



**AQUIND Limited**

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## **APPENDIX 23.4**

Survey Results



# CONTENTS

## APPENDIX 23.4 SURVEY RESULTS

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## APPENDIX 23.4 SURVEY RESULTS

### 1.1

#### MEASUREMENT POSITION 1

Date	Time	L <sub>Aeq, 1hr</sub>	L <sub>A90, 1hr</sub>
28 June 2017	14:00	45.5	34.8
	15:00	44.6	36.7
	16:00	42.8	35.1
	17:00	46.3	36.1
	18:00	49.8	35.5
	19:00	49.1	35.6
	20:00	45.1	33.1
	21:00	39.7	32.5
	22:00	35.5	31.9
	23:00	34.6	31.1
29 June 2017	00:00	39.5	30.3
	01:00	34.3	31.4
	02:00	35.5	33.1
	03:00	33.3	31.3
	04:00	43.7	33
	05:00	48.9	32.9
	06:00	48.6	35.6
	07:00	45.7	32.8
	08:00	45.7	33.8
	09:00	44.1	32.9
	10:00	45.2	33.2
	11:00	44.5	34.8

	12:00	43.7	31.4
	13:00	46.9	30.9
	14:00	47.2	32.7
	15:00	42.2	29.6
	16:00	42.5	31.2
	17:00	42.4	30.6
	18:00	49.2	28.9
	19:00	46.7	30.2
	20:00	38.3	27.6
	21:00	40.2	26.6
	22:00	34.8	24.5
	23:00	29.8	24.4
<b>30 June 2017</b>	00:00	27.4	23.4
	01:00	29.3	26
	02:00	31.4	29.6
	03:00	32.4	26.1
	04:00	41.9	34.7
	05:00	46.8	35
	06:00	50.3	35.3
	07:00	46.5	34.5
	08:00	49.4	35.2
	09:00	48.4	33.1
	10:00	47.4	33.3
	11:00	42.3	32.2
	12:00	41.2	31.8

	13:00	44.5	31.8
	14:00	43.5	32.1
	15:00	43.9	35.2
	16:00	44.5	35
	17:00	43.9	34.6
	18:00	41.3	35.5
	19:00	45.4	33.1
	20:00	44	33.9
	21:00	40	29.3
	22:00	38.8	28.2
	23:00	30	26.3
<b>01 July 2017</b>	00:00	29.4	25.5
	01:00	36.2	32.4
	02:00	36.5	30.5
	03:00	30.5	25.4
	04:00	38	30.9
	05:00	48.9	36.1
	06:00	48.2	35.5
	07:00	47.5	36.3
	08:00	43.9	35.7
	09:00	46.1	35.3
	10:00	45.5	33.5
	11:00	45.1	32.6
	12:00	44.5	36.6
	13:00	45.1	32.5

	14:00	46.5	33.4
	15:00	50.4	36.1
	16:00	50	33.5
	17:00	42.2	33.9
	18:00	47.3	33.6
	19:00	45	31.7
	20:00	46.5	33.6
	21:00	39.8	28.1
	22:00	35.9	28.5
	23:00	34.6	29.4
<b>02 July 2017</b>	00:00	32	23.7
	01:00	28.3	21.2
	02:00	29.2	19.8
	03:00	25	19.5
	04:00	43.2	21.9
	05:00	51.4	32
	06:00	50.1	31.5
	07:00	47	37.3
	08:00	48.1	38.5
	09:00	47.5	36.9
	10:00	40.8	35
	11:00	43.5	33.2
	12:00	44.6	32.5
	13:00	43.8	33.2
14:00	43	32.5	



