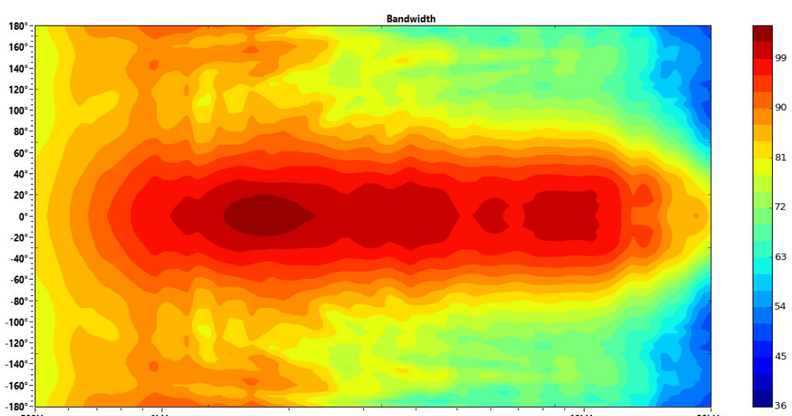
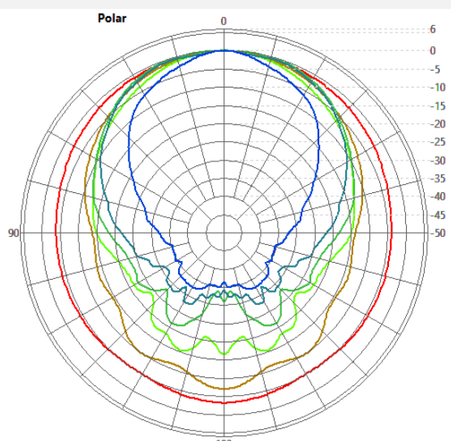


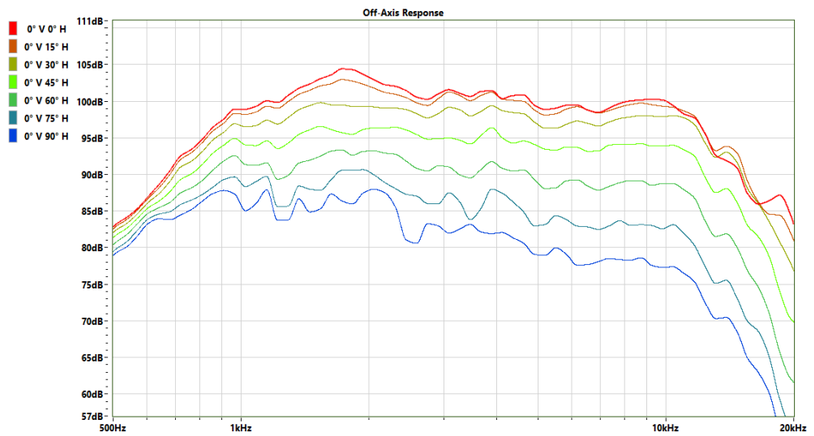


Nota de Aplicação AN-0016.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-100.
https://www.ludovico.com.br/277/cornetas/corneta-lc-100-gs-100-145cm-x-29-cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 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.

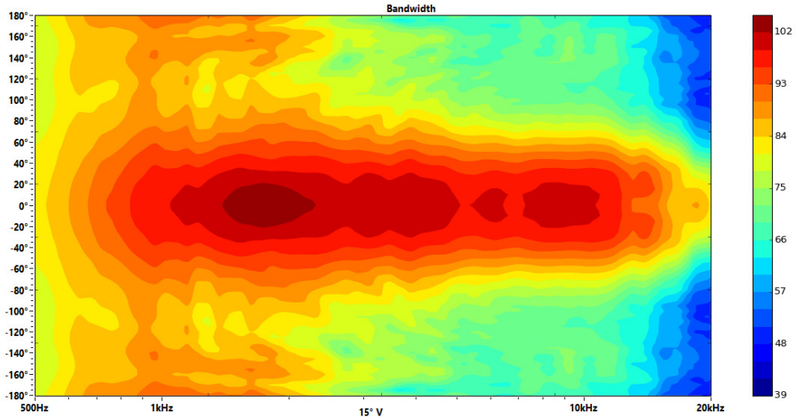


Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,40	1,45dB
0° V	1023Hz	102°	2,33	3,67dB
0° V	2054Hz	84°	3,14	4,97dB
0° V	4120Hz	94°	3,11	4,92dB
0° V	8248Hz	90°	3,50	5,44dB
0° V	18527Hz	58°	5,46	7,37dB

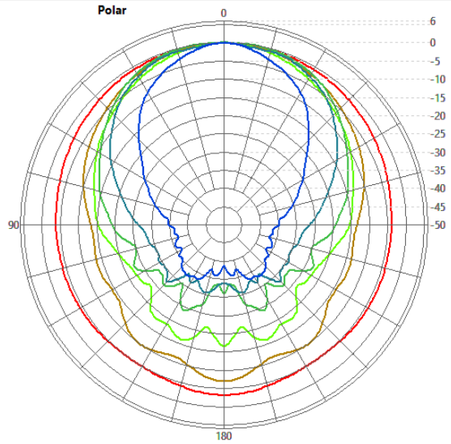


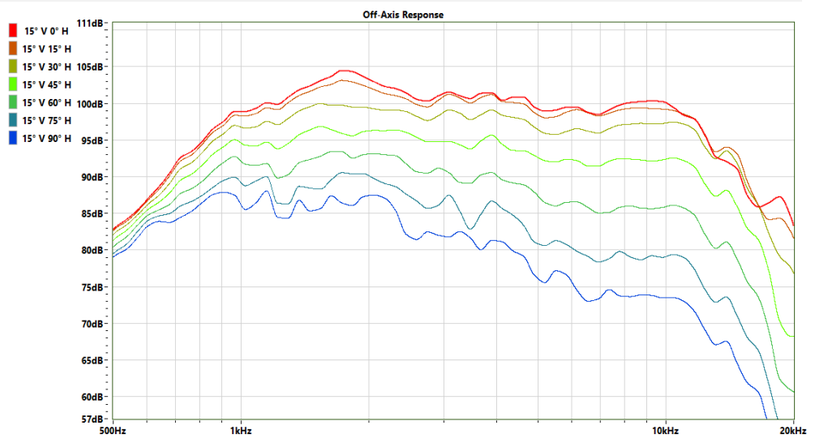


0° Vertical

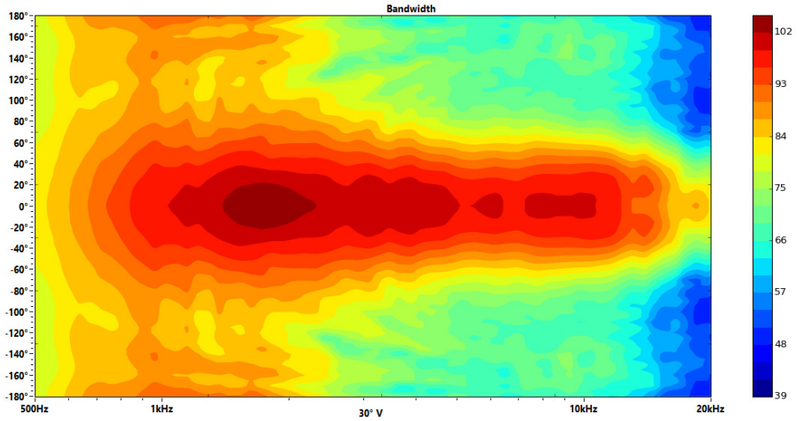


Ang	Freq	Cov	Q	Di
15° V	507Hz	290°	1,39	1,42dB
15° V	1023Hz	106°	2,29	3,60dB
15° V	2054Hz	84°	3,17	5,01dB
15° V	4120Hz	90°	3,32	5,21dB
15° V	8248Hz	82°	3,95	5,96dB
15° V	18527Hz	50°	6,17	7,90dB

