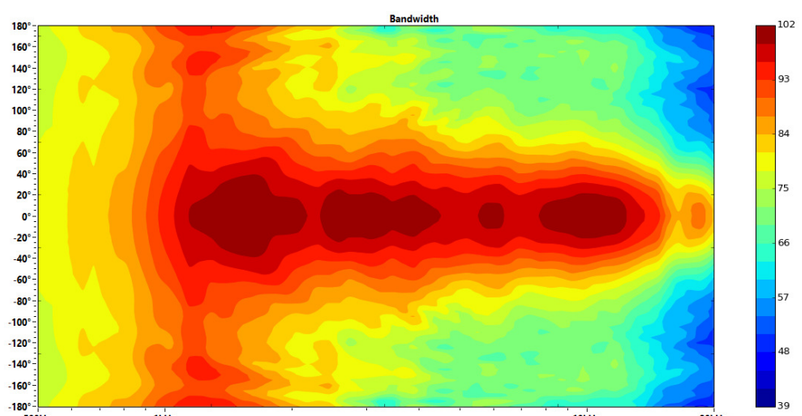
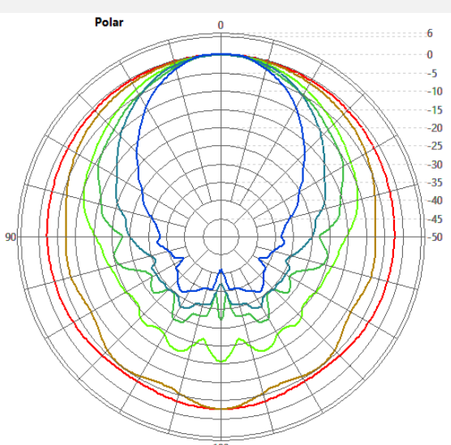


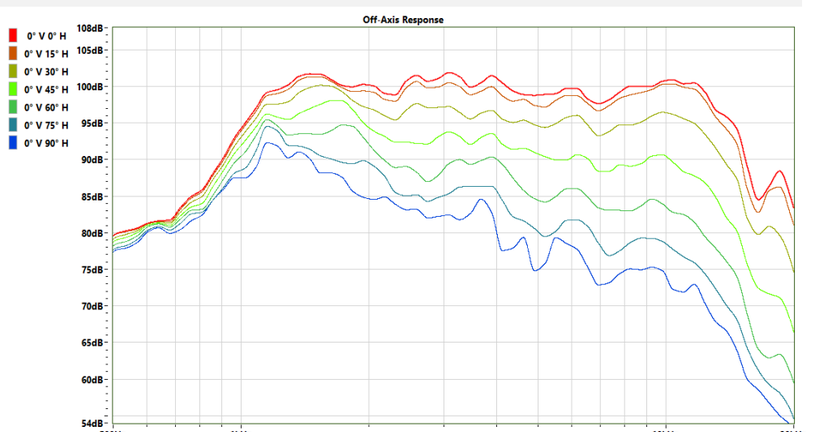


Nota de Aplicação AN-0005.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-05.
https://www.ludovico.com.br/272/cornetas/corneta-lc-05-preta
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 1m, medição automatizada 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.

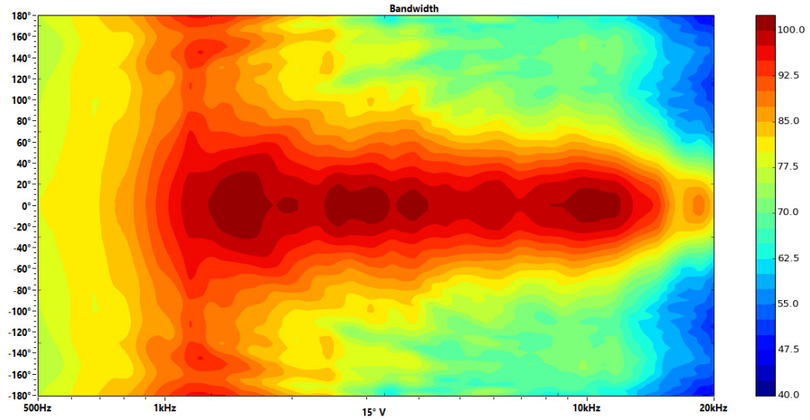


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,26	1,00dB
0° V	1023Hz	326°	1,63	2,14dB
0° V	2054Hz	88°	2,98	4,74dB
0° V	4120Hz	70°	3,92	5,94dB
0° V	8248Hz	64°	4,53	6,56dB
0° V	18527Hz	50°	5,99	7,77dB

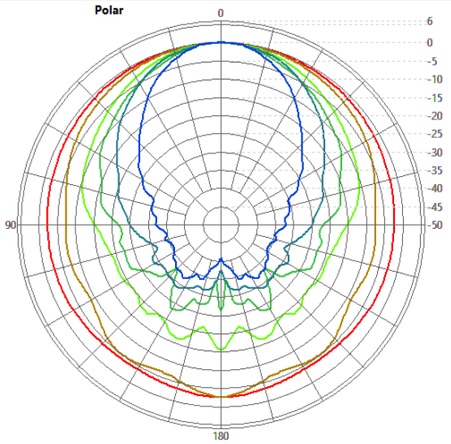


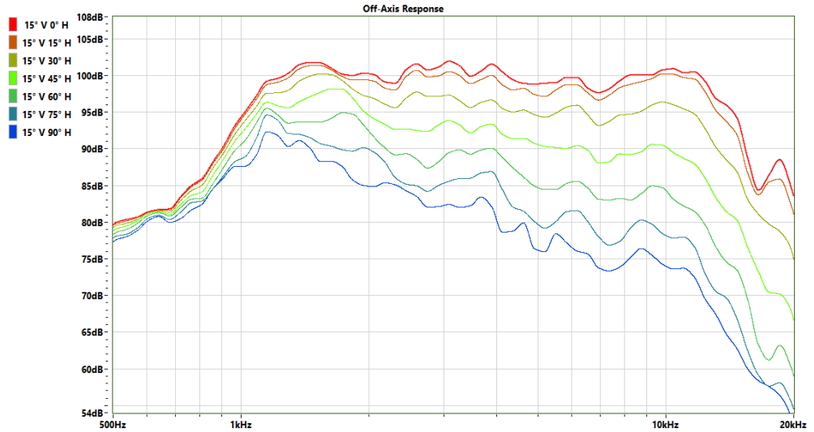


0° Vertical

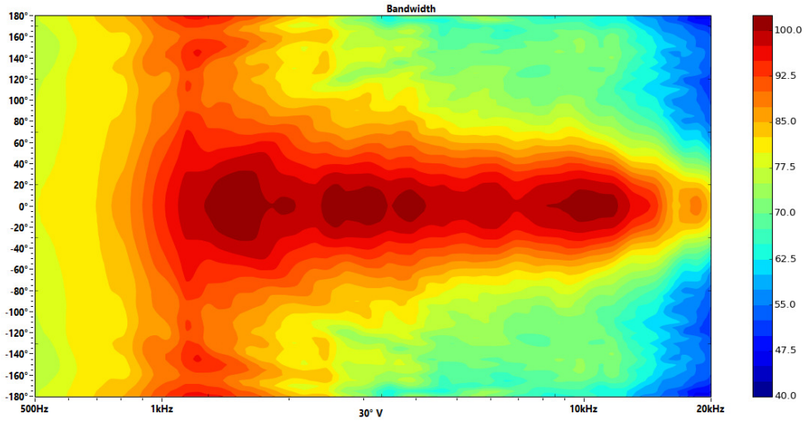


Ang	Freq	Cov	Q	Di
15° V	507Hz	300°	1,27	1,03dB
15° V	1023Hz	148°	1,63	2,13dB
15° V	2054Hz	90°	2,95	4,70dB
15° V	4120Hz	70°	3,95	5,97dB
15° V	8248Hz	64°	4,56	6,59dB
15° V	18527Hz	46°	6,29	7,99dB

