

NCC RADIO TEST REPORT

Product name	Wireless TWS earphones
Applicant	皇佳國際股份有限公司
Manufacture	Audio Partnership PLC
Rating(s)	DC5V (Charging Case) or DC3.7V from battery (Earphones)
Trademark	Cambridge Audio
Main Model:	Melomania Touch
Series Model:	N/A
Standard	LP0002:2018
Test Result	Pass

Date of receipt : 07-20-2020
Date of Issue : 07-30-2020

Signature :



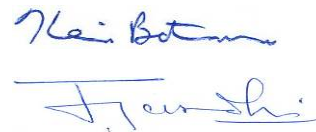
NCC RADIO TEST REPORT

Report Reference No...... M200720N3

Compiled by (+ signature) Kevin Bothmann

Approved by (+ signature) Jay Gandhi

Date of issue..... 07-30-2020



Applicant's name 皇佳國際股份有限公司

Address 台北市民族東路 60 號 8 樓之 1

Manufacture's Name Audio Partnership PLC

Address Gallery Court, Hankey Place, London, SE1 4BB, United Kingdom

Test specification:

Standard LP0002: 2018

Test procedure EIA 603、ANSI、FCC/47 CFR/2.1046、2.1047、2.1049、2.1051、2.1053 and 2.1055

Non-standard test method... N/A

Test item description

Product name : Wireless TWS earphones

Trademark : Cambridge Audio

Main Model : Melomania Touch

Rating(s) : INPUT: DC5V (Charging Case) or DC3.7V from battery (Earphones)

Testing Laboratory information

Testing Laboratory Name : Electro Magnetic Test, Inc.

Address : 1547 Plymouth Street, Mountain View, CA 94043

CAB Identifier Number : US0036

Tel : (650) 965-4000

Fax : (650) 965-3000

Testing

Date of receipt of test item..... Jul. 20, 2020

Date (s) of performance of tests..... Jun. 30~ Jul. 29, 2020

Date of Issue Jul. 30, 2020

Test Result **Pass**

GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Electro Magnetic Test, Inc., which is an independent testing and consulting firm. The test report is based on testing performed Electro Magnetic Test, Inc. personnel according to the measurement procedure described in the test specification given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form unless done so in full.

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Electro Magnetic Test, Inc. is recognized by the following agencies for performing EMI/EMC testing:

COUNTRY	AGENCY	IDENTIFYING #
USA	Federal Communications Commission (FCC) (EMT's test site is recognized by the FCC)	Registration Number: 90576
USA, Canada, TaiWan, Australia/New Zealand, European Community	National Voluntary Lab Accreditation Program (NVLAP) (EMT is accredited by NVLAP. A copy of the NVLAP Scope Of Accreditation is available upon request.)	Lab Code: 200147-0
Canada	Industry Canada	File No.: IC 2804
Japan	Voluntary Control Council For Interference (VCCI)	See Below
	Open Field Test Site "A"	R-589
	Mains Conducted Emissions Test Site "A"	C-604
	Telecom Conducted Emissions Test Site "A"	T-1655
	3 Meter Semi-Anechoic Chamber Site "E"	R-3227
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	G-219
	Mains Conducted Emissions Test Site "E"	C-35793
	Telecom Conducted Emissions Test Site "E"	T-1715
Korea	Ministry of Information and Communication's Radio Research Laboratory (RRL) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (A copy of the Scope Of Accreditation is available upon request)	US0036
Tai Wan	Bureau Of Standards, Metrology and Inspection (BSMI)	Reference Number: SL2-IN-E-1024
Australia / New Zealand	Australian Communications Authority (AUSTEL)	*

***THESE AGENCIES DO NOT ISSUE AN IDENTIFYING NUMBER TO TEST LABS.**

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

LP0002 : 2018			
Standard Section	Test Item	Judgment	Remark
2.3	Conducted Emission	PASS	None
3.10.1(5)/2.8	Radiated Spurious Emission	PASS	None
3.10.1(2)	Peak Output Power	PASS	None
3.10.1(6.1.1)	Occupied Bandwidth	PASS	None
3.10.1(6.1.1)	Hopping Channel Separation	PASS	None
3.10.1(6.1.2)	Number of Hopping Frequency	PASS	None
3.10.1(6.1.2)	Dwell Time	PASS	None
3.10.1(5)/2.8	Restricted Bands	PASS	None
3.10.1(3)	Antenna Requirement	PASS	None

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	1.38dB
2	Radiated Emission Test	3.17dB
3	RF power,conducted	0.16dB
4	Spurious emissions,conducted	0.21dB
5	All emissions,radiated(<1G)	4.68dB
6	All emissions,radiated(>1G)	4.89dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless TWS earphones		
Trade Name	Cambridge Audio		
Model Name	Melomania Touch		
Serial Model Name	N/A		
Model Difference	N/A		
Product Description	The EUT is a Wireless TWS earphones.		
	Operation Frequency:	2402~2480 MHz	
	Modulation Type:	GFSK(1Mbps) []/4 DQPSK(2Mbps) 8QPSKA(3Mbps)	
	Number Of Channel	79 CH	
	Antenna Designation:	Please see Note 3.	
	Antenna Gain(Peak)	2.50 dBi	
	Output Power:	Left:	1Mbps Mode: 2.92dBm (Max.) 3Mbps Mode: 4.81dBm(Max.)
		Right:	1Mbps Mode: 2.76dBm (Max.) 3Mbps Mode: 4.80dBm(Max.)
Channel List	Please refer to the Note 2.		
Power Rating	INPUT: DC5V (Charging Case) or DC3.7V from battery (Earphones)		
Connecting I/O Port(s)	Please refer to the User's Manual		
Products Covered	N/A		

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

3.

Table for Filed Antenna

Ant	Manufacturer	Model Name	Antenna Type	Trade Name	Gain (dBi)	NOTE
	詠業科技股份 有限公司	H2U34WGTQW0 100	Chip Antenna	Cambridge Audio	2.50 dBi	Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	1Mbps
Mode 2	2Mbps
Mode 3	3Mbps
Mode 4	RX
Mode 5	Charge

For Conducted Emission	
Final Test Mode	Description
Mode 1	CH00
Mode 5	Charge

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH00 /CH39 /CH78
Mode 3	CH00 /CH39 /CH78
Mode 4	RX (
Mode 5	Charge

Note:

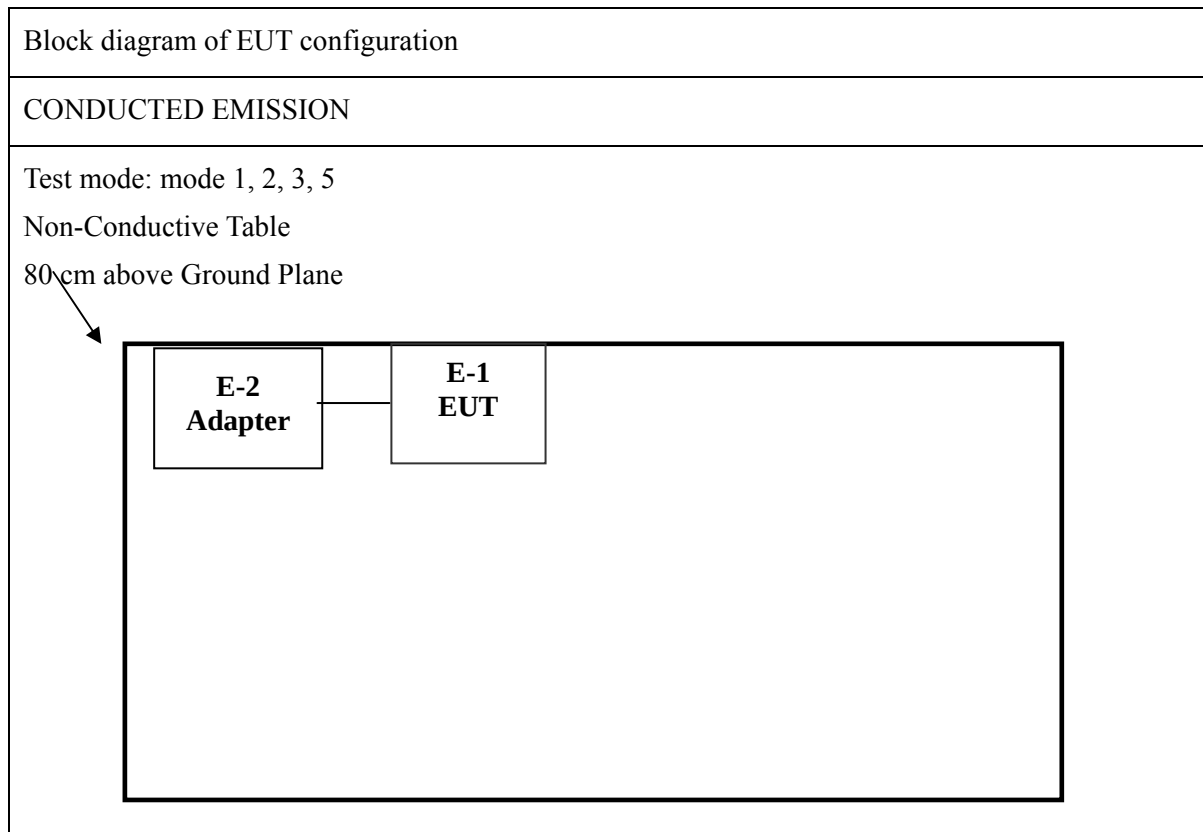
- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) Pretest left earphone and right earphone, found the worst-case is left earphone, only the worse case data show in the report.

2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the Cambridge Audio end product power parameters of FHSS

Test software Version	Test program: BTtest3		
Frequency	2402 MHz	2441 MHz	2480 MHz
Parameters(1Mbps)	Default	Default	Default
Parameters(3Mbps)	Default	Default	Default

2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



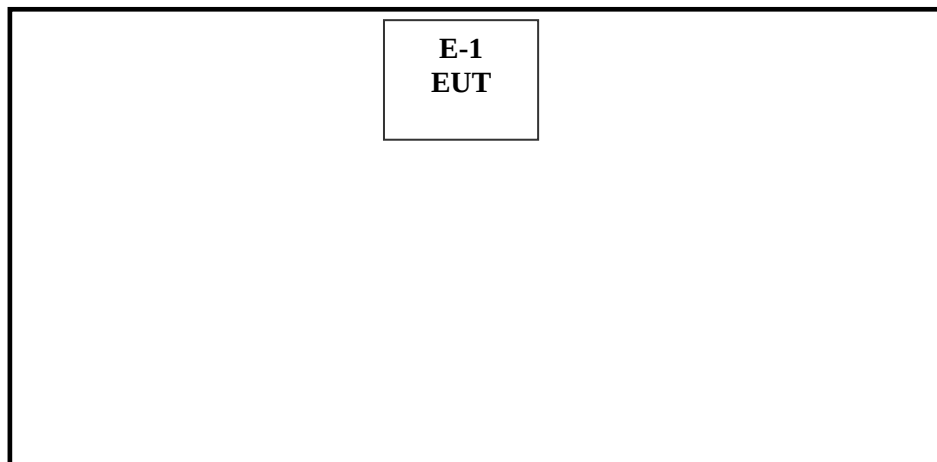
Block diagram of EUT configuration

RADIATED EMISSION

Test mode: mode 1, 2, 3 ,4

Non-Conductive Table

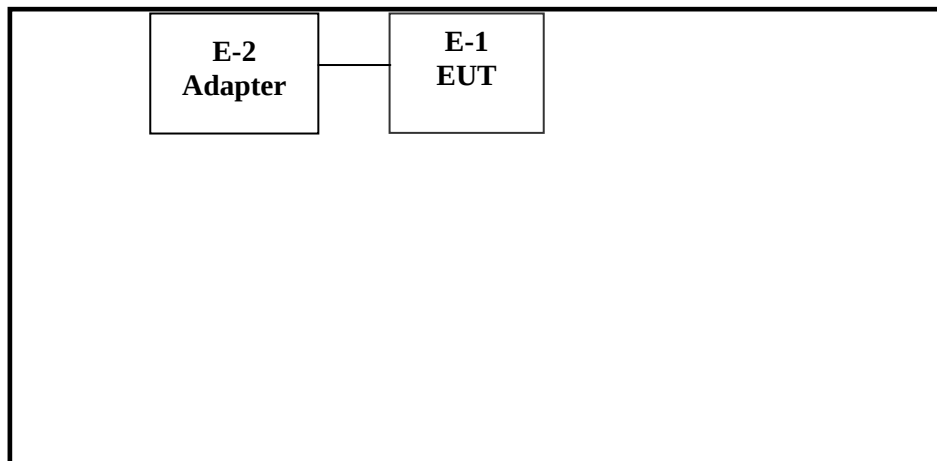
80 cm above Ground Plane



Test mode: mode 5

Non-Conductive Table

80 cm above Ground Plane



2.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Wireless TWS earphones	Cambridge Audio	Melomania Touch	N/A	N/A	EUT
E-2	Adapter	NOKIA	FC0302	N/A	N/A	Test Accessory*
E-3	Charging Case	Cambridge Audio	Melomania Touch	N/A	N/A	EUT

Item	Mfr/Brand	Model/Type No.	Series No.	Note
USB Line	MHET	MH-TC003	N/A	EUT

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” means “shielded” or “with ferrite core”; “NO” means “unshielded” or “without ferrite core”
- (4) “*”: In this report, the applicant did not provide the accompanying accessories with the equipment. The accessories were provided by the laboratory (or the applicant) and inspected simultaneously.

2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer	Hewlett Packard	8566B	3013A07296	April 29, 2020	1 Year
RF Preselector	Hewlett Packard	85685A	3010A01157	April 29, 2020	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650	2521A00584	April 29, 2020	1 Year
Preamplifier	Com Power	PA-102	1482	April 29, 2020	1 Year
RF Attenuator	Mini-Circuits	CAT-10	Asset #1000	December 8, 2019	1 Year
LISN	Com Power	LI-200	12012	September 10, 2019	1 Year
LISN	Com Power	LI-200	12012	September 09, 2019	1 Year
LISN	Com Power	LI-200	12214	September 10, 2019	1 Year
LISN	Com Power	LI-200	12214	September 09, 2019	1 Year
LISN	Com Power	LI-200	1767	September 10, 2019	1 Year
LISN	Com Power	LI-200	1767	September 09, 2019	1 Year
LISN	Com Power	LI-200	1768	September 10, 2019	1 Year
LISN	Com Power	LI-200	1768	September 09, 2019	1 Year
Biconical Antenna	Com Power	AB-100	01557	December 29, 2019	1 Year
Log Periodic Antenna	Com Power	AL-100	16037	December 22, 2019	1 Year
Horn Antenna	Com Power	AHA-118	711054	December 22, 2019	1 Year
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Dell, Inc.	DHS	DNSV641	N/A	N/A
Printer	Hewlett Packard	C8124A	CN39B2234T	N/A	N/A
Plotter	Hewlett Packard	7470A	2308A96499	N/A	N/A

EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANU-FACT URER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100127	June 12, 2020	1 Year
BiConiLog Antenna	ETS-Lindgren	3142D	00102183	August 14, 2019	1 Year
Horn Antenna	ETS-Lindgren	3117	00109294	May 6, 2020	1 Year
Preamplifier	Rohde & Schwarz	TS-PR18	100056	June 12, 2020	1 Year
Antenna Mast	ETS-Lindgren	2175	00095727	N/A	N/A
Turntable	ETS-Lindgren	2187-3.0	00118231	N/A	N/A
Computer	Acer	Aspire 8930	85100050123	N/A	N/A
Multi-Function Controller	ETS-Lindgren	2090	00102270	N/A	N/A
Loop Antenna	ARA	PLA-1030/B	1029	May 19, 2020	1 Year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP0002
0.50 -5.0			56.00	46.00	LP0002
5.0 -30.0			60.00	50.00	LP0002

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

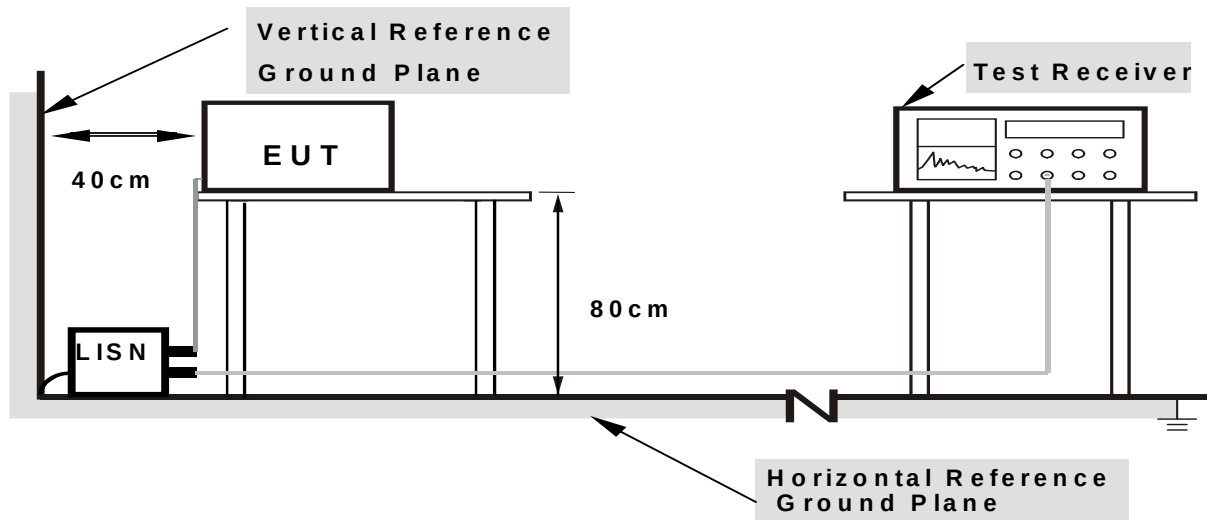
3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



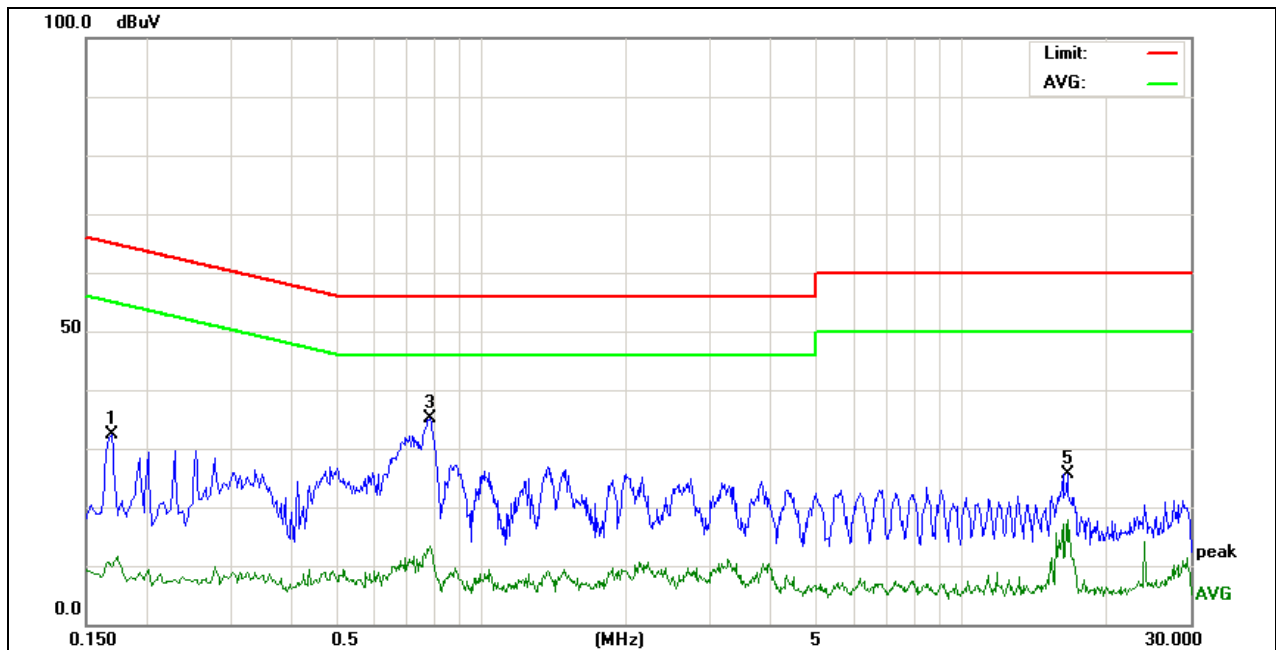
Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 TEST RESULTS

Pretest left earphone and right earphone, found the worst-case is left earphone, only the worse case data show in the report.

EUT :	Wireless TWS earphones	Model Name. :	Melomania Touch
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Phase :	L
Test Voltage :	AC 110V/60Hz for Adapter		

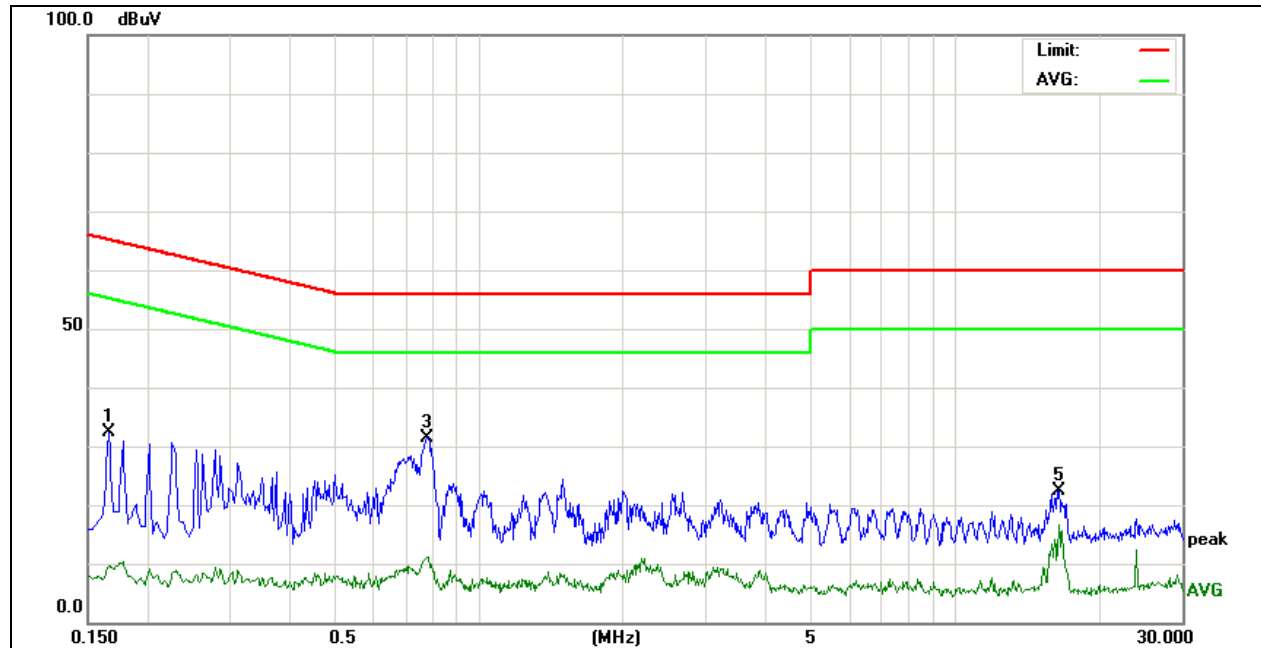


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1700	22.64	9.84	32.48	64.96	-32.48	peak
2		0.1700	1.76	9.84	11.60	54.96	-43.36	AVG
3	*	0.7820	25.16	9.89	35.05	56.00	-20.95	peak
4		0.7820	3.40	9.89	13.29	46.00	-32.71	AVG
5		16.5900	15.54	10.03	25.57	60.00	-34.43	peak
6		16.5900	7.86	10.03	17.89	50.00	-32.11	AVG

EUT :	Wireless TWS earphones	Model Name. :	Melomania Touch
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Phase :	N
Test Voltage :	AC 110V/60Hz for Adapter		



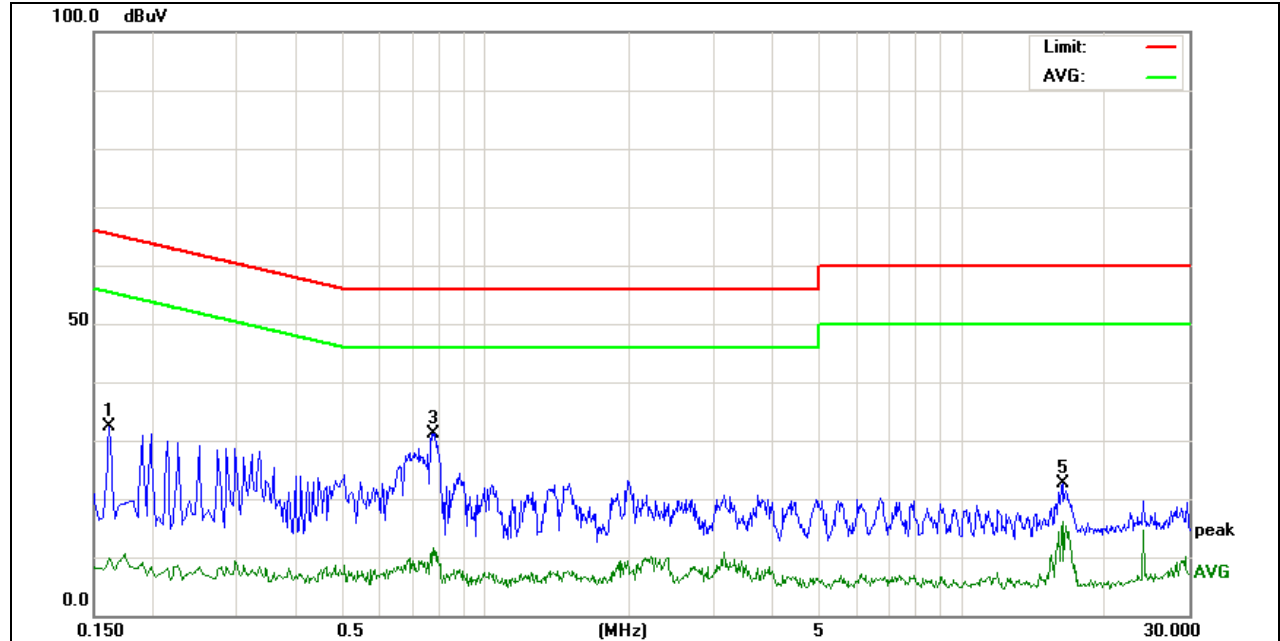
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.1660	22.65	9.84	32.49	65.15	-32.66	peak
2	0.1660	0.44	9.84	10.28	55.15	-44.87	AVG
3 *	0.7780	21.59	9.89	31.48	56.00	-24.52	peak
4	0.7780	1.23	9.89	11.12	46.00	-34.88	AVG
5	16.5340	12.40	10.03	22.43	60.00	-37.57	peak
6	16.5340	6.69	10.03	16.72	50.00	-33.28	AVG

Test result: The unit does meet the NCC requirements.