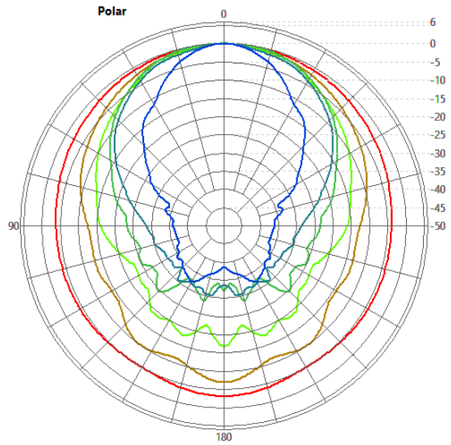


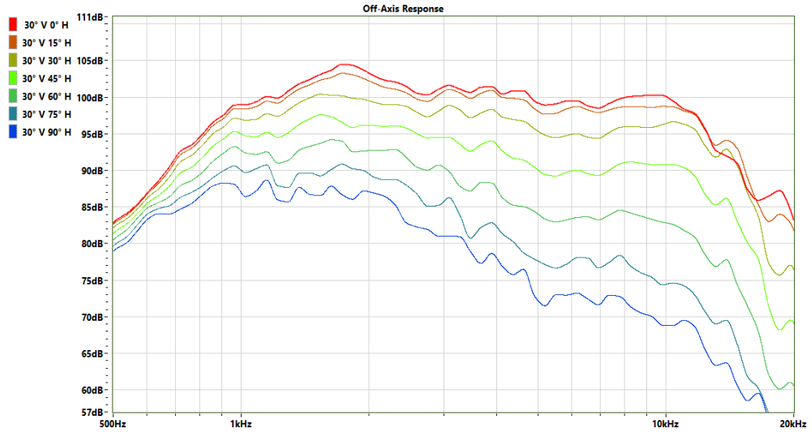


15° Vertical

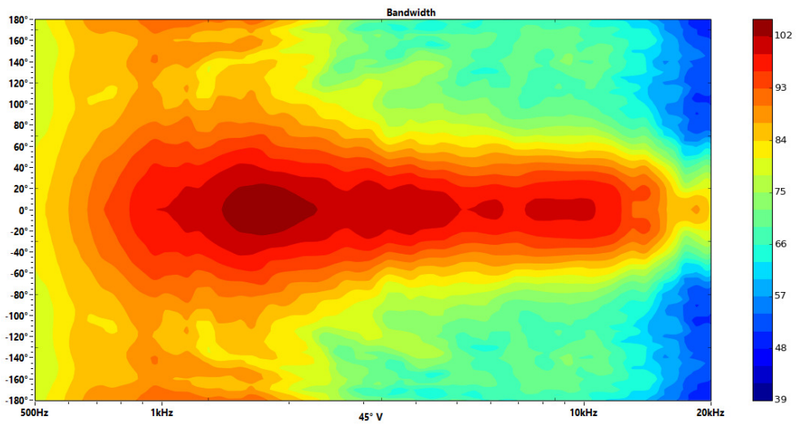


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,38	1,41dB
30° V	1023Hz	112°	2,23	3,48dB
30° V	2054Hz	82°	3,25	5,11dB
30° V	4120Hz	80°	3,81	5,81dB
30° V	8248Hz	72°	4,37	6,40dB
30° V	18527Hz	40°	6,89	8,38dB

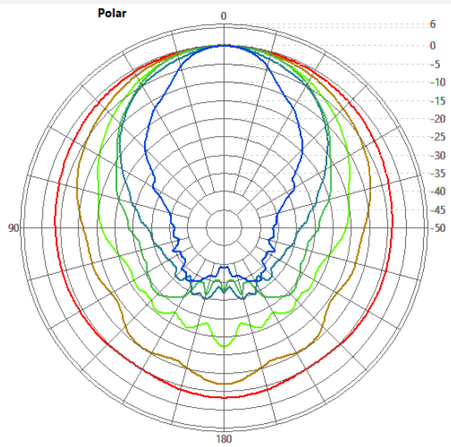


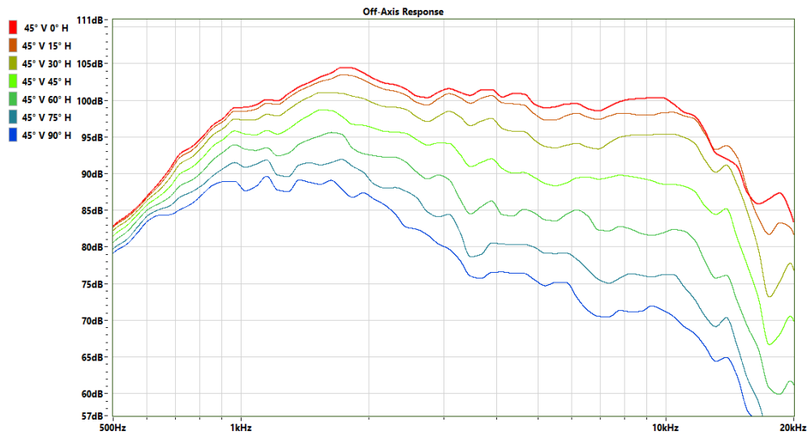


30° Vertical

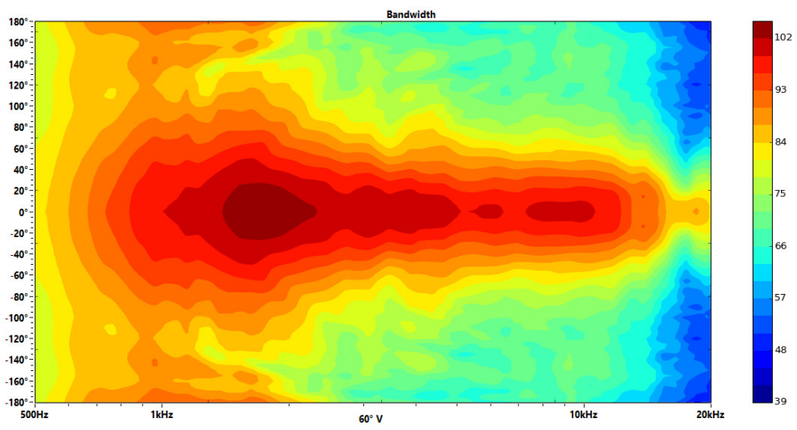


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,37	1,38dB
45° V	1023Hz	124°	2,14	3,31dB
45° V	2054Hz	84°	3,28	5,15dB
45° V	4120Hz	70°	4,17	6,20dB
45° V	8248Hz	68°	4,75	6,77dB
45° V	18527Hz	36°	7,38	8,68dB

