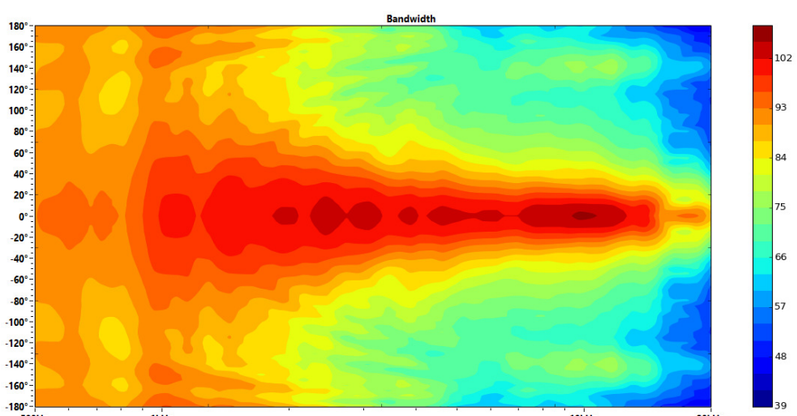
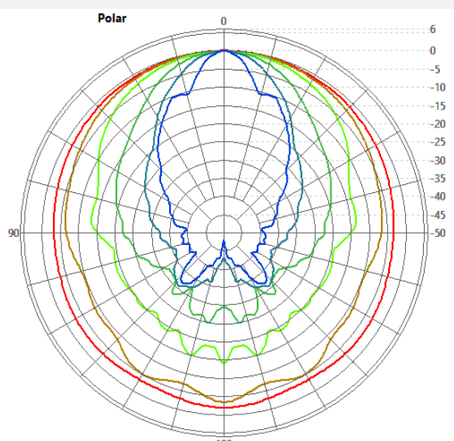


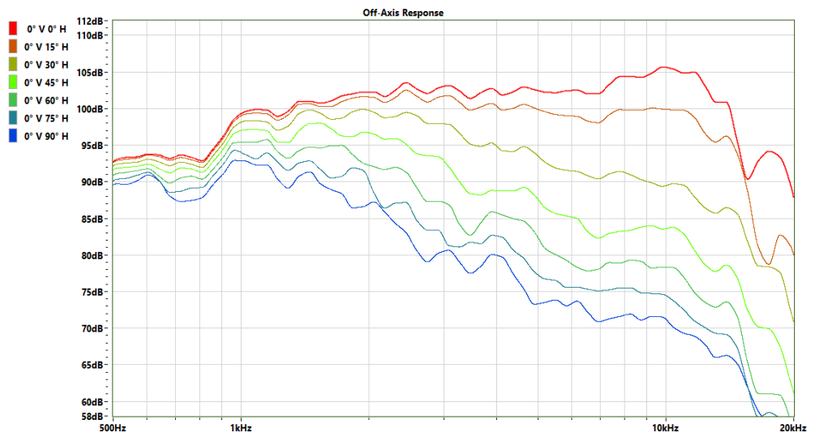


Nota de Aplicação AN-0010.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-14.25.
https://www.ludovico.com.br/292/cornetas/corneta-lc-1425-redonda-preta
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 1m, 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.
30/10/2020.

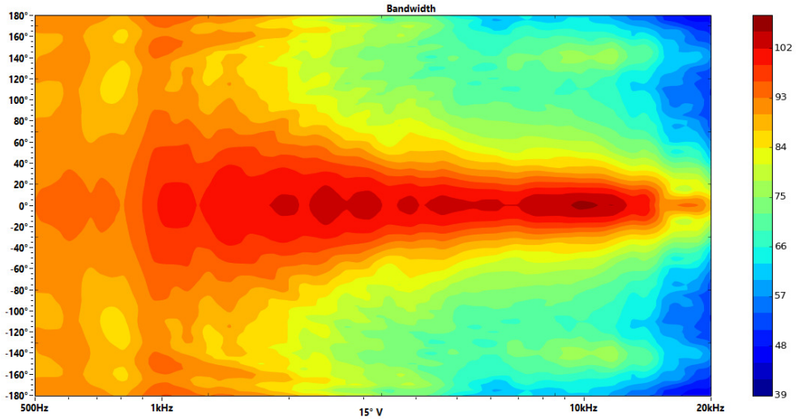


Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,28	1,07dB
0° V	1023Hz	154°	1,70	2,30dB
0° V	2054Hz	92°	3,02	4,80dB
0° V	4120Hz	52°	4,87	6,88dB
0° V	8248Hz	36°	7,48	8,74dB
0° V	18527Hz	20°	10,48	10,20dB

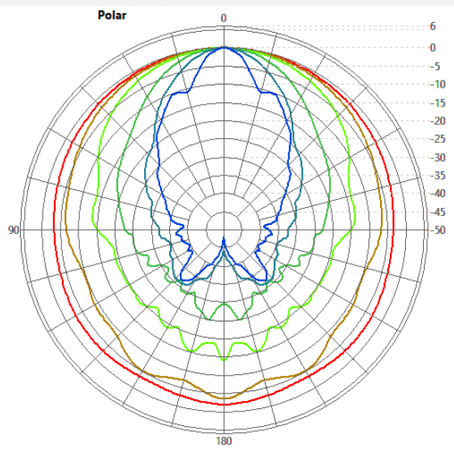


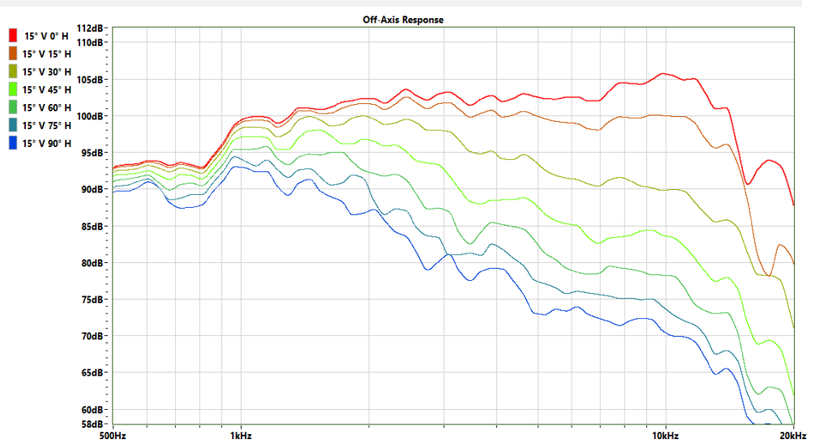


0° Vertical

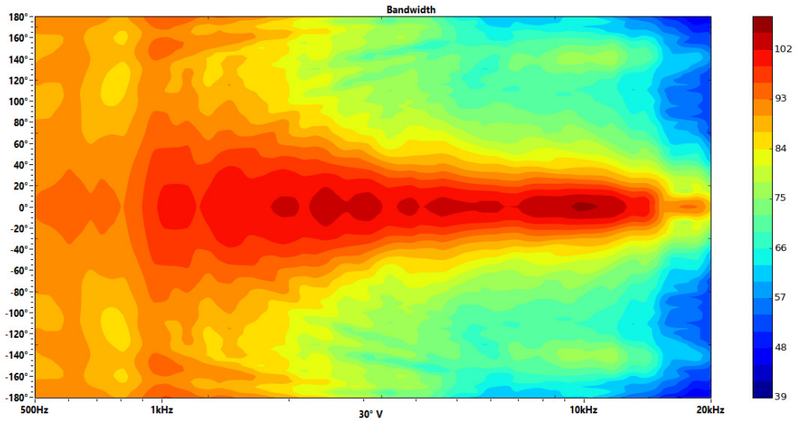


Ang	Freq	Cov	Q	Di
15° V	507Hz	310°	1,28	1,08dB
15° V	1023Hz	154°	1,71	2,32dB
15° V	2054Hz	92°	3,03	4,82dB
15° V	4120Hz	52°	4,95	6,95dB
15° V	8248Hz	34°	7,50	8,75dB
15° V	18527Hz	18°	10,36	10,15dB

