

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

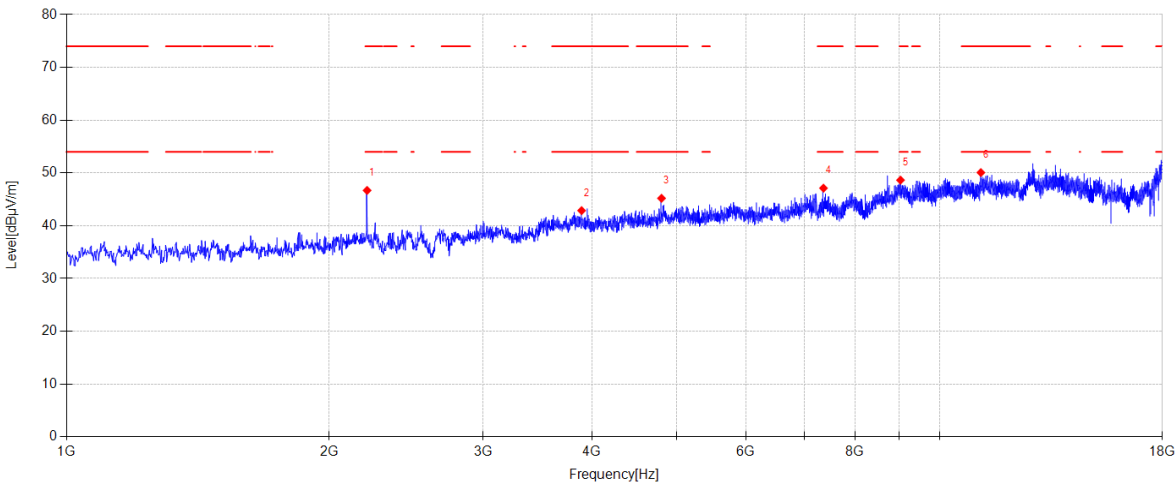
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d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\1

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2210.400	52.72	27.70	4.72	-38.45	46.69	74.00	27.31	PK	Horizontal
2	3891.700	46.30	31.15	5.07	-39.65	42.87	74.00	31.13	PK	Horizontal
3	4804.600	46.67	32.62	5.53	-39.62	45.20	74.00	28.80	PK	Horizontal
4	7364.800	44.39	36.77	6.63	-40.67	47.12	74.00	26.88	PK	Horizontal
5	9024.000	41.80	38.35	7.31	-38.82	48.64	74.00	25.36	PK	Horizontal
6	11154.100	41.74	39.25	8.23	-39.15	50.07	74.00	23.93	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

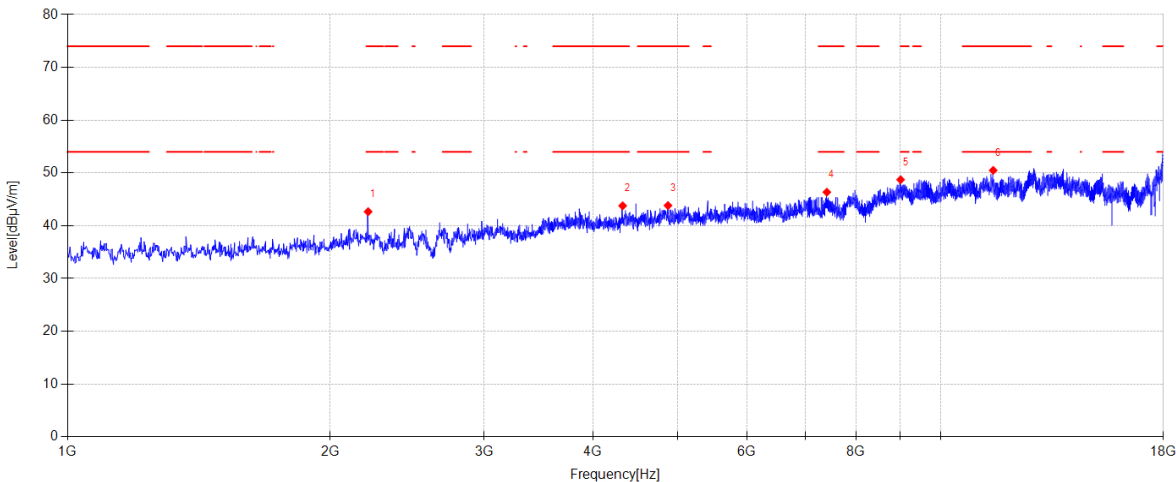
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Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2210.400	48.69	27.70	4.72	-38.45	42.66	74.00	31.34	PK	Vertical
2	4325.200	46.58	31.60	5.25	-39.65	43.78	74.00	30.22	PK	Vertical
3	4874.300	44.46	33.41	5.57	-39.61	43.83	74.00	30.17	PK	Vertical
4	7410.700	43.65	36.68	6.66	-40.63	46.36	74.00	27.64	PK	Vertical
5	9001.900	41.93	38.30	7.30	-38.80	48.73	74.00	25.27	PK	Vertical
6	11492.400	42.33	39.21	8.44	-39.49	50.49	74.00	23.51	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2441 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

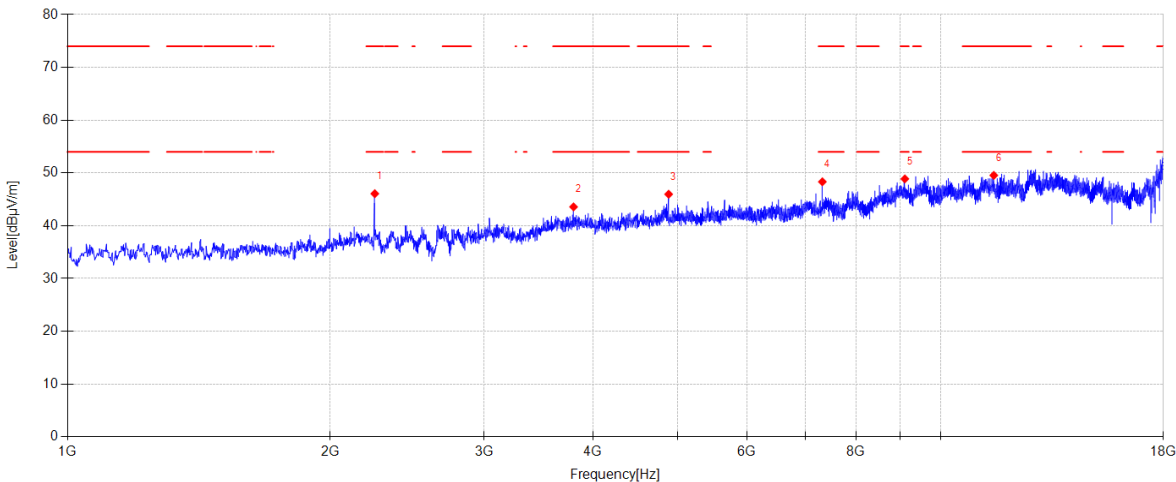
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Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2249.500	52.50	27.31	4.75	-38.49	46.07	74.00	27.93	PK	Horizontal
2	3799.900	47.42	30.70	5.08	-39.63	43.57	74.00	30.43	PK	Horizontal
3	4882.800	46.72	33.28	5.58	-39.61	45.97	74.00	28.03	PK	Horizontal
4	7324.000	45.58	36.85	6.61	-40.71	48.33	74.00	25.67	PK	Horizontal
5	9103.900	41.93	38.50	7.33	-38.88	48.88	74.00	25.12	PK	Horizontal
6	11511.100	41.42	39.18	8.45	-39.51	49.54	74.00	24.46	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2441 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