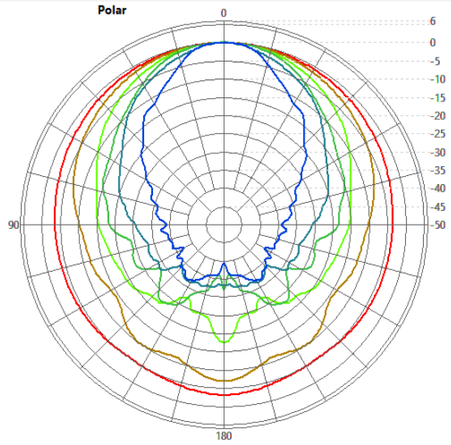


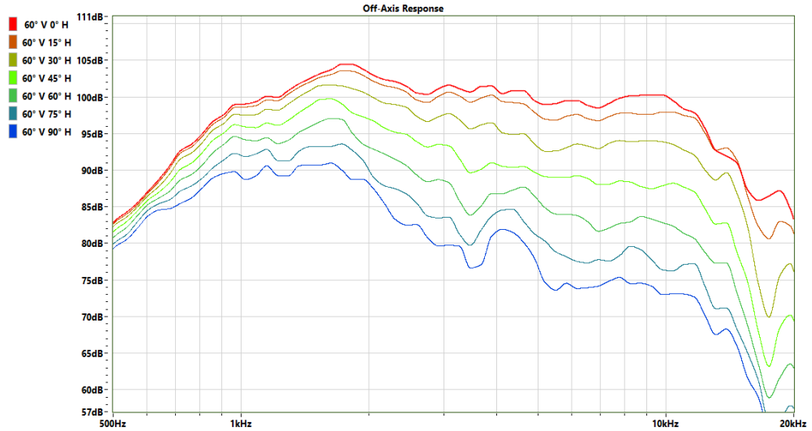


45° Vertical

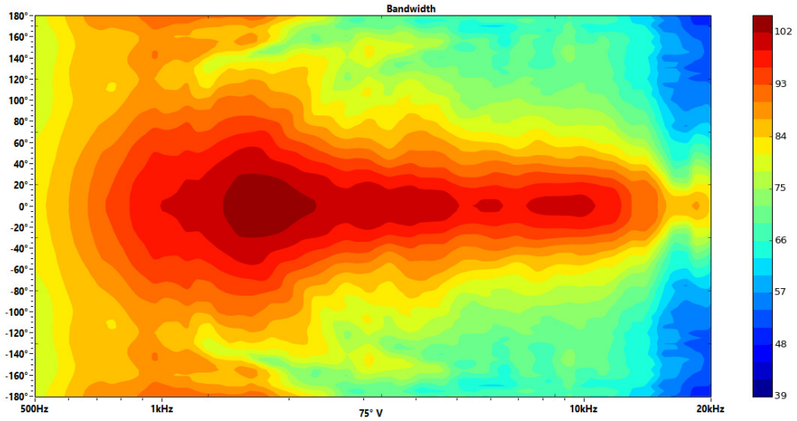


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,37	1,36dB
60° V	1023Hz	136°	2,05	3,13dB
60° V	2054Hz	88°	3,19	5,04dB
60° V	4120Hz	64°	4,02	6,05dB
60° V	8248Hz	58°	4,90	6,90dB
60° V	18527Hz	36°	6,90	8,39dB

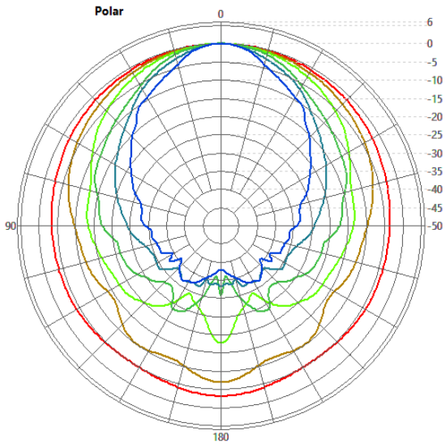


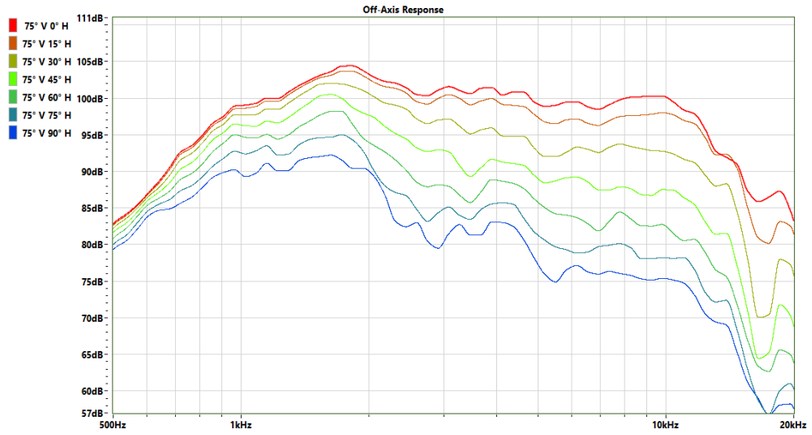


60° Vertical

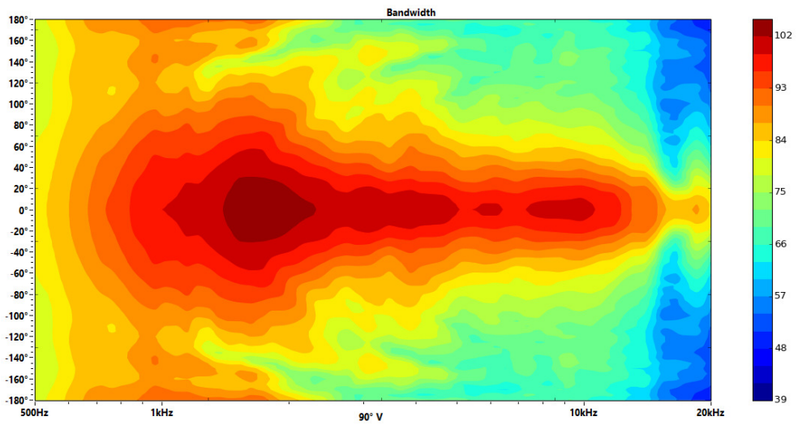


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,36	1,33dB
75° V	1023Hz	142°	2,01	3,02dB
75° V	2054Hz	94°	2,99	4,76dB
75° V	4120Hz	62°	3,86	5,87dB
75° V	8248Hz	56°	5,00	6,99dB
75° V	18527Hz	40°	6,22	7,94dB

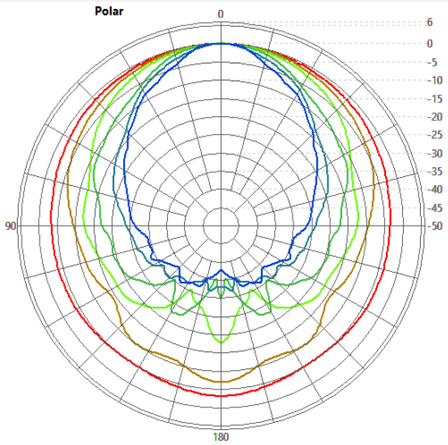


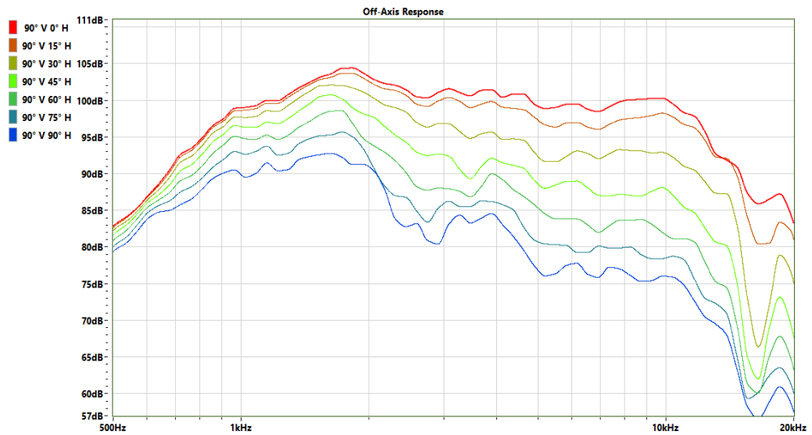


75° Vertical

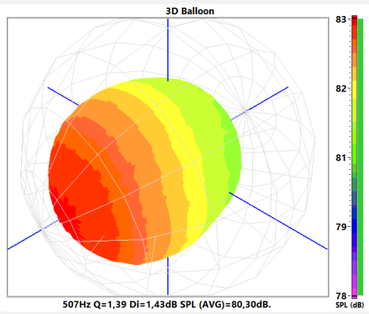


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,36	1,32dB
90° V	1023Hz	146°	1,99	2,99dB
90° V	2054Hz	98°	2,91	4,64dB
90° V	4120Hz	62°	3,80	5,80dB
90° V	8248Hz	54°	5,01	7,00dB
90° V	18527Hz	44°	5,75	7,60dB

