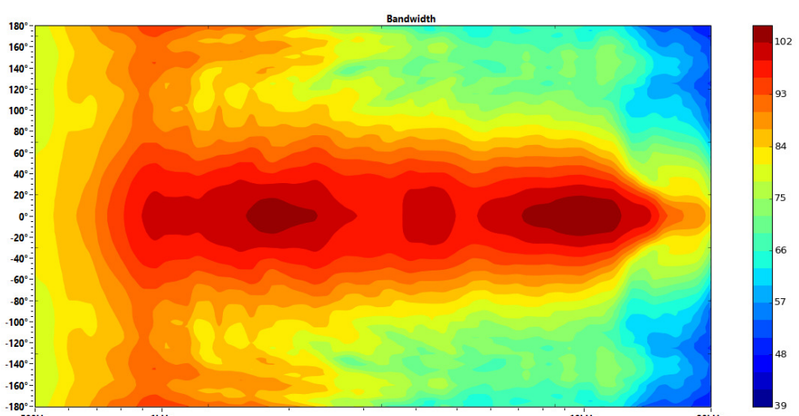
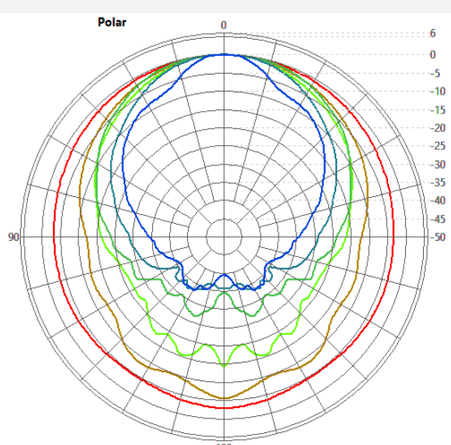
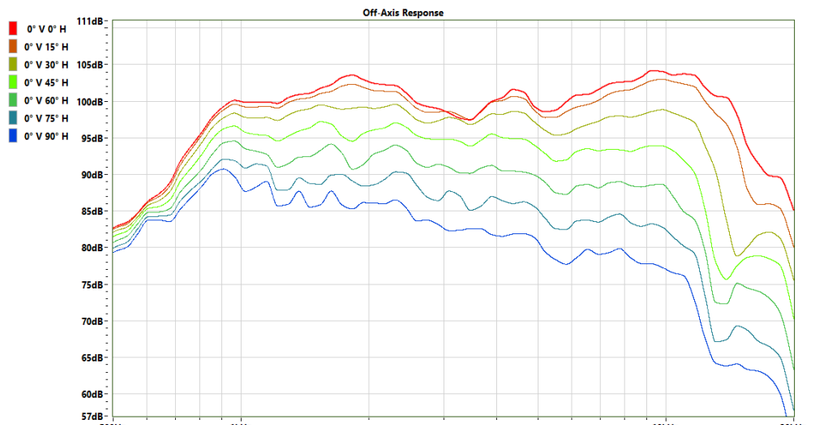


Nota de Aplicação AN-0014.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-23.25.
https://www.ludovico.com.br/311/cornetas/corneta-lc-2325-preta
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 1m, medição 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.
3/11/2020.

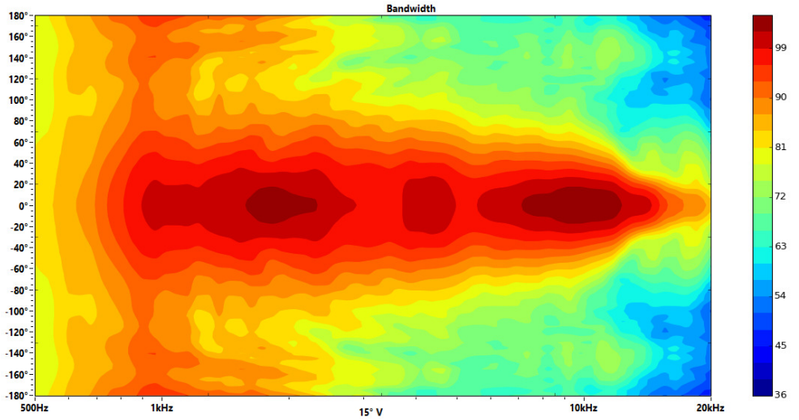


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,34	1,27dB
0° V	1023Hz	354°	2,12	3,26dB
0° V	2054Hz	86°	3,13	4,96dB
0° V	4120Hz	94°	3,31	5,19dB
0° V	8248Hz	68°	4,29	6,33dB
0° V	18527Hz	36°	5,77	7,61dB

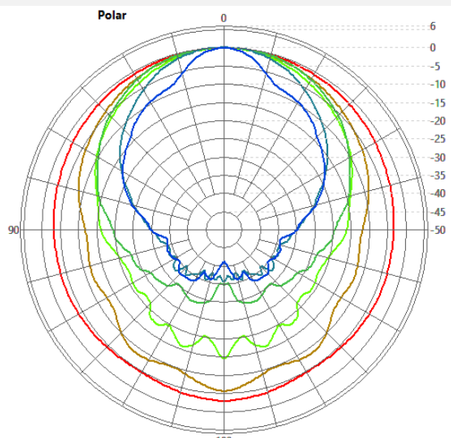


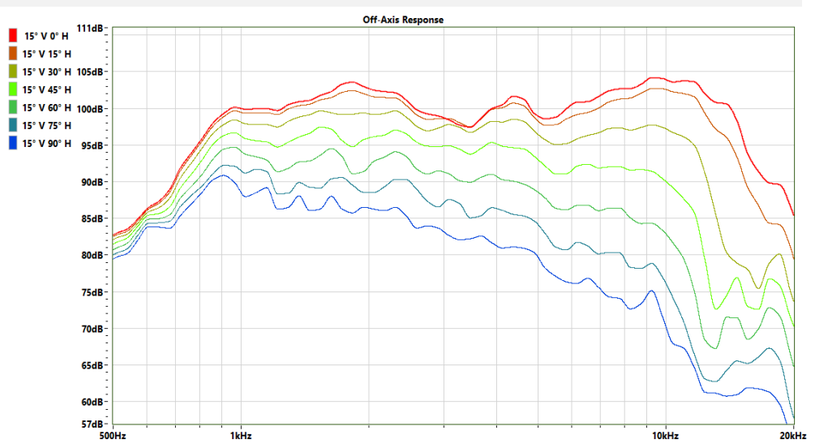


0° Vertical

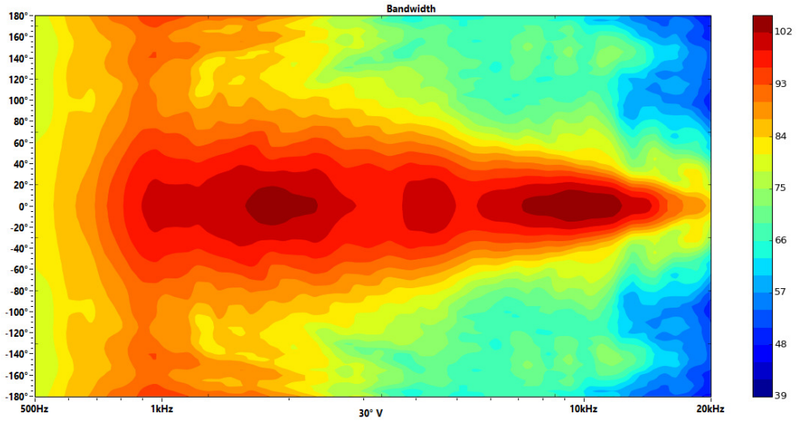


Ang	Freq	Cov	Q	Di
15° V	507Hz	290°	1,34	1,27dB
15° V	1023Hz	354°	2,09	3,20dB
15° V	2054Hz	86°	3,13	4,95dB
15° V	4120Hz	92°	3,36	5,26dB
15° V	8248Hz	62°	4,82	6,83dB
15° V	18527Hz	32°	6,31	8,00dB