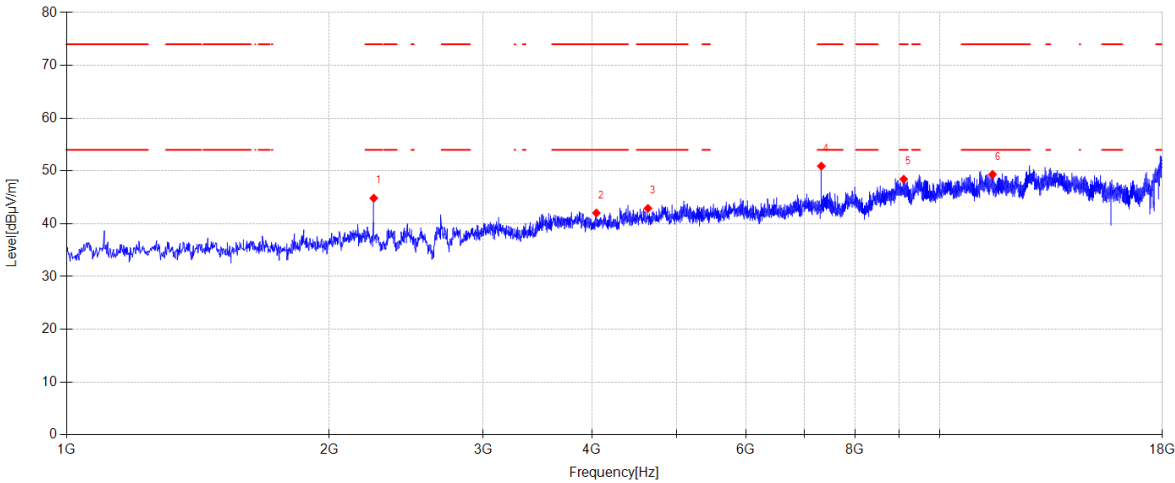
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Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2249.500	51.27	27.31	4.75	-38.49	44.84	74.00	29.16	PK	Vertical
2	4046.400	45.65	30.99	5.08	-39.68	42.04	74.00	31.96	PK	Vertical
3	4636.300	45.14	31.97	5.43	-39.63	42.91	74.00	31.09	PK	Vertical
4	7324.000	48.16	36.85	6.61	-40.71	50.91	74.00	23.09	PK	Vertical
5	9100.500	41.49	38.50	7.33	-38.88	48.44	74.00	25.56	PK	Vertical
6	11504.300	41.20	39.19	8.45	-39.50	49.34	74.00	24.66	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

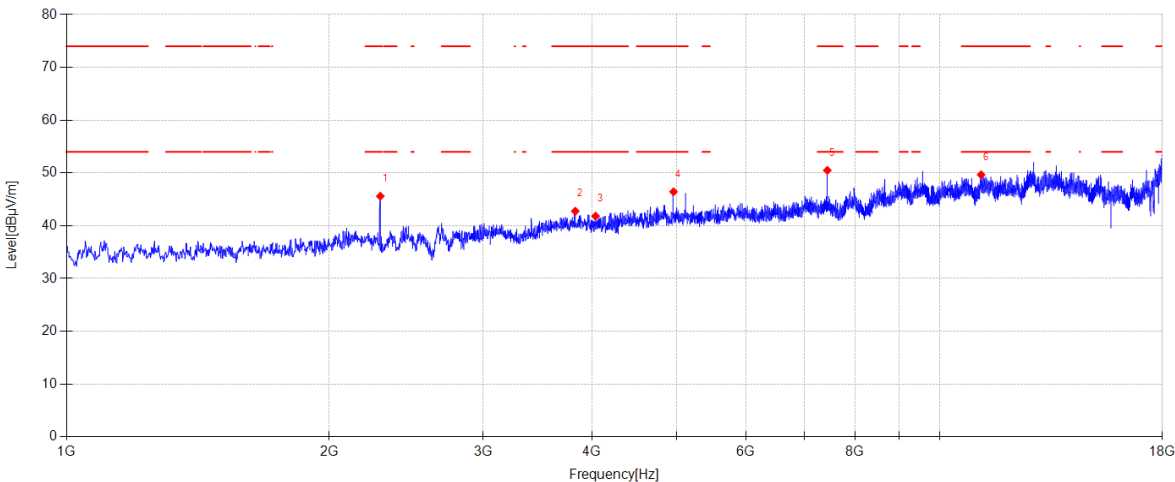
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Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2288.600	52.46	26.91	4.77	-38.54	45.60	74.00	28.40	PK	Horizontal
2	3827.100	46.51	30.81	5.08	-39.64	42.76	74.00	31.24	PK	Horizontal
3	4037.900	45.45	30.98	5.07	-39.68	41.82	74.00	32.18	PK	Horizontal
4	4959.300	47.29	33.12	5.63	-39.60	46.44	74.00	27.56	PK	Horizontal
5	7439.600	47.80	36.62	6.67	-40.60	50.49	74.00	23.51	PK	Horizontal
6	11160.900	41.35	39.24	8.23	-39.16	49.66	74.00	24.34	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

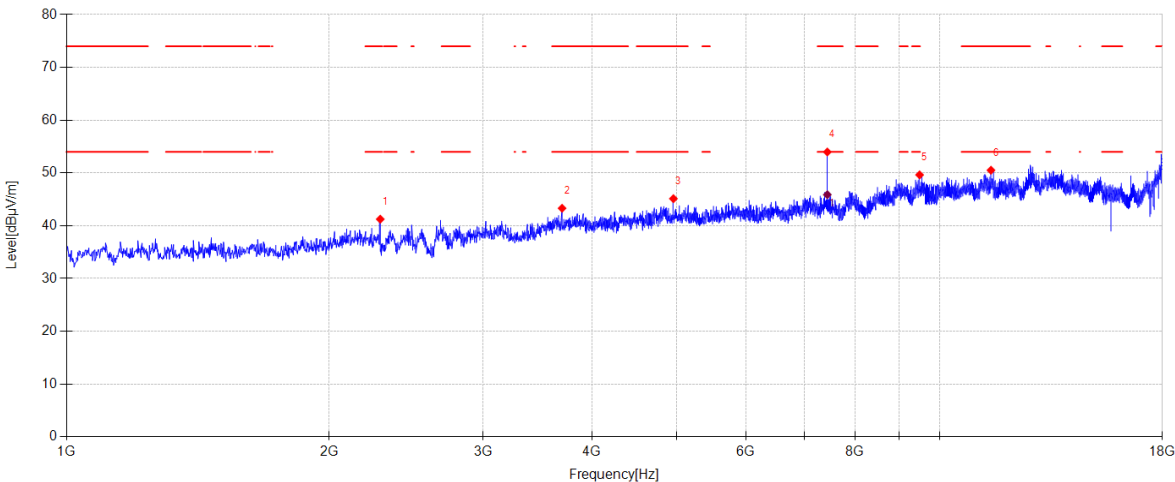
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Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2288.600	48.10	26.91	4.77	-38.54	41.24	74.00	32.76	PK	Vertical
2	3696.200	47.44	30.38	5.10	-39.61	43.31	74.00	30.69	PK	Vertical
3	4957.600	45.99	33.12	5.62	-39.60	45.13	74.00	28.87	PK	Vertical
4	7439.600	51.29	36.62	6.67	-40.60	53.98	74.00	20.02	PK	Vertical
5	9489.800	42.67	38.70	7.46	-39.19	49.64	74.00	24.36	PK	Vertical
6	11455.000	42.31	39.25	8.42	-39.46	50.52	74.00	23.48	PK	Vertical

Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	7440.055	43.19	36.62	6.67	45.88	54.00	8.12	AV	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

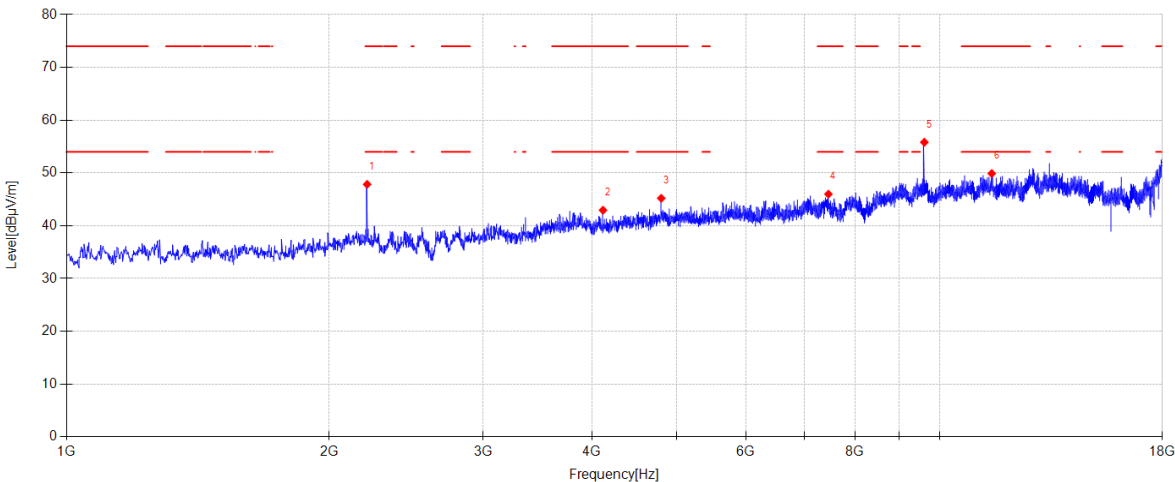
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2210.400	53.87	27.70	4.72	-38.45	47.84	74.00	26.16	PK	Horizontal
2	4117.800	46.35	31.14	5.12	-39.67	42.94	74.00	31.06	PK	Horizontal
3	4801.200	46.76	32.53	5.53	-39.62	45.20	74.00	28.80	PK	Horizontal
4	7461.700	43.31	36.58	6.68	-40.58	45.99	74.00	28.01	PK	Horizontal
5	9608.800	49.03	38.58	7.50	-39.29	55.82	-	-	PK	Horizontal
6	11478.800	41.73	39.22	8.43	-39.48	49.90	74.00	24.10	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