EUT :	Wireless TWS earphones	Model Name. :	Melomania Touch
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2020-07-27
Test Mode :	Mode5	Phase :	L
Test Voltage :	AC 110V/60Hz for Adapter		

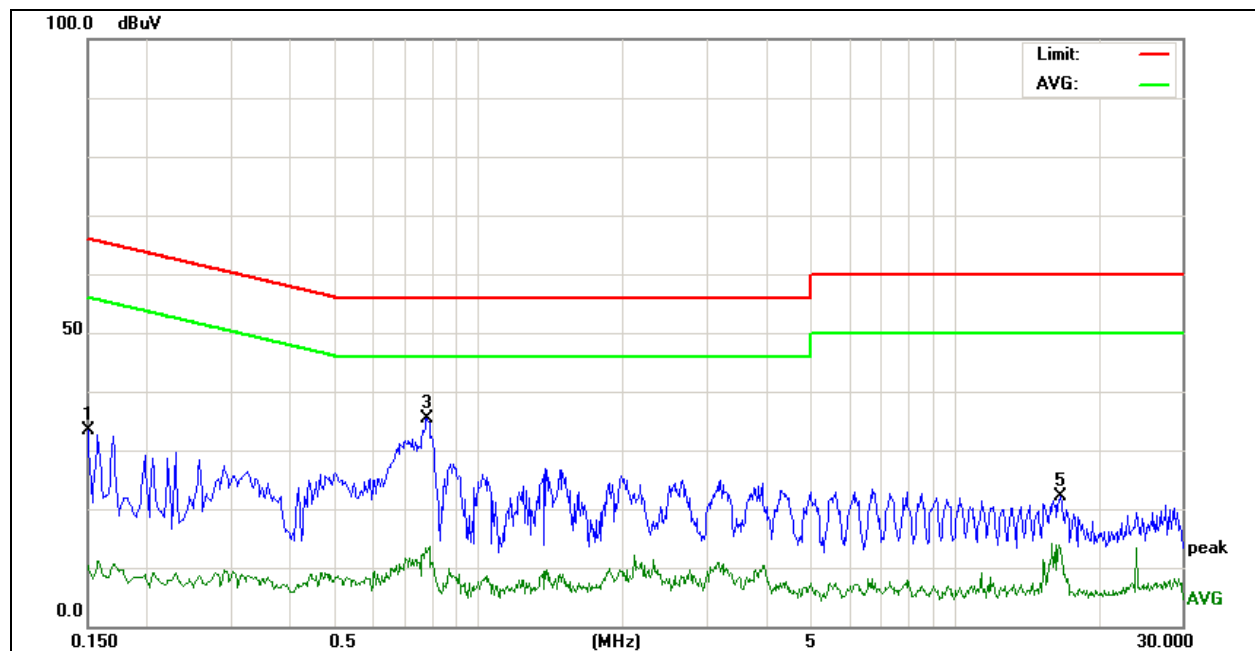


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector
		MHz	dBuV	dB	dBuV	dBuV	dB	
1		0.1620	22.52	9.84	32.36	65.36	-33.00	peak
2		0.1620	0.69	9.84	10.53	55.36	-44.83	AVG
3	*	0.7780	21.27	9.89	31.16	56.00	-24.84	peak
4		0.7780	1.68	9.89	11.57	46.00	-34.43	AVG
5		16.2300	12.69	10.03	22.72	60.00	-37.28	peak
6		16.2300	5.98	10.03	16.01	50.00	-33.99	AVG

EUT :	Wireless TWS earphones	Model Name. :	Melomania Touch
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2020-07-27
Test Mode :	Mode5	Phase :	N
Test Voltage :	AC 110V/60Hz for Adapter		



Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1500	23.43	9.90	33.33	65.99	-32.66	peak
2		0.1500	1.20	9.90	11.10	55.99	-44.89	AVG
3	*	0.7780	25.60	9.89	35.49	56.00	-20.51	peak
4		0.7780	3.78	9.89	13.67	46.00	-32.33	AVG
5		16.6980	12.18	10.03	22.21	60.00	-37.79	peak
6		16.6980	4.09	10.03	14.12	50.00	-35.88	AVG

Test result: The unit does meet the NCC requirements.

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 2.7, then the 2.8 limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

- (1) The limit for radiated test was performed according to LP0002.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

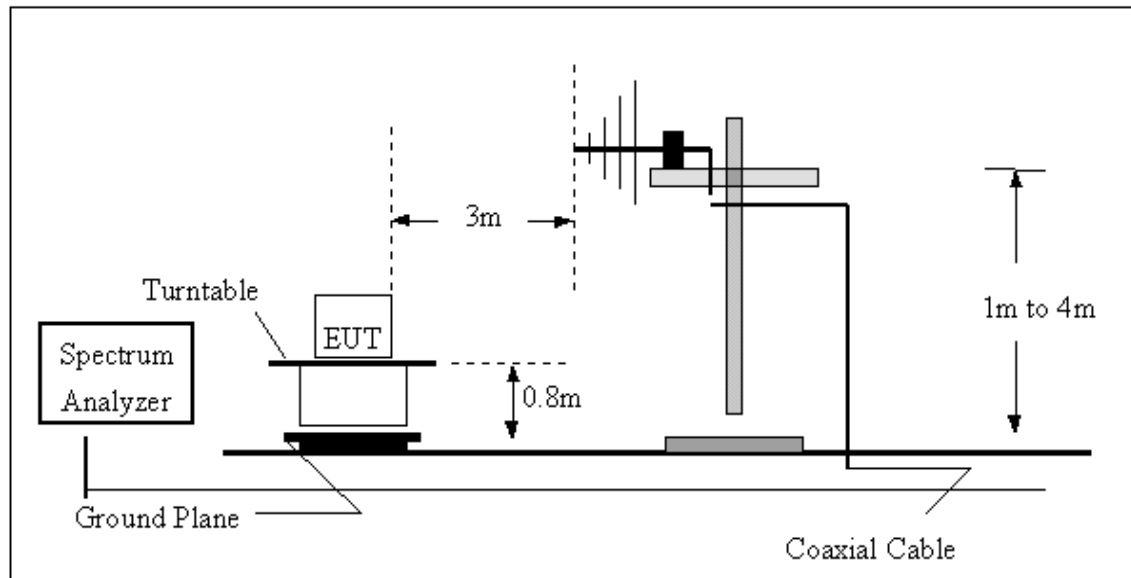
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

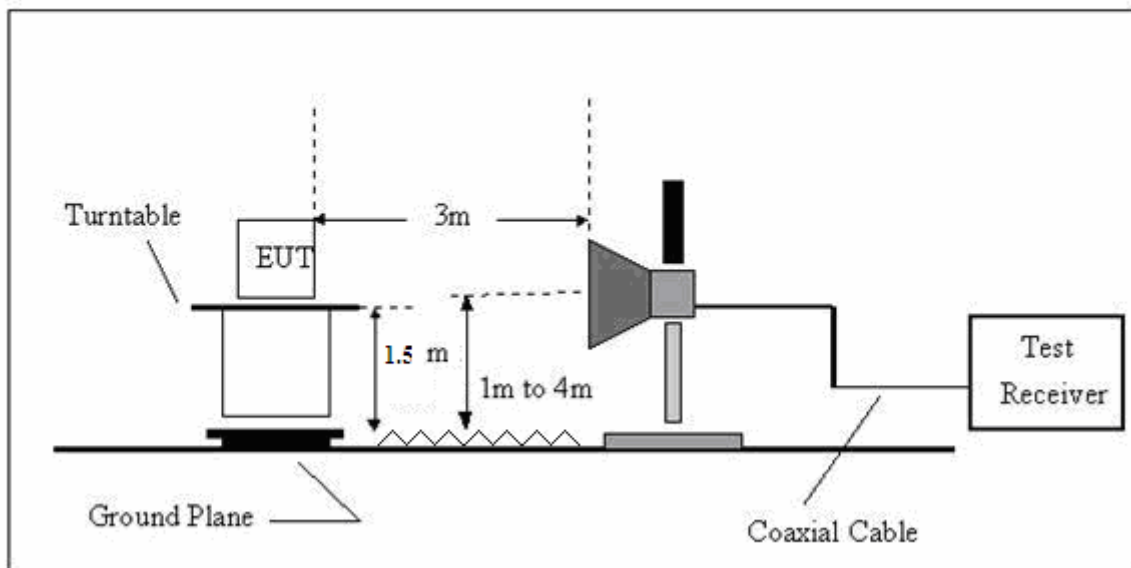
- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters (For frequencies above 1GHz, table 1.5 meters) above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.3 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

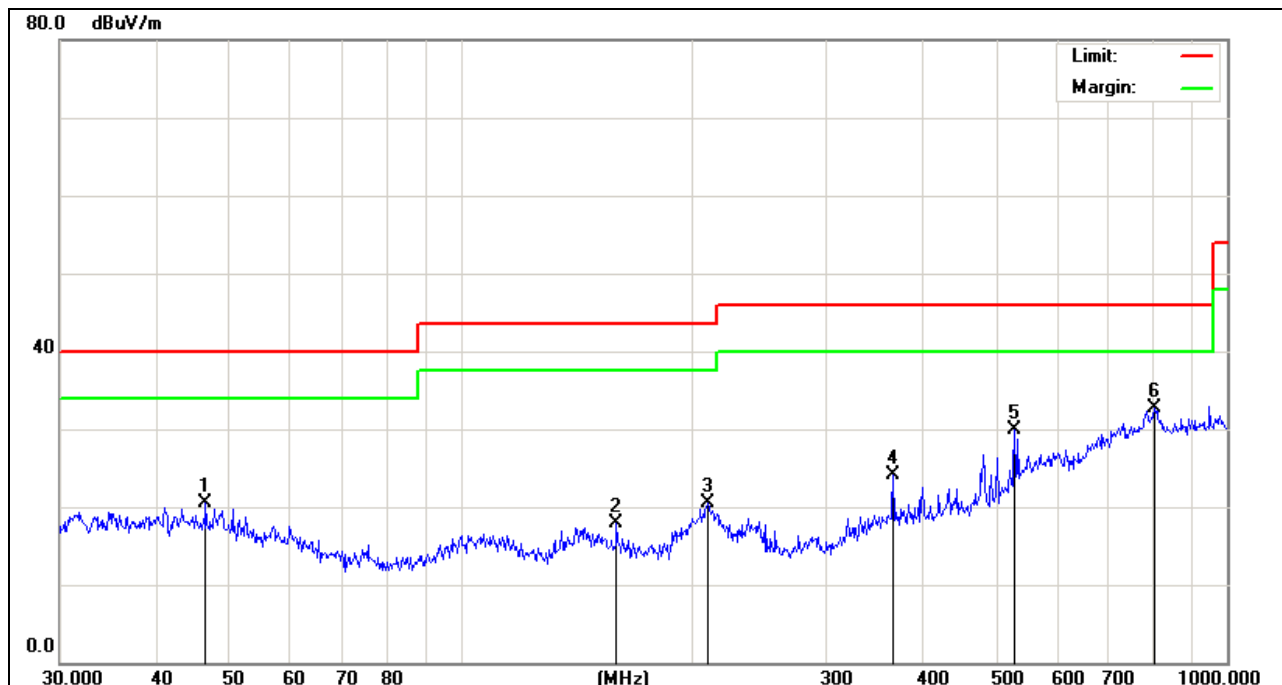
3.2.5 TEST RESULTS (BLOW 30 MHZ)

There is no detected blow 30MHz

3.2.6 TEST RESULTS (BETWEEN30 – 1000 MHZ)

Pretest left earphone and right earphone, found the worst-case is left earphone, only the worse case data show in the report.

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

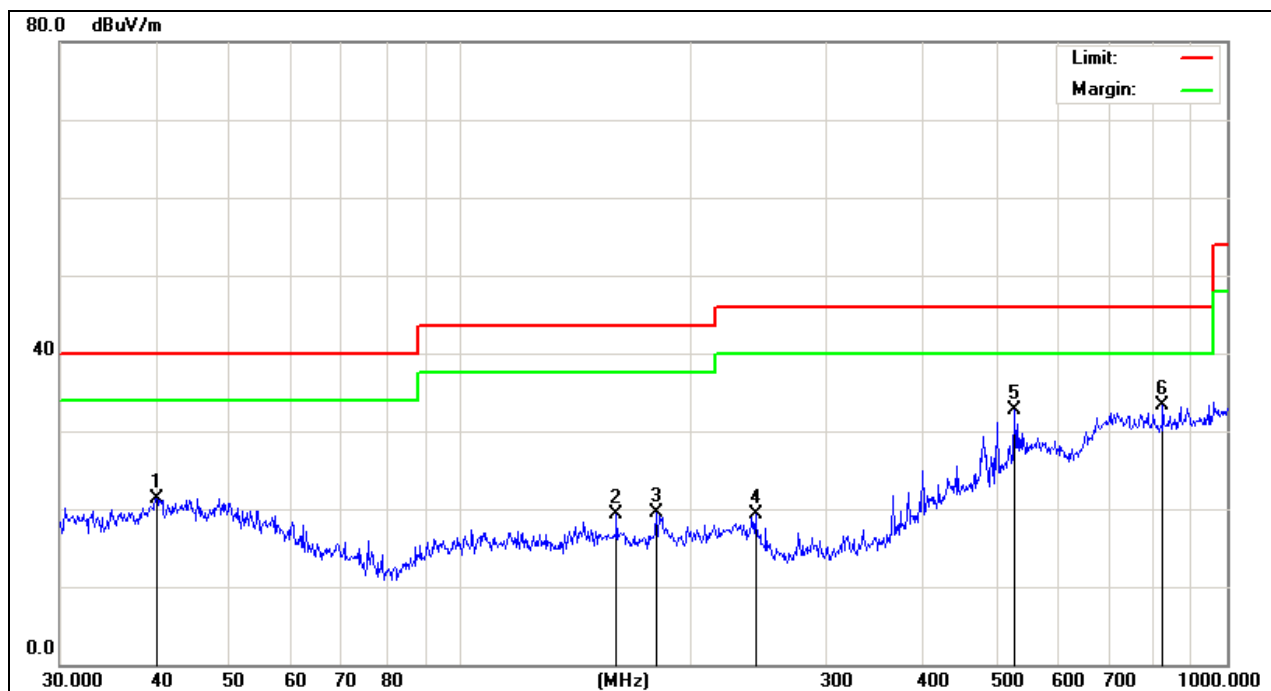


Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB Detector
1		46.5030	25.49	-4.99	20.50	40.00	-19.50 peak
2		159.7844	26.42	-8.61	17.81	43.50	-25.69 peak
3		210.0482	24.28	-3.75	20.53	43.50	-22.97 peak
4		366.8231	28.41	-4.26	24.15	46.00	-21.85 peak
5		528.2458	29.60	0.32	29.92	46.00	-16.08 peak
6	*	804.6028	25.01	7.60	32.61	46.00	-13.39 peak

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

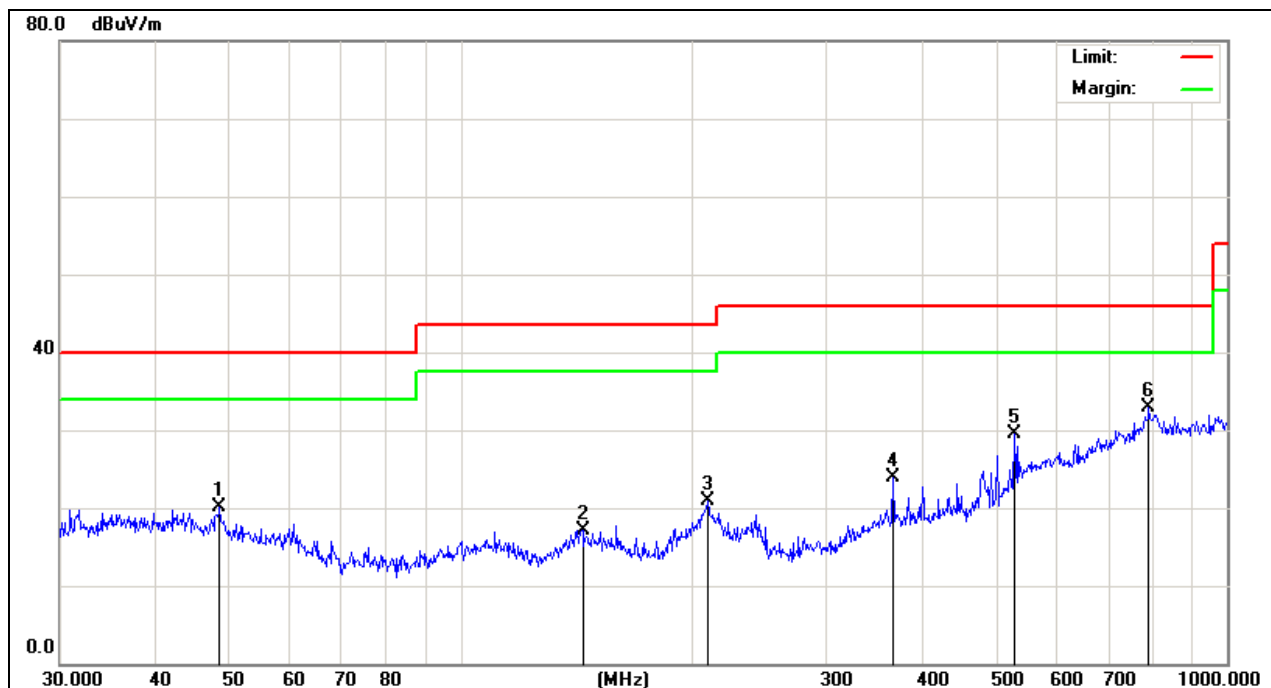


Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		40.1347	23.26	-1.89	21.37	40.00	-18.63	peak
2		159.7844	25.90	-6.54	19.36	43.50	-24.14	peak
3		180.0165	25.97	-6.44	19.53	43.50	-23.97	peak
4		242.5253	25.83	-6.50	19.33	46.00	-26.67	peak
5		528.2458	28.90	3.83	32.73	46.00	-13.27	peak
6	*	824.5968	26.53	6.84	33.37	46.00	-12.63	peak

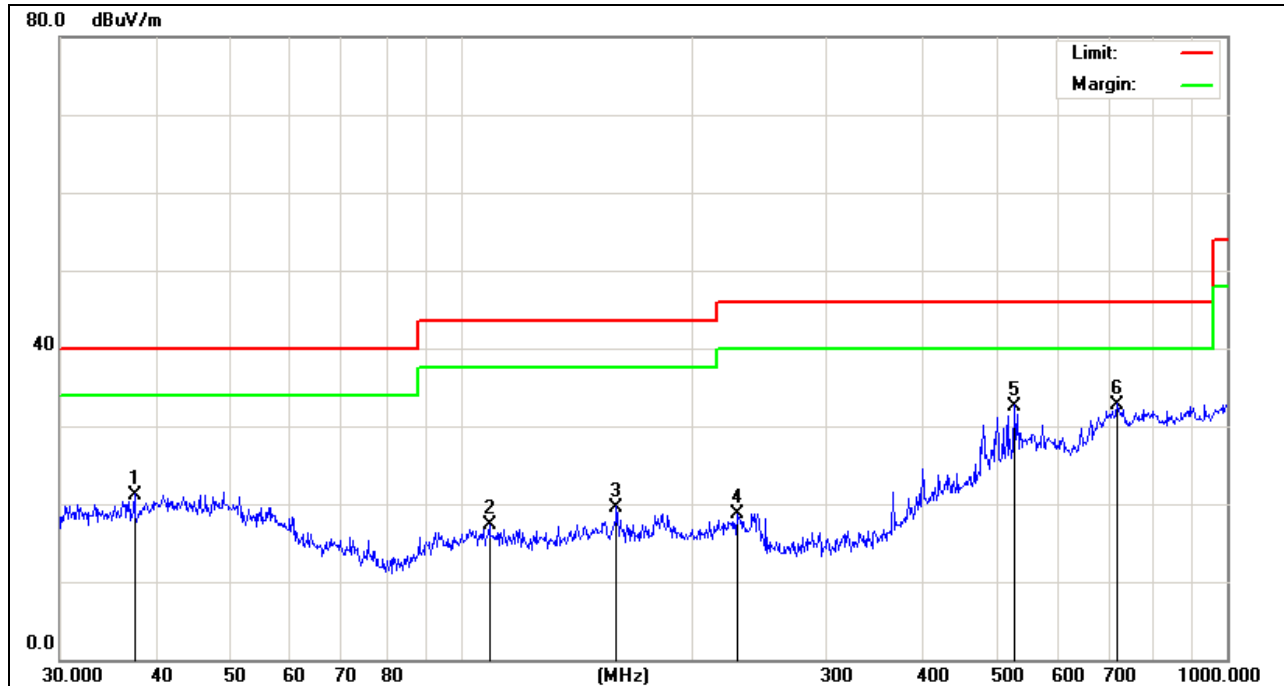
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX	Polarization :	Vertical
Test Power :	DC 3.7V from battery		