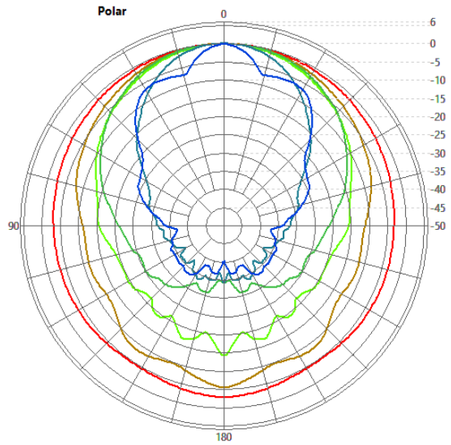


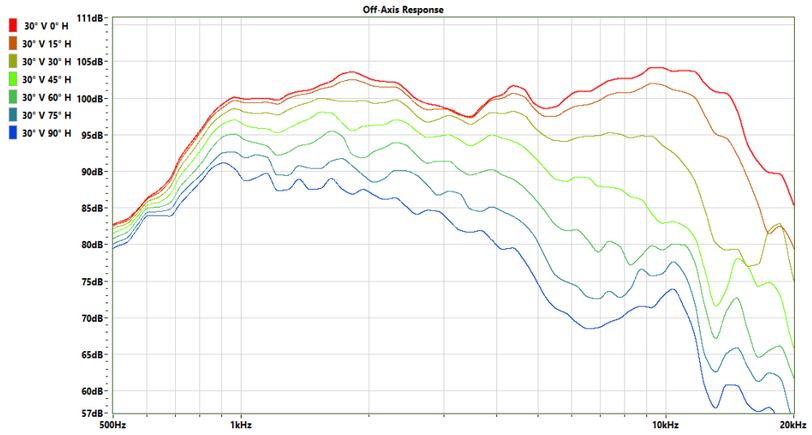


15° Vertical

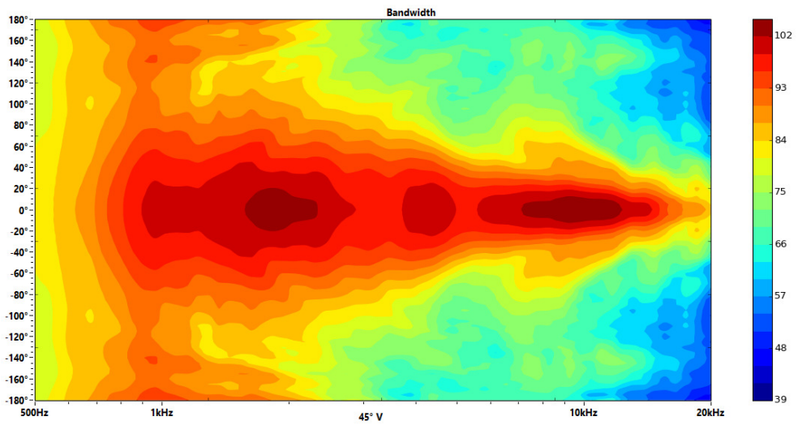


Ang	Freq	Cov	Q	Di
30° V	507Hz	290°	1,33	1,24dB
30° V	1023Hz	354°	2,03	3,08dB
30° V	2054Hz	88°	3,09	4,90dB
30° V	4120Hz	90°	3,50	5,44dB
30° V	8248Hz	52°	5,82	7,65dB
30° V	18527Hz	26°	6,73	8,28dB

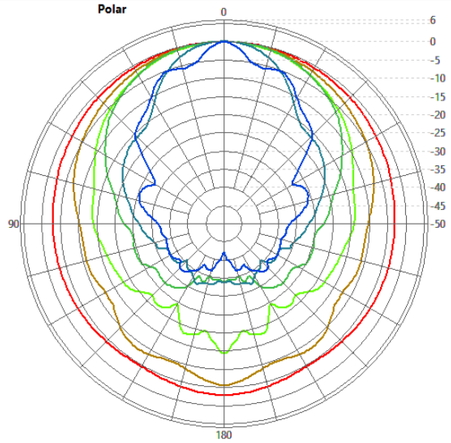


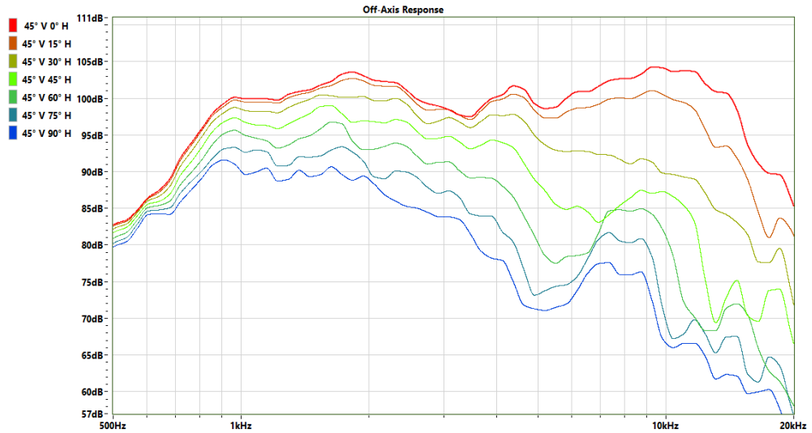


30° Vertical

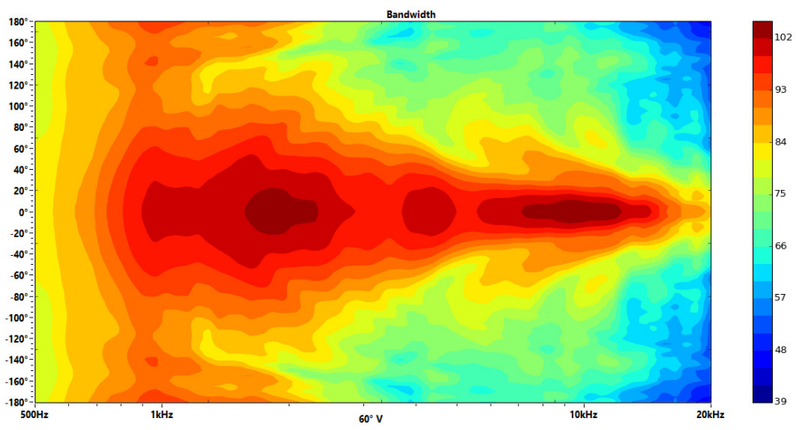


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,31	1,19dB
45° V	1023Hz	134°	1,96	2,93dB
45° V	2054Hz	94°	2,96	4,72dB
45° V	4120Hz	86°	3,67	5,65dB
45° V	8248Hz	42°	5,93	7,73dB
45° V	18527Hz	30°	7,11	8,52dB

