

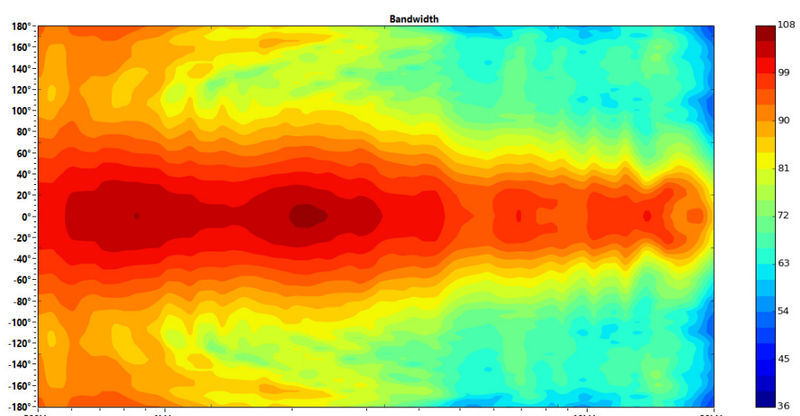




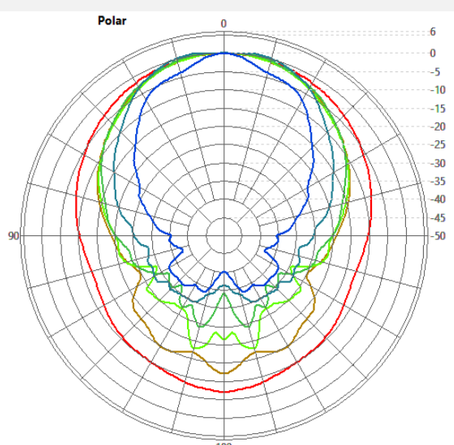


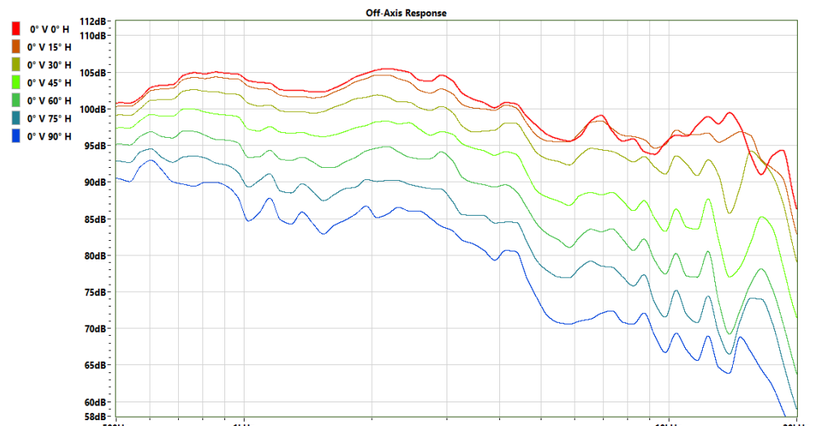


Nota de Aplicação AN-0001.
Analise de resposta fora do eixo, Driver Oversound DTi-7653, com corneta Ludovico LC-03.
https://www.ludovico.com.br/269/cornetas/corneta-lc-03-jbl-2385-com-flange-445-x-275cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 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.

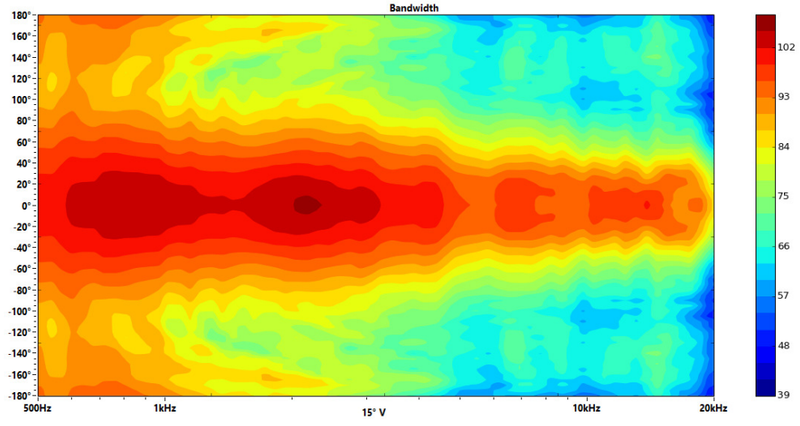


Ang	Freq	Cov	Q	Di
0° V	507Hz	124°	2,04	3,10dB
0° V	1023Hz	86°	3,08	4,88dB
0° V	2054Hz	80°	3,46	5,39dB
0° V	4120Hz	84°	3,54	5,49dB
0° V	8248Hz	72°	3,96	5,98dB
0° V	18527Hz	54°	6,03	7,81dB

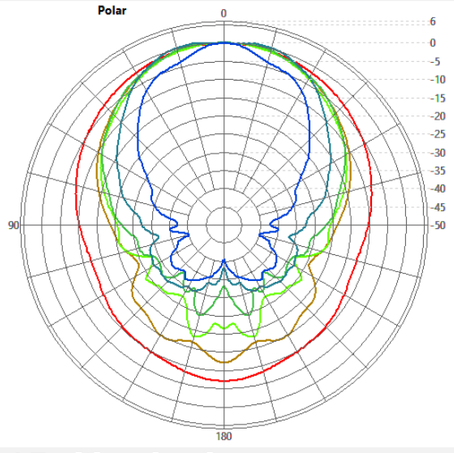


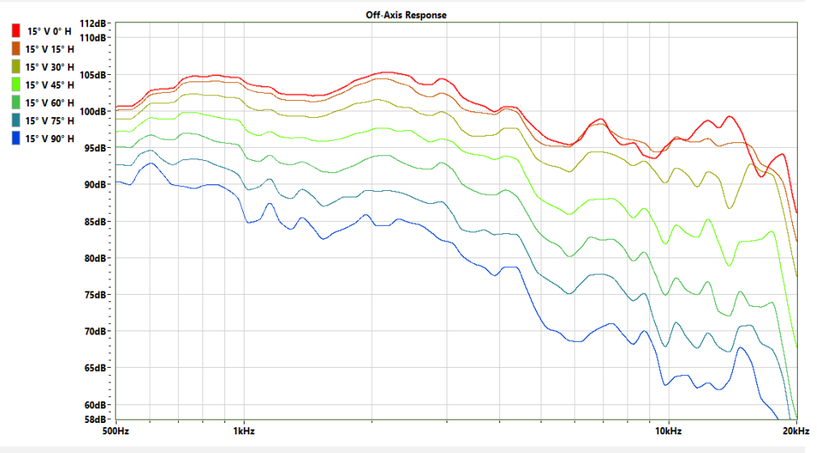


0° Vertical

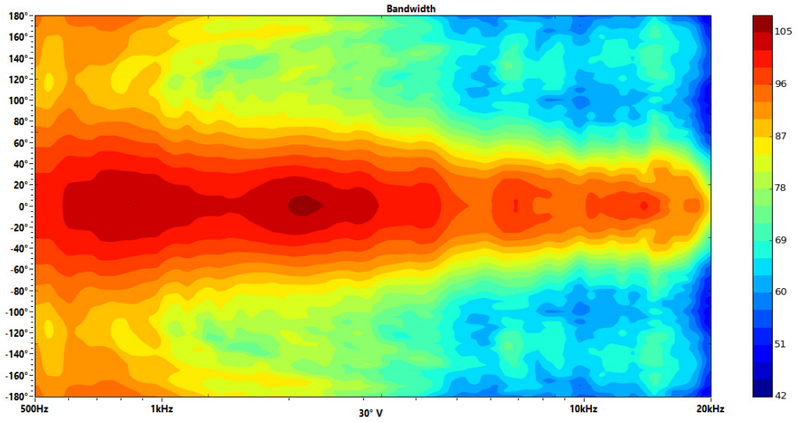


Ang	Freq	Cov	Q	Di
15° V	507Hz	126°	2,04	3,09dB
15° V	1023Hz	86°	3,05	4,85dB
15° V	2054Hz	78°	3,53	5,48dB
15° V	4120Hz	84°	3,61	5,57dB
15° V	8248Hz	74°	4,02	6,04dB
15° V	18527Hz	54°	6,20	7,93dB

