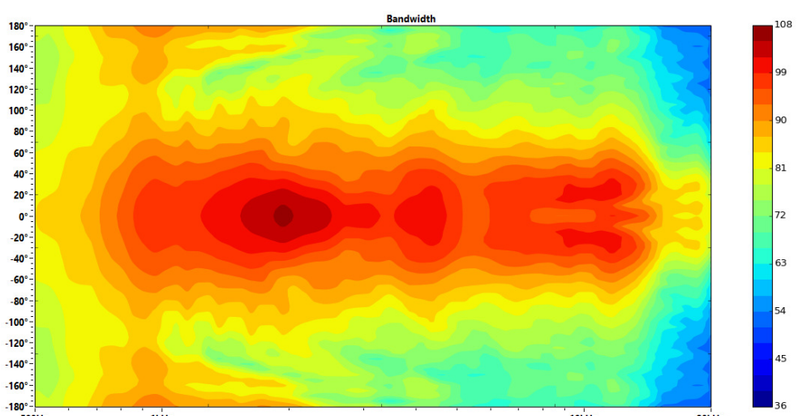
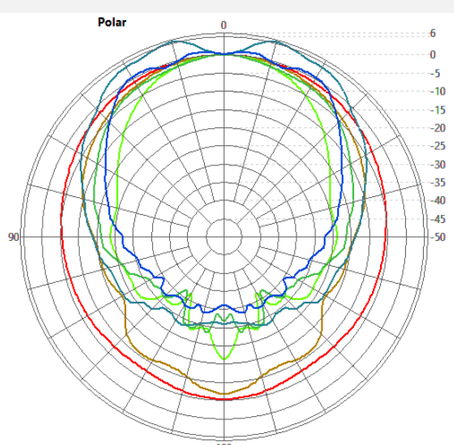


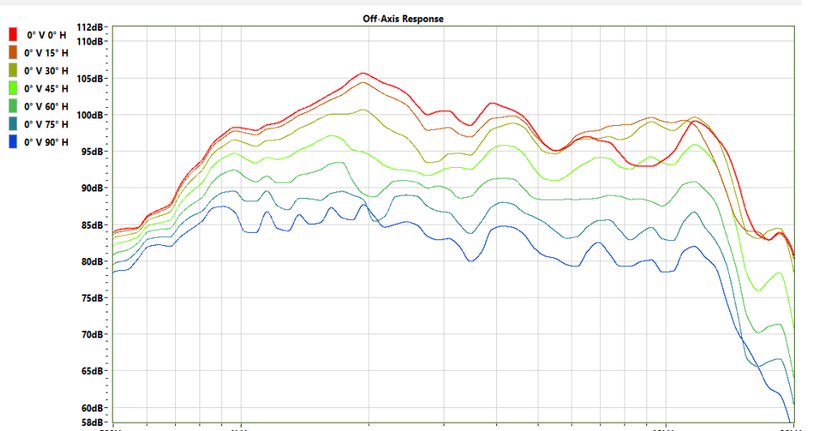


Nota de Aplicação AN-0013.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-15.
https://www.ludovico.com.br/266/cornetas/corneta-lc-015-quadrada-225-cm-x-187-cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V 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.

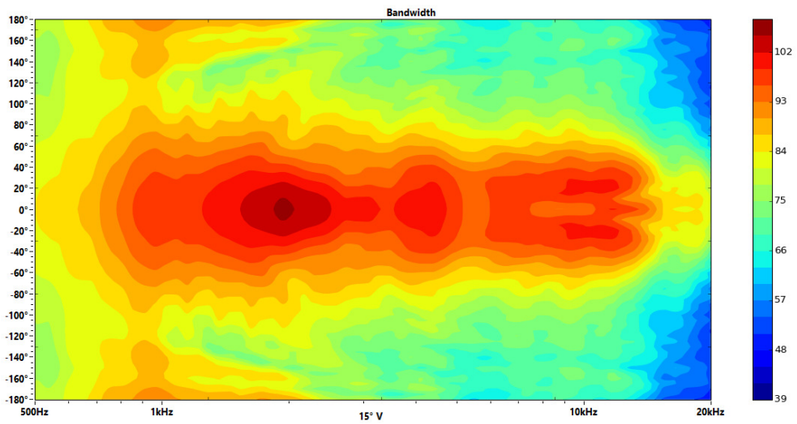


Ang	Freq	Cov	Q	Di
0° V	507Hz	198°	1,58	2,00dB
0° V	1023Hz	112°	2,31	3,64dB
0° V	2054Hz	64°	4,07	6,10dB
0° V	4120Hz	94°	3,31	5,20dB
0° V	8248Hz	126°	1,89	2,76dB
0° V	18527Hz	92°	3,15	4,99dB

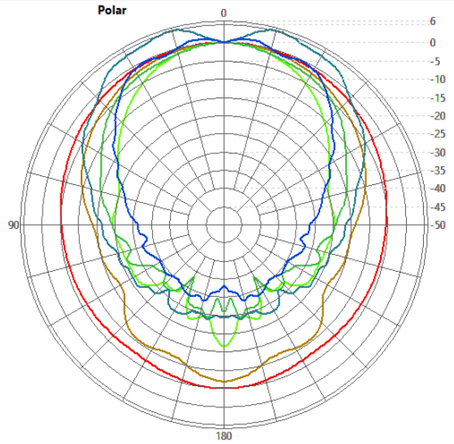


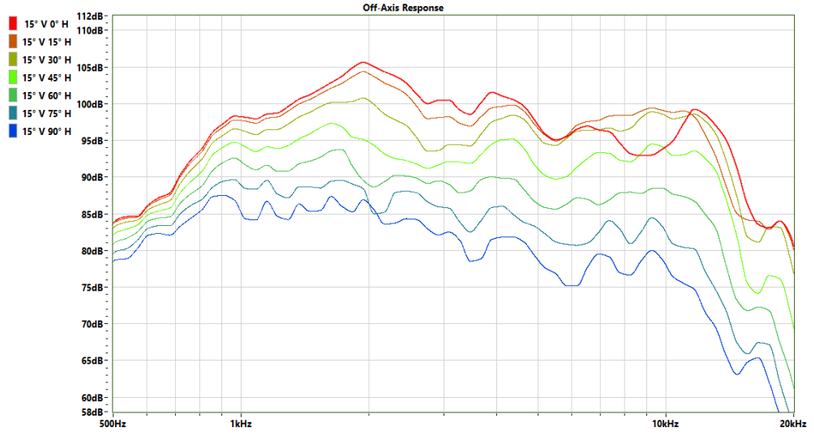


0° Vertical

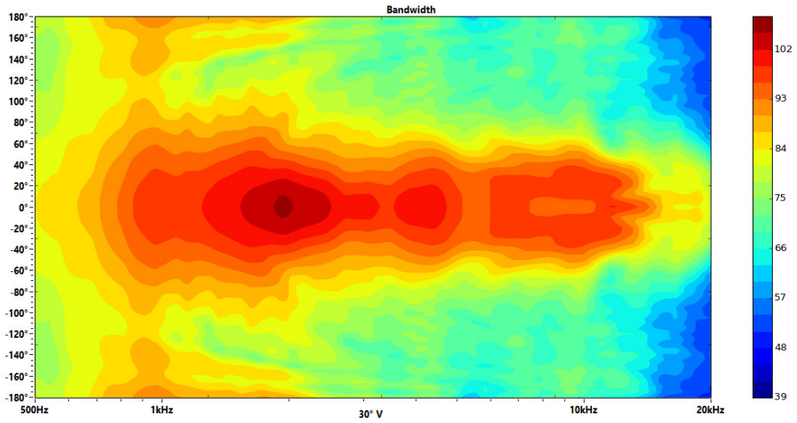


Ang	Freq	Cov	Q	Di
15° V	507Hz	210°	1,55	1,90dB
15° V	1023Hz	114°	2,29	3,59dB
15° V	2054Hz	66°	4,09	6,11dB
15° V	4120Hz	90°	3,54	5,49dB
15° V	8248Hz	124°	1,98	2,96dB
15° V	18527Hz	82°	3,59	5,55dB

