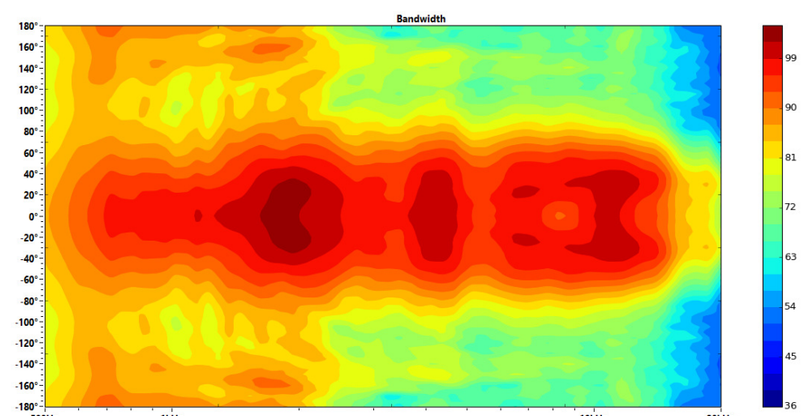
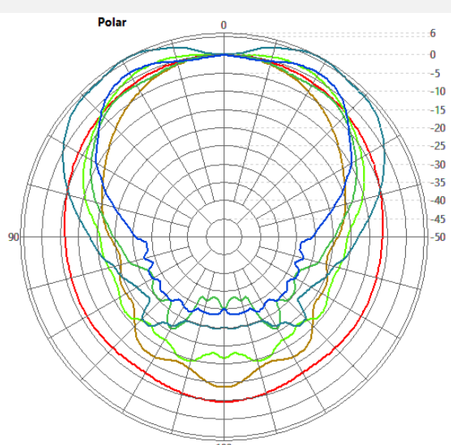


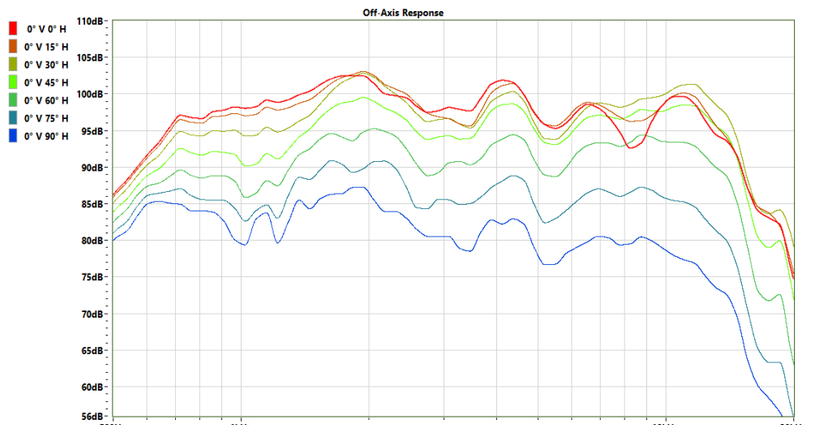


Nota de Aplicação AN-0009.
Analise de resposta fora do eixo, Driver Oversound DTi-4630, com corneta Ludovico LC-010.
https://www.ludovico.com.br/265/cornetas/corneta-lc-010-jbl-2370-43-cm-x-16-cm
http://oversound.com.br/novo/index.php?route=product/product&product_id=91
Condições:
Ruído Rosa, 2.83V rms, 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.
30/10/2020.

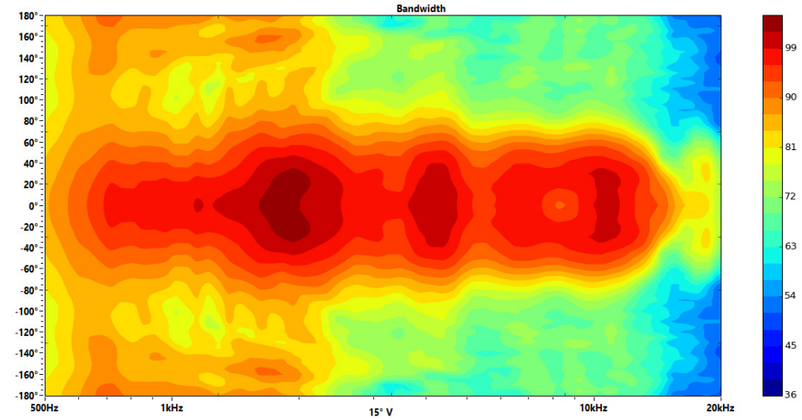


Ang	Freq	Cov	Q	Di
0° V	507Hz	166°	1,61	2,07dB
0° V	1023Hz	78°	2,99	4,76dB
0° V	2054Hz	118°	2,29	3,61dB
0° V	4120Hz	108°	3,10	4,91dB
0° V	8248Hz	150°	1,52	1,81dB
0° V	18527Hz	104°	2,86	4,57dB

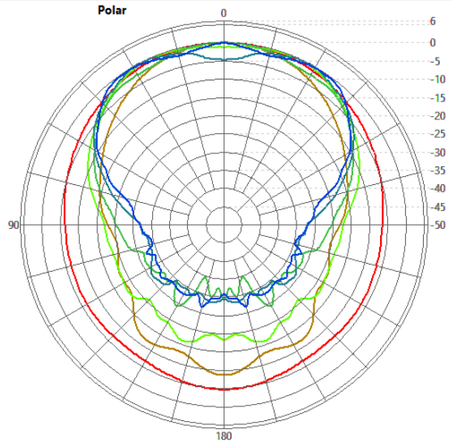


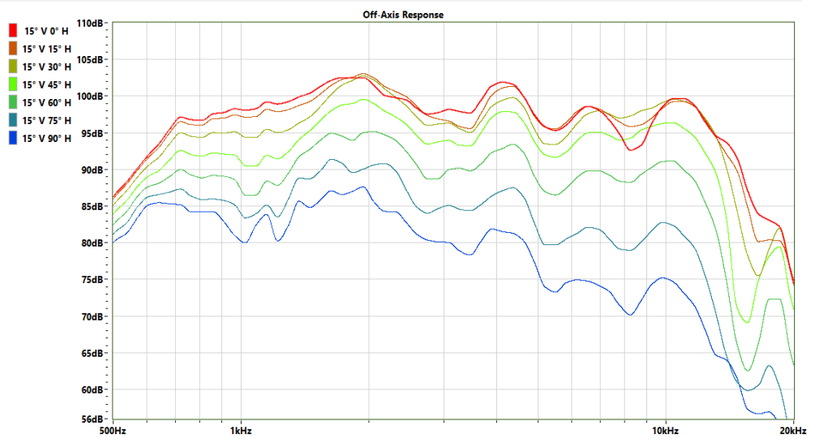


0° Vertical

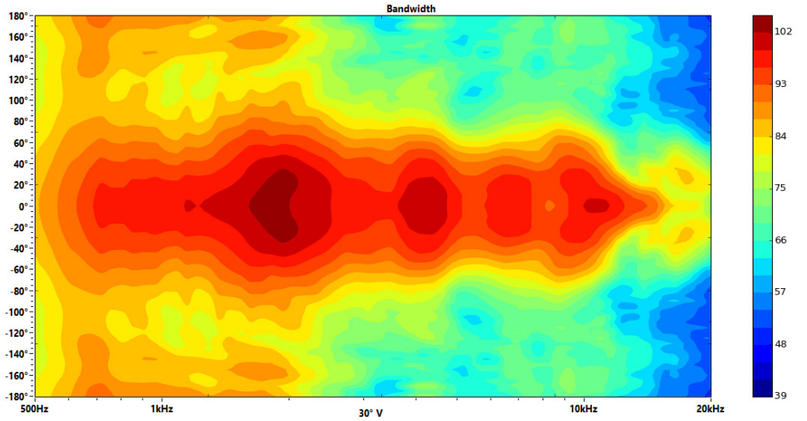


Ang	Freq	Cov	Q	Di
15° V	507Hz	168°	1,61	2,08dB
15° V	1023Hz	78°	2,92	4,66dB
15° V	2054Hz	118°	2,33	3,68dB
15° V	4120Hz	102°	3,28	5,16dB
15° V	8248Hz	126°	1,98	2,96dB
15° V	18527Hz	104°	3,28	5,16dB

