Results from test 5 & test 6

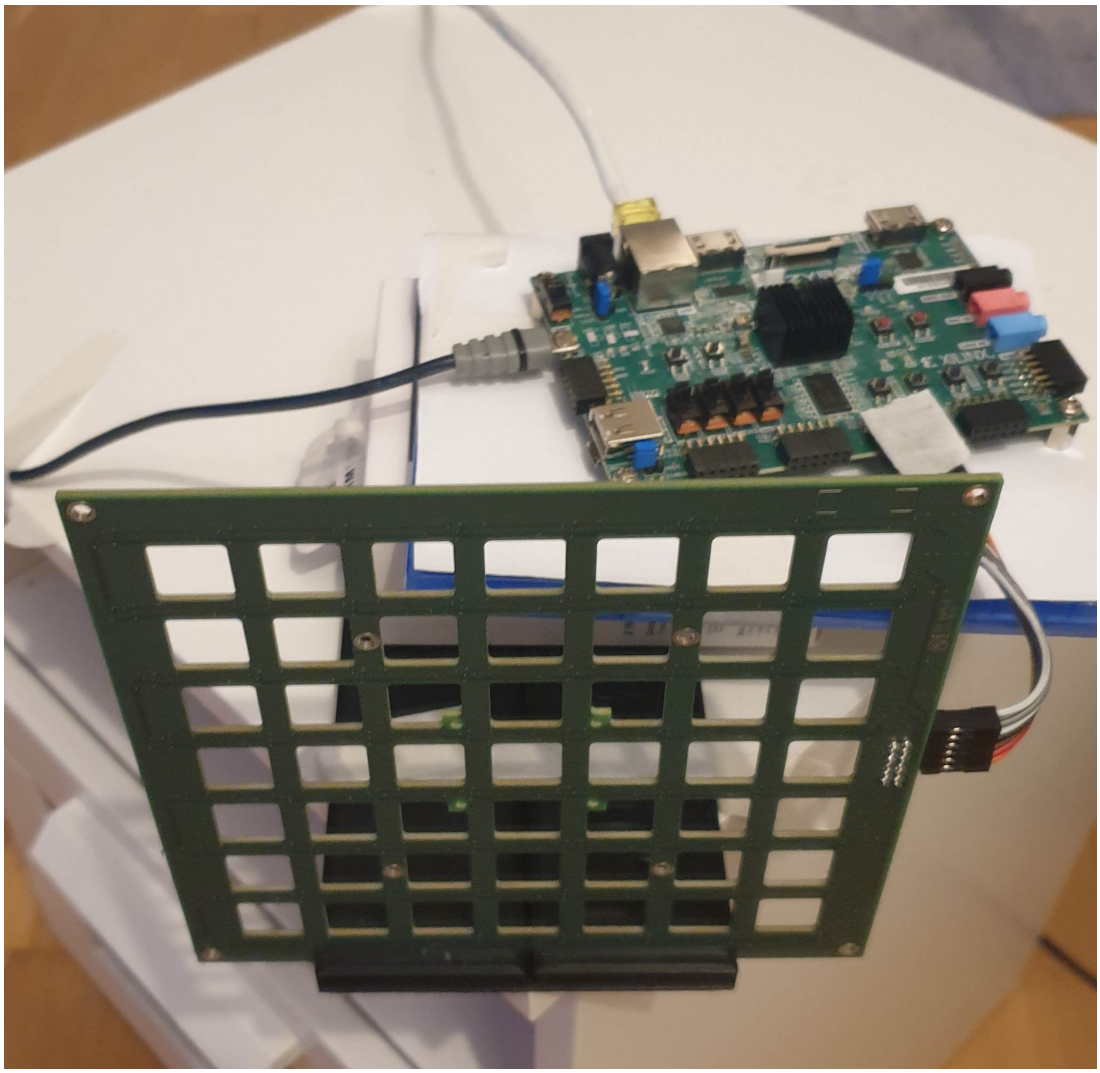

Figure 1: Avoid flat surfaces on which the sound can bounce and be reflected

Test 5: Comparing microphone pairs (7,8,9,10)

