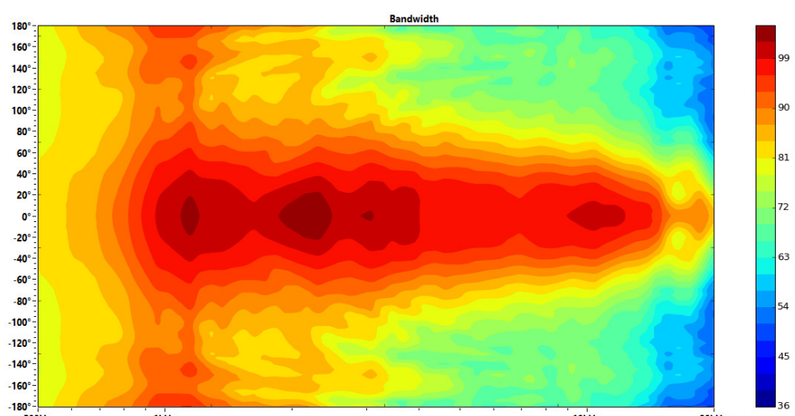
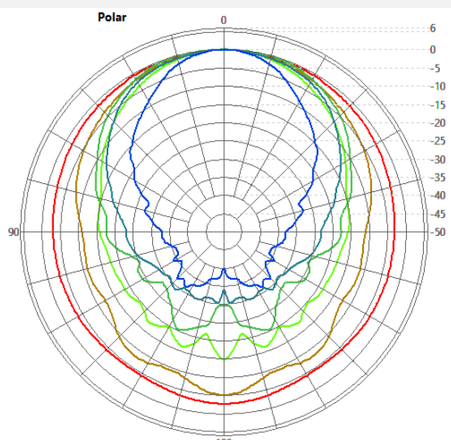


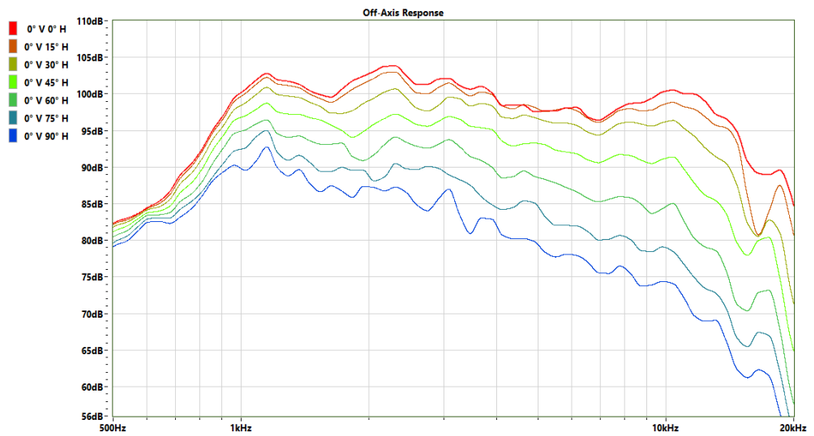


Nota de Aplicação AN-0004.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-04.
https://www.ludovico.com.br/270/cornetas/corneta-lc-04-preta
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 1m, medição automatizada 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.

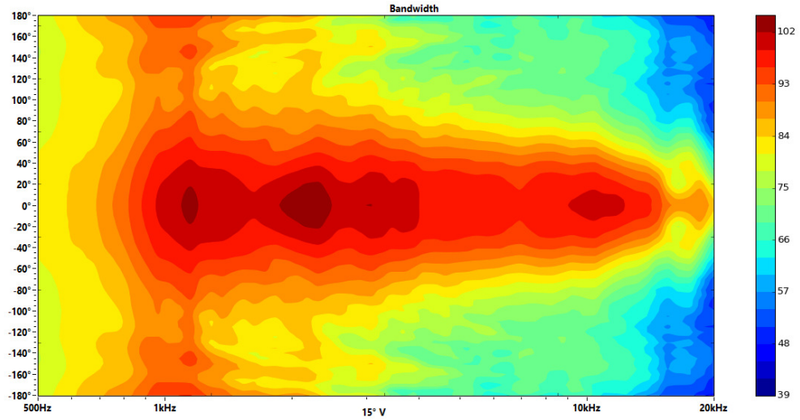


Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,32	1,20dB
0° V	1023Hz	126°	2,00	3,00dB
0° V	2054Hz	80°	3,19	5,03dB
0° V	4120Hz	98°	3,10	4,92dB
0° V	8248Hz	84°	3,74	5,73dB
0° V	18527Hz	48°	5,76	7,60dB

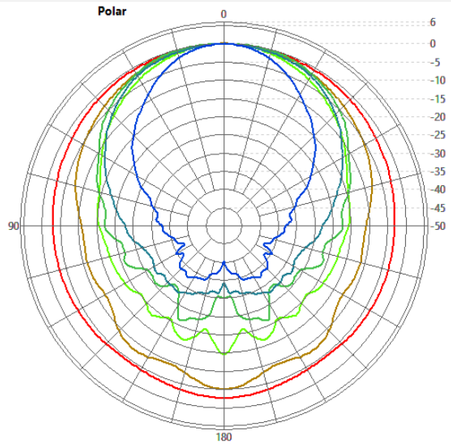


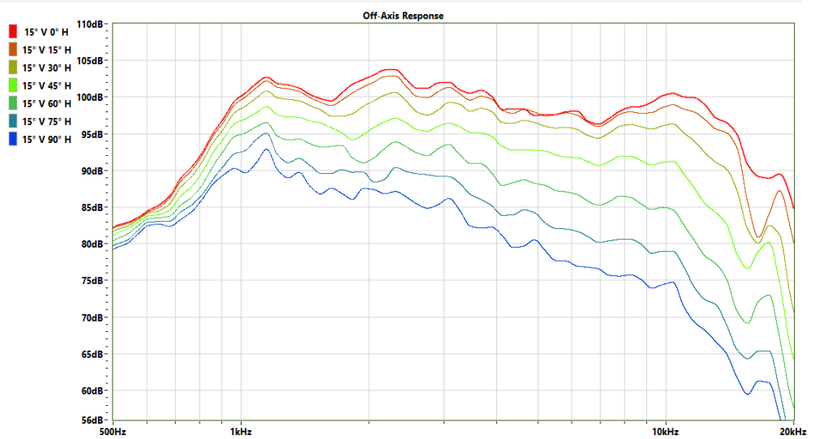


0° Vertical

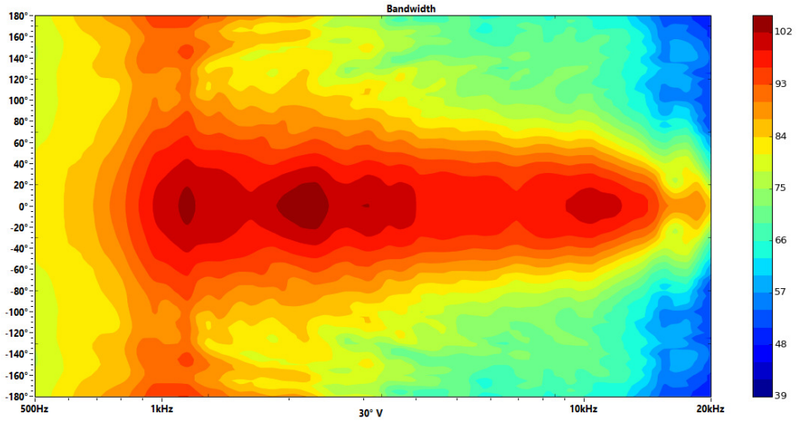


Ang	Freq	Cov	Q	Di
15° V	507Hz	290°	1,31	1,16dB
15° V	1023Hz	128°	1,98	2,97dB
15° V	2054Hz	80°	3,18	5,02dB
15° V	4120Hz	96°	3,15	4,99dB
15° V	8248Hz	86°	3,64	5,61dB
15° V	18527Hz	50°	5,84	7,66dB