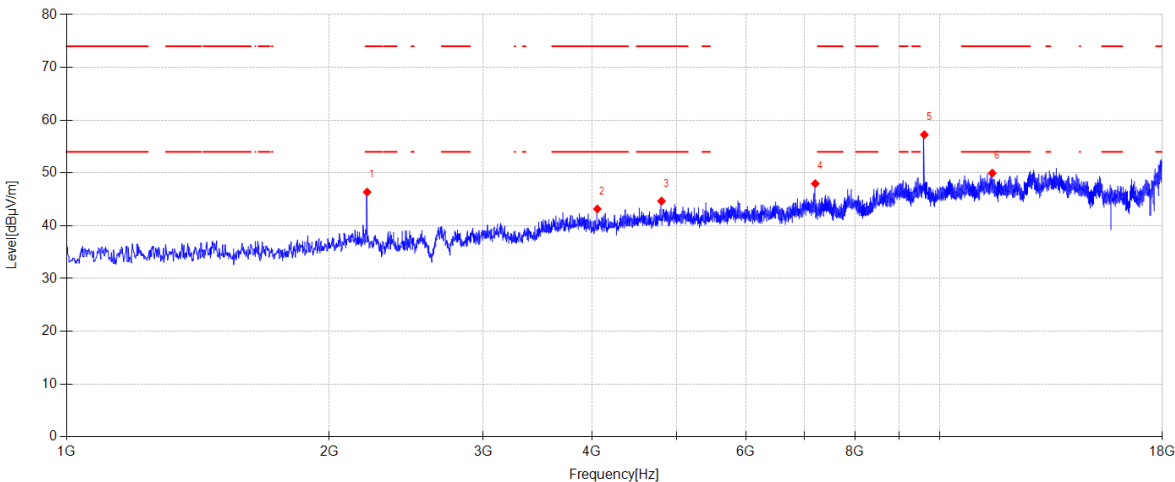
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2210.400	52.41	27.70	4.72	-38.45	46.38	74.00	27.62	PK	Vertical
2	4056.600	46.77	31.01	5.08	-39.68	43.18	74.00	30.82	PK	Vertical
3	4804.600	46.14	32.62	5.53	-39.62	44.67	74.00	29.33	PK	Vertical
4	7206.700	45.43	36.80	6.55	-40.81	47.97	-	-	PK	Vertical
5	9608.800	50.45	38.58	7.50	-39.29	57.24	-	-	PK	Vertical
6	11494.100	41.81	39.21	8.44	-39.49	49.97	74.00	24.03	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2441 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

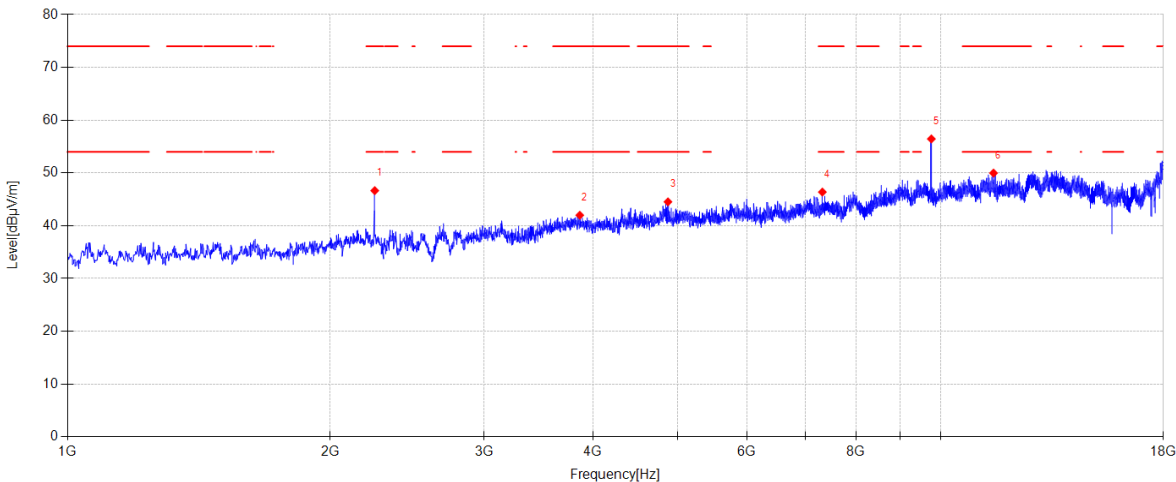
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2249.500	53.08	27.31	4.75	-38.49	46.65	74.00	27.35	PK	Horizontal
2	3862.800	45.59	30.98	5.07	-39.65	41.99	74.00	32.01	PK	Horizontal
3	4874.300	45.16	33.41	5.57	-39.61	44.53	74.00	29.47	PK	Horizontal
4	7324.000	43.63	36.85	6.61	-40.71	46.38	74.00	27.62	PK	Horizontal
5	9763.500	49.91	38.40	7.55	-39.41	56.45	-	-	PK	Horizontal
6	11502.600	41.84	39.19	8.45	-39.50	49.98	74.00	24.02	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2441 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

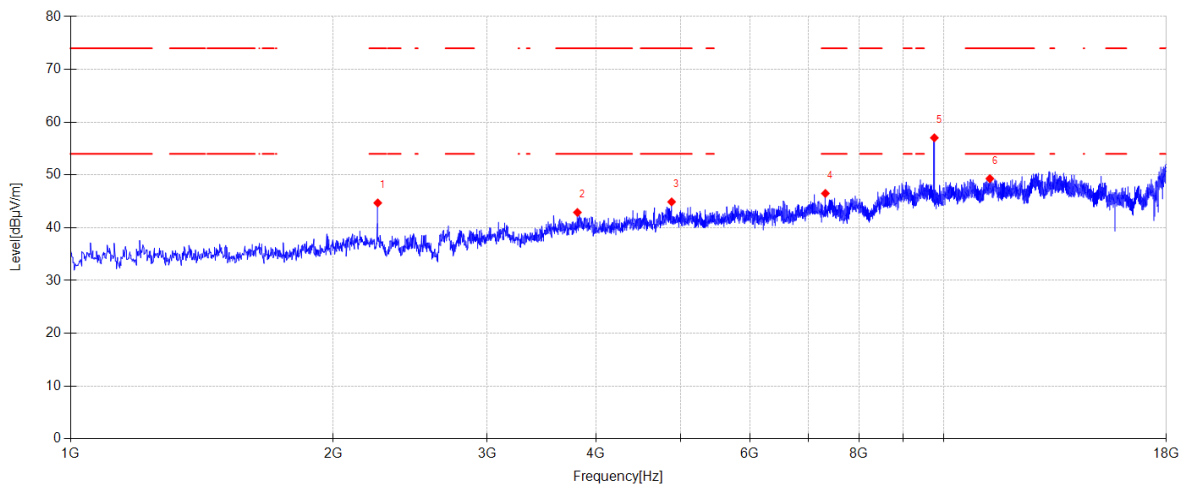
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2249.500	51.13	27.31	4.75	-38.49	44.70	74.00	29.30	PK	Vertical
2	3808.400	46.72	30.73	5.08	-39.63	42.90	74.00	31.10	PK	Vertical
3	4882.800	45.65	33.28	5.58	-39.61	44.90	74.00	29.10	PK	Vertical
4	7324.000	43.75	36.85	6.61	-40.71	46.50	74.00	27.50	PK	Vertical
5	9763.500	50.50	38.40	7.55	-39.41	57.04	-	-	PK	Vertical
6	11302.000	41.09	39.20	8.32	-39.30	49.31	74.00	24.69	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