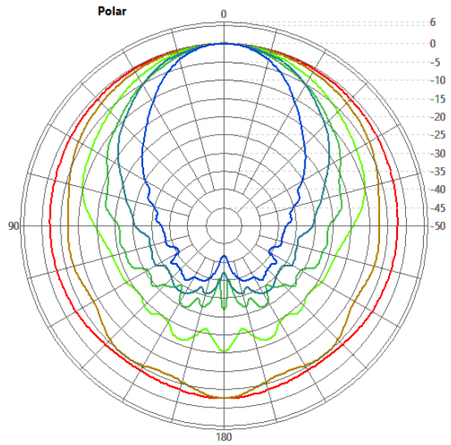


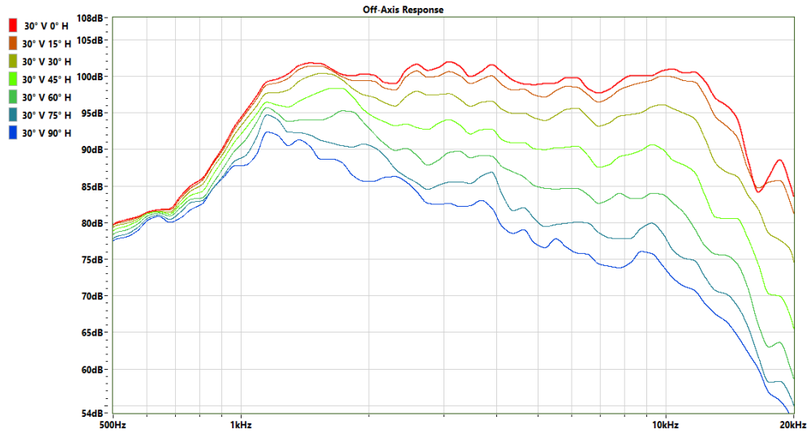


15° Vertical

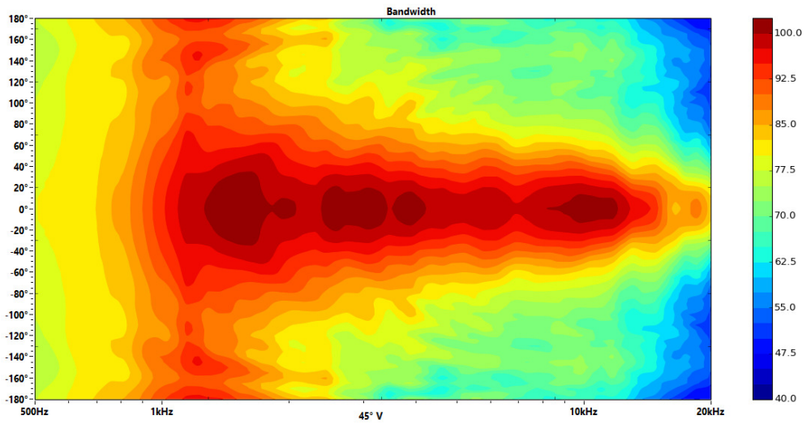


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,26	0,99dB
30° V	1023Hz	150°	1,62	2,10dB
30° V	2054Hz	94°	2,87	4,58dB
30° V	4120Hz	68°	4,04	6,07dB
30° V	8248Hz	64°	4,56	6,59dB
30° V	18527Hz	44°	6,51	8,13dB

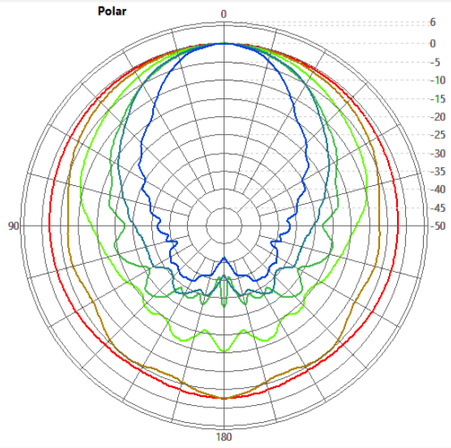


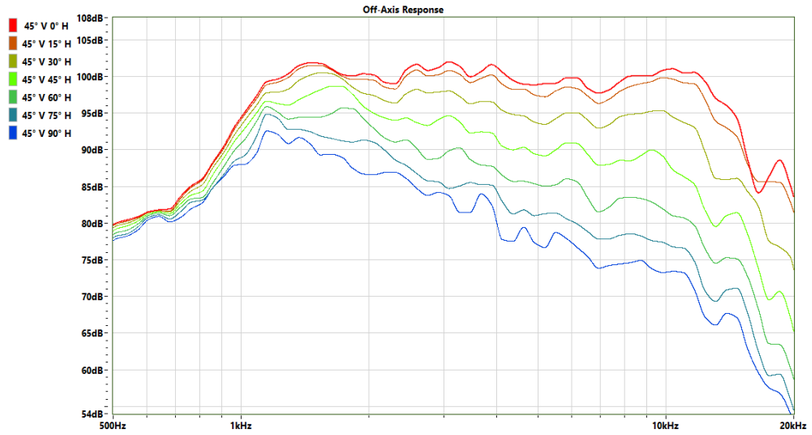


30° Vertical

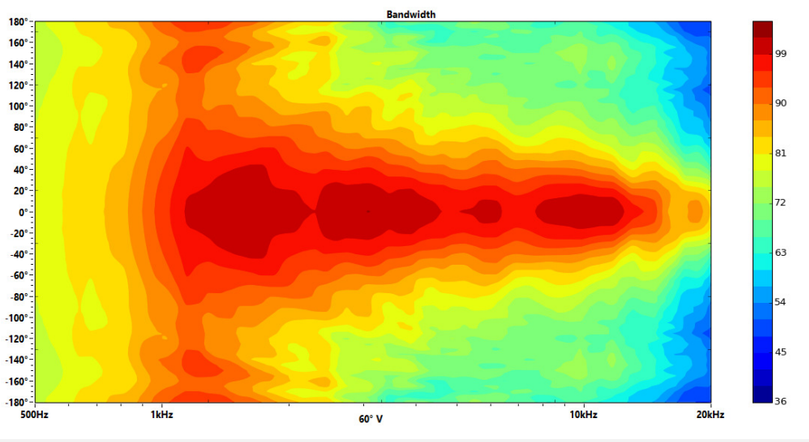


Ang	Freq	Cov	Q	Di
45° V	507Hz	300°	1,25	0,97dB
45° V	1023Hz	326°	1,60	2,05dB
45° V	2054Hz	100°	2,77	4,42dB
45° V	4120Hz	66°	4,13	6,16dB
45° V	8248Hz	64°	4,56	6,59dB
45° V	18527Hz	42°	6,63	8,22dB