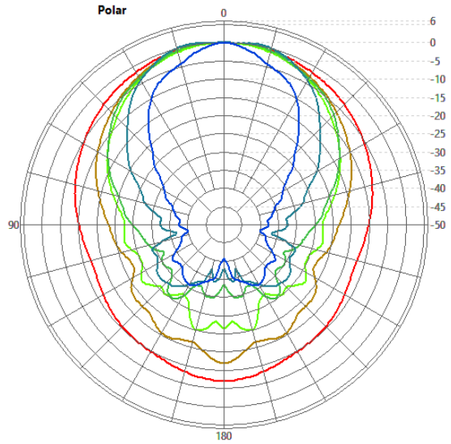


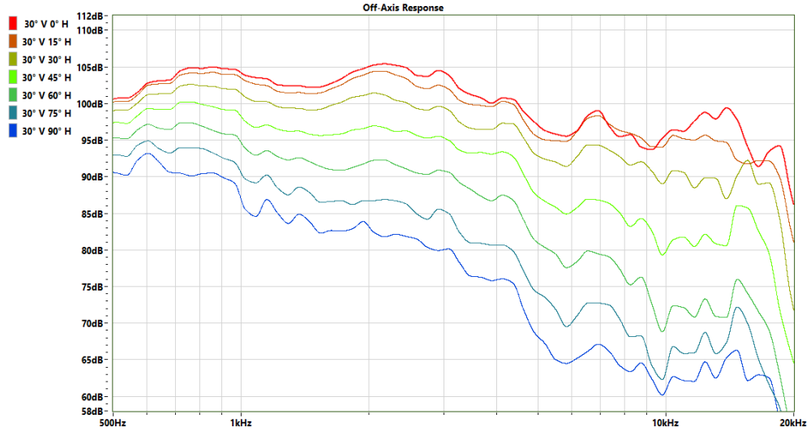


15° Vertical

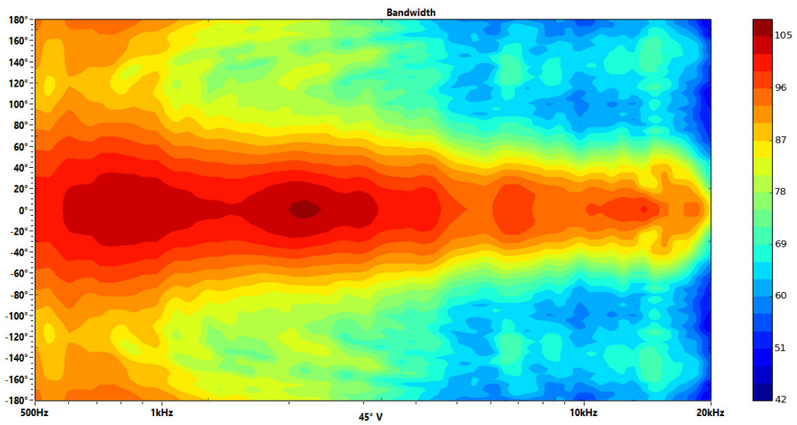


Ang	Freq	Cov	Q	Di
30° V	507Hz	128°	2,01	3,04dB
30° V	1023Hz	88°	3,01	4,79dB
30° V	2054Hz	74°	3,75	5,74dB
30° V	4120Hz	82°	3,86	5,86dB
30° V	8248Hz	68°	4,47	6,50dB
30° V	18527Hz	42°	7,19	8,57dB

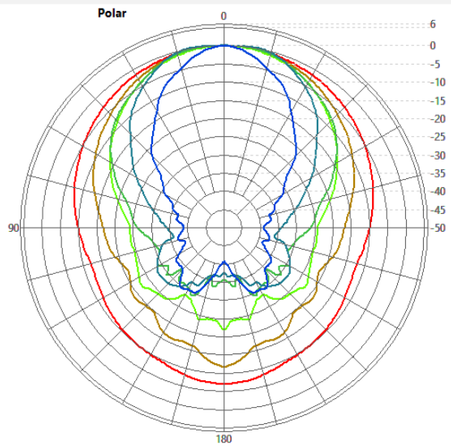




30° Vertical

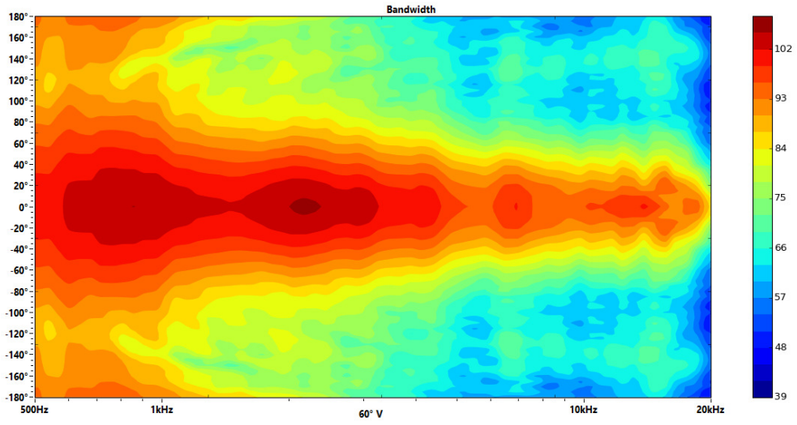


Ang	Freq	Cov	Q	Di
45° V	507Hz	130°	2,00	3,00dB
45° V	1023Hz	90°	2,94	4,68dB
45° V	2054Hz	74°	3,89	5,90dB
45° V	4120Hz	76°	4,11	6,14dB
45° V	8248Hz	62°	4,82	6,83dB
45° V	18527Hz	36°	7,73	8,88dB