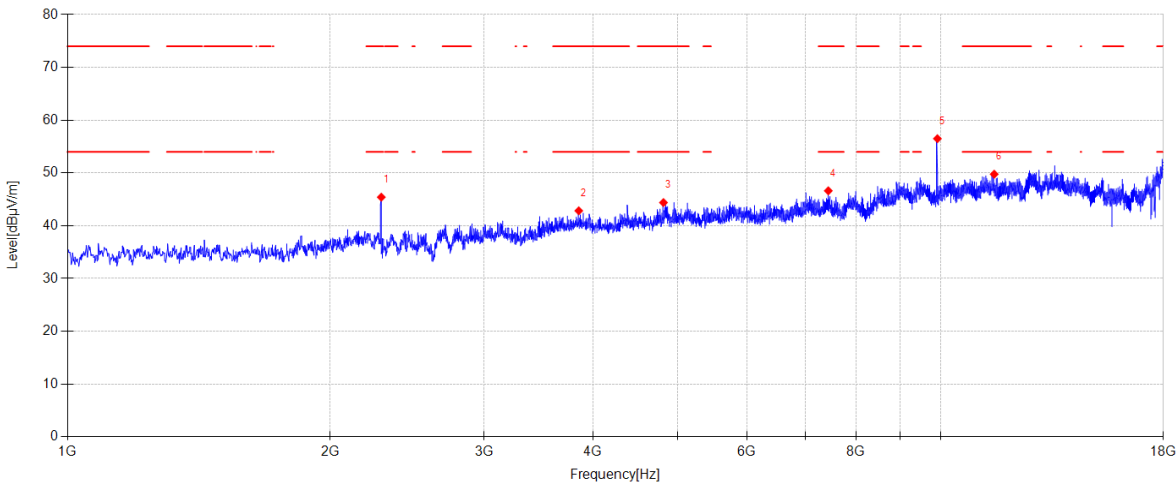
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2288.600	52.27	26.91	4.77	-38.54	45.41	74.00	28.59	PK	Horizontal
2	3852.600	46.47	30.92	5.08	-39.64	42.83	74.00	31.17	PK	Horizontal
3	4816.500	45.53	32.93	5.54	-39.61	44.39	74.00	29.61	PK	Horizontal
4	7439.600	43.93	36.62	6.67	-40.60	46.62	74.00	27.38	PK	Horizontal
5	9919.900	49.94	38.50	7.60	-39.54	56.50	-	-	PK	Horizontal
6	11523.000	41.67	39.15	8.46	-39.52	49.76	74.00	24.24	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

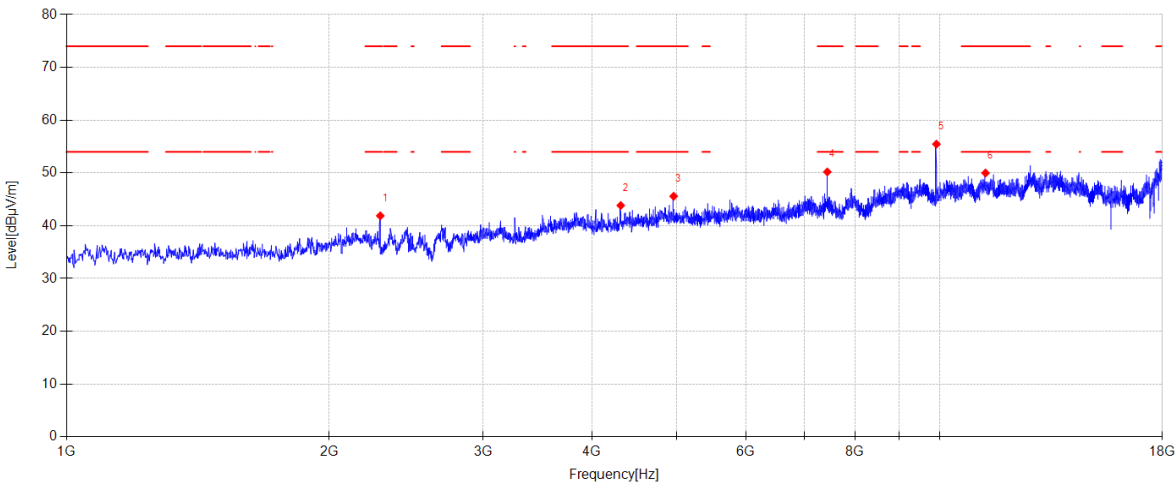
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2288.600	48.74	26.91	4.77	-38.54	41.88	74.00	32.12	PK	Vertical
2	4315.000	46.65	31.60	5.24	-39.65	43.84	74.00	30.16	PK	Vertical
3	4961.000	46.43	33.12	5.63	-39.60	45.58	74.00	28.42	PK	Vertical
4	7439.600	47.51	36.62	6.67	-40.60	50.20	74.00	23.80	PK	Vertical
5	9919.900	48.90	38.50	7.60	-39.54	55.46	-	-	PK	Vertical
6	11291.800	41.77	39.20	8.31	-39.29	49.99	74.00	24.01	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

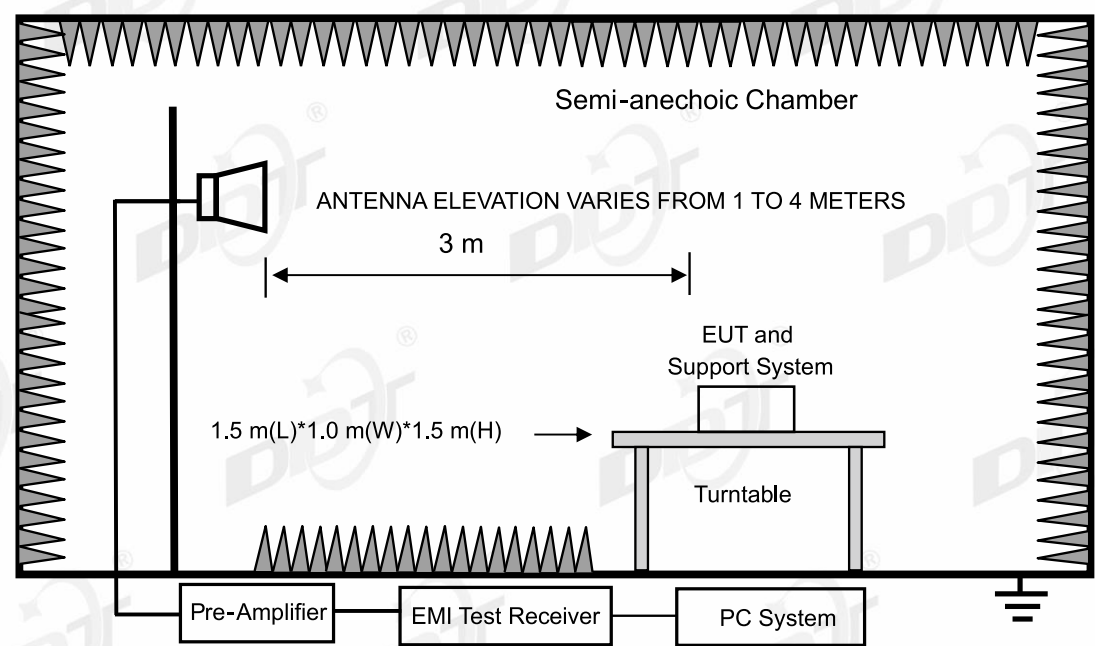
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

15.Band Edge Compliance

15.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2025/03/31
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2025/03/31
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2025/03/31
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2025/03/31
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2025/08/25
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2025/07/11
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2025/03/31
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2025/03/31
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2025/03/31
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2025/03/31
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22
Hochgewinn-Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2025/09/18
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22

15.2. Block diagram of test setup



15.3. Limits

All restriction band should comply with 15.209 and RSS-Gen section 8.9 limits, other emission should be at least 20 dB below the fundamental.

15.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
NoteBook	Lenovo	i7-3520M	N/A	00426-OEM-8992662-00400

15.5. Test procedure

Same with Radiated Emission except change investigated frequency range.
Remark: All restriction band have been tested, and only the worst case is shown in report.

15.6. Test result

PASS. (See below detailed test result)
Remark: All restriction band have been tested, and only the worst case is shown in report. According to the results of the radiated Emission test, it can be judged that the Vertical direction is the worst case.

15.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

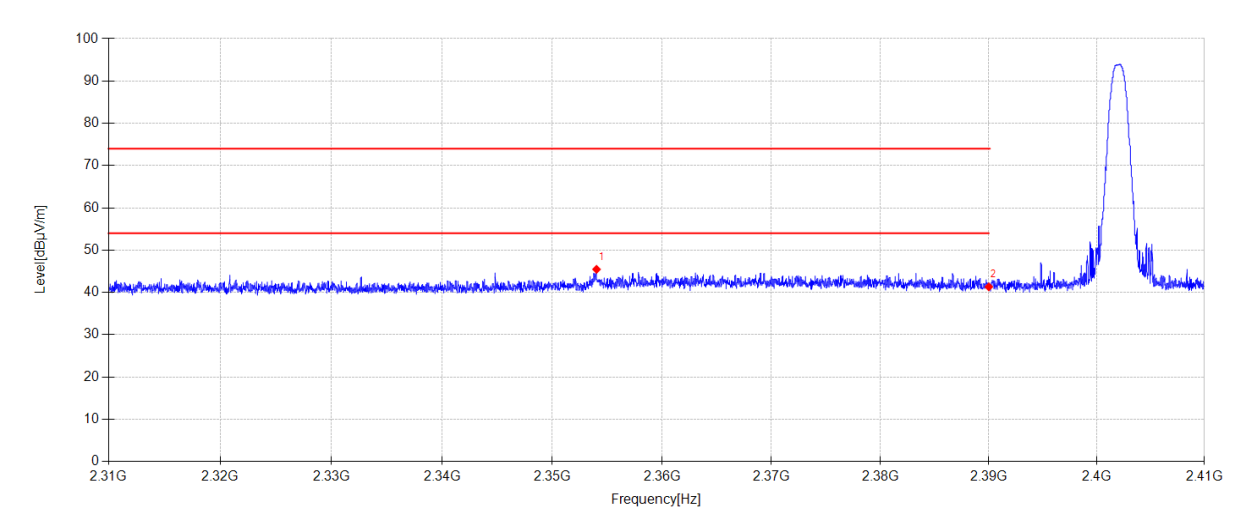
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\10