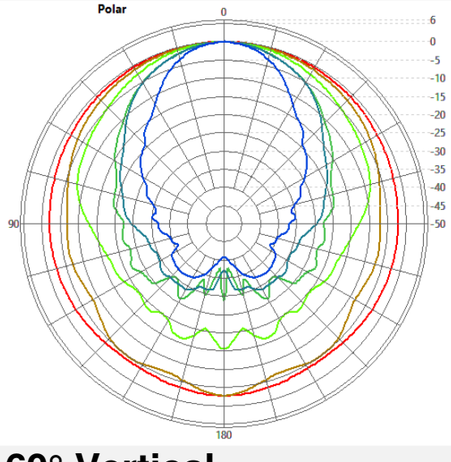


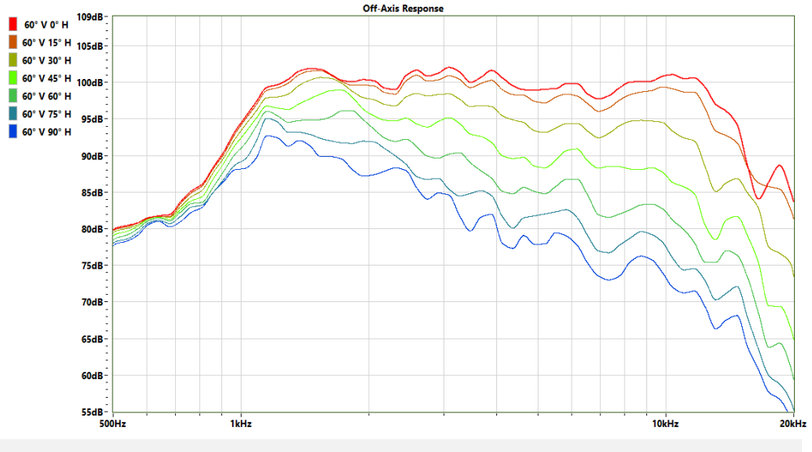


45° Vertical

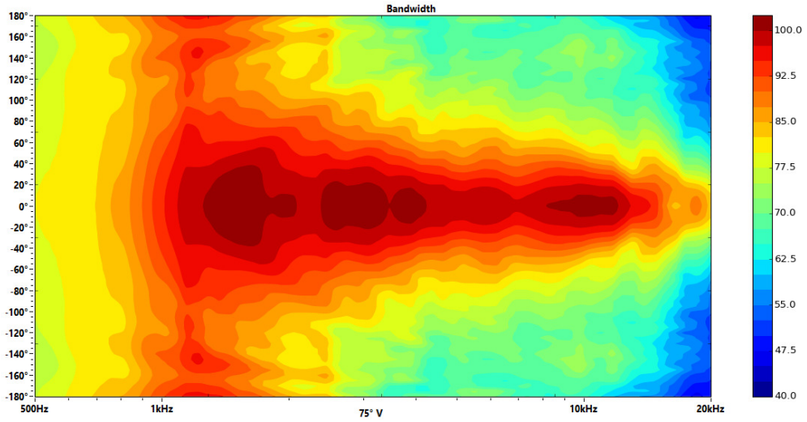


Ang	Freq	Cov	Q	Di
60° V	507Hz	300°	1,25	0,98dB
60° V	1023Hz	154°	1,59	2,03dB
60° V	2054Hz	110°	2,67	4,26dB
60° V	4120Hz	64°	4,30	6,34dB
60° V	8248Hz	64°	4,67	6,70dB
60° V	18527Hz	42°	6,76	8,30dB

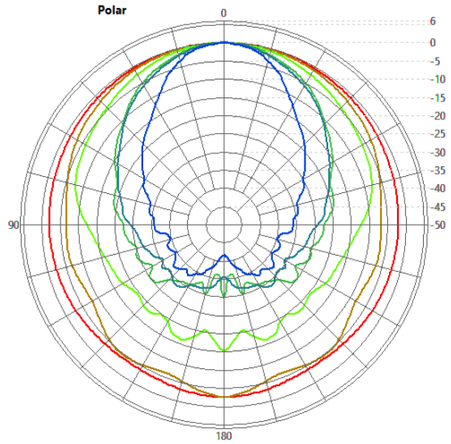


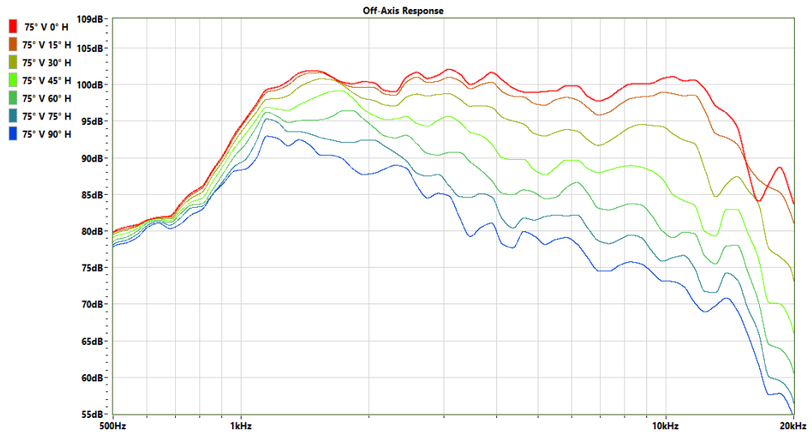


60° Vertical

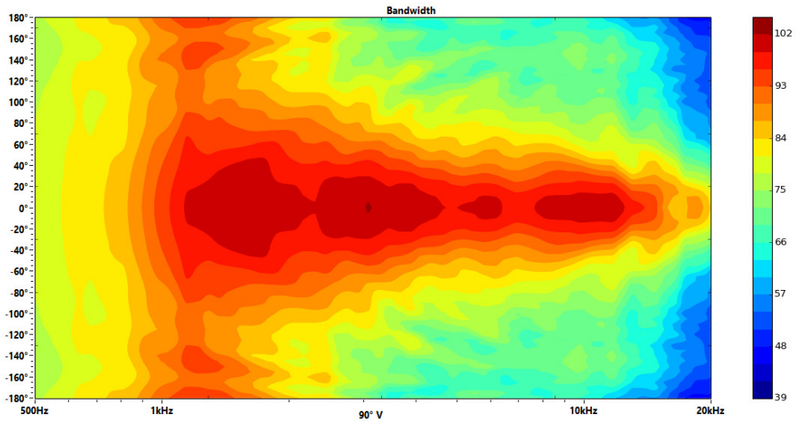


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,25	0,95dB
75° V	1023Hz	308°	1,57	1,96dB
75° V	2054Hz	118°	2,59	4,13dB
75° V	4120Hz	66°	4,34	6,38dB
75° V	8248Hz	60°	4,68	6,70dB
75° V	18527Hz	40°	6,81	8,33dB