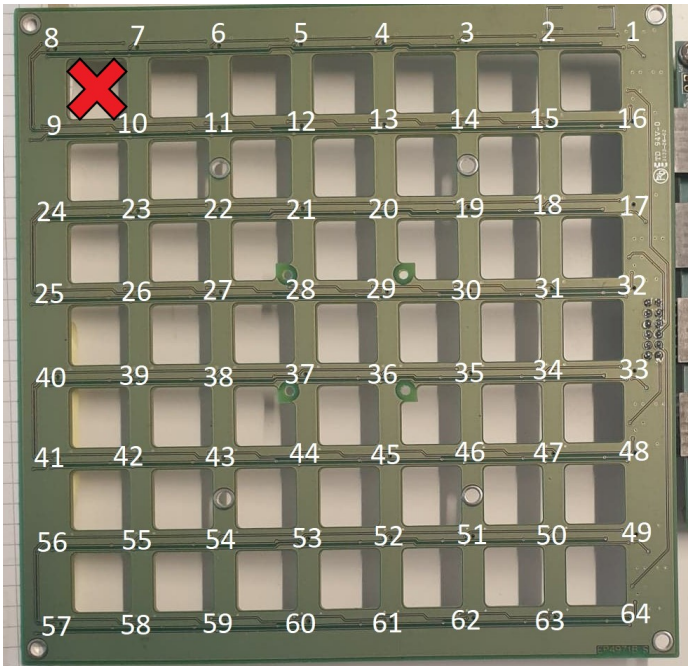

Figure 2: place the audio source in the center of selected microphones

Test 5 standing. 30 cm 880 Hz audio source			
Line	Ref	$\Delta\phi$	$\Delta\phi$
L1 →	MK8: ref	M8: 0°	MK7: −0.14°
L2 →	MK8: ref	MK9: −3.33°	MK10: −0.25°

Table 1

Test 5: Comparing microphone pairs (6,7,10,11)

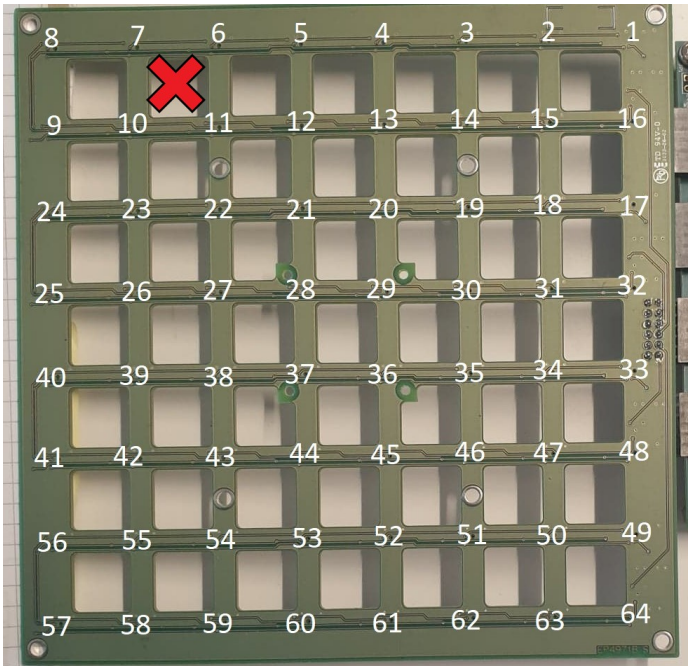

Figure 3: place the audio source in the center of selected microphones

Test 5 standing. 30 cm 880 Hz audio sourc			
Line	Ref	$\Delta\phi$	$\Delta\phi$
L1 →	MK7: ref	M7: 0°	MK6: −0.14°
L2 →	M7: ref	MK10: −0.34°	MK11: 0.38°

Table 2

Test 5: Comparing microphone pairs (5,6,11,12)