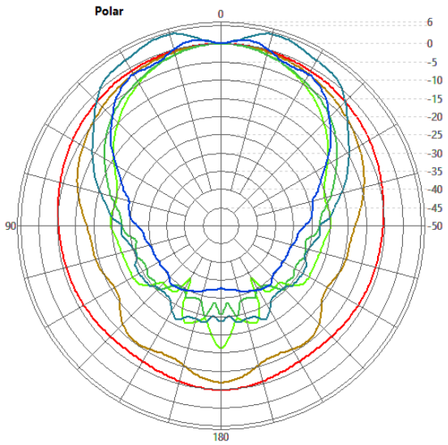


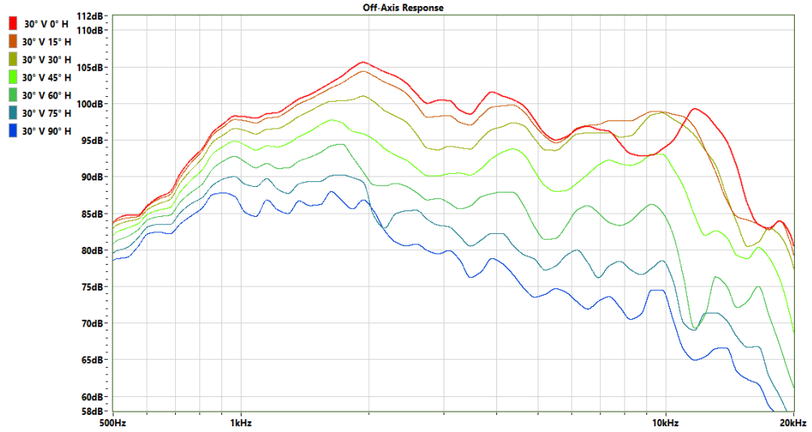


15° Vertical

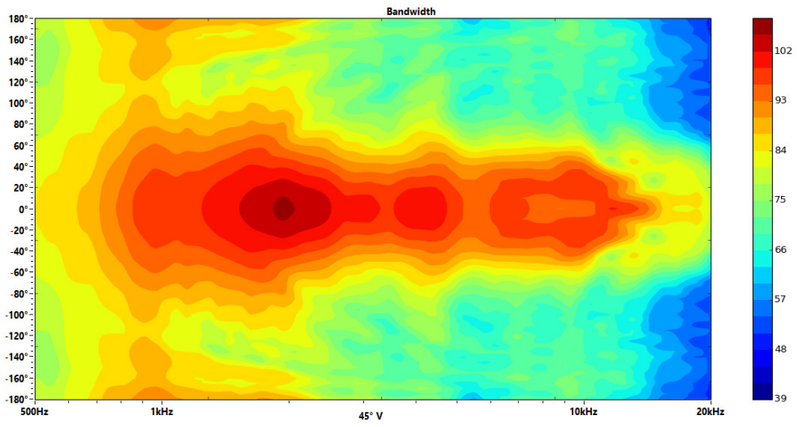


Ang	Freq	Cov	Q	Di
30° V	507Hz	212°	1,55	1,91dB
30° V	1023Hz	118°	2,24	3,51dB
30° V	2054Hz	68°	4,02	6,04dB
30° V	4120Hz	78°	3,96	5,97dB
30° V	8248Hz	106°	2,29	3,59dB
30° V	18527Hz	84°	3,79	5,78dB

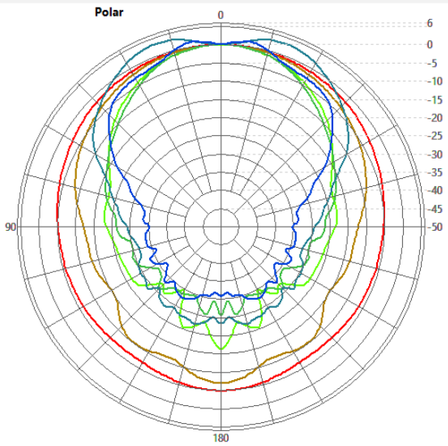


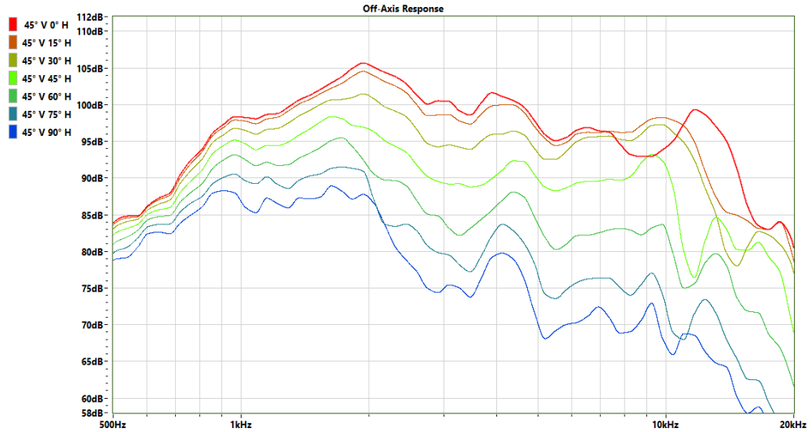


30° Vertical

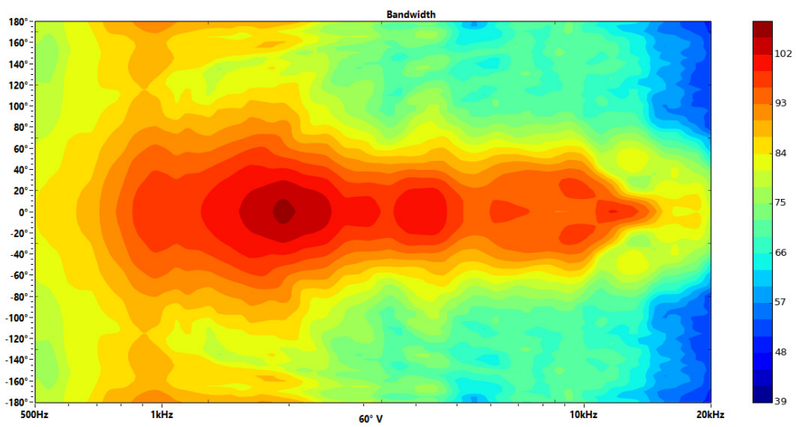


Ang	Freq	Cov	Q	Di
45° V	507Hz	218°	1,54	1,88dB
45° V	1023Hz	122°	2,17	3,37dB
45° V	2054Hz	72°	3,77	5,77dB
45° V	4120Hz	66°	4,14	6,17dB
45° V	8248Hz	106°	2,57	4,10dB
45° V	18527Hz	88°	3,85	5,85dB