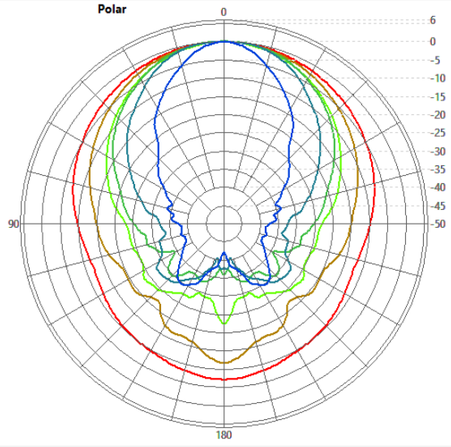


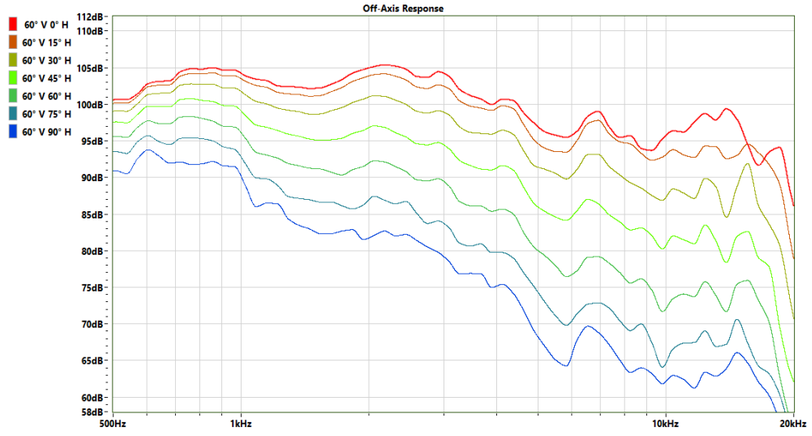


45° Vertical

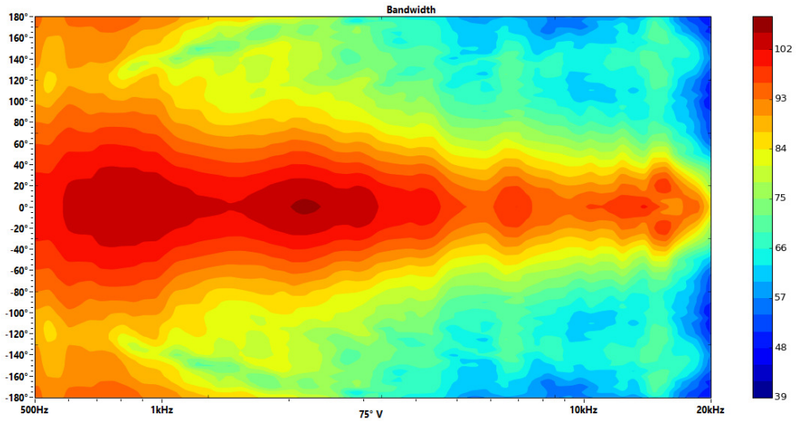


Ang	Freq	Cov	Q	Di
60° V	507Hz	134°	1,98	2,97dB
60° V	1023Hz	96°	2,83	4,52dB
60° V	2054Hz	76°	3,85	5,85dB
60° V	4120Hz	72°	4,24	6,27dB
60° V	8248Hz	58°	5,03	7,02dB
60° V	18527Hz	34°	8,04	9,05dB

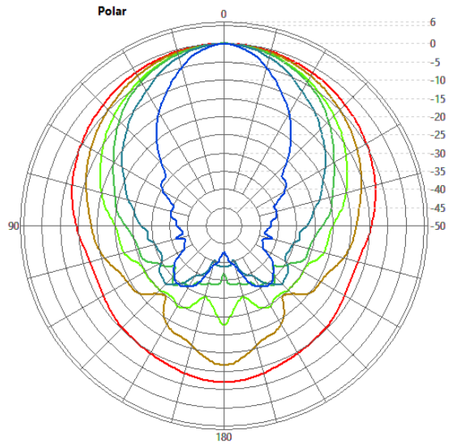


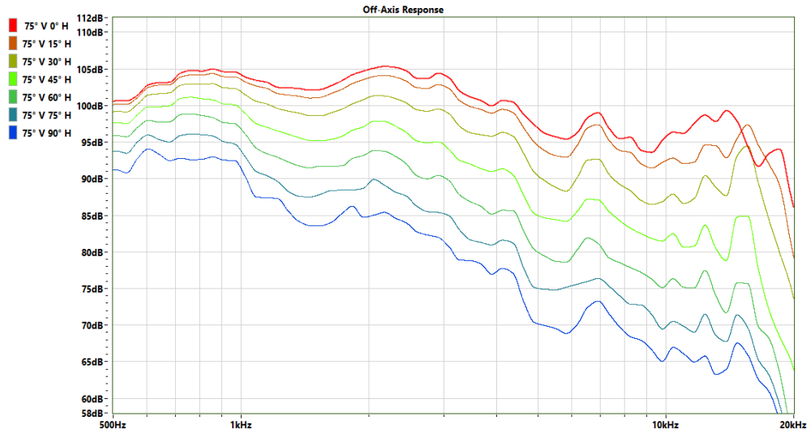


60° Vertical

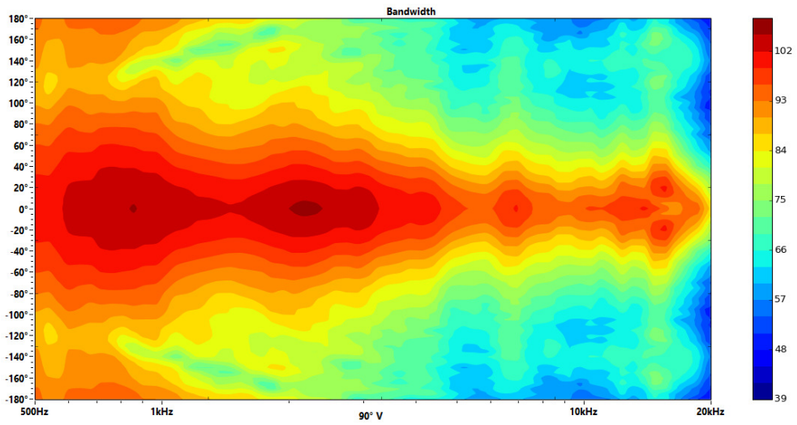


Ang	Freq	Cov	Q	Di
75° V	507Hz	138°	1,95	2,91dB
75° V	1023Hz	102°	2,73	4,37dB
75° V	2054Hz	80°	3,61	5,58dB
75° V	4120Hz	72°	4,20	6,23dB
75° V	8248Hz	54°	5,08	7,06dB
75° V	18527Hz	34°	8,18	9,13dB

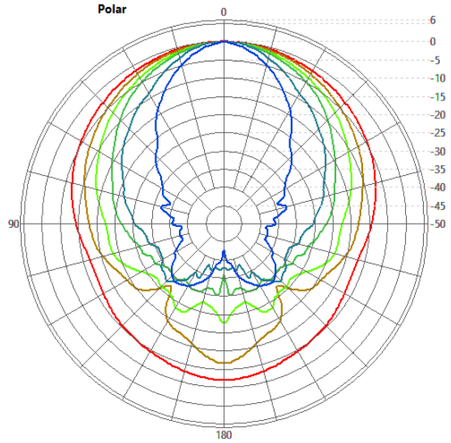


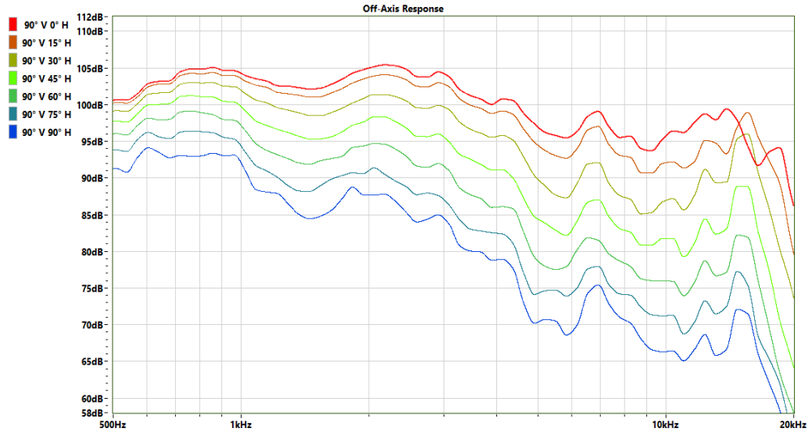


75° Vertical

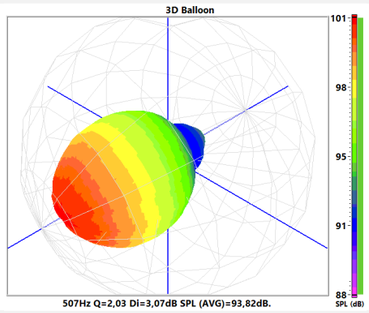


Ang	Freq	Cov	Q	Di
90° V	507Hz	140°	1,95	2,90dB
90° V	1023Hz	104°	2,71	4,34dB
90° V	2054Hz	82°	3,45	5,38dB
90° V	4120Hz	68°	4,29	6,32dB
90° V	8248Hz	48°	5,37	7,30dB
90° V	18527Hz	34°	8,02	9,04dB