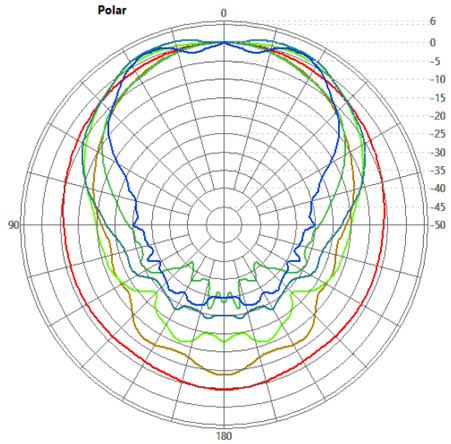


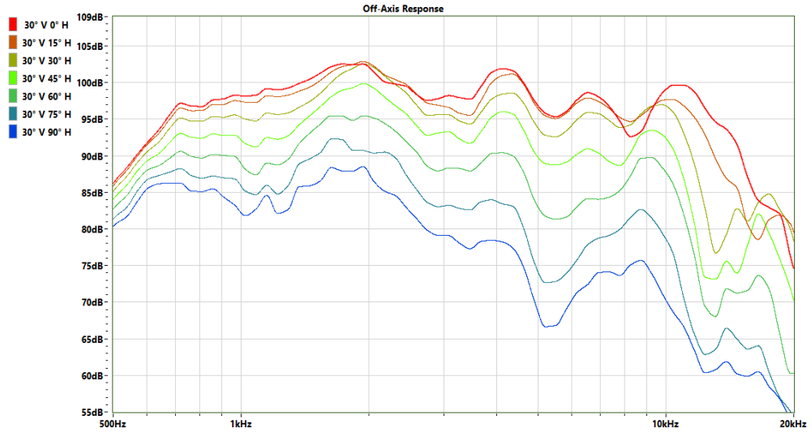


15° Vertical

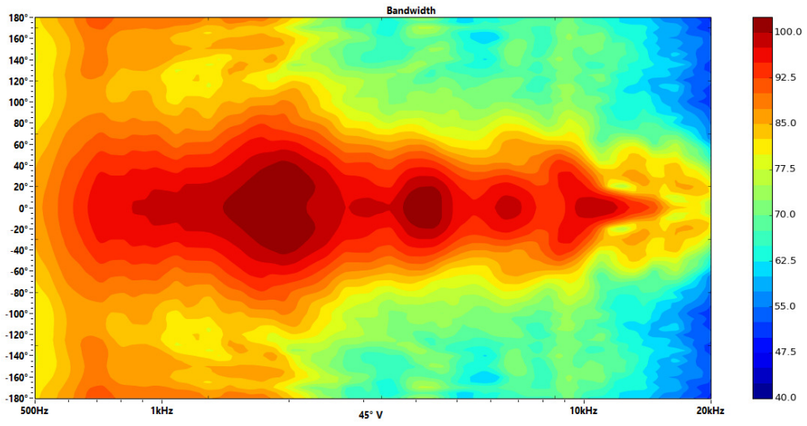


Ang	Freq	Cov	Q	Di
30° V	507Hz	320°	1,59	2,01dB
30° V	1023Hz	86°	2,73	4,37dB
30° V	2054Hz	118°	2,37	3,75dB
30° V	4120Hz	90°	3,74	5,73dB
30° V	8248Hz	124°	2,40	3,81dB
30° V	18527Hz	90°	3,46	5,40dB

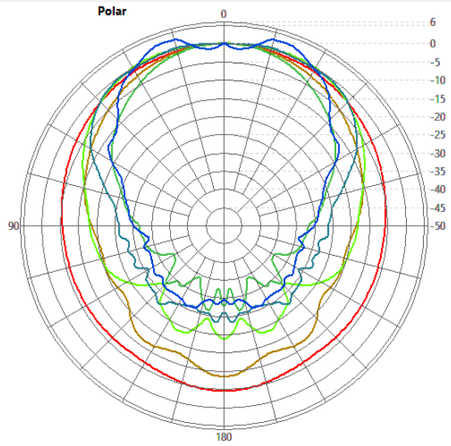


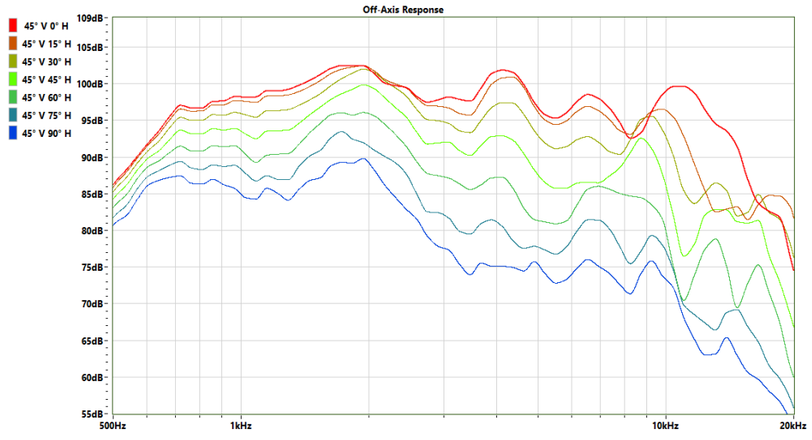


30° Vertical

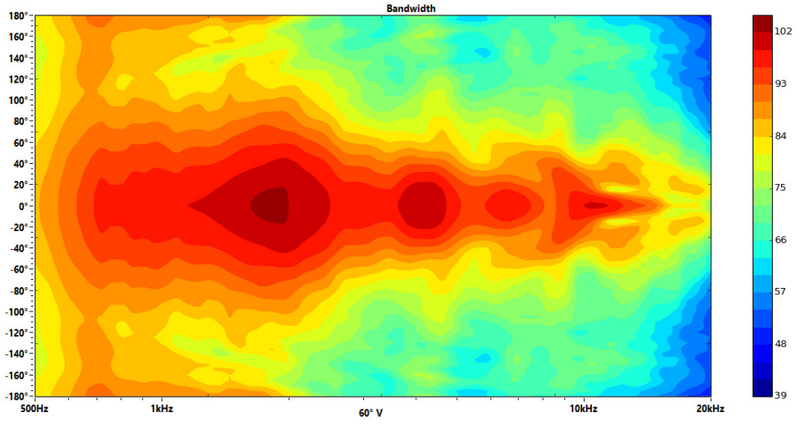


Ang	Freq	Cov	Q	Di
45° V	507Hz	318°	1,56	1,93dB
45° V	1023Hz	100°	2,46	3,91dB
45° V	2054Hz	122°	2,42	3,84dB
45° V	4120Hz	70°	4,24	6,27dB
45° V	8248Hz	112°	2,80	4,47dB
45° V	18527Hz	82°	3,27	5,15dB