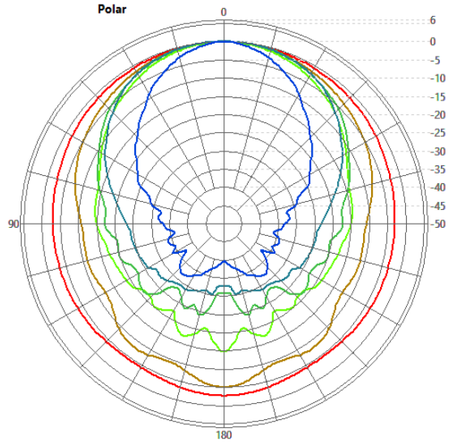


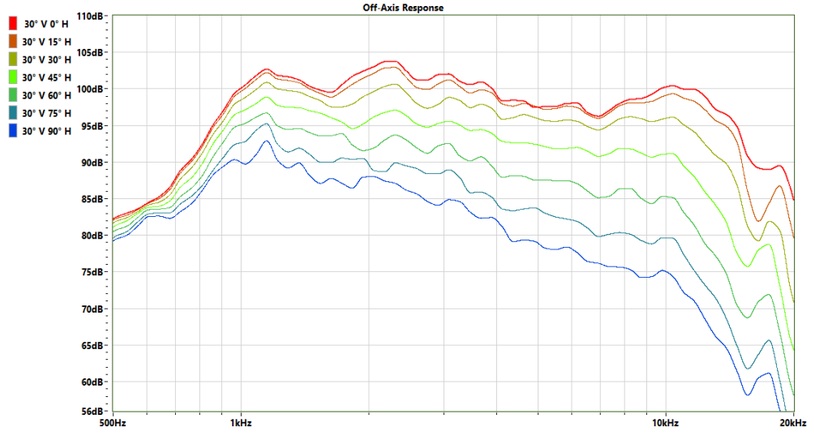


15° Vertical

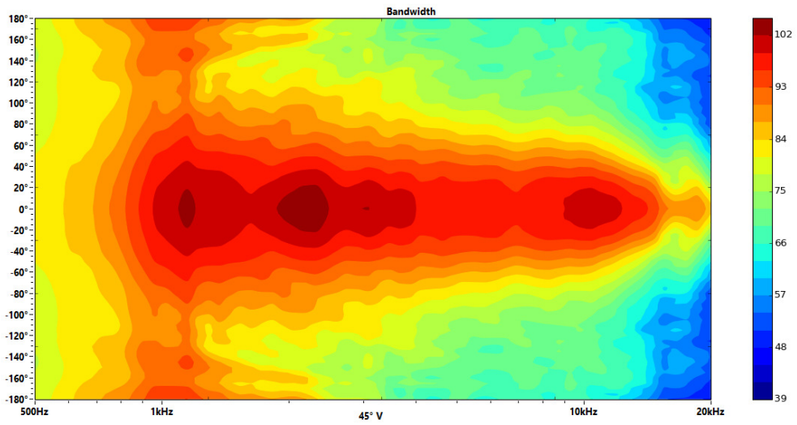


Ang	Freq	Cov	Q	Di
30° V	507Hz	290°	1,31	1,18dB
30° V	1023Hz	130°	1,97	2,94dB
30° V	2054Hz	82°	3,17	5,01dB
30° V	4120Hz	94°	3,24	5,10dB
30° V	8248Hz	86°	3,61	5,58dB
30° V	18527Hz	48°	6,11	7,86dB

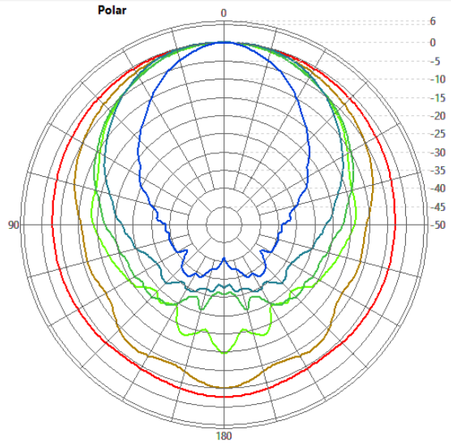


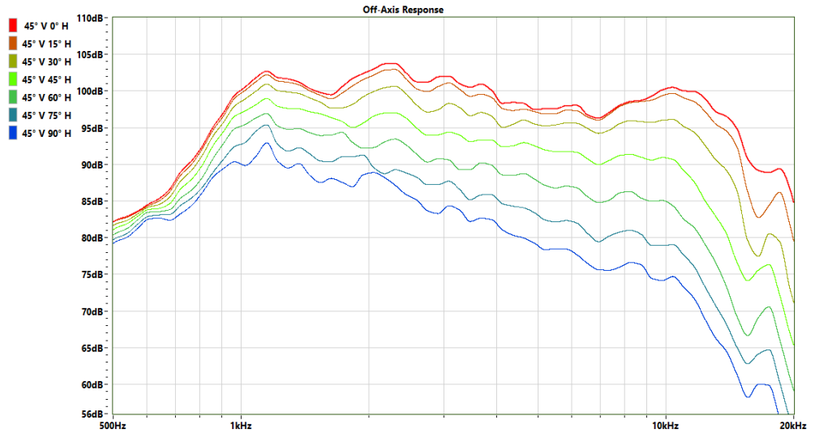


30° Vertical

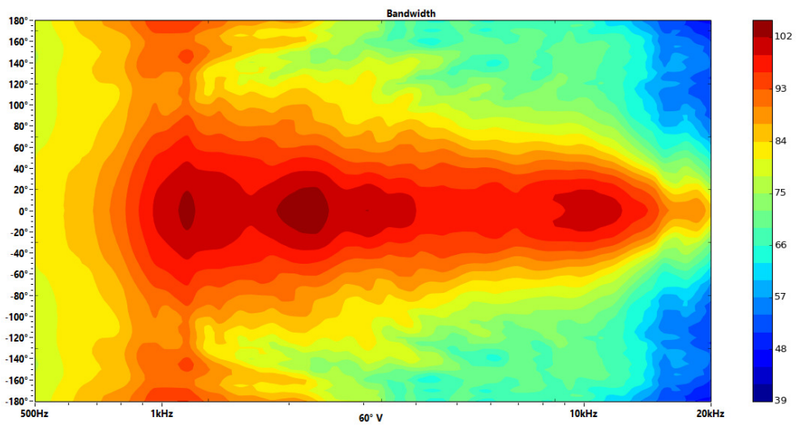


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,30	1,14dB
45° V	1023Hz	132°	1,96	2,93dB
45° V	2054Hz	86°	3,11	4,93dB
45° V	4120Hz	90°	3,30	5,19dB
45° V	8248Hz	82°	3,62	5,59dB
45° V	18527Hz	44°	6,45	8,10dB