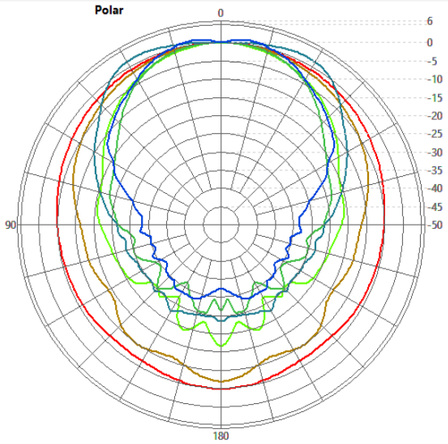


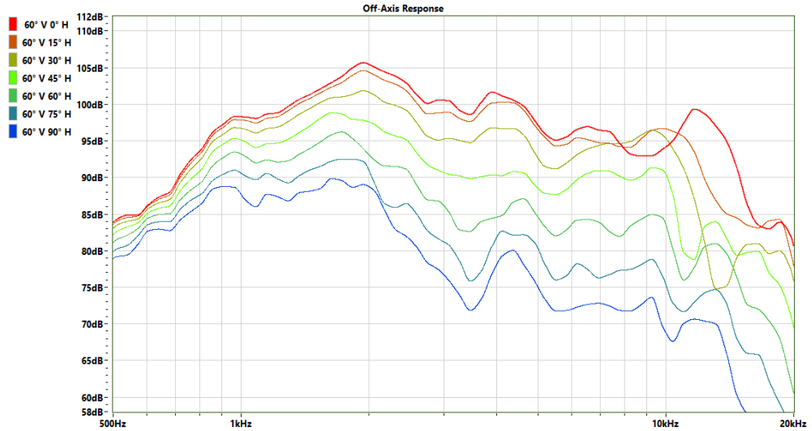


45° Vertical

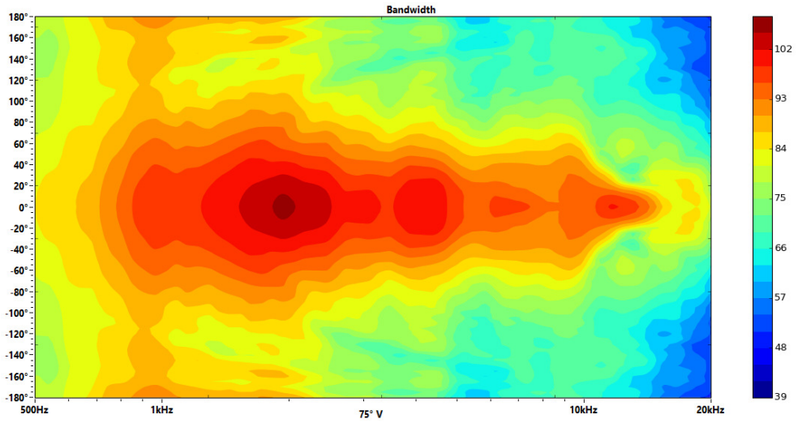


Ang	Freq	Cov	Q	Di
60° V	507Hz	322°	1,53	1,84dB
60° V	1023Hz	128°	2,10	3,23dB
60° V	2054Hz	78°	3,49	5,43dB
60° V	4120Hz	68°	4,17	6,21dB
60° V	8248Hz	100°	2,73	4,36dB
60° V	18527Hz	72°	3,92	5,93dB

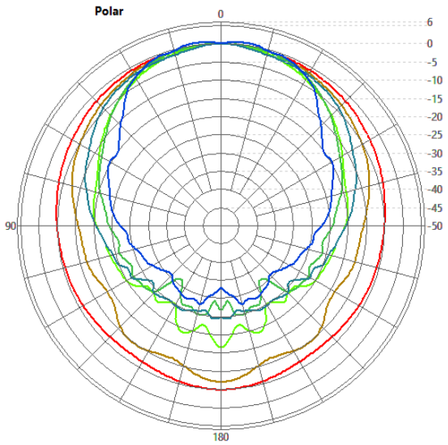


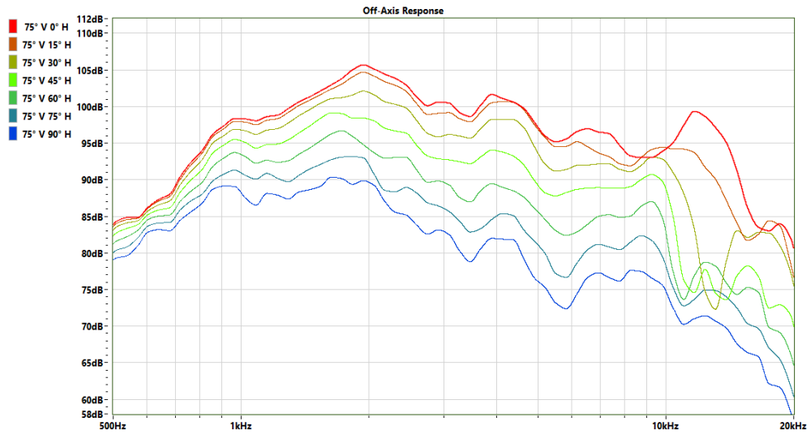


60° Vertical

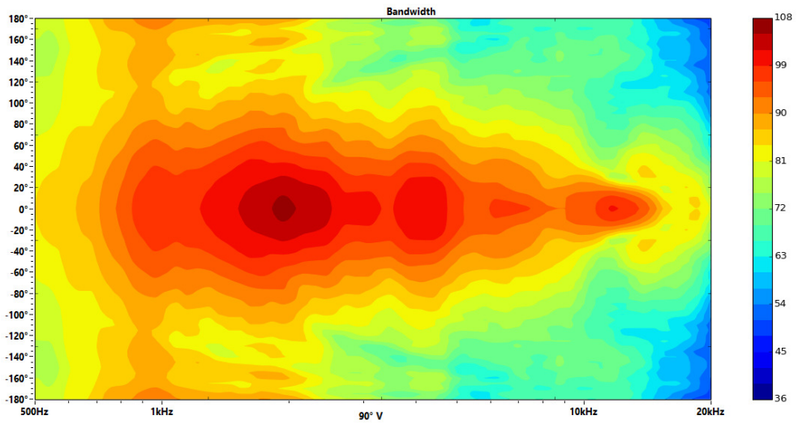


Ang	Freq	Cov	Q	Di
75° V	507Hz	228°	1,53	1,84dB
75° V	1023Hz	132°	2,07	3,16dB
75° V	2054Hz	82°	3,30	5,19dB
75° V	4120Hz	82°	3,50	5,44dB
75° V	8248Hz	104°	3,04	4,84dB
75° V	18527Hz	74°	3,87	5,88dB

