

## Calibration document

Instrument: Samsung Galaxy Tab2 10.1" tablet with Beyerdynamic DT770 (32 ohm)

Date: 15/11/2013

Location: Southampton Solent University (SSU) Anechoic Chamber

Calibrated to BS 60645-1:2001, using RETSPLs from BS EN 389-8:2004

### Frequency Accuracy (Hz).

Test Equipment: Sound Level Meter & IEC Artificial Ear (69318).

Frequency	250	500	1000	1500	2000	3000	4000	6000	8000
Tolerance @ 2% (Hz)	±5	±10	±15	±30	±40	±60	±80	±120	±160
Value	250.00	500.01	1000.01	1500.05	2000.01	3000.06	4000.01	6000.02	8000.02

### Linearity Checks @ 1 kHz, measured acoustically.

Test Equipment: Sound Level Meter & IEC Artificial Ear (69318).

Hearing Level	15	20	25	30	35	40	45	50	55	60
Uncertainty	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7
Left	22	26.1	30.2	35	40.6	45.5	50.4	55.2	60.2	65.2
Right	22.1	26	29.8	34.8	39.9	45	50.2	55.1	60	65.7

Hearing Level	65	70	75	80	85	90	95	100
Uncertainty	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7	±0.7
Left	70.4	75.8	80.5	85.9	91	95.5	99.9	99.9
Right	70.5	75.8	80.3	85.3	90.4	95.5	98.9	98.9

### Earphone SPLs: RETSPL + 50dB

Test equipment: Sound Level Meter & IEC Artificial Ear (69318).

Frequency	250	500	1000	1500	2000	3000	4000	6000	8000
Target	68	61	55.5	55.5	54.5	52.5	59.5	67	67.5
Left	68.5	61.1	55.2	55.6	53.9	52.4	59.3	67	67.1
Right	67.5	60.9	55.1	55.5	54	52.1	59	67.4	67.2

### Harmonic Distortion: Limit 2.5%

Test Equipment: Sound Level Meter & IEC Artificial Ear (69318).

Frequency	250	500	1000	2000	4000
Hearing Level	75	90	90	90	90
Left	1.4	0.5	1.3	1.1	1.7
Right	1.3	0.7	1.1	1.6	1.6