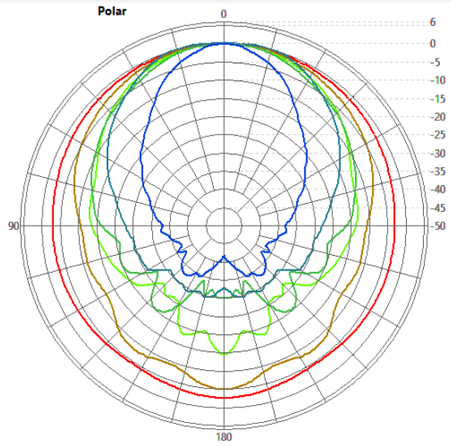


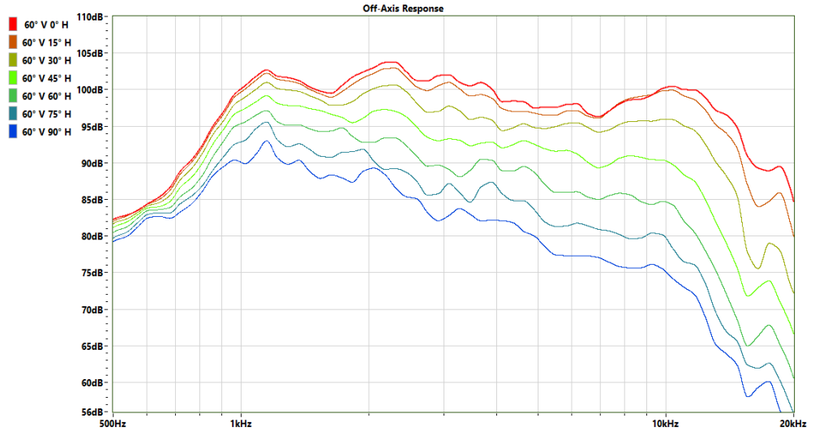


45° Vertical

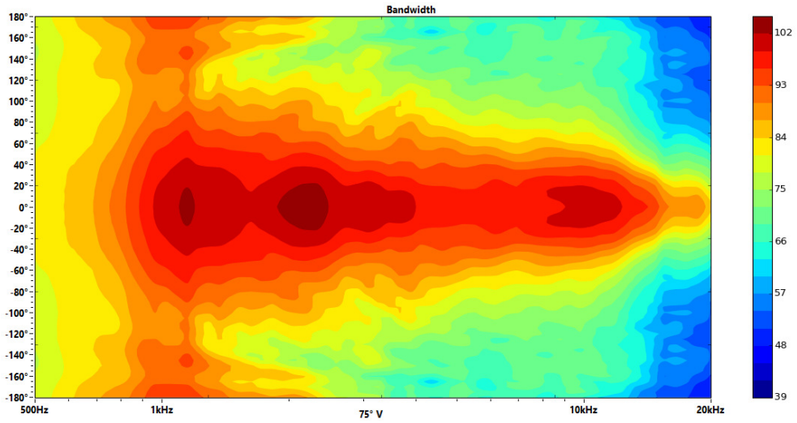


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,31	1,16dB
60° V	1023Hz	134°	1,95	2,90dB
60° V	2054Hz	90°	3,06	4,85dB
60° V	4120Hz	86°	3,36	5,26dB
60° V	8248Hz	80°	3,67	5,65dB
60° V	18527Hz	42°	6,83	8,35dB

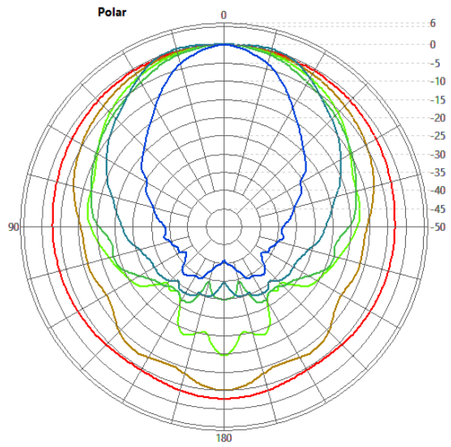


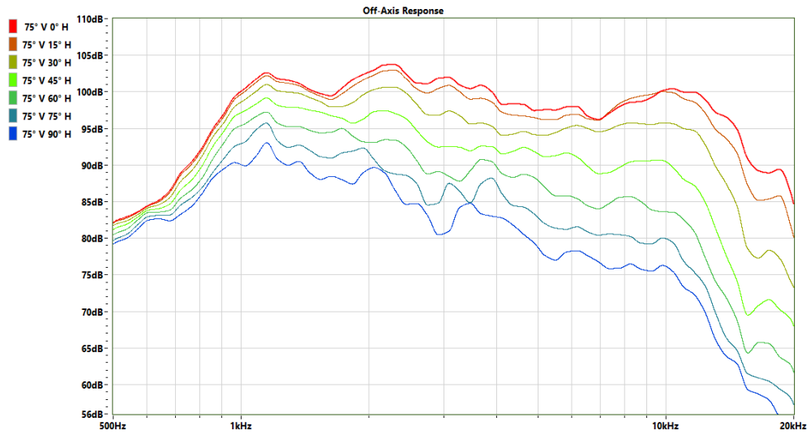


60° Vertical

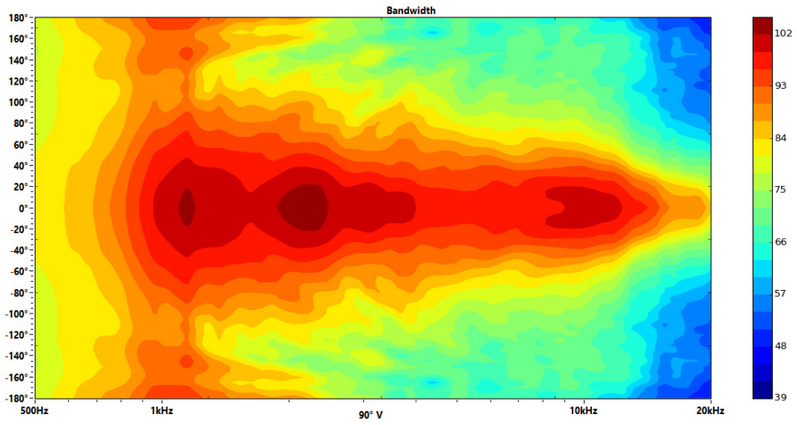


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,30	1,16dB
75° V	1023Hz	136°	1,94	2,88dB
75° V	2054Hz	92°	3,01	4,79dB
75° V	4120Hz	80°	3,42	5,34dB
75° V	8248Hz	76°	3,62	5,58dB
75° V	18527Hz	40°	7,06	8,49dB

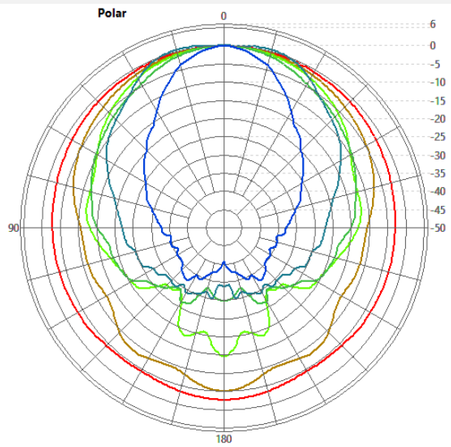


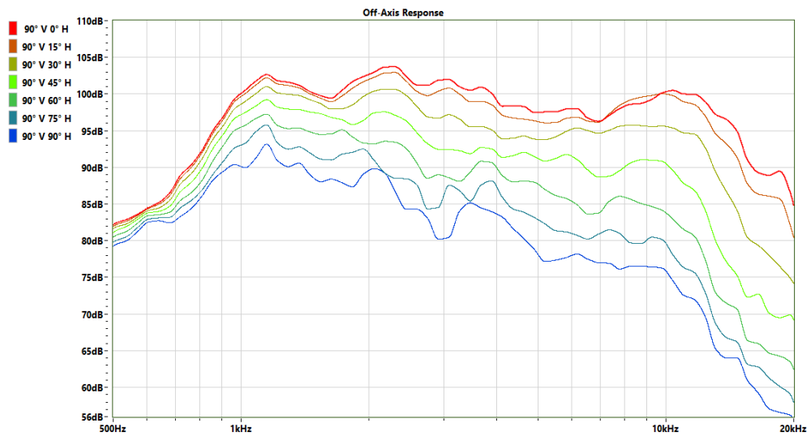


75° Vertical

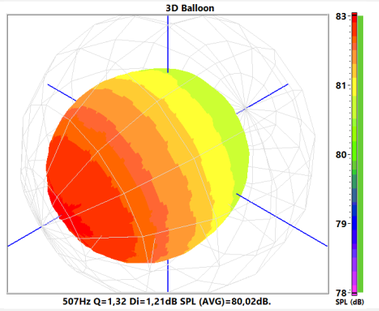


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,30	1,15dB
90° V	1023Hz	346°	1,94	2,88dB
90° V	2054Hz	94°	3,00	4,77dB
90° V	4120Hz	78°	3,43	5,36dB
90° V	8248Hz	76°	3,62	5,58dB
90° V	18527Hz	38°	7,23	8,59dB