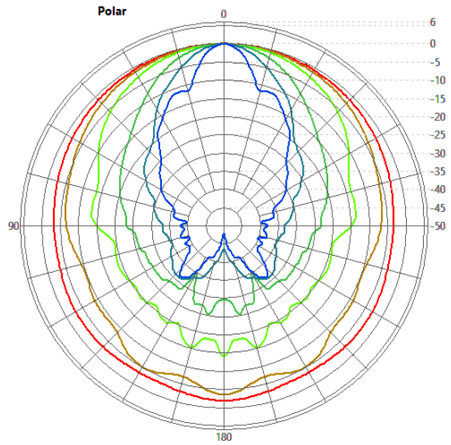


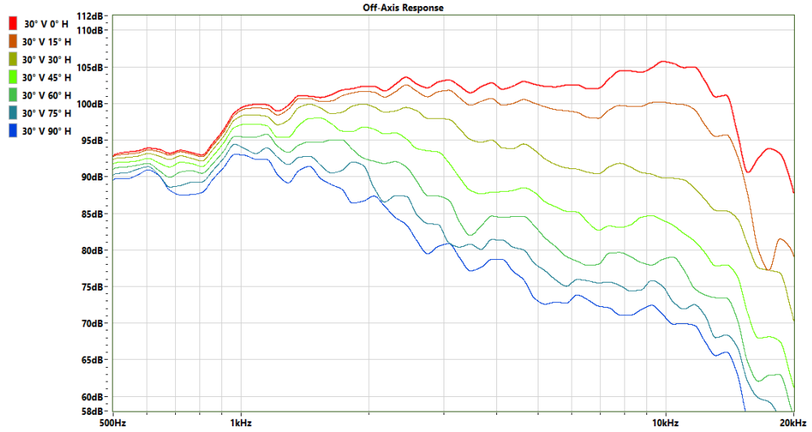


15° Vertical

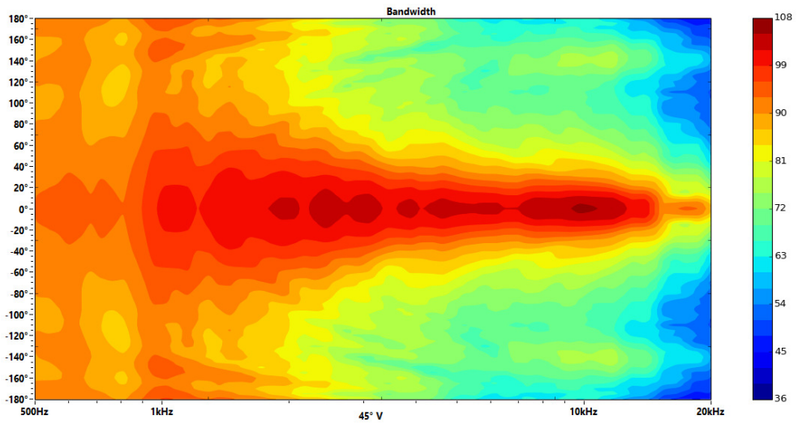


Ang	Freq	Cov	Q	Di
30° V	507Hz	200°	1,28	1,07dB
30° V	1023Hz	340°	1,70	2,30dB
30° V	2054Hz	92°	3,04	4,83dB
30° V	4120Hz	50°	5,05	7,03dB
30° V	8248Hz	34°	7,56	8,79dB
30° V	18527Hz	18°	10,71	10,30dB

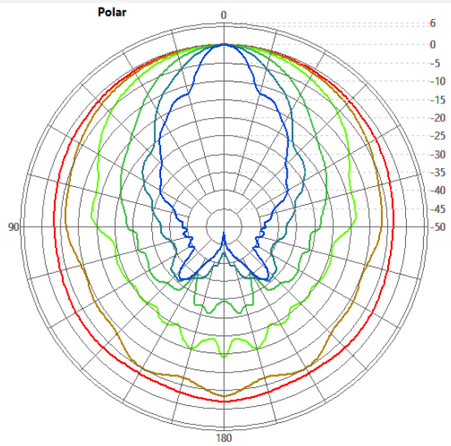


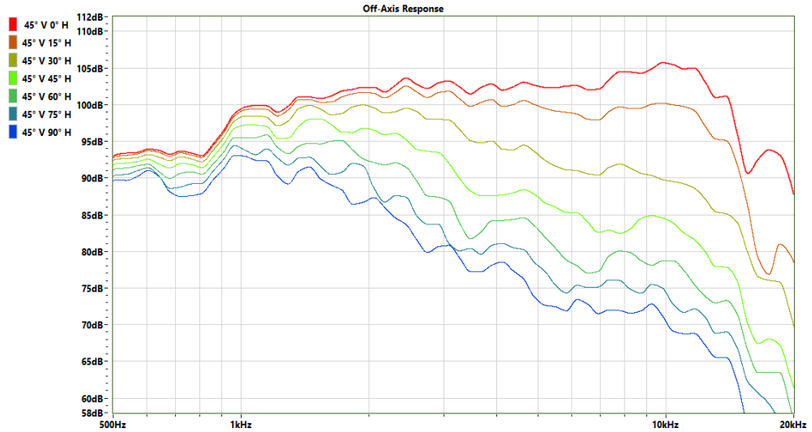


30° Vertical

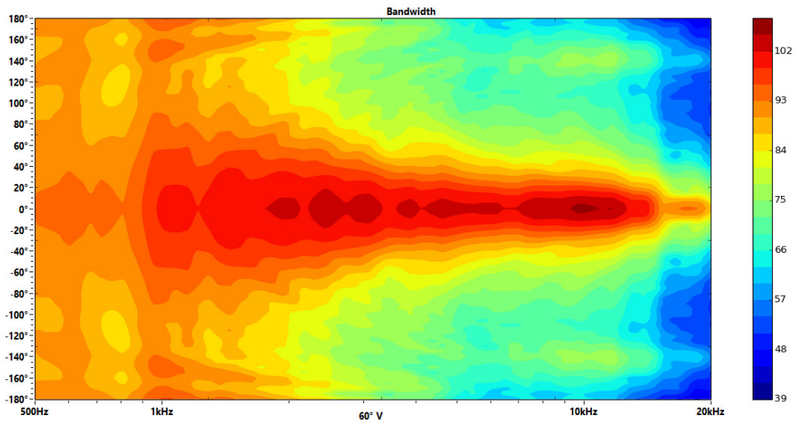


Ang	Freq	Cov	Q	Di
45° V	507Hz	200°	1,29	1,09dB
45° V	1023Hz	154°	1,70	2,30dB
45° V	2054Hz	92°	3,04	4,83dB
45° V	4120Hz	50°	5,07	7,05dB
45° V	8248Hz	34°	7,56	8,79dB
45° V	18527Hz	18°	11,13	10,47dB