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		48.5016	25.60	-5.59	20.01	40.00	-19.99	peak
2		144.3348	24.42	-7.23	17.19	43.50	-26.31	peak
3		210.0482	24.71	-3.75	20.96	43.50	-22.54	peak
4		366.8231	28.21	-4.25	23.96	46.00	-22.04	peak
5		528.2458	29.11	0.32	29.43	46.00	-16.57	peak
6	*	790.6187	25.18	7.69	32.87	46.00	-13.13	peak

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

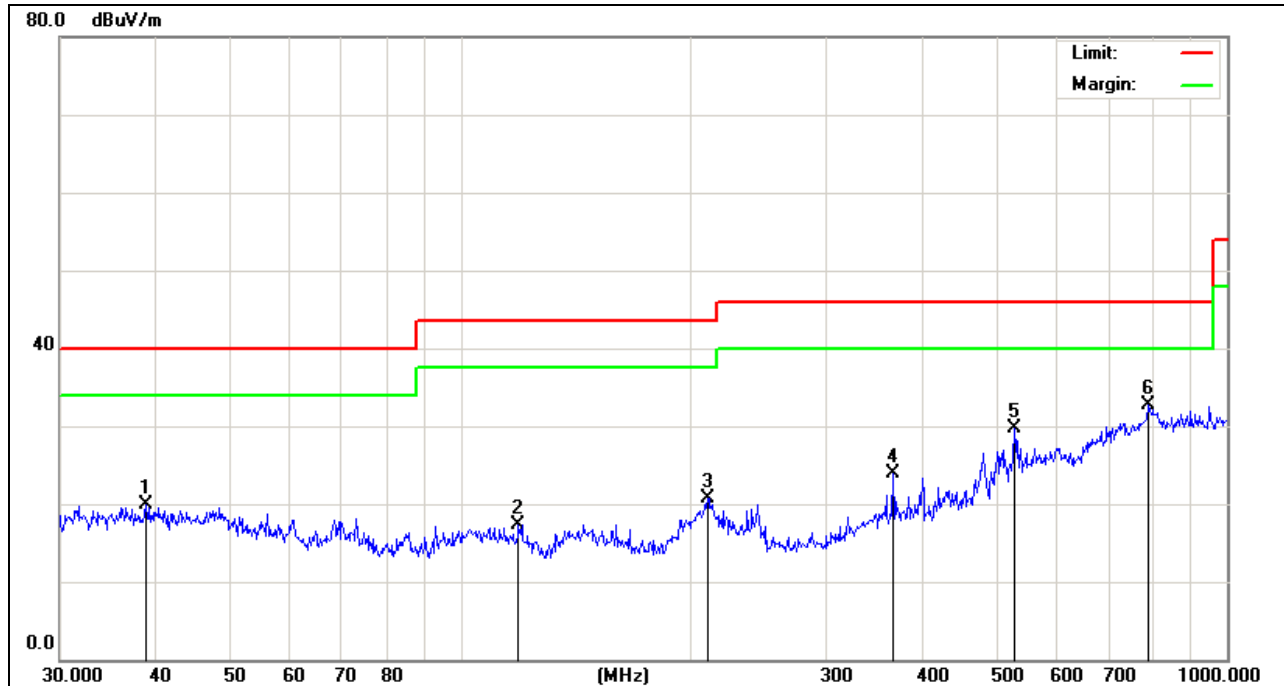


Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		37.5479	24.13	-2.93	21.20	40.00	-18.80	peak
2		109.0286	24.31	-7.07	17.24	43.50	-26.26	peak
3		159.7844	26.14	-6.54	19.60	43.50	-23.90	peak
4		229.2931	25.20	-6.46	18.74	46.00	-27.26	peak
5		528.2458	28.77	3.83	32.60	46.00	-13.40	peak
6	*	719.1995	25.43	7.37	32.80	46.00	-13.20	peak

Test result: The unit does meet the NCC requirements.

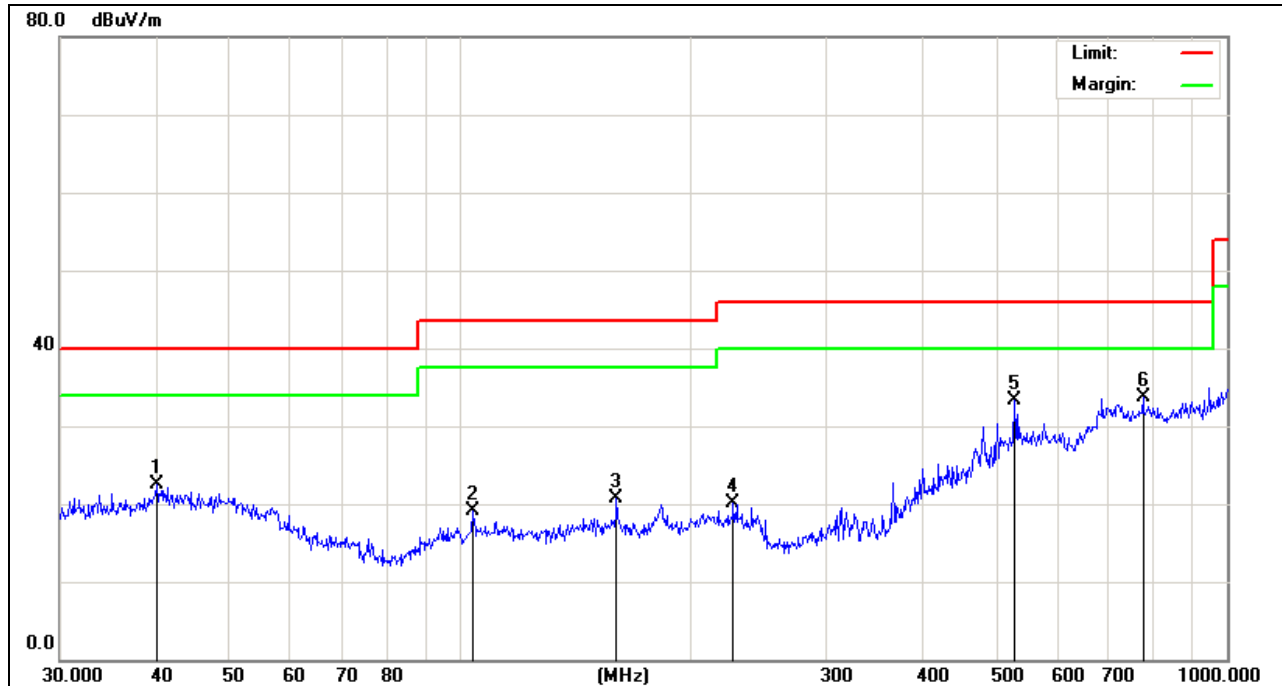
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	Mode5	Polarization :	Vertical
Test Power :	DC 5V from adapter		



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		38.8878	24.30	-4.33	19.97	40.00	-20.03	peak
2		119.0180	26.20	-8.92	17.28	43.50	-26.22	peak
3		210.0482	24.55	-3.75	20.80	43.50	-22.70	peak
4		366.8231	28.15	-4.26	23.89	46.00	-22.11	peak
5		528.2458	29.40	0.32	29.72	46.00	-16.28	peak
6	*	787.8513	25.31	7.41	32.72	46.00	-13.28	peak

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	Mode5	Polarization :	Horizontal
Test Power :	DC 5V from adapter		



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		40.1347	24.32	-1.89	22.43	40.00	-17.57	peak
2		103.8055	26.42	-7.36	19.06	43.50	-24.44	peak
3		159.7844	27.23	-6.54	20.69	43.50	-22.81	peak
4		226.8936	26.48	-6.45	20.03	46.00	-25.97	peak
5		528.2458	29.51	3.83	33.34	46.00	-12.66	peak
6	*	776.8778	26.27	7.41	33.68	46.00	-12.32	peak

Test result: The unit does meet the NCC requirements.

3.2.7 TEST RESULTS (FRENQUENCY RANGE 1000-25000 MHZ)

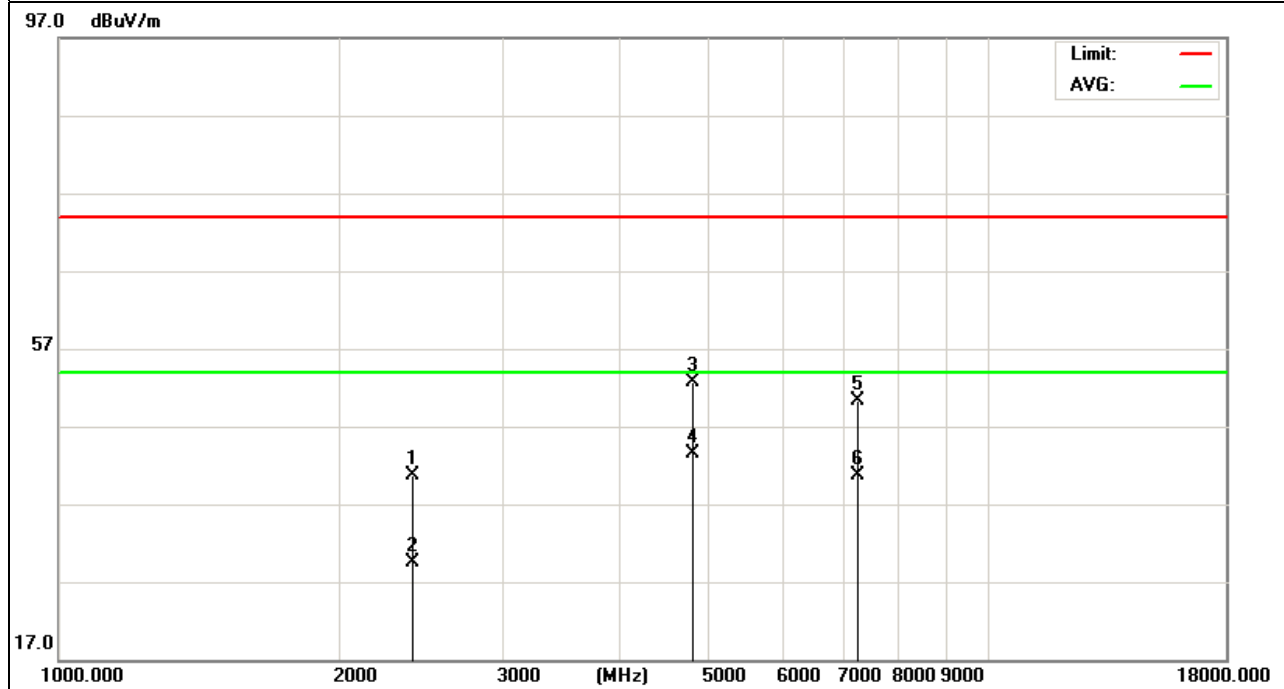
Pretest left earphone and right earphone, found the worst-case is left earphone, only the worse case data show in the report.

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400.000	46.32	-5.70	40.62	74.00	-33.38	peak
2400.000	35.14	-5.70	29.44	54.00	-24.56	AVG
4804.000	47.69	5.06	52.75	74.00	-21.25	peak
4804.000	38.44	5.06	43.50	54.00	-10.50	AVG
7206.000	43.26	7.03	50.29	74.00	-23.71	peak
7206.000	33.59	7.03	40.62	54.00	-13.38	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

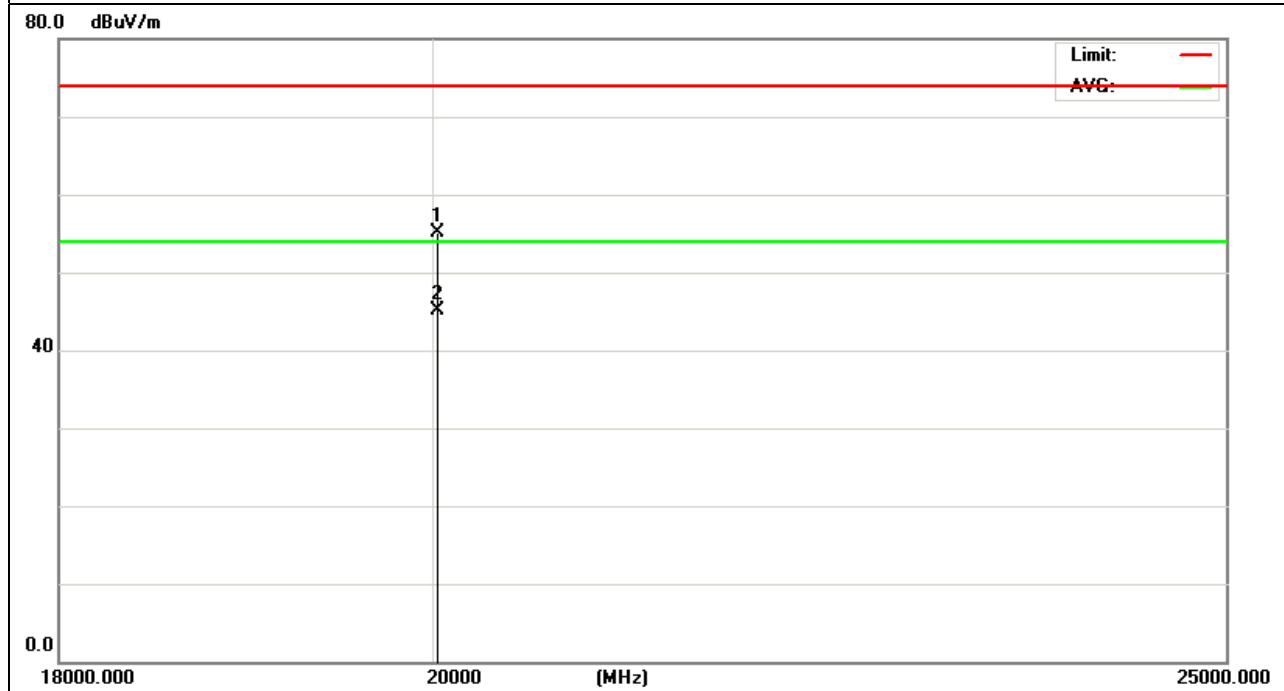


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20024.000	38.50	16.61	55.11	74.00	-18.89	peak
20024.000	28.43	16.61	45.04	54.00	-8.96	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

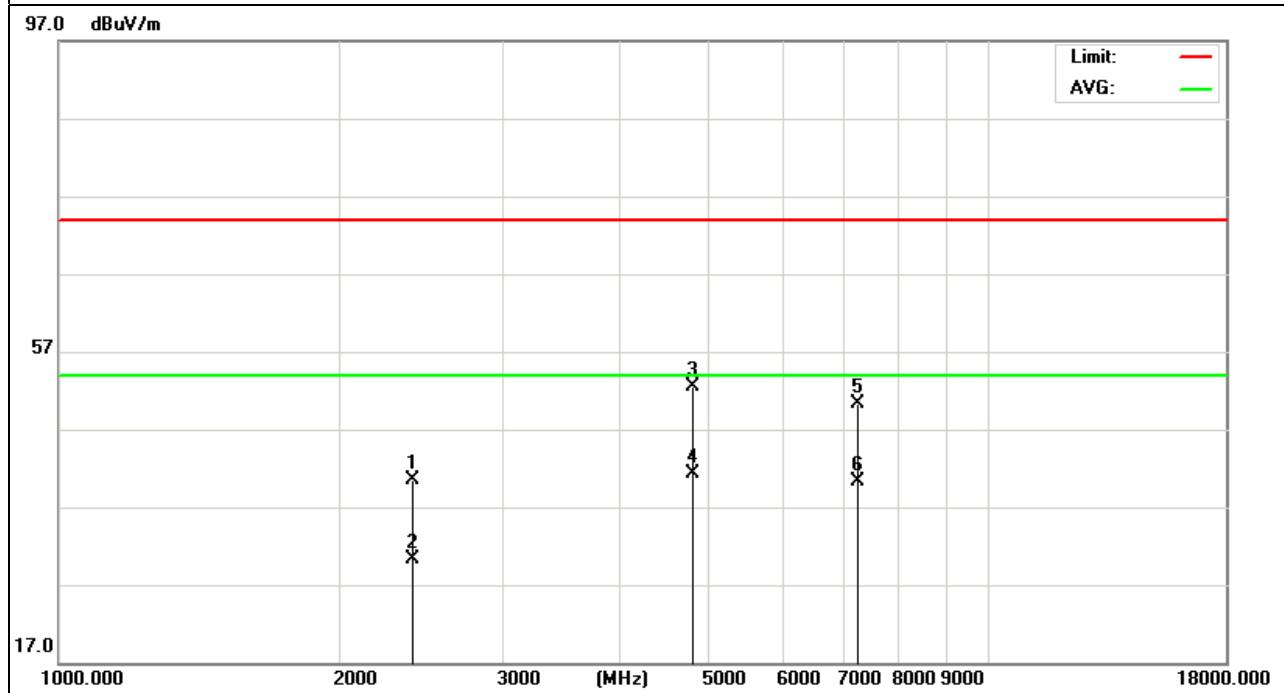


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400.000	46.24	-5.70	40.54	74.00	-33.46	peak
2400.000	36.08	-5.70	30.38	54.00	-23.62	AVG
4804.000	47.56	5.06	52.62	74.00	-21.38	peak
4804.000	36.17	5.06	41.23	54.00	-12.77	AVG
7206.000	43.56	7.03	50.59	74.00	-23.41	peak
7206.000	33.28	7.03	40.31	54.00	-13.69	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

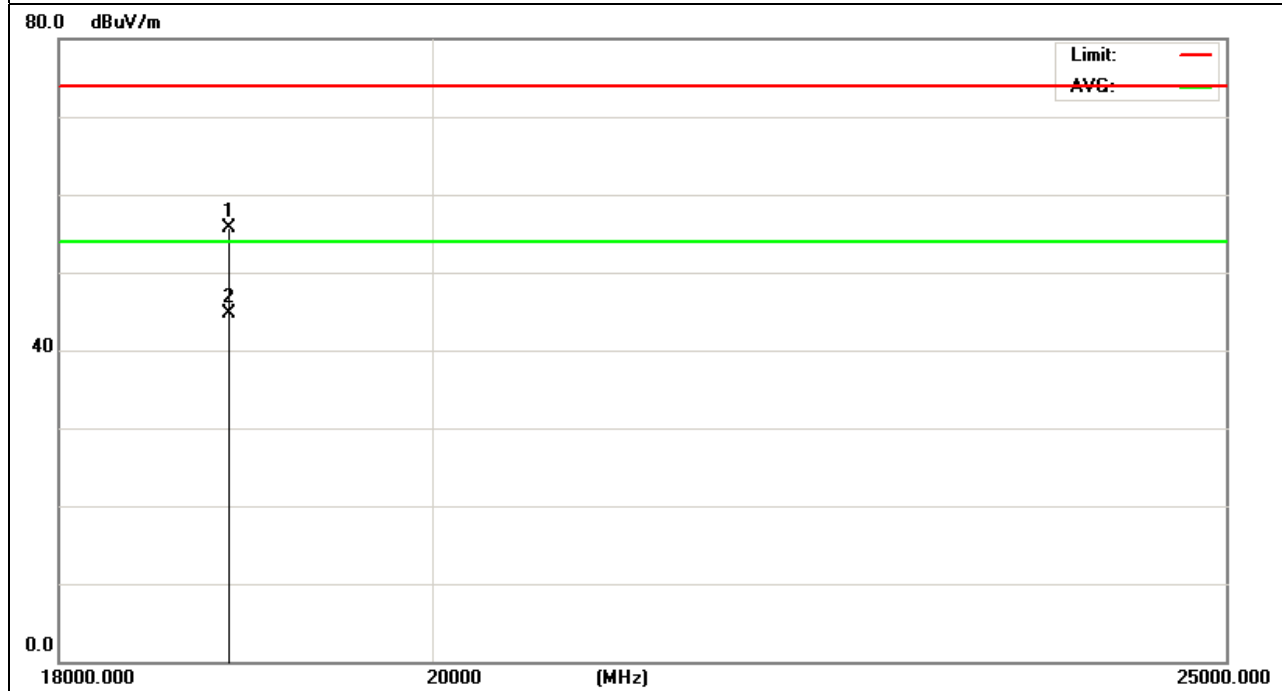


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18889.000	39.33	16.30	55.63	74.00	-18.37	peak
18889.000	28.49	16.30	44.79	54.00	-9.21	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

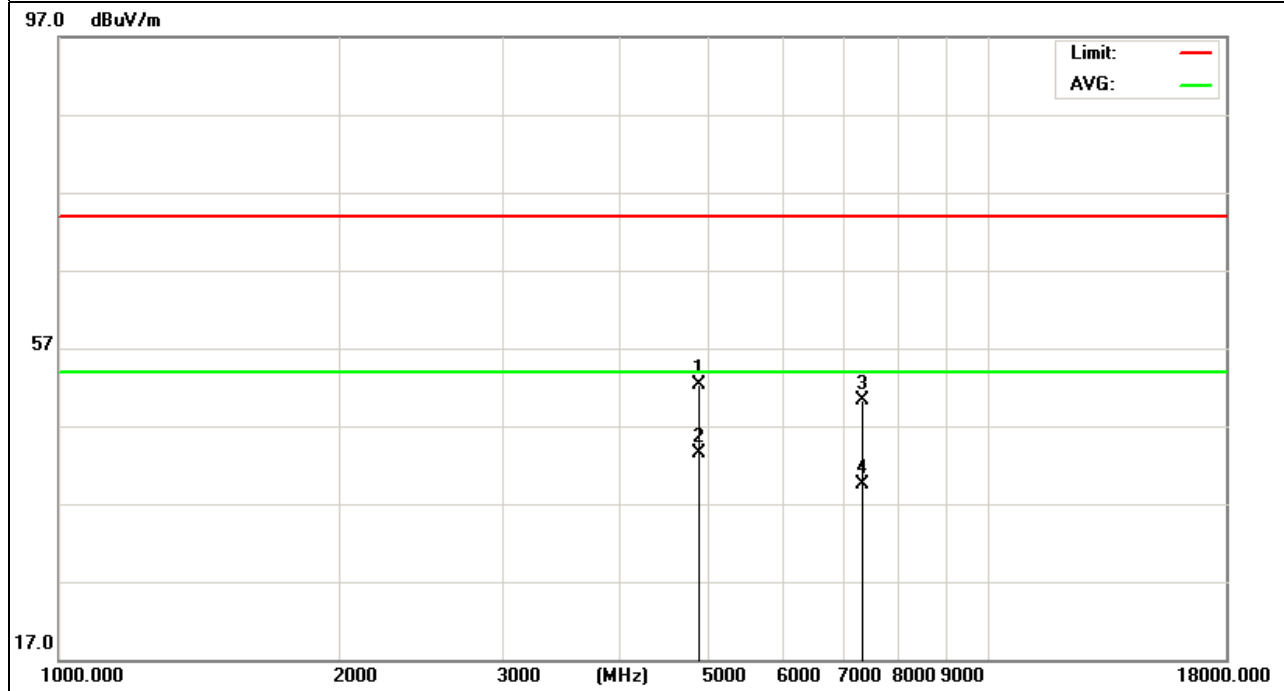


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4882.000	47.09	5.14	52.23	74.00	-21.77	peak
4882.000	38.44	5.14	43.58	54.00	-10.42	AVG
7323.000	42.82	7.54	50.36	74.00	-23.64	peak
7323.000	32.03	7.54	39.57	54.00	-14.43	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