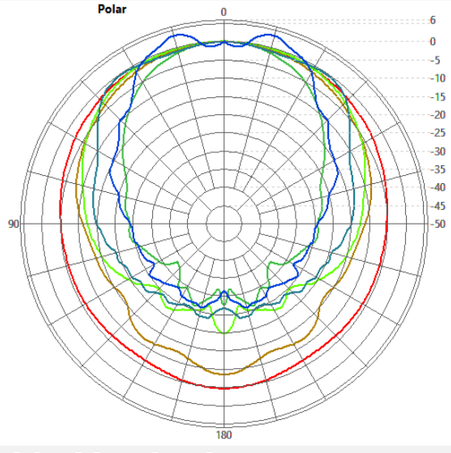


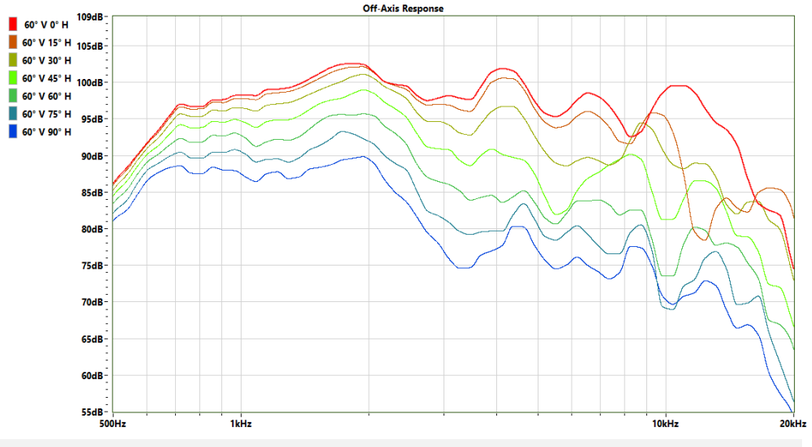


45° Vertical

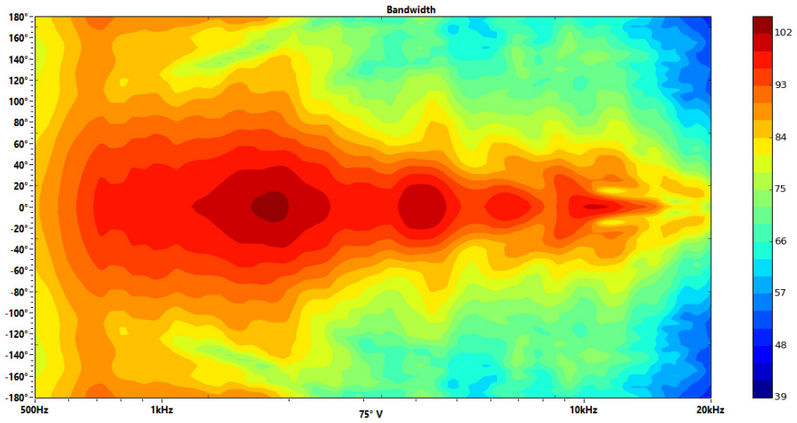


Ang	Freq	Cov	Q	Di
60° V	507Hz	238°	1,53	1,85dB
60° V	1023Hz	122°	2,24	3,49dB
60° V	2054Hz	120°	2,57	4,10dB
60° V	4120Hz	64°	4,57	6,59dB
60° V	8248Hz	104°	2,84	4,53dB
60° V	18527Hz	70°	3,47	5,41dB

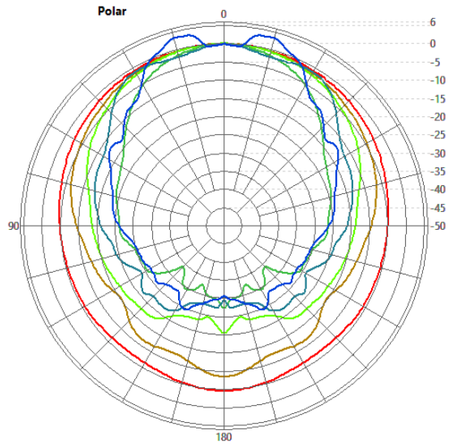


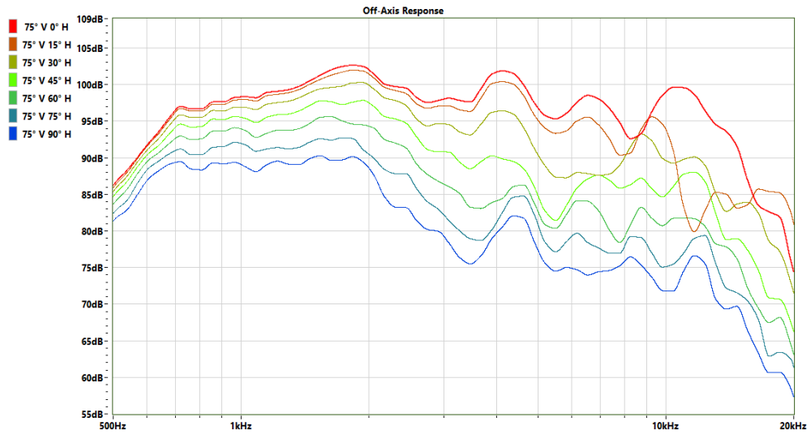


60° Vertical

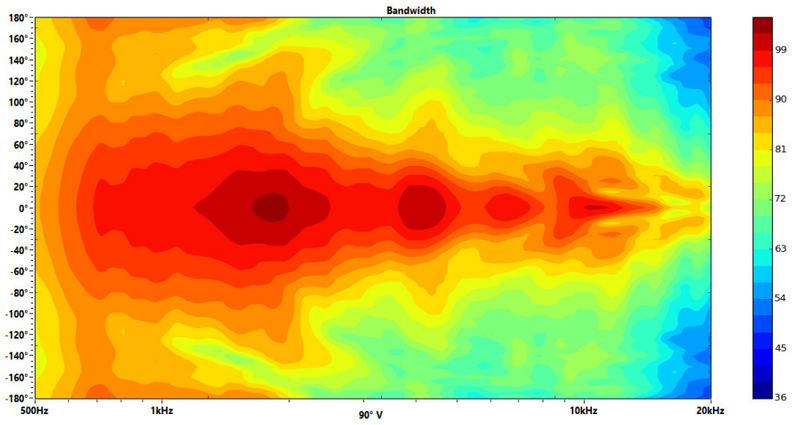


Ang	Freq	Cov	Q	Di
75° V	507Hz	252°	1,50	1,77dB
75° V	1023Hz	142°	2,09	3,19dB
75° V	2054Hz	106°	2,75	4,39dB
75° V	4120Hz	64°	4,51	6,54dB
75° V	8248Hz	88°	3,28	5,16dB
75° V	18527Hz	64°	3,52	5,47dB