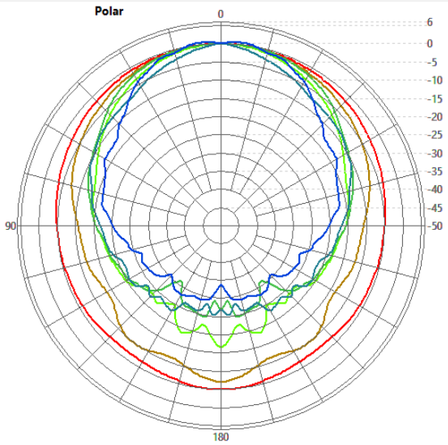


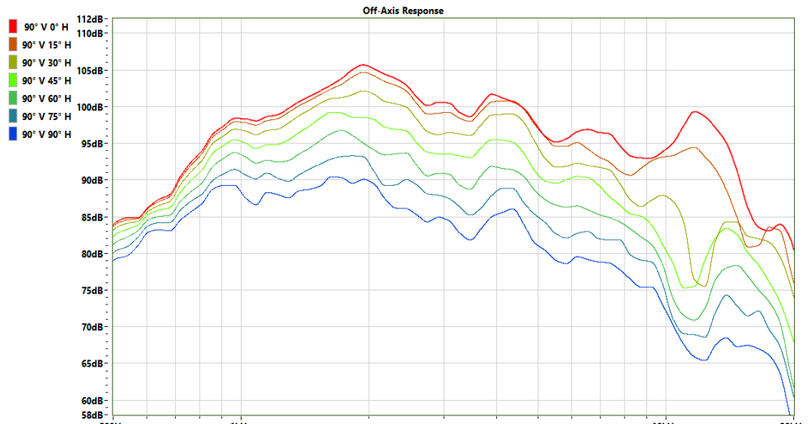


75° Vertical

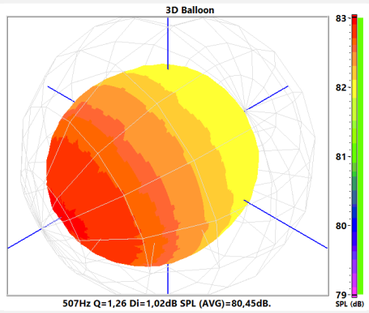


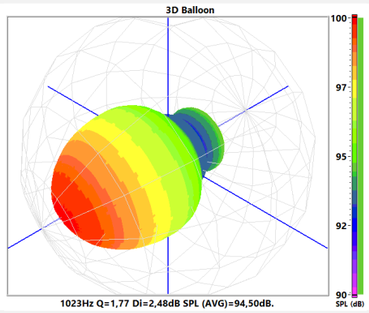
Ang	Freq	Cov	Q	Di
90° V	507Hz	326°	1,52	1,82dB
90° V	1023Hz	132°	2,08	3,18dB
90° V	2054Hz	82°	3,26	5,14dB
90° V	4120Hz	92°	3,11	4,93dB
90° V	8248Hz	60°	3,73	5,72dB
90° V	18527Hz	68°	3,97	5,98dB

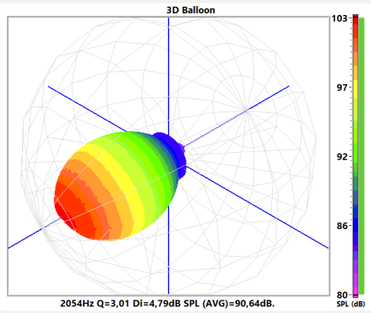


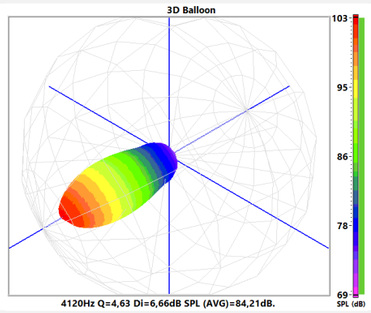


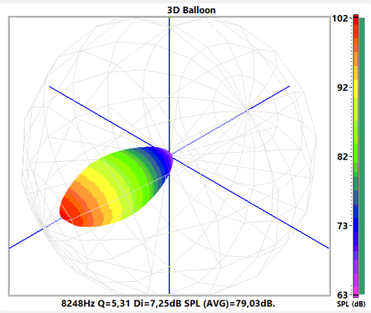
90° Vertical

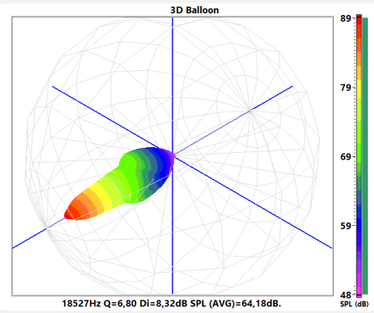






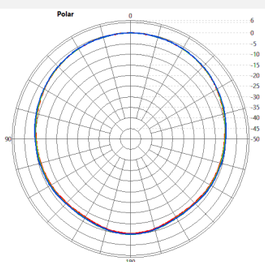




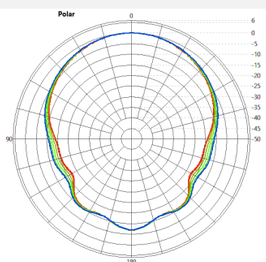


3D Balloon

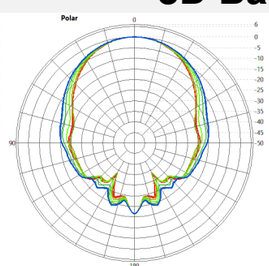
Ang	Freq	Cov	Q	Di
0° V	507Hz	198°	1,58	2,00dB
15° V	507Hz	210°	1,55	1,90dB
30° V	507Hz	212°	1,55	1,91dB
45° V	507Hz	218°	1,54	1,88dB
60° V	507Hz	322°	1,53	1,84dB
75° V	507Hz	228°	1,53	1,84dB
90° V	507Hz	326°	1,52	1,82dB



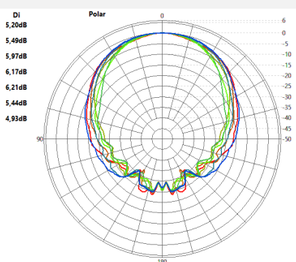
Ang	Freq	Cov	Q	Di
0° V	1023Hz	112°	2,31	3,64dB
15° V	1023Hz	114°	2,29	3,59dB
30° V	1023Hz	118°	2,24	3,51dB
45° V	1023Hz	122°	2,17	3,37dB
60° V	1023Hz	128°	2,10	3,23dB
75° V	1023Hz	132°	2,07	3,16dB
90° V	1023Hz	132°	2,08	3,18dB



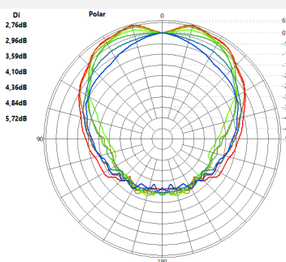
Ang	Freq	Cov	Q	Di
0° V	2054Hz	64°	4,07	6,10dB
15° V	2054Hz	66°	4,09	6,11dB
30° V	2054Hz	68°	4,02	6,04dB
45° V	2054Hz	72°	3,77	5,77dB
60° V	2054Hz	78°	3,49	5,43dB
75° V	2054Hz	82°	3,30	5,19dB
90° V	2054Hz	82°	3,26	5,14dB



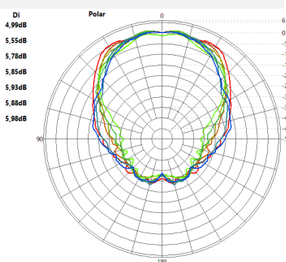
Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,31	5,20dB
15° V	4120Hz	90°	3,54	5,49dB
30° V	4120Hz	78°	3,96	5,97dB
45° V	4120Hz	66°	4,14	6,17dB
60° V	4120Hz	68°	4,17	6,21dB
75° V	4120Hz	82°	3,50	5,44dB
90° V	4120Hz	92°	3,11	4,93dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	126°	1,89	2,76dB
15° V	8248Hz	124°	1,98	2,96dB
30° V	8248Hz	106°	2,29	3,59dB
45° V	8248Hz	106°	2,57	4,10dB
60° V	8248Hz	100°	2,73	4,36dB
75° V	8248Hz	104°	3,04	4,84dB
90° V	8248Hz	60°	3,73	5,72dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	92°	3,15	4,99dB
15° V	18527Hz	82°	3,59	5,55dB
30° V	18527Hz	84°	3,79	5,78dB
45° V	18527Hz	88°	3,85	5,85dB
60° V	18527Hz	72°	3,92	5,93dB
75° V	18527Hz	74°	3,87	5,88dB
90° V	18527Hz	68°	3,97	5,98dB