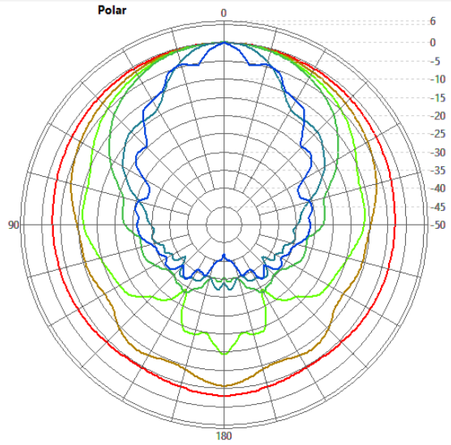


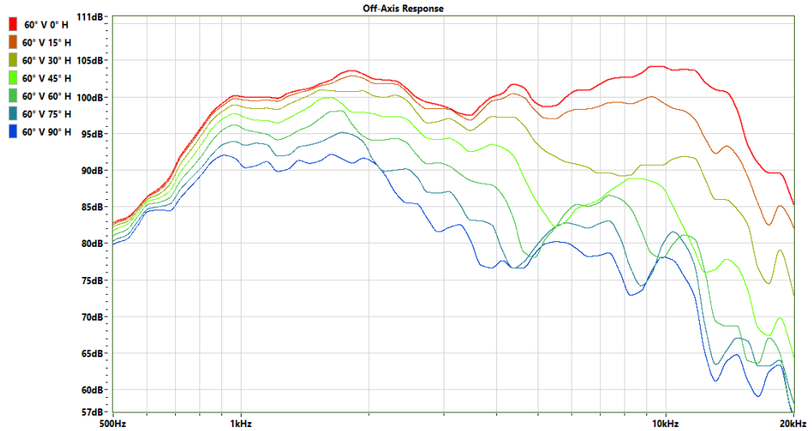


45° Vertical

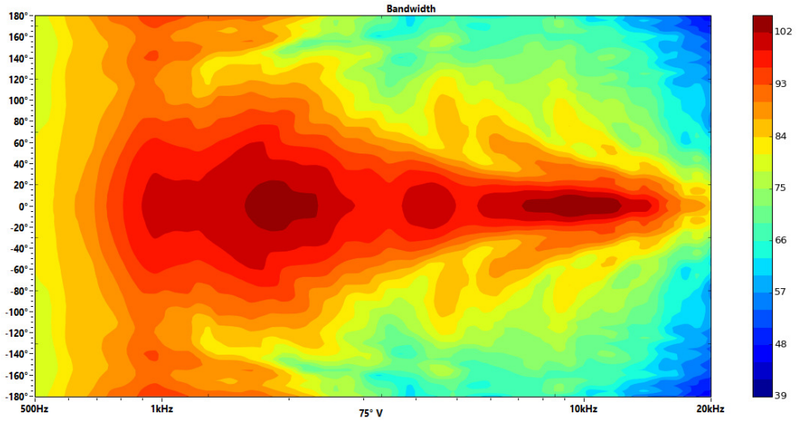


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,32	1,19dB
60° V	1023Hz	354°	1,91	2,81dB
60° V	2054Hz	102°	2,76	4,41dB
60° V	4120Hz	82°	3,90	5,91dB
60° V	8248Hz	38°	6,27	7,97dB
60° V	18527Hz	42°	7,16	8,55dB

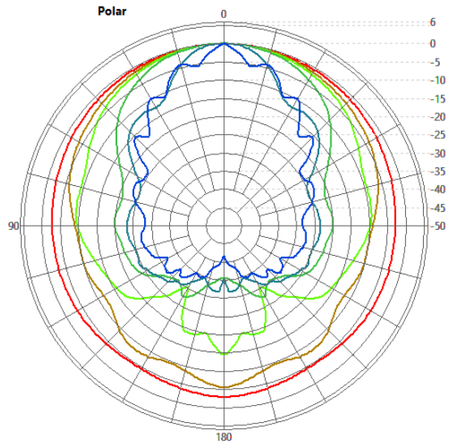


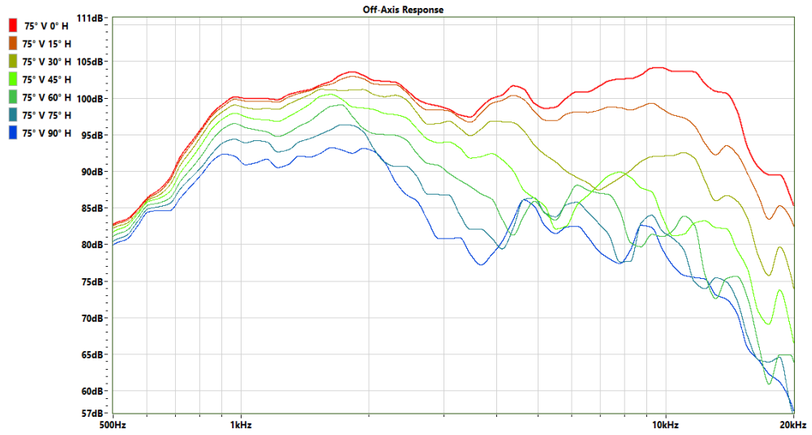


60° Vertical

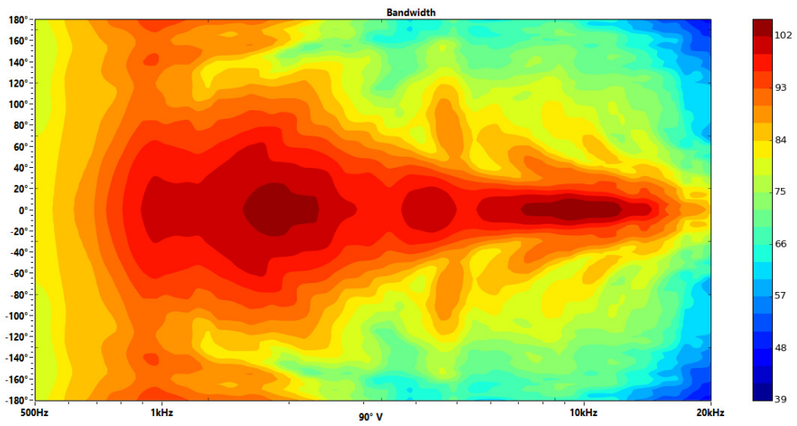


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,30	1,15dB
75° V	1023Hz	150°	1,86	2,70dB
75° V	2054Hz	110°	2,57	4,10dB
75° V	4120Hz	76°	3,98	6,00dB
75° V	8248Hz	34°	6,10	7,85dB
75° V	18527Hz	38°	7,33	8,65dB