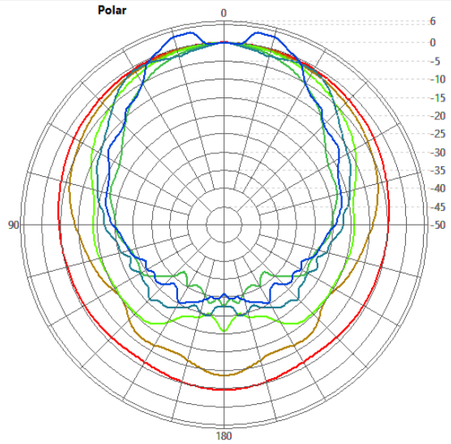


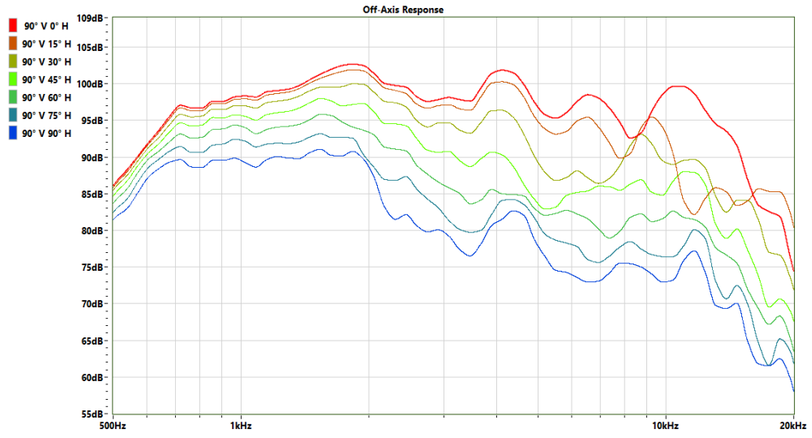


75° Vertical

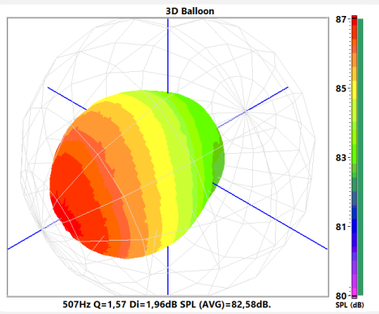


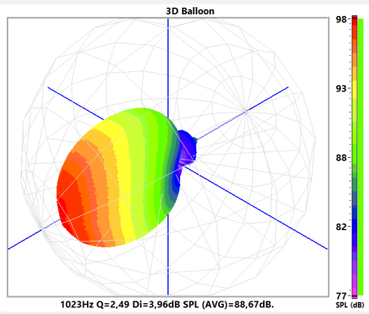
Ang	Freq	Cov	Q	Di
90° V	507Hz	256°	1,48	1,71dB
90° V	1023Hz	148°	2,05	3,12dB
90° V	2054Hz	98°	2,82	4,51dB
90° V	4120Hz	64°	4,38	6,42dB
90° V	8248Hz	88°	3,28	5,16dB
90° V	18527Hz	62°	3,41	5,33dB

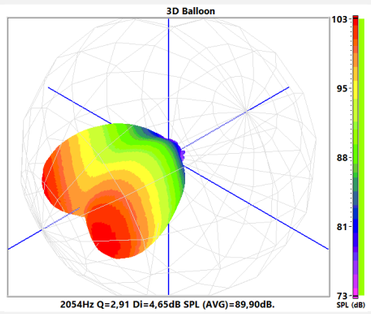


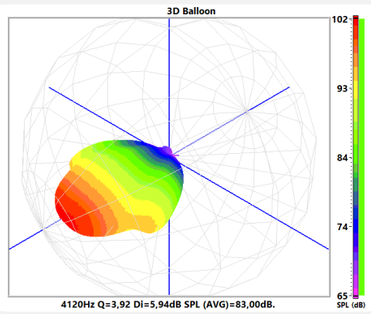


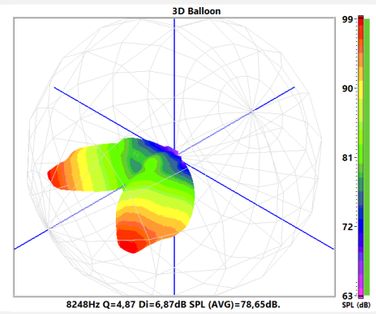
90° Vertical

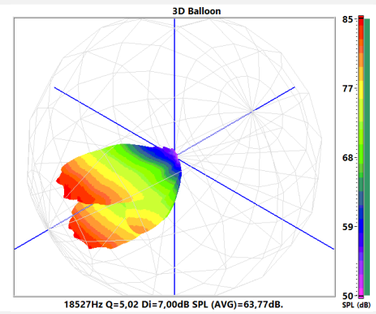






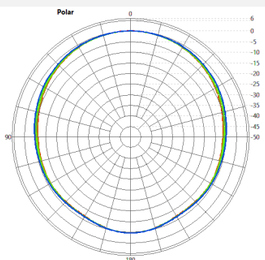




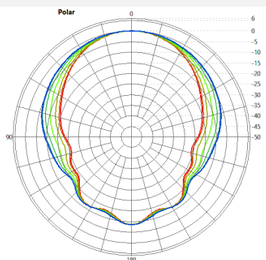


3D Balloon

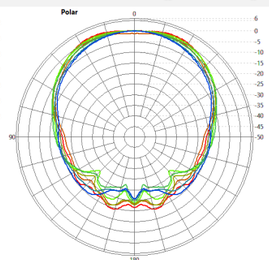
Ang	Freq	Cov	Q	Di
0° V	507Hz	166°	1,61	2,07dB
15° V	507Hz	168°	1,61	2,08dB
30° V	507Hz	320°	1,59	2,01dB
45° V	507Hz	318°	1,56	1,93dB
60° V	507Hz	238°	1,53	1,85dB
75° V	507Hz	252°	1,50	1,77dB
90° V	507Hz	256°	1,48	1,71dB



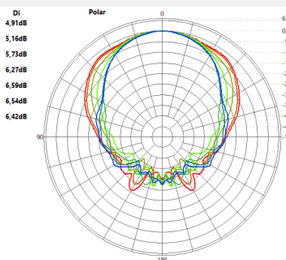
Ang	Freq	Cov	Q	Di
0° V	1023Hz	78°	2,99	4,76dB
15° V	1023Hz	78°	2,92	4,66dB
30° V	1023Hz	86°	2,73	4,37dB
45° V	1023Hz	100°	2,46	3,91dB
60° V	1023Hz	122°	2,24	3,49dB
75° V	1023Hz	142°	2,09	3,19dB
90° V	1023Hz	148°	2,05	3,12dB



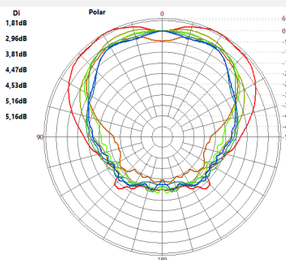
Ang	Freq	Cov	Q	Di
0° V	2054Hz	118°	2,29	3,61dB
15° V	2054Hz	118°	2,33	3,68dB
30° V	2054Hz	118°	2,37	3,75dB
45° V	2054Hz	122°	2,42	3,84dB
60° V	2054Hz	120°	2,57	4,10dB
75° V	2054Hz	106°	2,75	4,39dB
90° V	2054Hz	98°	2,82	4,51dB



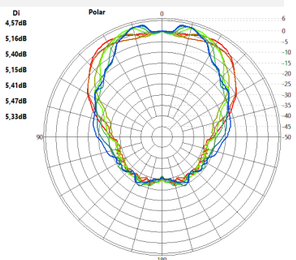
Ang	Freq	Cov	Q	Di
0° V	4120Hz	108°	3,10	4,91dB
15° V	4120Hz	102°	3,28	5,16dB
30° V	4120Hz	90°	3,74	5,73dB
45° V	4120Hz	70°	4,24	6,27dB
60° V	4120Hz	64°	4,57	6,59dB
75° V	4120Hz	64°	4,51	6,54dB
90° V	4120Hz	64°	4,38	6,42dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	150°	1,52	1,81dB
15° V	8248Hz	126°	1,98	2,96dB
30° V	8248Hz	124°	2,40	3,81dB
45° V	8248Hz	112°	2,80	4,47dB
60° V	8248Hz	104°	2,84	4,53dB
75° V	8248Hz	88°	3,28	5,16dB
90° V	8248Hz	88°	3,28	5,16dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	104°	2,86	4,57dB
15° V	18527Hz	104°	3,28	5,16dB
30° V	18527Hz	90°	3,46	5,40dB
45° V	18527Hz	82°	3,27	5,15dB
60° V	18527Hz	70°	3,47	5,41dB
75° V	18527Hz	64°	3,52	5,47dB
90° V	18527Hz	62°	3,41	5,33dB