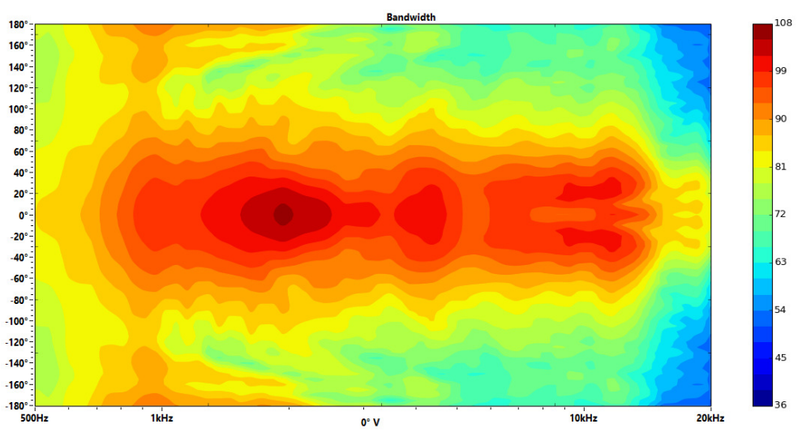


Polar Comparativa Vertical





Application Note AN-0013.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-15 horn.
https://www.ludovico.com.br/266/cornetas/corneta-lc-015-quadrada-225-cm-x-187-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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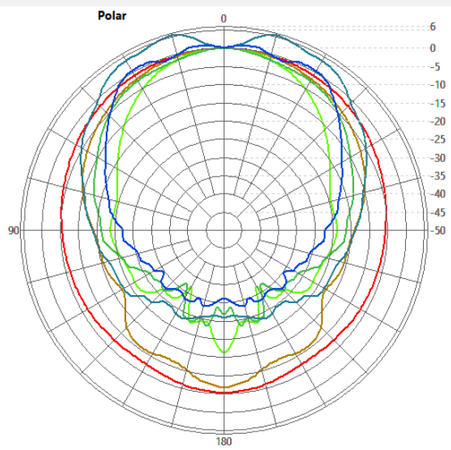
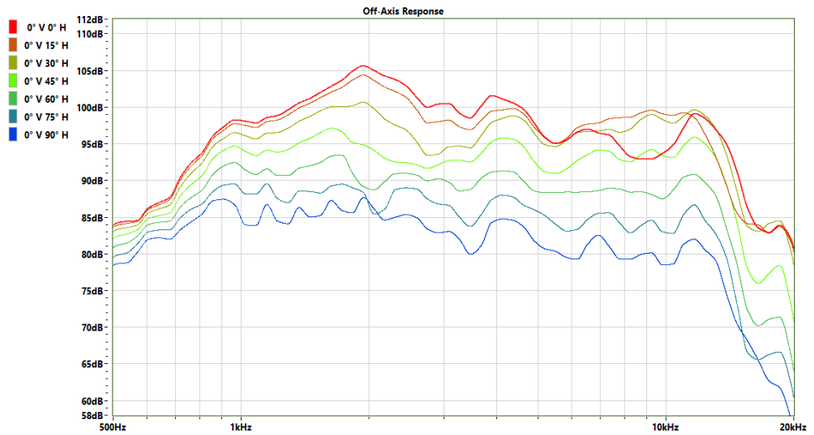
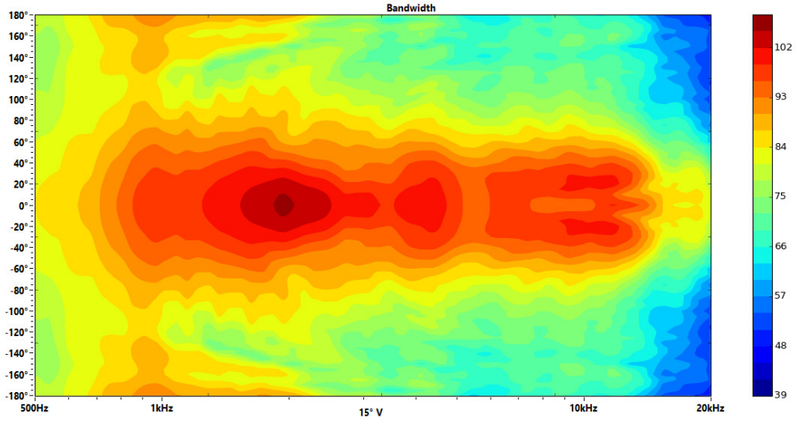




0° Vertical



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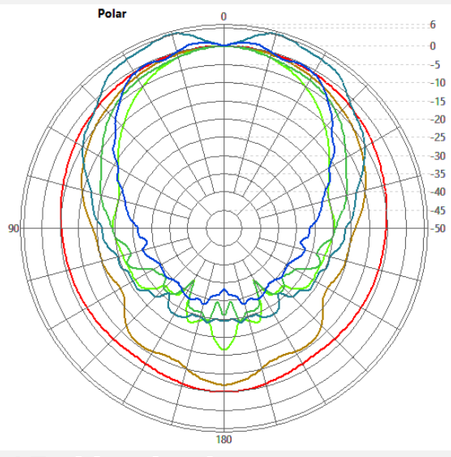
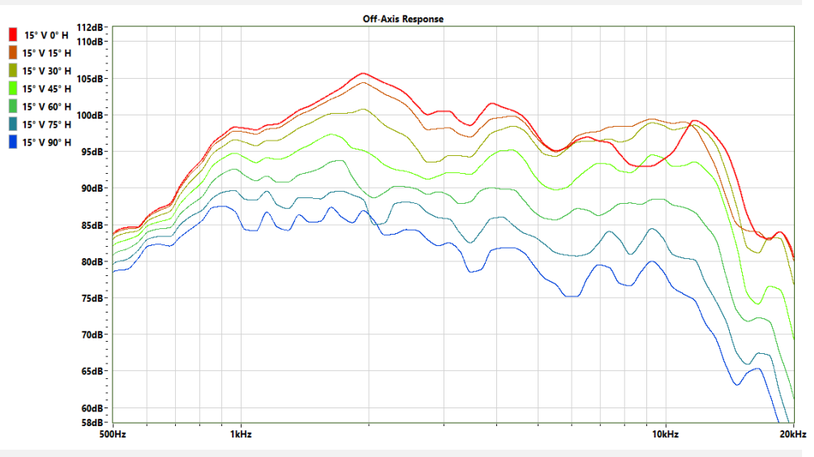
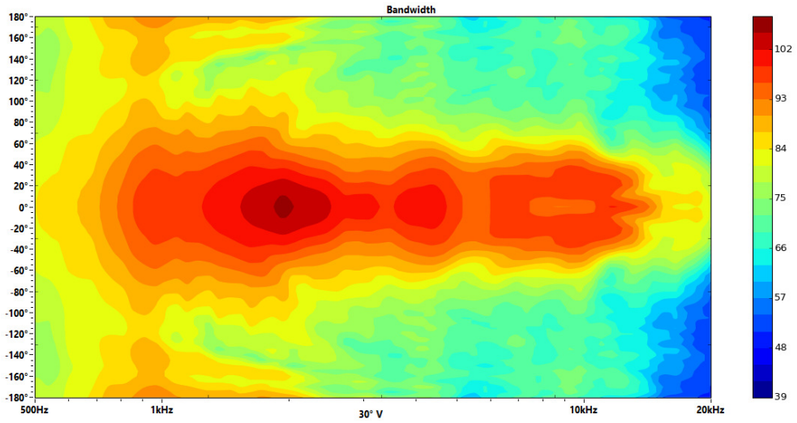