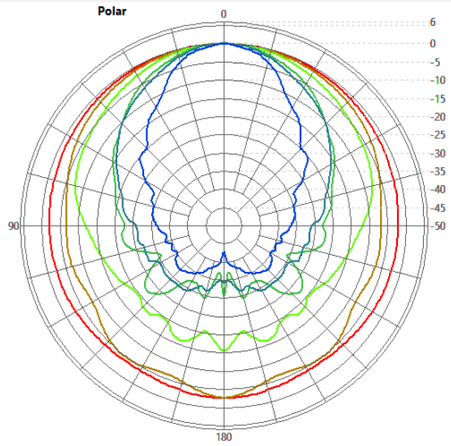


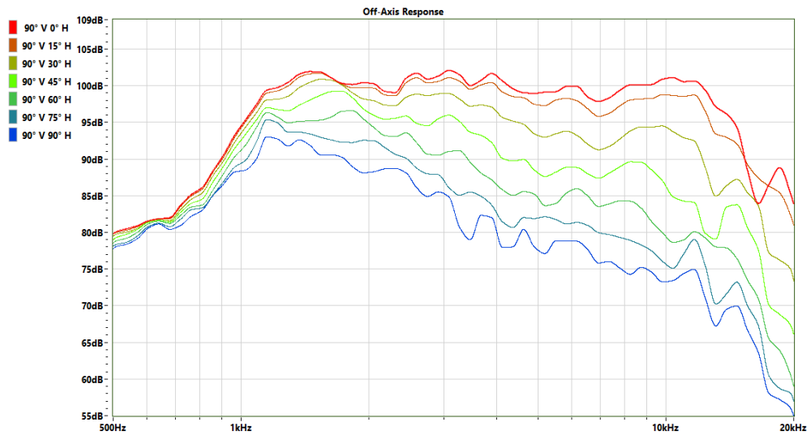


75° Vertical

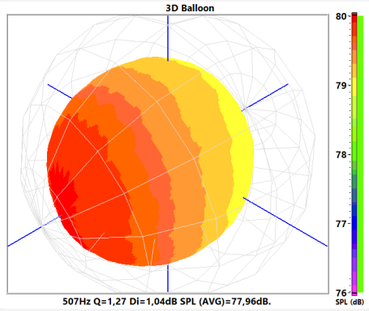


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,24	0,94dB
90° V	1023Hz	306°	1,58	1,98dB
90° V	2054Hz	122°	2,56	4,08dB
90° V	4120Hz	66°	4,29	6,32dB
90° V	8248Hz	58°	4,68	6,71dB
90° V	18527Hz	38°	7,01	8,46dB

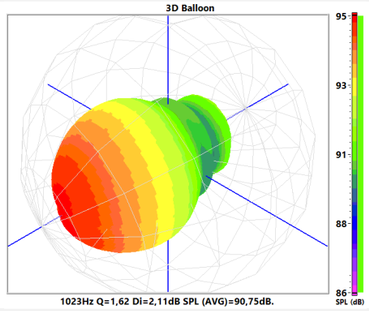




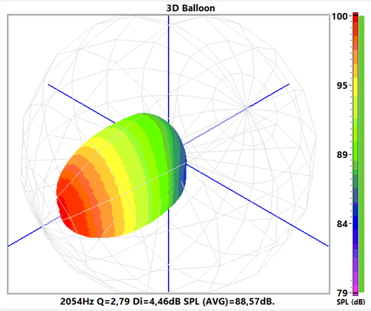
90° Vertical



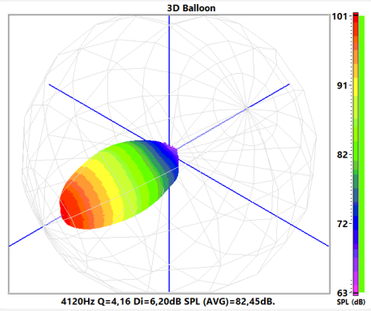
507Hz Q=1,27 Di=1,04dB SPL (AVG)=77,96dB.



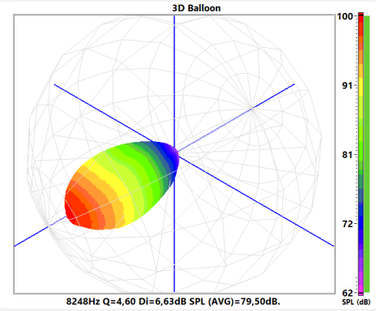
1023Hz Q=1,62 Di=2,11dB SPL (AVG)=90,75dB.



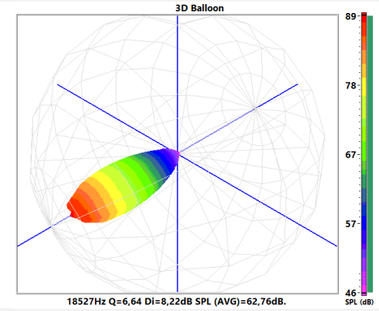
2054Hz Q=2,79 Di=4,46dB SPL (AVG)=88,57dB.



4120Hz Q=4,16 Di=6,20dB SPL (AVG)=82,45dB.



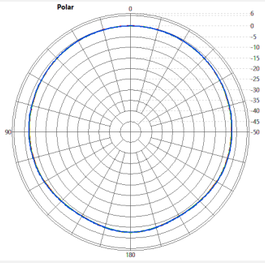
8248Hz Q=4,60 Di=6,63dB SPL (AVG)=79,50dB.



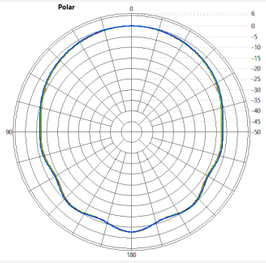
18527Hz Q=6,64 Di=8,22dB SPL (AVG)=62,76dB.

3D Balloon

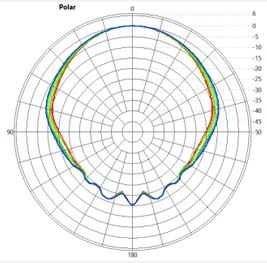
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,26	1,00dB
15° V	507Hz	300°	1,27	1,03dB
30° V	507Hz	300°	1,26	0,99dB
45° V	507Hz	300°	1,25	0,97dB
60° V	507Hz	300°	1,25	0,98dB
75° V	507Hz	290°	1,25	0,95dB
90° V	507Hz	290°	1,24	0,94dB



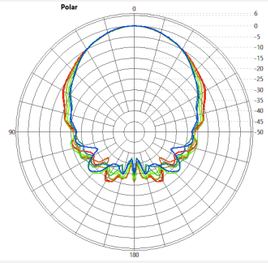
Ang	Freq	Cov	Q	Di
0° V	1023Hz	326°	1,63	2,14dB
15° V	1023Hz	148°	1,63	2,13dB
30° V	1023Hz	150°	1,62	2,10dB
45° V	1023Hz	326°	1,60	2,05dB
60° V	1023Hz	154°	1,59	2,03dB
75° V	1023Hz	308°	1,57	1,96dB
90° V	1023Hz	306°	1,58	1,98dB



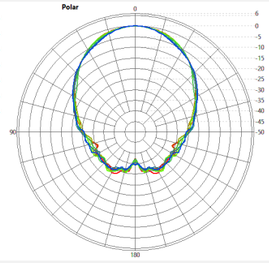
Ang	Freq	Cov	Q	Di
0° V	2054Hz	88°	2,98	4,74dB
15° V	2054Hz	90°	2,95	4,70dB
30° V	2054Hz	94°	2,87	4,58dB
45° V	2054Hz	100°	2,77	4,42dB
60° V	2054Hz	110°	2,67	4,26dB
75° V	2054Hz	118°	2,59	4,13dB
90° V	2054Hz	122°	2,56	4,08dB



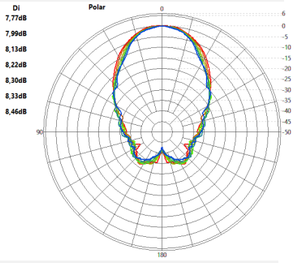
Ang	Freq	Cov	Q	Di
0° V	4120Hz	70°	3,92	5,94dB
15° V	4120Hz	70°	3,95	5,97dB
30° V	4120Hz	68°	4,04	6,07dB
45° V	4120Hz	66°	4,13	6,16dB
60° V	4120Hz	64°	4,30	6,34dB
75° V	4120Hz	66°	4,34	6,38dB
90° V	4120Hz	66°	4,29	6,32dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	64°	4,53	6,56dB
15° V	8248Hz	64°	4,56	6,59dB
30° V	8248Hz	64°	4,56	6,59dB
45° V	8248Hz	64°	4,56	6,59dB
60° V	8248Hz	64°	4,67	6,70dB
75° V	8248Hz	60°	4,68	6,70dB
90° V	8248Hz	58°	4,68	6,71dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	50°	5,99	7,77dB
15° V	18527Hz	46°	6,29	7,99dB
30° V	18527Hz	44°	6,51	8,13dB
45° V	18527Hz	42°	6,63	8,22dB
60° V	18527Hz	42°	6,76	8,30dB
75° V	18527Hz	40°	6,81	8,33dB
90° V	18527Hz	38°	7,01	8,46dB