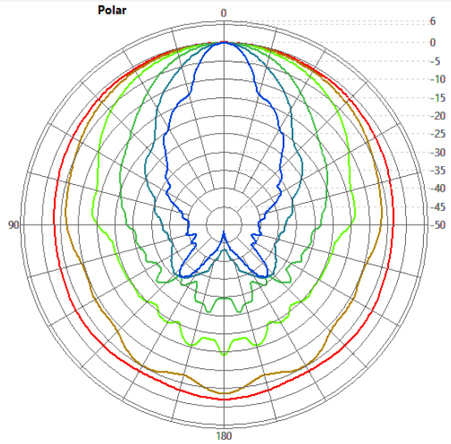


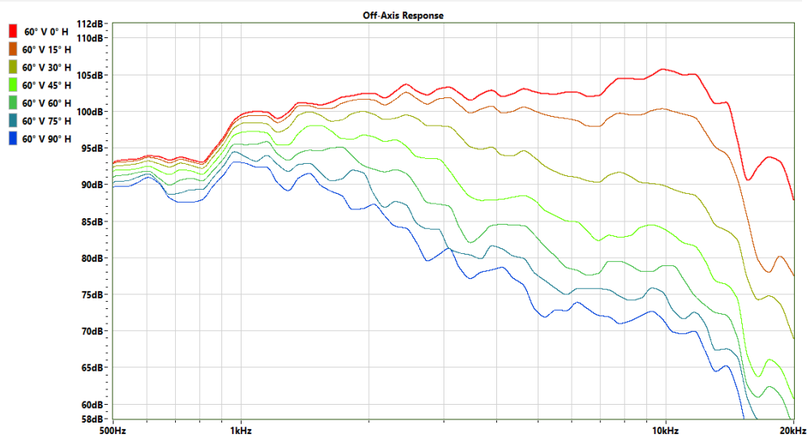


45° Vertical

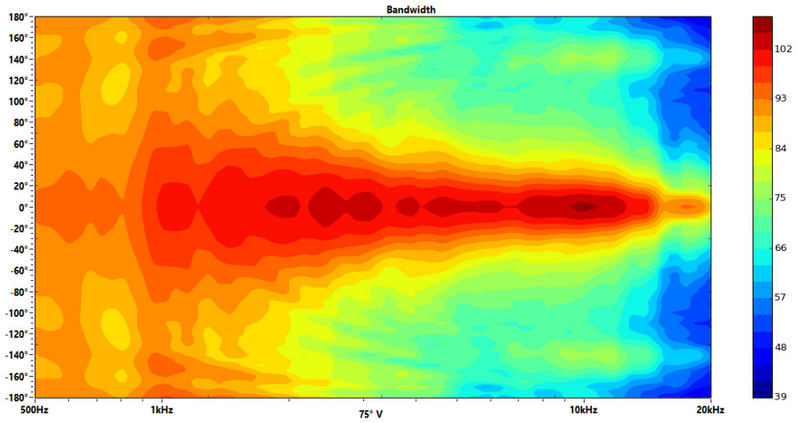


Ang	Freq	Cov	Q	Di
60° V	507Hz	310°	1,29	1,10dB
60° V	1023Hz	314°	1,71	2,33dB
60° V	2054Hz	90°	3,05	4,84dB
60° V	4120Hz	50°	5,07	7,05dB
60° V	8248Hz	34°	7,69	8,86dB
60° V	18527Hz	18°	11,91	10,76dB

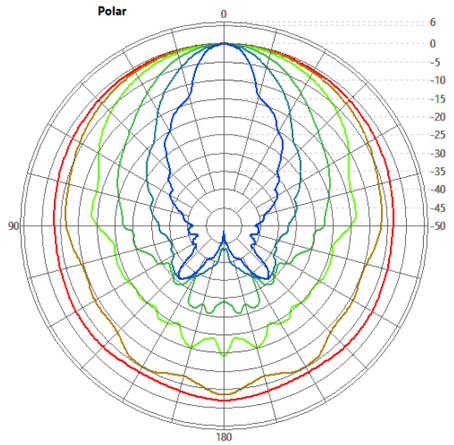




60° Vertical

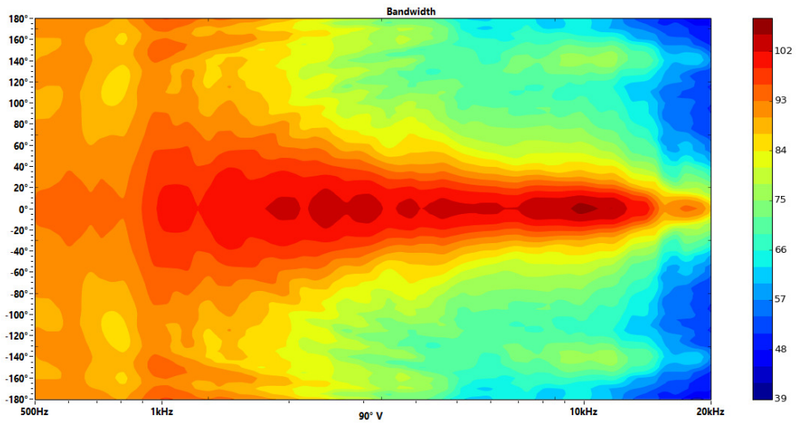


Ang	Freq	Cov	Q	Di
75° V	507Hz	190°	1,29	1,11dB
75° V	1023Hz	152°	1,71	2,32dB
75° V	2054Hz	90°	3,04	4,82dB
75° V	4120Hz	52°	4,97	6,96dB
75° V	8248Hz	34°	7,64	8,83dB
75° V	18527Hz	20°	11,97	10,78dB

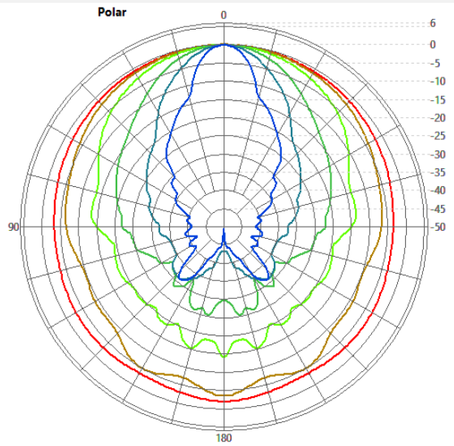


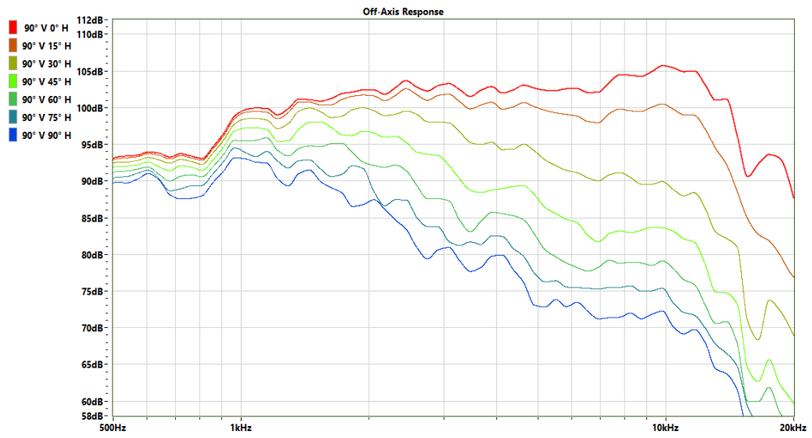


75° Vertical

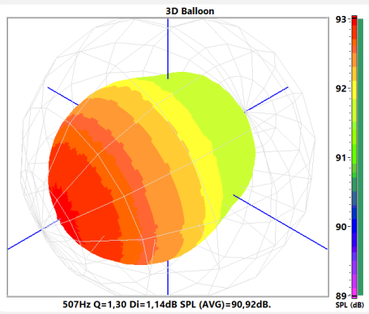


Ang	Freq	Cov	Q	Di
90° V	507Hz	200°	1,29	1,10dB
90° V	1023Hz	156°	1,70	2,30dB
90° V	2054Hz	92°	3,03	4,81dB
90° V	4120Hz	52°	4,91	6,91dB
90° V	8248Hz	34°	7,66	8,84dB
90° V	18527Hz	20°	12,25	10,88dB