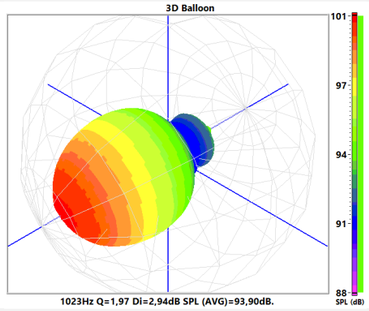




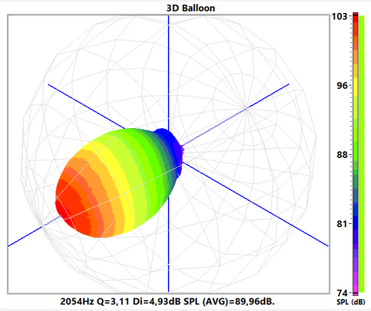
90° Vertical



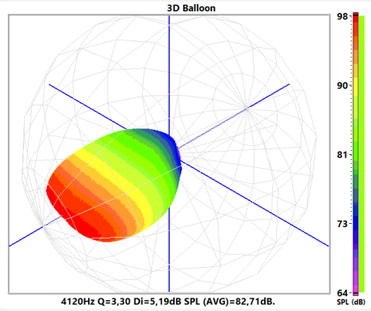
507Hz Q=1,32 Di=1,21dB SPL (AVG)=80,02dB.



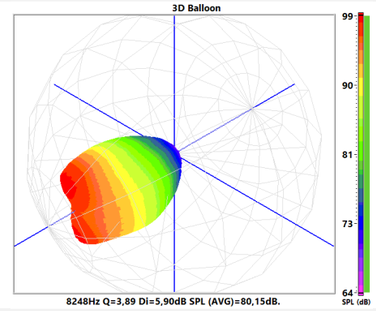
1023Hz Q=1,97 Di=2,94dB SPL (AVG)=93,90dB.



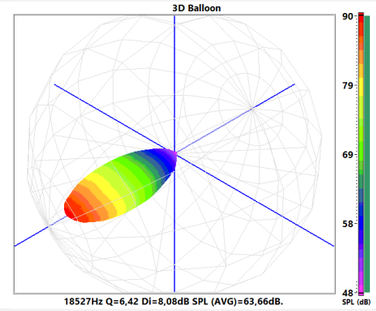
2054Hz Q=3,11 Di=4,93dB SPL (AVG)=89,96dB.



4120Hz Q=3,30 Di=5,19dB SPL (AVG)=82,71dB.



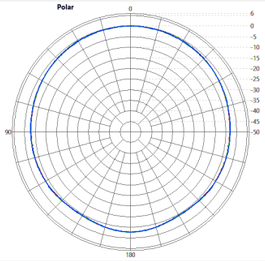
8248Hz Q=3,89 Di=5,90dB SPL (AVG)=80,15dB.



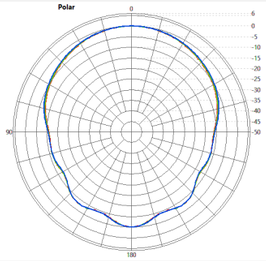
18527Hz Q=6,42 Di=8,08dB SPL (AVG)=63,66dB.

3D Balloon

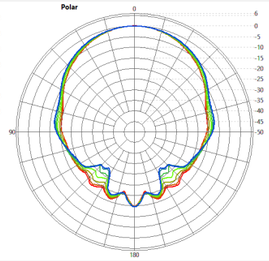
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,32	1,20dB
15° V	507Hz	290°	1,31	1,16dB
30° V	507Hz	290°	1,31	1,18dB
45° V	507Hz	290°	1,30	1,14dB
60° V	507Hz	290°	1,31	1,16dB
75° V	507Hz	290°	1,30	1,16dB
90° V	507Hz	290°	1,30	1,15dB



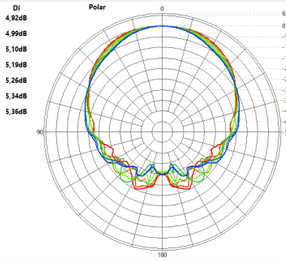
Ang	Freq	Cov	Q	Di
0° V	1023Hz	126°	2,00	3,00dB
15° V	1023Hz	128°	1,98	2,97dB
30° V	1023Hz	130°	1,97	2,94dB
45° V	1023Hz	132°	1,96	2,93dB
60° V	1023Hz	134°	1,95	2,90dB
75° V	1023Hz	136°	1,94	2,88dB
90° V	1023Hz	346°	1,94	2,88dB



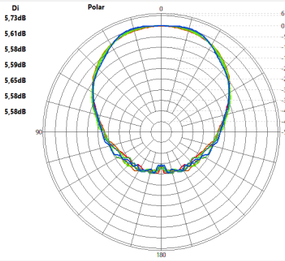
Ang	Freq	Cov	Q	Di
0° V	2054Hz	80°	3,19	5,03dB
15° V	2054Hz	80°	3,18	5,02dB
30° V	2054Hz	82°	3,17	5,01dB
45° V	2054Hz	86°	3,11	4,93dB
60° V	2054Hz	90°	3,06	4,85dB
75° V	2054Hz	92°	3,01	4,79dB
90° V	2054Hz	94°	3,00	4,77dB



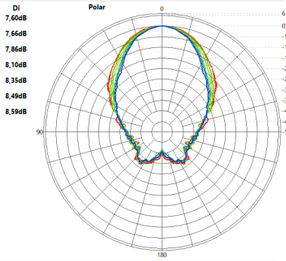
Ang	Freq	Cov	Q	Di
0° V	4120Hz	98°	3,10	4,92dB
15° V	4120Hz	96°	3,15	4,99dB
30° V	4120Hz	94°	3,24	5,10dB
45° V	4120Hz	90°	3,30	5,19dB
60° V	4120Hz	86°	3,36	5,26dB
75° V	4120Hz	80°	3,42	5,34dB
90° V	4120Hz	78°	3,43	5,36dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	84°	3,74	5,73dB
15° V	8248Hz	86°	3,64	5,61dB
30° V	8248Hz	86°	3,61	5,58dB
45° V	8248Hz	82°	3,62	5,59dB
60° V	8248Hz	80°	3,67	5,65dB
75° V	8248Hz	76°	3,62	5,58dB
90° V	8248Hz	76°	3,62	5,58dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	48°	5,76	7,60dB
15° V	18527Hz	50°	5,84	7,66dB
30° V	18527Hz	48°	6,11	7,86dB
45° V	18527Hz	44°	6,45	8,10dB
60° V	18527Hz	42°	6,83	8,35dB
75° V	18527Hz	40°	7,06	8,49dB
90° V	18527Hz	38°	7,23	8,59dB