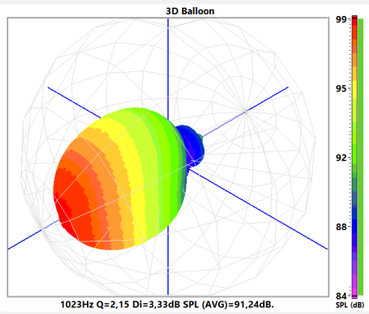




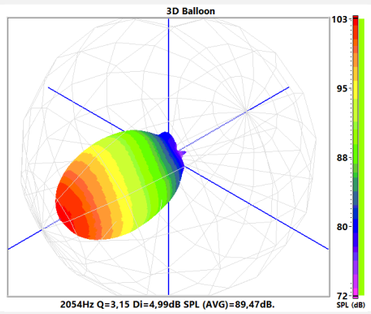
90° Vertical



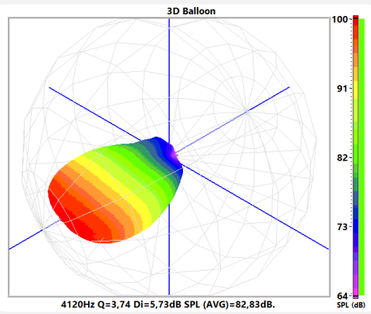
507Hz Q=1,39 Di=1,43dB SPL (AVG)=80,30dB.



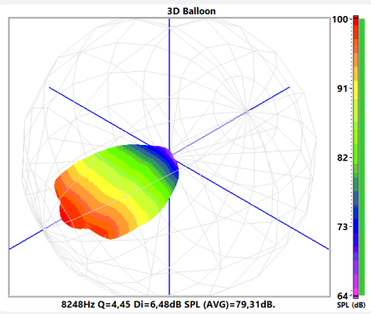
1023Hz Q=2,15 Di=3,33dB SPL (AVG)=91,24dB.



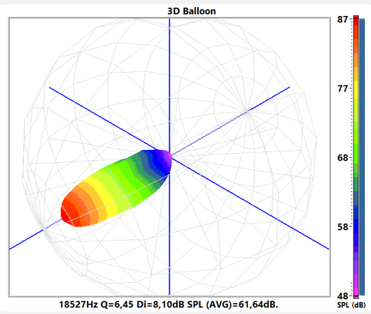
2054Hz Q=3,15 Di=4,99dB SPL (AVG)=89,47dB.



4120Hz Q=3,74 Di=5,73dB SPL (AVG)=82,83dB.



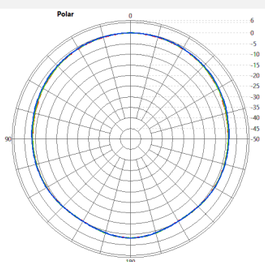
8248Hz Q=4,45 Di=6,48dB SPL (AVG)=79,31dB.



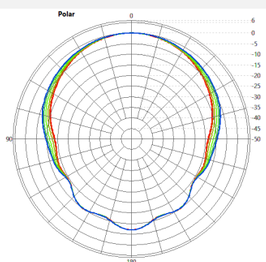
18527Hz Q=6,45 Di=8,10dB SPL (AVG)=61,64dB.

3D Balloon

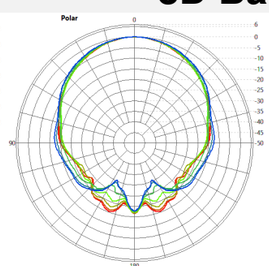
Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,40	1,45dB
15° V	507Hz	290°	1,39	1,42dB
30° V	507Hz	300°	1,38	1,41dB
45° V	507Hz	290°	1,37	1,38dB
60° V	507Hz	290°	1,37	1,36dB
75° V	507Hz	300°	1,36	1,33dB
90° V	507Hz	290°	1,36	1,32dB



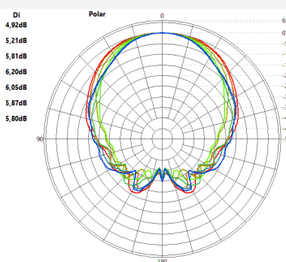
Ang	Freq	Cov	Q	Di
0° V	1023Hz	102°	2,33	3,67dB
15° V	1023Hz	106°	2,29	3,60dB
30° V	1023Hz	112°	2,23	3,48dB
45° V	1023Hz	124°	2,14	3,31dB
60° V	1023Hz	136°	2,05	3,13dB
75° V	1023Hz	142°	2,01	3,02dB
90° V	1023Hz	146°	1,99	2,99dB



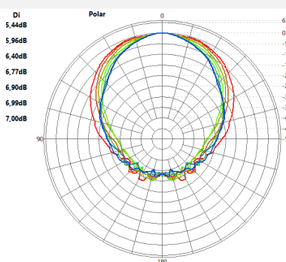
Ang	Freq	Cov	Q	Di
0° V	2054Hz	84°	3,14	4,97dB
15° V	2054Hz	84°	3,17	5,01dB
30° V	2054Hz	82°	3,25	5,11dB
45° V	2054Hz	84°	3,28	5,15dB
60° V	2054Hz	88°	3,19	5,04dB
75° V	2054Hz	94°	2,99	4,76dB
90° V	2054Hz	98°	2,91	4,64dB



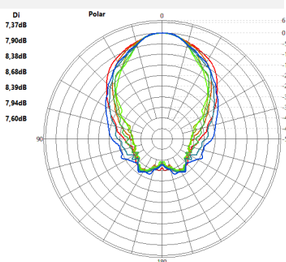
Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,11	4,92dB
15° V	4120Hz	90°	3,32	5,21dB
30° V	4120Hz	80°	3,81	5,81dB
45° V	4120Hz	70°	4,17	6,20dB
60° V	4120Hz	64°	4,02	6,05dB
75° V	4120Hz	62°	3,86	5,87dB
90° V	4120Hz	62°	3,80	5,80dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	90°	3,50	5,44dB
15° V	8248Hz	82°	3,95	5,96dB
30° V	8248Hz	72°	4,37	6,40dB
45° V	8248Hz	68°	4,75	6,77dB
60° V	8248Hz	58°	4,90	6,90dB
75° V	8248Hz	56°	5,00	6,99dB
90° V	8248Hz	54°	5,01	7,00dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	58°	5,46	7,37dB
15° V	18527Hz	50°	6,17	7,90dB
30° V	18527Hz	40°	6,89	8,38dB
45° V	18527Hz	36°	7,38	8,68dB
60° V	18527Hz	36°	6,90	8,39dB
75° V	18527Hz	40°	6,22	7,94dB
90° V	18527Hz	44°	5,75	7,60dB