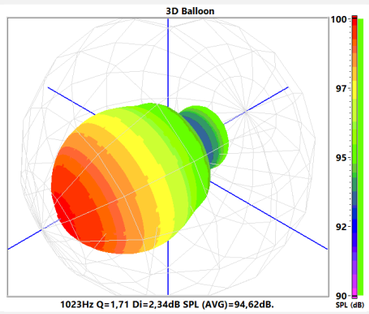




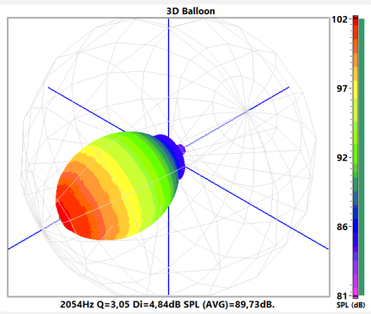
90° Vertical



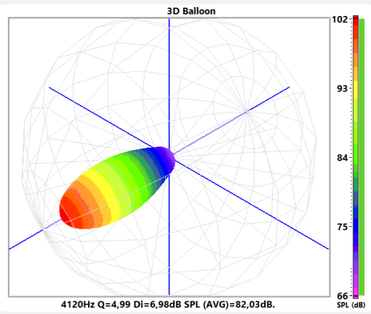
507Hz Q=1,30 Di=1,14dB SPL (AVG)=90,92dB.



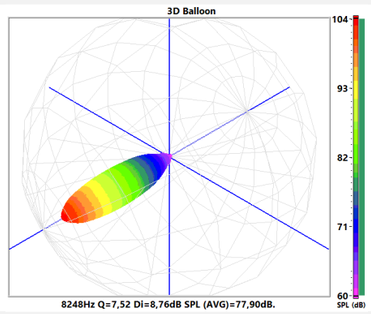
1023Hz Q=1,71 Di=2,34dB SPL (AVG)=94,62dB.



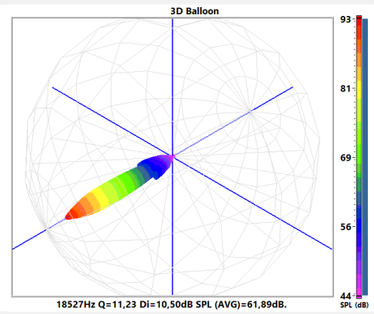
2054Hz Q=3,05 Di=4,84dB SPL (AVG)=89,73dB.



4120Hz Q=4,99 Di=6,98dB SPL (AVG)=82,03dB.



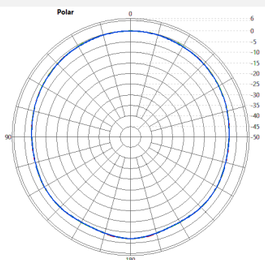
8248Hz Q=7,52 Di=8,76dB SPL (AVG)=77,90dB.



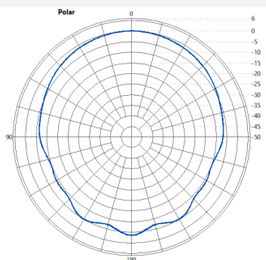
18527Hz Q=11,23 Di=10,50dB SPL (AVG)=61,89dB.

3D Balloon

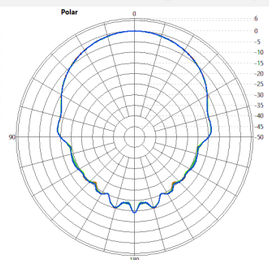
Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,28	1,07dB
15° V	507Hz	310°	1,28	1,08dB
30° V	507Hz	200°	1,28	1,07dB
45° V	507Hz	200°	1,29	1,09dB
60° V	507Hz	310°	1,29	1,10dB
75° V	507Hz	190°	1,29	1,11dB
90° V	507Hz	200°	1,29	1,10dB



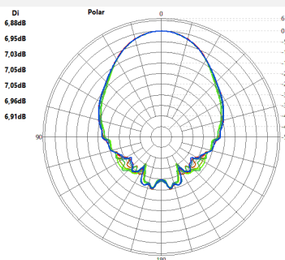
Ang	Freq	Cov	Q	Di
0° V	1023Hz	154°	1,70	2,30dB
15° V	1023Hz	154°	1,71	2,32dB
30° V	1023Hz	340°	1,70	2,30dB
45° V	1023Hz	154°	1,70	2,30dB
60° V	1023Hz	314°	1,71	2,33dB
75° V	1023Hz	152°	1,71	2,32dB
90° V	1023Hz	156°	1,70	2,30dB



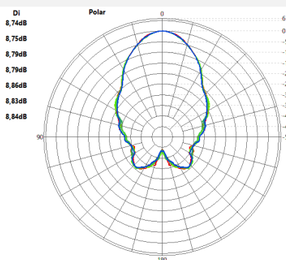
Ang	Freq	Cov	Q	Di
0° V	2054Hz	92°	3,02	4,80dB
15° V	2054Hz	92°	3,03	4,82dB
30° V	2054Hz	92°	3,04	4,83dB
45° V	2054Hz	92°	3,04	4,83dB
60° V	2054Hz	90°	3,05	4,84dB
75° V	2054Hz	90°	3,04	4,82dB
90° V	2054Hz	92°	3,03	4,81dB



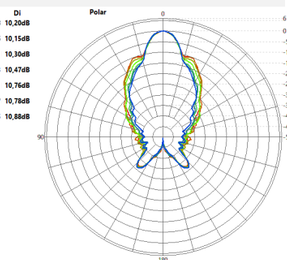
Ang	Freq	Cov	Q	Di
0° V	4120Hz	52°	4,87	6,88dB
15° V	4120Hz	52°	4,95	6,95dB
30° V	4120Hz	50°	5,05	7,03dB
45° V	4120Hz	50°	5,07	7,05dB
60° V	4120Hz	50°	5,07	7,05dB
75° V	4120Hz	52°	4,97	6,96dB
90° V	4120Hz	52°	4,91	6,91dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	36°	7,48	8,74dB
15° V	8248Hz	34°	7,50	8,75dB
30° V	8248Hz	34°	7,56	8,79dB
45° V	8248Hz	34°	7,56	8,79dB
60° V	8248Hz	34°	7,69	8,86dB
75° V	8248Hz	34°	7,64	8,83dB
90° V	8248Hz	34°	7,66	8,84dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	20°	10,48	10,20dB
15° V	18527Hz	18°	10,36	10,15dB
30° V	18527Hz	18°	10,71	10,30dB
45° V	18527Hz	18°	11,13	10,47dB
60° V	18527Hz	18°	11,91	10,76dB
75° V	18527Hz	20°	11,97	10,78dB
90° V	18527Hz	20°	12,25	10,88dB