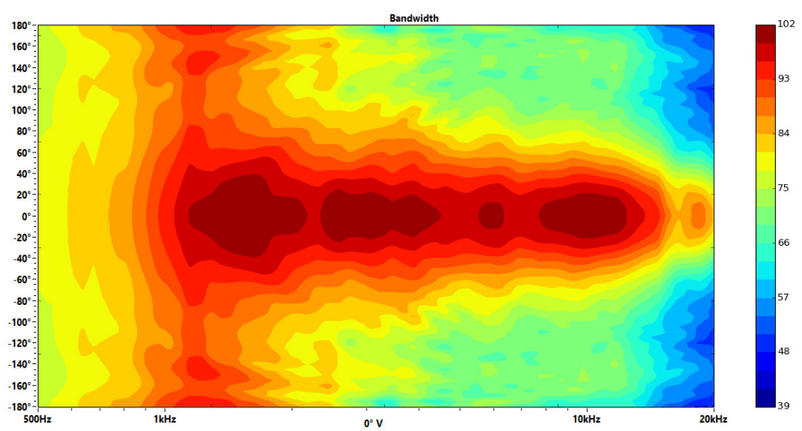


Polar Comparativa Vertical





Application Note AN-0005.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-05 horn.
https://www.ludovico.com.br/272/cornetas/corneta-lc-05-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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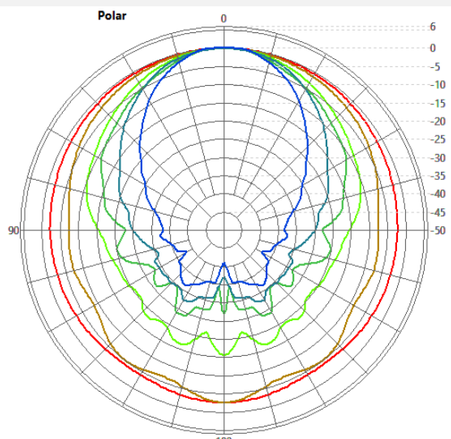
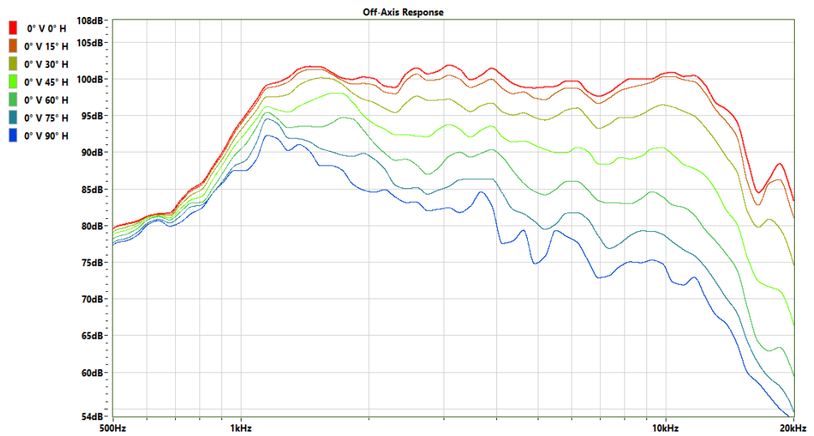
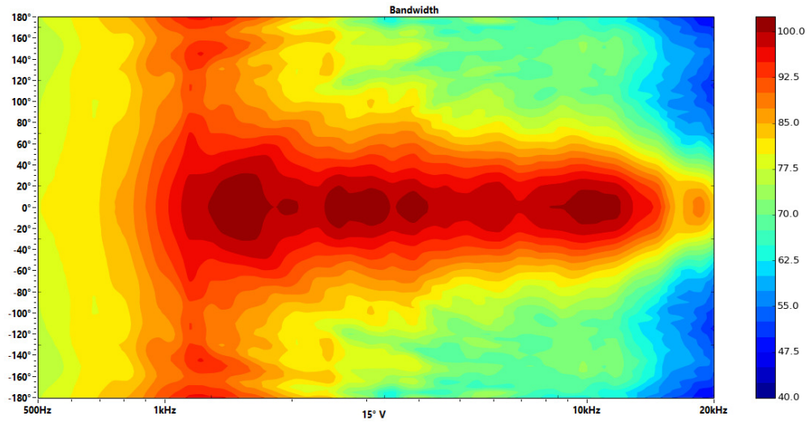




0° Vertical



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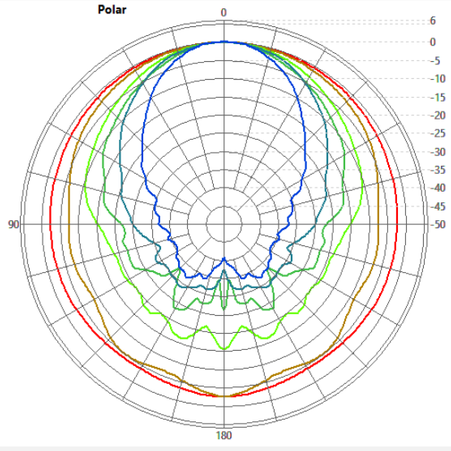
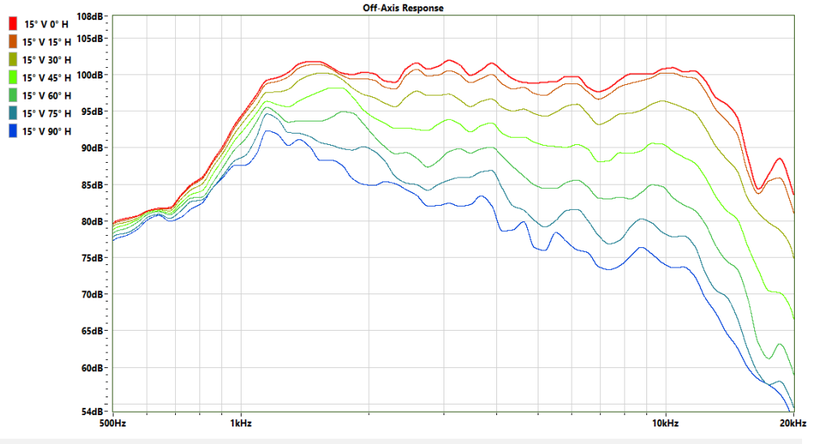
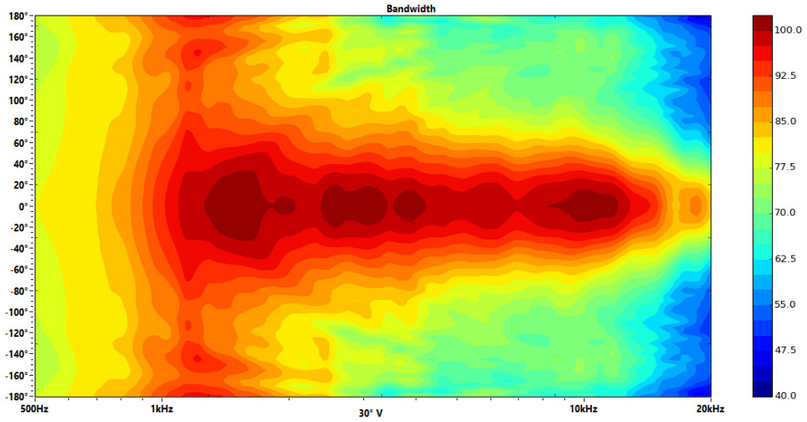
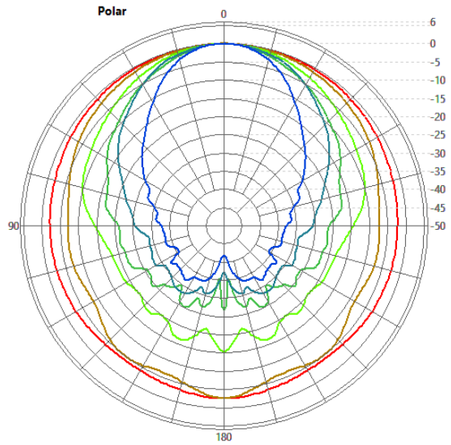