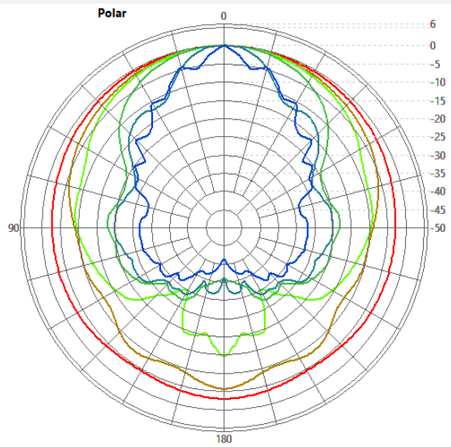


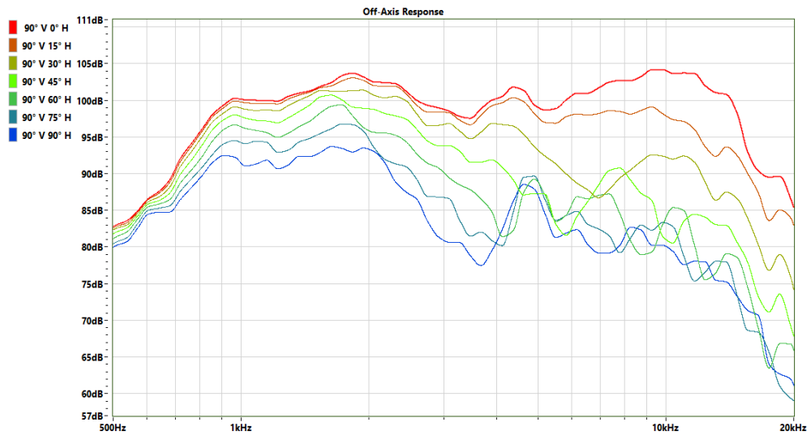


75° Vertical

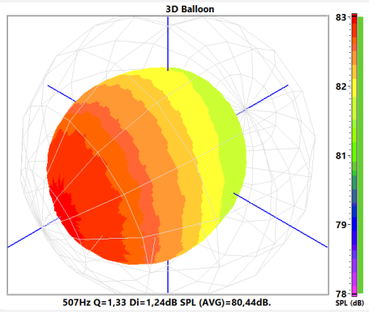


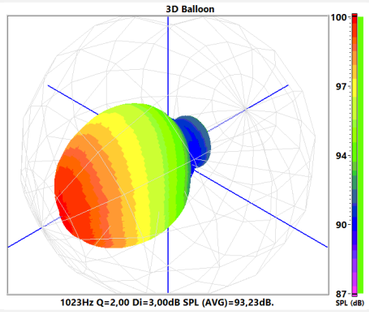
Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,30	1,15dB
90° V	1023Hz	150°	1,86	2,70dB
90° V	2054Hz	112°	2,53	4,03dB
90° V	4120Hz	74°	3,99	6,01dB
90° V	8248Hz	34°	5,80	7,64dB
90° V	18527Hz	36°	7,54	8,77dB

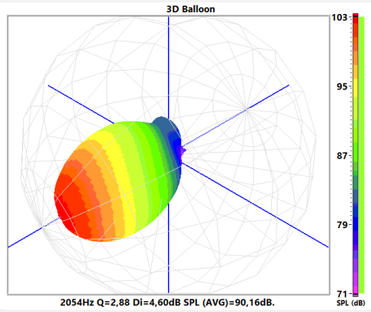


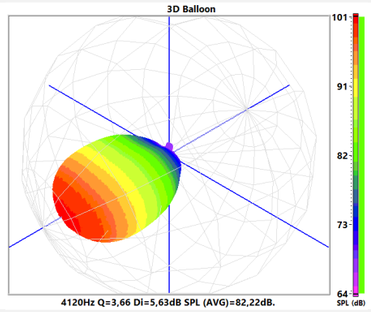


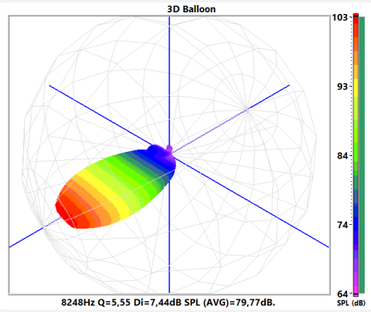
90° Vertical

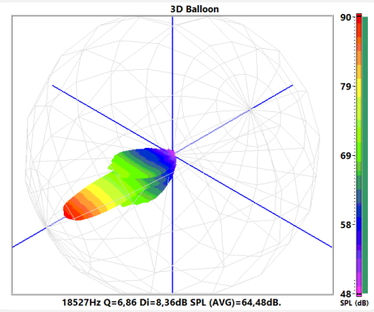






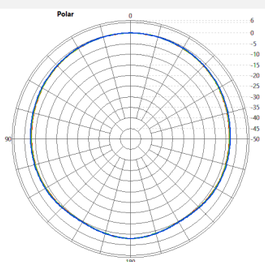




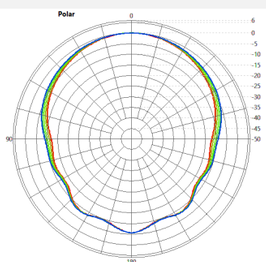


3D Balloon

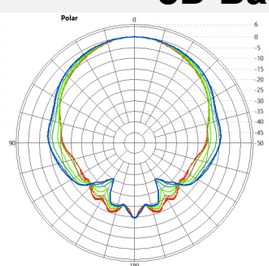
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,34	1,27dB
15° V	507Hz	290°	1,34	1,27dB
30° V	507Hz	290°	1,33	1,24dB
45° V	507Hz	290°	1,31	1,19dB
60° V	507Hz	290°	1,32	1,19dB
75° V	507Hz	300°	1,30	1,15dB
90° V	507Hz	290°	1,30	1,15dB



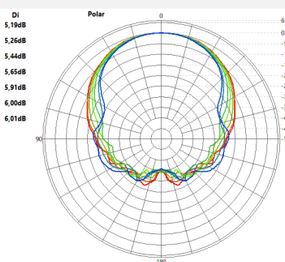
Ang	Freq	Cov	Q	Di
0° V	1023Hz	354°	2,12	3,26dB
15° V	1023Hz	354°	2,09	3,20dB
30° V	1023Hz	354°	2,03	3,08dB
45° V	1023Hz	134°	1,96	2,93dB
60° V	1023Hz	354°	1,91	2,81dB
75° V	1023Hz	150°	1,86	2,70dB
90° V	1023Hz	150°	1,86	2,70dB



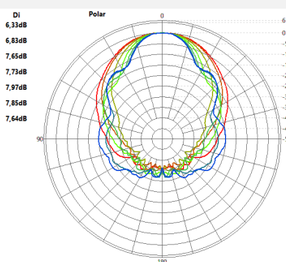
Ang	Freq	Cov	Q	Di
0° V	2054Hz	86°	3,13	4,96dB
15° V	2054Hz	86°	3,13	4,95dB
30° V	2054Hz	88°	3,09	4,90dB
45° V	2054Hz	94°	2,96	4,72dB
60° V	2054Hz	102°	2,76	4,41dB
75° V	2054Hz	110°	2,57	4,10dB
90° V	2054Hz	112°	2,53	4,03dB



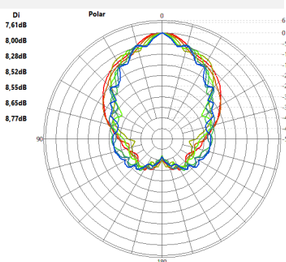
Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,31	5,19dB
15° V	4120Hz	92°	3,36	5,26dB
30° V	4120Hz	90°	3,50	5,44dB
45° V	4120Hz	86°	3,67	5,65dB
60° V	4120Hz	82°	3,90	5,91dB
75° V	4120Hz	76°	3,98	6,00dB
90° V	4120Hz	74°	3,99	6,01dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	68°	4,29	6,33dB
15° V	8248Hz	62°	4,82	6,83dB
30° V	8248Hz	52°	5,82	7,65dB
45° V	8248Hz	42°	5,93	7,73dB
60° V	8248Hz	38°	6,27	7,97dB
75° V	8248Hz	34°	6,10	7,85dB
90° V	8248Hz	34°	5,80	7,64dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	36°	5,77	7,61dB
15° V	18527Hz	32°	6,31	8,00dB
30° V	18527Hz	26°	6,73	8,28dB
45° V	18527Hz	30°	7,11	8,52dB
60° V	18527Hz	42°	7,16	8,55dB
75° V	18527Hz	38°	7,33	8,65dB
90° V	18527Hz	36°	7,54	8,77dB