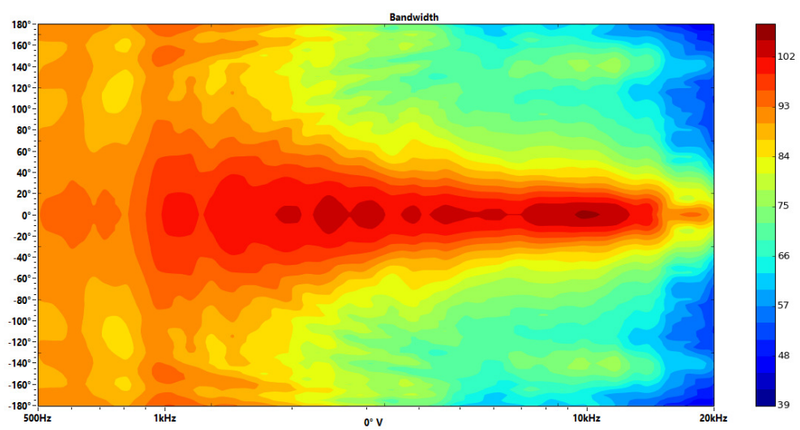


Polar Comparativa Vertical





Application Note AN-0010.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-14.25 horn.
https://www.ludovico.com.br/292/cornetas/corneta-lc-1425-redonda-preta
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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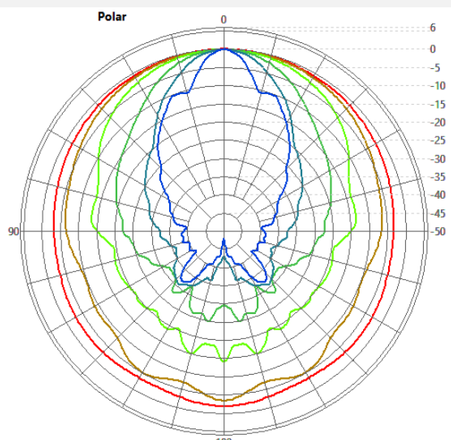
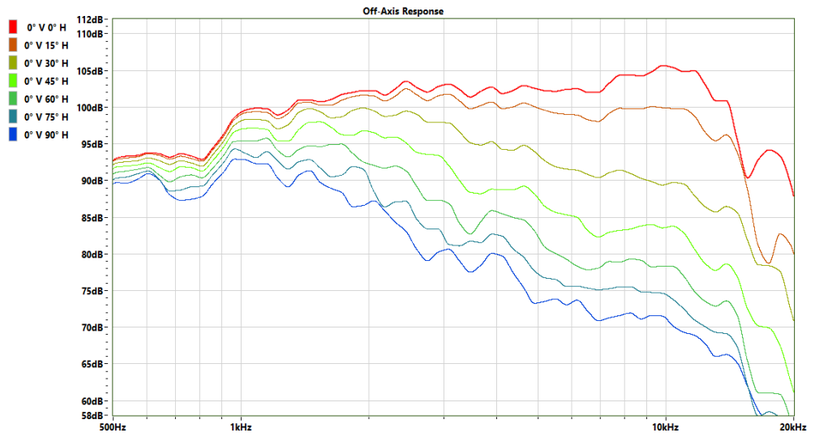
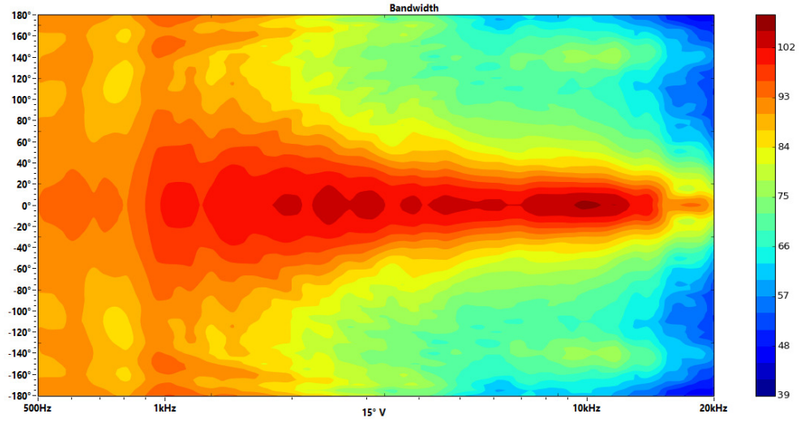




0° Vertical



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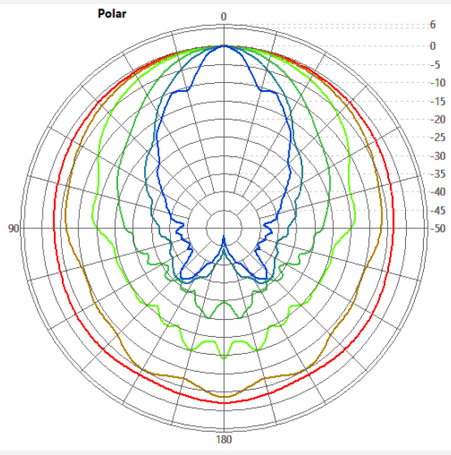
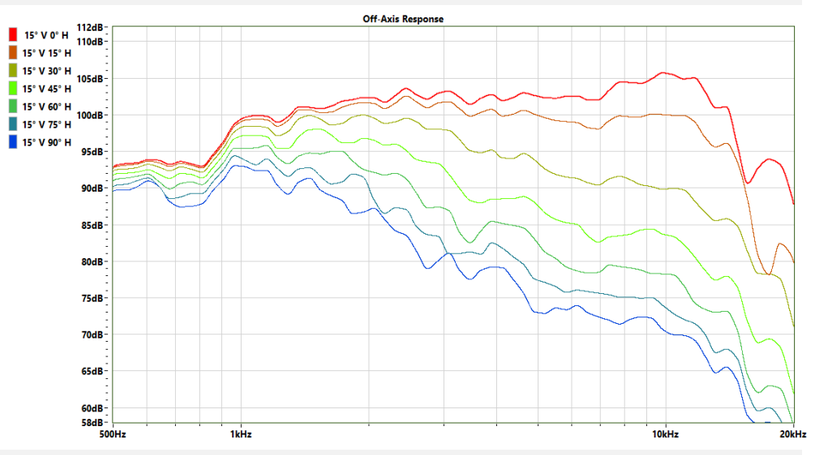
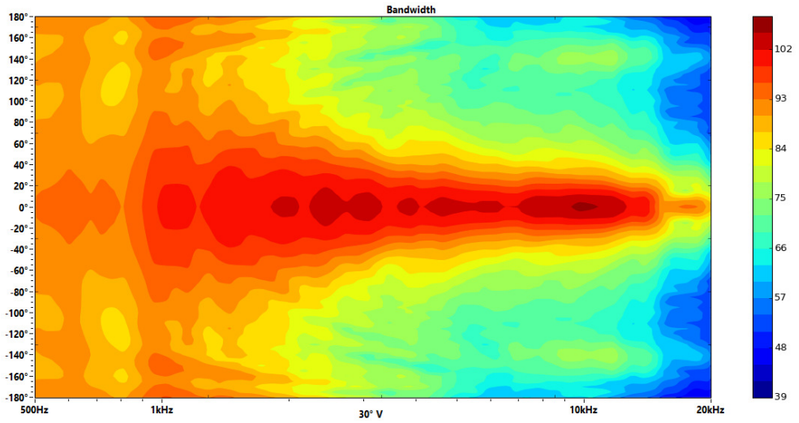