15° Vertical



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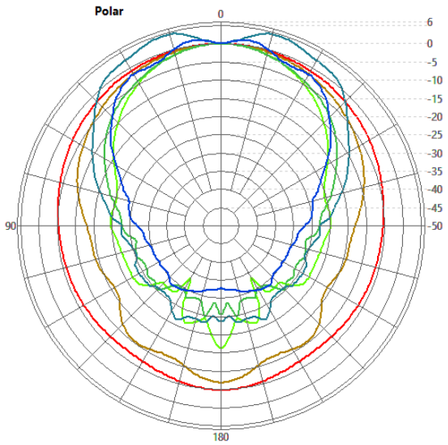
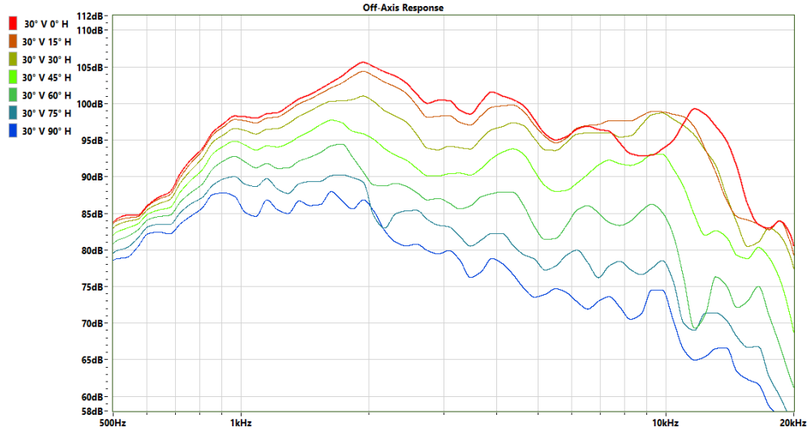
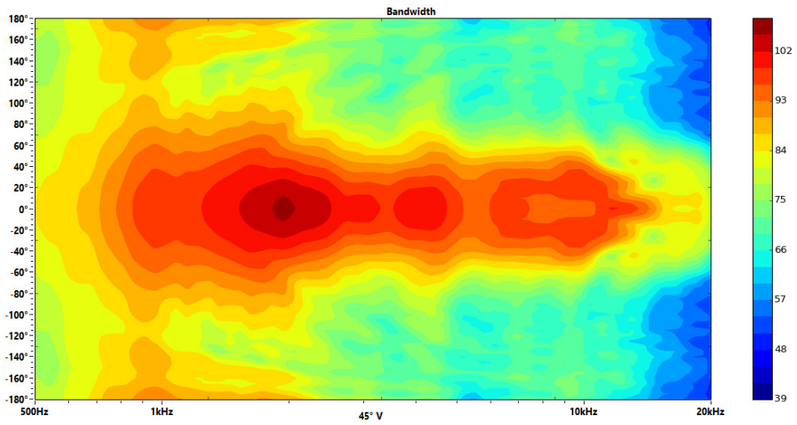
30° V	8248Hz	106°	2,29	3,59dB
30° V	18527Hz	84°	3,79	5,78dB

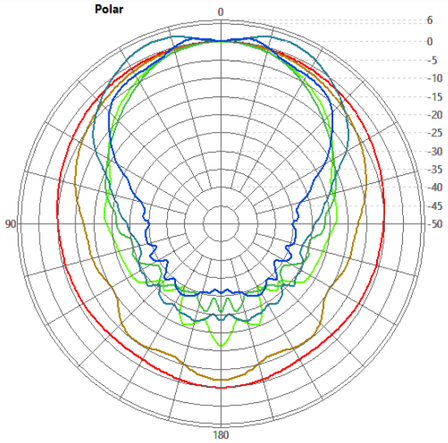


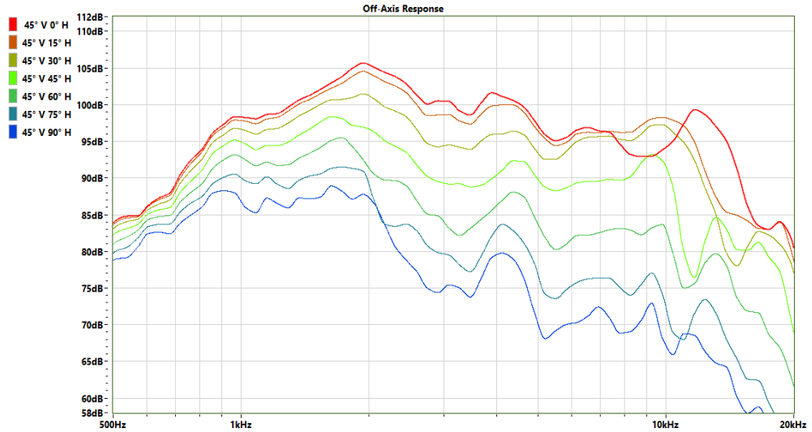


30° Vertical

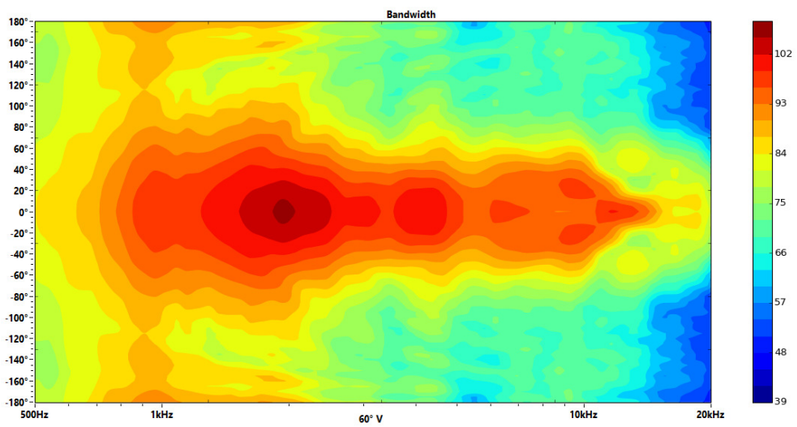


Ang	Freq	Cov	Q	Di
45° V	507Hz	218°	1,54	1,88dB
45° V	1023Hz	122°	2,17	3,37dB
45° V	2054Hz	72°	3,77	5,77dB
45° V	4120Hz	66°	4,14	6,17dB
45° V	8248Hz	106°	2,57	4,10dB
45° V	18527Hz	88°	3,85	5,85dB

