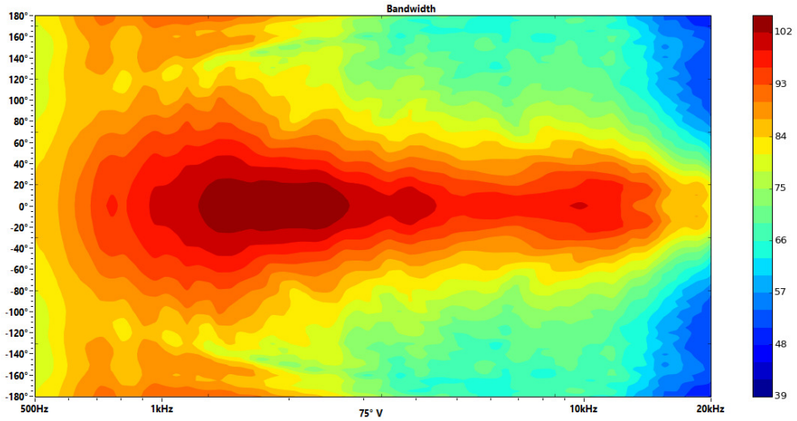


Ang	Freq	Cov	Q	Di
60° V	507Hz	286°	1,46	1,63dB
60° V	1023Hz	122°	2,26	3,53dB
60° V	2054Hz	74°	3,76	5,75dB
60° V	4120Hz	62°	4,41	6,44dB
60° V	8248Hz	82°	4,12	6,15dB
60° V	18527Hz	64°	4,28	6,32dB

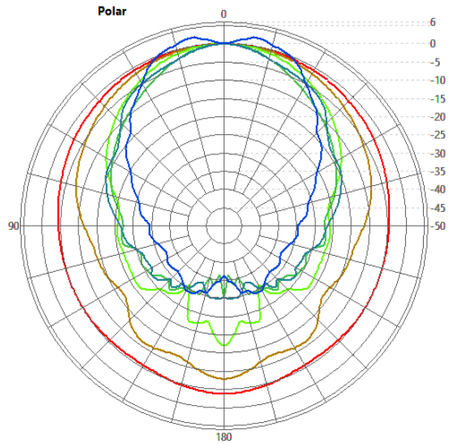


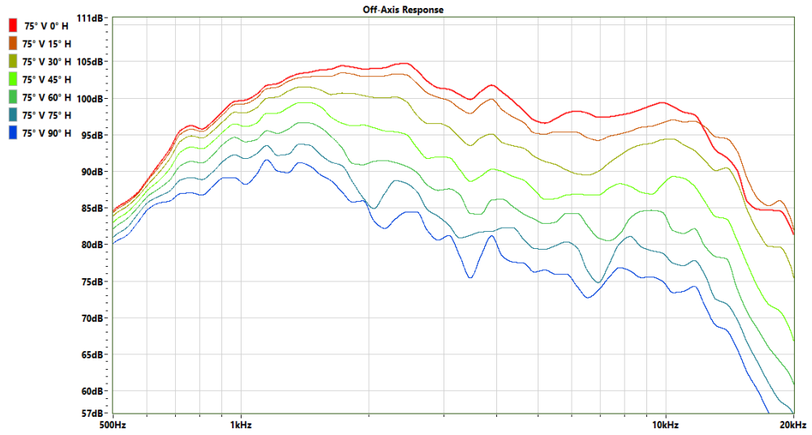


60° Vertical

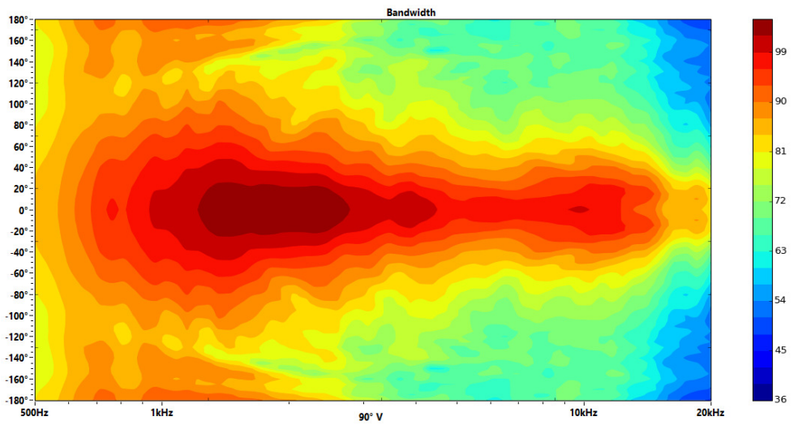


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,45	1,60dB
75° V	1023Hz	124°	2,21	3,45dB
75° V	2054Hz	76°	3,69	5,67dB
75° V	4120Hz	54°	4,61	6,64dB
75° V	8248Hz	72°	4,31	6,35dB
75° V	18527Hz	64°	4,13	6,16dB