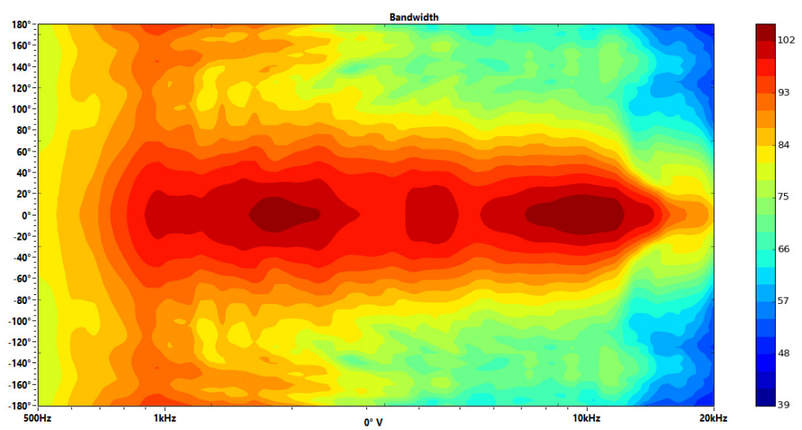


Polar Comparativa Vertical





Application Note AN-0014.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-23.25 horn.
https://www.ludovico.com.br/311/cornetas/corneta-lc-2325-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.



Ang	Freq	Cov	Q	Di
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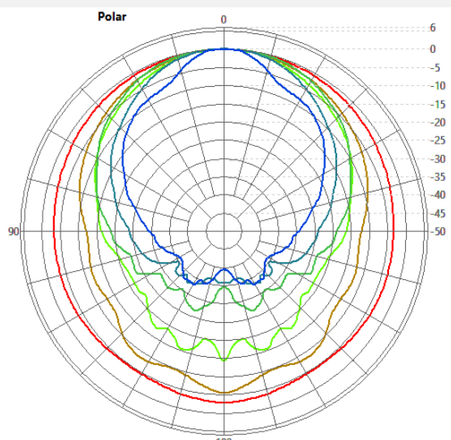
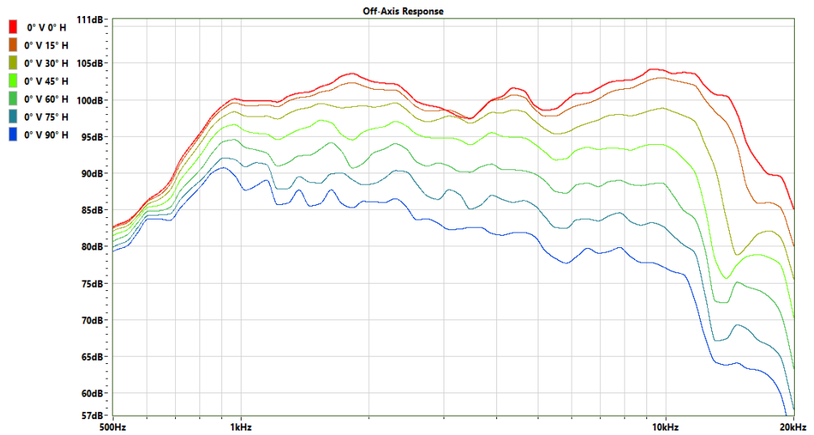
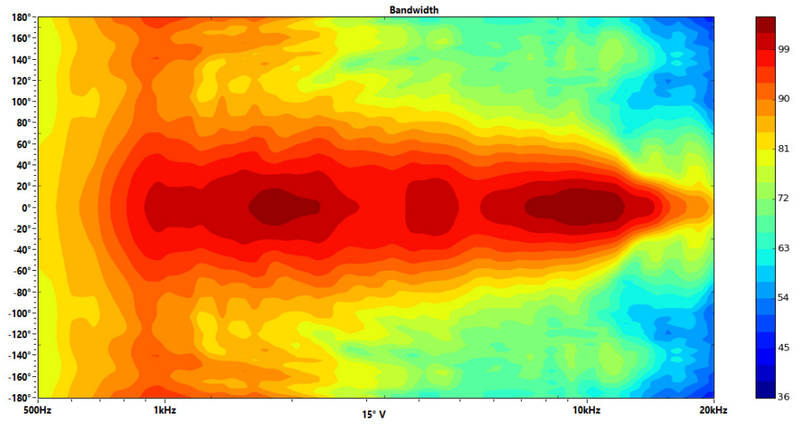
0° V	18527Hz	36°	5,77	7,61dB





0° Vertical



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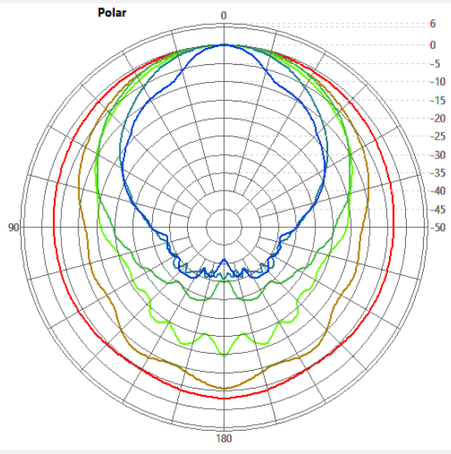
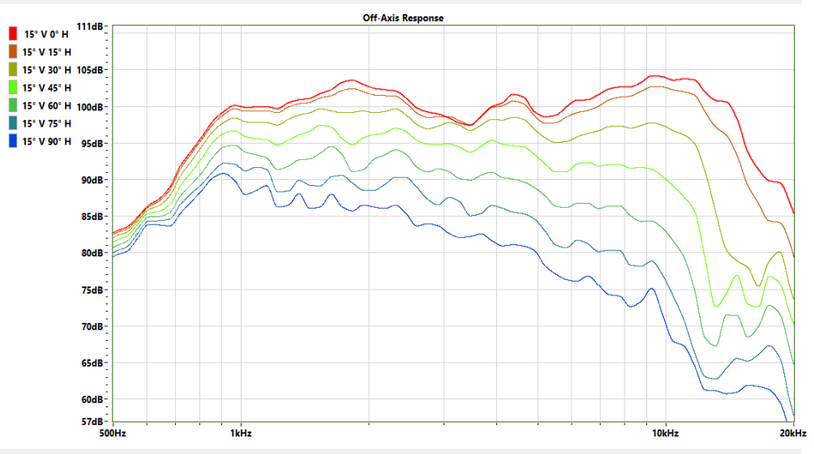
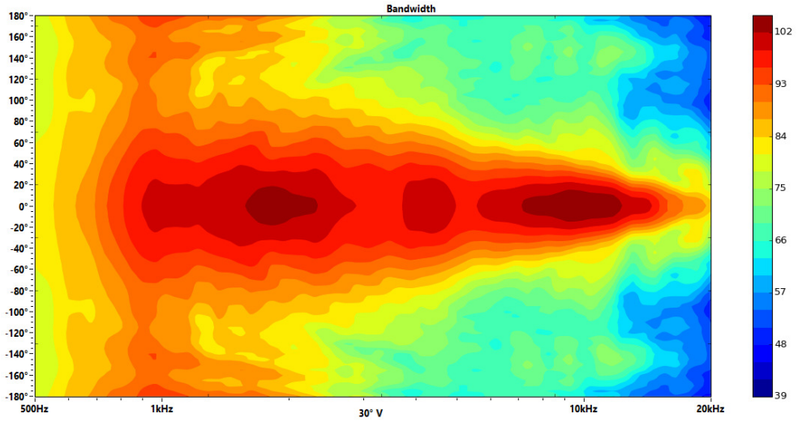
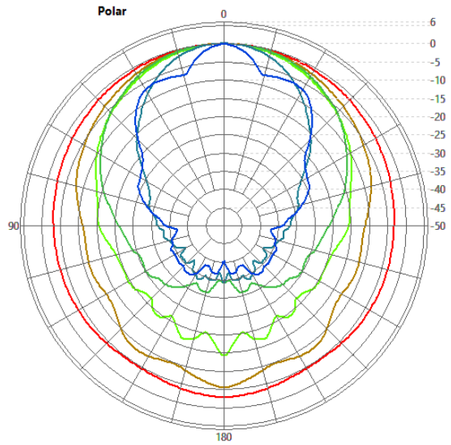