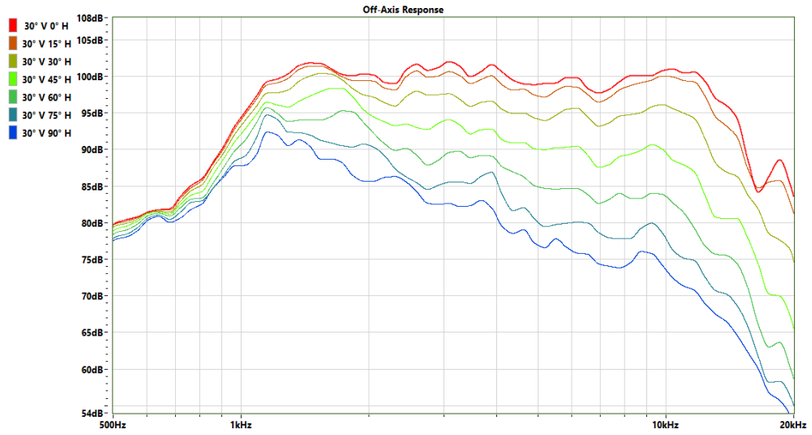


15° Vertical

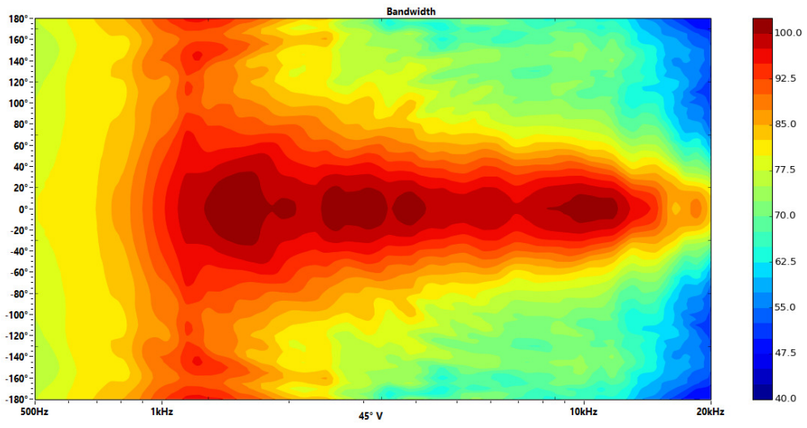


Ang	Freq	Cov	Q	Di
30° V	507Hz	300°	1,26	0,99dB
30° V	1023Hz	150°	1,62	2,10dB
30° V	2054Hz	94°	2,87	4,58dB
30° V	4120Hz	68°	4,04	6,07dB
30° V	8248Hz	64°	4,56	6,59dB
30° V	18527Hz	44°	6,51	8,13dB

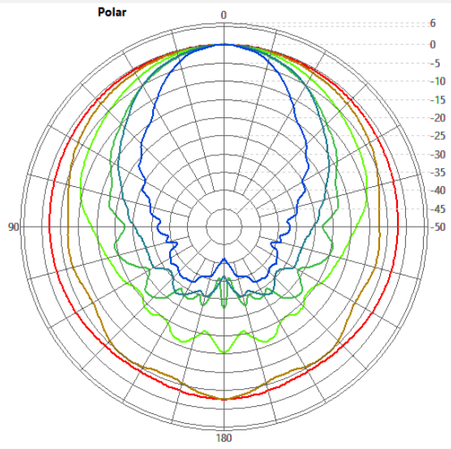


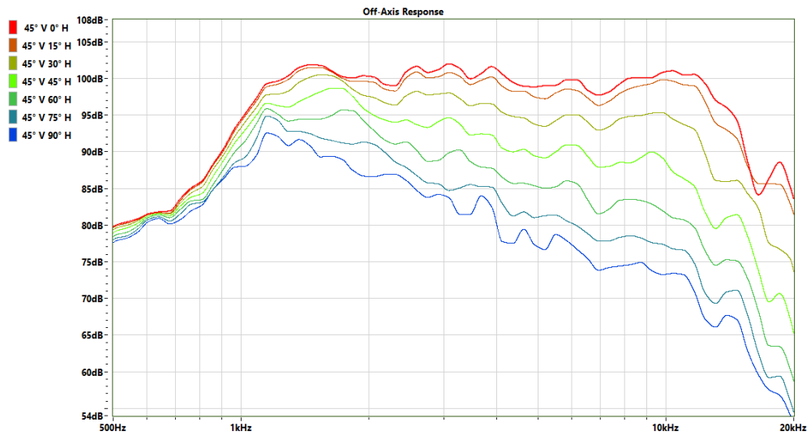


30° Vertical

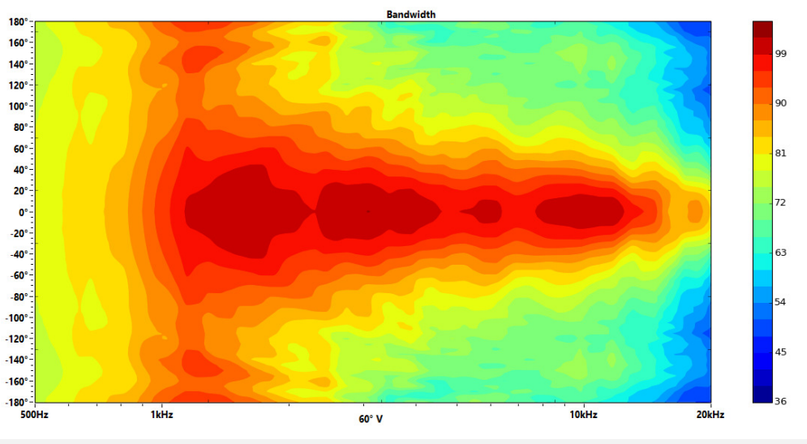


Ang	Freq	Cov	Q	Di
45° V	507Hz	300°	1,25	0,97dB
45° V	1023Hz	326°	1,60	2,05dB
45° V	2054Hz	100°	2,77	4,42dB
45° V	4120Hz	66°	4,13	6,16dB
45° V	8248Hz	64°	4,56	6,59dB
45° V	18527Hz	42°	6,63	8,22dB