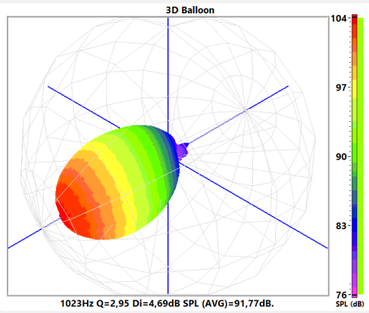




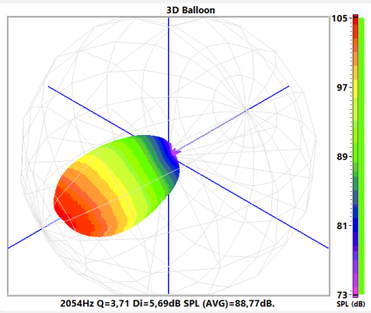
90° Vertical



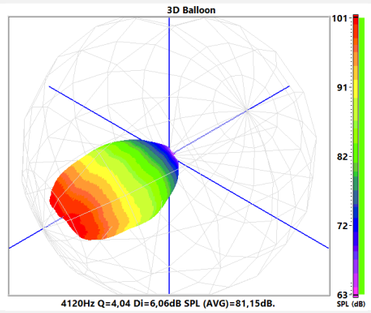
507Hz Q=2,03 Di=3,07dB SPL (AVG)=93,82dB.



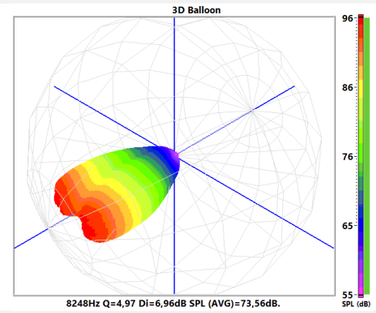
1023Hz Q=2,95 Di=4,69dB SPL (AVG)=91,77dB.



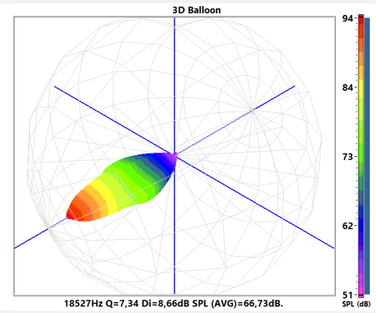
2054Hz Q=3,71 Di=5,69dB SPL (AVG)=88,77dB.



4120Hz Q=4,04 Di=6,06dB SPL (AVG)=81,15dB.



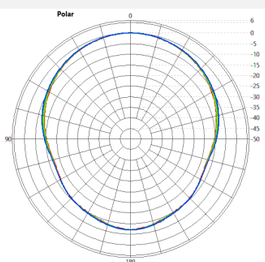
8248Hz Q=4,97 Di=6,96dB SPL (AVG)=73,56dB.



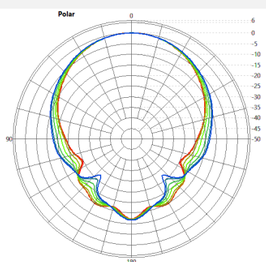
18527Hz Q=7,34 Di=8,66dB SPL (AVG)=66,73dB.

3D Balloon

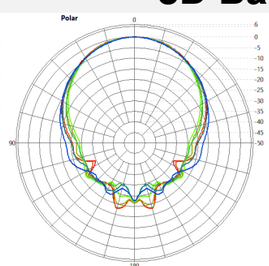
Ang	Freq	Cov	Q	Di
0° V	507Hz	124°	2,04	3,10dB
15° V	507Hz	126°	2,04	3,09dB
30° V	507Hz	128°	2,01	3,04dB
45° V	507Hz	130°	2,00	3,00dB
60° V	507Hz	134°	1,98	2,97dB
75° V	507Hz	138°	1,95	2,91dB
90° V	507Hz	140°	1,95	2,90dB



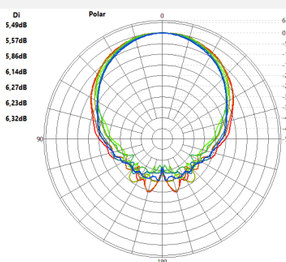
Ang	Freq	Cov	Q	Di
0° V	1023Hz	86°	3,08	4,88dB
15° V	1023Hz	86°	3,05	4,85dB
30° V	1023Hz	88°	3,01	4,79dB
45° V	1023Hz	90°	2,94	4,68dB
60° V	1023Hz	96°	2,83	4,52dB
75° V	1023Hz	102°	2,73	4,37dB
90° V	1023Hz	104°	2,71	4,34dB



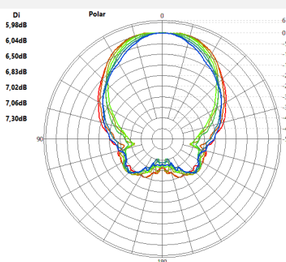
Ang	Freq	Cov	Q	Di
0° V	2054Hz	80°	3,46	5,39dB
15° V	2054Hz	78°	3,53	5,48dB
30° V	2054Hz	74°	3,75	5,74dB
45° V	2054Hz	74°	3,89	5,90dB
60° V	2054Hz	76°	3,85	5,85dB
75° V	2054Hz	80°	3,61	5,58dB
90° V	2054Hz	82°	3,45	5,38dB



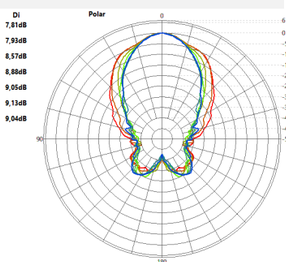
Ang	Freq	Cov	Q	Di
0° V	4120Hz	84°	3,54	5,49dB
15° V	4120Hz	84°	3,61	5,57dB
30° V	4120Hz	82°	3,86	5,86dB
45° V	4120Hz	76°	4,11	6,14dB
60° V	4120Hz	72°	4,24	6,27dB
75° V	4120Hz	72°	4,20	6,23dB
90° V	4120Hz	68°	4,29	6,32dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	72°	3,96	5,98dB
15° V	8248Hz	74°	4,02	6,04dB
30° V	8248Hz	68°	4,47	6,50dB
45° V	8248Hz	62°	4,82	6,83dB
60° V	8248Hz	58°	5,03	7,02dB
75° V	8248Hz	54°	5,08	7,06dB
90° V	8248Hz	48°	5,37	7,30dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	54°	6,03	7,81dB
15° V	18527Hz	54°	6,20	7,93dB
30° V	18527Hz	42°	7,19	8,57dB
45° V	18527Hz	36°	7,73	8,88dB
60° V	18527Hz	34°	8,04	9,05dB
75° V	18527Hz	34°	8,18	9,13dB
90° V	18527Hz	34°	8,02	9,04dB



