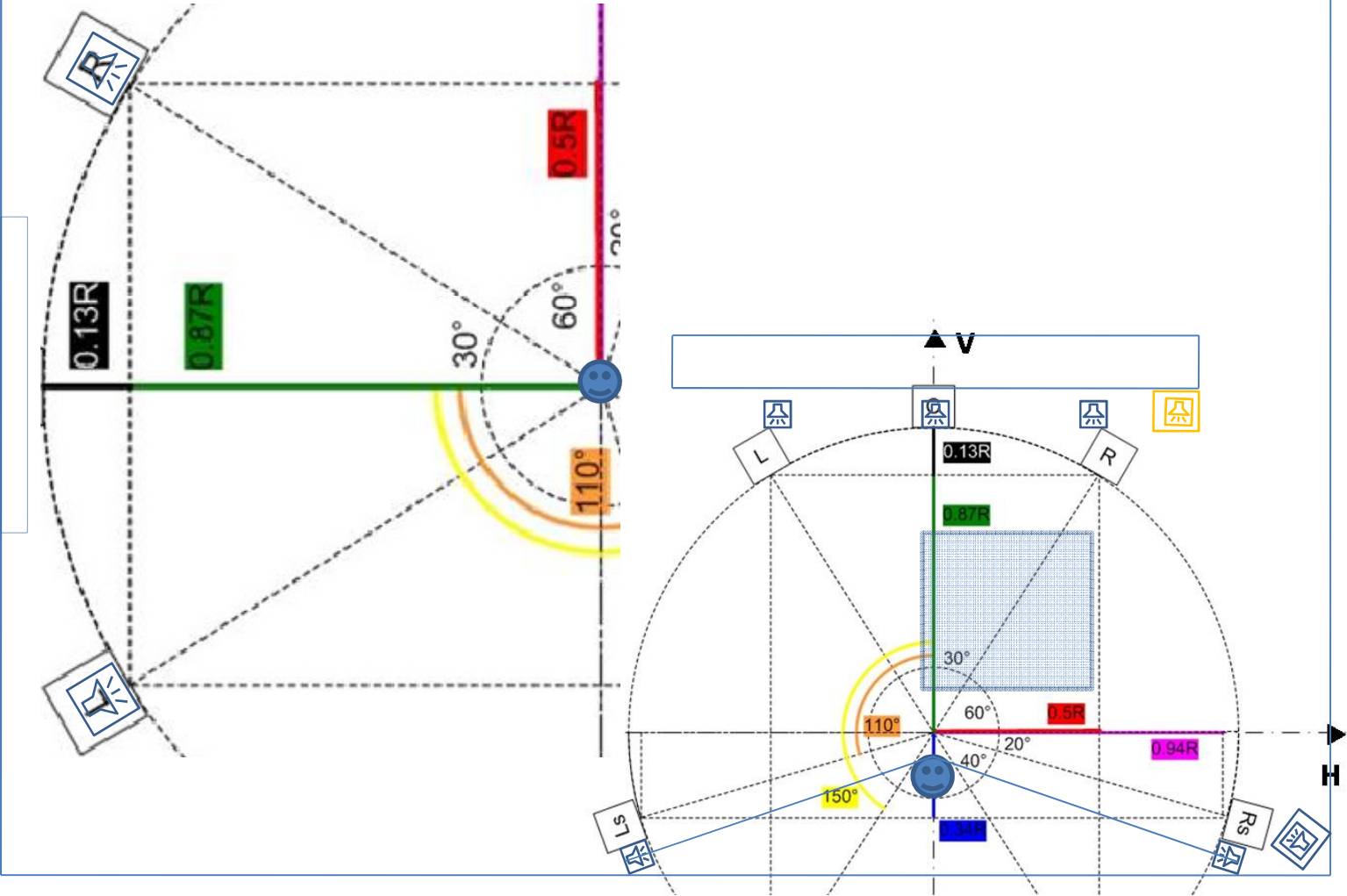
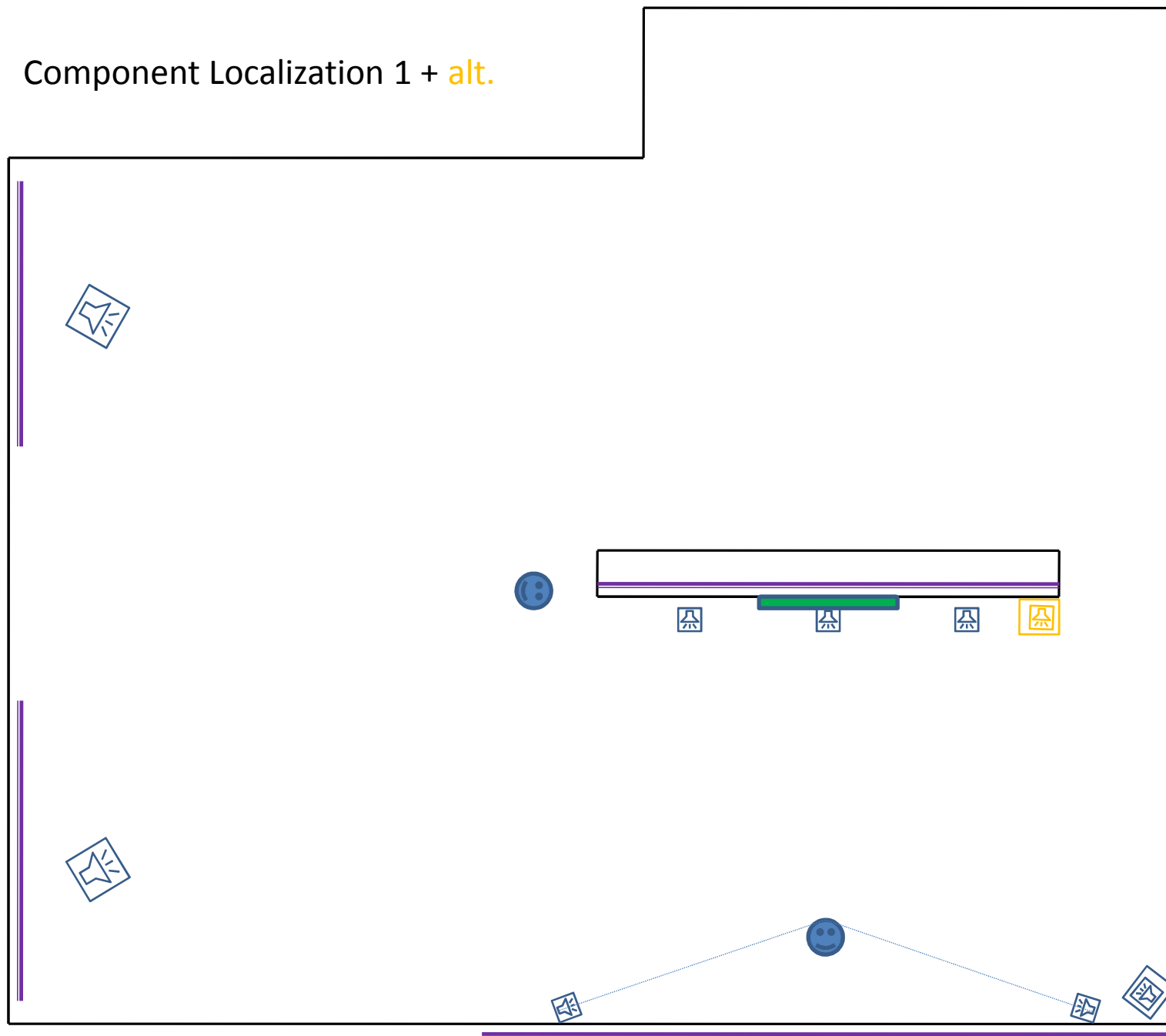