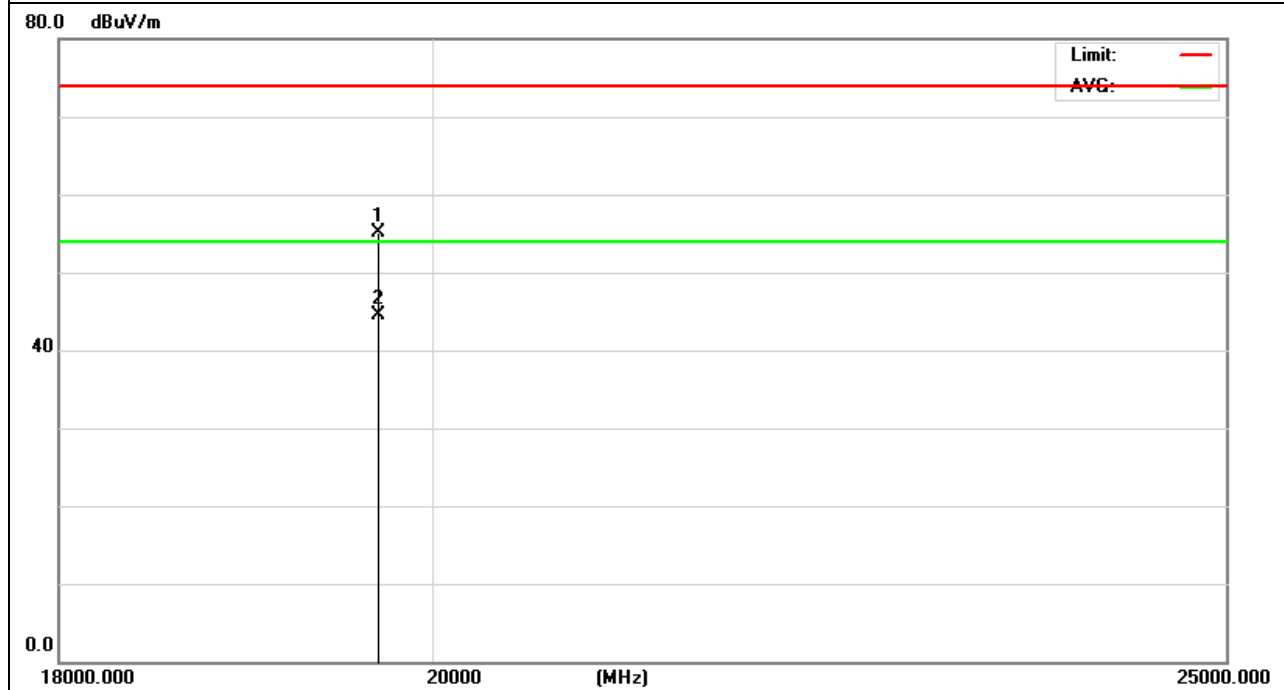


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19696.000	38.56	16.55	55.11	74.00	-18.89	
19696.000	27.99	16.55	44.54	54.00	-9.46	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

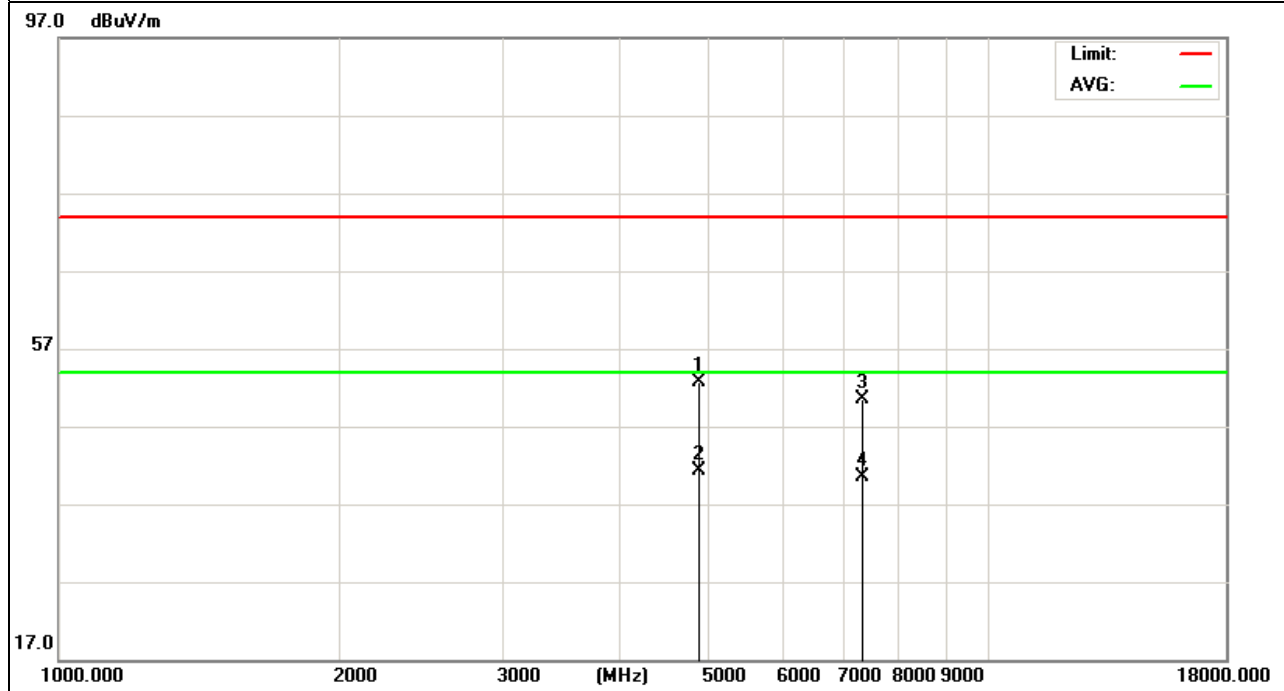


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4882.000	47.51	5.14	52.65	74.00	-21.35	peak
4882.000	36.22	5.14	41.36	54.00	-12.64	AVG
7323.000	43.02	7.54	50.56	74.00	-23.44	peak
7323.000	32.87	7.54	40.41	54.00	-13.59	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

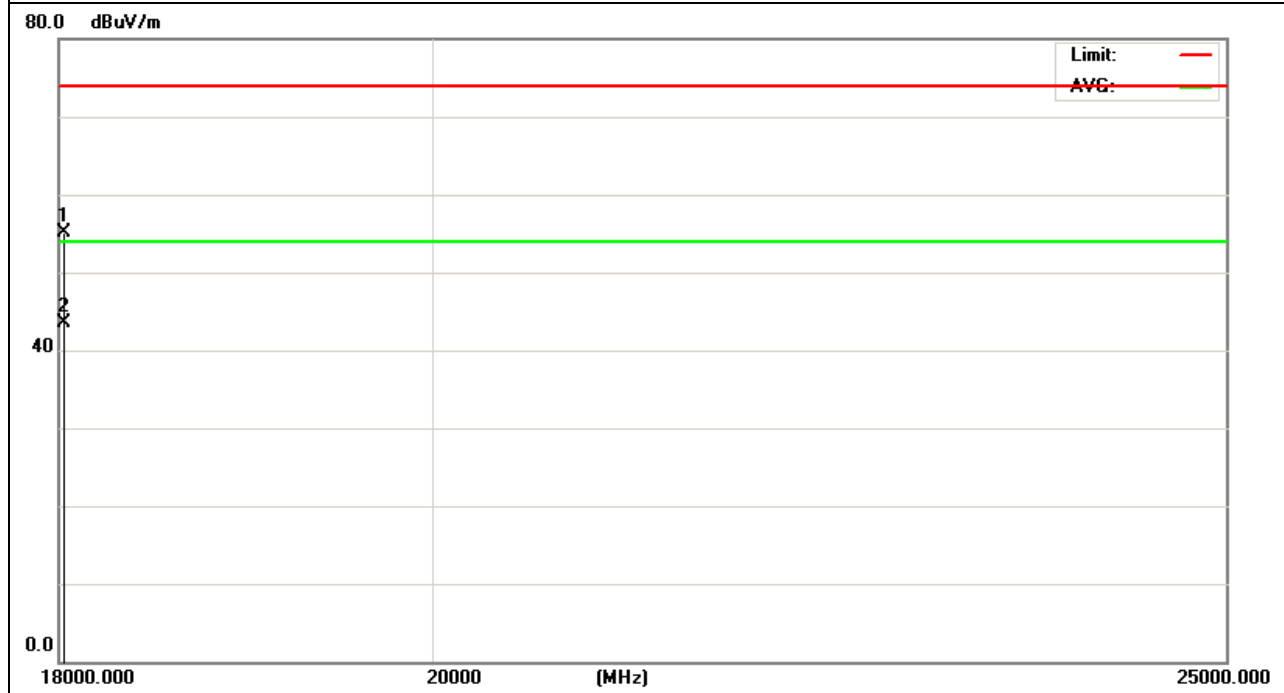


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18024.000	39.69	15.40	55.09	74.00	-18.91	
18024.000	28.18	15.40	43.58	54.00	-10.42	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

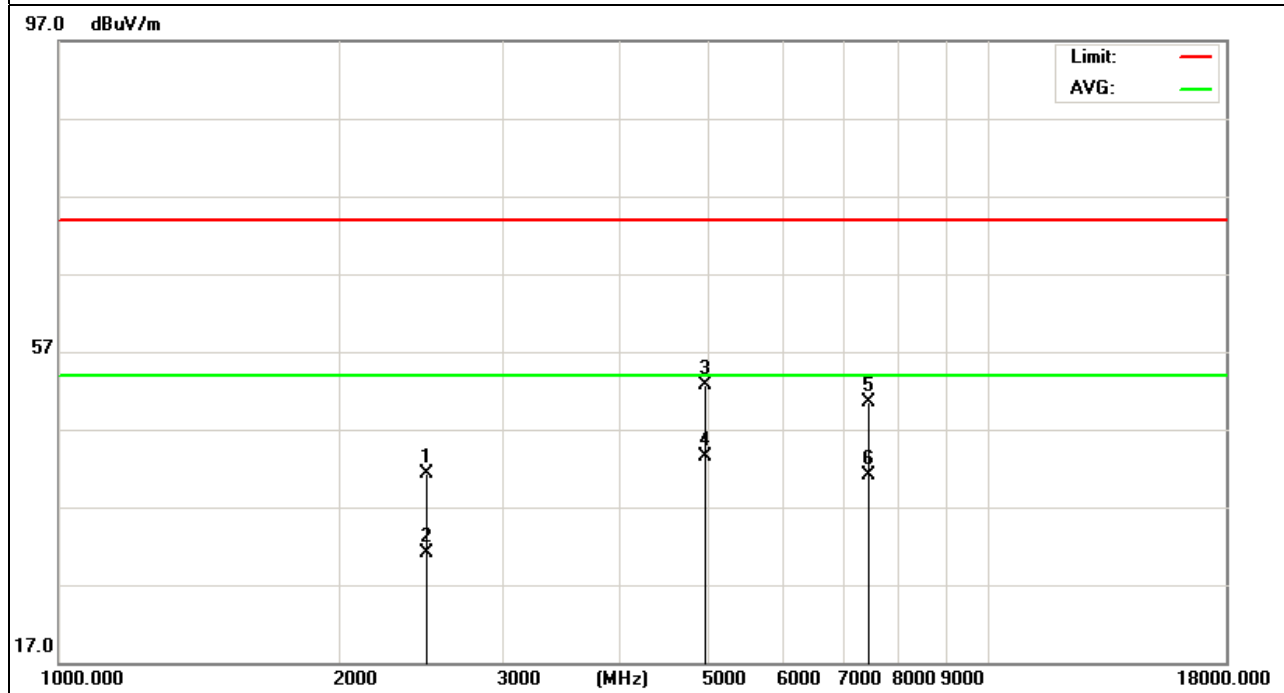


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.500	46.36	-4.98	41.38	74.00	-32.62	peak
2483.500	36.11	-4.98	31.13	54.00	-22.87	AVG
4960.000	47.58	5.22	52.80	74.00	-21.20	peak
4960.000	38.26	5.22	43.48	54.00	-10.52	AVG
7440.000	42.54	8.06	50.60	74.00	-23.40	peak
7440.000	33.03	8.06	41.09	54.00	-12.91	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

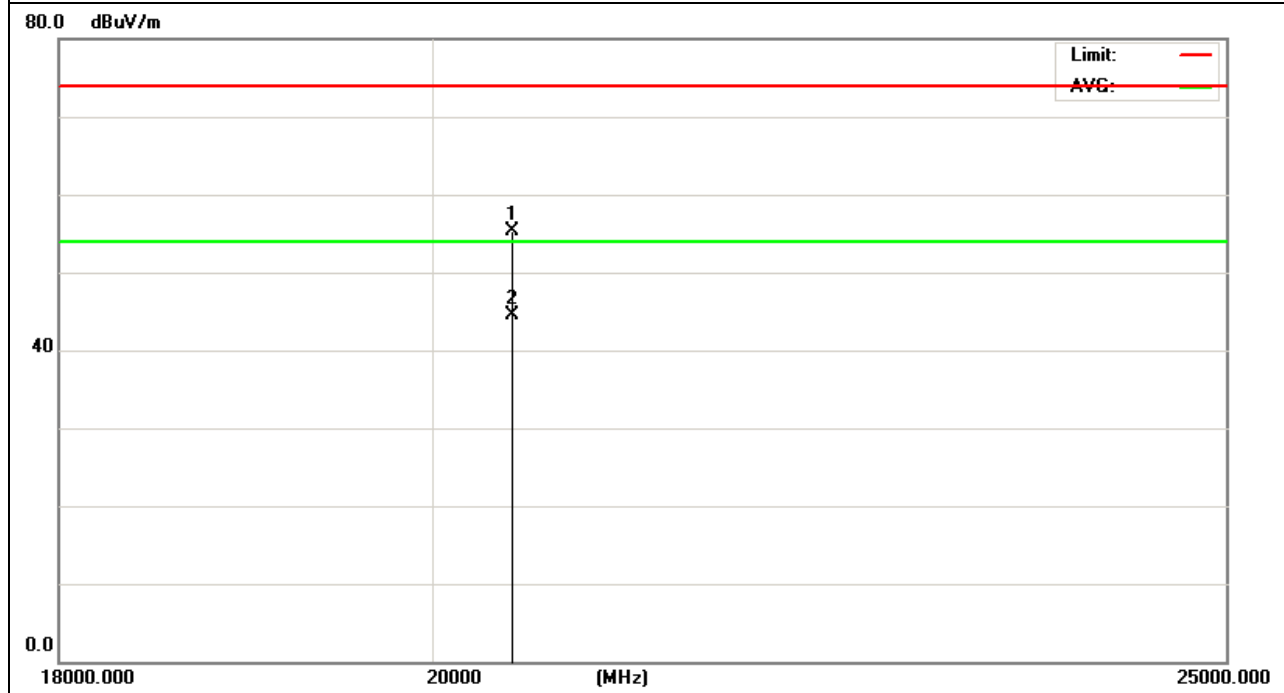


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (1Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20448.000	38.56	16.69	55.25	74.00	-18.75	
20448.000	27.89	16.69	44.58	54.00	-9.42	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

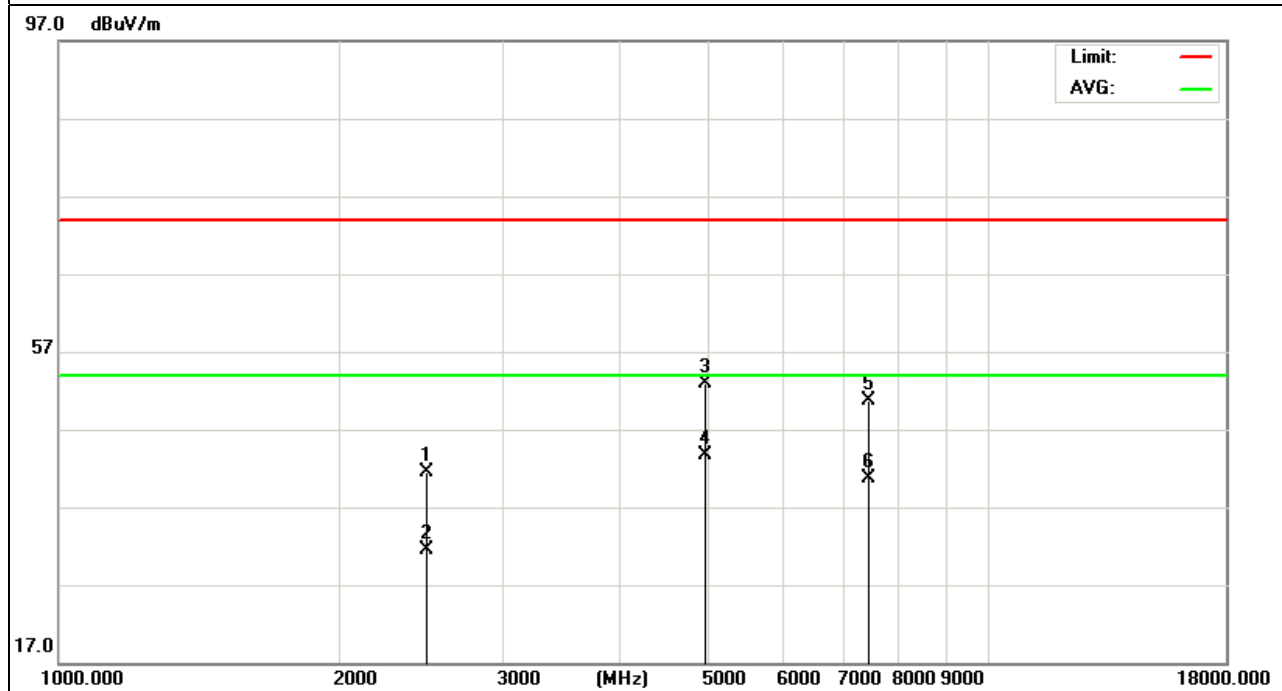


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.500	46.51	-4.98	41.53	74.00	-32.47	peak
2483.500	36.44	-4.98	31.46	54.00	-22.54	AVG
4960.000	47.61	5.22	52.83	74.00	-21.17	peak
4960.000	38.54	5.22	43.76	54.00	-10.24	AVG
7440.000	42.62	8.06	50.68	74.00	-23.32	peak
7440.000	32.55	8.06	40.61	54.00	-13.39	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

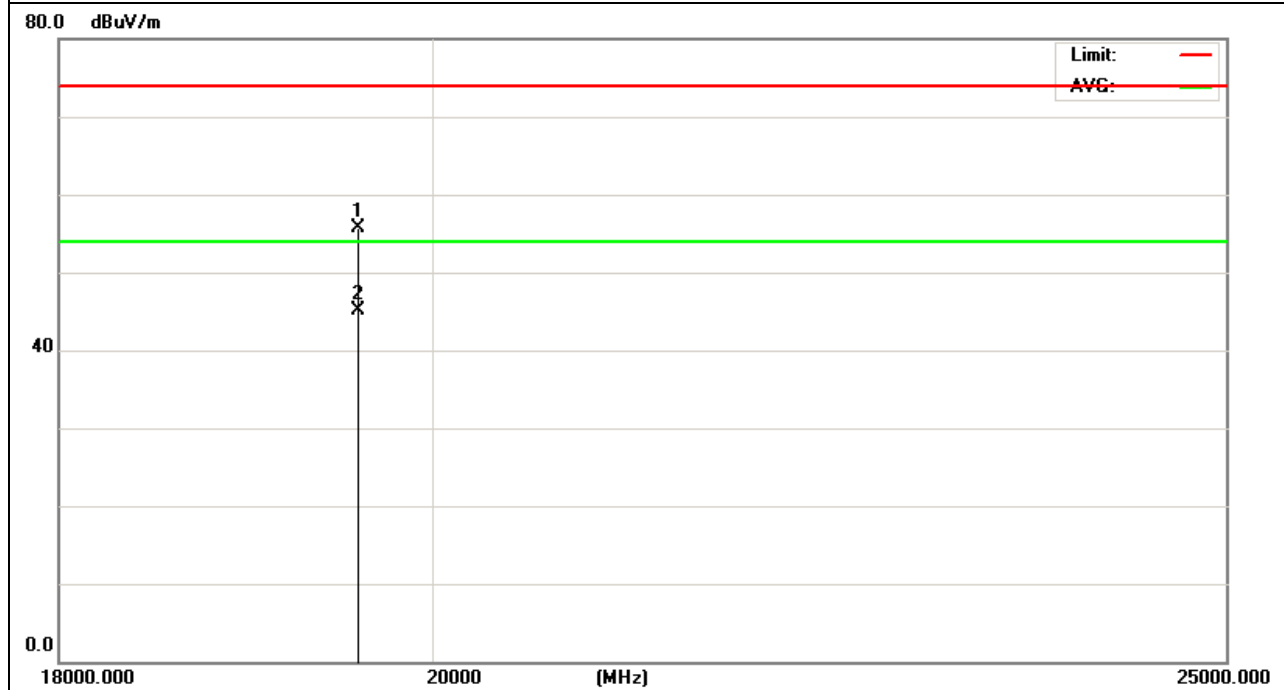


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (1Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19589.000	39.11	16.52	55.63	74.00	-18.37	
19589.000	28.62	16.52	45.14	54.00	-8.86	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

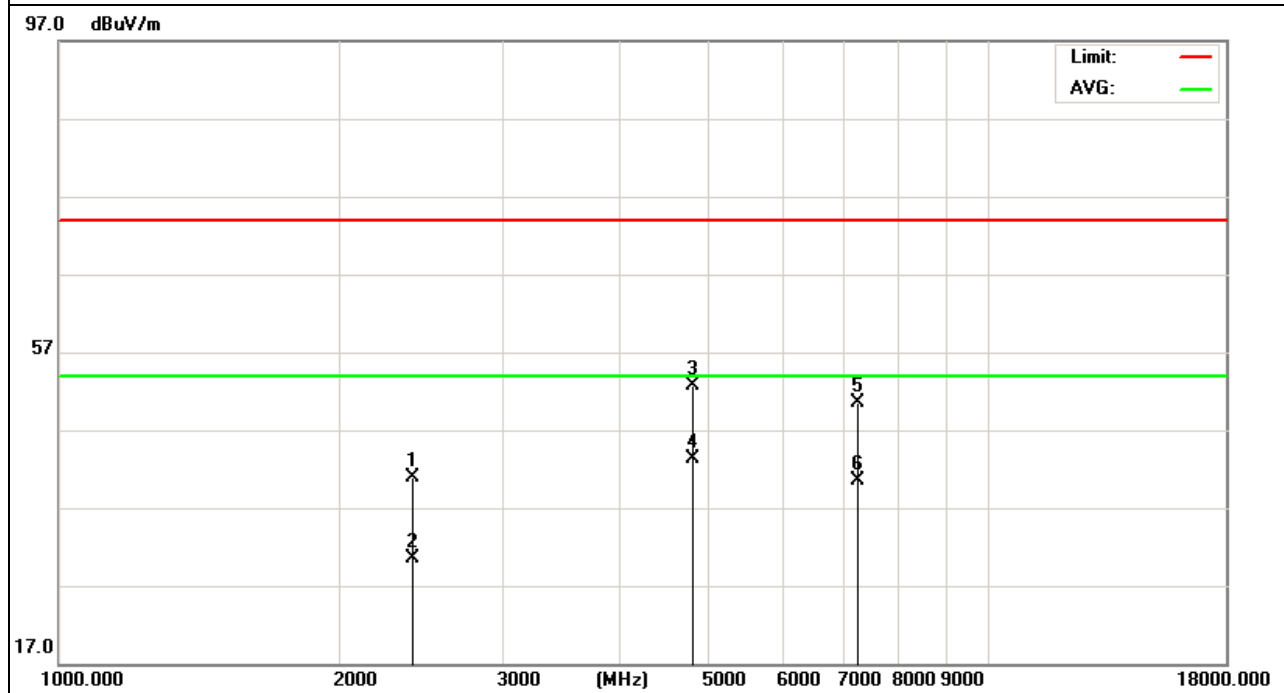


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400.000	46.59	-5.70	40.89	74.00	-33.11	peak
2400.000	36.22	-5.70	30.52	54.00	-23.48	AVG
4804.000	47.56	5.06	52.62	74.00	-21.38	peak
4804.000	38.27	5.06	43.33	54.00	-10.67	AVG
7206.000	43.38	7.03	50.41	74.00	-23.59	peak
7206.000	33.44	7.03	40.47	54.00	-13.53	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