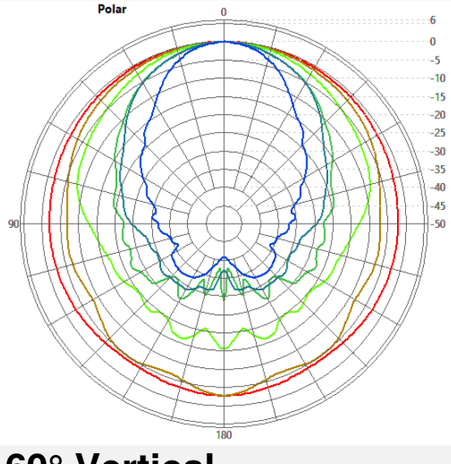


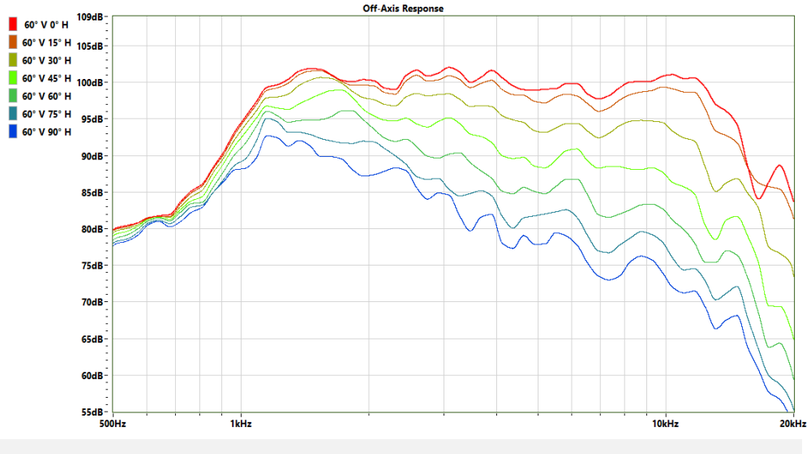


45° Vertical

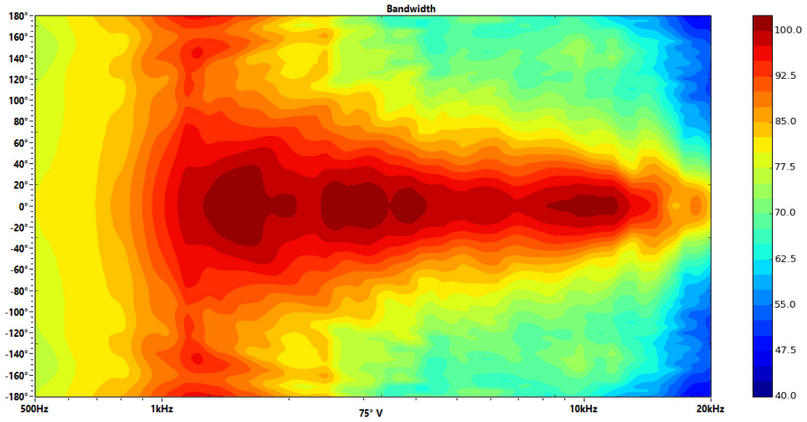


Ang	Freq	Cov	Q	Di
60° V	507Hz	300°	1,25	0,98dB
60° V	1023Hz	154°	1,59	2,03dB
60° V	2054Hz	110°	2,67	4,26dB
60° V	4120Hz	64°	4,30	6,34dB
60° V	8248Hz	64°	4,67	6,70dB
60° V	18527Hz	42°	6,76	8,30dB

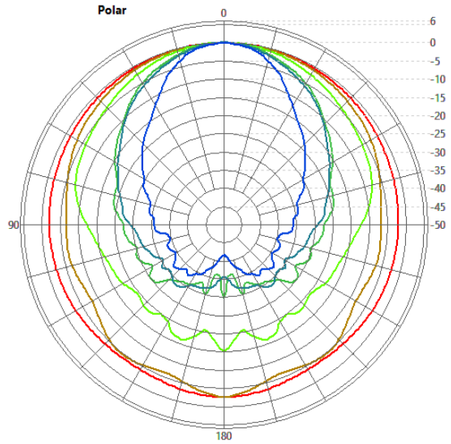


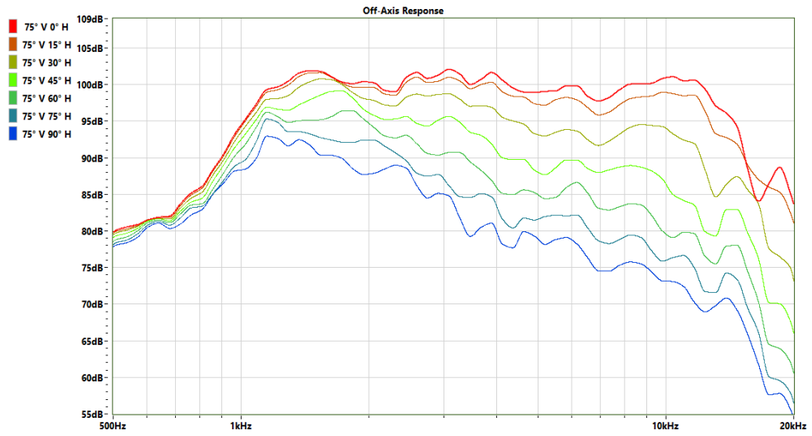


60° Vertical

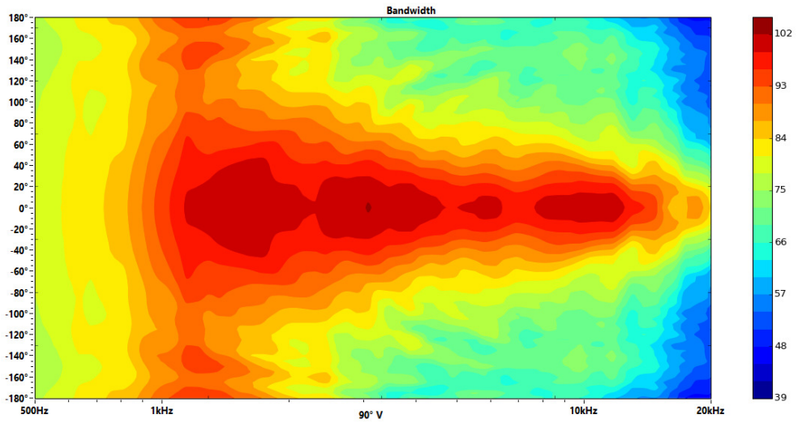


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,25	0,95dB
75° V	1023Hz	308°	1,57	1,96dB
75° V	2054Hz	118°	2,59	4,13dB
75° V	4120Hz	66°	4,34	6,38dB
75° V	8248Hz	60°	4,68	6,70dB
75° V	18527Hz	40°	6,81	8,33dB

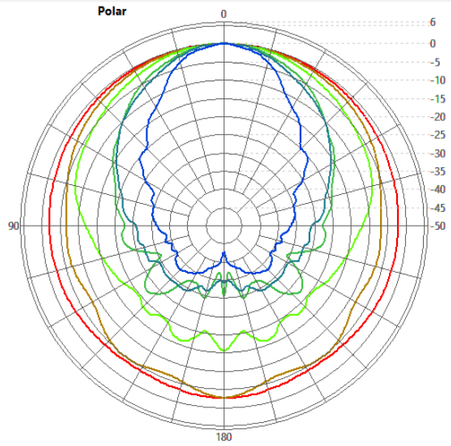


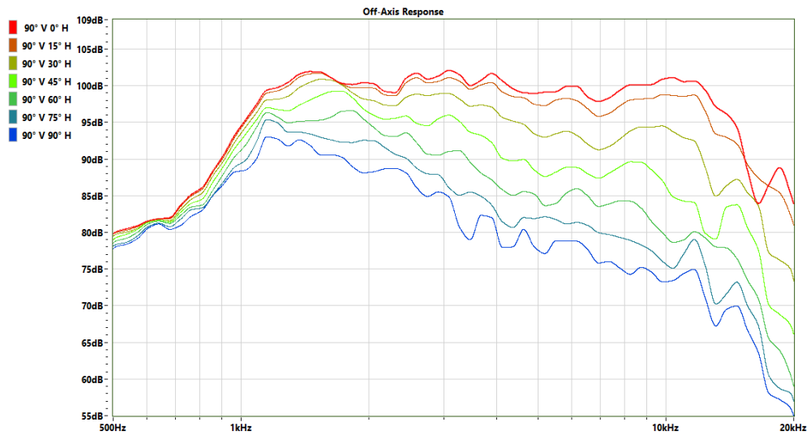


75° Vertical

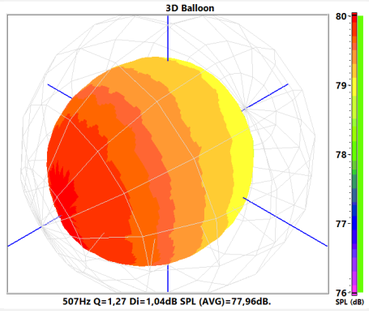


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,24	0,94dB
90° V	1023Hz	306°	1,58	1,98dB
90° V	2054Hz	122°	2,56	4,08dB
90° V	4120Hz	66°	4,29	6,32dB
90° V	8248Hz	58°	4,68	6,71dB
90° V	18527Hz	38°	7,01	8,46dB