Polar Comparativa Vertical



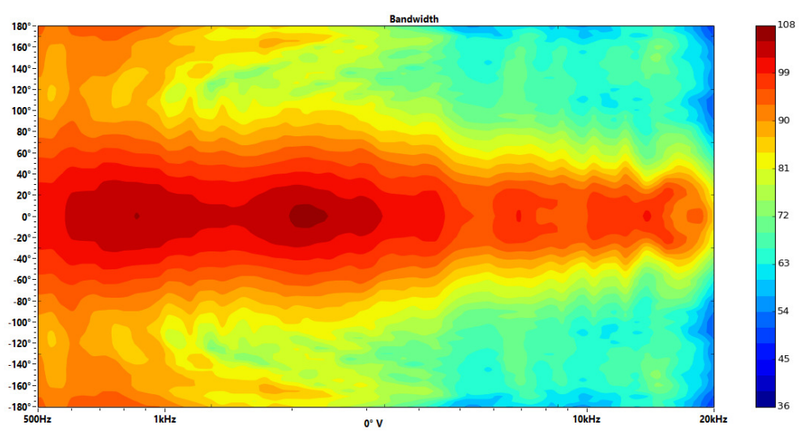








Application Note AN-0001.
Off-axis response analysis, Driver Oversound DTi-7653, with Ludovico LC-03 horn.
https://www.ludovico.com.br/269/cornetas/corneta-lc-03-jbl-2385-com-flange-445-x-275cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Conditions:
Pink noise, 2.83V rms, 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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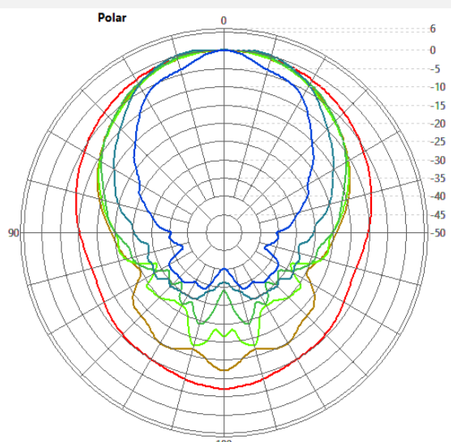
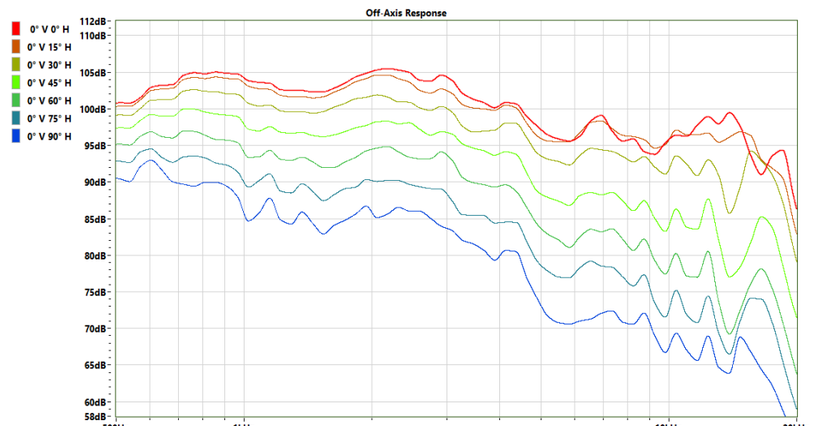
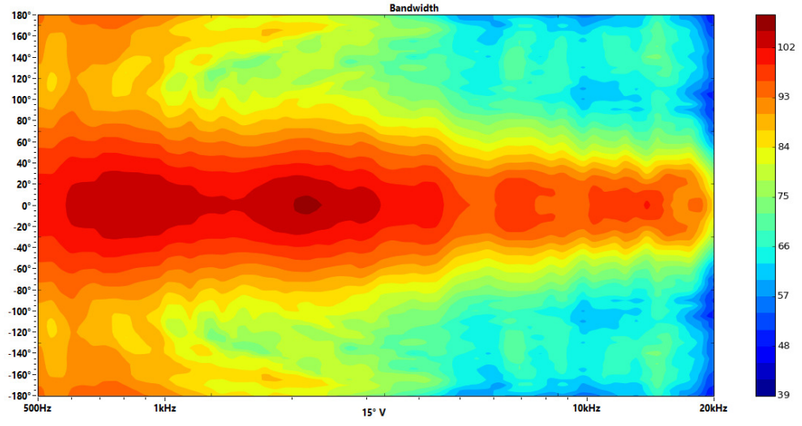




0° Vertical



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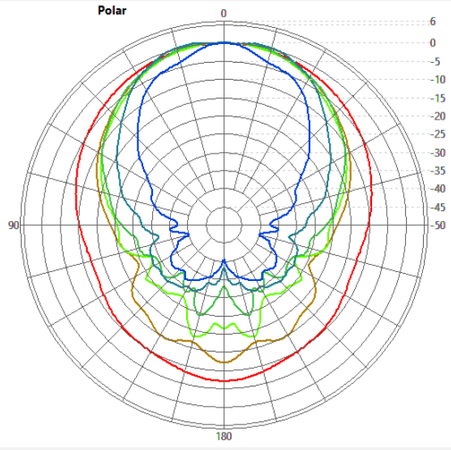
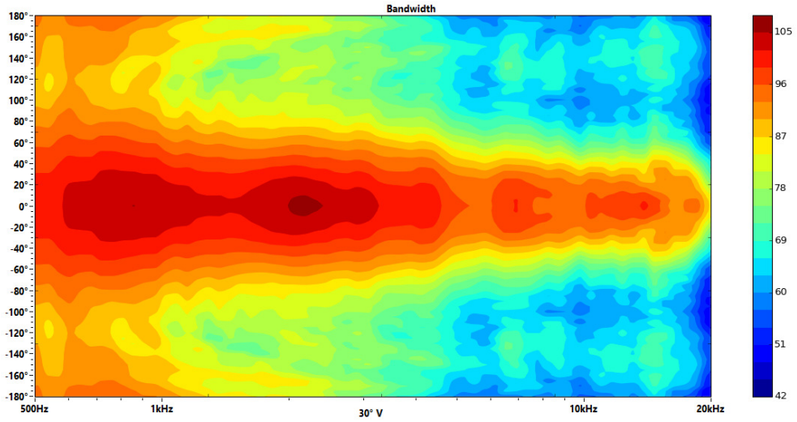
15° V	18527Hz	54°	6,20	7,93dB