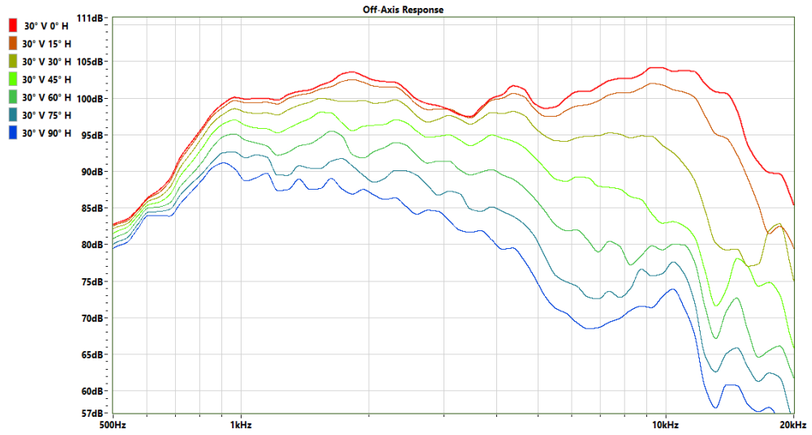


15° Vertical

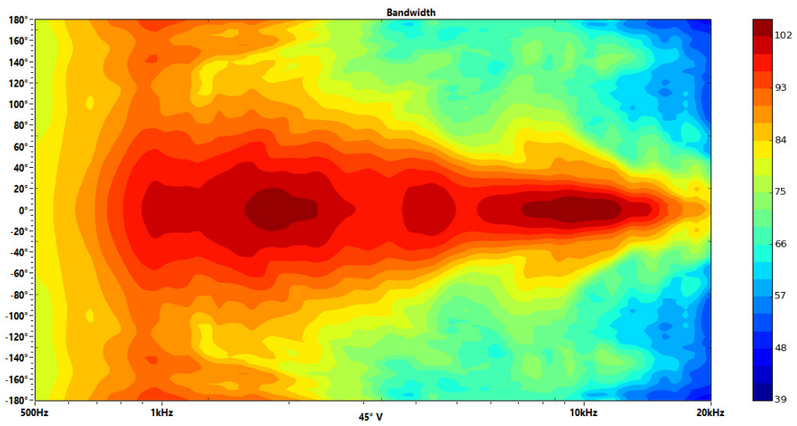


Ang	Freq	Cov	Q	Di
30° V	507Hz	290°	1,33	1,24dB
30° V	1023Hz	354°	2,03	3,08dB
30° V	2054Hz	88°	3,09	4,90dB
30° V	4120Hz	90°	3,50	5,44dB
30° V	8248Hz	52°	5,82	7,65dB
30° V	18527Hz	26°	6,73	8,28dB

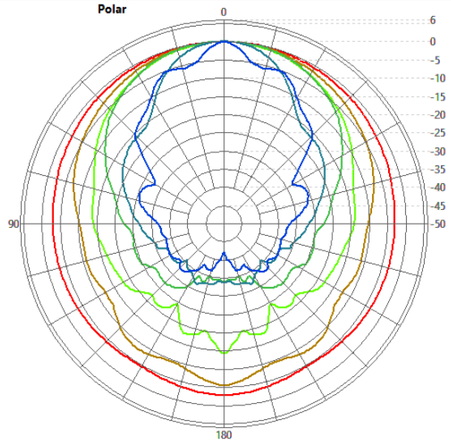


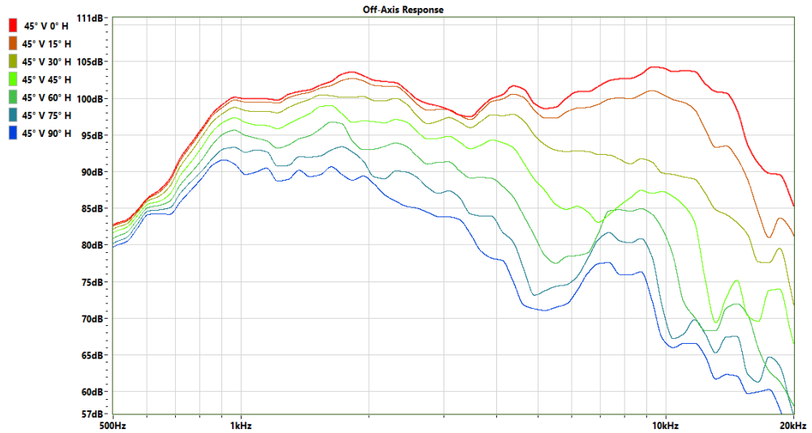


30° Vertical

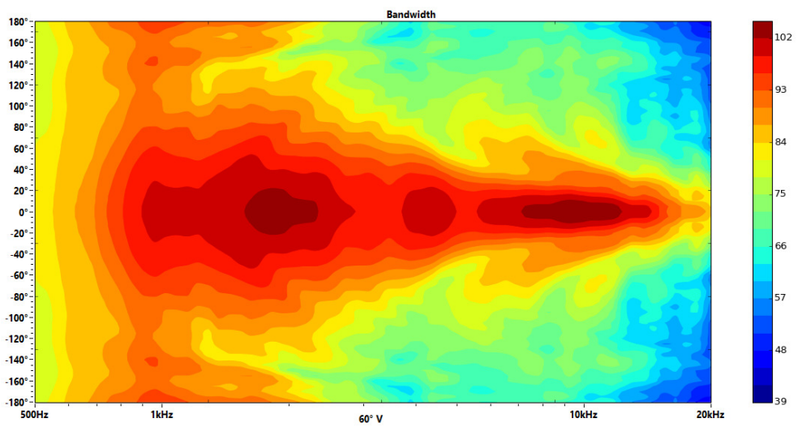


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,31	1,19dB
45° V	1023Hz	134°	1,96	2,93dB
45° V	2054Hz	94°	2,96	4,72dB
45° V	4120Hz	86°	3,67	5,65dB
45° V	8248Hz	42°	5,93	7,73dB
45° V	18527Hz	30°	7,11	8,52dB