	15:00	43.5	32
	16:00	43.5	31.1
	17:00	47.3	33.1
	18:00	48.1	34.1
	19:00	42.6	31.5
	20:00	46.4	28.9
	21:00	42.7	25.9
	22:00	32	23.9
	23:00	29.2	21.4
<b>03 July 2017</b>	00:00	24.4	20.5
	01:00	23.7	20.4
	02:00	29.7	21.6
	03:00	36.1	22.1
	04:00	40.4	24.4
	05:00	49.7	32.4
	06:00	47.1	32.5
	07:00	45.1	33.9
	08:00	44.4	31.6
	09:00	43.4	34.2
	10:00	46.4	33.5
	11:00	42.9	33
	12:00	47.4	34
	13:00	41.7	33.3
	14:00	41.8	32.7
	15:00	52.2	32.1

	16:00	45	32.1
	17:00	44.7	34.7
	18:00	48.3	32
	19:00	41.8	30.6
	20:00	51.4	27.6
	21:00	38.8	25.5
	22:00	34.7	22.7
	23:00	26.1	22.9
<b>04 July 2017</b>	00:00	24.1	21
	01:00	25.8	22.3
	02:00	33	23.3
	03:00	25.3	22.8
	04:00	45.6	27.4
	05:00	48.4	32.6
	06:00	46.3	32.7
	07:00	44.2	31.5
	08:00	42.5	30.6
	09:00	44.4	31.5
	10:00	43.7	30.8
	11:00	45.6	30.9
	12:00	43	31
	13:00	45.5	30.3
	14:00	44.5	30.6
	15:00	43.1	31
	16:00	48.4	31.7

	17:00	40.4	30.6
	18:00	52.7	30.1
	19:00	47.1	30.6
	20:00	39	27.5
	21:00	38.6	24.9
	22:00	36.6	23.6
	23:00	30.6	24
<b>05 July 2017</b>	00:00	28	25.4
	01:00	30.9	27.9
	02:00	30.3	28.3
	03:00	31.7	28.5
	04:00	41.9	32.1
	05:00	46.4	34.6
	06:00	44.3	35.7
	07:00	40.7	35.4
	08:00	40.7	33.6
	09:00	44.2	32.3
	10:00	44.4	31.9
	11:00	42	31.1
	12:00	41.7	32.2
	13:00	42.1	31.9
	14:00	44.9	31.5
	15:00	40.9	31.9
	16:00	42.9	32.9
	17:00	40.3	31.8

	18:00	42.6	29.8
	19:00	43	28.6
	20:00	40.4	28.4
	21:00	42.3	29.7
	22:00	35.5	31.5
	23:00	33.7	30.7
<b>06 July 2017</b>	00:00	33.5	30.1
	01:00	32.3	30
	02:00	33.2	31.2
	03:00	33.7	31.5
	04:00	38.6	33.4
	05:00	46.4	37
	06:00	46.9	37.8
	07:00	45.7	37.8
	08:00	45.4	37.7

## 1.2

### MEASUREMENT POSITION 2

Date	Time	$L_{Aeq, 1hr}$	$L_{A90, 1hr}$
<b>28 June 2017</b>	15:00	40.5	30.5
	16:00	38.4	31.3
	17:00	39.5	31.5
	18:00	40.4	30
	19:00	42.3	29.5
	20:00	39.4	30.5
	21:00	34.4	28.3

	22:00	32.5	26.6
	23:00	29	25.6
<b>29 June 2017</b>	00:00	36.8	25
	01:00	36.2	33.2
	02:00	36	30.4
	03:00	27.4	24.6
	04:00	36.5	24.8
	05:00	41.2	28
	06:00	43.1	29.4
	07:00	41.9	29.5
	08:00	41.9	30.8
	09:00	39.8	29.6
	10:00	45.3	31.5
	11:00	44.2	31.1
	12:00	41.1	30.5
	13:00	40.1	30.5
	14:00	42.9	30.5
	15:00	39.9	30.3
	16:00	37.4	30.8
	17:00	40.2	29.6
	18:00	39.5	28.6
	19:00	38.5	29.1
	20:00	37.3	26.1
	21:00	32.6	25.1
	22:00	35.9	23.5