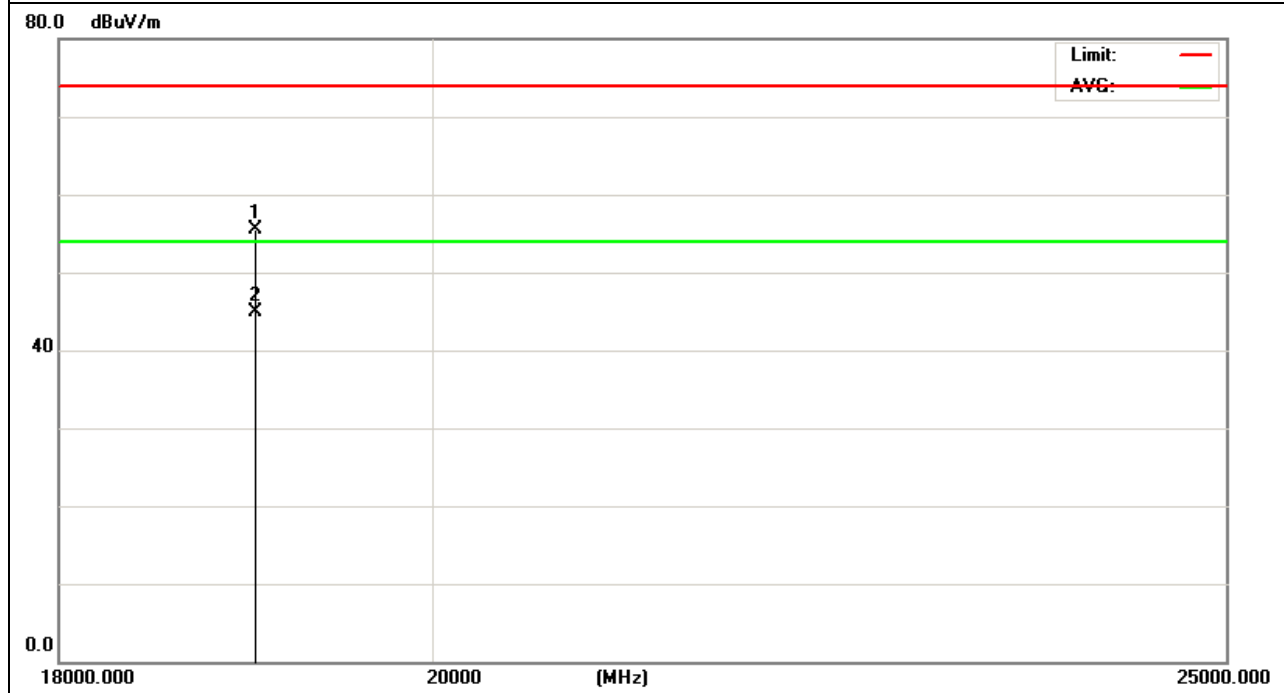


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19020.000	39.03	16.41	55.44	74.00	-18.56	
19020.000	28.49	16.41	44.90	54.00	-9.10	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

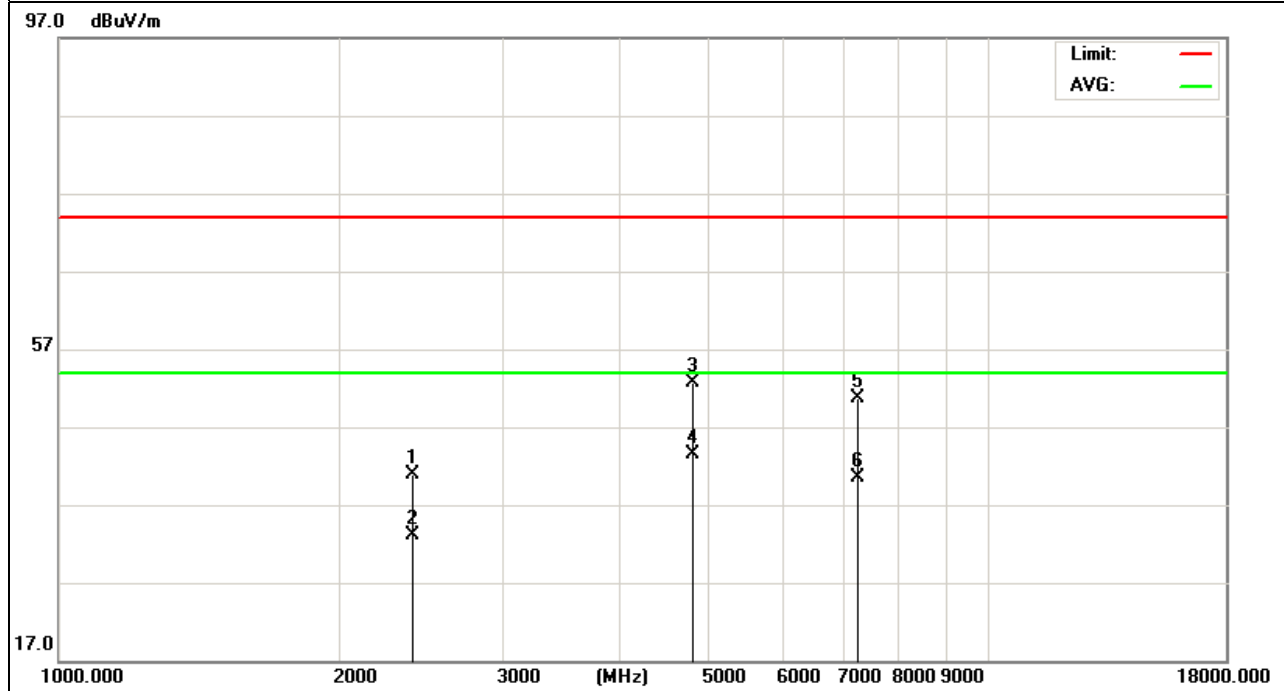


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400.000	46.58	-5.70	40.88	74.00	-33.12	peak
2400.000	38.81	-5.70	33.11	54.00	-20.89	AVG
4804.000	47.62	5.06	52.68	74.00	-21.32	peak
4804.00	38.46	5.06	43.52	54.00	-10.48	AVG
7206.000	43.59	7.03	50.62	74.00	-23.38	peak
7206.000	33.47	7.03	40.50	54.00	-13.50	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

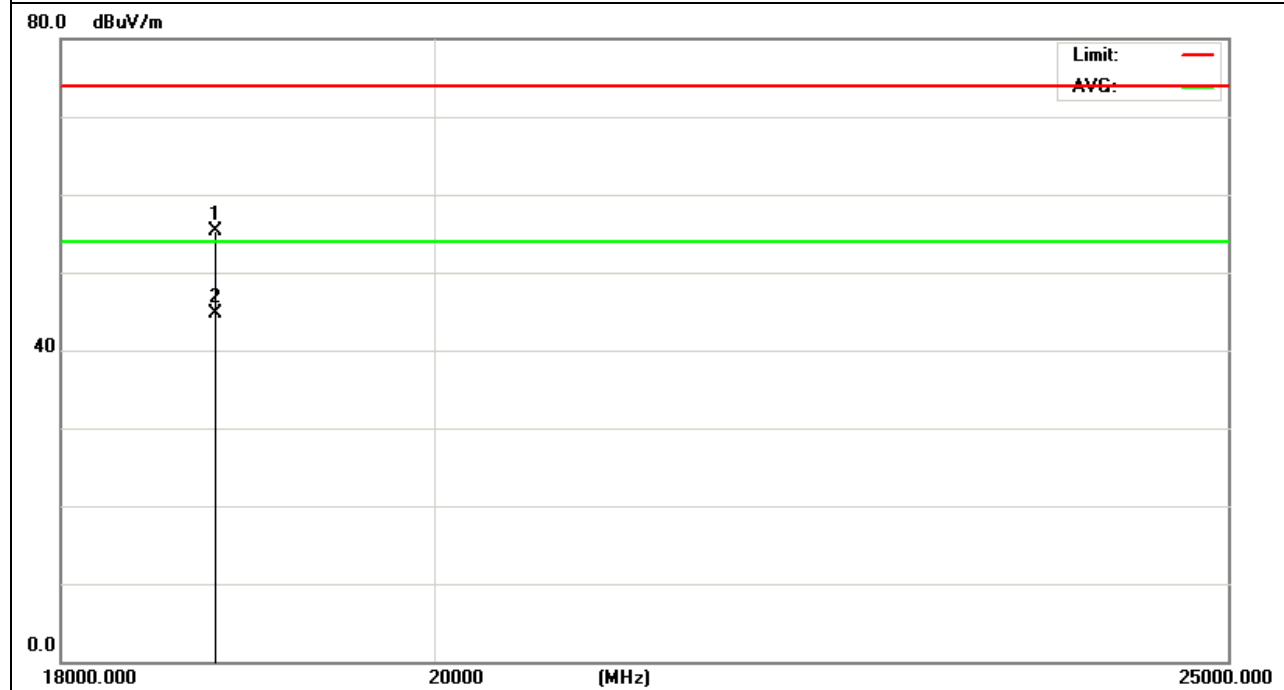


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2402MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18798.000	39.06	16.21	55.27	74.00	-18.73	
18798.000	28.54	16.21	44.75	54.00	-9.25	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

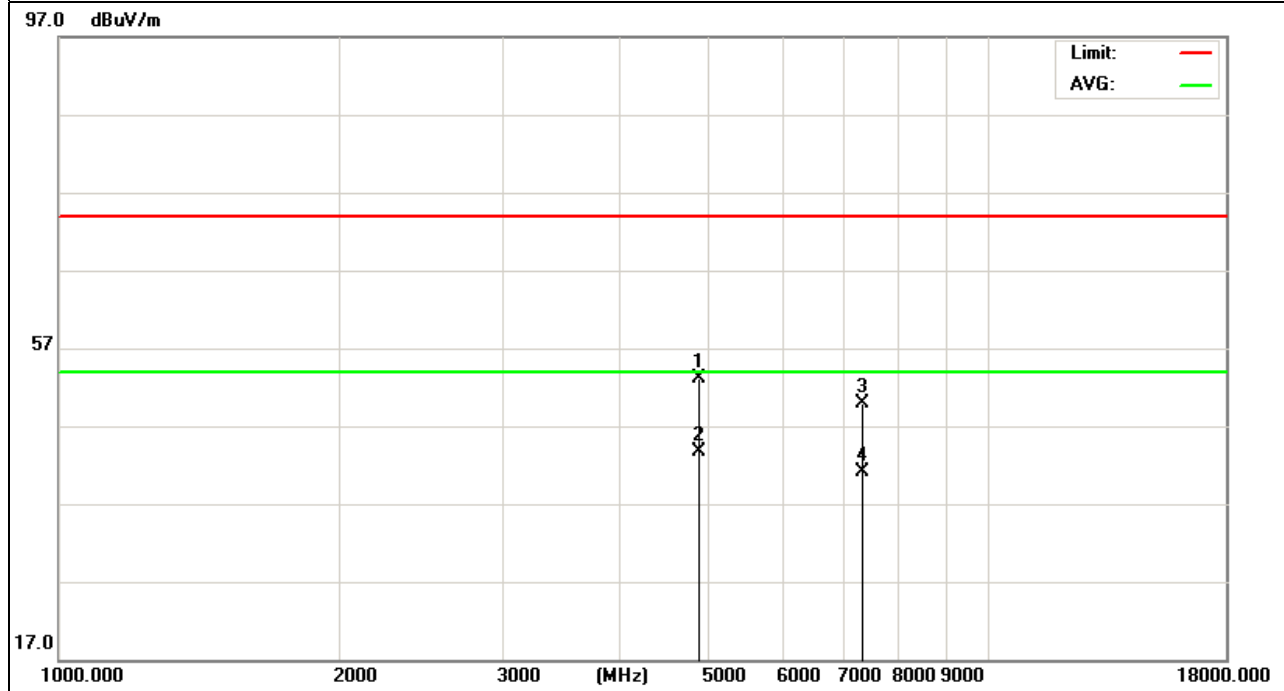


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4882.000	47.87	5.14	53.01	74.00	-20.99	peak
4882.000	38.56	5.14	43.70	54.00	-10.30	AVG
7323.000	42.44	7.54	49.98	74.00	-24.02	peak
7323.000	33.58	7.54	41.12	54.00	-12.88	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

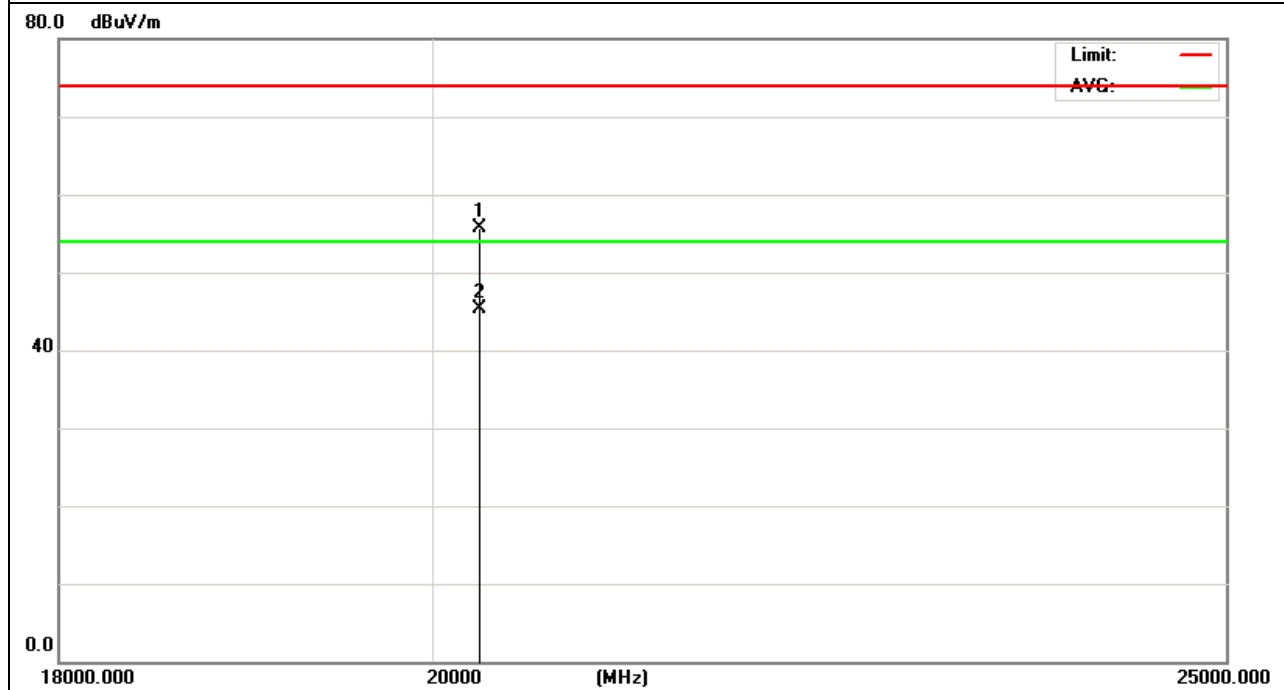


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20267.000	39.03	16.65	55.68	74.00	-18.32	peak
20267.000	28.56	16.65	45.21	54.00	-8.79	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

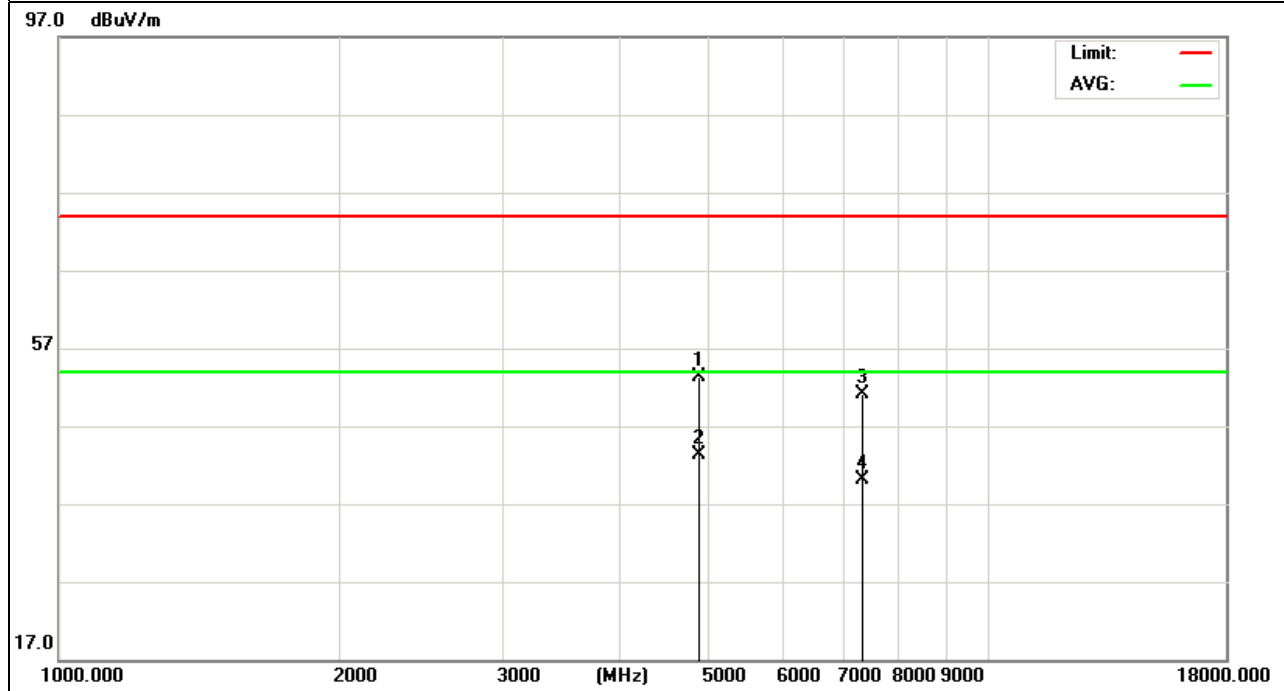


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4882.000	48.22	5.14	53.36	74.00	-20.64	peak
4882.000	38.16	5.14	43.30	54.00	-10.70	AVG
7323.000	43.52	7.54	51.06	74.00	-22.94	peak
7323.000	32.58	7.54	40.12	54.00	-13.88	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

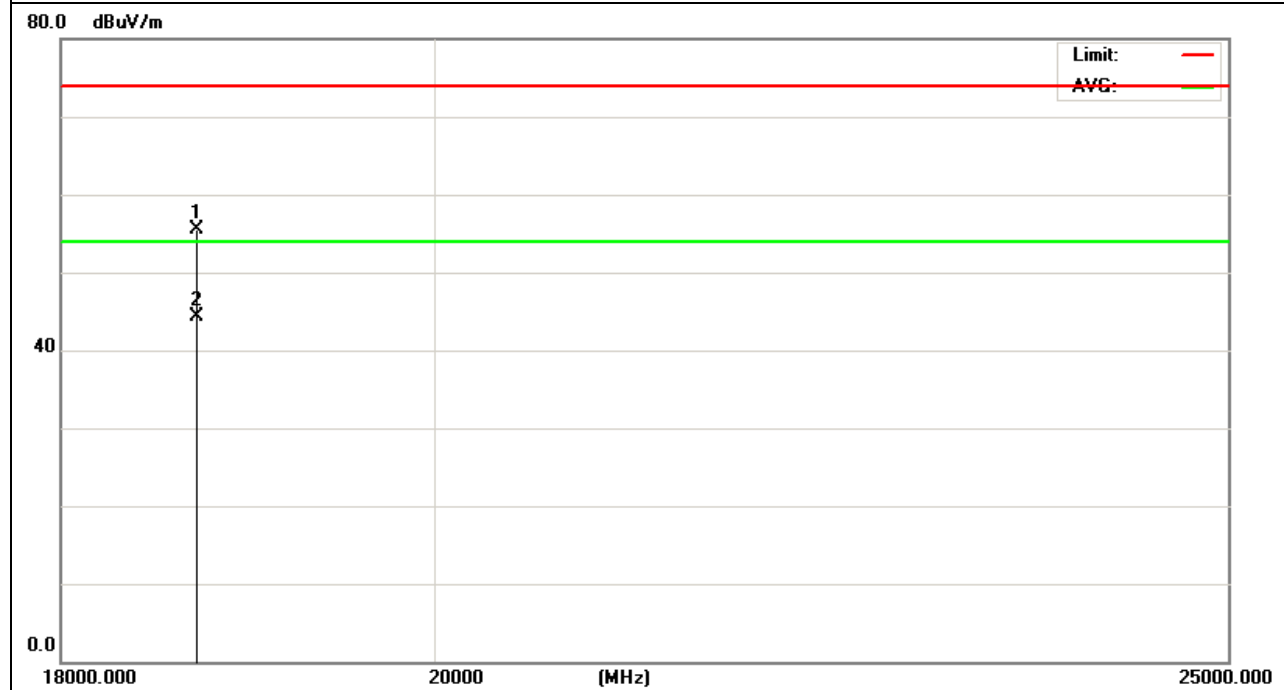


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2441MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18702.000	39.45	16.10	55.55	74.00	-18.45	
18702.000	28.16	16.10	44.26	54.00	-9.74	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

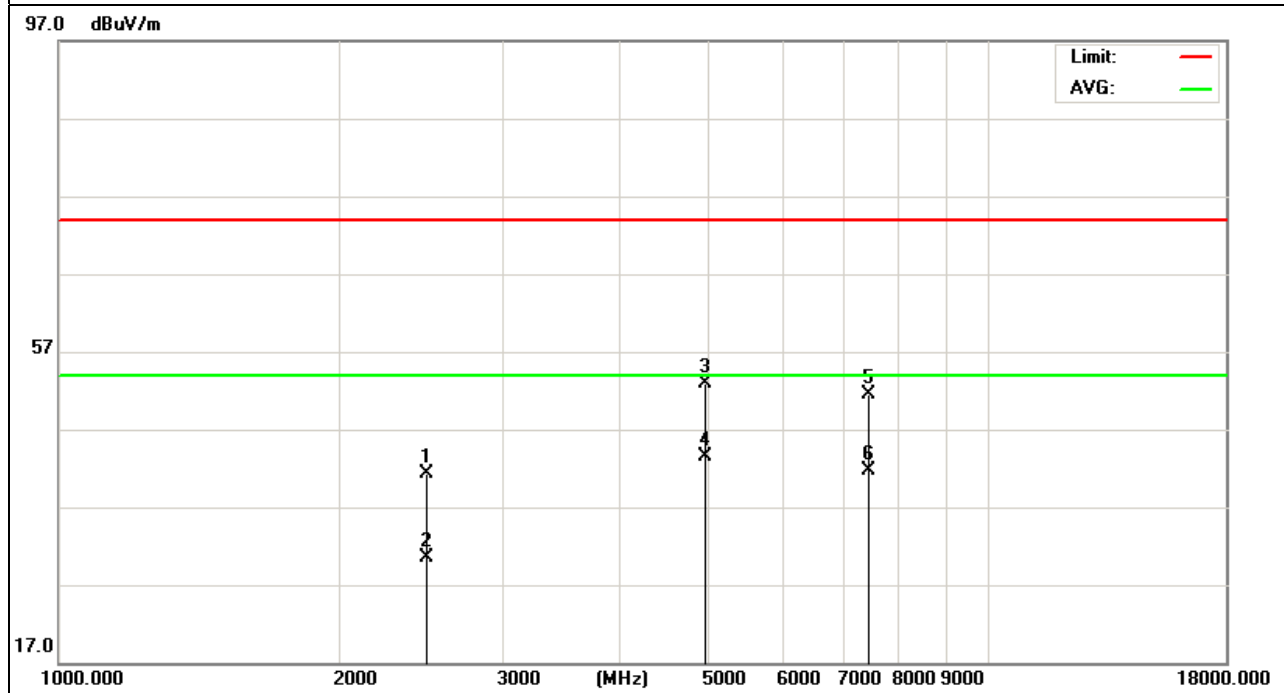


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.500	46.29	-4.98	41.31	74.00	-32.69	peak
2483.500	35.47	-4.98	30.49	54.00	-23.51	AVG
4960.000	47.59	5.22	52.81	74.00	-21.19	peak
4960.000	38.26	5.22	43.48	54.00	-10.52	AVG
7440.000	43.47	8.06	51.53	74.00	-22.47	peak
7440.000	33.69	8.06	41.75	54.00	-12.25	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