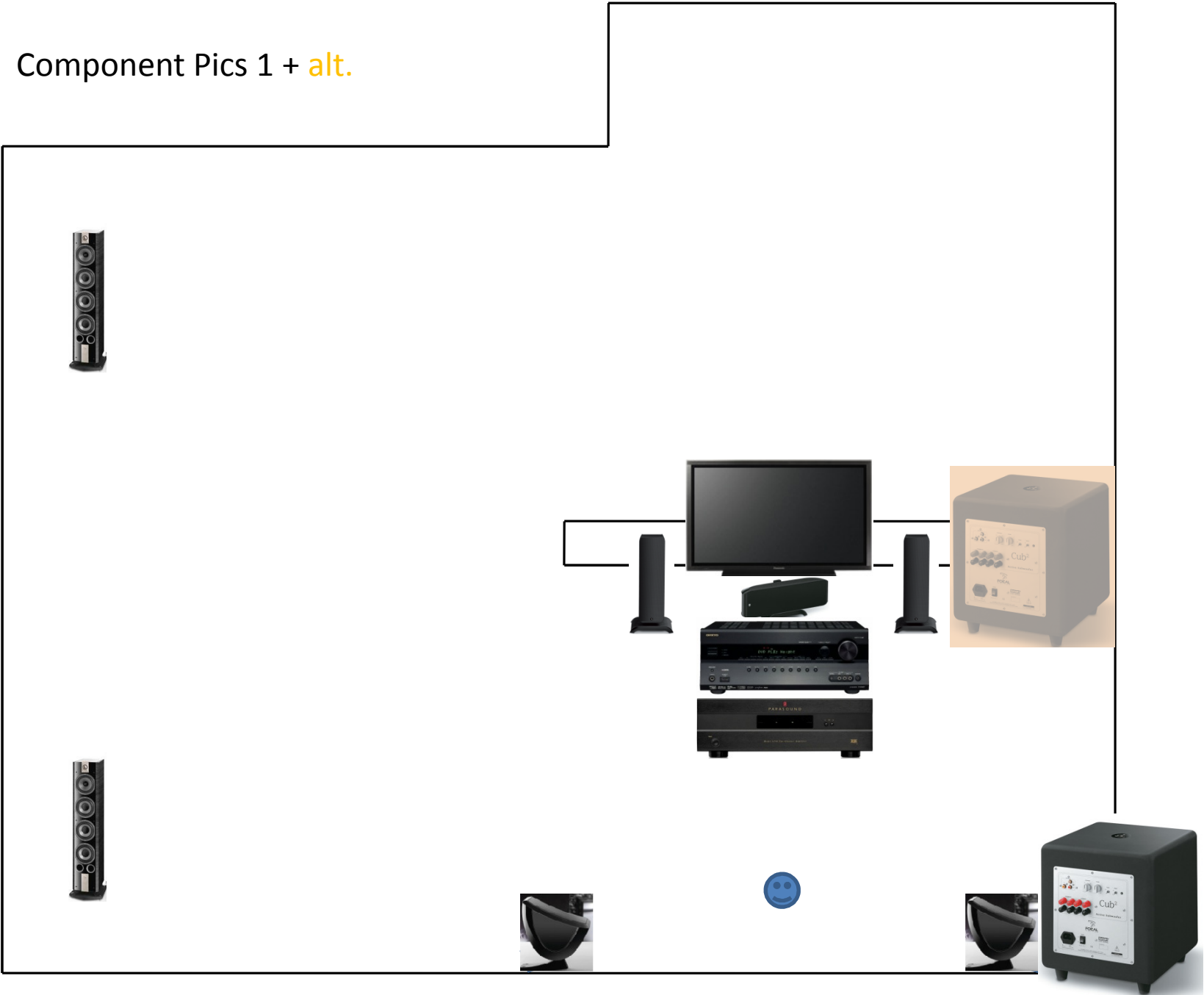
Acoustics 1 + alt.