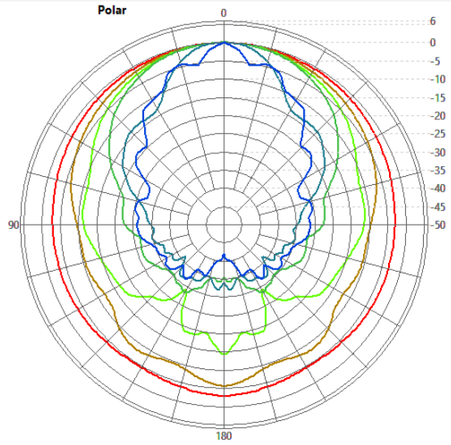


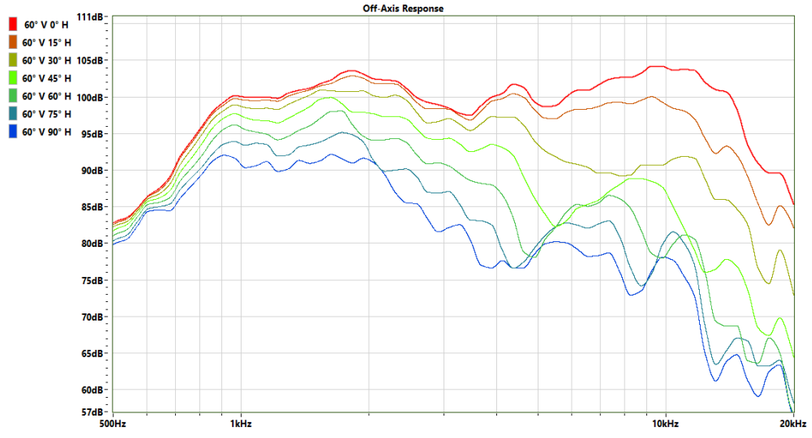


45° Vertical

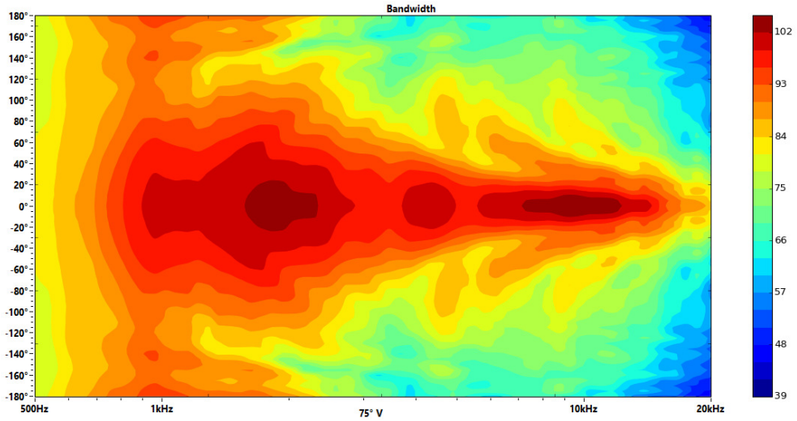


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,32	1,19dB
60° V	1023Hz	354°	1,91	2,81dB
60° V	2054Hz	102°	2,76	4,41dB
60° V	4120Hz	82°	3,90	5,91dB
60° V	8248Hz	38°	6,27	7,97dB
60° V	18527Hz	42°	7,16	8,55dB

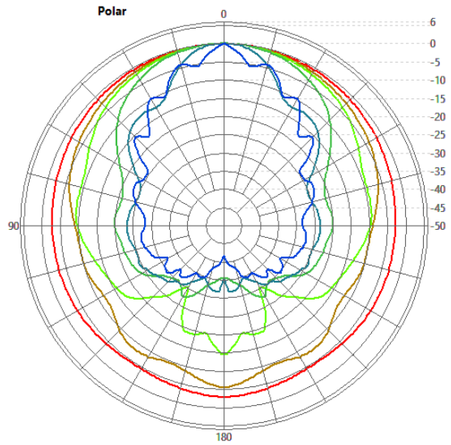


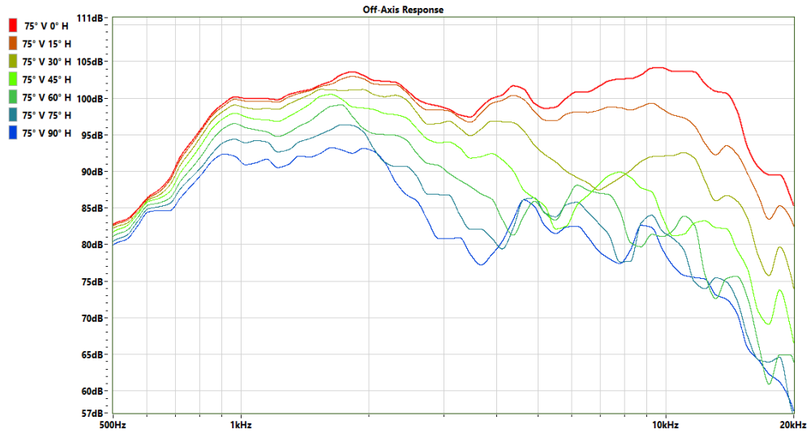


60° Vertical

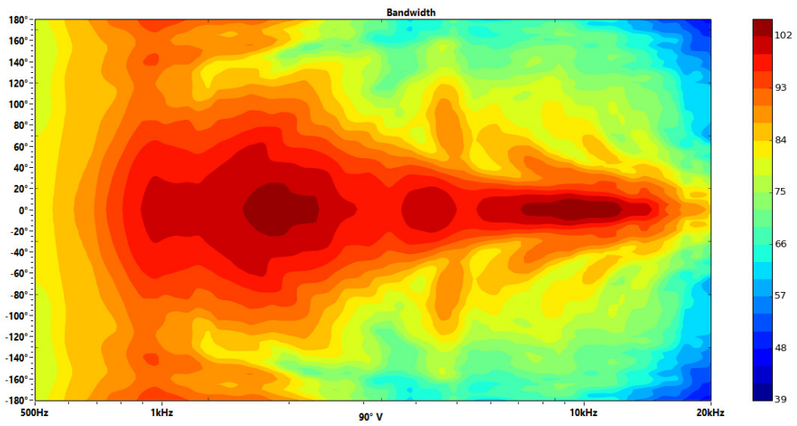


Ang	Freq	Cov	Q	Di
75° V	507Hz	300°	1,30	1,15dB
75° V	1023Hz	150°	1,86	2,70dB
75° V	2054Hz	110°	2,57	4,10dB
75° V	4120Hz	76°	3,98	6,00dB
75° V	8248Hz	34°	6,10	7,85dB
75° V	18527Hz	38°	7,33	8,65dB

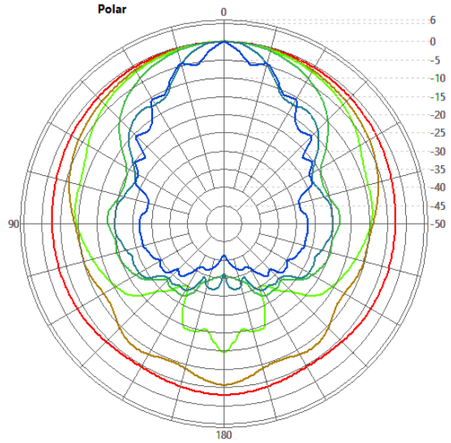


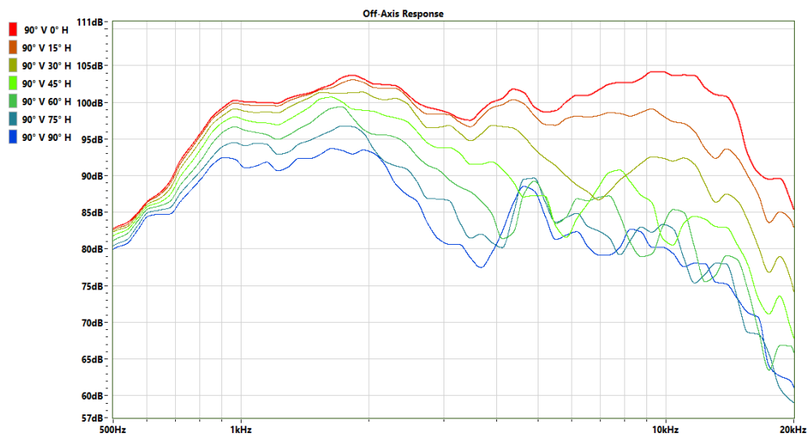


75° Vertical

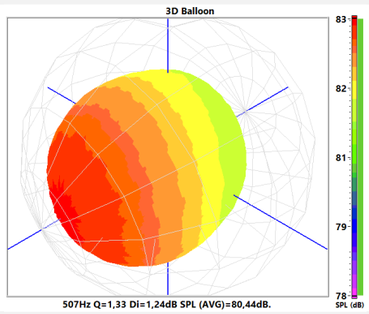


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,30	1,15dB
90° V	1023Hz	150°	1,86	2,70dB
90° V	2054Hz	112°	2,53	4,03dB
90° V	4120Hz	74°	3,99	6,01dB
90° V	8248Hz	34°	5,80	7,64dB
90° V	18527Hz	36°	7,54	8,77dB