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2354.020	14.80	27.12	3.55	0.00	45.47	74.00	28.53	PK	Vertical
2	2390.000	10.49	27.26	3.57	0.00	41.32	74.00	32.68	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 2DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

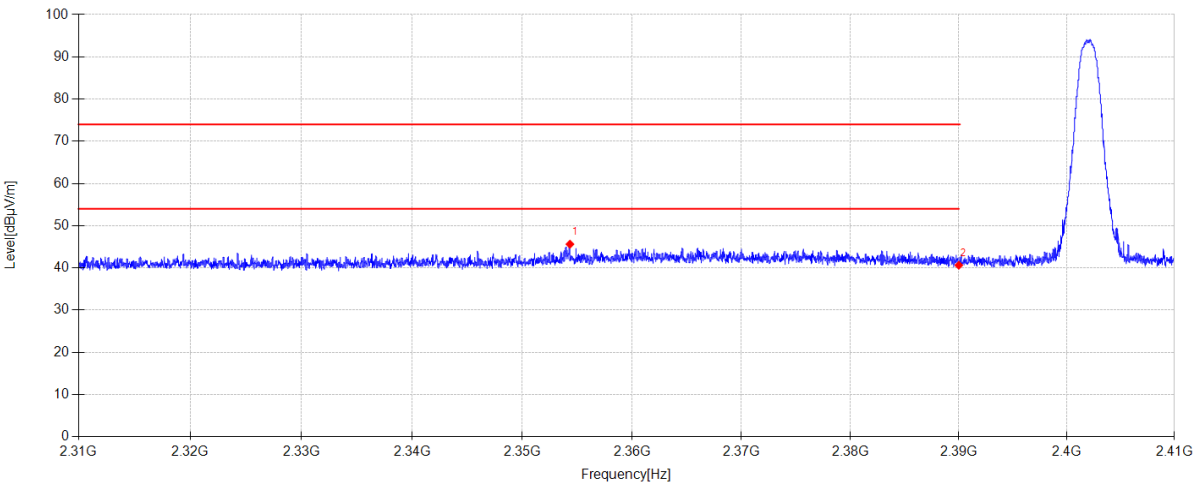
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\11

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2354.330	14.96	27.12	3.55	0.00	45.63	74.00	28.37	PK	Vertical
2	2390.000	9.81	27.26	3.57	0.00	40.64	74.00	33.36	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

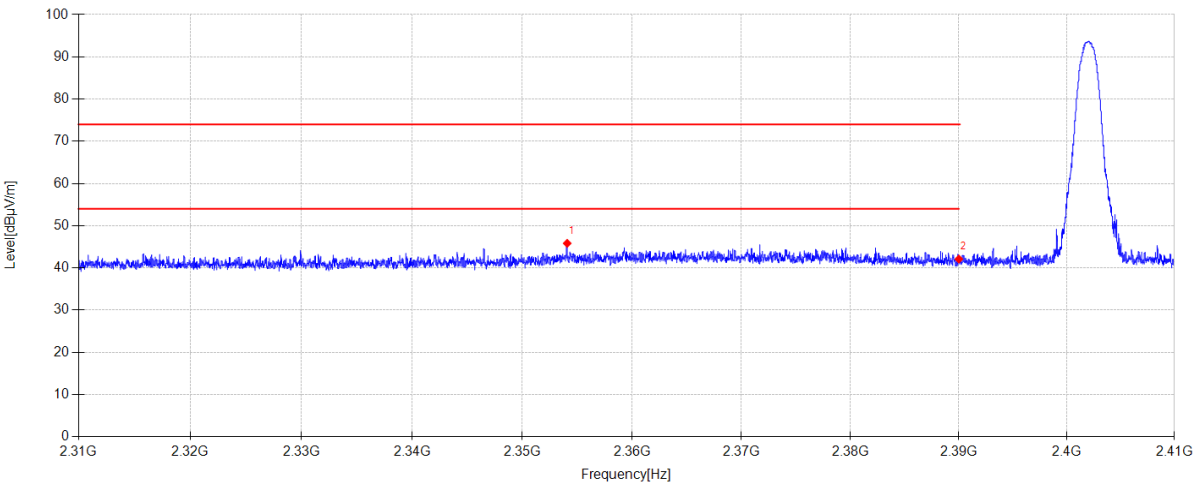
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\12

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2354.080	15.16	27.12	3.55	0.00	45.83	74.00	28.17	PK	Vertical
2	2390.000	11.27	27.26	3.57	0.00	42.10	74.00	31.90	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

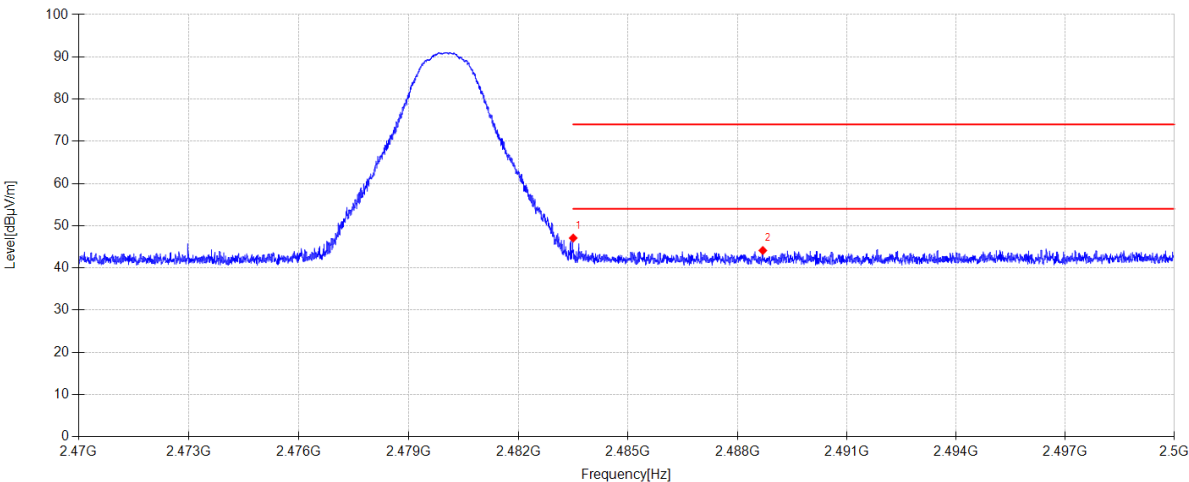
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\9

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	15.93	27.53	3.62	0.00	47.08	74.00	26.92	PK	Vertical
2	2488.693	12.96	27.55	3.62	0.00	44.13	74.00	29.87	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 2H5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

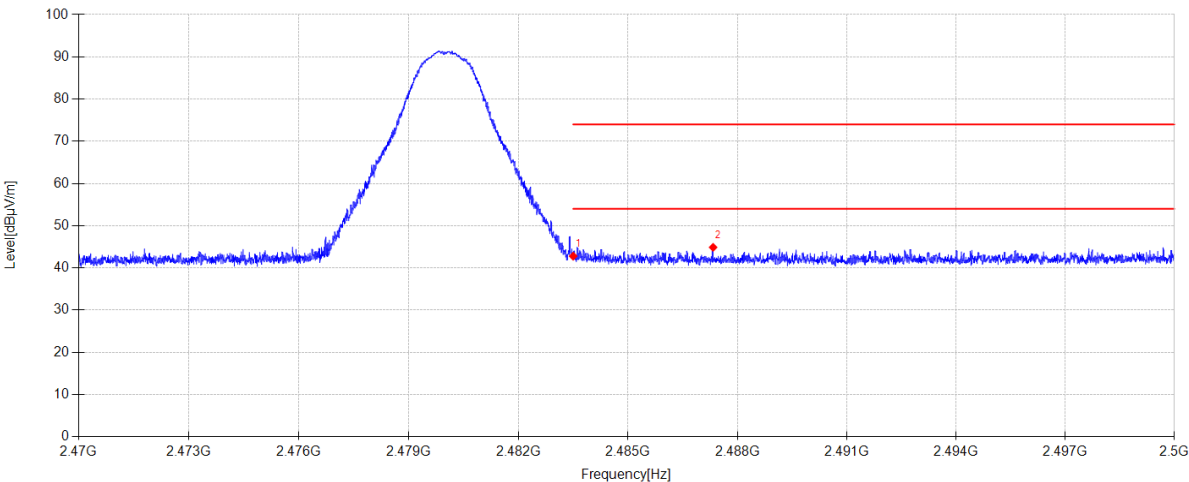
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\8