15° Vertical



Ang	Freq	Cov	Q	Di
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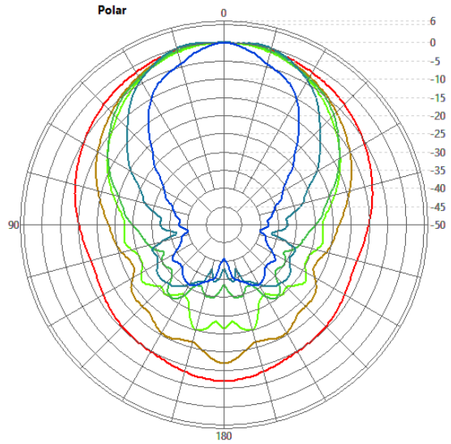
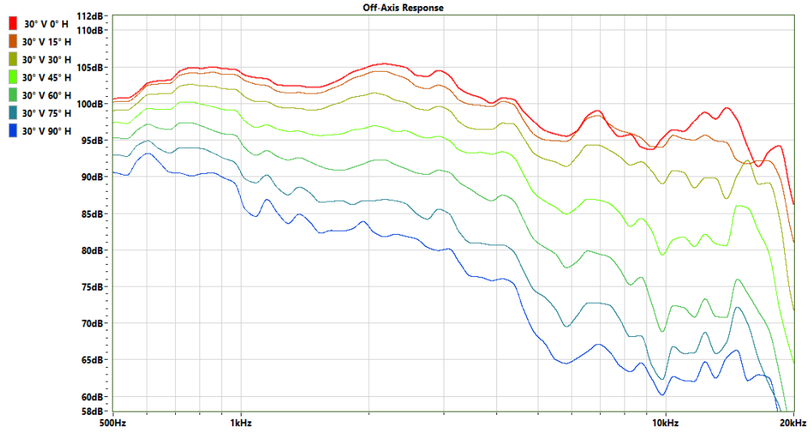
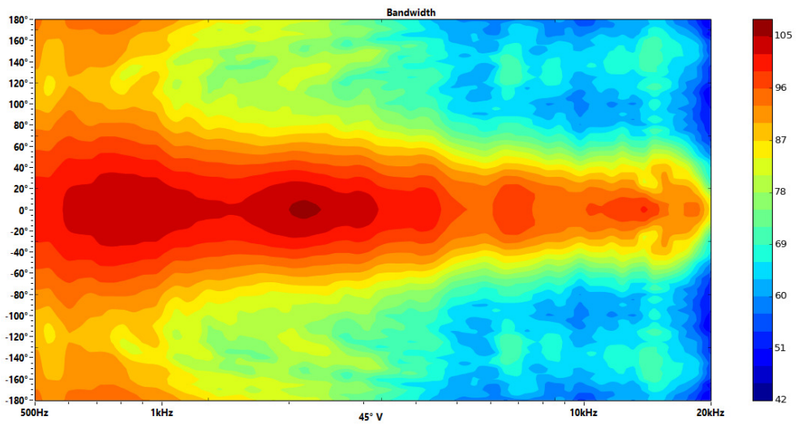
30° V	1023Hz	88°	3,01	4,79dB
30° V	2054Hz	74°	3,75	5,74dB
30° V	4120Hz	82°	3,86	5,86dB
30° V	8248Hz	68°	4,47	6,50dB
30° V	18527Hz	42°	7,19	8,57dB

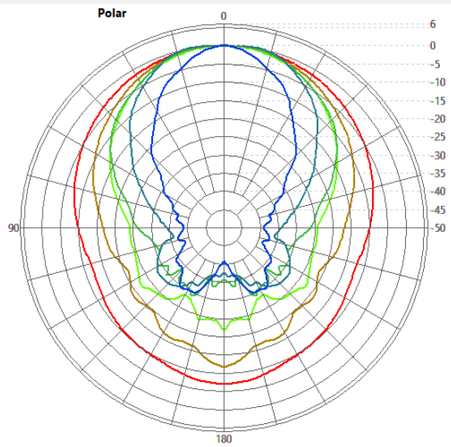


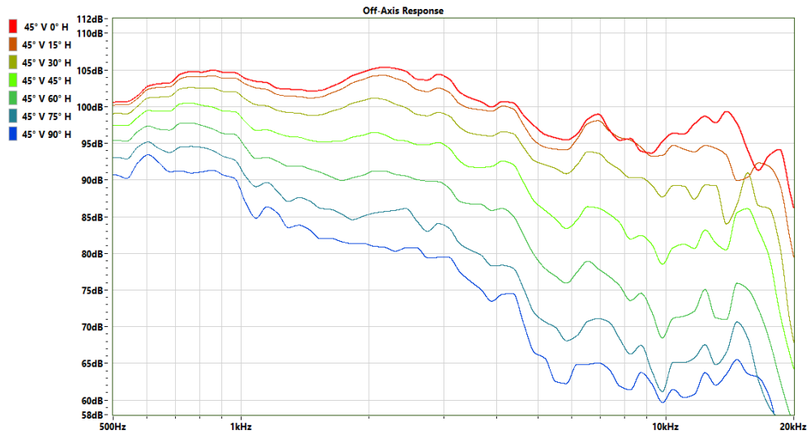


30° Vertical

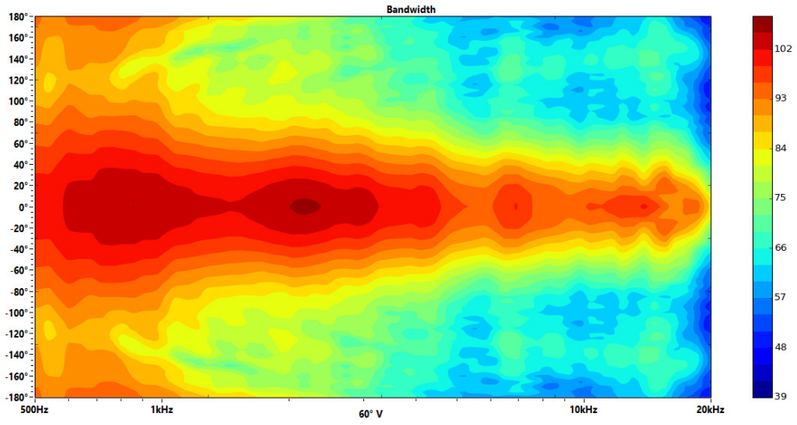


Ang	Freq	Cov	Q	Di
45° V	507Hz	130°	2,00	3,00dB
45° V	1023Hz	90°	2,94	4,68dB
45° V	2054Hz	74°	3,89	5,90dB
45° V	4120Hz	76°	4,11	6,14dB
45° V	8248Hz	62°	4,82	6,83dB
45° V	18527Hz	36°	7,73	8,88dB