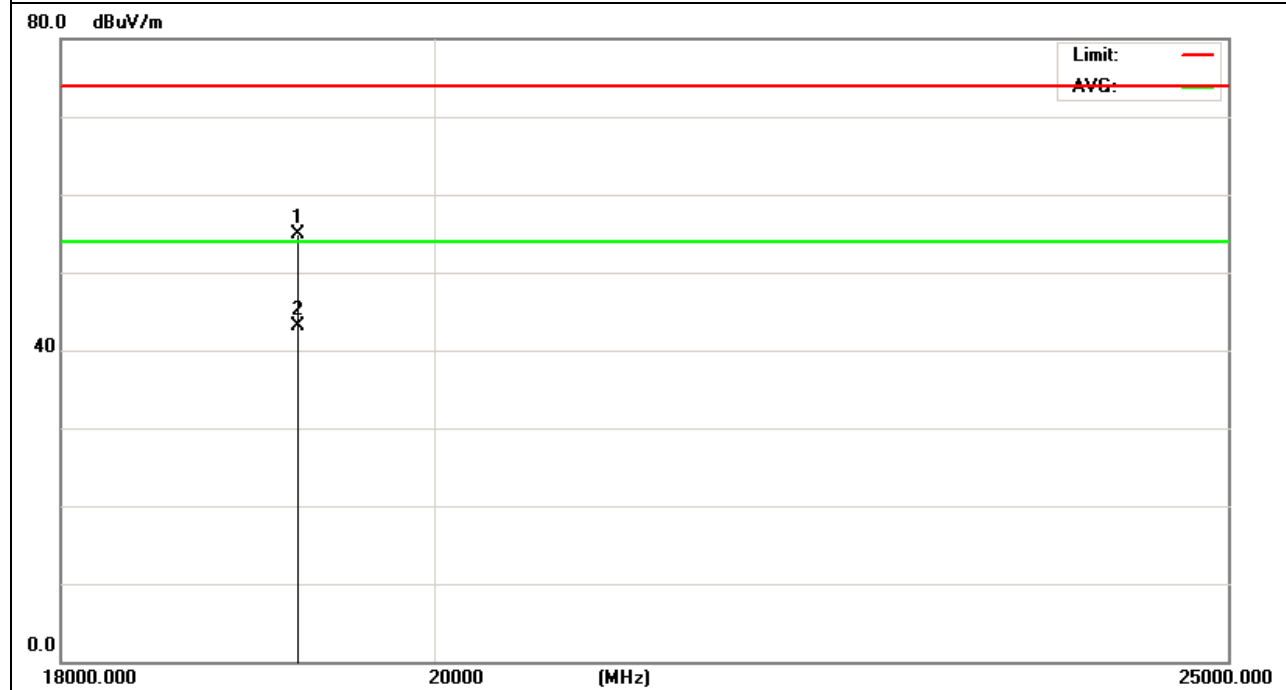


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (3Mbps-worst case)	Polarization :	Horizontal
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19241.000	38.55	16.45	55.00	74.00	-19.00	
19241.000	26.67	16.45	43.12	54.00	-10.88	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

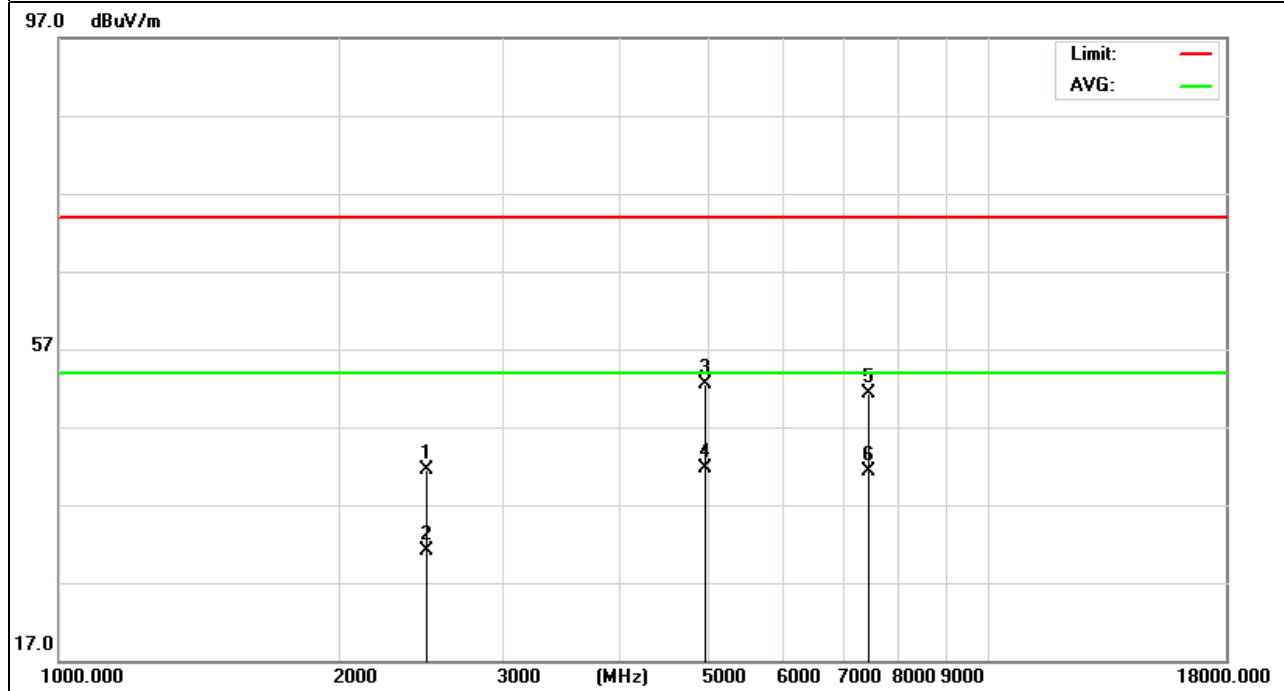


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.500	46.57	-4.98	41.59	74.00	-32.41	peak
2483.500	36.16	-4.98	31.18	54.00	-22.82	AVG
4960.000	47.36	5.22	52.58	74.00	-21.42	peak
4960.000	36.47	5.22	41.69	54.00	-12.31	AVG
7440.000	43.28	8.06	51.34	74.00	-22.66	peak
7440.000	33.14	8.06	41.20	54.00	-12.80	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

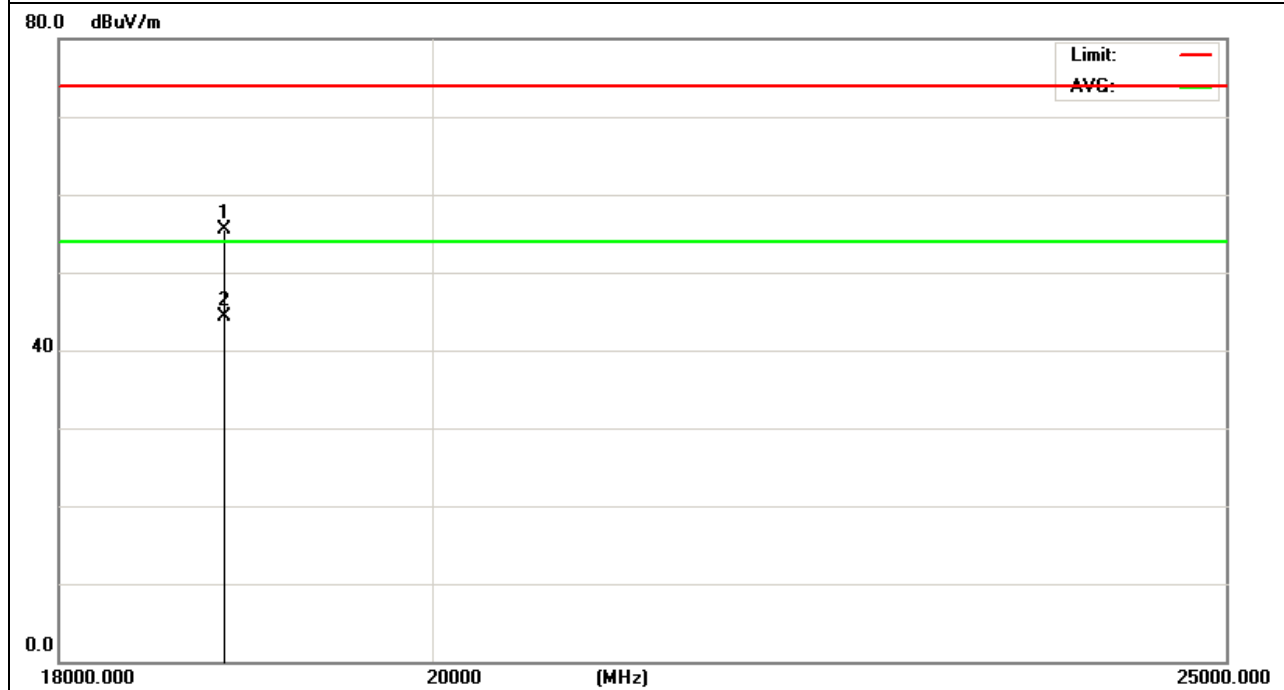


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	TX 2480MHz (3Mbps-worst case)	Polarization :	Vertical
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18859.000	39.16	16.27	55.43	74.00	-18.57	
18859.000	28.00	16.27	44.27	54.00	-9.73	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Remark:

All the modes had been tested, but only the worst data recorded in the report.

In frequency ranges 1~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report.

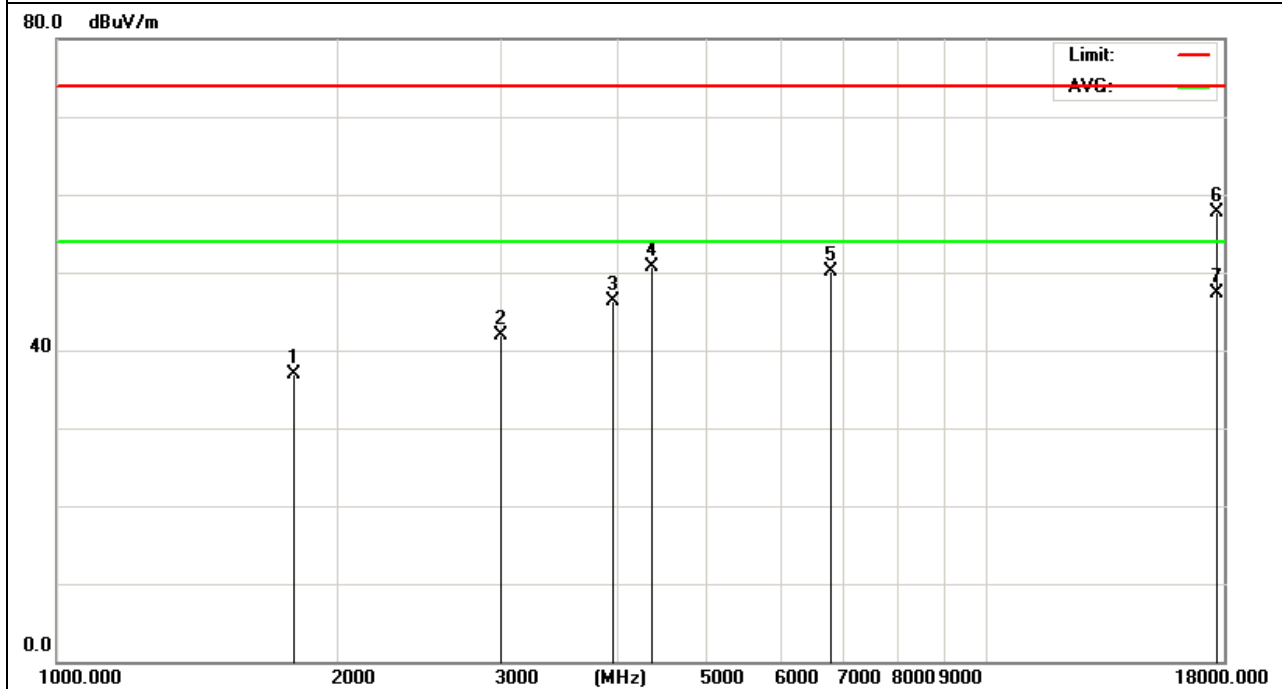
Test result: The unit does meet the NCC requirements.

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX (worst case)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1796.594	46.25	-9.35	36.90	74.00	-37.10	peak
2997.558	43.57	-1.69	41.88	74.00	-32.12	peak
3965.265	42.69	3.59	46.28	74.00	-27.72	peak
4359.159	46.33	4.45	50.78	74.00	-23.22	peak
6788.253	44.02	6.04	50.06	74.00	-23.94	peak
17656.368	32.84	24.92	57.76	74.00	-16.24	peak
17656.368	22.45	24.92	47.37	54.00	-6.63	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

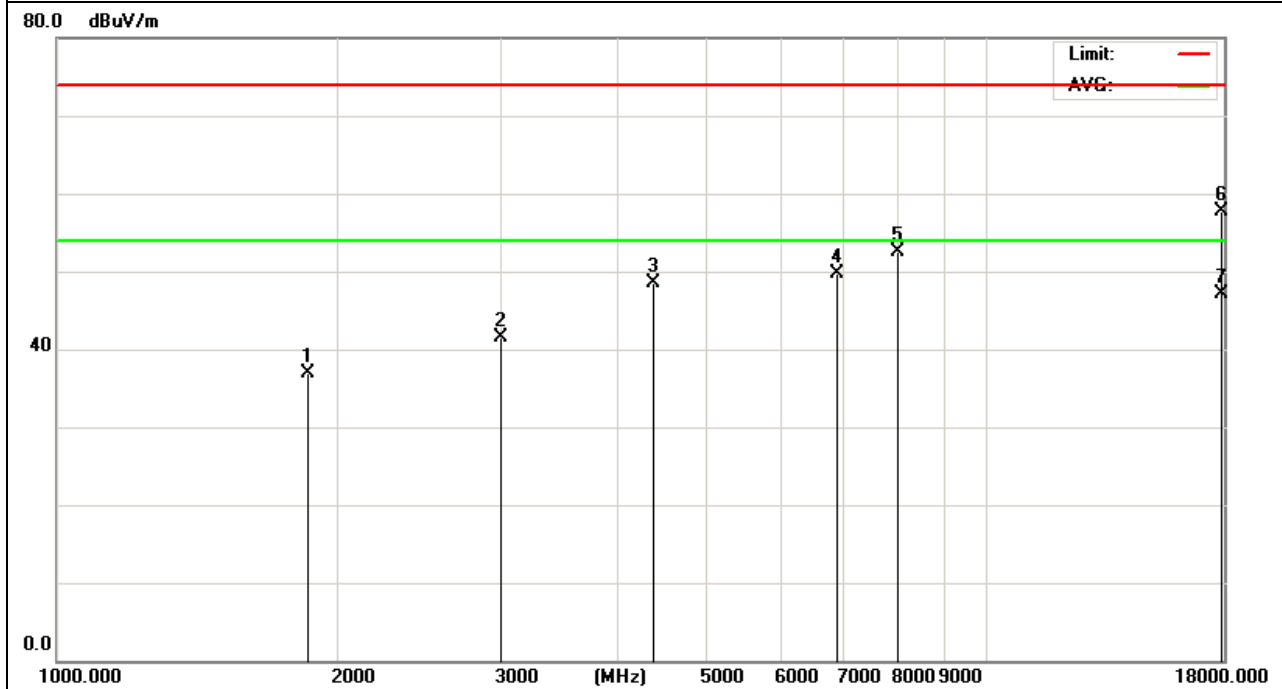


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX (worst case)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC 3.7V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1859.691	46.34	-9.45	36.89	74.00	-37.11	peak
3001.352	43.26	-1.68	41.58	74.00	-32.42	peak
4367.217	44.09	4.46	48.55	74.00	-25.45	peak
6881.636	43.51	6.11	49.62	74.00	-24.38	peak
8026.665	42.03	10.41	52.44	74.00	-21.56	peak
17888.369	33.04	24.76	57.80	74.00	-16.20	peak
17888.369	22.26	24.76	47.02	54.00	-6.98	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

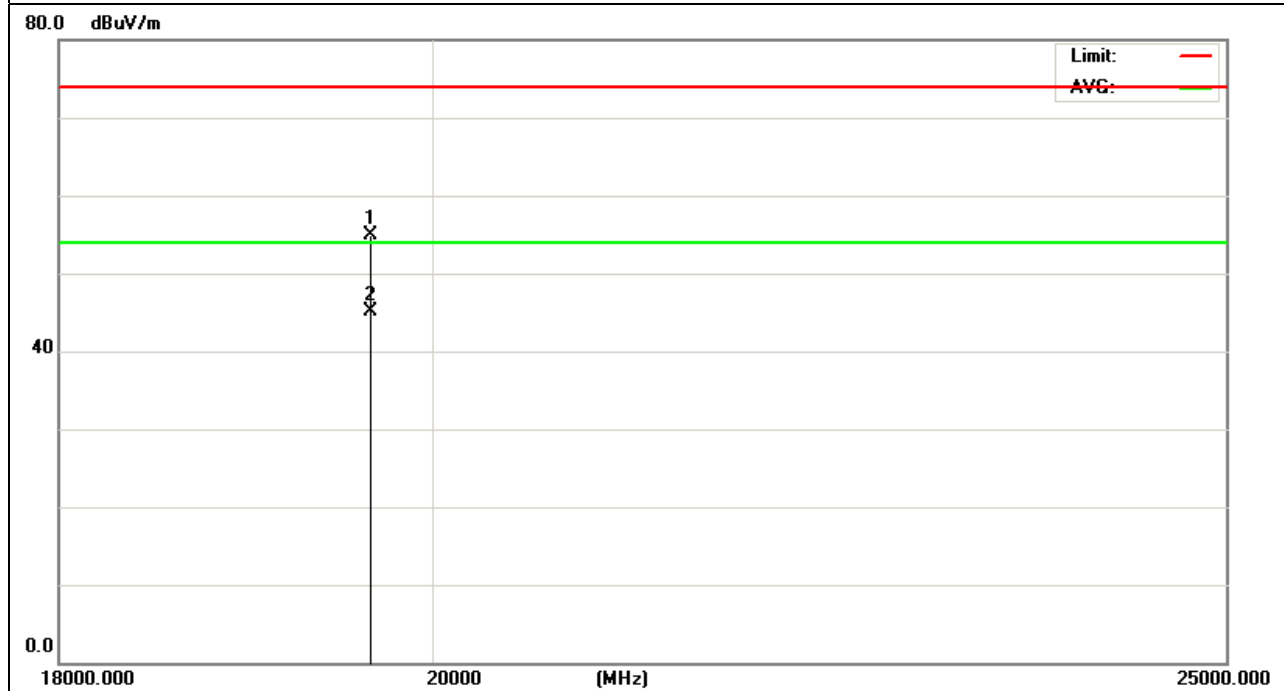


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX (worst case)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC 3.7V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19651.000	38.41	16.53	54.94	74.00	-19.06	peak
19651.000	28.64	16.53	45.17	54.00	-8.83	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

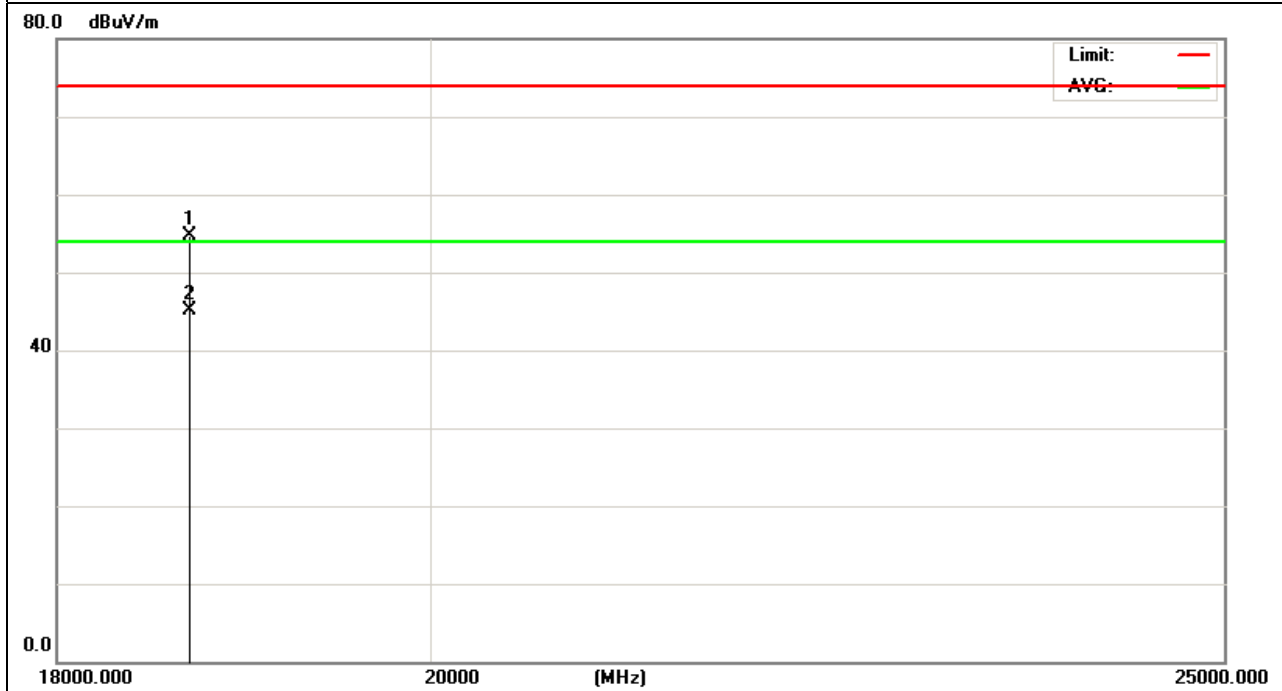


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2020-07-27
Test Mode :	RX (worst case)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC 3.7V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18693.000	38.69	16.09	54.78	74.00	-19.22	peak
18693.000	28.97	16.09	45.06	54.00	-8.94	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Remark:

All the modes had been tested, but only the worst data recorded in the report.

No any other emissions detected which are tested to compliance with the limit. No recording in the test report.

Test result: The unit does meet the NCC requirements.

3.2.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

Pretest left earphone and right earphone, found the worst-case is left earphone, only the worse case data show in the report.