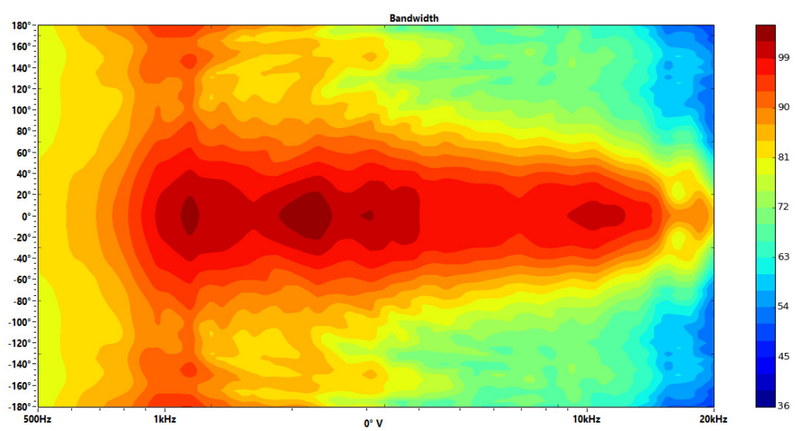


Polar Comparativa Vertical





Application Note AN-0004.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-04 horn.
https://www.ludovico.com.br/270/cornetas/corneta-lc-04-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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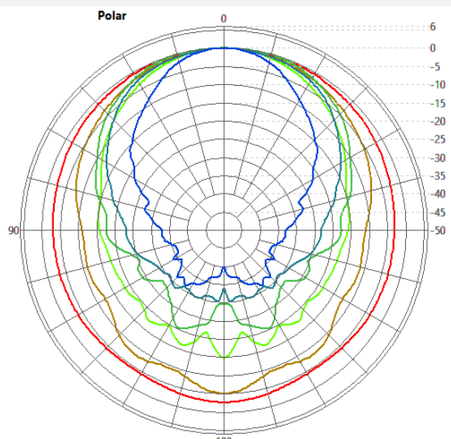
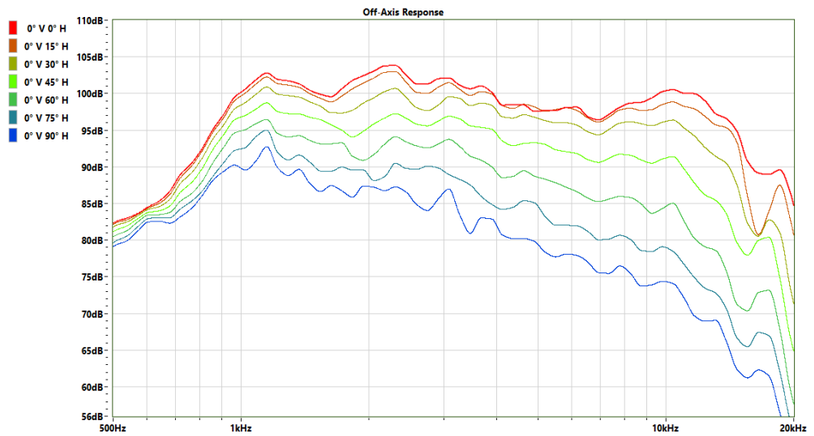
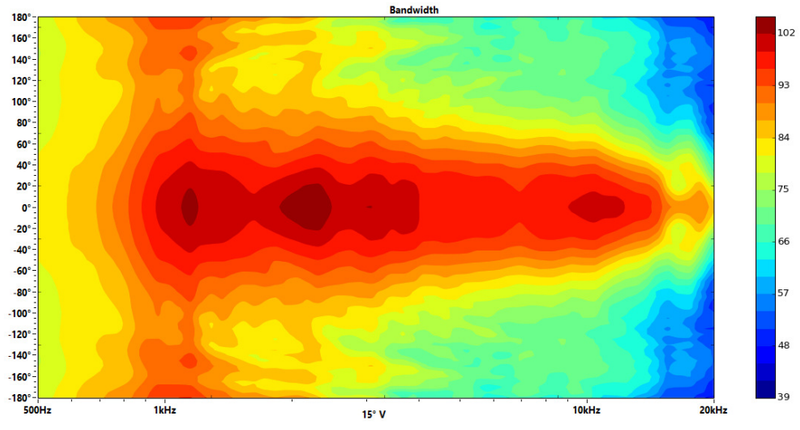




0° Vertical



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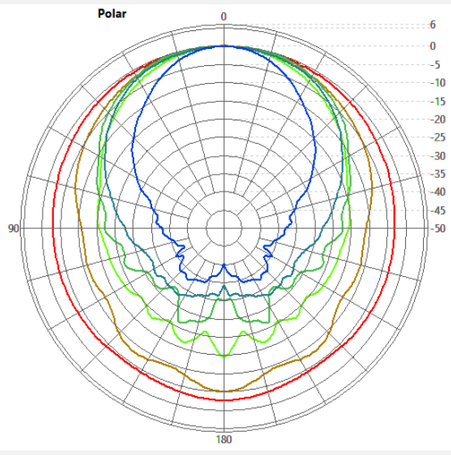
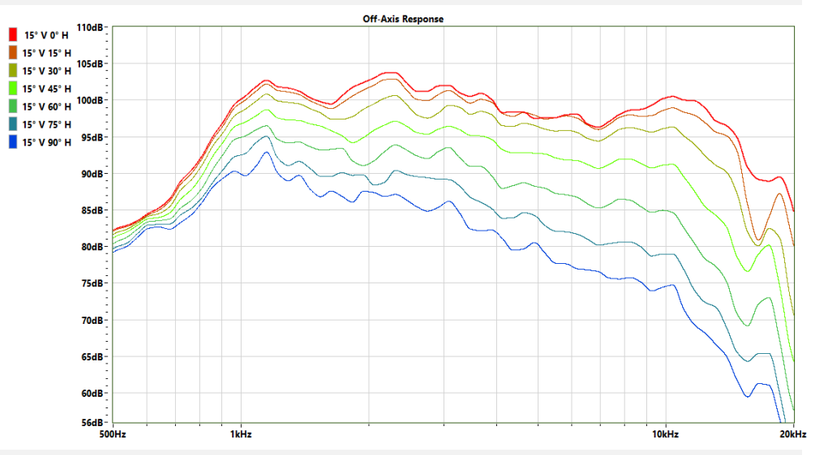
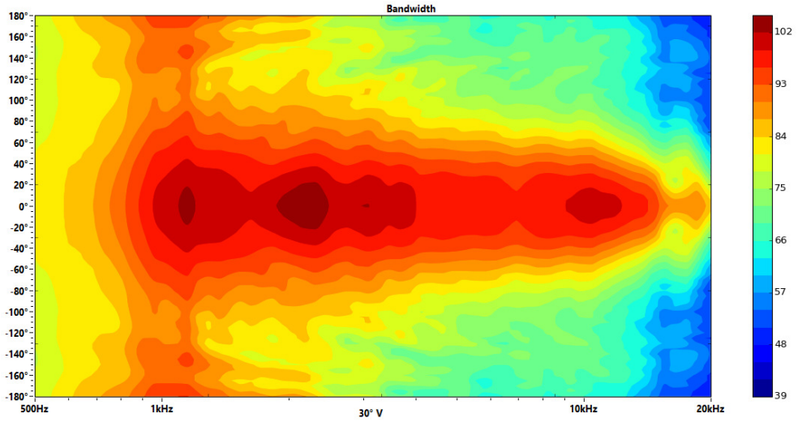
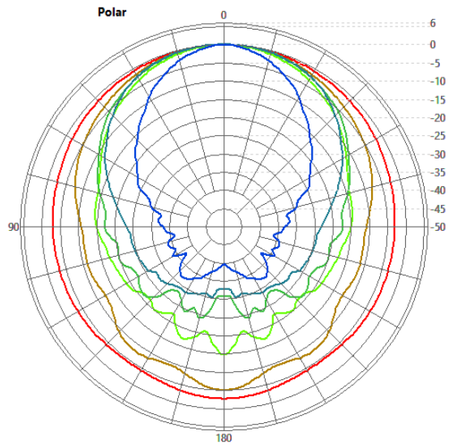