	23:00	27.1	22.6
<b>30 June 2017</b>	00:00	30.2	26.6
	01:00	24.6	22
	02:00	22.7	21.4
	03:00	25.1	21.8
	04:00	41.2	25.2
	05:00	43.8	28.7
	06:00	44.6	29.7
	07:00	42.8	29.9
	08:00	43.5	31.1
	09:00	44.2	30.7
	10:00	45.5	31.7
	11:00	42.8	31.6
	12:00	37.2	30.6
	13:00	41.7	30.4
	14:00	40.5	31.2
	15:00	40.9	34
	16:00	42	33.8
	17:00	42.5	33.2
	18:00	38.2	33
	19:00	39.4	31.2
	20:00	38.8	31.7
	21:00	36.1	27.7
	22:00	37.8	25.9
	23:00	31	25

<b>01 July 2017</b>	00:00	30.3	25.1
	01:00	33.8	29.9
	02:00	33.6	27.2
	03:00	40.2	23.9
	04:00	43.3	29
	05:00	43.5	32.8
	06:00	41.1	30.5
	07:00	42.1	33.6
	08:00	42.3	34
	09:00	42.7	32.9
	10:00	43.9	33.6
	11:00	42.5	33.5
	12:00	44	35.6
	13:00	39	33.1
	14:00	39.6	31.5
	15:00	38.6	31.5
	16:00	43.5	31.7
	17:00	43.1	35.8
	18:00	41.9	33.7
	19:00	41.6	30.3
	20:00	38.1	30.5
	21:00	36.7	27.5
	22:00	32.5	25.3
	23:00	31.9	27.8
<b>02 July 2017</b>	00:00	33.6	25

	01:00	35.7	24.1
	02:00	24	22.4
	03:00	27.3	22.7
	04:00	41.1	23.2
	05:00	42	27.4
	06:00	54.3	27.4
	07:00	40.7	32.9
	08:00	45	36.3
	09:00	40.1	34.4
	10:00	41.6	34.5
	11:00	48.2	33.1
	12:00	41.7	32.6
	13:00	43.8	33.4
	14:00	43.9	32.9
	15:00	43.9	33.4
	16:00	45.6	32
	17:00	42.6	30.1
	18:00	42.8	33.9
	19:00	43.9	31.1
	20:00	39.4	30.1
	21:00	41.6	28.4
	22:00	31.3	26.4
	23:00	29	25.4
<b>03 July 2017</b>	00:00	26.3	24.7
	01:00	25.4	22.5



	02:00	23.8	22.3
	03:00	24.5	22.7
	04:00	37	23.4
	05:00	39.9	28.6
	06:00	37.8	29.7
	07:00	41	30.7
	08:00	41.8	31.5
	09:00	43.2	32.9
	10:00	44.3	33.2
	11:00	40.5	33.6
	12:00	44.7	36.2
	13:00	41.7	35
	14:00	41.9	34.5
	15:00	39.9	32.8
	16:00	42	34.6
	17:00	43	35.9
	18:00	38.4	33.4
	19:00	37.9	31.5
	20:00	35.5	27.8
	21:00	36.6	25.5
	22:00	32.6	22.7
	23:00	29.5	22.7
<b>04 July 2017</b>	00:00	25.3	22.2
	01:00	26.4	22.6
	02:00	26.1	22.6

	03:00	23.5	22.1
	04:00	40.8	24
	05:00	39.3	27.7
	06:00	39.2	29.5
	07:00	36.8	30.8
	08:00	39.8	32
	09:00	40	33.6
	10:00	41.1	32.5
	11:00	39.1	31.7
	12:00	39.3	32.4
	13:00	40.1	32.1
	14:00	37.1	30.5
	15:00	42.4	31.1
	16:00	42.6	31.9
	17:00	40.7	31.9
	18:00	37.2	31
	19:00	43.5	31.6
	20:00	37.4	28.6
	21:00	35.9	26.3
	22:00	30.7	24.8
	23:00	29.1	23.6
<b>05 July 2017</b>	00:00	26.8	22.2
	01:00	26.2	22
	02:00	27.8	22.6
	03:00	28.1	23