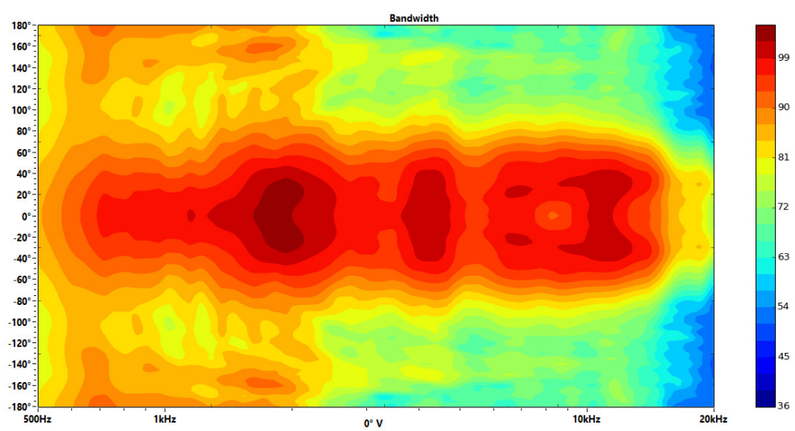
Polar Comparativa Vertical







Application Note AN-0009.
Off-axis response analysis, Driver Oversound DTi-4630, with Ludovico LC-010 horn.
https://www.ludovico.com.br/265/cornetas/corneta-lc-010-jbl-2370-43-cm-x-16-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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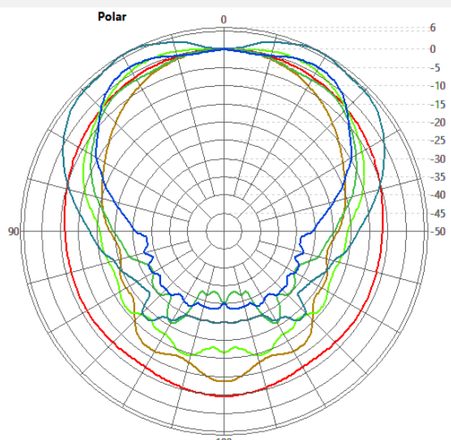
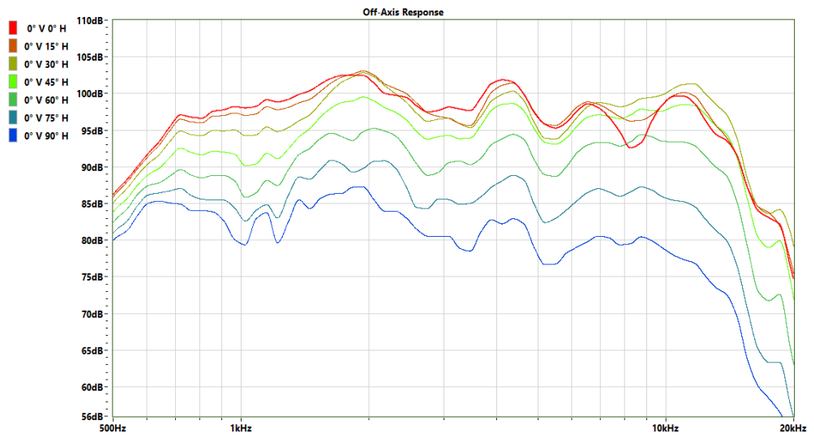
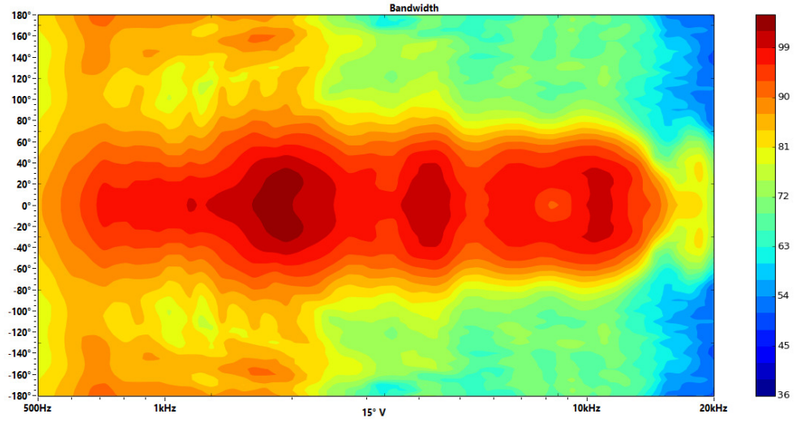




0° Vertical



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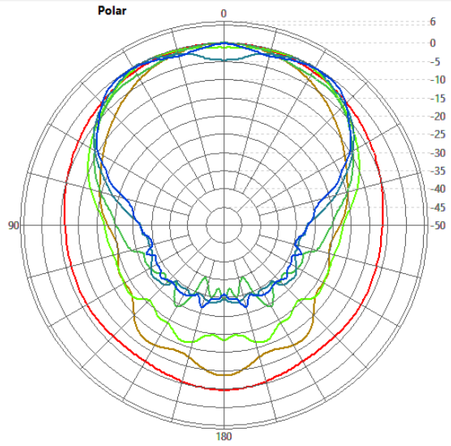
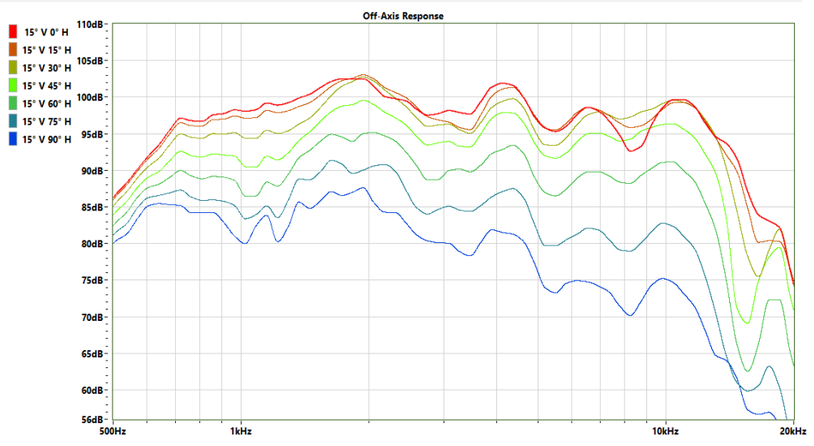
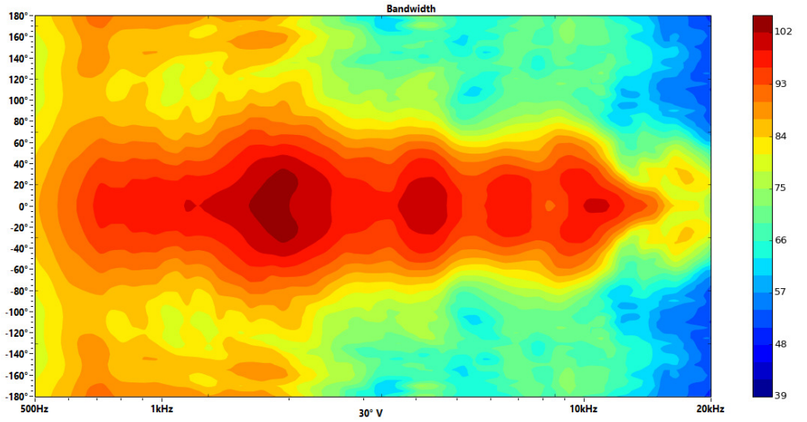