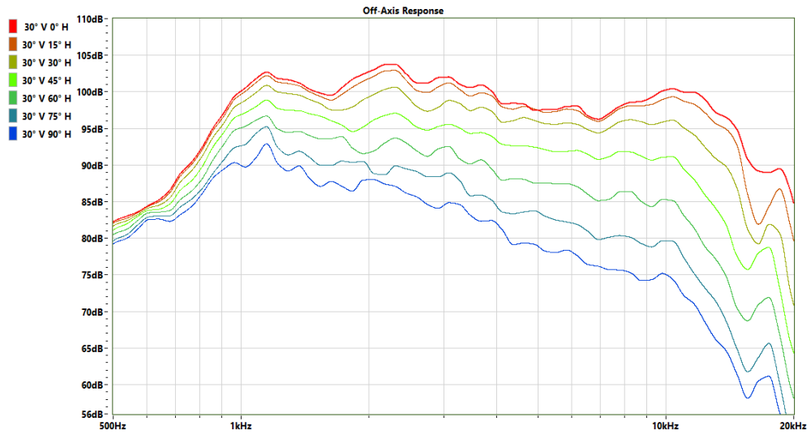


15° Vertical

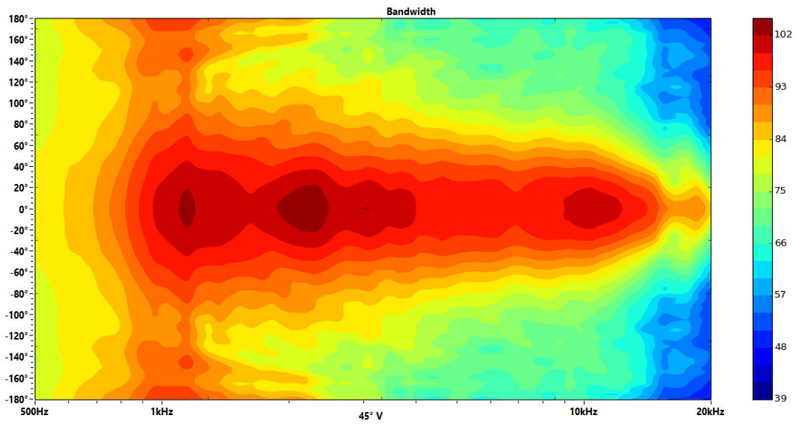


Ang	Freq	Cov	Q	Di
30° V	507Hz	290°	1,31	1,18dB
30° V	1023Hz	130°	1,97	2,94dB
30° V	2054Hz	82°	3,17	5,01dB
30° V	4120Hz	94°	3,24	5,10dB
30° V	8248Hz	86°	3,61	5,58dB
30° V	18527Hz	48°	6,11	7,86dB

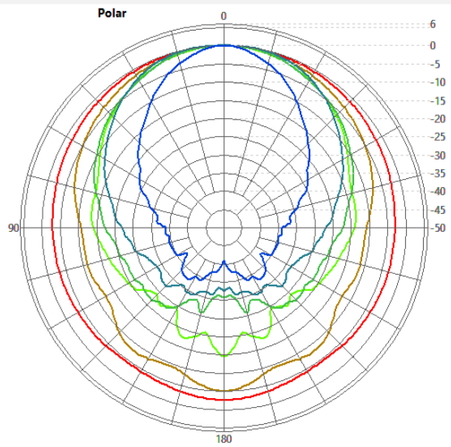


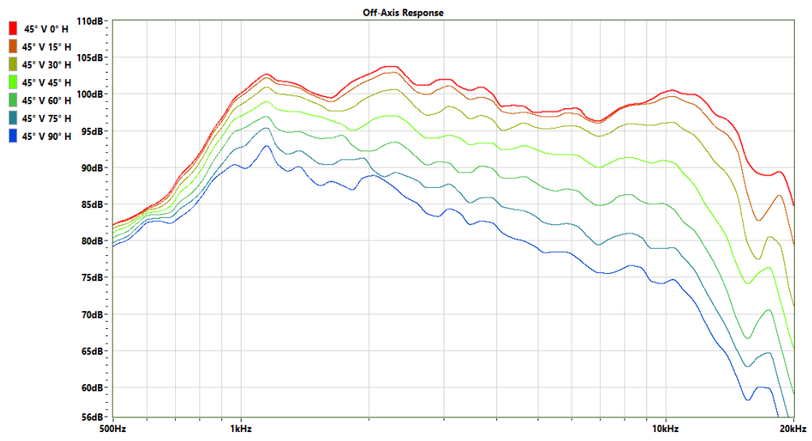


30° Vertical

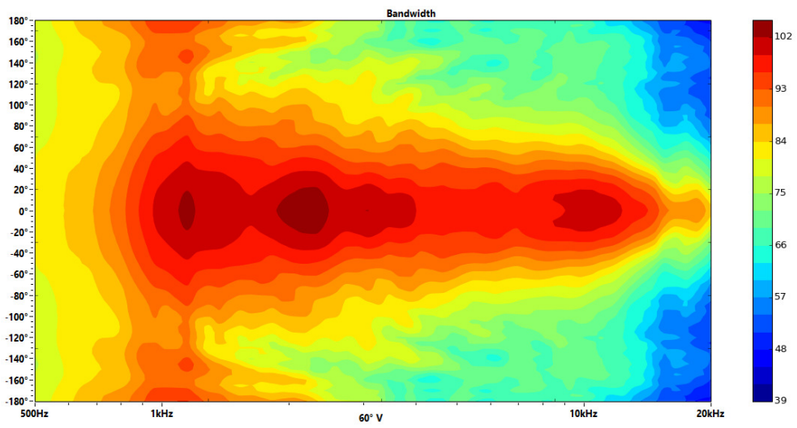


Ang	Freq	Cov	Q	Di
45° V	507Hz	290°	1,30	1,14dB
45° V	1023Hz	132°	1,96	2,93dB
45° V	2054Hz	86°	3,11	4,93dB
45° V	4120Hz	90°	3,30	5,19dB
45° V	8248Hz	82°	3,62	5,59dB
45° V	18527Hz	44°	6,45	8,10dB