	04:00	39.7	25.5
	05:00	37.7	30.4
	06:00	45.7	33.3
	07:00	45.1	35.2
	08:00	39.7	34.5
	09:00	39.4	33.8
	10:00	39.5	33.5
	11:00	39	33.9
	12:00	40.9	35.1
	13:00	43.4	35.2
	14:00	40.5	34.7
	15:00	40.4	35.2
	16:00	40.8	35.4
	17:00	40.9	33.6
	18:00	38.6	31
	19:00	37.5	30.5
	20:00	36.1	29.8
	21:00	39.7	30.7
	22:00	35	29.7
	23:00	32	29.5
<b>06 July 2017</b>	00:00	34.8	28.8
	01:00	31.4	29.2
	02:00	34.3	31
	03:00	35.1	31.7
	04:00	37	32.6

	05:00	41.6	36.5
	06:00	43.9	38
	07:00	43.6	39.3
	08:00	45.3	39.2
	09:00	45.2	38.5

### 1.3

### MEASUREMENT POSITION 3

Date	Time	L <sub>Aeq, 1hr</sub>	L <sub>A90, 1hr</sub>
28 June 2017	15:00	58	31.5
	16:00	44.4	32.1
	17:00	42	33
	18:00	39.5	31.9
	19:00	39.2	30.1
	20:00	41.1	30.2
	21:00	39	28.8
	22:00	38.7	27.7
	23:00	30.4	26.9
29 June 2017	00:00	41.3	25.6
	01:00	42.1	29.4
	02:00	36.6	30.5
	03:00	28.9	25.8
	04:00	41.7	27.7
	05:00	47.6	29.1
	06:00	47.9	27.7
	07:00	46.5	28.5

	08:00	45.8	26.9
	09:00	45.4	26
	10:00	44.5	27.3
	11:00	43.6	28.2
	12:00	39.5	27.8
	13:00	42.7	27.4
	14:00	44.8	28.2
	15:00	43.4	27.7
	16:00	42	29.1
	17:00	43.1	28.9
	18:00	38.5	27.2
	19:00	41.5	25.1
	20:00	42	23.1
	21:00	37.6	22.9
	22:00	30.9	20.1
	23:00	25.1	19.1
<b>30 June 2017</b>	00:00	36.4	17.9
	01:00	20.9	18.2
	02:00	24	20.9
	03:00	25.4	20.1
	04:00	41.5	27.4
	05:00	47.3	29.1
	06:00	45.1	30.2
	07:00	45.6	27.8
	08:00	45.7	29.5

	09:00	45.8	27.2
	10:00	42.5	27.9
	11:00	42.4	27.5
	12:00	43.3	26.9
	13:00	43.5	29.5
	14:00	41.2	28.7
	15:00	45.7	32.1
	16:00	43.2	31
	17:00	43.3	31.3
	18:00	43.2	31.8
	19:00	43.6	29.3
	20:00	43.7	30.1
	21:00	37.6	25.8
	22:00	42.5	24.9
	23:00	36.8	23.1
<b>01 July 2017</b>	00:00	27.2	22.6
	01:00	38.1	29
	02:00	37.3	27.4
	03:00	28.8	21.6
	04:00	44.7	25.7
	05:00	40.6	31.8
	06:00	42.1	32
	07:00	45.4	33.3
	08:00	40.2	32.1
	09:00	43.8	33.6