Component Localization 1 + alt.

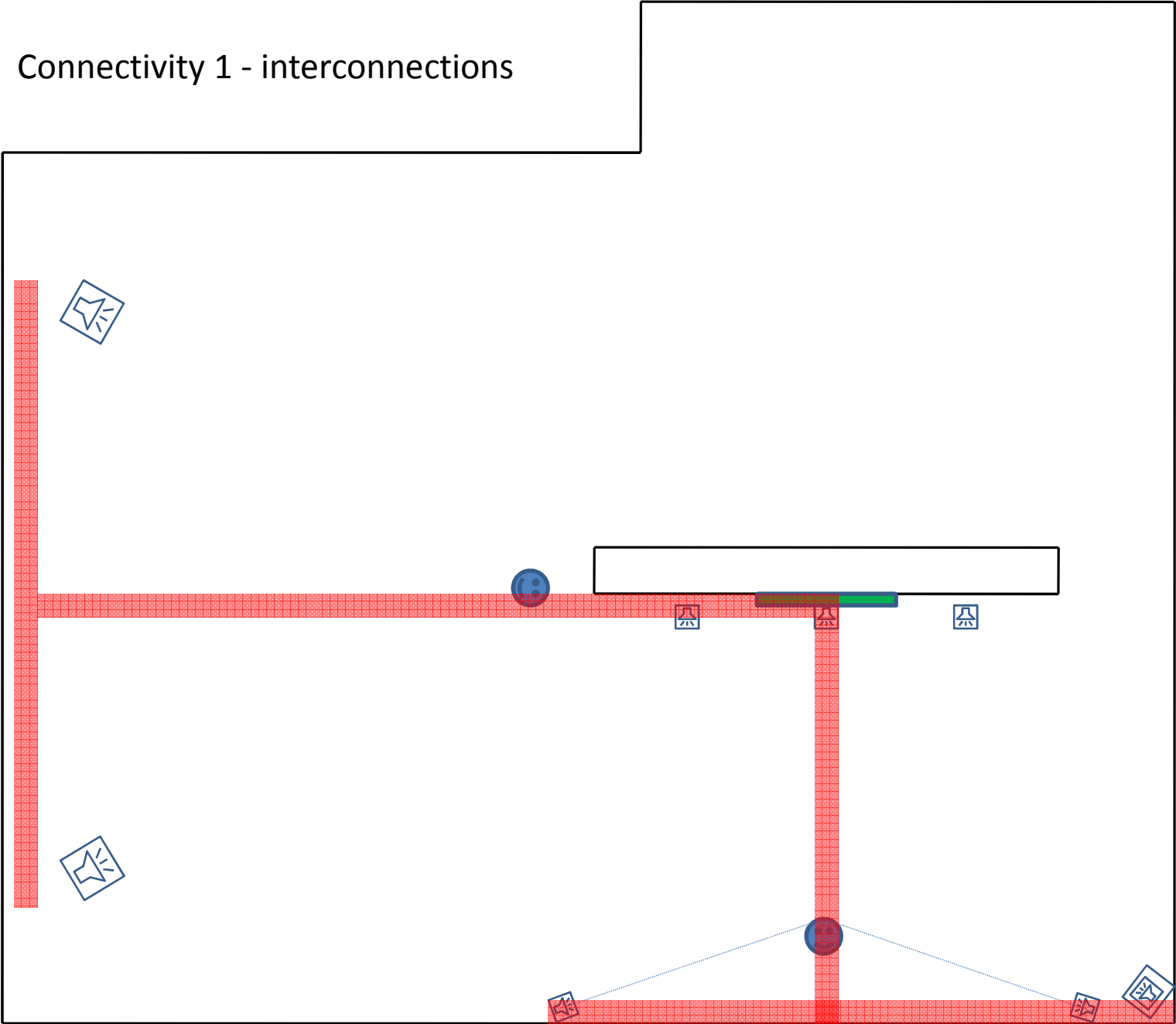


Component Pics 1 + alt.