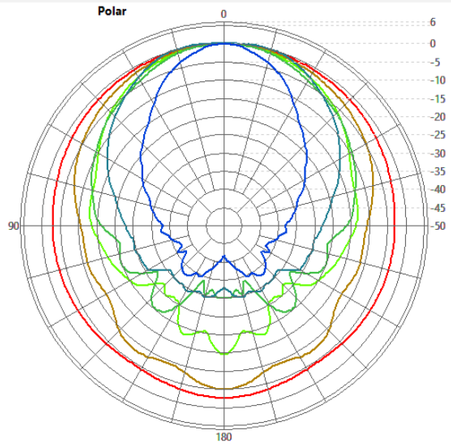


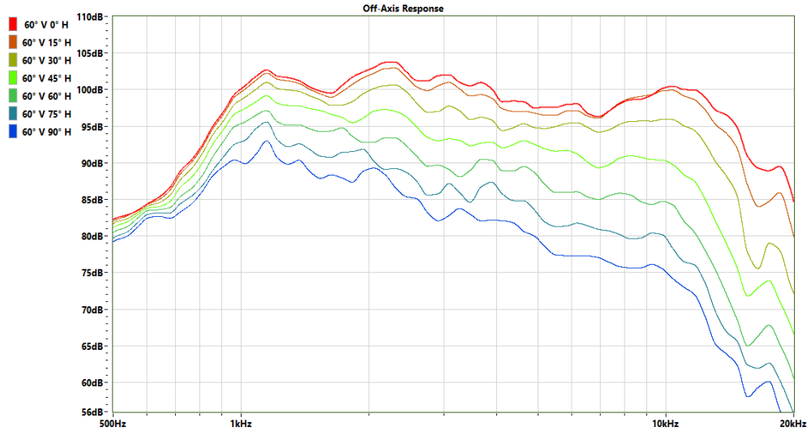


45° Vertical

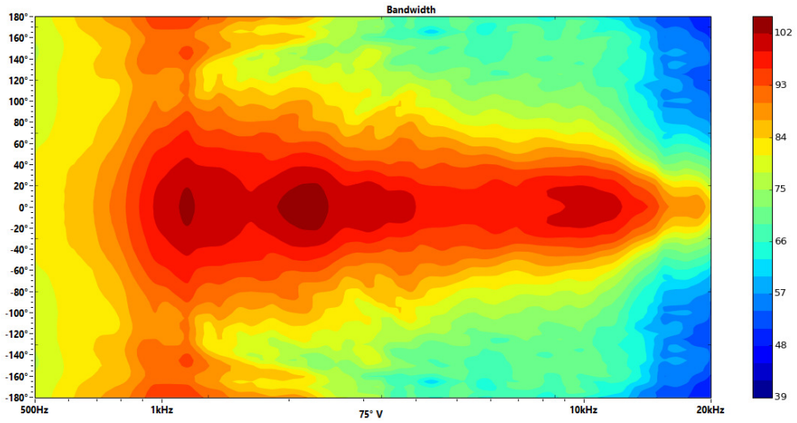


Ang	Freq	Cov	Q	Di
60° V	507Hz	290°	1,31	1,16dB
60° V	1023Hz	134°	1,95	2,90dB
60° V	2054Hz	90°	3,06	4,85dB
60° V	4120Hz	86°	3,36	5,26dB
60° V	8248Hz	80°	3,67	5,65dB
60° V	18527Hz	42°	6,83	8,35dB

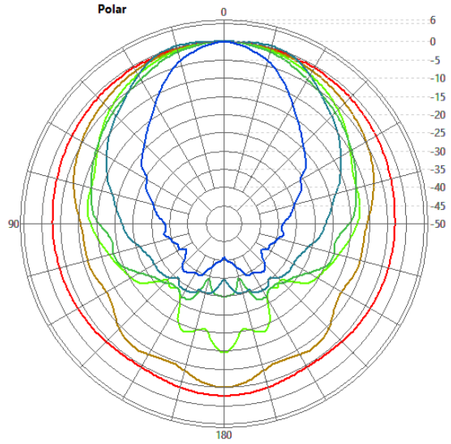


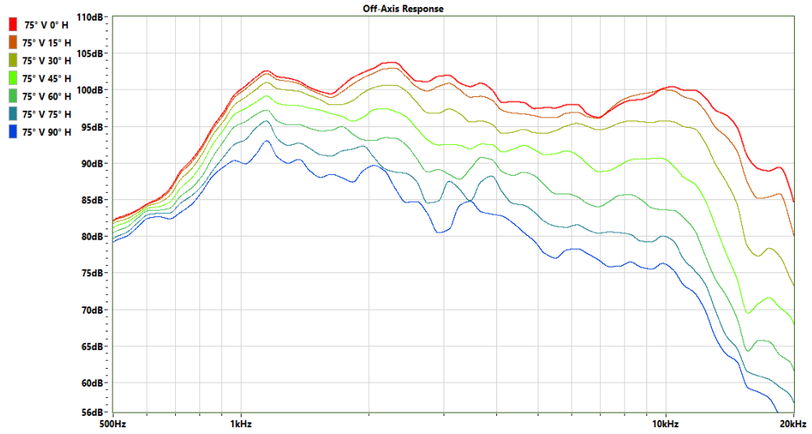


60° Vertical

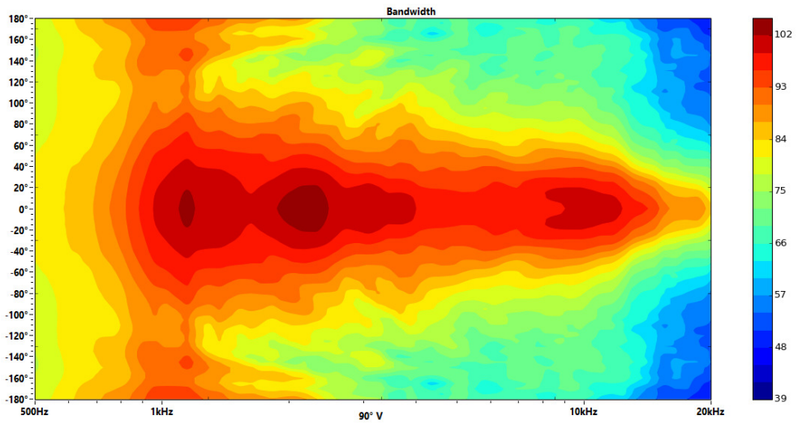


Ang	Freq	Cov	Q	Di
75° V	507Hz	290°	1,30	1,16dB
75° V	1023Hz	136°	1,94	2,88dB
75° V	2054Hz	92°	3,01	4,79dB
75° V	4120Hz	80°	3,42	5,34dB
75° V	8248Hz	76°	3,62	5,58dB
75° V	18527Hz	40°	7,06	8,49dB

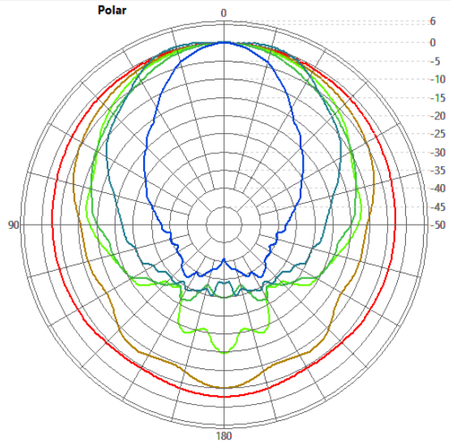


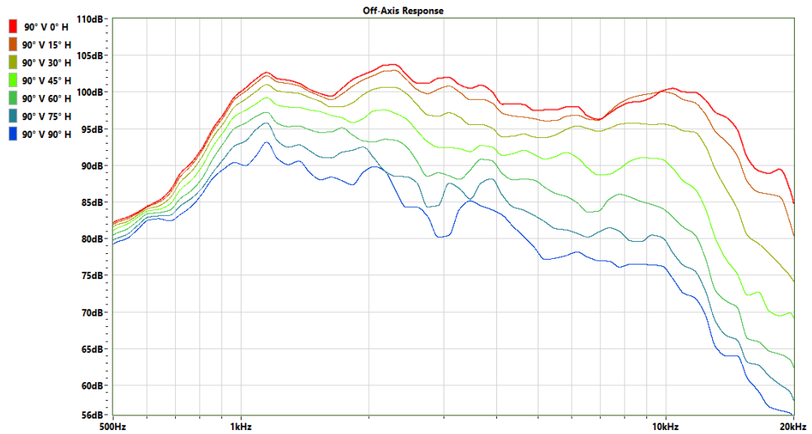


75° Vertical

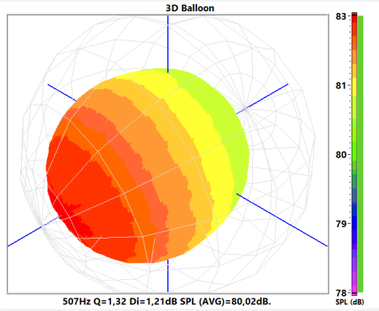


Ang	Freq	Cov	Q	Di
90° V	507Hz	290°	1,30	1,15dB
90° V	1023Hz	346°	1,94	2,88dB
90° V	2054Hz	94°	3,00	4,77dB
90° V	4120Hz	78°	3,43	5,36dB
90° V	8248Hz	76°	3,62	5,58dB
90° V	18527Hz	38°	7,23	8,59dB