	10:00	43.5	32.9
	11:00	42.5	30.7
	12:00	41.8	32.5
	13:00	38.3	28.8
	14:00	39.8	29.5
	15:00	39.8	31.6
	16:00	40.7	29
	17:00	45.7	36.4
	18:00	43.4	34.5
	19:00	42.1	29
	20:00	39.2	30.3
	21:00	40.6	27.2
	22:00	33.6	27.4
	23:00	34.8	27
<b>02 July 2017</b>	00:00	31.6	23.5
	01:00	35.2	19.9
	02:00	24.1	18.2
	03:00	21.3	17.4
	04:00	43.1	18.2
	05:00	41.3	25.4
	06:00	40.7	26.3
	07:00	47.1	34.5
	08:00	45.1	38.3
	09:00	47.6	32.3
	10:00	42.1	32.3

	11:00	42.1	30
	12:00	43.3	28.9
	13:00	40.6	28.3
	14:00	40.8	29
	15:00	47.2	29
	16:00	40.9	27.7
	17:00	45.4	30.4
	18:00	41.4	33
	19:00	39.9	30.2
	20:00	44.9	27.9
	21:00	33	24.2
	22:00	28.2	21.1
	23:00	31.4	18.6
<b>03 July 2017</b>	00:00	20.9	17.8
	01:00	23.5	20.3
	02:00	24.5	21.2
	03:00	24.6	20
	04:00	38.9	20.8
	05:00	40.6	27
	06:00	42.2	29
	07:00	48.3	31.5
	08:00	46.5	31.3
	09:00	47.4	32.7
	10:00	41.8	32.7
	11:00	42.3	34.5



	12:00	44.6	34.7
	13:00	43.9	34.5
	14:00	45.3	33.2
	15:00	43.7	33.2
	16:00	43.5	33.6
	17:00	46.3	36.3
	18:00	44.3	33.6
	19:00	41.1	29.7
	20:00	39.4	27.3
	21:00	37	22
	22:00	35.9	20.2
	23:00	23.5	20.8
<b>04 July 2017</b>	00:00	21.1	18.7
	01:00	32.4	19
	02:00	31.7	21.4
	03:00	35	20.7
	04:00	36.5	23.8
	05:00	41.8	29.2
	06:00	49.5	30.1
	07:00	44.4	29
	08:00	45.2	27.4
	09:00	40.2	26.2
	10:00	45	27.4
	11:00	43.4	28.9
	12:00	40.6	29

	13:00	40.6	29.1
	14:00	44.4	29.1
	15:00	43.1	27.7
	16:00	40.4	29.5
	17:00	40.7	28.9
	18:00	41.5	29.2
	19:00	39.7	27.5
	20:00	36.4	25.9
	21:00	33.9	23.8
	22:00	28.4	21.8
	23:00	35	21.9
<b>05 July 2017</b>	00:00	26.6	21.3
	01:00	26.3	22.3
	02:00	27.5	24.2
	03:00	28.8	23.5
	04:00	36.6	26.9
	05:00	42.2	31.4
	06:00	41.3	34.1
	07:00	50.1	34.1
	08:00	46.5	32.9
	09:00	38.2	29.6
	10:00	39.5	28.7
	11:00	39	28.7
	12:00	42.1	30.6
	13:00	42.4	29.7

	14:00	39.4	29
	15:00	40.1	31.2
	16:00	43.3	31.9
	17:00	38.5	30.4
	18:00	37.5	28.4
	19:00	40.2	27.9
	20:00	37.2	26.9
	21:00	34.8	28.1
	22:00	32.3	27.7
	23:00	33.7	27.3
<b>06 July 2017</b>	00:00	30.4	25.5
	01:00	37	26
	02:00	29.7	27.4
	03:00	31.1	28.2
	04:00	38.8	31
	05:00	42.5	36.6
	06:00	42.2	36.8
	07:00	44	37.1
	08:00	42.6	36.5
	09:00	42.1	35.1