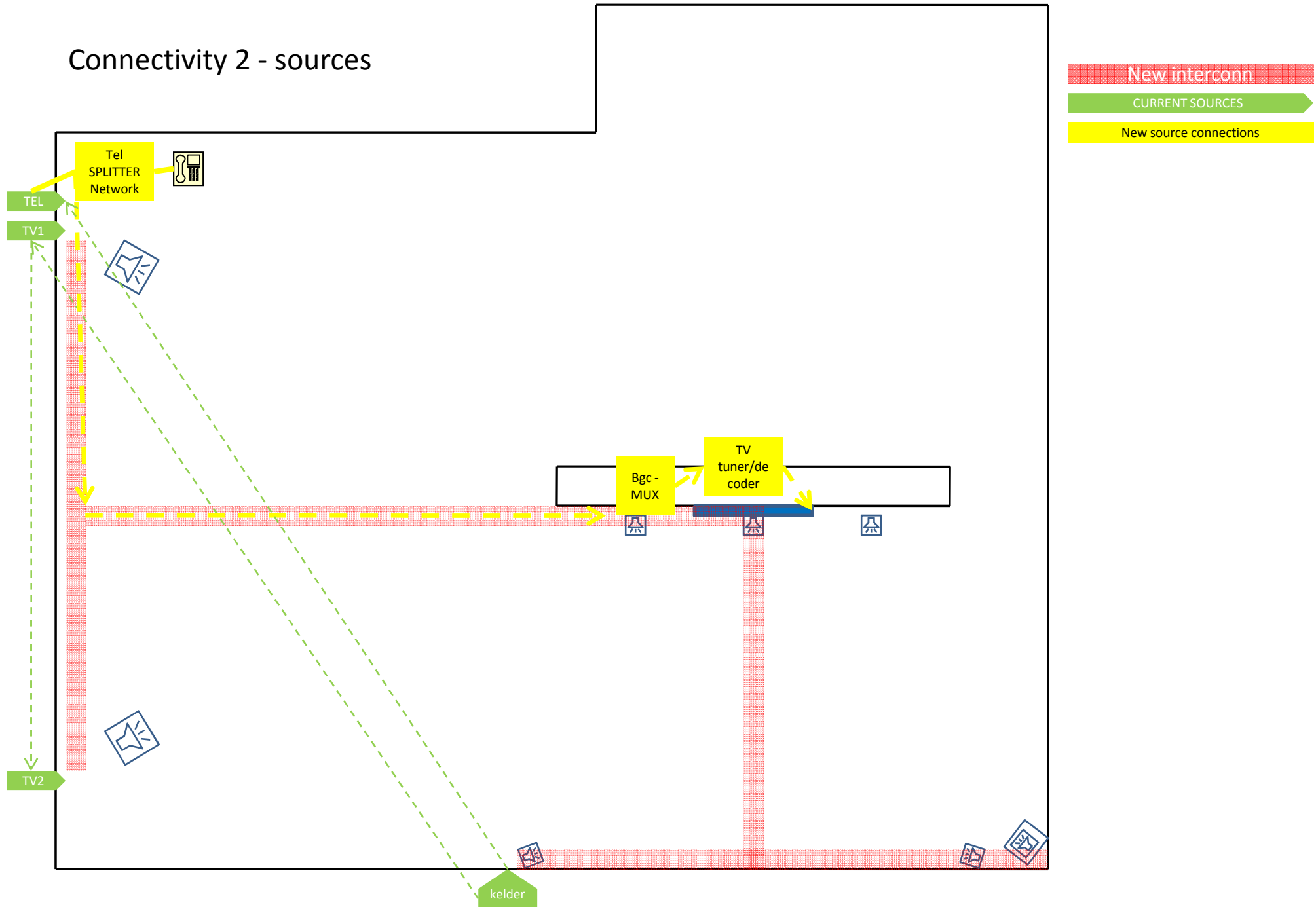


Connectivity 1 - interconnections

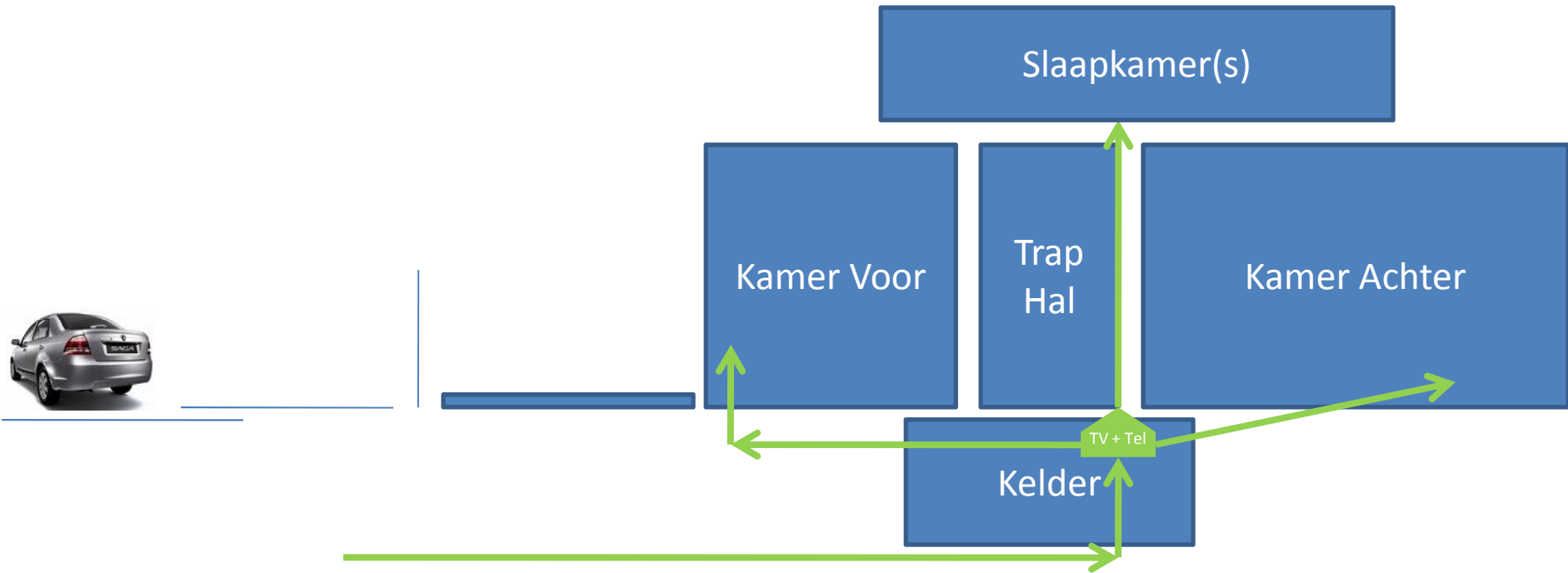
New interconn



Connectivity 2 - sources



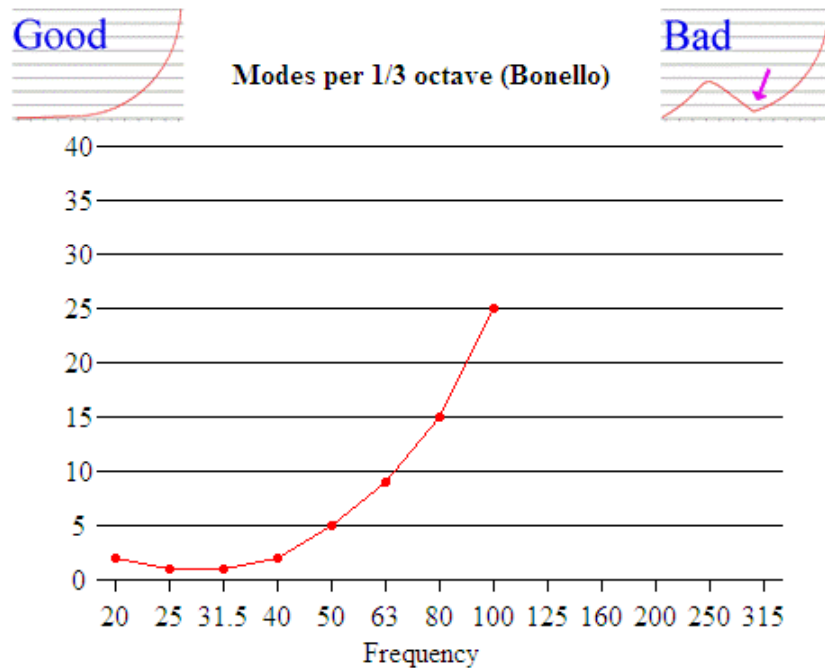
Connectivity 3 – vertical view



Large room Stereo Acoustic Calculations.

Room Modes calculator

Room Length: 10 (feet or meters) (inches)
 Room Width: 8 (feet or meters) (inches)
 Room Height: 3 (feet or meters) (inches)