15° Vertical



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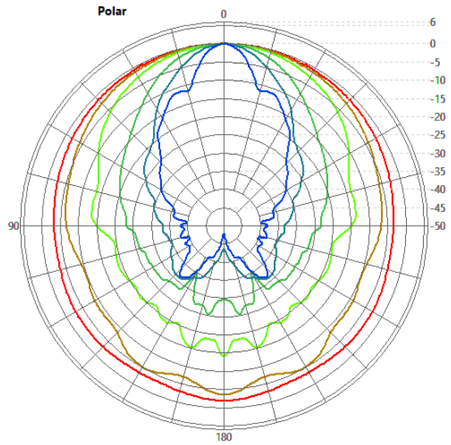
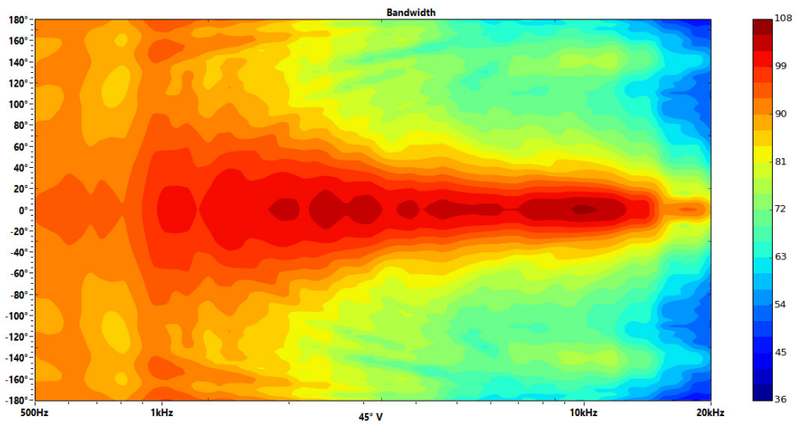
30° V	8248Hz	34°	7,56	8,79dB
30° V	18527Hz	18°	10,71	10,30dB

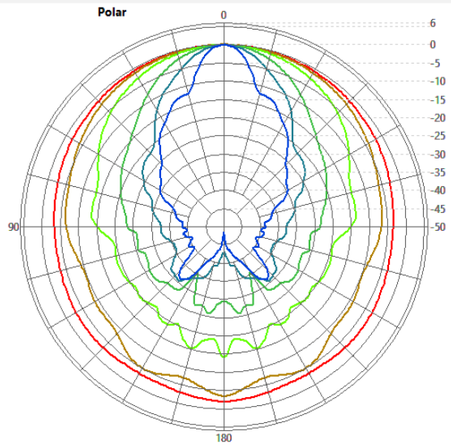


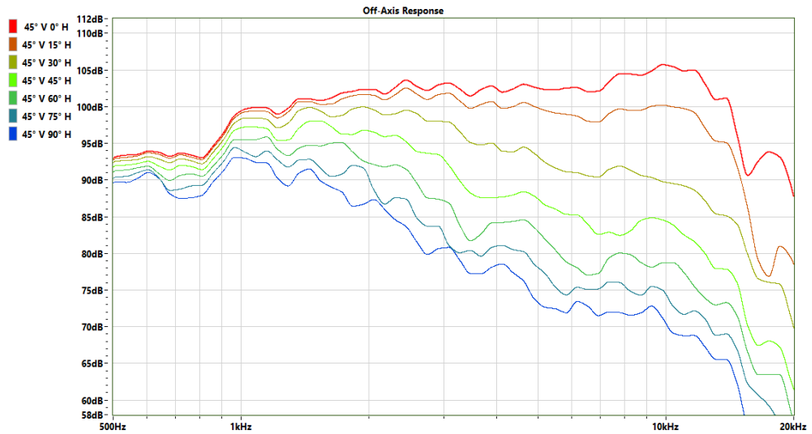


30° Vertical

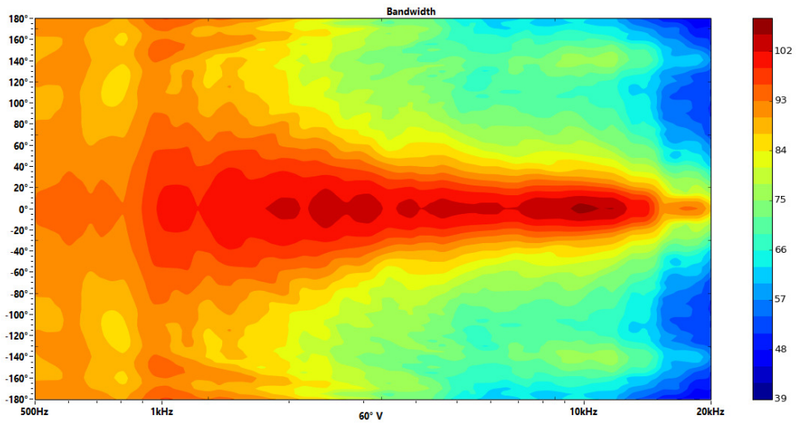


Ang	Freq	Cov	Q	Di
45° V	507Hz	200°	1,29	1,09dB
45° V	1023Hz	154°	1,70	2,30dB
45° V	2054Hz	92°	3,04	4,83dB
45° V	4120Hz	50°	5,07	7,05dB
45° V	8248Hz	34°	7,56	8,79dB
45° V	18527Hz	18°	11,13	10,47dB