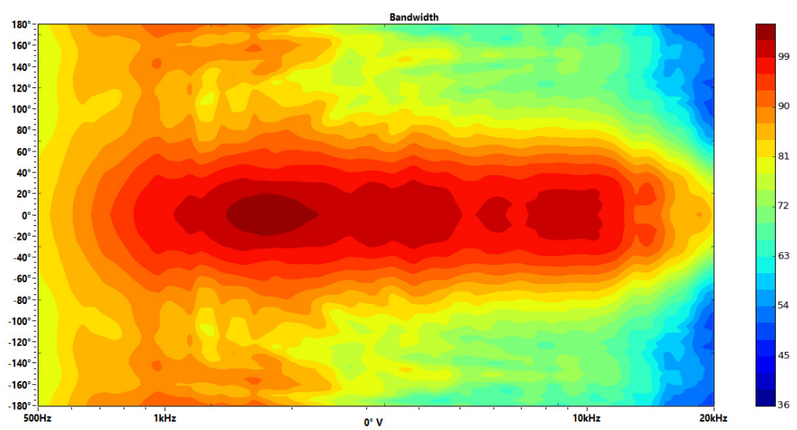


Polar Comparativa Vertical





Application Note AN-0016.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-100 horn.
https://www.ludovico.com.br/277/cornetas/corneta-lc-100-gs-100-145cm-x-29-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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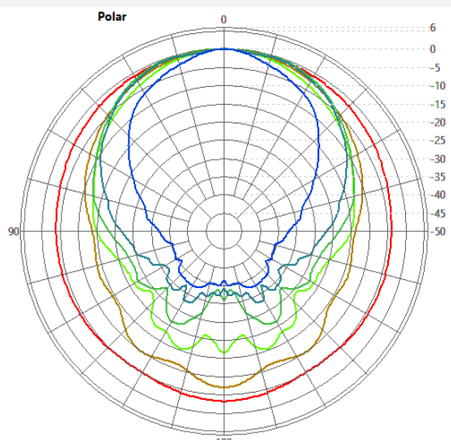
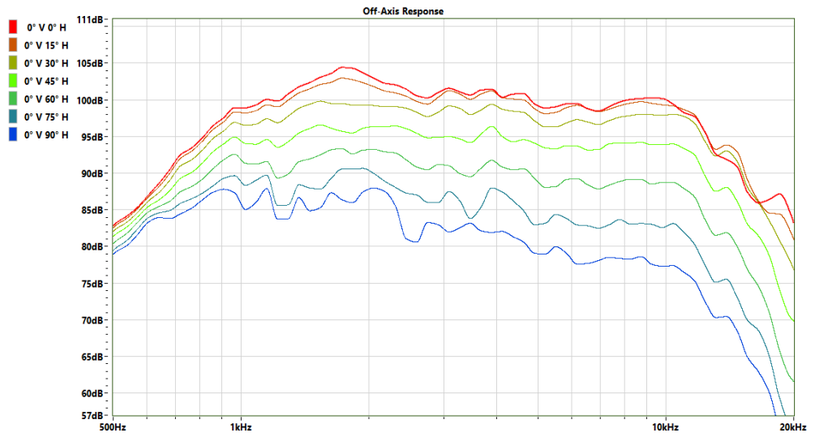
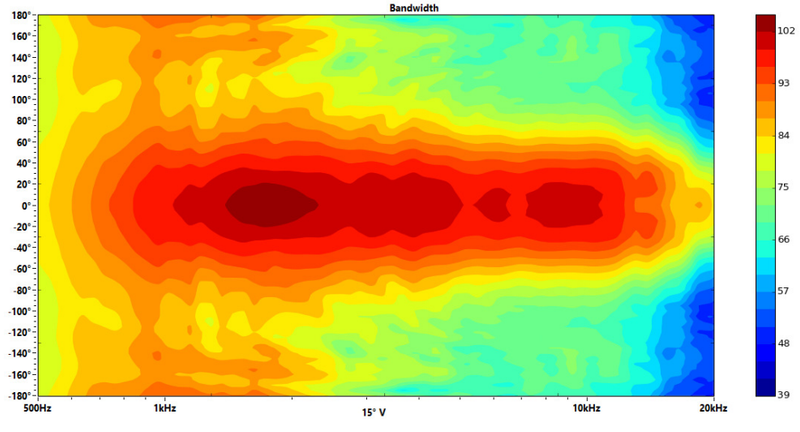




0° Vertical



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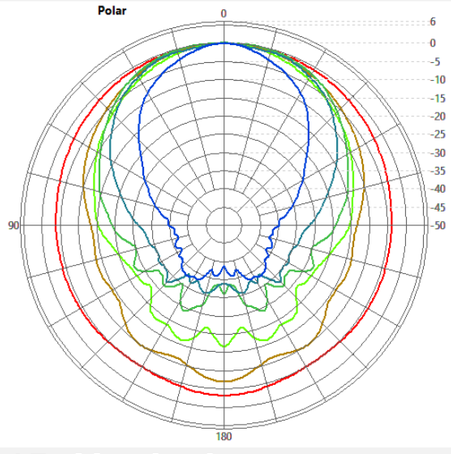
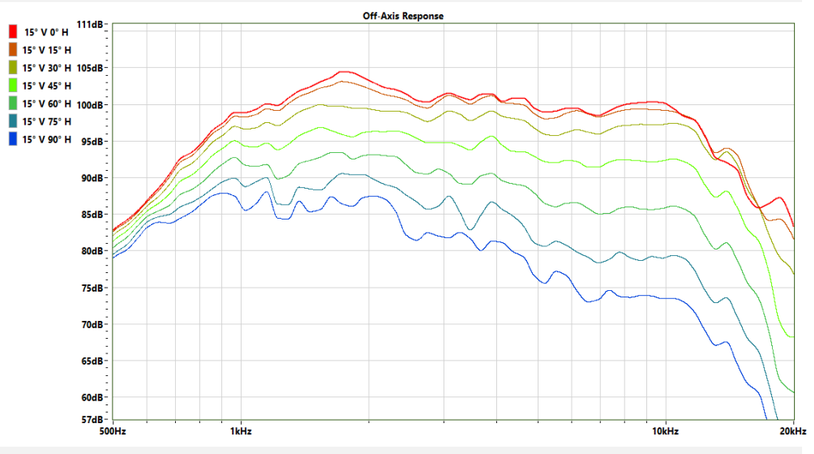
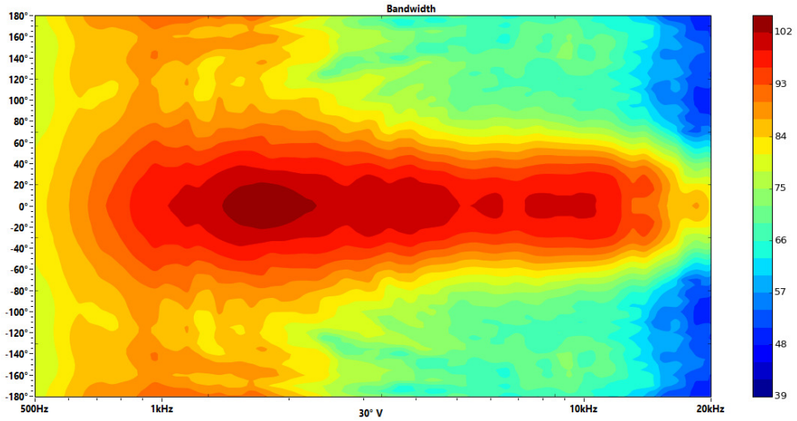
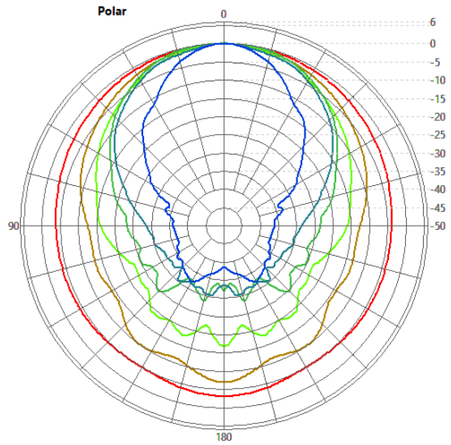