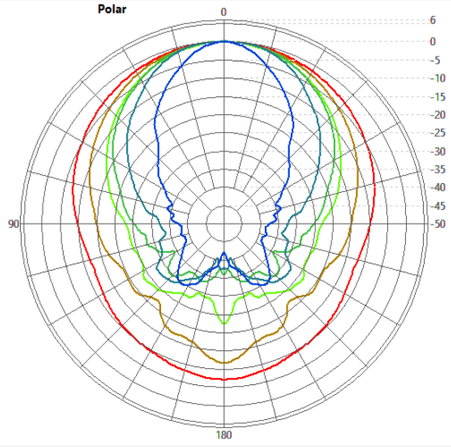


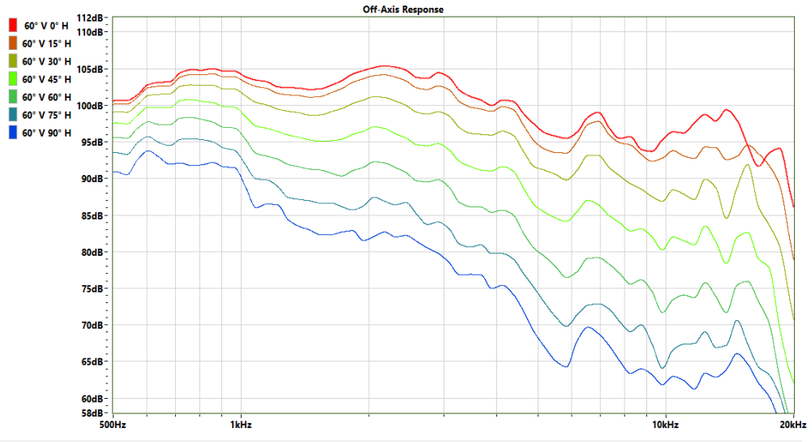


45° Vertical

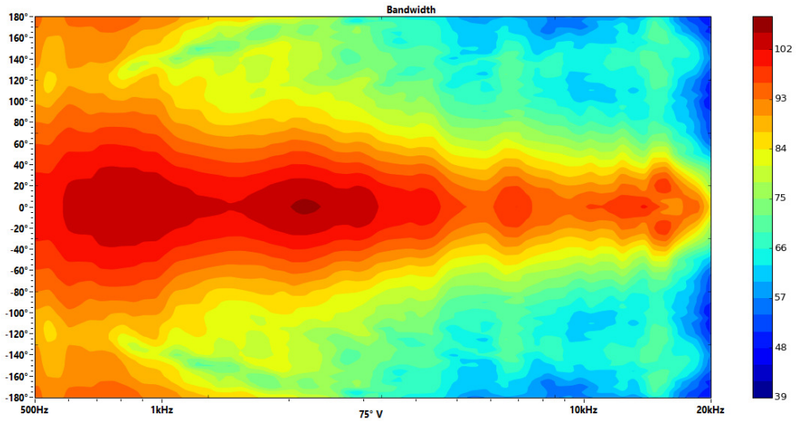


Ang	Freq	Cov	Q	Di
60° V	507Hz	134°	1,98	2,97dB
60° V	1023Hz	96°	2,83	4,52dB
60° V	2054Hz	76°	3,85	5,85dB
60° V	4120Hz	72°	4,24	6,27dB
60° V	8248Hz	58°	5,03	7,02dB
60° V	18527Hz	34°	8,04	9,05dB

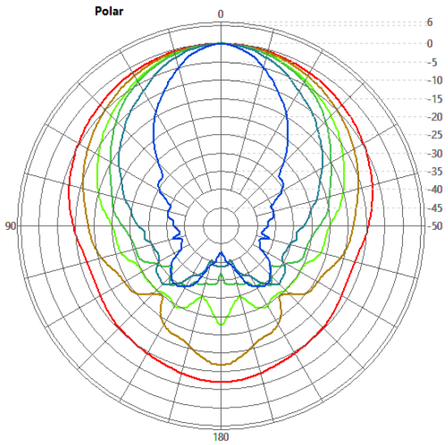


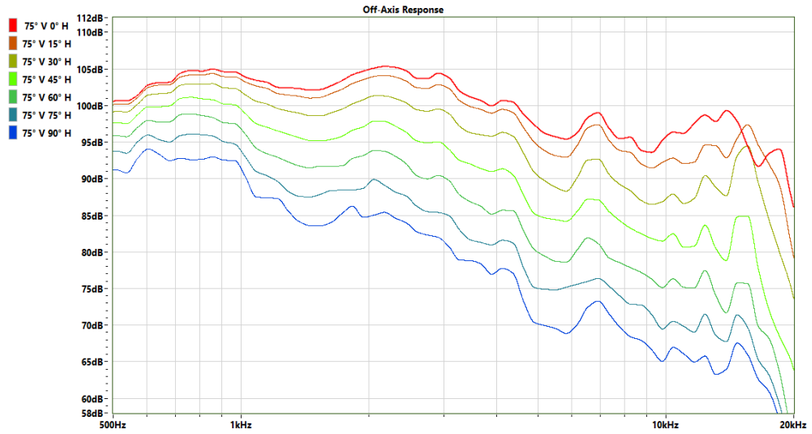


60° Vertical

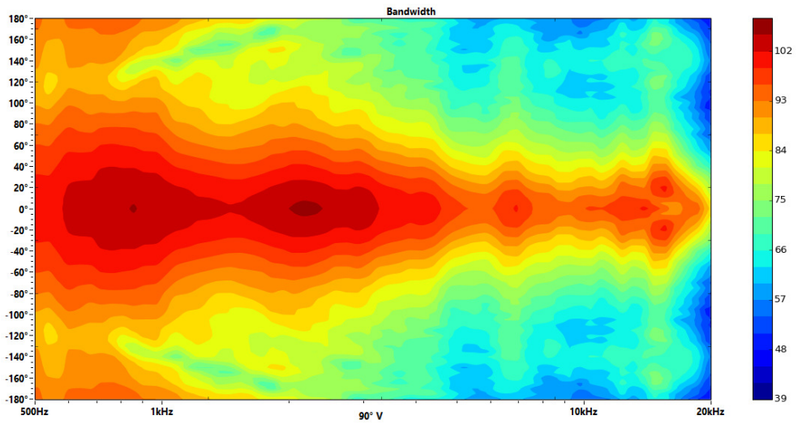


Ang	Freq	Cov	Q	Di
75° V	507Hz	138°	1,95	2,91dB
75° V	1023Hz	102°	2,73	4,37dB
75° V	2054Hz	80°	3,61	5,58dB
75° V	4120Hz	72°	4,20	6,23dB
75° V	8248Hz	54°	5,08	7,06dB
75° V	18527Hz	34°	8,18	9,13dB

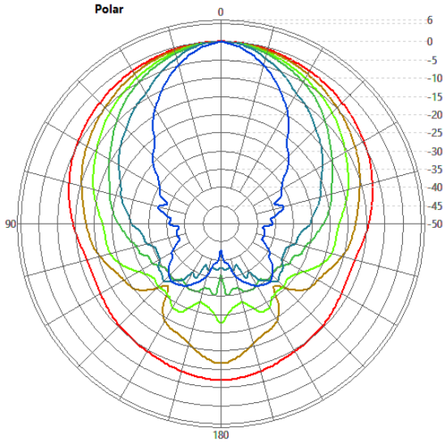


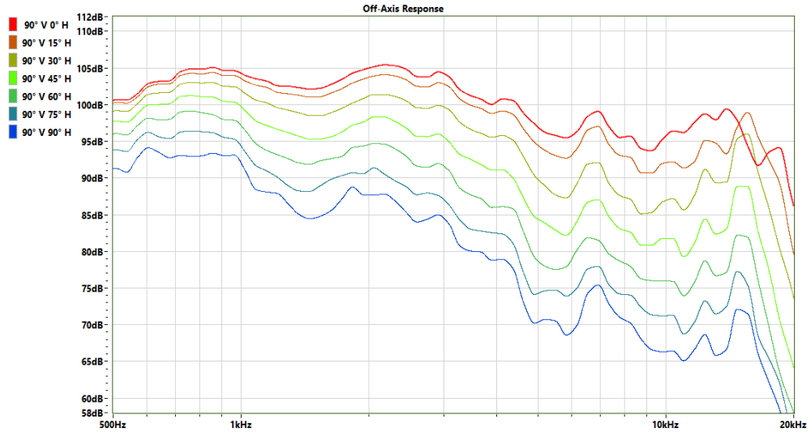


75° Vertical

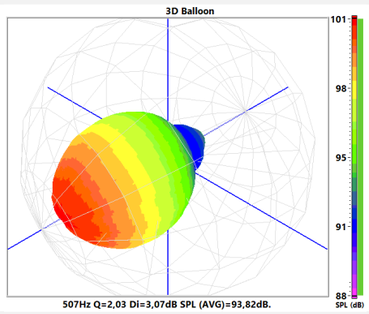


Ang	Freq	Cov	Q	Di
90° V	507Hz	140°	1,95	2,90dB
90° V	1023Hz	104°	2,71	4,34dB
90° V	2054Hz	82°	3,45	5,38dB
90° V	4120Hz	68°	4,29	6,32dB
90° V	8248Hz	48°	5,37	7,30dB
90° V	18527Hz	34°	8,02	9,04dB