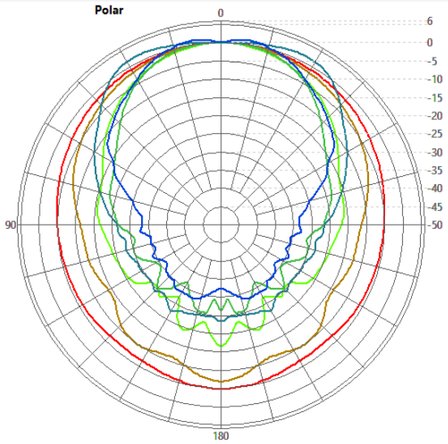


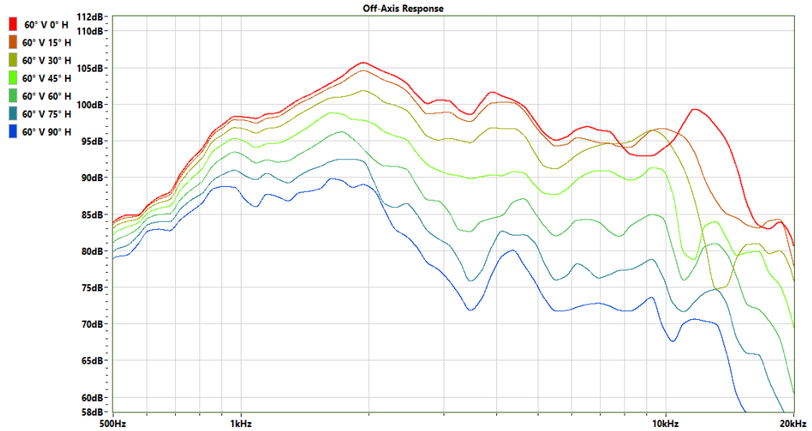


45° Vertical

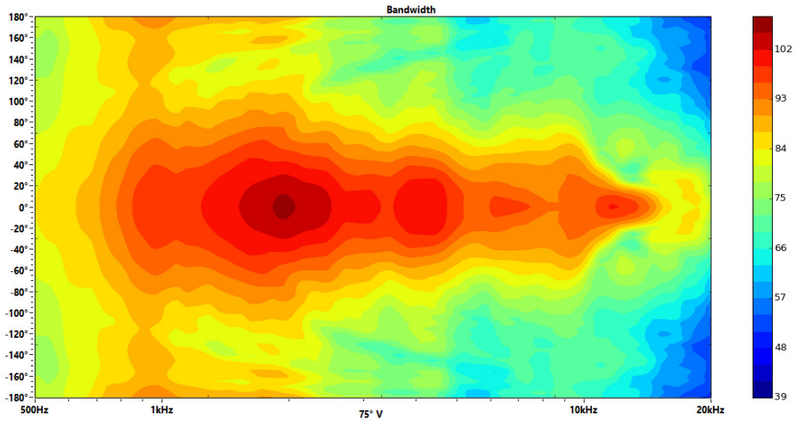


Ang	Freq	Cov	Q	Di
60° V	507Hz	322°	1,53	1,84dB
60° V	1023Hz	128°	2,10	3,23dB
60° V	2054Hz	78°	3,49	5,43dB
60° V	4120Hz	68°	4,17	6,21dB
60° V	8248Hz	100°	2,73	4,36dB
60° V	18527Hz	72°	3,92	5,93dB

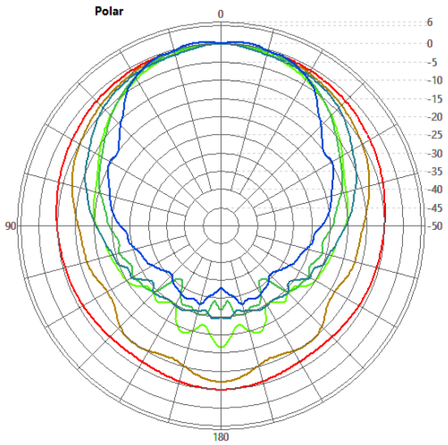


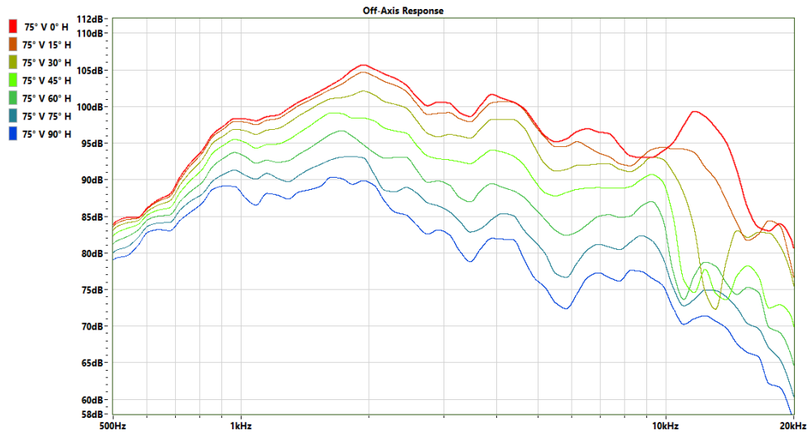


60° Vertical

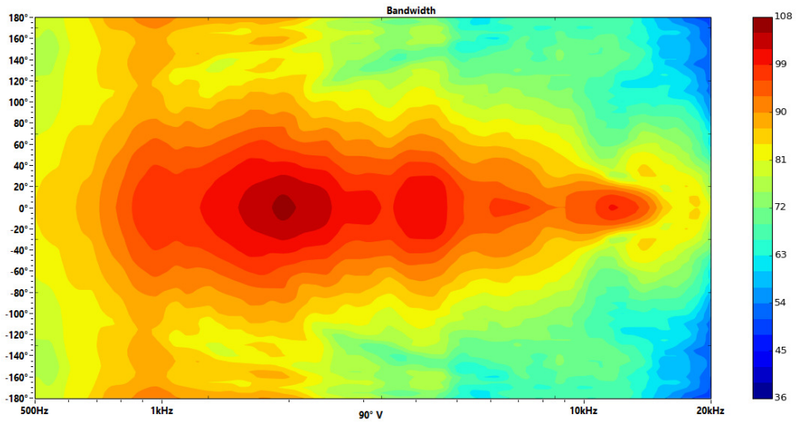


Ang	Freq	Cov	Q	Di
75° V	507Hz	228°	1,53	1,84dB
75° V	1023Hz	132°	2,07	3,16dB
75° V	2054Hz	82°	3,30	5,19dB
75° V	4120Hz	82°	3,50	5,44dB
75° V	8248Hz	104°	3,04	4,84dB
75° V	18527Hz	74°	3,87	5,88dB