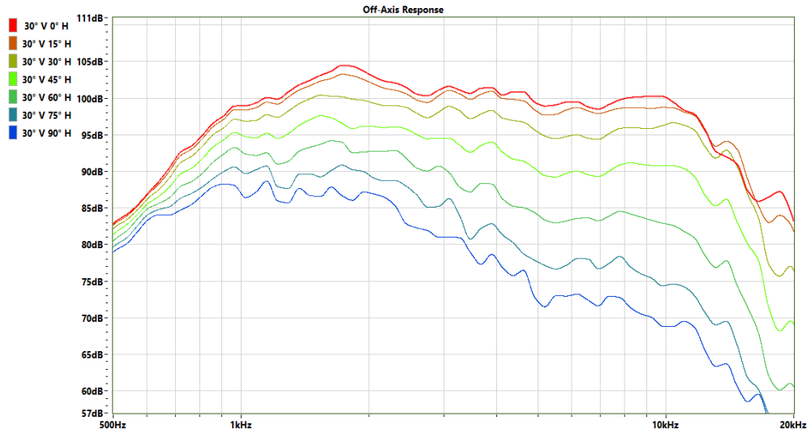


15° Vertical

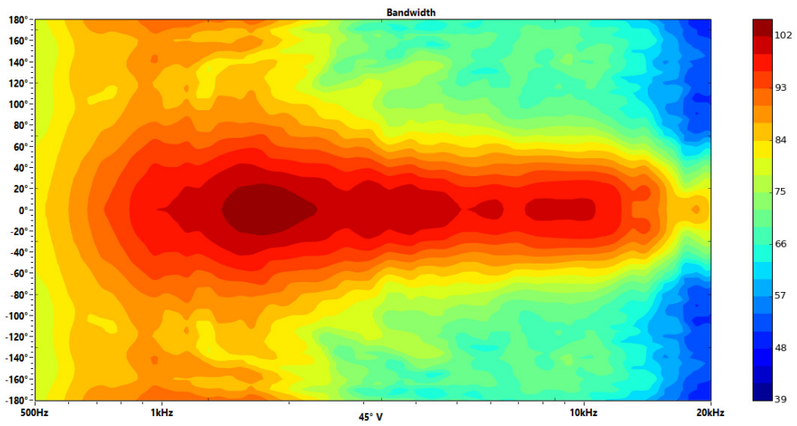


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,38	1,41dB
30° V	1023Hz	112°	2,23	3,48dB
30° V	2054Hz	82°	3,25	5,11dB
30° V	4120Hz	80°	3,81	5,81dB
30° V	8248Hz	72°	4,37	6,40dB
30° V	18527Hz	40°	6,89	8,38dB

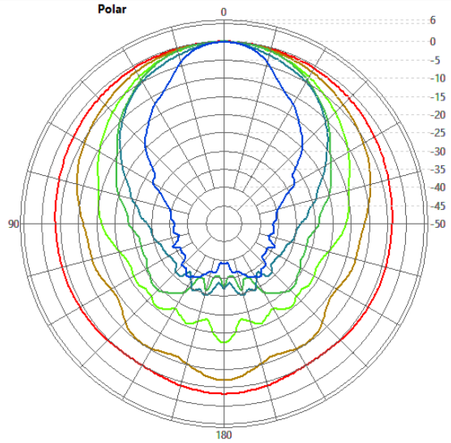


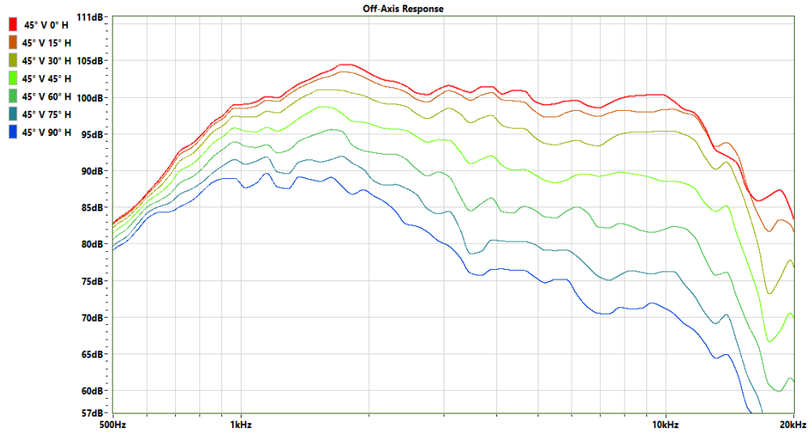


30° Vertical

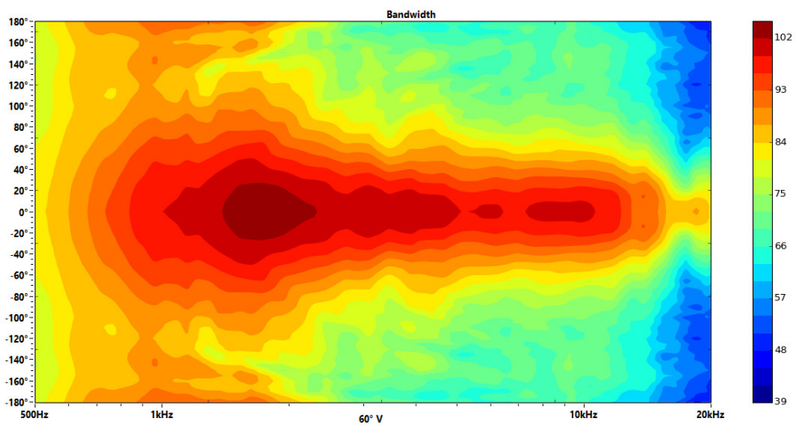


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,37	1,38dB
45° V	1023Hz	124°	2,14	3,31dB
45° V	2054Hz	84°	3,28	5,15dB
45° V	4120Hz	70°	4,17	6,20dB
45° V	8248Hz	68°	4,75	6,77dB
45° V	18527Hz	36°	7,38	8,68dB