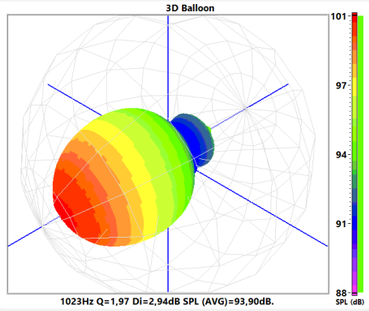




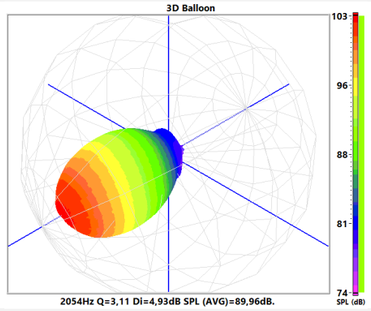
90° Vertical



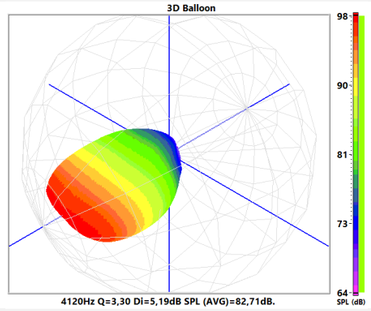
507Hz Q=1,32 Di=1,21dB SPL (AVG)=80,02dB.



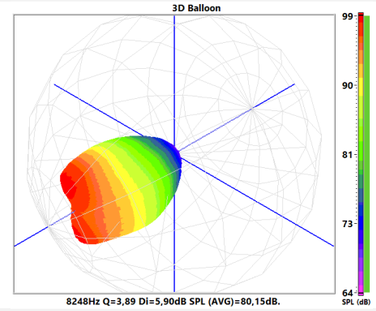
1023Hz Q=1,97 Di=2,94dB SPL (AVG)=93,90dB.



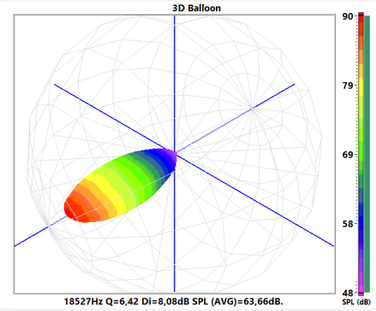
2054Hz Q=3,11 Di=4,93dB SPL (AVG)=89,96dB.



4120Hz Q=3,30 Di=5,19dB SPL (AVG)=82,71dB.



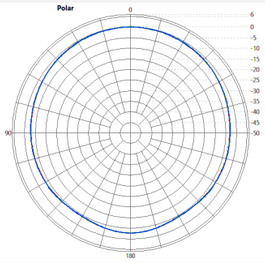
8248Hz Q=3,89 Di=5,90dB SPL (AVG)=80,15dB.



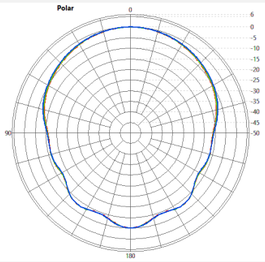
18527Hz Q=6,42 Di=8,08dB SPL (AVG)=63,66dB.

3D Balloon

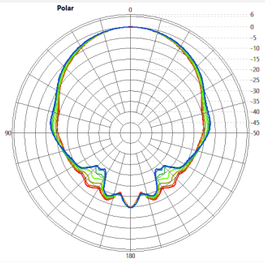
Ang	Freq	Cov	Q	Di
0° V	507Hz	290°	1,32	1,20dB
15° V	507Hz	290°	1,31	1,16dB
30° V	507Hz	290°	1,31	1,18dB
45° V	507Hz	290°	1,30	1,14dB
60° V	507Hz	290°	1,31	1,16dB
75° V	507Hz	290°	1,30	1,16dB
90° V	507Hz	290°	1,30	1,15dB



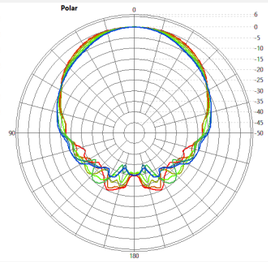
Ang	Freq	Cov	Q	Di
0° V	1023Hz	126°	2,00	3,00dB
15° V	1023Hz	128°	1,98	2,97dB
30° V	1023Hz	130°	1,97	2,94dB
45° V	1023Hz	132°	1,96	2,93dB
60° V	1023Hz	134°	1,95	2,90dB
75° V	1023Hz	136°	1,94	2,88dB
90° V	1023Hz	346°	1,94	2,88dB



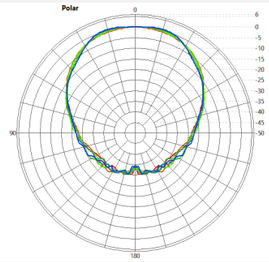
Ang	Freq	Cov	Q	Di
0° V	2054Hz	80°	3,19	5,03dB
15° V	2054Hz	80°	3,18	5,02dB
30° V	2054Hz	82°	3,17	5,01dB
45° V	2054Hz	86°	3,11	4,93dB
60° V	2054Hz	90°	3,06	4,85dB
75° V	2054Hz	92°	3,01	4,79dB
90° V	2054Hz	94°	3,00	4,77dB



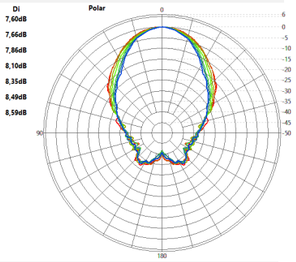
Ang	Freq	Cov	Q	Di
0° V	4120Hz	98°	3,10	4,92dB
15° V	4120Hz	96°	3,15	4,99dB
30° V	4120Hz	94°	3,24	5,10dB
45° V	4120Hz	90°	3,30	5,19dB
60° V	4120Hz	86°	3,36	5,26dB
75° V	4120Hz	80°	3,42	5,34dB
90° V	4120Hz	78°	3,43	5,36dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	84°	3,74	5,73dB
15° V	8248Hz	86°	3,64	5,61dB
30° V	8248Hz	86°	3,61	5,58dB
45° V	8248Hz	82°	3,62	5,59dB
60° V	8248Hz	80°	3,67	5,65dB
75° V	8248Hz	76°	3,62	5,58dB
90° V	8248Hz	76°	3,62	5,58dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	48°	5,76	7,60dB
15° V	18527Hz	50°	5,84	7,66dB
30° V	18527Hz	48°	6,11	7,86dB
45° V	18527Hz	44°	6,45	8,10dB
60° V	18527Hz	42°	6,83	8,35dB
75° V	18527Hz	40°	7,06	8,49dB
90° V	18527Hz	38°	7,23	8,59dB



Polar Vertical Comparative