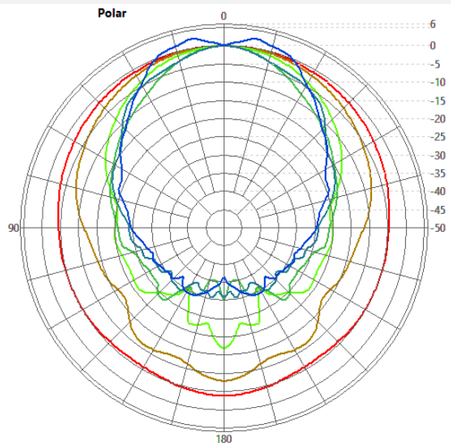


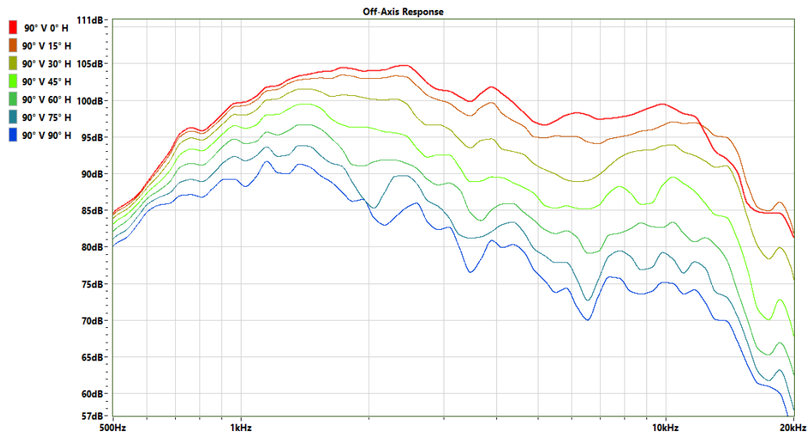


75° Vertical

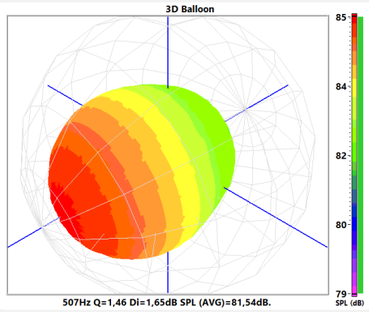


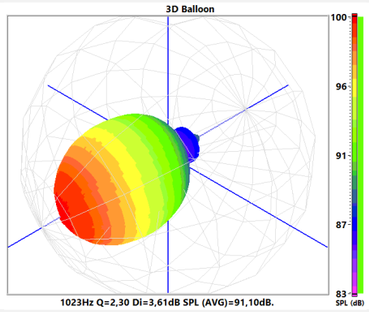
Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,45	1,61dB
90° V	1023Hz	124°	2,22	3,46dB
90° V	2054Hz	76°	3,65	5,63dB
90° V	4120Hz	50°	4,70	6,72dB
90° V	8248Hz	68°	4,60	6,62dB
90° V	18527Hz	66°	3,84	5,84dB