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	11.64	27.53	3.62	0.00	42.79	74.00	31.21	PK	Vertical
2	2487.331	13.71	27.55	3.62	0.00	44.88	74.00	29.12	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3H5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

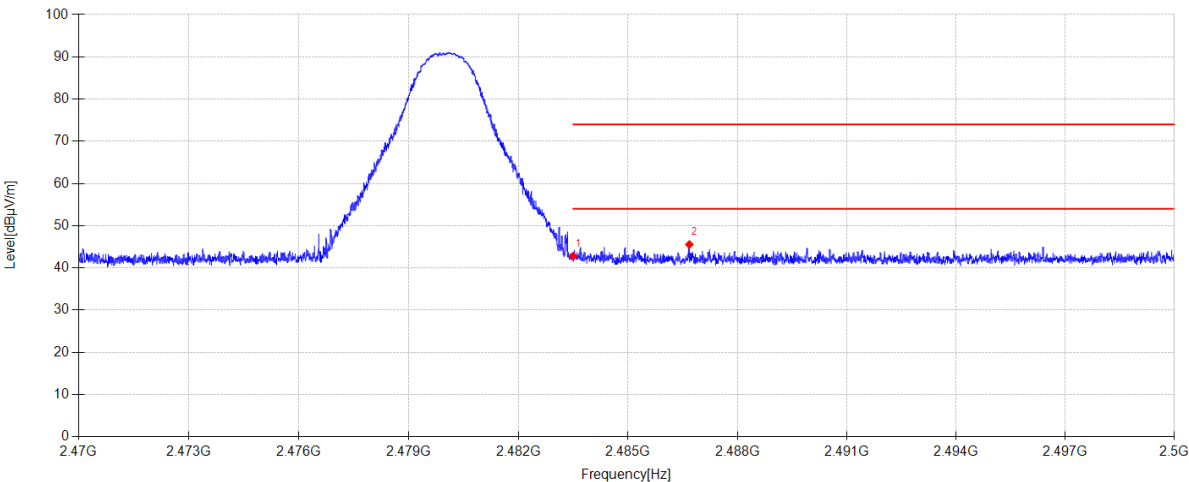
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\7

Memo:

Sample Number: S24103004-016 Left Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	11.68	27.53	3.62	0.00	42.83	74.00	31.17	PK	Vertical
2	2486.680	14.37	27.55	3.62	0.00	45.54	74.00	28.46	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

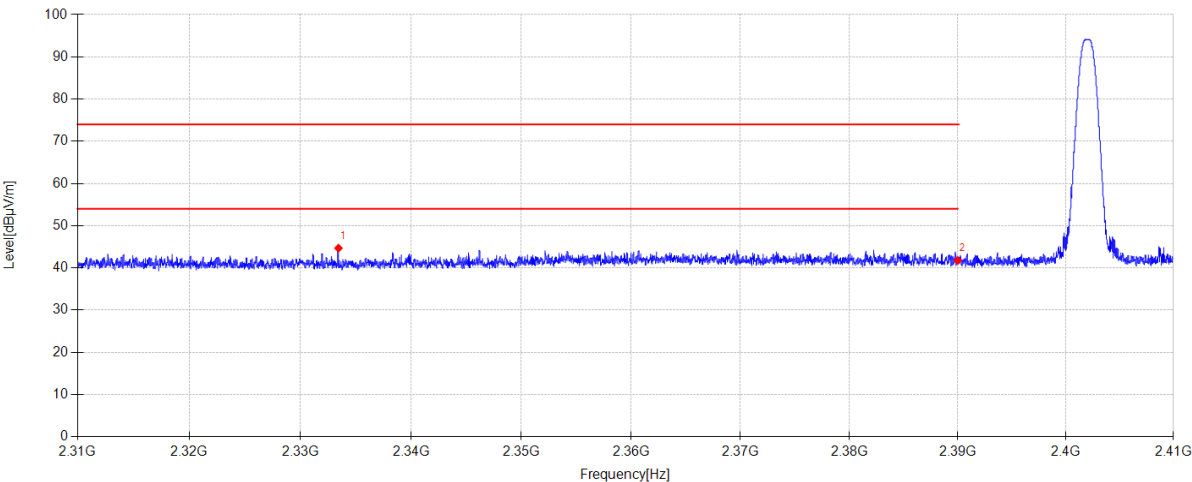
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d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\24

Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2333.440	14.14	27.00	3.54	0.00	44.68	74.00	29.32	PK	Vertical
2	2390.000	10.96	27.26	3.57	0.00	41.79	74.00	32.21	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 2DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

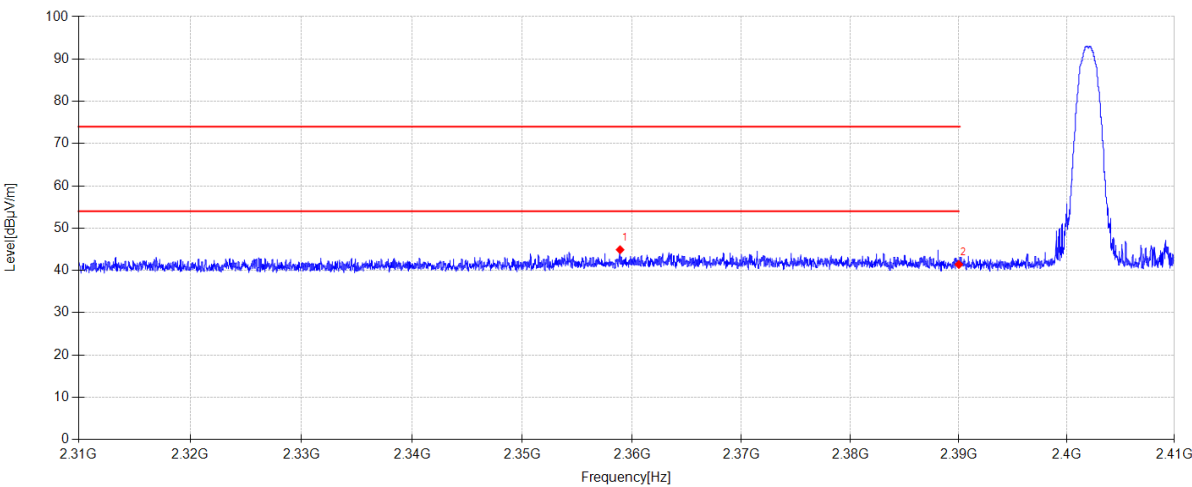
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\23

Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2358.900	14.21	27.14	3.55	0.00	44.90	74.00	29.10	PK	Vertical
2	2390.000	10.58	27.26	3.57	0.00	41.41	74.00	32.59	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2402 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

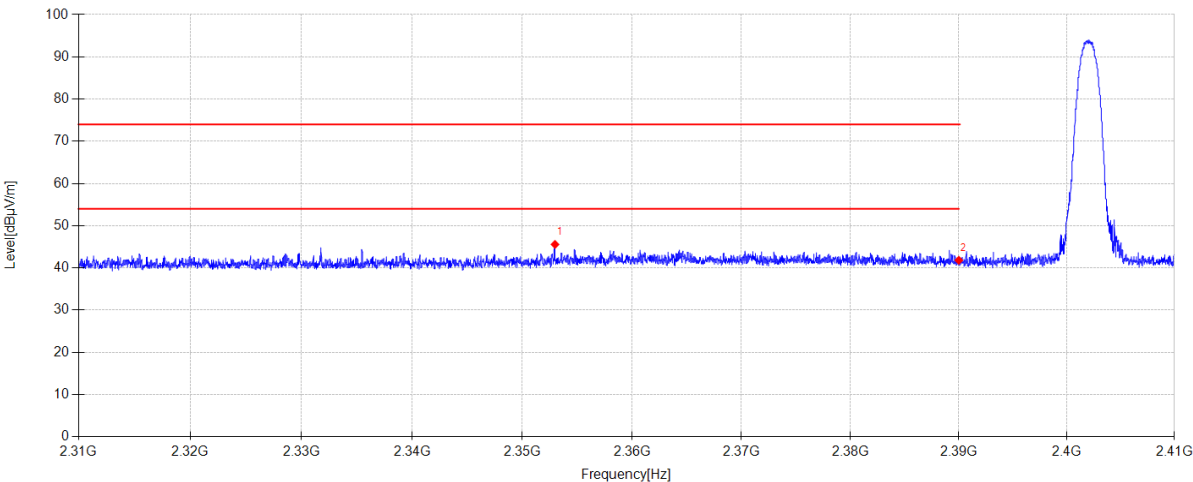
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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2352.970	14.91	27.11	3.55	0.00	45.57	74.00	28.43	PK	Vertical
2	2390.000	10.99	27.26	3.57	0.00	41.82	74.00	32.18	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