15° Vertical



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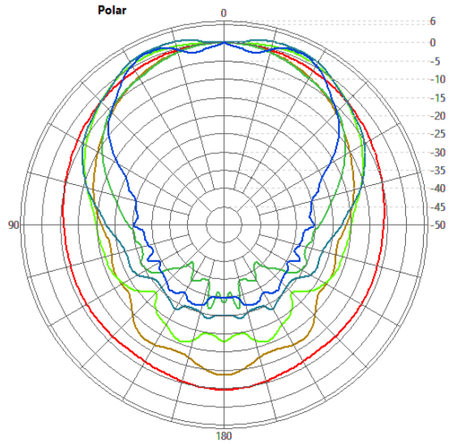
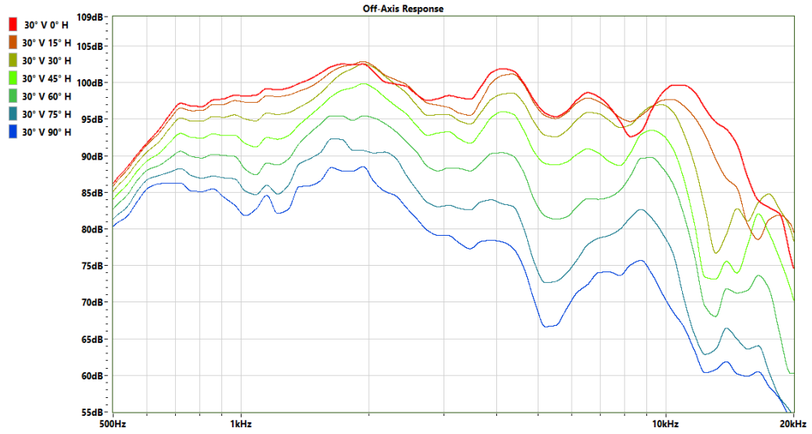
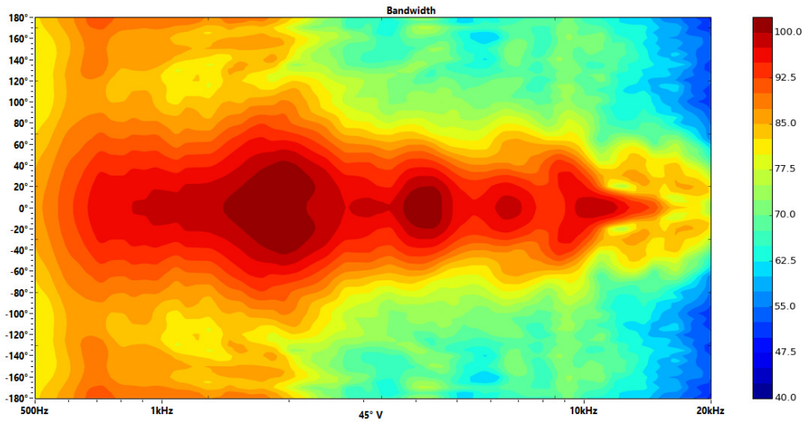
30° V	8248Hz	124°	2,40	3,81dB
30° V	18527Hz	90°	3,46	5,40dB

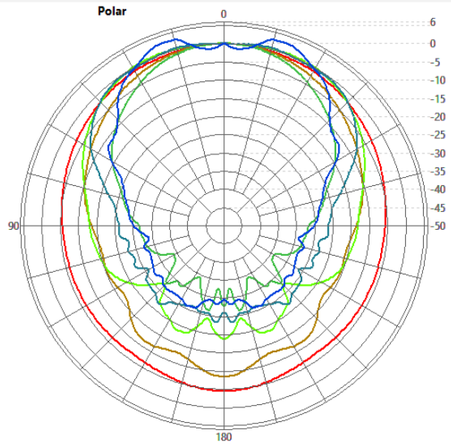


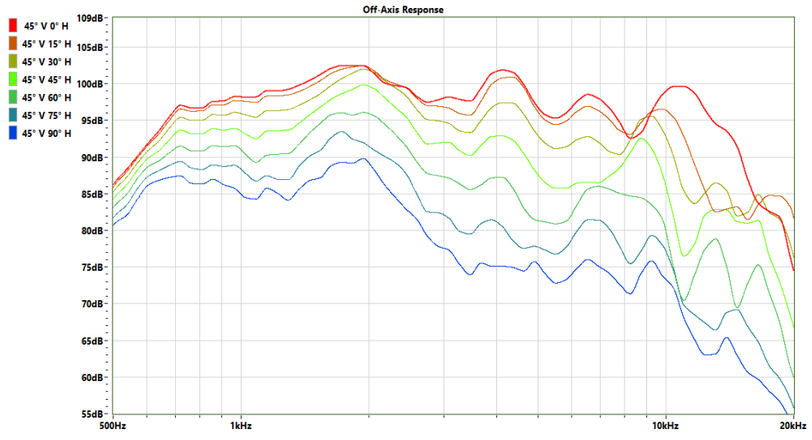


30° Vertical

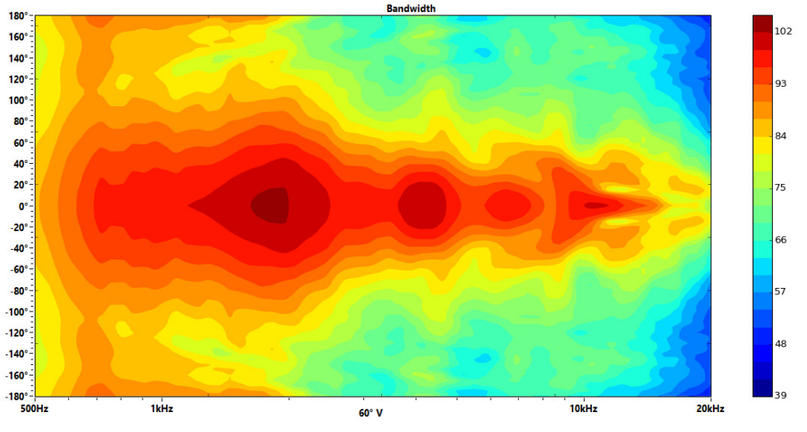


Ang	Freq	Cov	Q	Di
45° V	507Hz	318°	1,56	1,93dB
45° V	1023Hz	100°	2,46	3,91dB
45° V	2054Hz	122°	2,42	3,84dB
45° V	4120Hz	70°	4,24	6,27dB
45° V	8248Hz	112°	2,80	4,47dB
45° V	18527Hz	82°	3,27	5,15dB