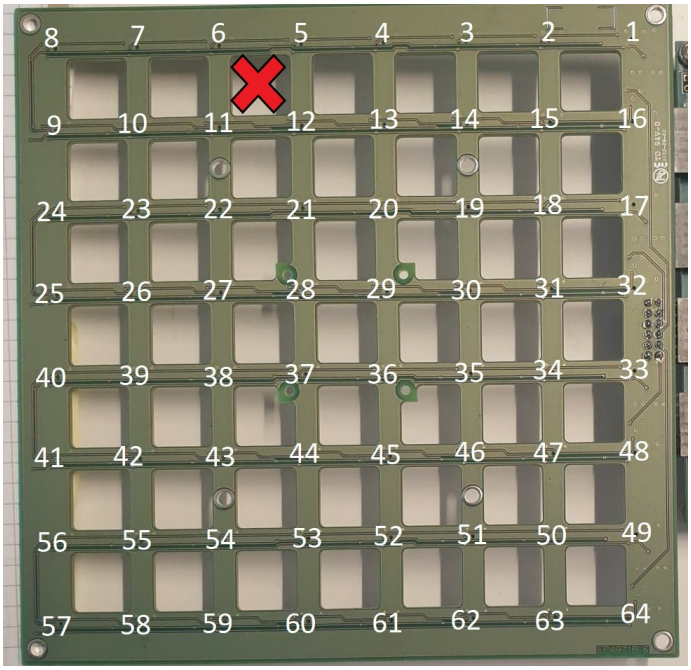

Figure 4: place the audio source in the center of selected microphones

Test 5 standing. 30 cm 880 Hz audio sourc			
Line	Ref	$\Delta\phi$	$\Delta\phi$
L1 →	MK6: ref	M6: 0°	MK5: 0.42°
L2 →	MK6: ref	MK11: 0.07°	MK12: 0.15°

Table 3

Test 5: Comparing microphone pairs (6,7,8,9,10,11,22,23,24)

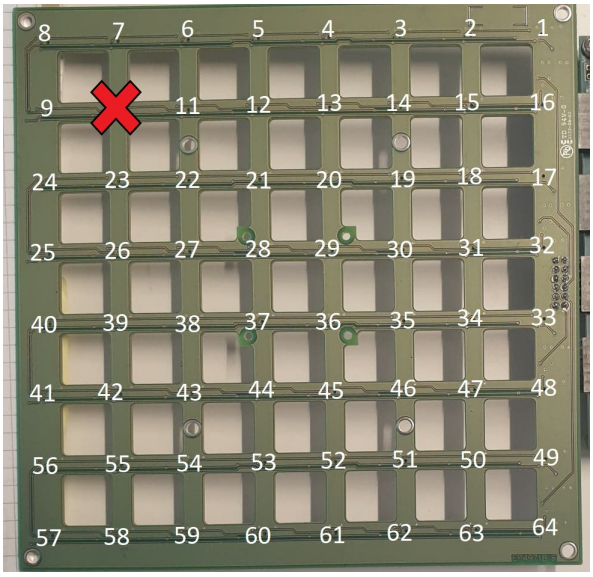

Figure 5: place the audio source aimed at mic 10

Test 5 standing. 30 cm 880 Hz audio sourc				
Line	Ref	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK10: ref	M8: 2.48°	MK7: 1.12°	MK6: 0.42°
L2 →	MK10: ref	MK9: −1.79°	MK10: 0°	MK11: 0.35°
L3 →	MK10: ref	MK24: −1.43°	MK23: −0.51°	MK22: −0.12°

Table 4

Test 5 standing. 2 cm 880 Hz audio sourc				
Line	Ref	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK10: ref	M8: 16.12°	MK7: 7.81°	MK6: 14.5°
L2 →	MK10: ref	MK9: 7.77°	MK10: 0°	MK11: 7.46°
L3 →	MK10: ref	MK24: 14.64°	MK23: 8.31°	MK22: 14.32°