Freq	%	Wavelength, 1/2, 1/4	p,q,r Mode	Group Weighting
17.2 hz		65'8", 32'10", 16'5"	(1,0,0 Axial)	Start iso, End iso
21.5 hz	20%	52'7", 26'3", 13'2"	(0,1,0 Axial)	Start iso, End iso
27.6 hz	22.1%	40'11", 20'6", 10'3"	(1,1,0 Tangential)	Start iso, End iso
34.4 hz	19.7%	32'10", 16'5", 8'3"	(2,0,0 Axial)	Start iso, End iso
40.6 hz	15.2%	27'10", 13'11", 6'11"	(2,1,0 Tangential)	Start iso
43.1 hz	5.8%	26'3", 13'1", 6'7"	(0,2,0 Axial)	
46.4 hz	7.1%	24'4", 12'2", 6'1"	(1,2,0 Tangential)	End iso
51.7 hz	10.2%	21'10", 10'11", 5'6"	(3,0,0 Axial)	Start iso
55.1 hz	6.1%	20'6", 10'3", 5'2"	(2,2,0 Tangential)	
56.0 hz	1.6%	20'2", 10'1", 5'1"	(3,1,0 Tangential)	
57.4 hz	2.4%	19'8", 9'10", 4'11"	(0,0,1 Axial)	
59.9 hz	4.1%	18'10", 9'5", 4'9"	(1,0,1 Tangential)	
61.3 hz	2.2%	18'5", 9'3", 4'7"	(0,1,1 Tangential)	
63.7 hz	3.7%	17'9", 8'10", 4'5"	(1,1,1 Oblique)	
64.6 hz	1.3%	17'6", 8'9", 4'4"	(0,3,0 Axial)	
66.8 hz	3.2%	16'11", 8'5", 4'3"	(1,3,0 Tangential)	
66.9 hz	0.1%	16'11", 8'5", 4'3"	(2,0,1 Tangential)	
67.3 hz	0.5%	16'9", 8'5", 4'2"	(3,2,0 Tangential)	
68.9 hz	2.3%	16'5", 8'2", 4'1"	(4,0,0 Axial)	
70.3 hz	1.9%	16'1", 8'0", 4'0"	(2,1,1 Oblique)	
71.8 hz	2%	15'9", 7'10", 3'11"	(0,2,1 Tangential)	
72.2 hz	0.5%	15'8", 7'10", 3'11"	(4,1,0 Tangential)	
73.2 hz	1.3%	15'5", 7'9", 3'10"	(2,3,0 Tangential)	
73.8 hz	0.8%	15'4", 7'8", 3'10"	(1,2,1 Oblique)	
77.2 hz	4.4%	14'8", 7'4", 3'8"	(3,0,1 Tangential)	
79.6 hz	3%	14'2", 7'1", 3'7"	(2,2,1 Oblique)	
80.2 hz	0.7%	14'1", 7'1", 3'6"	(3,1,1 Oblique)	
81.2 hz	1.2%	13'11", 6'11", 3'6"	(4,2,0 Tangential)	
82.7 hz	1.8%	13'8", 6'10", 3'5"	(3,3,0 Tangential)	
86.1 hz	3.9%	13'1", 6'7", 3'3"	(0,4,0 Axial)	
86.1 hz	0%	13'1", 6'7", 3'3"	(5,0,0 Axial)	
86.4 hz	0.3%	13'1", 6'6", 3'3"	(0,3,1 Tangential)	
87.8 hz	1.5%	12'10", 6'5", 3'3"	(1,4,0 Tangential)	
88.1 hz	0.3%	12'10", 6'5", 3'2"	(1,3,1 Oblique)	
88.4 hz	0.3%	12'9", 6'5", 3'2"	(3,2,1 Oblique)	
88.8 hz	0.4%	12'9", 6'4", 3'2"	(5,1,0 Tangential)	
89.7 hz	1%	12'7", 6'4", 3'2"	(4,0,1 Tangential)	
92.2 hz	2.7%	12'3", 6'2", 3'1"	(4,1,1 Oblique)	
92.7 hz	0.5%	12'2", 6'1", 3'1"	(2,4,0 Tangential)	
93.0 hz	0.3%	12'2", 6'1", 3'0"	(2,3,1 Oblique)	
94.4 hz	1.4%	11'12", 5'12", 2'12"	(4,3,0 Tangential)	
96.3 hz	1.9%	11'9", 5'10", 2'11"	(5,2,0 Tangential)	
99.5 hz	3.2%	11'4", 5'8", 2'10"	(4,2,1 Oblique)	
00.4 hz	0.8%	11'3", 5'8", 2'10"	(3,4,0 Tangential)	
00.7 hz	0.2%	11'3", 5'7", 2'10"	(3,3,1 Oblique)	
03.3 hz	2.5%	10'11", 5'6", 2'9"	(6,0,0 Axial)	
03.5 hz	0.1%	10'11", 5'6", 2'9"	(0,4,1 Tangential)	
03.5 hz	0%	10'11", 5'6", 2'9"	(5,0,1 Tangential)	
04.9 hz	1.3%	10'9", 5'5", 2'8"	(1,4,1 Oblique)	
05.5 hz	0.5%	10'9", 5'4", 2'8"	(6,1,0 Tangential)	
05.7 hz	0.1%	10'8", 5'4", 2'8"	(5,1,1 Oblique)	
07.6 hz	1.7%	10'6", 5'3", 2'8"	(0,5,0 Axial)	
07.6 hz	0%	10'6", 5'3", 2'8"	(5,3,0 Tangential)	
09.0 hz	1.2%	10'4", 5'2", 2'7"	(1,5,0 Tangential)	
09.1 hz	0%	10'4", 5'2", 2'7"	(2,4,1 Oblique)	
10.3 hz	1%	10'3", 5'1", 2'7"	(4,4,0 Tangential)	
10.5 hz	0.1%	10'3", 5'1", 2'7"	(4,3,1 Oblique)	
11.9 hz	1.2%	10'1", 5'1", 2'6"	(6,2,0 Tangential)	
12.1 hz	0.1%	10'1", 5'0", 2'6"	(5,2,1 Oblique)	
13.0 hz	0.7%	10'0", 5'0", 2'6"	(2,5,0 Tangential)	