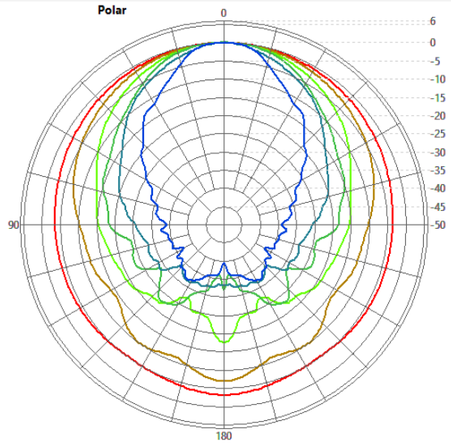


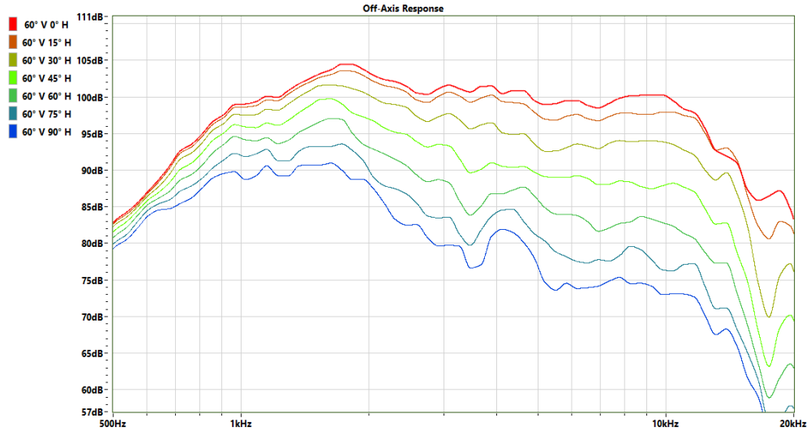


45° Vertical

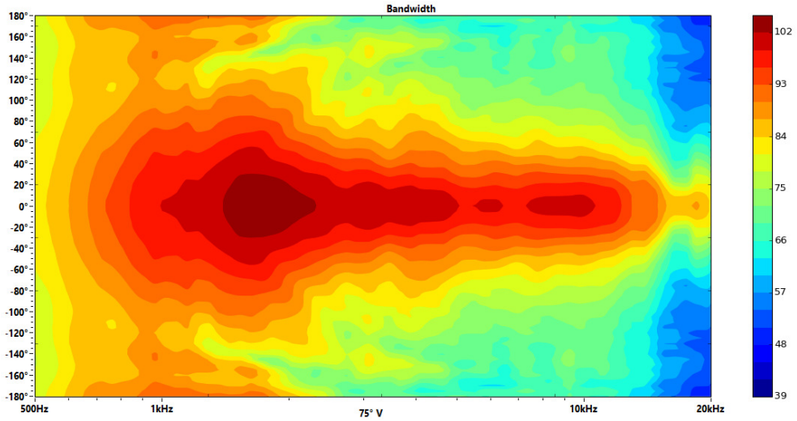


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,37	1,36dB
60° V	1023Hz	136°	2,05	3,13dB
60° V	2054Hz	88°	3,19	5,04dB
60° V	4120Hz	64°	4,02	6,05dB
60° V	8248Hz	58°	4,90	6,90dB
60° V	18527Hz	36°	6,90	8,39dB

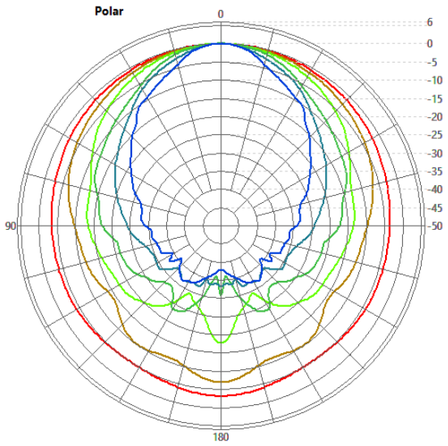


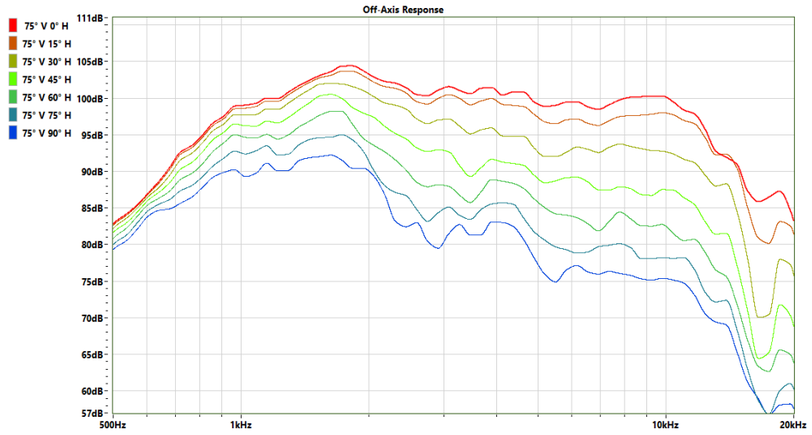


60° Vertical

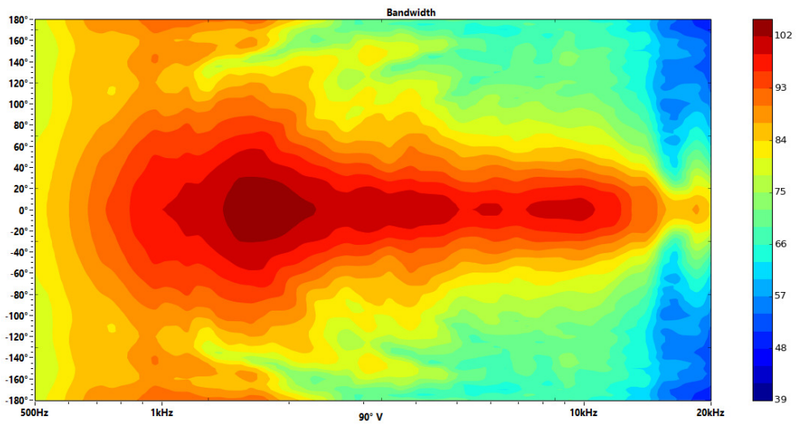


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,36	1,33dB
75° V	1023Hz	142°	2,01	3,02dB
75° V	2054Hz	94°	2,99	4,76dB
75° V	4120Hz	62°	3,86	5,87dB
75° V	8248Hz	56°	5,00	6,99dB
75° V	18527Hz	40°	6,22	7,94dB