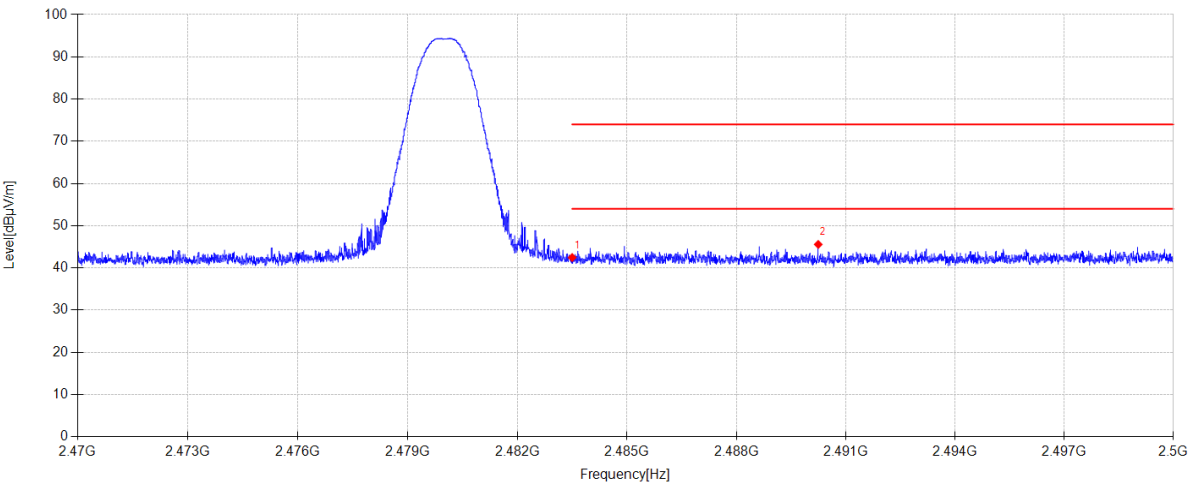
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\19

Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	11.32	27.53	3.62	0.00	42.47	74.00	31.53	PK	Vertical
2	2490.241	14.39	27.56	3.62	0.00	45.57	74.00	28.43	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 2DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

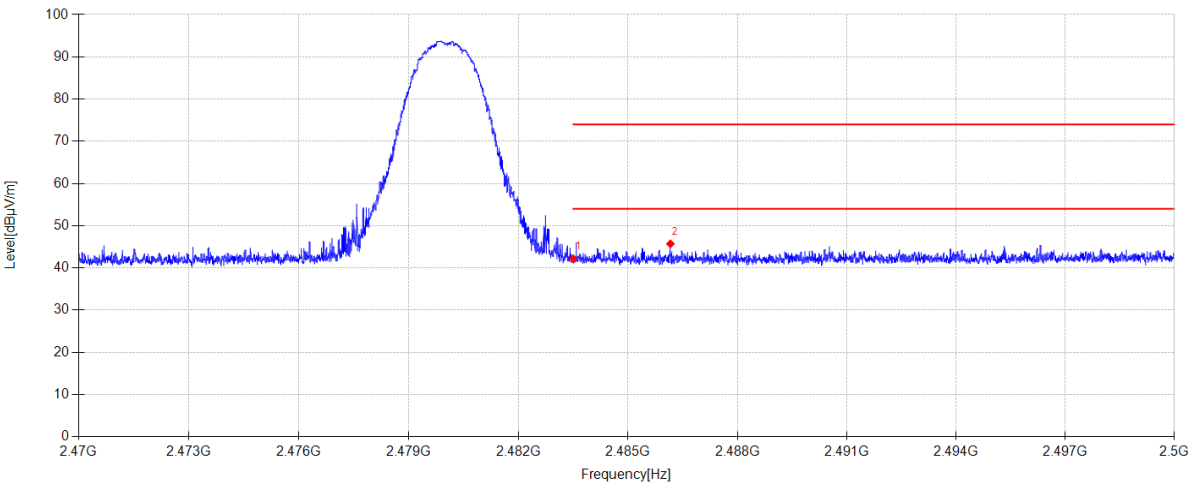
File Path:

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Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	11.03	27.53	3.62	0.00	42.18	74.00	31.82	PK	Vertical
2	2486.161	14.55	27.54	3.62	0.00	45.71	74.00	28.29	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-12-09

Tested By:

Guoyuan Lin

EUT:

WIRELESS HEADPHONES

Model Number:

HA-EC75T

Test Mode:

TX 3DH5 2480 MHz Mode

Power Supply:

DC 5V

Condition:

Temp:23.3°C;Humi:44.2%

Test Site:

DDT 3# Chamber

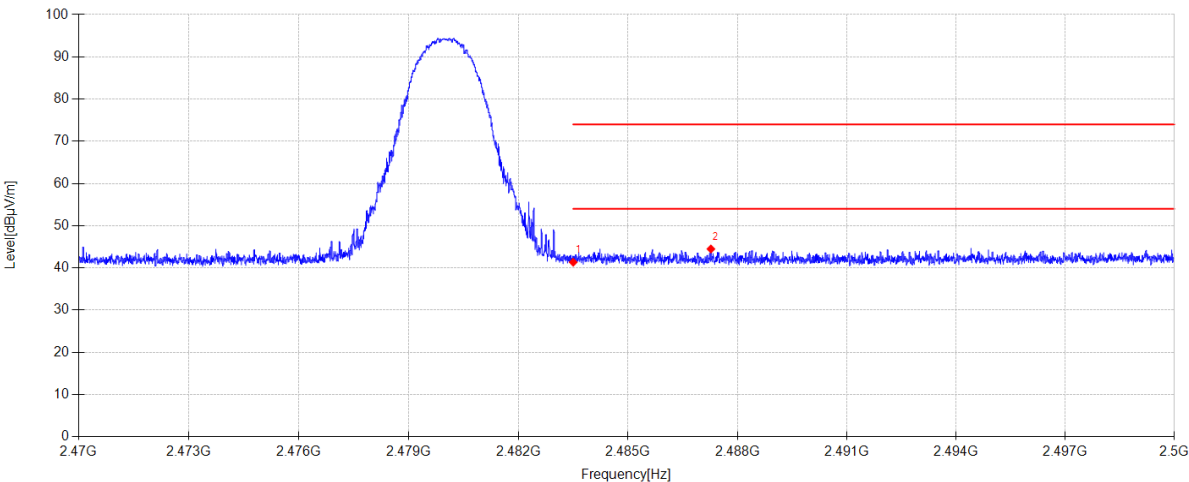
File Path:

d:\ts\2024 report data\Q24103004-1E\FCC Above 1G BT\21

Memo:

Sample Number: S24103004-016 Right Side

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	10.21	27.53	3.62	0.00	41.36	74.00	32.64	PK	Vertical
2	2487.271	13.32	27.55	3.62	0.00	44.49	74.00	29.51	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

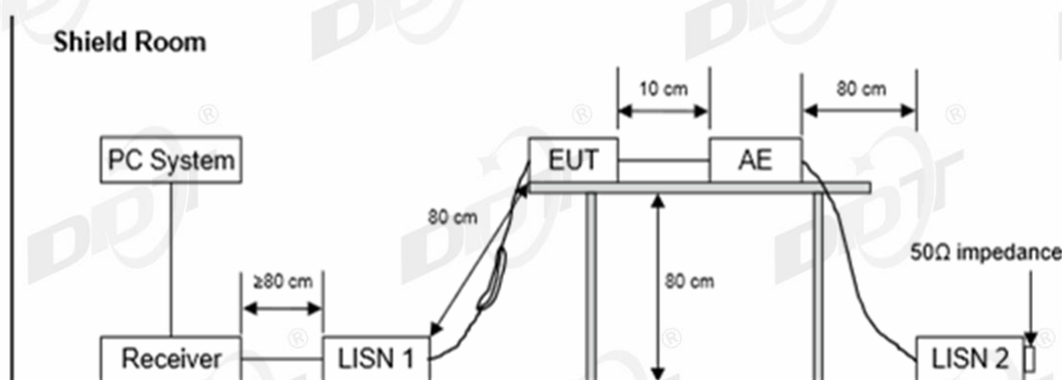
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

16.Power Line Conducted Emissions

16.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
EMI Test Receiver	R&S	ESCI/E3	DDT-ZC01297	2025/07/08
Conducted Radiated Software	Audix	E3	DDT-ZC00562	/
Two Line V-Network	R&S	ENV216	DDT-ZC02056	2025/07/08
Two Line V-Network	R&S	ENV216	DDT-ZC02059	2025/07/08
Δ -shaped artificial power network	SCHWARZBEC K	PVDC 8301	DDT-ZC03939	2025/03/31
Pulse Limiter	SCHWARZBEC K	VTSD 9561	DDT-ZC02128	2025/07/08
RF Cable	Yuhu Technology	Z806-NJ-NJ-6M	DDT-ZC02004	2025/07/08
Three-phase artificial power network	SCHWARZBEC K	NSLK 8163	DDT-ZC01572	2025/07/08

16.2. Block diagram of test setup



16.3. Limits

Frequency	Quasi-Peak Level dB(uV)	Average Level dB(uV)
150 kHz~500 kHz	66 ~ 56*	56 ~ 46*
500 kHz~5 MHz	56	46
5 MHz~30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

16.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
Adapter	HUAWEI	HW-100400C01	Huawei Fast Charge 2 #	Input: 100-240V~50/60Hz, Output: 5V/2A or 9V/2A or 10V/4A MAX
Charging case	Dongguan Siyoto Electronics Co.,Ltd.	HA-EC75T	N/A	CAPACITY: DC 3.7V/600mAh 2.22Wh, INPUT: DC 5V/320 mA

16.5. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

16.6. Test result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: “----” means Peak detection; “----” means Average detection.

Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded the worst case.

16.7. Test data

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 6# Shield Room

Test Date : 2024-12-19

EUT : WIRELESS HEADPHONES

Power Supply : AC 120V/60Hz

Condition : Temp:21.9°C,Humi:52.5%

Memo : Sample Number: S24103004-016

D:\2024 Report Date\Q24103001-1E\1219 CE.EM6

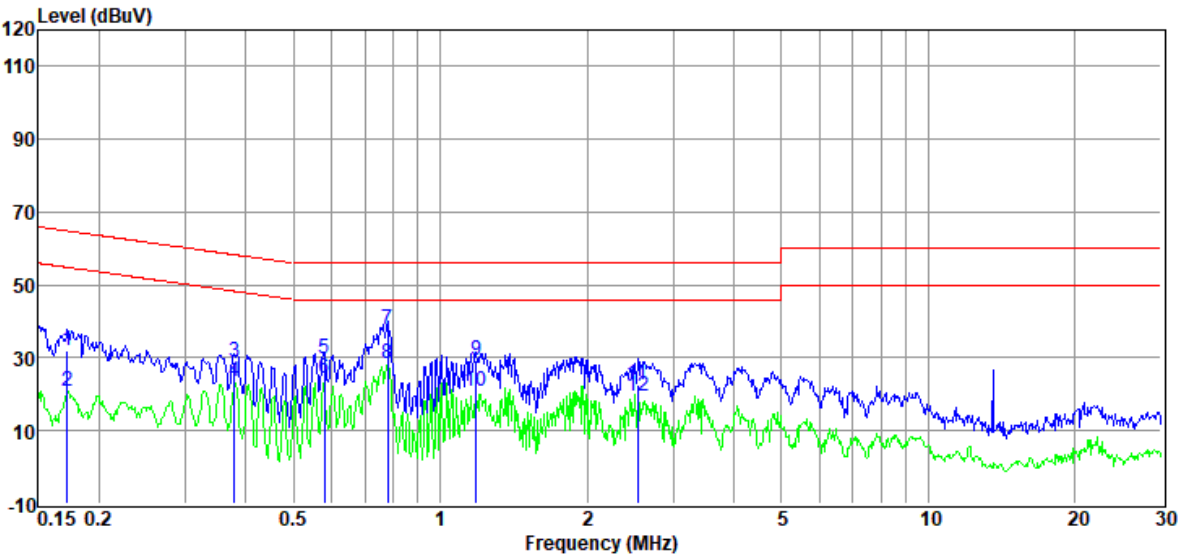
Tested By : Genliu

Model Number : HA-EC75T

Test Mode : Tx mode

LISN : 2024 ENV216 3#/NEUTRAL

Data: 2



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.17	12.28	9.77	0.07	9.83	31.95	64.86	-32.91	QP	NEUTRAL
2	0.17	1.02	9.77	0.07	9.83	20.69	54.86	-34.17	Average	NEUTRAL
3	0.38	9.30	9.76	0.08	9.83	28.97	58.30	-29.33	QP	NEUTRAL
4	0.38	3.83	9.76	0.08	9.83	23.50	48.30	-24.80	Average	NEUTRAL
5	0.58	10.25	9.75	0.09	9.83	29.92	56.00	-26.08	QP	NEUTRAL
6	0.58	4.57	9.75	0.09	9.83	24.24	46.00	-21.76	Average	NEUTRAL
7	0.78	18.04	9.75	0.05	9.84	37.68	56.00	-18.32	QP	NEUTRAL
8	0.78	8.92	9.75	0.05	9.84	28.56	46.00	-17.44	Average	NEUTRAL
9	1.18	9.75	9.76	0.12	9.84	29.47	56.00	-26.53	QP	NEUTRAL
10	1.18	1.31	9.76	0.12	9.84	21.03	46.00	-24.97	Average	NEUTRAL
11	2.54	2.99	9.77	0.11	9.84	22.71	56.00	-33.29	QP	NEUTRAL
12	2.54	-0.37	9.77	0.11	9.84	19.35	46.00	-26.65	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 6# Shield Room

Test Date : 2024-12-19

EUT : WIRELESS HEADPHONES

Power Supply : AC 120V/60Hz

Condition : Temp:21.9°C,Humi:52.5%

Memo : Sample Number: S24103004-016

D:\2024 Report Date\Q24103001-1E\1219 CE.EM6

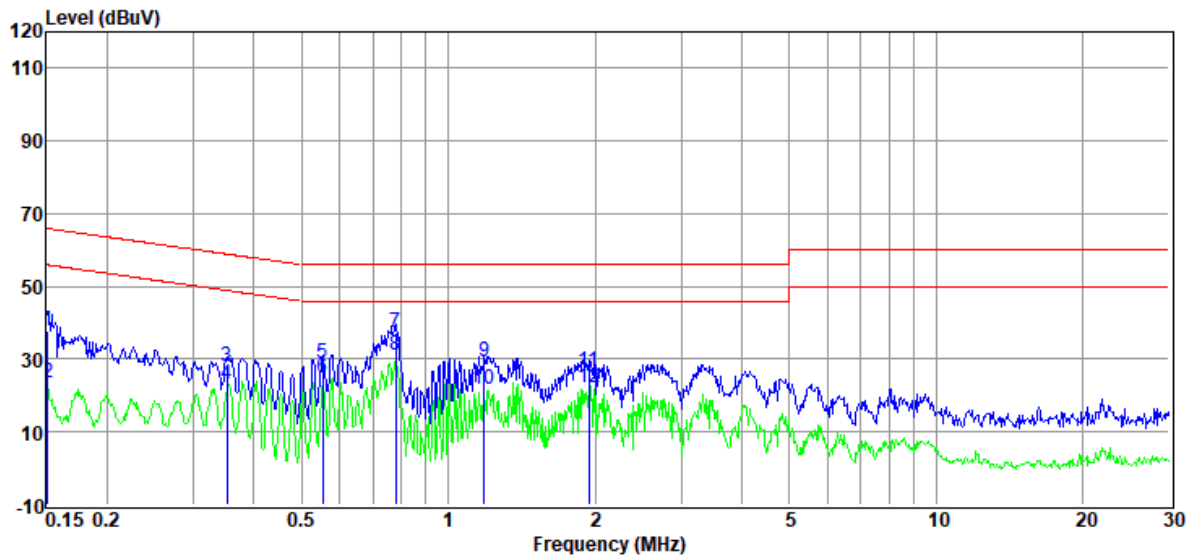
Tested By : Genliu

Model Number : HA-EC75T

Test Mode : Tx mode

LISN : 2024 ENV216 3#/LINE

Data: 4



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.15	18.08	9.78	0.07	9.83	37.76	65.96	-28.20	QP	LINE
2	0.15	3.90	9.78	0.07	9.83	23.58	55.96	-32.38	Average	LINE
3	0.35	8.39	9.76	0.08	9.83	28.06	58.91	-30.85	QP	LINE
4	0.35	3.30	9.76	0.08	9.83	22.97	48.91	-25.94	Average	LINE
5	0.55	9.07	9.75	0.10	9.83	28.75	56.00	-27.25	QP	LINE
6	0.55	5.14	9.75	0.10	9.83	24.82	46.00	-21.18	Average	LINE
7	0.78	17.65	9.75	0.05	9.84	37.29	56.00	-18.71	QP	LINE
8	0.78	11.63	9.75	0.05	9.84	31.27	46.00	-14.73	Average	LINE
9	1.18	9.61	9.74	0.12	9.84	29.31	56.00	-26.69	QP	LINE
10	1.18	1.82	9.74	0.12	9.84	21.52	46.00	-24.48	Average	LINE
11	1.94	6.92	9.75	0.11	9.84	26.62	56.00	-29.38	QP	LINE
12	1.94	2.24	9.75	0.11	9.84	21.94	46.00	-24.06	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

18. Photos of the EUT

Please refer to DDT-Q24103004-2E appendix I

-----End Report-----