Group Warning Colours/Weightings

negative
 0 to 1
 1 to 2
 2 to 3
 above 3

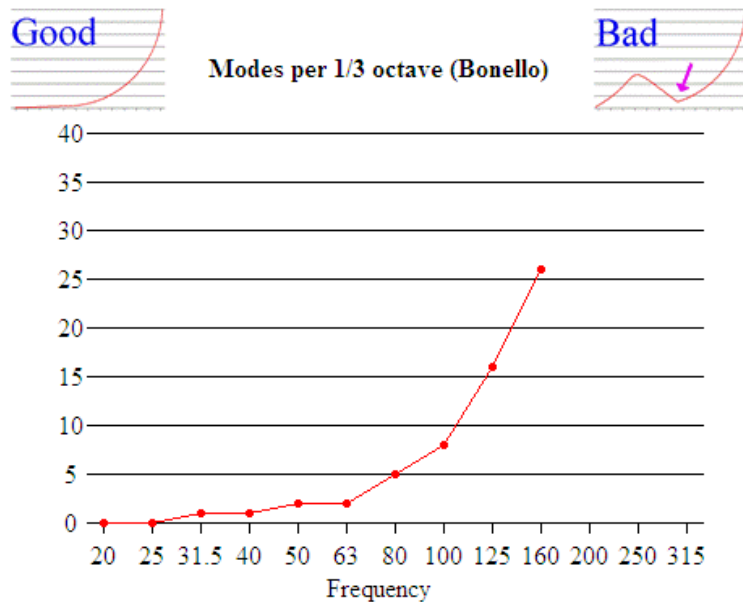
Small room Surround Acoustic Calculations.

Room Modes calculator

Room Length: 4 (feet or meters) (inches)

Room Width: 5.5 (feet or meters) (inches)

Room Height: 3 (feet or meters) (inches)