Table 5

Test 6: Compare phase difference from the front with all microphones

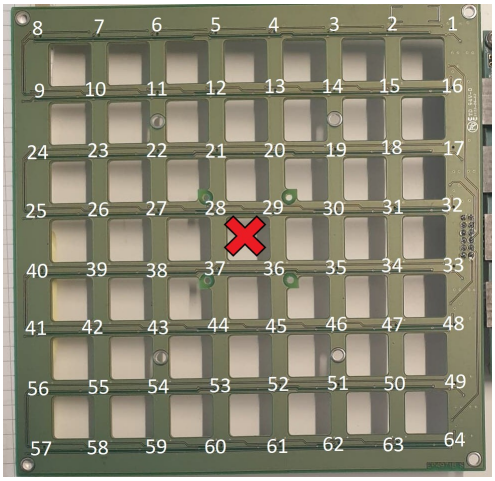

Figure 6: Aim the audio source at the center of the array

Test 6. 880 hz audio source at 30 cm. mic 1 ref.								
Line	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK8: −3.59°	MK7: −4.16°	MK6: −4.63°	MK5: −3.9°	MK4: −4.15°	MK3: −1.75°	MK2: −0.8°	MK1 ref
L2 →	MK9: −9.08°	MK10: −7.34°	MK11: −7.47°	MK12: −7.83°	MK13: −7.98°	MK14: −7.5°	MK15: −6.52°	MK16: −6.81°
L3 →	MK24: −9.89°	MK23: −9.6°	MK22: −10.32°	MK21: −11.2°	MK20: −11.38°	MK19: −11.42°	MK18: −9.81°	MK17 −9.97°
L4 →	MK25: −10.8°	MK26: −10.83°	MK27: −12.21°	MK28: −13.07°	MK29: −12.78°	MK30: −13.79°	MK31: −14.03°	MK32 −14.18°
L5 →	MK40: −9.51°	MK39: −10.48°	MK38: −11.88°	MK37: −13.31°	MK36: −14.61°°	MK35: −14.72°	MK34: −14.39°	MK33 −13.61°
L6 →	MK41: −7.74°	MK42: −9.43°	MK43: −11.39°	MK44: −13.23°	MK45: −14.77°	MK46: −14.35°	MK47: −13.35°	MK48 −12.8°
L7 →	MK56: −6.04°	MK55: −7.56°	MK54: −10.61°	MK53: −12.18°	MK52: −13.28°	MK51: −13.69°	MK50: −11.72°	MK49 −9.91°
L8 →	MK57: 1.38°	MK58: −6.54°	MK59: −10.66°	MK60: −13.19°	MK61: −14.41°	MK62: −13.81°	MK63: −10.1°	MK64 −5.02°

Table 6

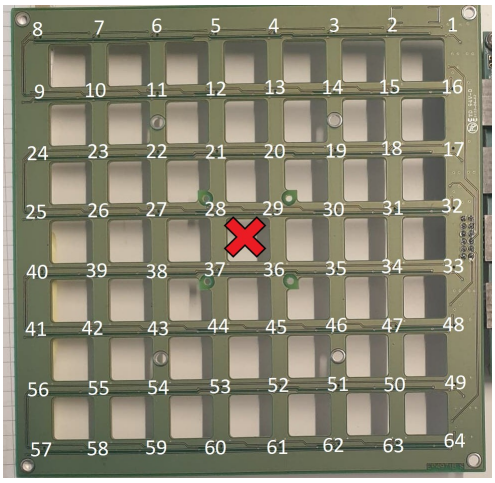

Figure 7: Aim the audio source at the center of the array

Test 6. 880 hz audio source at 30 cm. mic 28 ref.								
Line	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK8: 9.17°	MK7: 8.69°	MK6: 8.31°	MK5: 9.16°	MK4: 8.99°	MK3: 11.47°	MK2: 12.46°	MK1 13.28°
L2 →	MK9: 3.57°	MK10: 5.41°	MK11: 5.41°	MK12: 5.18°	MK13: 5.18°	MK14: 5.76°	MK15: 6.81°	MK16: 6.56°
L3 →	MK24: 2.71°	MK23: 3.14°	MK22: 2.55°	MK21: 1.83°	MK20: 1.8°	MK19: 1.91°	MK18: 3.61°	MK17 3.51°
L4 →	MK25: 1.78°	MK26: 1.89°	MK27: 0.67°	MK28: ref°	MK29: 0.44°	MK30: −0.4°	MK31: −0.55°	MK32 −0.62°
L5 →	MK40: 3.07°	MK39: 2.26°	MK38: 1.04°	MK37: −0.21°	MK36: −1.32°	MK35: −1.29°	MK34: −0.86°	MK33 −0.01°
L6 →	MK41: 4.84°	MK42: 3.32°	MK43: 1.55°	MK44: −0.1°	MK45: −1.46°	MK46: −0.88°	MK47: 0.21°	MK48 0.82°
L7 →	MK56: 6.54°	MK55: 5.2°	MK54: 2.34°	MK53: 0.99°	MK52: 0.06°	MK51: −0.21°	MK50: 1.85°	MK49 3.73°
L8 →	MK57: 13.92°	MK58: 6.23°	MK59: 2.33°	MK60: 0.02°	MK61: −1.0°	MK62: −0.26°	MK63: 3.5°	MK64 8.58°