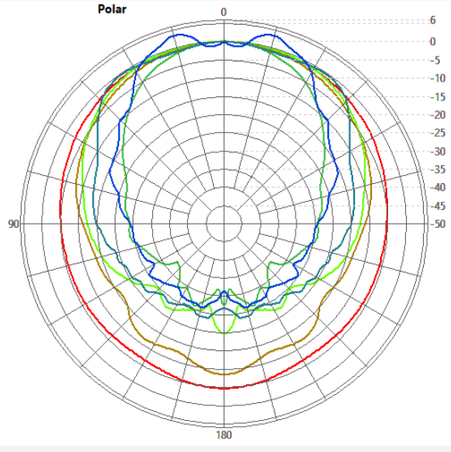


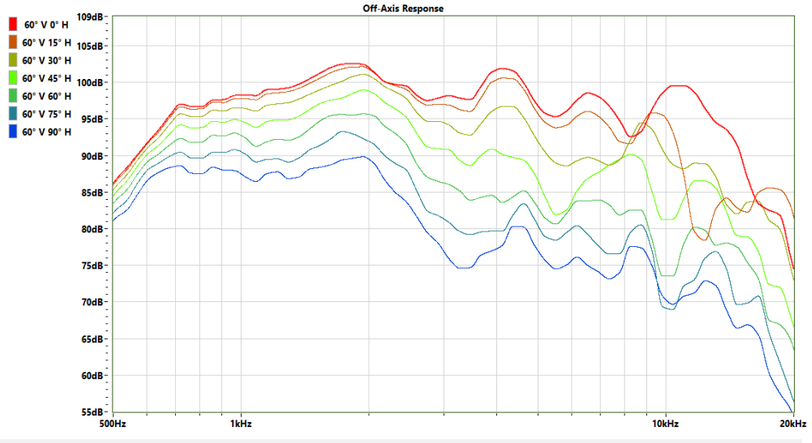


45° Vertical

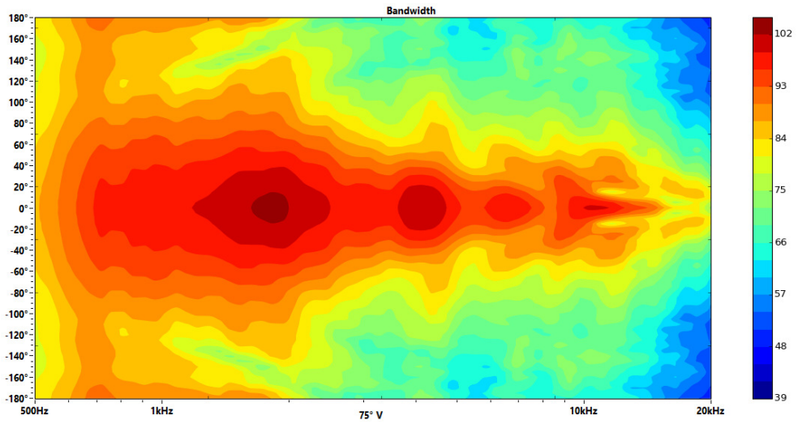


Ang	Freq	Cov	Q	Di
60° V	507Hz	238°	1,53	1,85dB
60° V	1023Hz	122°	2,24	3,49dB
60° V	2054Hz	120°	2,57	4,10dB
60° V	4120Hz	64°	4,57	6,59dB
60° V	8248Hz	104°	2,84	4,53dB
60° V	18527Hz	70°	3,47	5,41dB

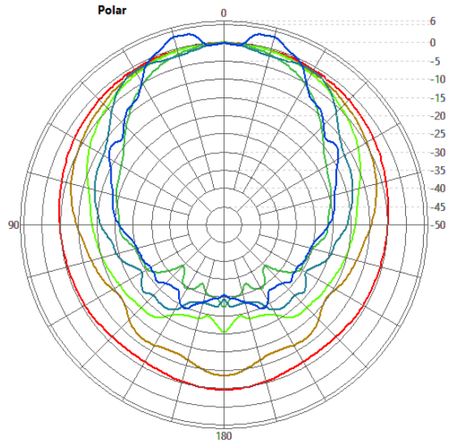


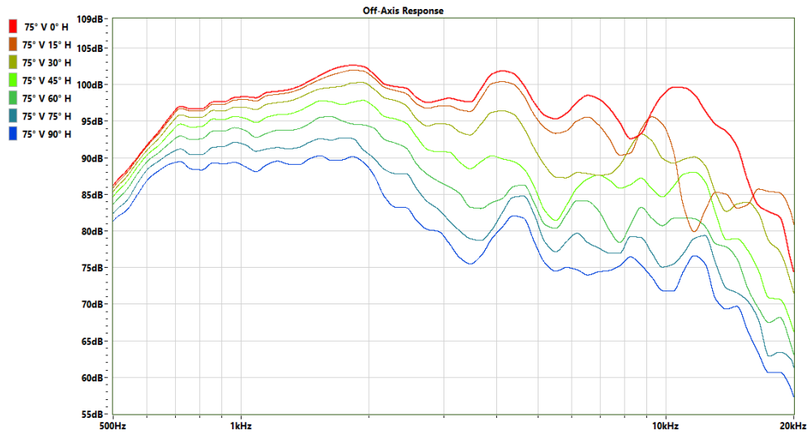


60° Vertical

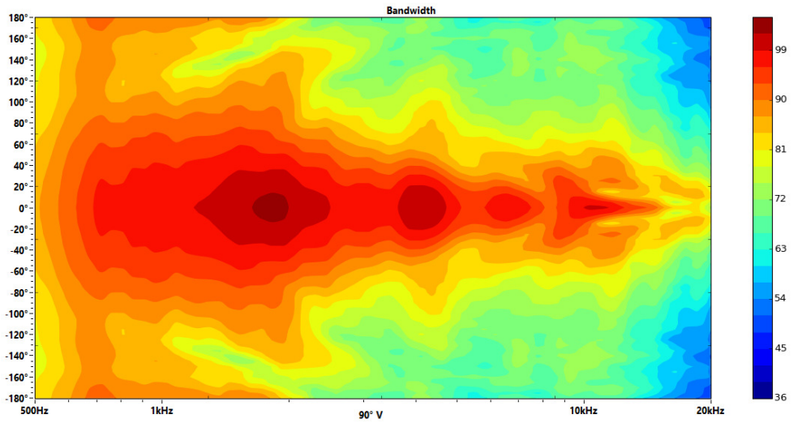


Ang	Freq	Cov	Q	Di
75° V	507Hz	252°	1,50	1,77dB
75° V	1023Hz	142°	2,09	3,19dB
75° V	2054Hz	106°	2,75	4,39dB
75° V	4120Hz	64°	4,51	6,54dB
75° V	8248Hz	88°	3,28	5,16dB
75° V	18527Hz	64°	3,52	5,47dB