Freq	%	Wavelength, 1/2, 1/4	p,q,r Mode	Group Weighting
31.3 Hz		36'1", 18'1", 9'0"	(0,1,0 Axial)	Start iso, End iso
43.1 Hz	27.3%	26'3", 13'1", 6'7"	(1,0,0 Axial)	Start iso, End iso
53.2 Hz	18.9%	21'3", 10'7", 5'4"	(1,1,0 Tangential)	Start iso
57.4 Hz	7.3%	19'8", 9'10", 4'11"	(0,0,1 Axial)	
62.6 Hz	8.3%	18'1", 9'0", 4'6"	(0,2,0 Axial)	
65.4 Hz	4.2%	17'3", 8'8", 4'4"	(0,1,1 Tangential)	
71.8 Hz	8.9%	15'9", 7'10", 3'11"	(1,0,1 Tangential)	
76.0 Hz	5.5%	14'10", 7'5", 3'9"	(1,2,0 Tangential)	
78.3 Hz	2.9%	14'5", 7'3", 3'7"	(1,1,1 Oblique)	
85.0 Hz	7.8%	13'4", 6'8", 3'4"	(0,2,1 Tangential)	
86.1 Hz	1.2%	13'1", 6'7", 3'3"	(2,0,0 Axial)	
91.6 Hz	6%	12'4", 6'2", 3'1"	(2,1,0 Tangential)	
93.9 Hz	2.4%	12'0", 6'0", 3'0"	(0,3,0 Axial)	
95.2 Hz	1.3%	11'10", 5'11", 2'12"	(1,2,1 Oblique)	
103.3 Hz	7.8%	10'11", 5'6", 2'9"	(1,3,0 Tangential)	
103.5 Hz	0.1%	10'11", 5'6", 2'9"	(2,0,1 Tangential)	
106.5 Hz	2.8%	10'7", 5'4", 2'8"	(2,2,0 Tangential)	
108.1 Hz	1.4%	10'5", 5'3", 2'7"	(2,1,1 Oblique)	
110.1 Hz	1.8%	10'3", 5'2", 2'7"	(0,3,1 Tangential)	
114.8 Hz	4%	9'10", 4'11", 2'6"	(0,0,2 Axial)	
118.2 Hz	2.8%	9'7", 4'9", 2'5"	(1,3,1 Oblique)	
119.0 Hz	0.6%	9'6", 4'9", 2'4"	(0,1,2 Tangential)	
121.0 Hz	1.6%	9'4", 4'8", 2'4"	(2,2,1 Oblique)	
122.6 Hz	1.3%	9'3", 4'7", 2'4"	(1,0,2 Tangential)	
125.2 Hz	2%	9'0", 4'6", 2'3"	(0,4,0 Axial)	
126.5 Hz	1%	8'11", 4'6", 2'3"	(1,1,2 Oblique)	
127.4 Hz	0.7%	8'10", 4'5", 2'3"	(2,3,0 Tangential)	
129.2 Hz	1.3%	8'9", 4'4", 2'2"	(3,0,0 Axial)	
130.8 Hz	1.2%	8'8", 4'4", 2'2"	(0,2,2 Tangential)	
132.4 Hz	1.2%	8'6", 4'3", 2'2"	(1,4,0 Tangential)	
132.9 Hz	0.3%	8'6", 4'3", 2'2"	(3,1,0 Tangential)	
137.7 Hz	3.4%	8'2", 4'1", 2'1"	(1,2,2 Oblique)	
137.8 Hz	0%	8'2", 4'1", 2'1"	(0,4,1 Tangential)	
139.8 Hz	1.4%	8'1", 4'0", 2'0"	(2,3,1 Oblique)	
141.3 Hz	1%	7'12", 3'12", 1'12"	(3,0,1 Tangential)	
143.5 Hz	1.5%	7'10", 3'11", 1'12"	(2,0,2 Tangential)	
143.5 Hz	0%	7'10", 3'11", 1'12"	(3,2,0 Tangential)	
144.3 Hz	0.5%	7'10", 3'11", 1'11"	(1,4,1 Oblique)	
144.8 Hz	0.3%	7'10", 3'11", 1'11"	(3,1,1 Oblique)	
146.9 Hz	1.4%	7'8", 3'10", 1'11"	(2,1,2 Oblique)	
148.3 Hz	0.9%	7'7", 3'10", 1'11"	(0,3,2 Tangential)	
152.0 Hz	2.4%	7'5", 3'9", 1'10"	(2,4,0 Tangential)	
154.5 Hz	1.6%	7'4", 3'8", 1'10"	(1,3,2 Oblique)	
154.6 Hz	0%	7'4", 3'8", 1'10"	(3,2,1 Oblique)	
156.6 Hz	1.2%	7'3", 3'7", 1'10"	(0,5,0 Axial)	
156.6 Hz	0%	7'3", 3'7", 1'10"	(2,2,2 Oblique)	
159.7 Hz	1.9%	7'1", 3'6", 1'9"	(3,3,0 Tangential)	
162.4 Hz	1.6%	6'11", 3'6", 1'9"	(1,5,0 Tangential)	
162.5 Hz	0%	6'11", 3'6", 1'9"	(2,4,1 Oblique)	
166.7 Hz	2.5%	6'9", 3'5", 1'8"	(0,5,1 Tangential)	
169.7 Hz	1.7%	6'8", 3'4", 1'8"	(3,3,1 Oblique)	
169.9 Hz	0.1%	6'8", 3'4", 1'8"	(0,4,2 Tangential)	
171.5 Hz	0.9%	6'7", 3'4", 1'8"	(2,3,2 Oblique)	
172.2 Hz	0.4%	6'7", 3'3", 1'8"	(0,0,3 Axial)	
172.2 Hz	0%	6'7", 3'3", 1'8"	(1,5,1 Oblique)	
172.2 Hz	0%	6'7", 3'3", 1'8"	(4,0,0 Axial)	
172.8 Hz	0.3%	6'6", 3'3", 1'8"	(3,0,2 Tangential)	
175.0 Hz	1.2%	6'5", 3'3", 1'7"	(0,1,3 Tangential)	
175.0 Hz	0%	6'5", 3'3", 1'7"	(4,1,0 Tangential)	
175.3 Hz	0.1%	6'5", 3'3", 1'7"	(1,4,2 Oblique)	
175.6 Hz	0.1%	6'5", 3'3", 1'7"	(3,1,2 Oblique)	
177.5 Hz	1%	6'4", 3'2", 1'7"	(1,0,3 Tangential)	
178.7 Hz	0.6%	6'4", 3'2", 1'7"	(2,5,0 Tangential)	
179.9 Hz	0.6%	6'3", 3'2", 1'7"	(3,4,0 Tangential)	
180.3 Hz	0.2%	6'3", 3'2", 1'7"	(1,1,3 Oblique)	
181.5 Hz	0.6%	6'3", 3'1", 1'7"	(4,0,1 Tangential)	
183.2 Hz	0.9%	6'2", 3'1", 1'7"	(0,2,3 Tangential)	
183.2 Hz	0%	6'2", 3'1", 1'7"	(4,2,0 Tangential)	
183.8 Hz	0.3%	6'2", 3'1", 1'6"	(3,2,2 Oblique)	
184.2 Hz	0.2%	6'2", 3'1", 1'6"	(4,1,1 Oblique)	
187.7 Hz	1.8%	6'0", 3'0", 1'6"	(2,5,1 Oblique)	
187.9 Hz	0.1%	6'0", 3'0", 1'6"	(0,6,0 Axial)	
188.2 Hz	0.1%	6'0", 3'0", 1'6"	(1,2,3 Oblique)	
188.8 Hz	0.3%	5'12", 2'12", 1'6"	(3,4,1 Oblique)	
190.5 Hz	0.8%	5'11", 2'12", 1'6"	(2,4,2 Oblique)	
192.0 Hz	0.7%	5'11", 2'11", 1'6"	(4,2,1 Oblique)	
192.5 Hz	0.2%	5'10", 2'11", 1'6"	(2,0,3 Tangential)	
192.7 Hz	0.1%	5'10", 2'11", 1'6"	(1,6,0 Tangential)	

Group Warning Colours/Weightings

negative

0 to 1

1 to 2

2 to 3

above 3