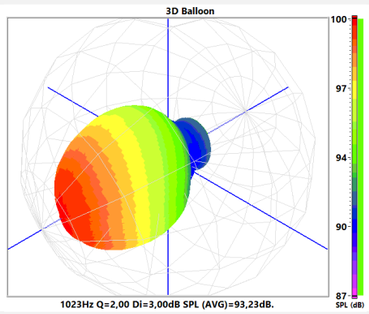




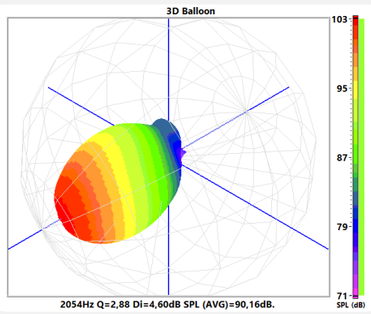
90° Vertical



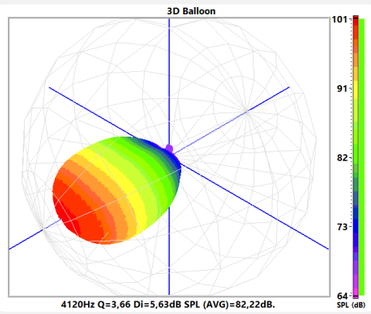
507Hz Q=1,33 Di=1,24dB SPL (AVG)=80,44dB.



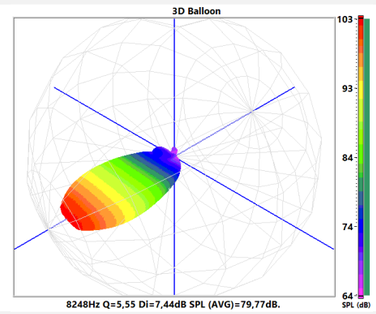
1023Hz Q=2,00 Di=3,00dB SPL (AVG)=93,23dB.



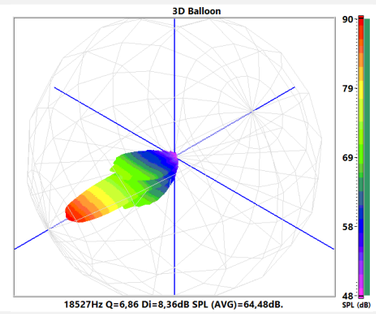
2054Hz Q=2,88 Di=4,60dB SPL (AVG)=90,16dB.



4120Hz Q=3,66 Di=5,63dB SPL (AVG)=82,22dB.



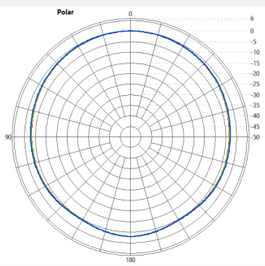
8248Hz Q=5,55 Di=7,44dB SPL (AVG)=79,77dB.



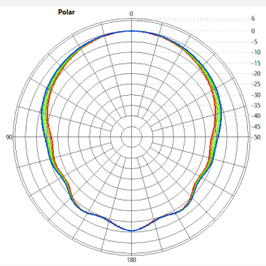
18527Hz Q=6,86 Di=8,36dB SPL (AVG)=64,48dB.

3D Balloon

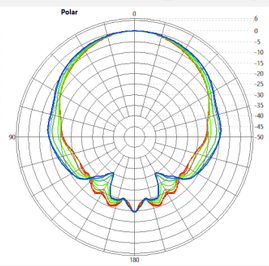
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,34	1,27dB
15° V	507Hz	290°	1,34	1,27dB
30° V	507Hz	290°	1,33	1,24dB
45° V	507Hz	290°	1,31	1,19dB
60° V	507Hz	290°	1,32	1,19dB
75° V	507Hz	300°	1,30	1,15dB
90° V	507Hz	290°	1,30	1,15dB



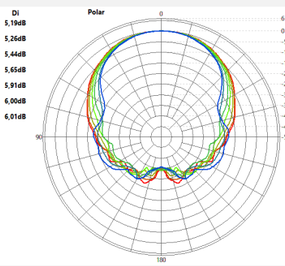
Ang	Freq	Cov	Q	Di
0° V	1023Hz	354°	2,12	3,26dB
15° V	1023Hz	354°	2,09	3,20dB
30° V	1023Hz	354°	2,03	3,08dB
45° V	1023Hz	134°	1,96	2,93dB
60° V	1023Hz	354°	1,91	2,81dB
75° V	1023Hz	150°	1,86	2,70dB
90° V	1023Hz	150°	1,86	2,70dB



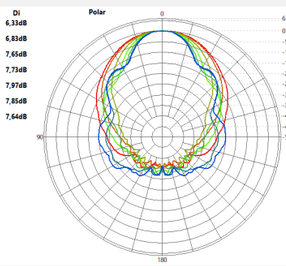
Ang	Freq	Cov	Q	Di
0° V	2054Hz	86°	3,13	4,96dB
15° V	2054Hz	86°	3,13	4,95dB
30° V	2054Hz	88°	3,09	4,90dB
45° V	2054Hz	94°	2,96	4,72dB
60° V	2054Hz	102°	2,76	4,41dB
75° V	2054Hz	110°	2,57	4,10dB
90° V	2054Hz	112°	2,53	4,03dB



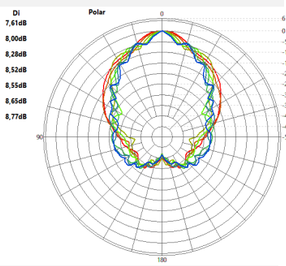
Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,31	5,19dB
15° V	4120Hz	92°	3,36	5,26dB
30° V	4120Hz	90°	3,50	5,44dB
45° V	4120Hz	86°	3,67	5,65dB
60° V	4120Hz	82°	3,90	5,91dB
75° V	4120Hz	76°	3,98	6,00dB
90° V	4120Hz	74°	3,99	6,01dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	68°	4,29	6,33dB
15° V	8248Hz	62°	4,82	6,83dB
30° V	8248Hz	52°	5,82	7,65dB
45° V	8248Hz	42°	5,93	7,73dB
60° V	8248Hz	38°	6,27	7,97dB
75° V	8248Hz	34°	6,10	7,85dB
90° V	8248Hz	34°	5,80	7,64dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	36°	5,77	7,61dB
15° V	18527Hz	32°	6,31	8,00dB
30° V	18527Hz	26°	6,73	8,28dB
45° V	18527Hz	30°	7,11	8,52dB
60° V	18527Hz	42°	7,16	8,55dB
75° V	18527Hz	38°	7,33	8,65dB
90° V	18527Hz	36°	7,54	8,77dB



Polar Vertical Comparative