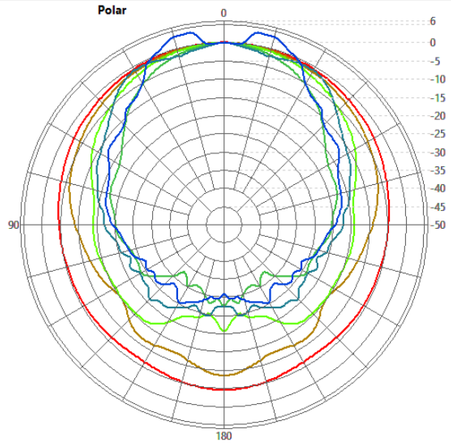


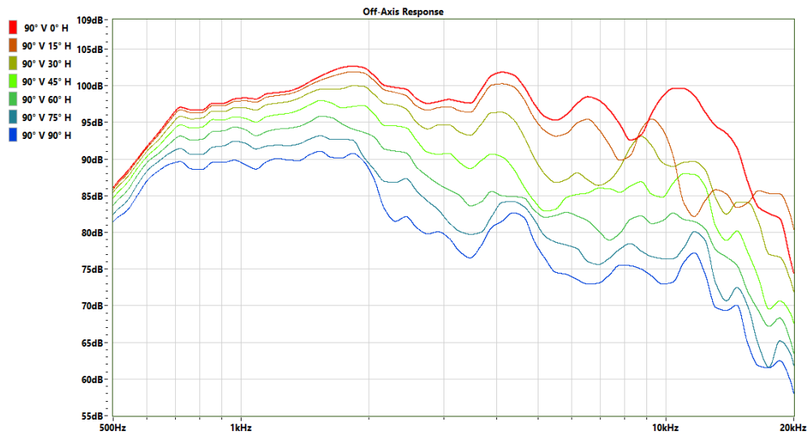


75° Vertical

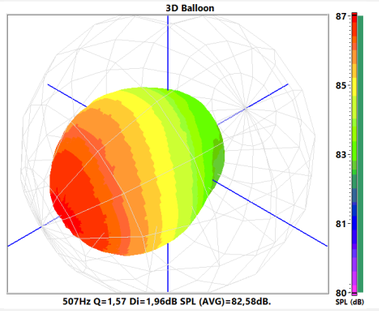


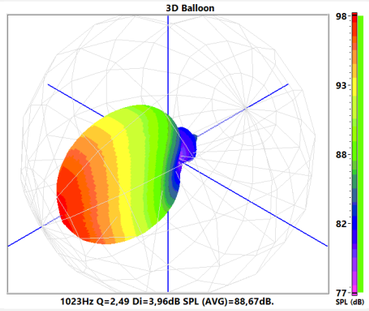
Ang	Freq	Cov	Q	Di
90° V	507Hz	256°	1,48	1,71dB
90° V	1023Hz	148°	2,05	3,12dB
90° V	2054Hz	98°	2,82	4,51dB
90° V	4120Hz	64°	4,38	6,42dB
90° V	8248Hz	88°	3,28	5,16dB
90° V	18527Hz	62°	3,41	5,33dB

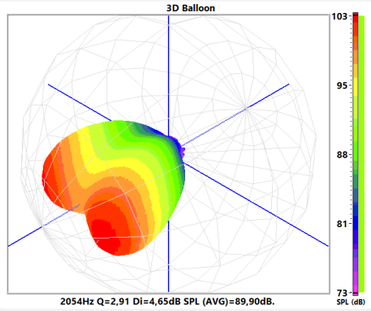


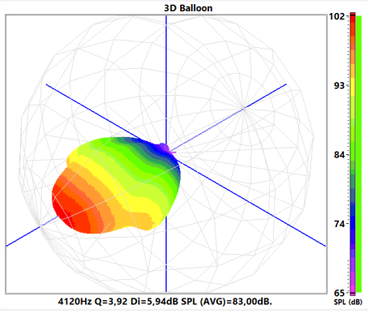


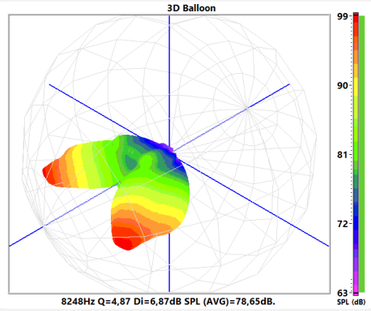
90° Vertical

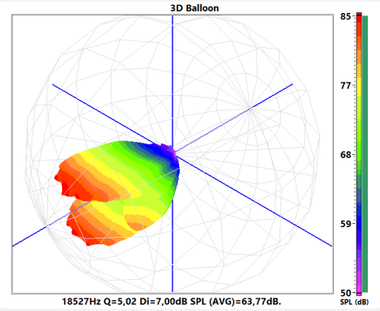






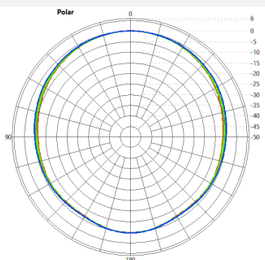




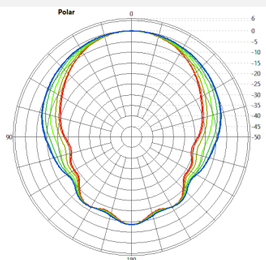


3D Balloon

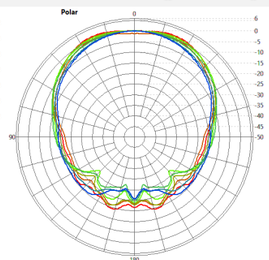
Ang	Freq	Cov	Q	Di
0° V	507Hz	166°	1,61	2,07dB
15° V	507Hz	168°	1,61	2,08dB
30° V	507Hz	320°	1,59	2,01dB
45° V	507Hz	318°	1,56	1,93dB
60° V	507Hz	238°	1,53	1,85dB
75° V	507Hz	252°	1,50	1,77dB
90° V	507Hz	256°	1,48	1,71dB



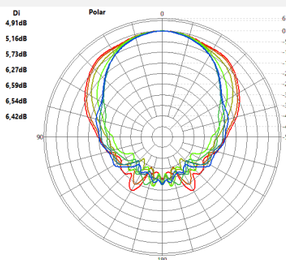
Ang	Freq	Cov	Q	Di
0° V	1023Hz	78°	2,99	4,76dB
15° V	1023Hz	78°	2,92	4,66dB
30° V	1023Hz	86°	2,73	4,37dB
45° V	1023Hz	100°	2,46	3,91dB
60° V	1023Hz	122°	2,24	3,49dB
75° V	1023Hz	142°	2,09	3,19dB
90° V	1023Hz	148°	2,05	3,12dB



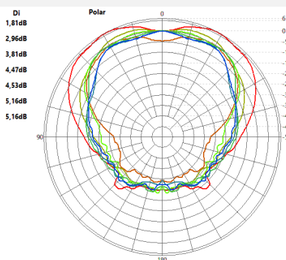
Ang	Freq	Cov	Q	Di
0° V	2054Hz	118°	2,29	3,61dB
15° V	2054Hz	118°	2,33	3,68dB
30° V	2054Hz	118°	2,37	3,75dB
45° V	2054Hz	122°	2,42	3,84dB
60° V	2054Hz	120°	2,57	4,10dB
75° V	2054Hz	106°	2,75	4,39dB
90° V	2054Hz	98°	2,82	4,51dB



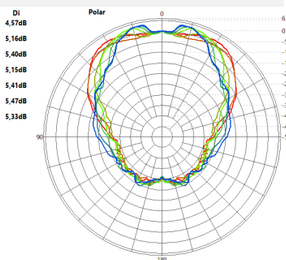
Ang	Freq	Cov	Q	Di
0° V	4120Hz	108°	3,10	4,91dB
15° V	4120Hz	102°	3,28	5,16dB
30° V	4120Hz	90°	3,74	5,73dB
45° V	4120Hz	70°	4,24	6,27dB
60° V	4120Hz	64°	4,57	6,59dB
75° V	4120Hz	64°	4,51	6,54dB
90° V	4120Hz	64°	4,38	6,42dB



Ang	Freq	Cov	Q	Di
0° V	8248Hz	150°	1,52	1,81dB
15° V	8248Hz	126°	1,98	2,96dB
30° V	8248Hz	124°	2,40	3,81dB
45° V	8248Hz	112°	2,80	4,47dB
60° V	8248Hz	104°	2,84	4,53dB
75° V	8248Hz	88°	3,28	5,16dB
90° V	8248Hz	88°	3,28	5,16dB



Ang	Freq	Cov	Q	Di
0° V	18527Hz	104°	2,86	4,57dB
15° V	18527Hz	104°	3,28	5,16dB
30° V	18527Hz	90°	3,46	5,40dB
45° V	18527Hz	82°	3,27	5,15dB
60° V	18527Hz	70°	3,47	5,41dB
75° V	18527Hz	64°	3,52	5,47dB
90° V	18527Hz	62°	3,41	5,33dB



Polar Vertical Comparative