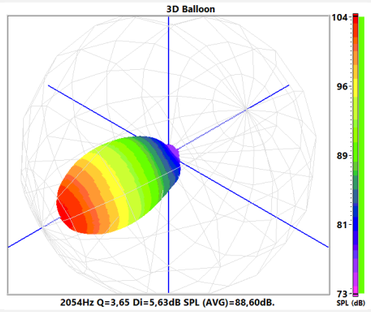


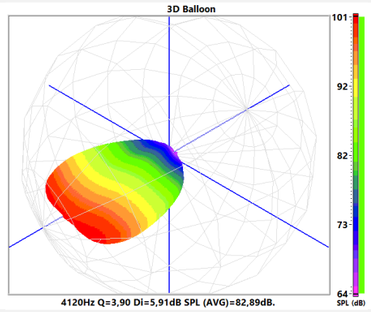


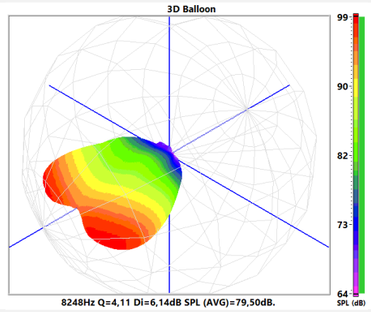
90° Vertical

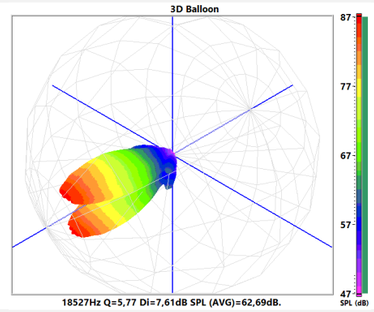






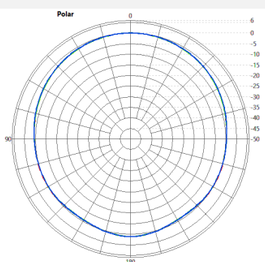




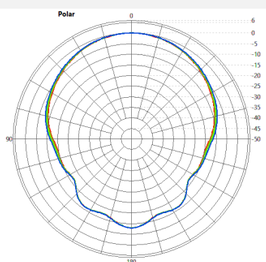


3D Balloon

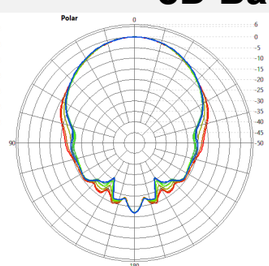
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,45	1,62dB
15° V	507Hz	290°	1,46	1,64dB
30° V	507Hz	290°	1,46	1,64dB
45° V	507Hz	290°	1,46	1,64dB
60° V	507Hz	286°	1,46	1,63dB
75° V	507Hz	290°	1,45	1,60dB
90° V	507Hz	290°	1,45	1,61dB



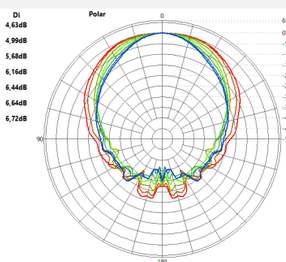
Ang	Freq	Cov	Q	Di
0° V	1023Hz	110°	2,36	3,72dB
15° V	1023Hz	112°	2,34	3,68dB
30° V	1023Hz	114°	2,31	3,65dB
45° V	1023Hz	118°	2,27	3,57dB
60° V	1023Hz	122°	2,26	3,53dB
75° V	1023Hz	124°	2,21	3,45dB
90° V	1023Hz	124°	2,22	3,46dB



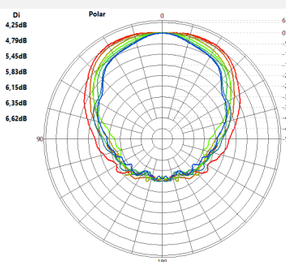
Ang	Freq	Cov	Q	Di
0° V	2054Hz	72°	3,48	5,41dB
15° V	2054Hz	72°	3,53	5,47dB
30° V	2054Hz	72°	3,68	5,65dB
45° V	2054Hz	72°	3,76	5,75dB
60° V	2054Hz	74°	3,76	5,75dB
75° V	2054Hz	76°	3,69	5,67dB
90° V	2054Hz	76°	3,65	5,63dB



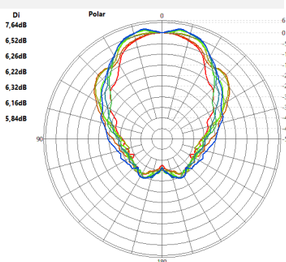
Ang	Freq	Cov	Q	Di
0° V	4120Hz	106°	2,90	4,63dB
15° V	4120Hz	96°	3,15	4,99dB
30° V	4120Hz	82°	3,70	5,68dB
45° V	4120Hz	72°	4,13	6,16dB
60° V	4120Hz	62°	4,41	6,44dB
75° V	4120Hz	54°	4,61	6,64dB
90° V	4120Hz	50°	4,70	6,72dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	110°	2,66	4,25dB
15° V	8248Hz	100°	3,02	4,79dB
30° V	8248Hz	90°	3,51	5,45dB
45° V	8248Hz	88°	3,83	5,83dB
60° V	8248Hz	82°	4,12	6,15dB
75° V	8248Hz	72°	4,31	6,35dB
90° V	8248Hz	68°	4,60	6,62dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	52°	5,81	7,64dB
15° V	18527Hz	54°	4,49	6,52dB
30° V	18527Hz	58°	4,23	6,26dB
45° V	18527Hz	64°	4,18	6,22dB
60° V	18527Hz	64°	4,28	6,32dB
75° V	18527Hz	64°	4,13	6,16dB
90° V	18527Hz	66°	3,84	5,84dB



Polar Vertical Comparative