## 1.4

### MEASUREMENT POSITION 4

Date	Time	$L_{Aeq, 1hr}$	$L_{A90, 1hr}$
<b>28 June 2017</b>	15:00	67.7	33.9
	16:00	38.5	32.3

	17:00	38.5	33.2
	18:00	37	31.5
	19:00	48.2	31.6
	20:00	40.3	30.3
	21:00	33.8	29.1
	22:00	38.4	28.1
	23:00	30.6	27.6
<b>29 June 2017</b>	00:00	36.4	26.9
	01:00	30.1	28.2
	02:00	30.2	28.7
	03:00	28.7	27.1
	04:00	35.3	28.8
	05:00	35.5	29
	06:00	36.7	29.8
	07:00	39	31.4
	08:00	37.6	31
	09:00	37	30.5
	10:00	38.6	31.3
	11:00	39	32.1
	12:00	42.5	31.1
	13:00	38.5	30.7
	14:00	44.8	31.4
	15:00	38.2	30.9
	16:00	37.5	32.2
	17:00	39.9	32.8

	18:00	39.2	30.7
	19:00	36.3	28.8
	20:00	36.2	27.1
	21:00	38.5	26.9
	22:00	34.5	25.9
	23:00	29.6	25.6
<b>30 June 2017</b>	00:00	27.1	24.8
	01:00	29.2	25.4
	02:00	27.8	25.3
	03:00	28.7	25.8
	04:00	34.5	28.8
	05:00	35.4	29.7
	06:00	39.8	30.3
	07:00	40.1	30
	08:00	52.5	31.6
	09:00	42	30.4
	10:00	41.8	31.6
	11:00	41.3	31
	12:00	36.3	30.1
	13:00	38.8	31.2
	14:00	43.3	31.9
	15:00	42.4	32.7
	16:00	46.3	34
	17:00	44.9	33.1
	18:00	38.7	32.3

	19:00	39.3	31.6
	20:00	37.5	32.3
	21:00	35.4	30.6
	22:00	32.6	29.1
	23:00	31.4	28.2
<b>01 July 2017</b>	00:00	31.7	27.9
	01:00	34.6	30.4
	02:00	35	28.5
	03:00	31.5	26.7
	04:00	37.5	30.1
	05:00	36.5	31.2
	06:00	41.5	30.9
	07:00	40.2	32.5
	08:00	38.6	31.9
	09:00	44.3	32.7
	10:00	42.5	32.9
	11:00	41.3	32.6
	12:00	46.1	35.5
	13:00	39.1	33
	14:00	40.8	32.4
	15:00	42.1	34.3
	16:00	44.1	32.3
	17:00	43.2	36.1
	18:00	42.1	34.2
	19:00	43.8	31.8

	20:00	39.3	32.8
	21:00	41.1	30
	22:00	36.8	29.9
	23:00	38.1	31.1
<b>02 July 2017</b>	00:00	36.5	28.4
	01:00	32.9	27.1
	02:00	28.6	25.6
	03:00	28.7	26.1
	04:00	35	26.8
	05:00	36.5	27.6
	06:00	37.9	28.3
	07:00	43.5	33.1
	08:00	40.7	33.4
	09:00	38.8	34.2
	10:00	41.5	34.5
	11:00	39.2	34
	12:00	44.6	33.1
	13:00	46.5	32.3
	14:00	42	32.6
	15:00	41.8	31.6
	16:00	43.1	30.8
	17:00	39.5	30.7
	18:00	45.9	33.2
	19:00	38.7	31.4
	20:00	36.9	30.6

	21:00	37.6	28.7
	22:00	33.2	27
	23:00	31.2	26.4
<b>03 July 2017</b>	00:00	27.3	26.2
	01:00	27.6	26.1
	02:00	28	26.6
	03:00	28.9	26.8
	04:00	33.3	28
	05:00	39.3	29.8
	06:00	39.3	31.6
	07:00	39.8	32.8
	08:00	41.7	34.6