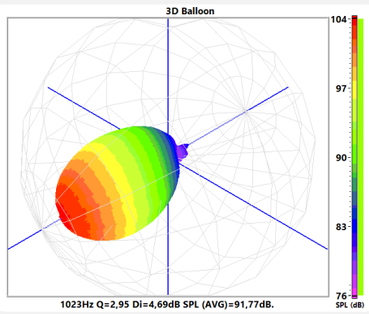




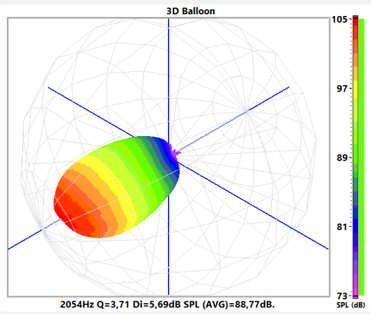
90° Vertical



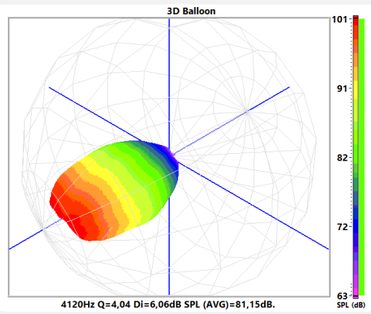
507Hz Q=2,03 Di=3,07dB SPL (AVG)=93,82dB.



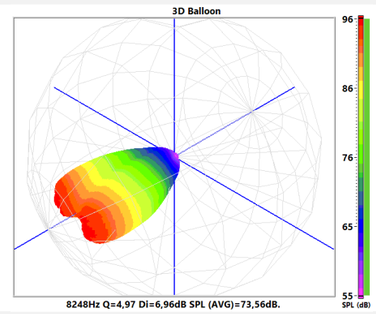
1023Hz Q=2,95 Di=4,69dB SPL (AVG)=91,77dB.



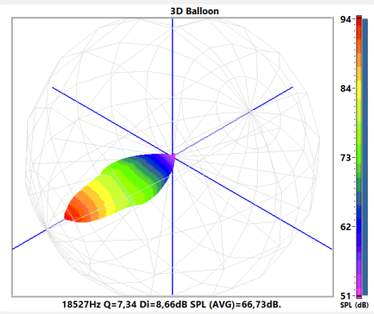
2054Hz Q=3,71 Di=5,69dB SPL (AVG)=88,77dB.



4120Hz Q=4,04 Di=6,06dB SPL (AVG)=81,15dB.



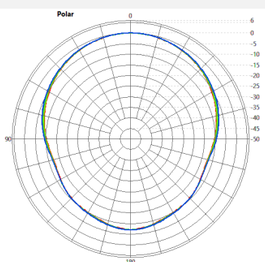
8248Hz Q=4,97 Di=6,96dB SPL (AVG)=73,56dB.



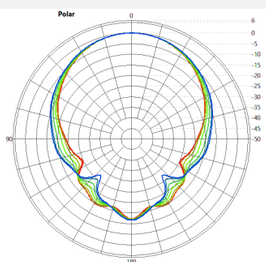
18527Hz Q=7,34 Di=8,66dB SPL (AVG)=66,73dB.

3D Balloon

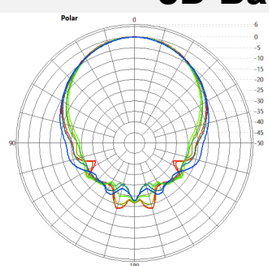
Ang	Freq	Cov	Q	Di
0° V	507Hz	124°	2,04	3,10dB
15° V	507Hz	126°	2,04	3,09dB
30° V	507Hz	128°	2,01	3,04dB
45° V	507Hz	130°	2,00	3,00dB
60° V	507Hz	134°	1,98	2,97dB
75° V	507Hz	138°	1,95	2,91dB
90° V	507Hz	140°	1,95	2,90dB



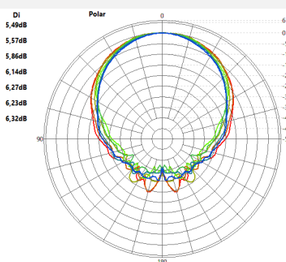
Ang	Freq	Cov	Q	Di
0° V	1023Hz	86°	3,08	4,88dB
15° V	1023Hz	86°	3,05	4,85dB
30° V	1023Hz	88°	3,01	4,79dB
45° V	1023Hz	90°	2,94	4,68dB
60° V	1023Hz	96°	2,83	4,52dB
75° V	1023Hz	102°	2,73	4,37dB
90° V	1023Hz	104°	2,71	4,34dB



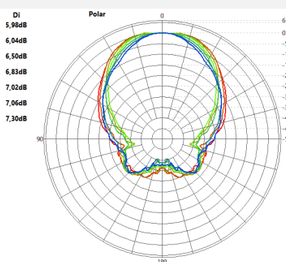
Ang	Freq	Cov	Q	Di
0° V	2054Hz	80°	3,46	5,39dB
15° V	2054Hz	78°	3,53	5,48dB
30° V	2054Hz	74°	3,75	5,74dB
45° V	2054Hz	74°	3,89	5,90dB
60° V	2054Hz	76°	3,85	5,85dB
75° V	2054Hz	80°	3,61	5,58dB
90° V	2054Hz	82°	3,45	5,38dB



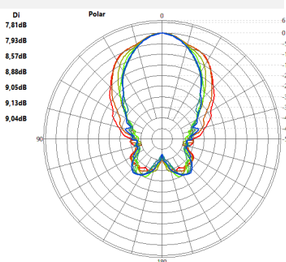
Ang	Freq	Cov	Q	Di
0° V	4120Hz	84°	3,54	5,49dB
15° V	4120Hz	84°	3,61	5,57dB
30° V	4120Hz	82°	3,86	5,86dB
45° V	4120Hz	76°	4,11	6,14dB
60° V	4120Hz	72°	4,24	6,27dB
75° V	4120Hz	72°	4,20	6,23dB
90° V	4120Hz	68°	4,29	6,32dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	72°	3,96	5,98dB
15° V	8248Hz	74°	4,02	6,04dB
30° V	8248Hz	68°	4,47	6,50dB
45° V	8248Hz	62°	4,82	6,83dB
60° V	8248Hz	58°	5,03	7,02dB
75° V	8248Hz	54°	5,08	7,06dB
90° V	8248Hz	48°	5,37	7,30dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	54°	6,03	7,81dB
15° V	18527Hz	54°	6,20	7,93dB
30° V	18527Hz	42°	7,19	8,57dB
45° V	18527Hz	36°	7,73	8,88dB
60° V	18527Hz	34°	8,04	9,05dB
75° V	18527Hz	34°	8,18	9,13dB
90° V	18527Hz	34°	8,02	9,04dB



Polar Vertical Comparative