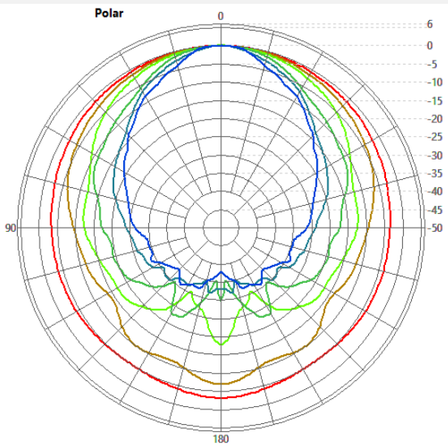


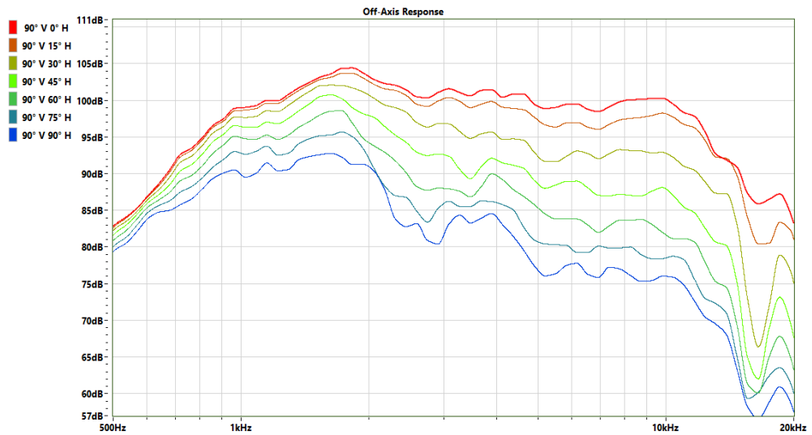


75° Vertical

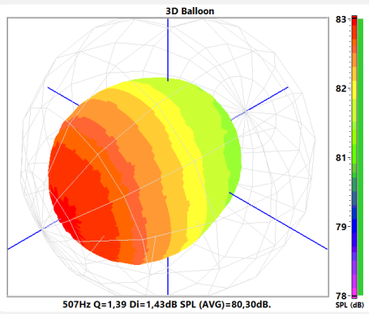


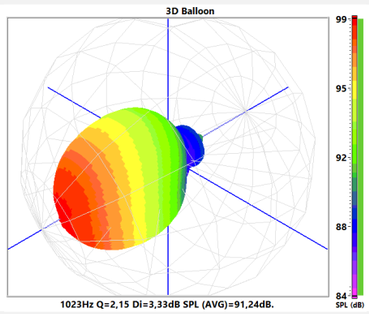
Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,36	1,32dB
90° V	1023Hz	146°	1,99	2,99dB
90° V	2054Hz	98°	2,91	4,64dB
90° V	4120Hz	62°	3,80	5,80dB
90° V	8248Hz	54°	5,01	7,00dB
90° V	18527Hz	44°	5,75	7,60dB

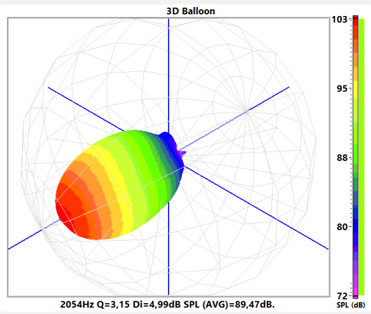


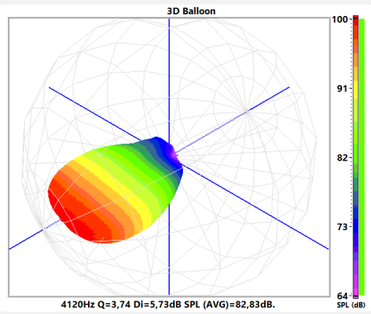


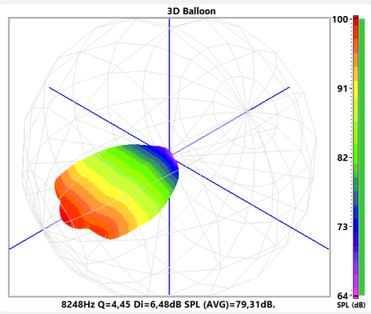
90° Vertical

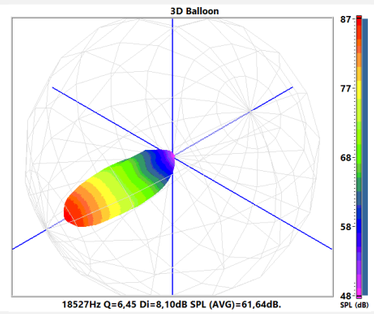




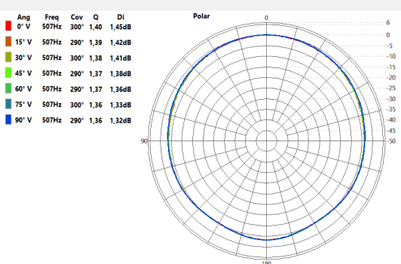




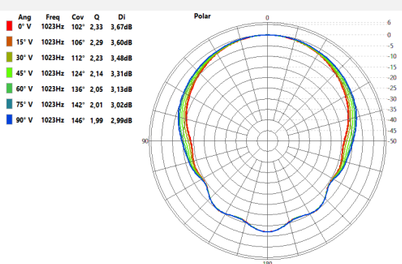




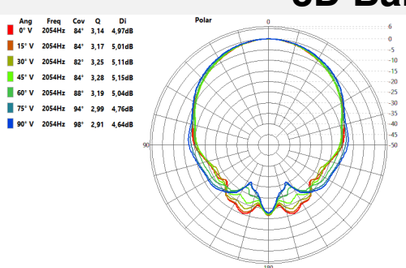
3D Balloon



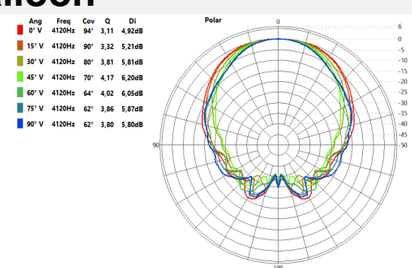
Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,40	1,45dB
15° V	507Hz	290°	1,39	1,42dB
30° V	507Hz	300°	1,38	1,41dB
45° V	507Hz	290°	1,37	1,38dB
60° V	507Hz	290°	1,37	1,36dB
75° V	507Hz	300°	1,36	1,33dB
90° V	507Hz	290°	1,36	1,32dB



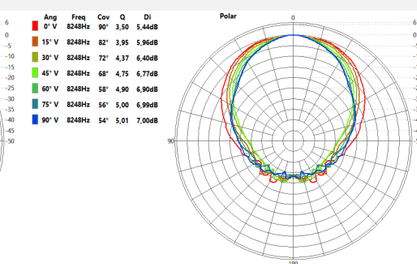
Ang	Freq	Cov	Q	Di
0° V	1023Hz	102°	2,33	3,67dB
15° V	1023Hz	106°	2,29	3,60dB
30° V	1023Hz	112°	2,23	3,48dB
45° V	1023Hz	124°	2,14	3,31dB
60° V	1023Hz	136°	2,05	3,13dB
75° V	1023Hz	142°	2,01	3,02dB
90° V	1023Hz	146°	1,99	2,99dB



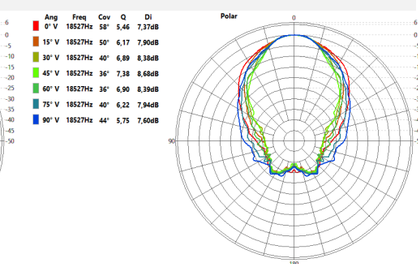
Ang	Freq	Cov	Q	Di
0° V	2054Hz	84°	3,14	4,97dB
15° V	2054Hz	84°	3,17	5,01dB
30° V	2054Hz	82°	3,25	5,11dB
45° V	2054Hz	84°	3,28	5,15dB
60° V	2054Hz	88°	3,19	5,04dB
75° V	2054Hz	94°	2,99	4,76dB
90° V	2054Hz	98°	2,91	4,64dB



Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,11	4,92dB
15° V	4120Hz	90°	3,32	5,21dB
30° V	4120Hz	80°	3,81	5,81dB
45° V	4120Hz	70°	4,17	6,20dB
60° V	4120Hz	64°	4,02	6,05dB
75° V	4120Hz	62°	3,86	5,87dB
90° V	4120Hz	62°	3,80	5,80dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	90°	3,50	5,44dB
15° V	8248Hz	82°	3,95	5,96dB
30° V	8248Hz	72°	4,37	6,40dB
45° V	8248Hz	68°	4,75	6,77dB
60° V	8248Hz	58°	4,90	6,90dB
75° V	8248Hz	56°	5,00	6,99dB
90° V	8248Hz	54°	5,01	7,00dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	58°	5,46	7,37dB
15° V	18527Hz	50°	6,17	7,90dB
30° V	18527Hz	40°	6,89	8,38dB
45° V	18527Hz	36°	7,38	8,68dB
60° V	18527Hz	36°	6,90	8,39dB
75° V	18527Hz	40°	6,22	7,94dB
90° V	18527Hz	44°	5,75	7,60dB

Polar Vertical Comparative