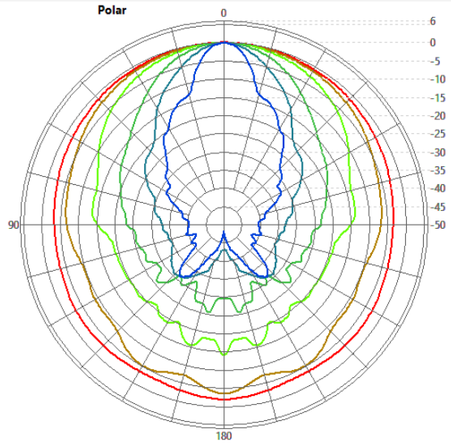


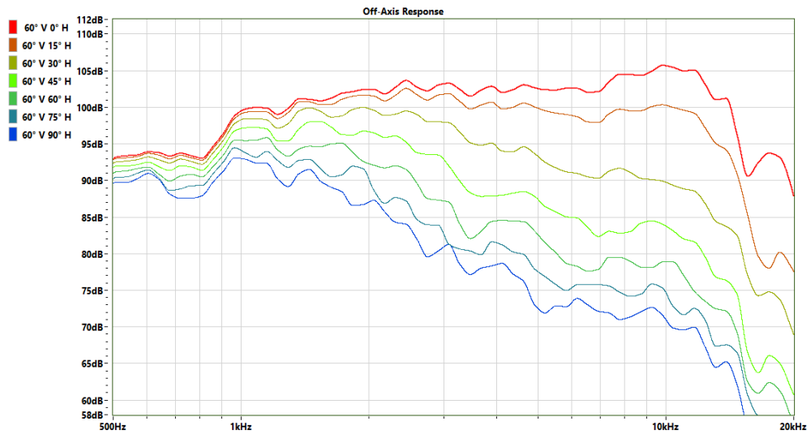


45° Vertical

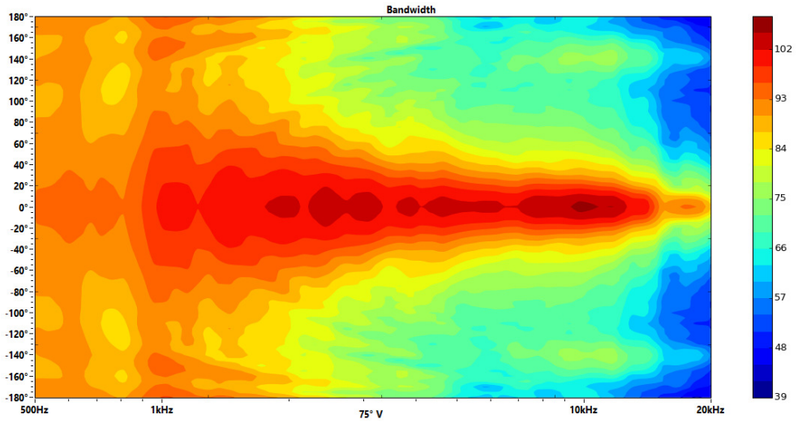


Ang	Freq	Cov	Q	Di
60° V	507Hz	310°	1,29	1,10dB
60° V	1023Hz	314°	1,71	2,33dB
60° V	2054Hz	90°	3,05	4,84dB
60° V	4120Hz	50°	5,07	7,05dB
60° V	8248Hz	34°	7,69	8,86dB
60° V	18527Hz	18°	11,91	10,76dB

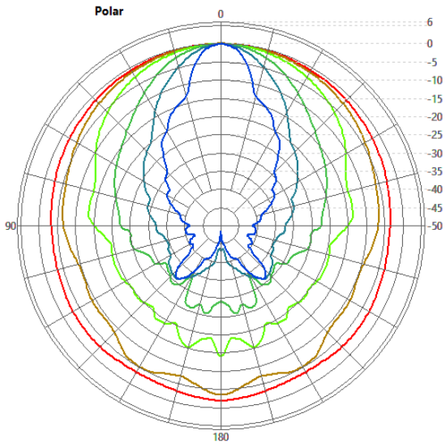


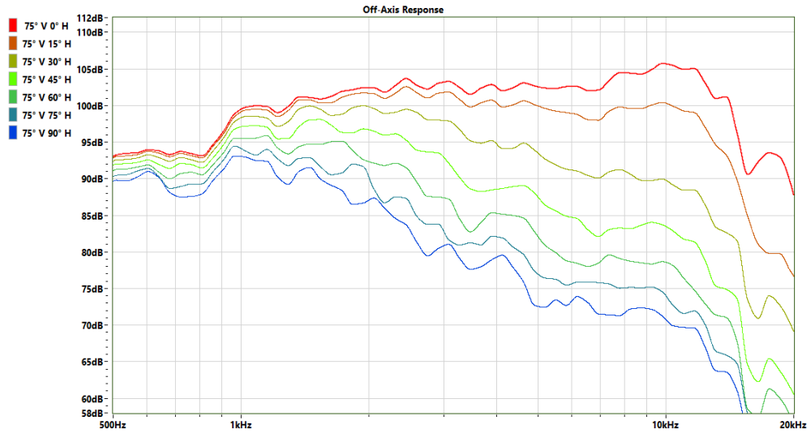


60° Vertical

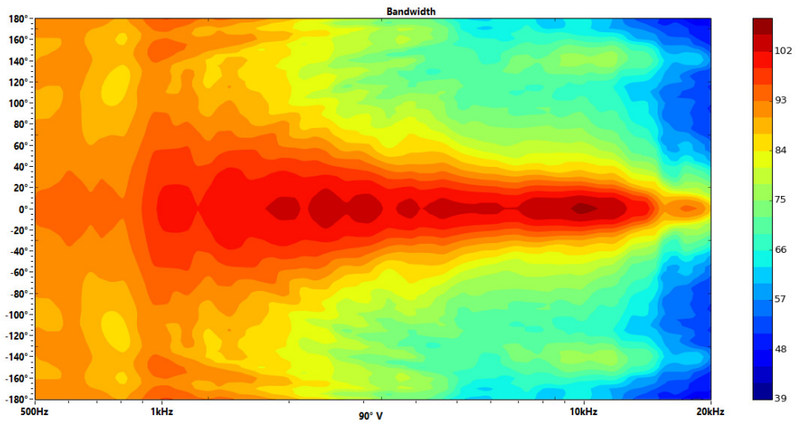


Ang	Freq	Cov	Q	Di
75° V	507Hz	190°	1,29	1,11dB
75° V	1023Hz	152°	1,71	2,32dB
75° V	2054Hz	90°	3,04	4,82dB
75° V	4120Hz	52°	4,97	6,96dB
75° V	8248Hz	34°	7,64	8,83dB
75° V	18527Hz	20°	11,97	10,78dB

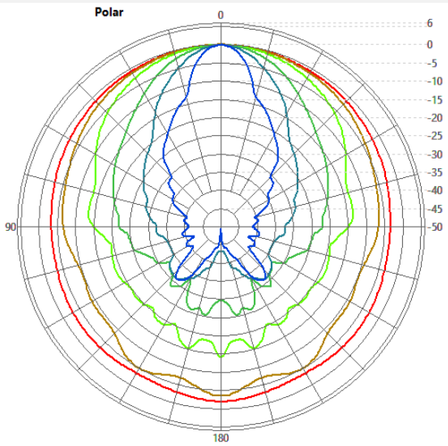


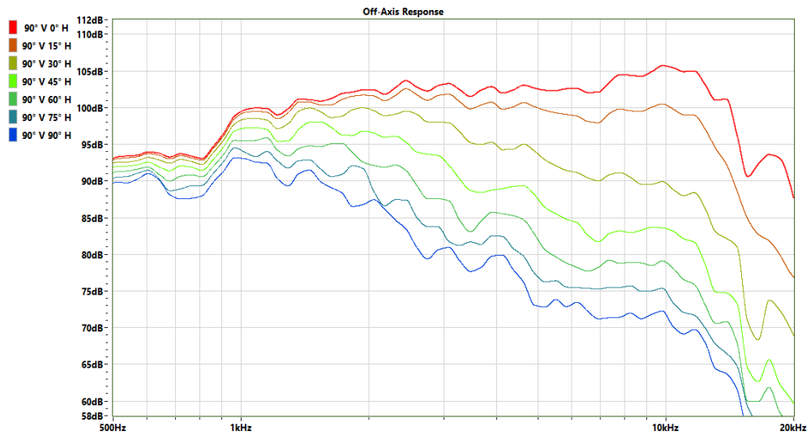


75° Vertical

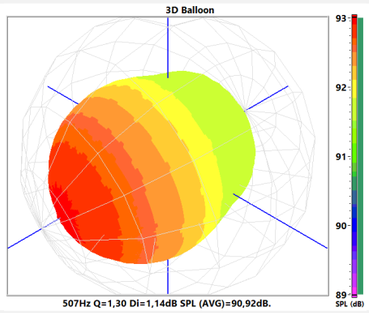


Ang	Freq	Cov	Q	Di
90° V	507Hz	200°	1,29	1,10dB
90° V	1023Hz	156°	1,70	2,30dB
90° V	2054Hz	92°	3,03	4,81dB
90° V	4120Hz	52°	4,91	6,91dB
90° V	8248Hz	34°	7,66	8,84dB
90° V	18527Hz	20°	12,25	10,88dB