Table 7

Test 6: Audio source aimed at the reference microphone

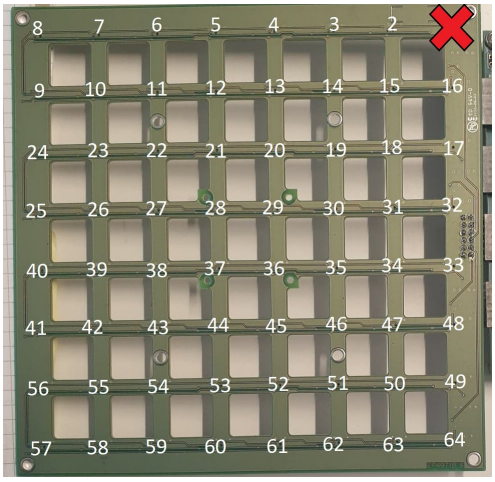

Figure 8: Aim the audio source at microphone 1

Test 6. 880 hz audio source at 30 cm. mic 1 ref and aimed at mic 1.								
Line	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK8: 43.54°	MK7: 36.53°	MK6: 29.26°	MK5: 23.0°	MK4: 15.67°	MK3: 11.19°	MK2: 5.51°	MK1 ref
L2 →	MK9: 40.95°	MK10: 37.1°	MK11: 30.66°	MK12: 23.71°	MK13: 16.74°	MK14: 10.35°	MK15: 4.49°	MK16: −2.59°
L3 →	MK24: 42.48°	MK23: 37.59°	MK22: 31.03°	MK21: 23.92°	MK20: 17.29°	MK19: 10.63°	MK18: 5.51°	MK17 −1.85°
L4 →	MK25: 43.82°	MK26: 38.93°	MK27: 32.09°	MK28: 25.36°	MK29: 19.6°	MK30: 12.37°	MK31: 5.51°	MK32 −2.07°
L5 →	MK40: 47.98°	MK39: 42.25°	MK38: 35.57°	MK37: 28.69°	MK36: 21.84°	MK35: 16.04°	MK34: 10.18°	MK33 3.39°
L6 →	MK41: 53.84°	MK42: 47.24°	MK43: 40.0°	MK44: 33.02°	MK45: 26.44°	MK46: 21.84°	MK47: 17.33°	MK48 10.79°
L7 →	MK56: 61.56°	MK55: 54.43°	MK54: 45.61°	MK53: 38.86°	MK52: 33.26°	MK51: 28.79°	MK50: 26.58°	MK49 22.29°
L8 →	MK57: 77.09°	MK58: 62.55°	MK59: 50.68°	MK60: 42.69°	MK61: 37.03°	MK62: 34.09°	MK63: 35.92°	MK64 37.25°

Table 8

Test 6: Audio source aimed at the reference microphone

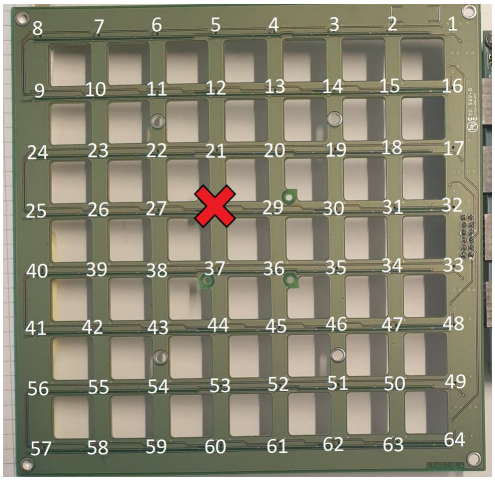

Figure 9: Aim the audio source at microphone 28

Test 6. 880 hz audio source at 30 cm. mic 28 ref and aimed at mic 28.								
Line	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$	$\Delta\phi$
L1 →	MK8: 5.78°	MK7: 5.19°	MK6: 4.8°	MK5: 5.82°	MK4: 6.08°	MK3: 9.32°	MK2: 11.45°	MK1 13.69°
L2 →	MK9: 1.13°	MK10: 2.98°	MK11: 3.07°	MK12: 3.08°	MK13: 3.51°	MK14: 4.82°	MK15: 6.93°	MK16: 8.04°
L3 →	MK24: 1.02°	MK23: 1.59°	MK22: 1.23°	MK21: 0.86°	MK20: 1.34°	MK19: 2.18°	MK18: 4.9°	MK17 6.14°
L4 →	MK25: 0.69°	MK26: 1.08°	MK27: 0.22°	MK28: ref	MK29: 1.03°	MK30: 0.99°	MK31: 1.9°	MK32 −3.2°
L5 →	MK40: 2.44°	MK39: 2.02°	MK38: 1.27°	MK37: 0.59°	MK36: 0.17°	MK35: 1.1°	MK34: 2.7°	MK33 5.06°
L6 →	MK41: 4.58°	MK42: 3.56°	MK43: 2.36°	MK44: 1.39°	MK45: 0.82°	MK46: 2.41°	MK47: 4.87°	MK48 7.23°
L7 →	MK56: 6.56°	MK55: 5.82°	MK54: 3.64°	MK53: 3.05°	MK52: 3.03°	MK51: 3.97°	MK50: 7.71°	MK49 11.78°
L8 →	MK57: 14.16°	MK58: 7.16°	MK59: 4.05°	MK60: 2.63°	MK61: 2.65°	MK62: 4.78°	MK63: 10.98°	MK64 19.08°

Table 9