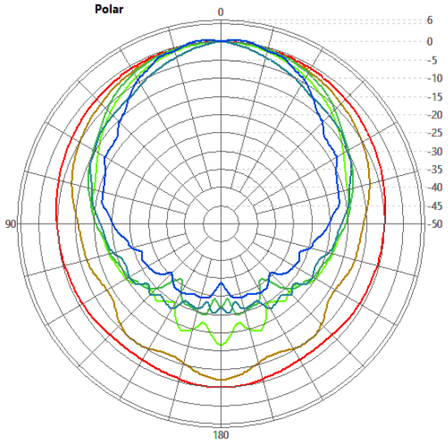


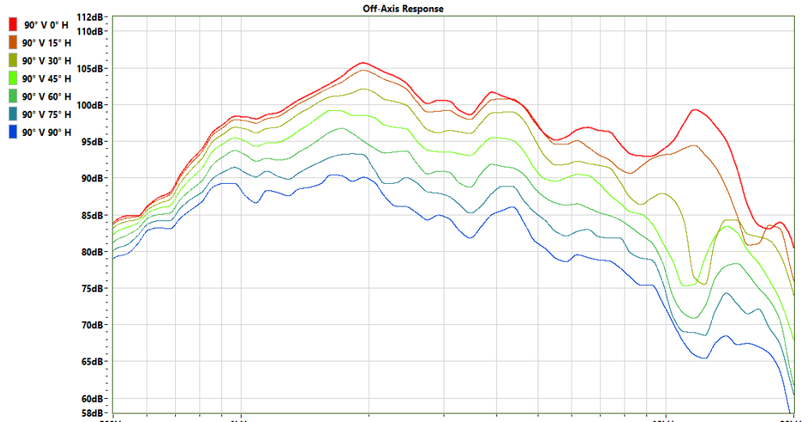


75° Vertical

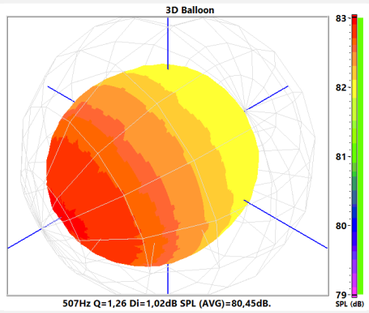


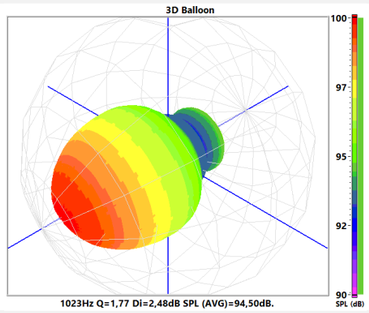
Ang	Freq	Cov	Q	Di
90° V	507Hz	326°	1,52	1,82dB
90° V	1023Hz	132°	2,08	3,18dB
90° V	2054Hz	82°	3,26	5,14dB
90° V	4120Hz	92°	3,11	4,93dB
90° V	8248Hz	60°	3,73	5,72dB
90° V	18527Hz	68°	3,97	5,98dB

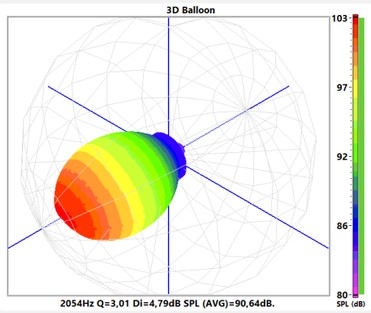


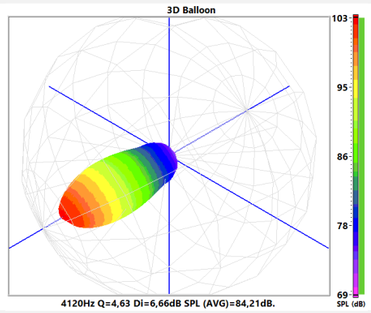


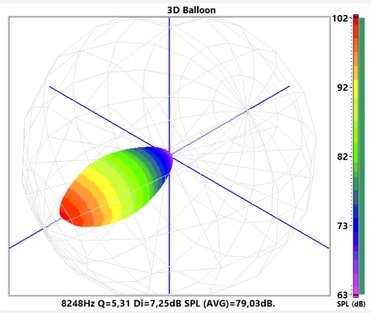
90° Vertical

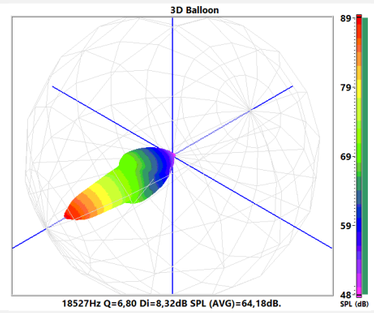






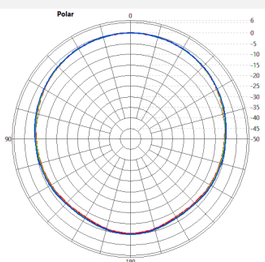




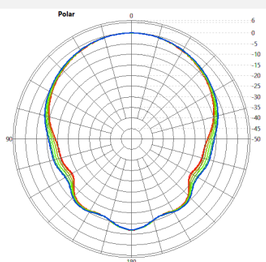


3D Balloon

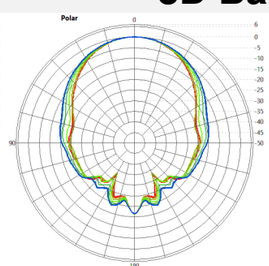
Ang	Freq	Cov	Q	Di
0° V	507Hz	198°	1,58	2,00dB
15° V	507Hz	210°	1,55	1,90dB
30° V	507Hz	212°	1,55	1,91dB
45° V	507Hz	218°	1,54	1,88dB
60° V	507Hz	322°	1,53	1,84dB
75° V	507Hz	228°	1,53	1,84dB
90° V	507Hz	326°	1,52	1,82dB



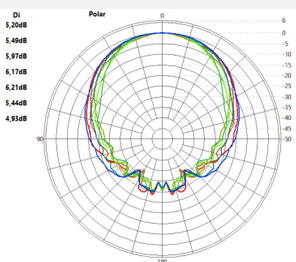
Ang	Freq	Cov	Q	Di
0° V	1023Hz	112°	2,31	3,64dB
15° V	1023Hz	114°	2,29	3,59dB
30° V	1023Hz	118°	2,24	3,51dB
45° V	1023Hz	122°	2,17	3,37dB
60° V	1023Hz	128°	2,10	3,23dB
75° V	1023Hz	132°	2,07	3,16dB
90° V	1023Hz	132°	2,08	3,18dB



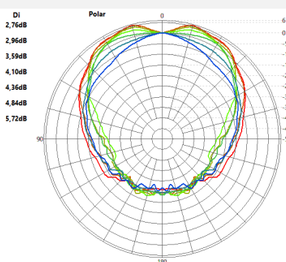
Ang	Freq	Cov	Q	Di
0° V	2054Hz	64°	4,07	6,10dB
15° V	2054Hz	66°	4,09	6,11dB
30° V	2054Hz	68°	4,02	6,04dB
45° V	2054Hz	72°	3,77	5,77dB
60° V	2054Hz	78°	3,49	5,43dB
75° V	2054Hz	82°	3,30	5,19dB
90° V	2054Hz	82°	3,26	5,14dB



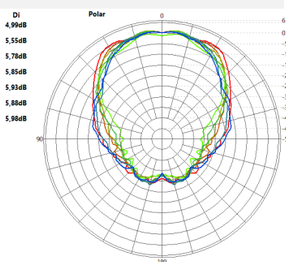
Ang	Freq	Cov	Q	Di
0° V	4120Hz	94°	3,31	5,20dB
15° V	4120Hz	90°	3,54	5,49dB
30° V	4120Hz	78°	3,96	5,97dB
45° V	4120Hz	66°	4,14	6,17dB
60° V	4120Hz	68°	4,17	6,21dB
75° V	4120Hz	82°	3,50	5,44dB
90° V	4120Hz	92°	3,11	4,93dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	126°	1,89	2,76dB
15° V	8248Hz	124°	1,98	2,96dB
30° V	8248Hz	106°	2,29	3,59dB
45° V	8248Hz	106°	2,57	4,10dB
60° V	8248Hz	100°	2,73	4,36dB
75° V	8248Hz	104°	3,04	4,84dB
90° V	8248Hz	60°	3,73	5,72dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	92°	3,15	4,99dB
15° V	18527Hz	82°	3,59	5,55dB
30° V	18527Hz	84°	3,79	5,78dB
45° V	18527Hz	88°	3,85	5,85dB
60° V	18527Hz	72°	3,92	5,93dB
75° V	18527Hz	74°	3,87	5,88dB
90° V	18527Hz	68°	3,97	5,98dB



Polar Vertical Comparative