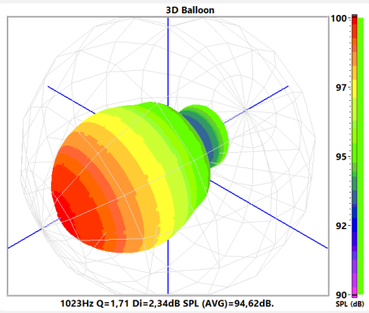




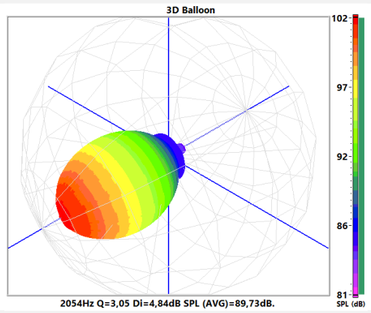
90° Vertical



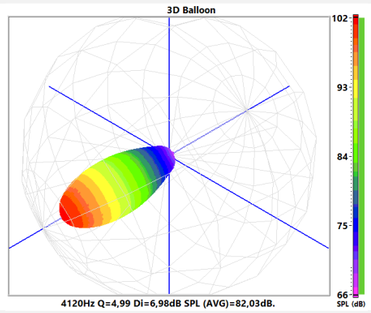
507Hz Q=1,30 Di=1,14dB SPL (AVG)=90,92dB.



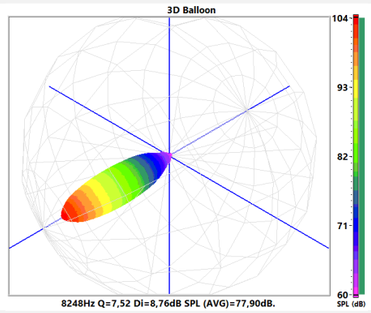
1023Hz Q=1,71 Di=2,34dB SPL (AVG)=94,62dB.



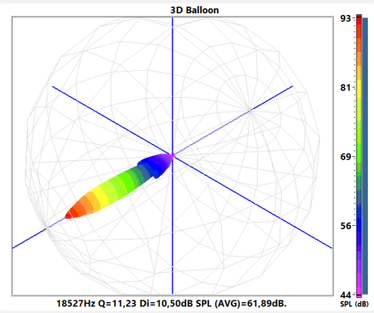
2054Hz Q=3,05 Di=4,84dB SPL (AVG)=89,73dB.



4120Hz Q=4,99 Di=6,98dB SPL (AVG)=82,03dB.



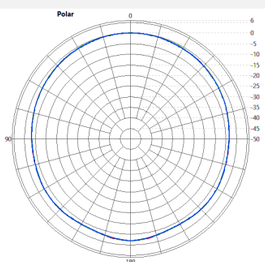
8248Hz Q=7,52 Di=8,76dB SPL (AVG)=77,90dB.



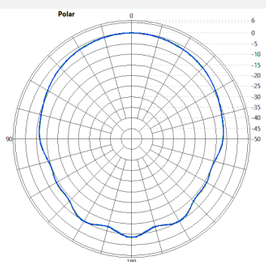
18527Hz Q=11,23 Di=10,50dB SPL (AVG)=61,89dB.

3D Balloon

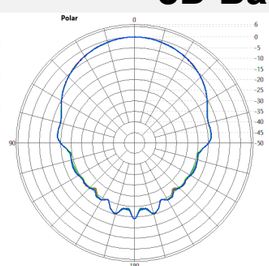
Ang	Freq	Cov	Q	Di
0° V	507Hz	300°	1,28	1,07dB
15° V	507Hz	310°	1,28	1,08dB
30° V	507Hz	200°	1,28	1,07dB
45° V	507Hz	200°	1,29	1,09dB
60° V	507Hz	310°	1,29	1,10dB
75° V	507Hz	190°	1,29	1,11dB
90° V	507Hz	200°	1,29	1,10dB



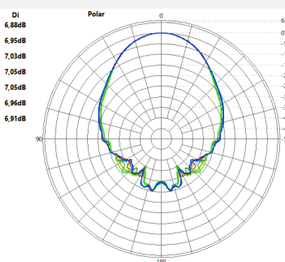
Ang	Freq	Cov	Q	Di
0° V	1023Hz	154°	1,70	2,30dB
15° V	1023Hz	154°	1,71	2,32dB
30° V	1023Hz	340°	1,70	2,30dB
45° V	1023Hz	154°	1,70	2,30dB
60° V	1023Hz	314°	1,71	2,33dB
75° V	1023Hz	152°	1,71	2,32dB
90° V	1023Hz	156°	1,70	2,30dB



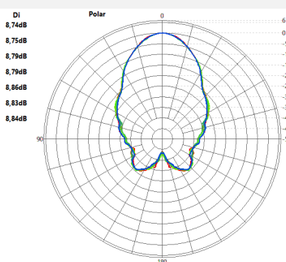
Ang	Freq	Cov	Q	Di
0° V	2054Hz	92°	3,02	4,80dB
15° V	2054Hz	92°	3,03	4,82dB
30° V	2054Hz	92°	3,04	4,83dB
45° V	2054Hz	92°	3,04	4,83dB
60° V	2054Hz	90°	3,05	4,84dB
75° V	2054Hz	90°	3,04	4,82dB
90° V	2054Hz	92°	3,03	4,81dB



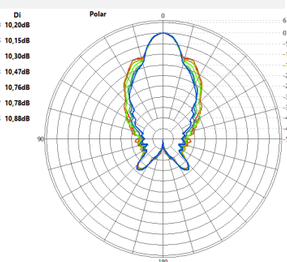
Ang	Freq	Cov	Q	Di
0° V	4120Hz	52°	4,87	6,88dB
15° V	4120Hz	52°	4,95	6,95dB
30° V	4120Hz	50°	5,05	7,03dB
45° V	4120Hz	50°	5,07	7,05dB
60° V	4120Hz	50°	5,07	7,05dB
75° V	4120Hz	52°	4,97	6,96dB
90° V	4120Hz	52°	4,91	6,91dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	36°	7,48	8,74dB
15° V	8248Hz	34°	7,50	8,75dB
30° V	8248Hz	34°	7,56	8,79dB
45° V	8248Hz	34°	7,56	8,79dB
60° V	8248Hz	34°	7,69	8,86dB
75° V	8248Hz	34°	7,64	8,83dB
90° V	8248Hz	34°	7,66	8,84dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	20°	10,48	10,20dB
15° V	18527Hz	18°	10,36	10,15dB
30° V	18527Hz	18°	10,71	10,30dB
45° V	18527Hz	18°	11,13	10,47dB
60° V	18527Hz	18°	11,91	10,76dB
75° V	18527Hz	20°	11,97	10,78dB
90° V	18527Hz	20°	12,25	10,88dB



Polar Vertical Comparative