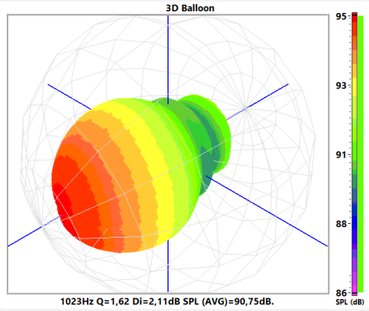




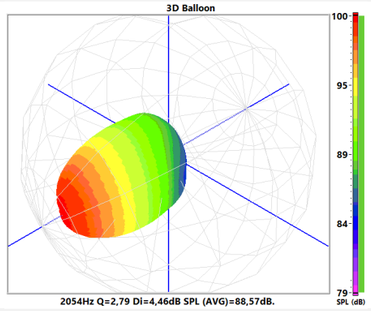
90° Vertical



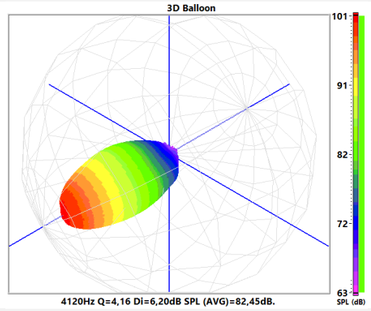
507Hz Q=1,27 Di=1,04dB SPL (AVG)=77,96dB.



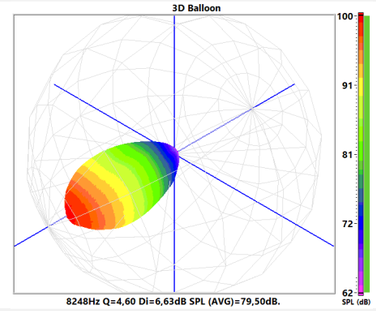
1023Hz Q=1,62 Di=2,11dB SPL (AVG)=90,75dB.



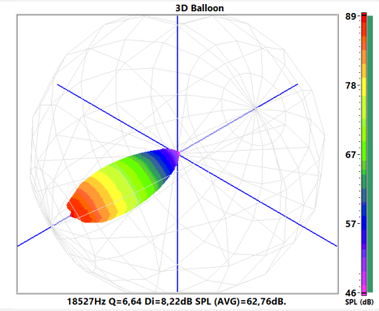
2054Hz Q=2,79 Di=4,46dB SPL (AVG)=88,57dB.



4120Hz Q=4,16 Di=6,20dB SPL (AVG)=82,45dB.



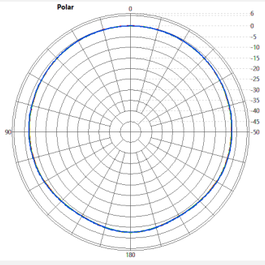
8248Hz Q=4,60 Di=6,63dB SPL (AVG)=79,50dB.



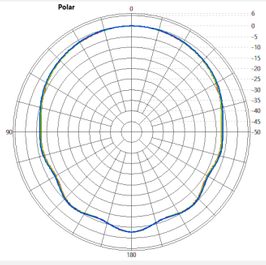
18527Hz Q=6,64 Di=8,22dB SPL (AVG)=62,76dB.

3D Balloon

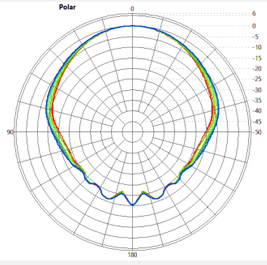
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,26	1,00dB
15° V	507Hz	300°	1,27	1,03dB
30° V	507Hz	300°	1,26	0,99dB
45° V	507Hz	300°	1,25	0,97dB
60° V	507Hz	300°	1,25	0,98dB
75° V	507Hz	290°	1,25	0,95dB
90° V	507Hz	290°	1,24	0,94dB



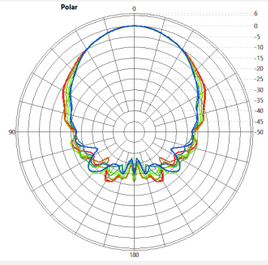
Ang	Freq	Cov	Q	Di
0° V	1023Hz	326°	1,63	2,14dB
15° V	1023Hz	148°	1,63	2,13dB
30° V	1023Hz	150°	1,62	2,10dB
45° V	1023Hz	326°	1,60	2,05dB
60° V	1023Hz	154°	1,59	2,03dB
75° V	1023Hz	308°	1,57	1,96dB
90° V	1023Hz	306°	1,58	1,98dB



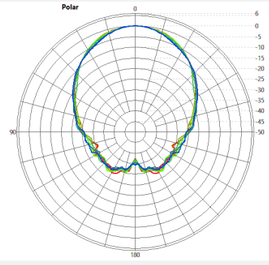
Ang	Freq	Cov	Q	Di
0° V	2054Hz	88°	2,98	4,74dB
15° V	2054Hz	90°	2,95	4,70dB
30° V	2054Hz	94°	2,87	4,58dB
45° V	2054Hz	100°	2,77	4,42dB
60° V	2054Hz	110°	2,67	4,26dB
75° V	2054Hz	118°	2,59	4,13dB
90° V	2054Hz	122°	2,56	4,08dB



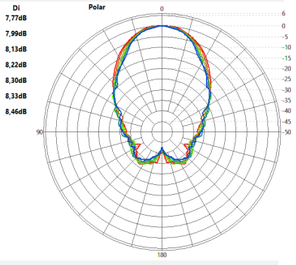
Ang	Freq	Cov	Q	Di
0° V	4120Hz	70°	3,92	5,94dB
15° V	4120Hz	70°	3,95	5,97dB
30° V	4120Hz	68°	4,04	6,07dB
45° V	4120Hz	66°	4,13	6,16dB
60° V	4120Hz	64°	4,30	6,34dB
75° V	4120Hz	66°	4,34	6,38dB
90° V	4120Hz	66°	4,29	6,32dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	64°	4,53	6,56dB
15° V	8248Hz	64°	4,56	6,59dB
30° V	8248Hz	64°	4,56	6,59dB
45° V	8248Hz	64°	4,56	6,59dB
60° V	8248Hz	64°	4,67	6,70dB
75° V	8248Hz	60°	4,68	6,70dB
90° V	8248Hz	58°	4,68	6,71dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	50°	5,99	7,77dB
15° V	18527Hz	46°	6,29	7,99dB
30° V	18527Hz	44°	6,51	8,13dB
45° V	18527Hz	42°	6,63	8,22dB
60° V	18527Hz	42°	6,76	8,30dB
75° V	18527Hz	40°	6,81	8,33dB
90° V	18527Hz	38°	7,01	8,46dB



Polar Vertical Comparative