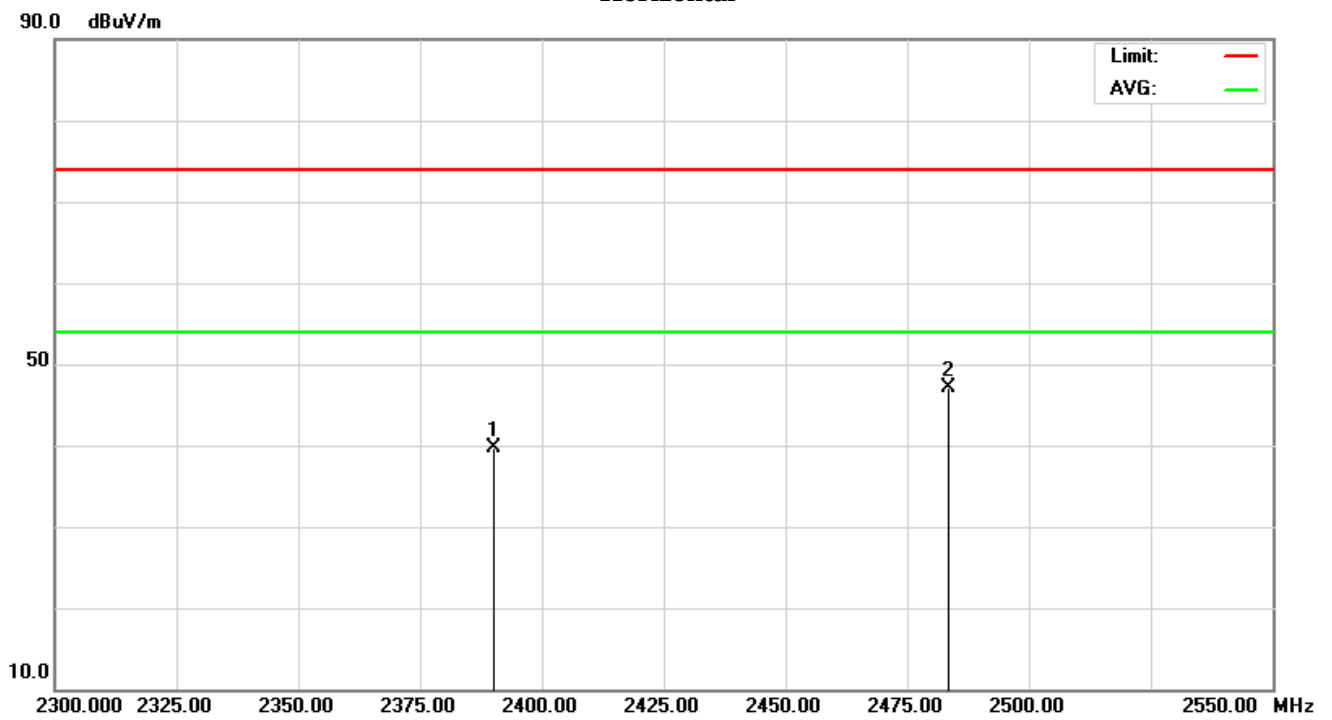
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	TX 2402MHz/2480MHz (1Mbps)		
Test Date :	2020-07-27		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH00). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH78). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	46.53	--	-5.79	40.74	--	74.00	54.00	CH00
2390.00	V	48.14	--	-5.79	42.35	--	74.00	54.00	CH00
2483.50	H	53.21	--	-4.98	48.23	--	74.00	54.00	CH78
2483.50	V	53.43	--	-4.98	48.45	--	74.00	54.00	CH78

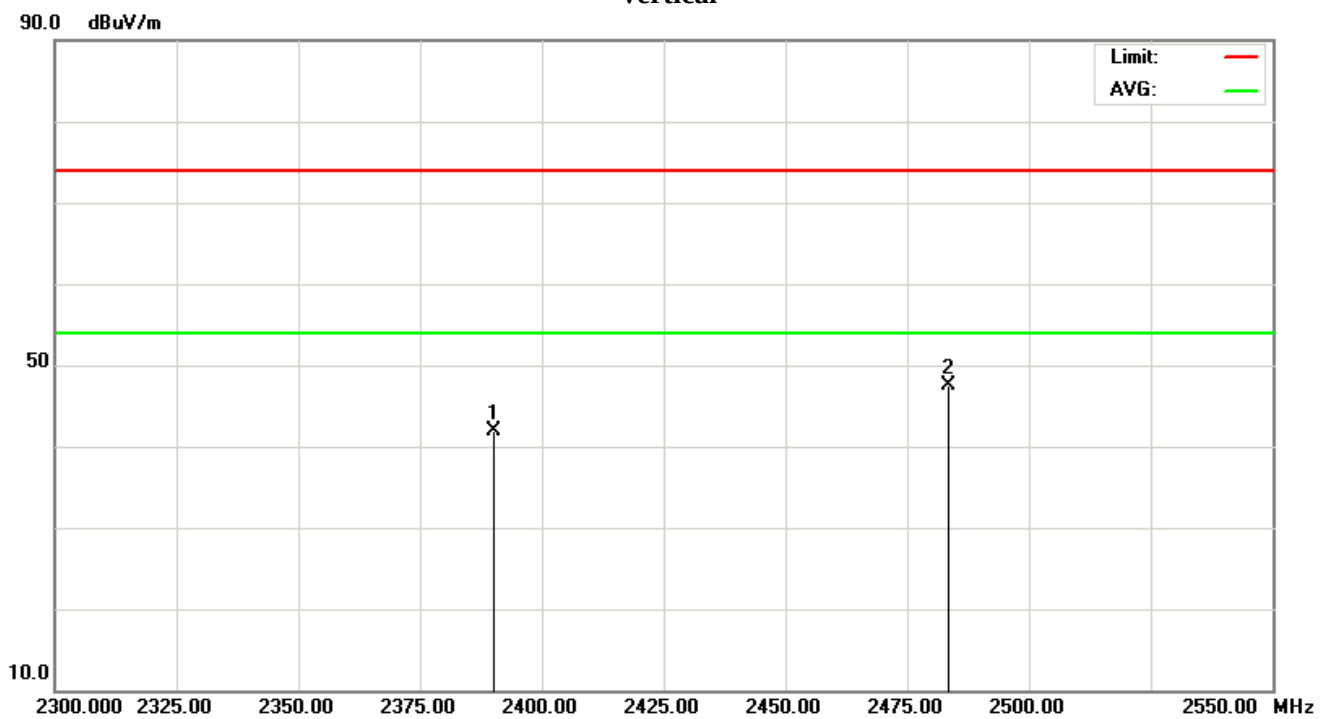
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Horizontal



Vertical



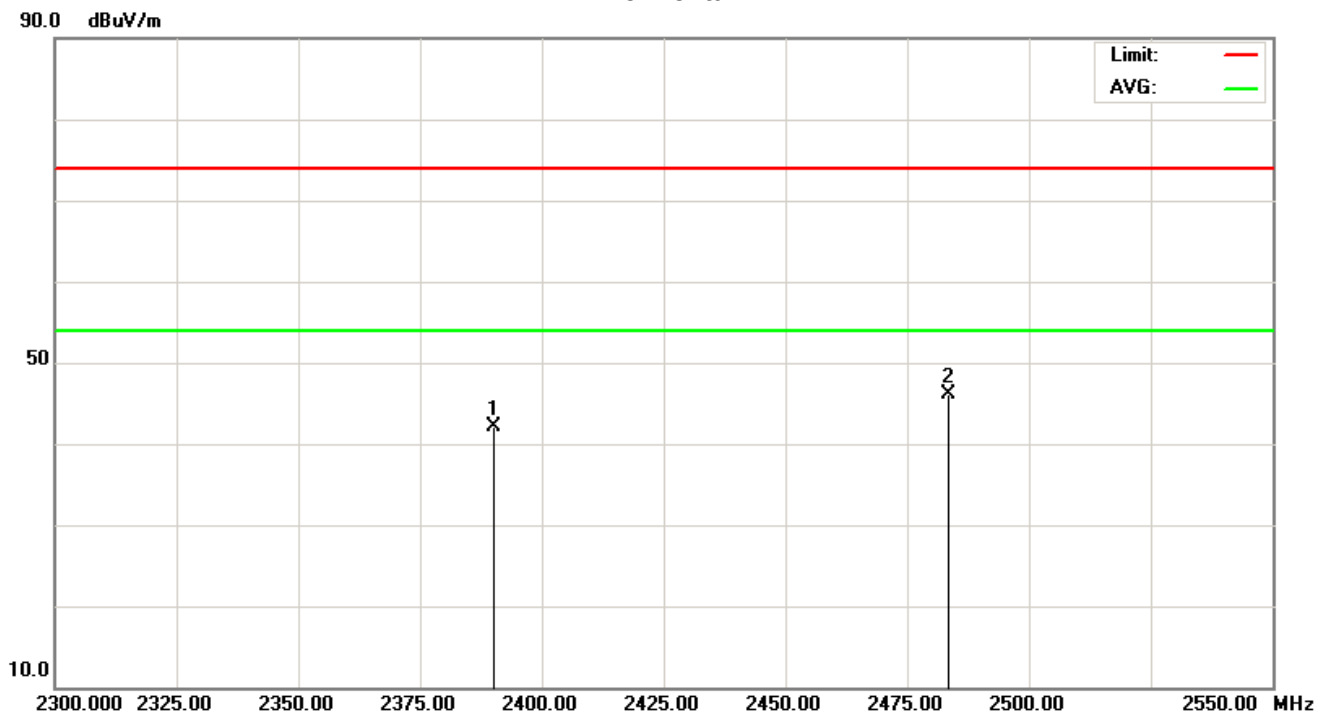
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	24°C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	TX 2402MHz/2480MHz (3Mbps)		
Test Date :	2020-07-27		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH00). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH78). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	46.74	--	-5.79	40.95	--	74.00	54.00	CH00
2390.00	V	47.58	--	-5.79	41.79	--	74.00	54.00	CH00
2483.50	H	50.16	--	-4.98	45.18	--	74.00	54.00	CH78
2483.50	V	50.44	--	-4.98	45.46	--	74.00	54.00	CH78

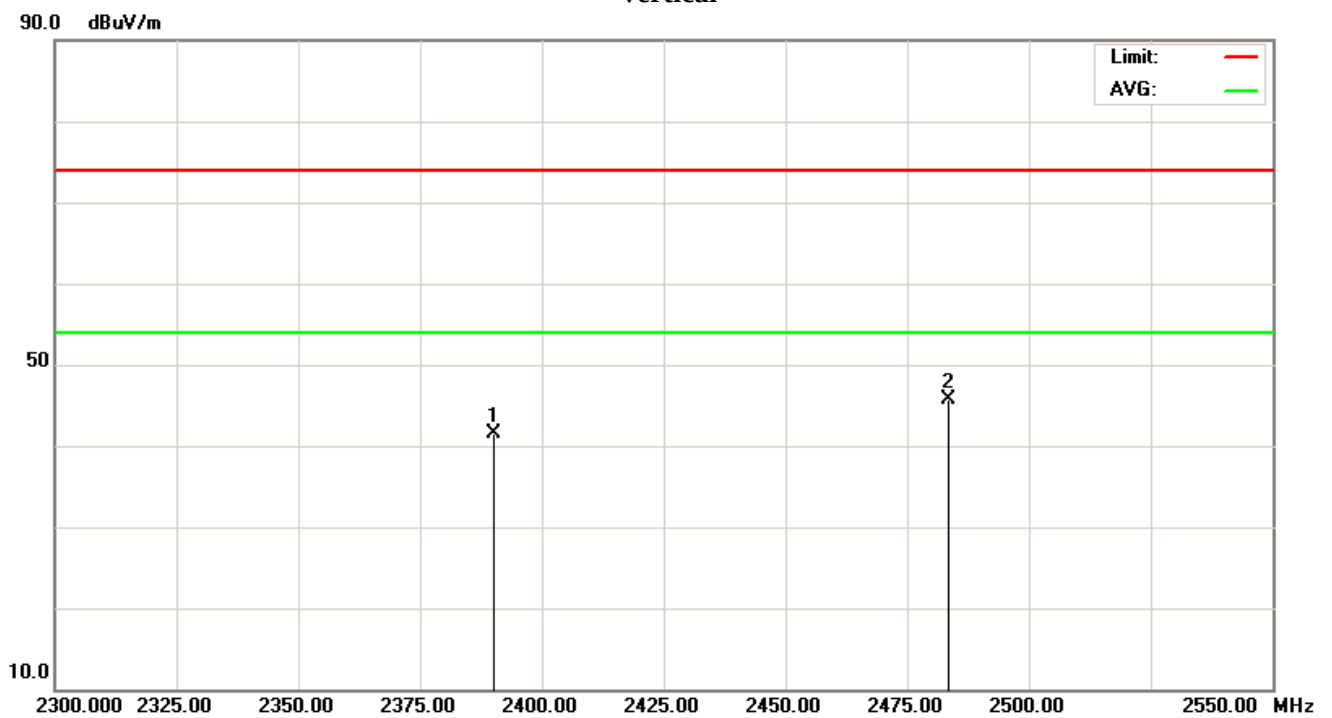
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Horizontal



Vertical



Test result: The unit does meet the NCC requirements.

4. OCCUPIED BANDWIDTH TEST

4.1 APPLIED PROCEDURES / LIMIT

LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
3.10.1(6.1.1)	Bandwidth	N/A	2402-2480	PASS

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	30 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
VB	100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.

4.1.2 TEST SETUP



4.1.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.4 TEST RESULTS

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH39 /CH78 (1Mbps Mode)		
Test Date :	2020-07-27		

Left earphone:

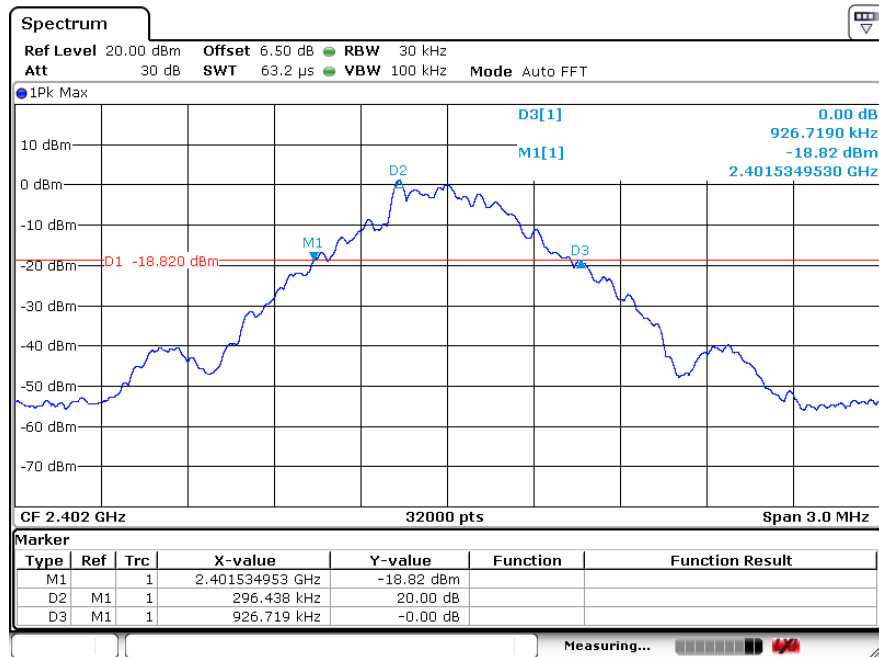
Frequency	20dB Bandwidth (kHz)	Result
2402 MHz	926.7	Pass
2441 MHz	923.8	Pass
2480 MHz	923.0	Pass

Right earphone:

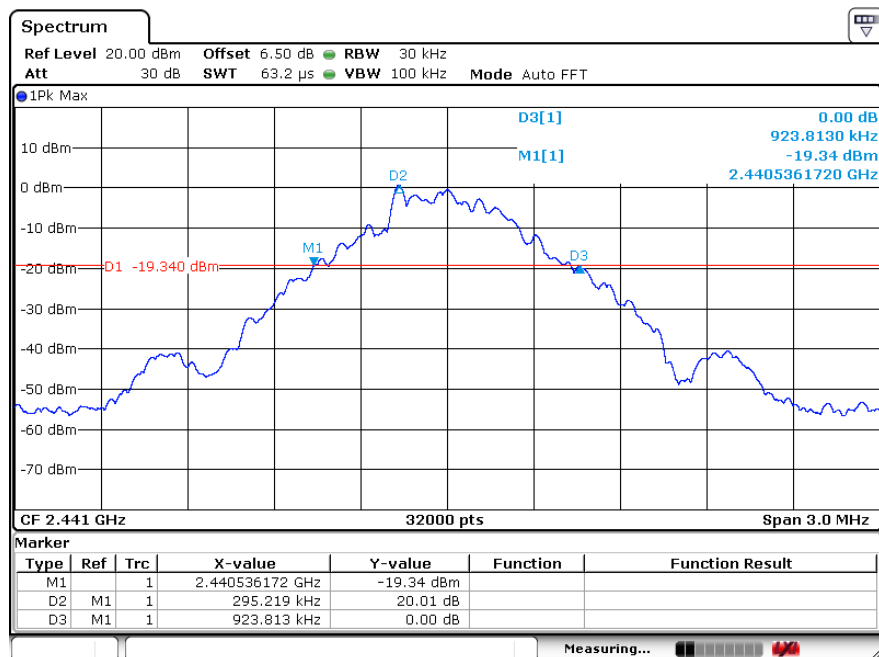
Frequency	20dB Bandwidth (kHz)	Result
2402 MHz	925.7	Pass
2441 MHz	924.1	Pass
2480 MHz	921.2	Pass

Left earphone:

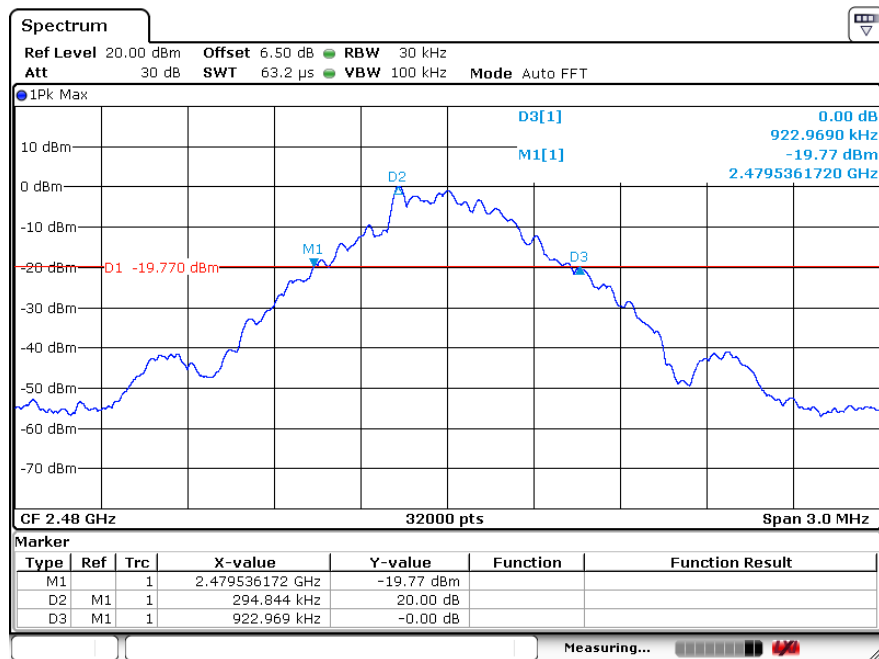
CH00-1Mbps



CH 39-1Mbps

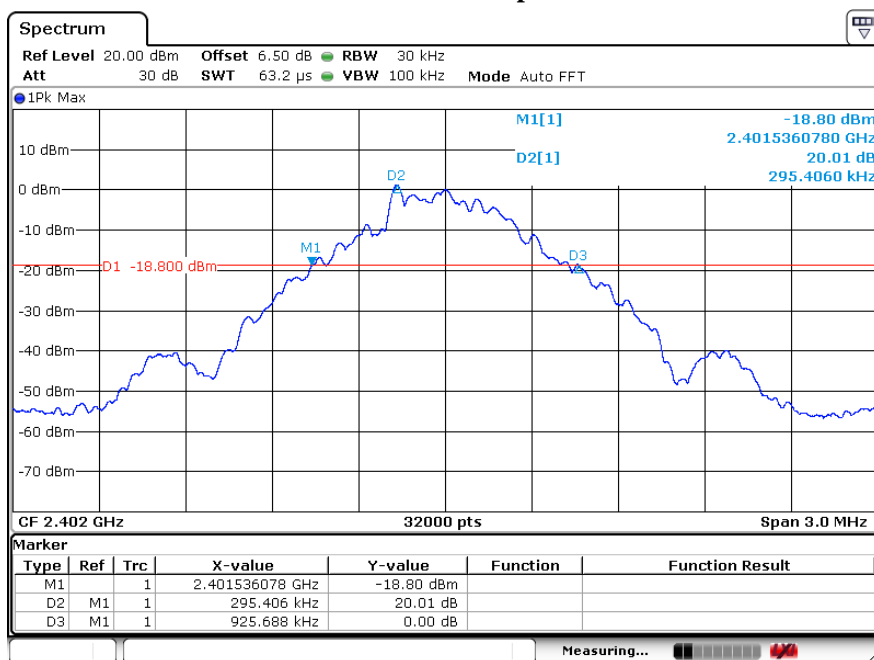


CH 78-1Mbps

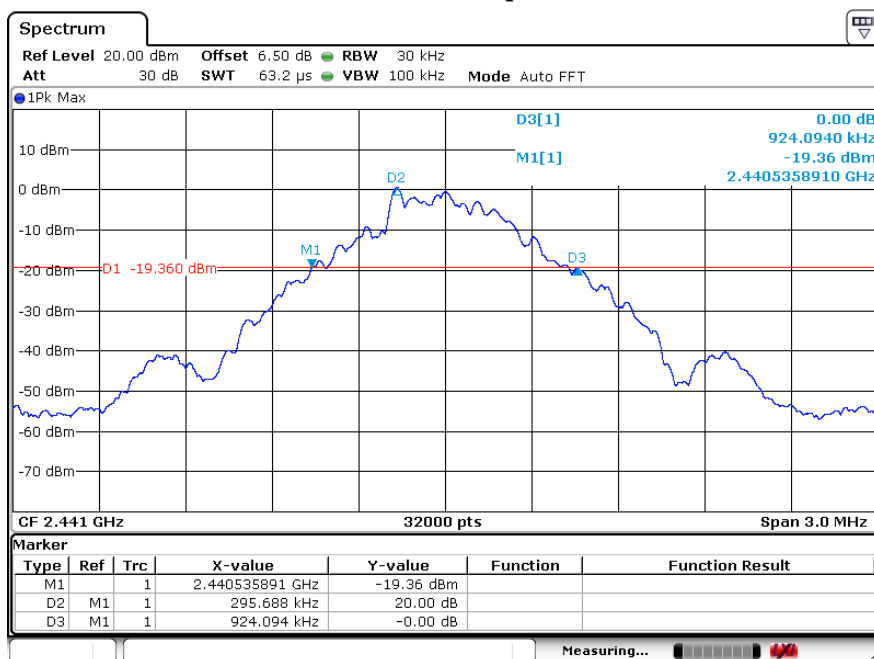


Right earphone:

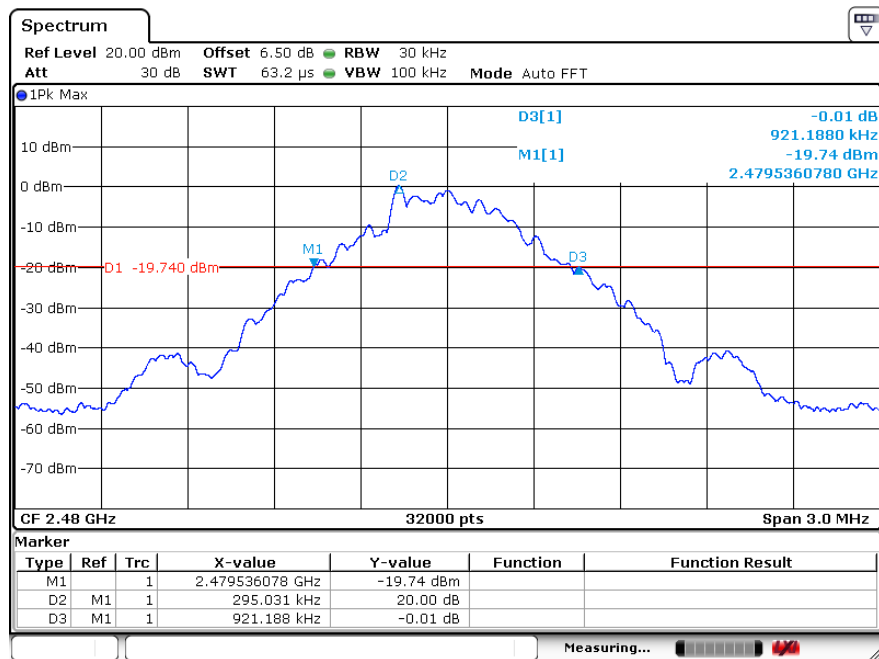
CH00-1Mbps



CH 39-1Mbps



CH 78-1Mbps



EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH39 /CH78 (3Mbps Mode)		
Test Date :	2020-07-27		

Left Left earphone:

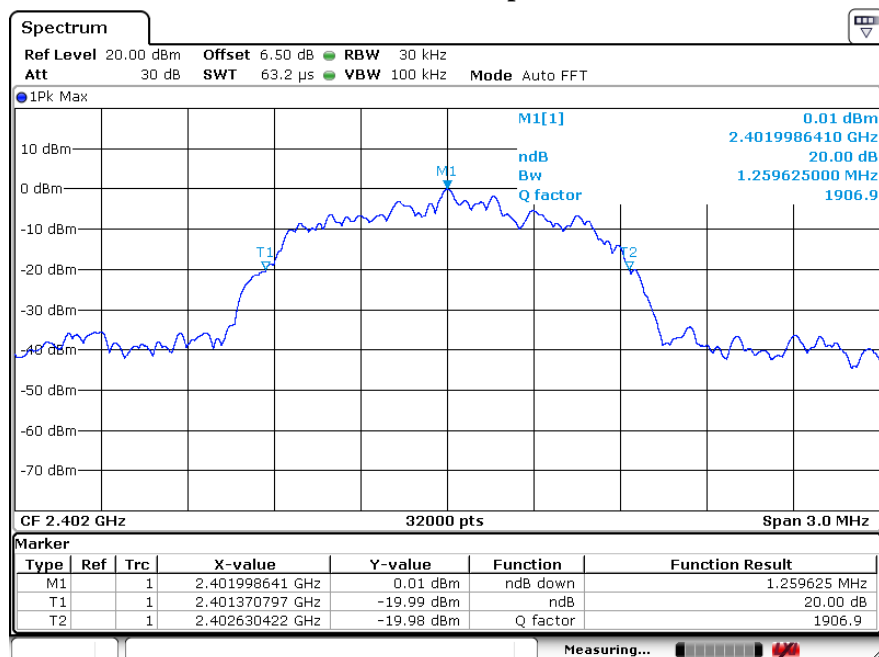
Frequency	20dB Bandwidth (kHz)	Result
2402 MHz	1259.6	Pass
2441 MHz	1261.0	Pass
2480 MHz	1261.3	Pass

Right earphone:

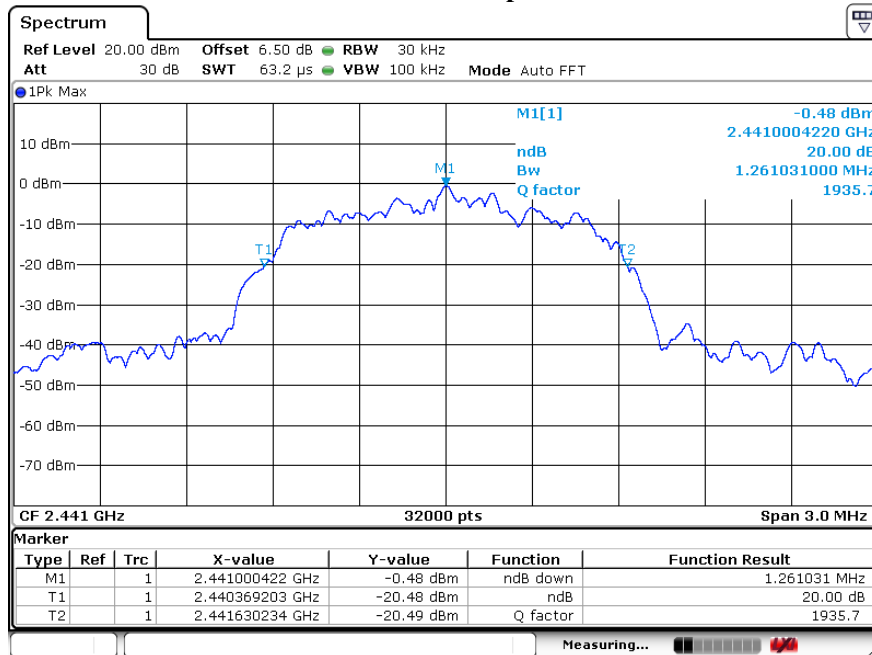
Frequency	20dB Bandwidth (kHz)	Result
2402 MHz	1260.1	Pass
2441 MHz	1262.0	Pass
2480 MHz	1261.2	Pass

Left earphone:

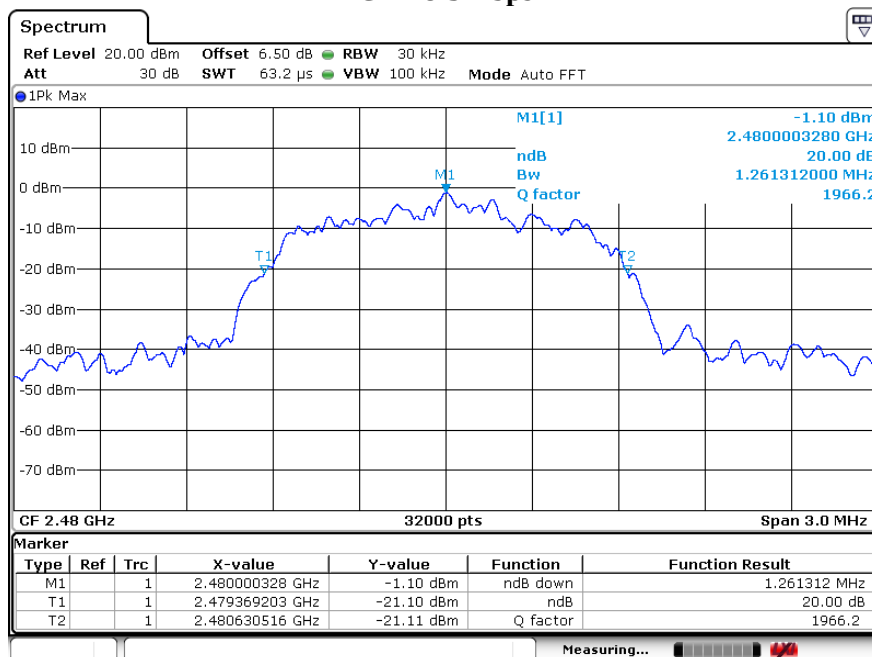
CH 00-3Mbps



CH 39-3Mbps

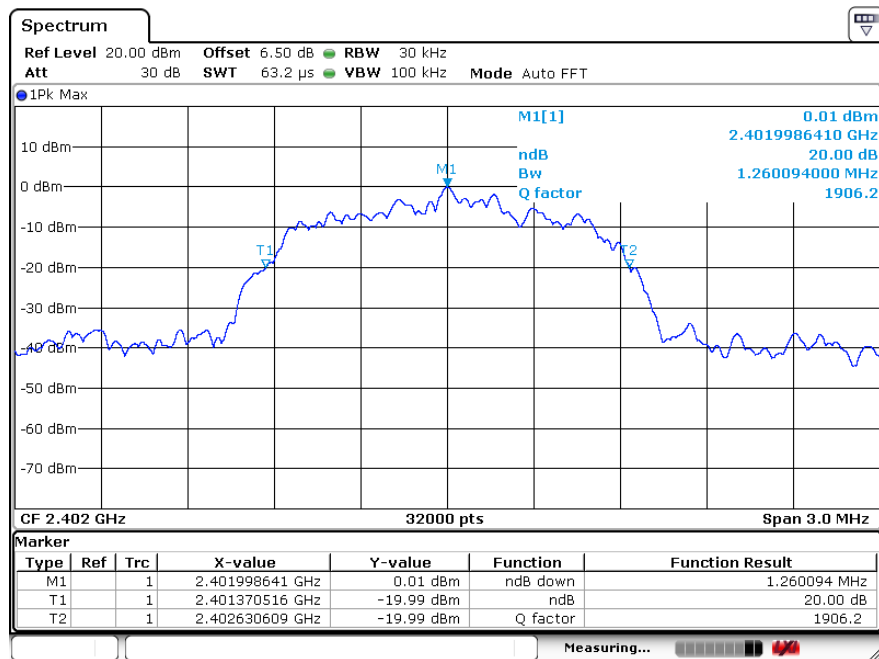


CH 78-3Mbps

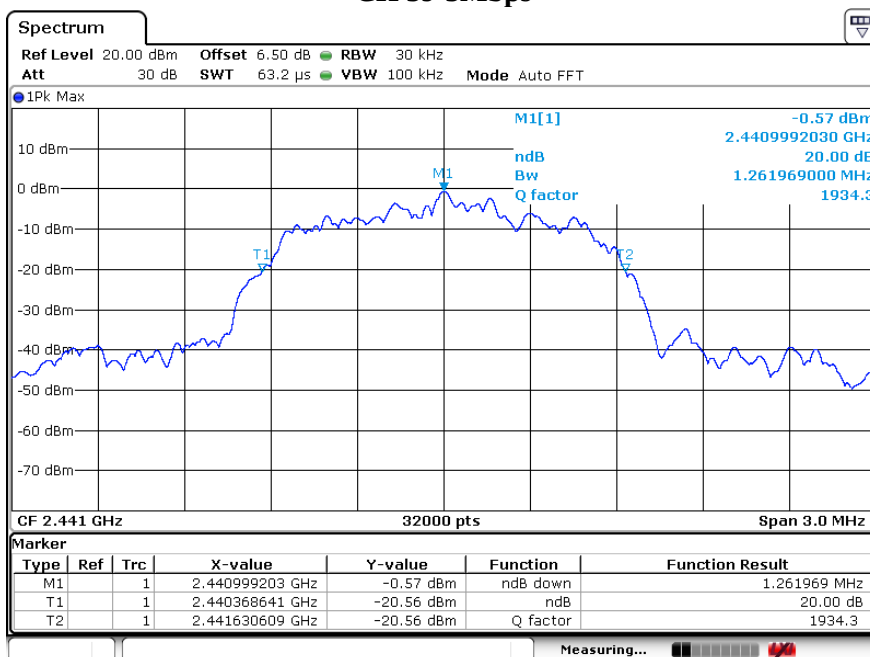


Right earphone:

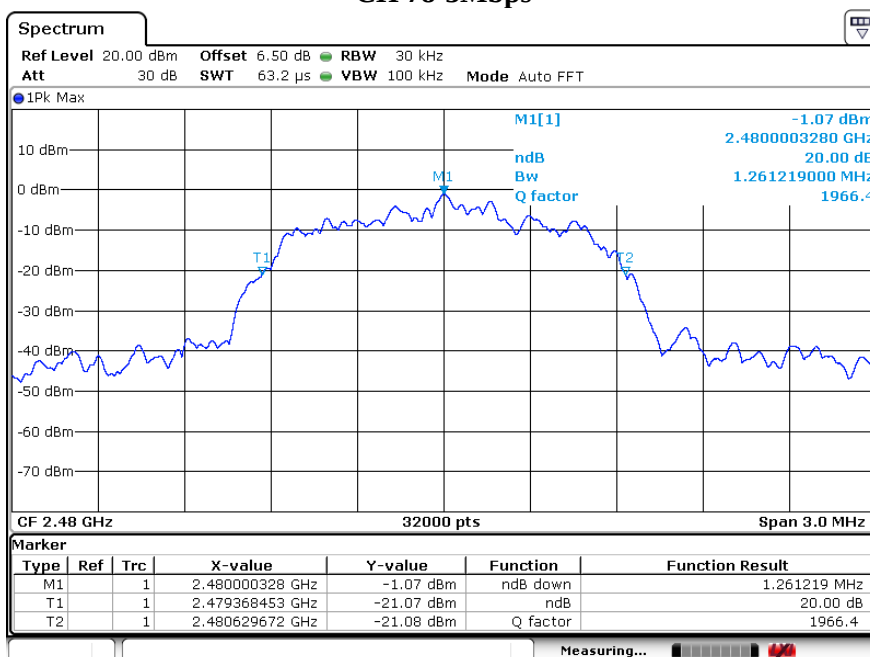
CH 00-3Mbps



CH 39-3Mbps



CH 78-3Mbps



5. NUMBER OF HOPPING CHANNEL

5.1 APPLIED PROCEDURES / LIMIT

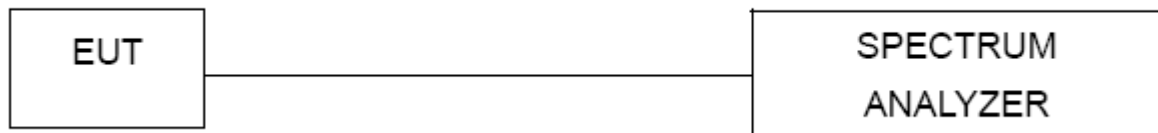
LP0002			
Section	Test Item	Frequency Range (MHz)	Result
3.10.1(6.1.1)	Number of Hopping Channel	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RB	1 MHz
VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 1 MHz, VBW=1 MHz, Sweep time = Auto.

5.1.2 TEST SETUP



5.1.3 EUT OPERATION CONDITIONS

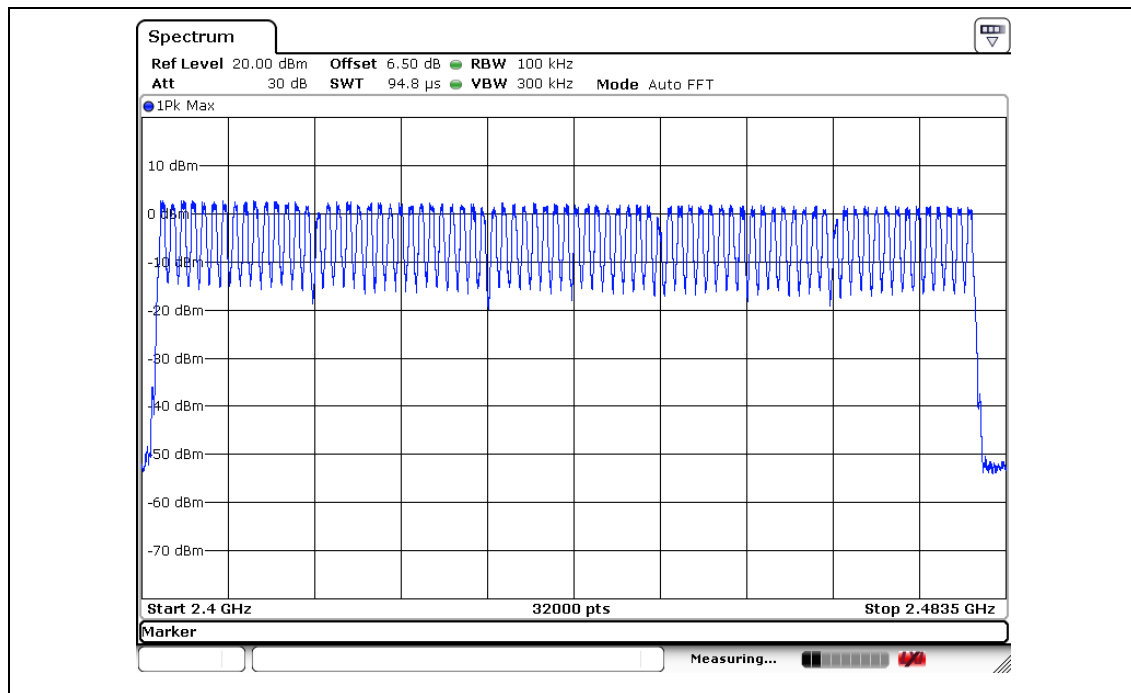
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.4 TEST RESULTS

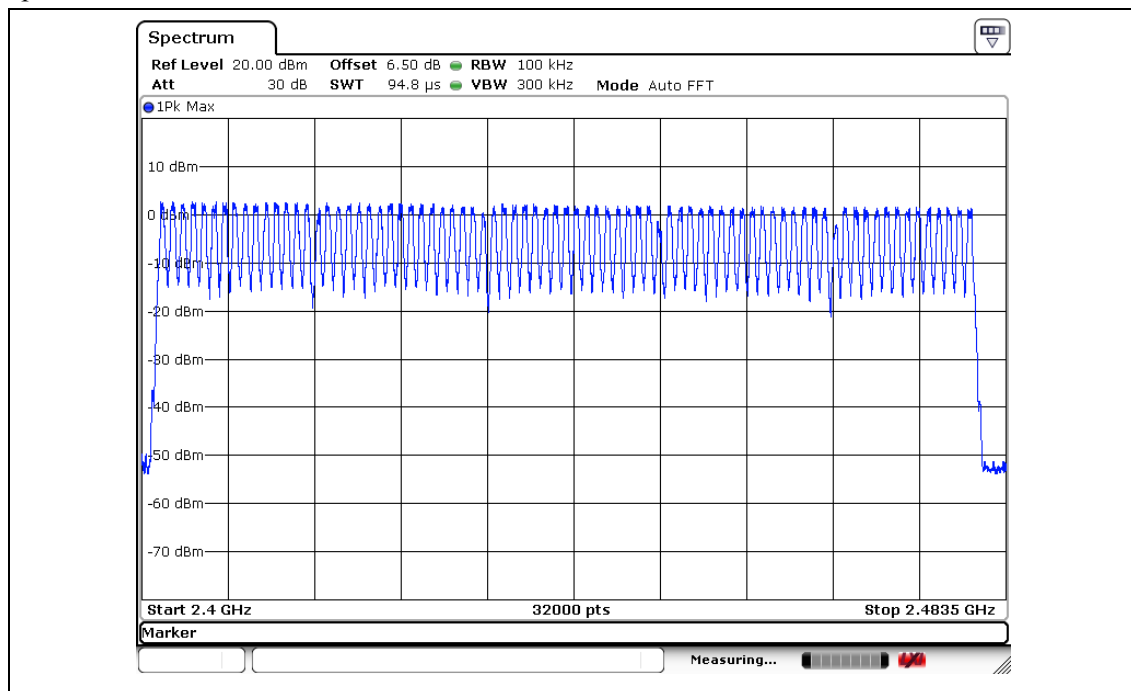
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	Hopping Mode –1Mbps mode		
Test Date :	2020-07-27		

Number of Hopping Channel	79
---------------------------	----

Left earphone:



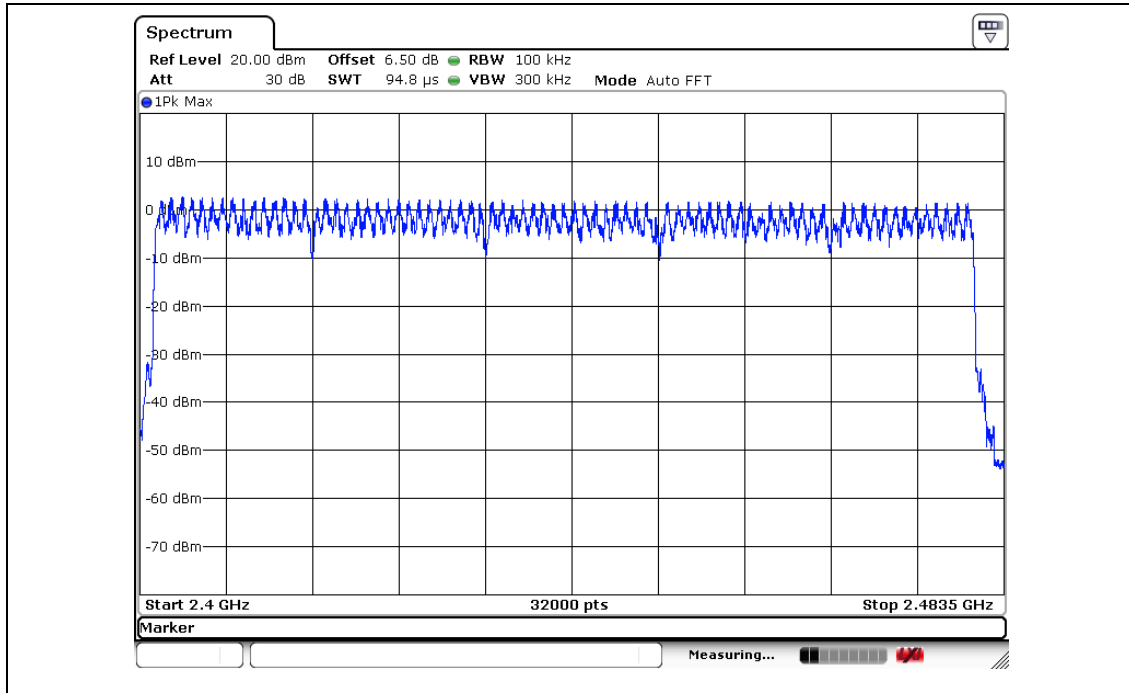
Right earphone:



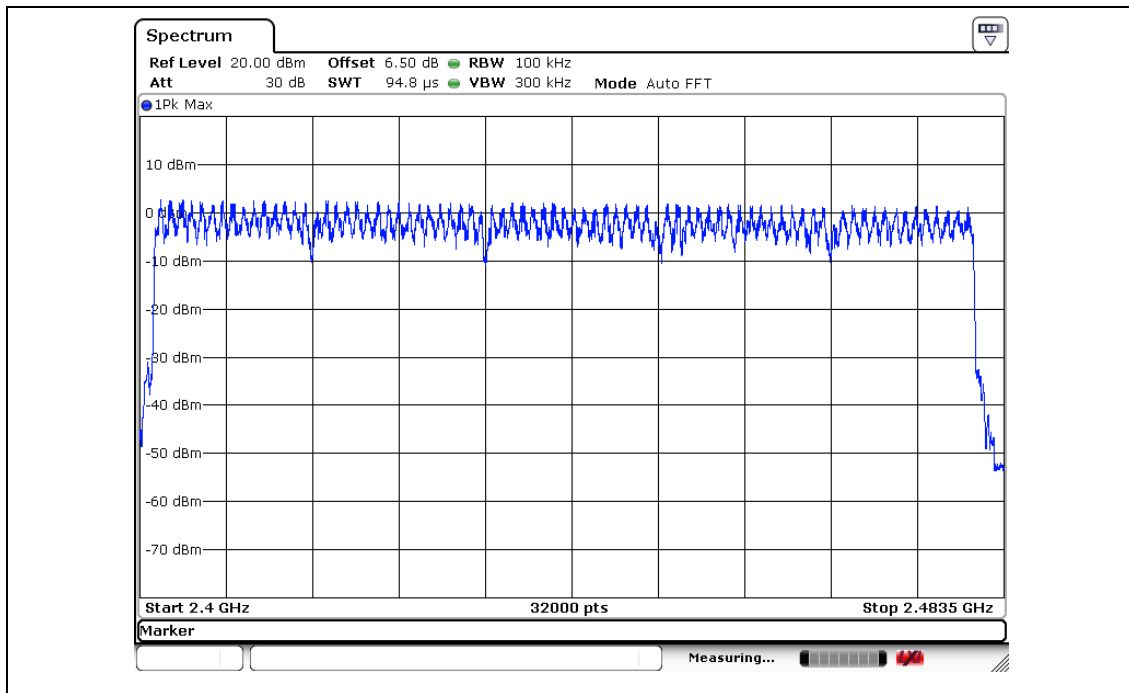
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	Hopping Mode –3Mbps mode		
Test Date :	2020-07-27		

Number of Hopping Channel	79
---------------------------	----

Left earphone:



Right earphone:



6. AVERAGE TIME OF OCCUPANCY

6.1 APPLIED PROCEDURES / LIMIT

LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
3.10.1(6.1.2)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS

6.1.1 TEST PROCEDURE

- The transmitter output (antenna port) was connected to the spectrum analyzer
- Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- Use a video trigger with the trigger level set to enable triggering only on full pulses.
- Sweep Time is more than once pulse time.
- Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- Measure the maximum time duration of one single pulse.
- Set the EUT for DH5, DH3 and DH1 packet transmitting.
- Measure the maximum time duration of one single pulse.
- DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $3.37 \times 31.6 = 106.6$ within 31.6 seconds.
- DH3 Packet permit maximum $1600 / 79 / 4 = 5.06$ hops per second in each channel (3 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $5.06 \times 31.6 = 160$ within 31.6 seconds.
- DH1 Packet permit maximum $1600 / 79 / 2 = 10.12$ hops per second in each channel (1 time slot RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $10.12 \times 31.6 = 320$ within 31.6 seconds.

6.1.2 TEST SETUP



6.1.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.4 TEST RESULTS

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00-DH1/DH3/DH5 (1Mbps Mode)		
Test Date :	2020-07-27		

Left earphone:

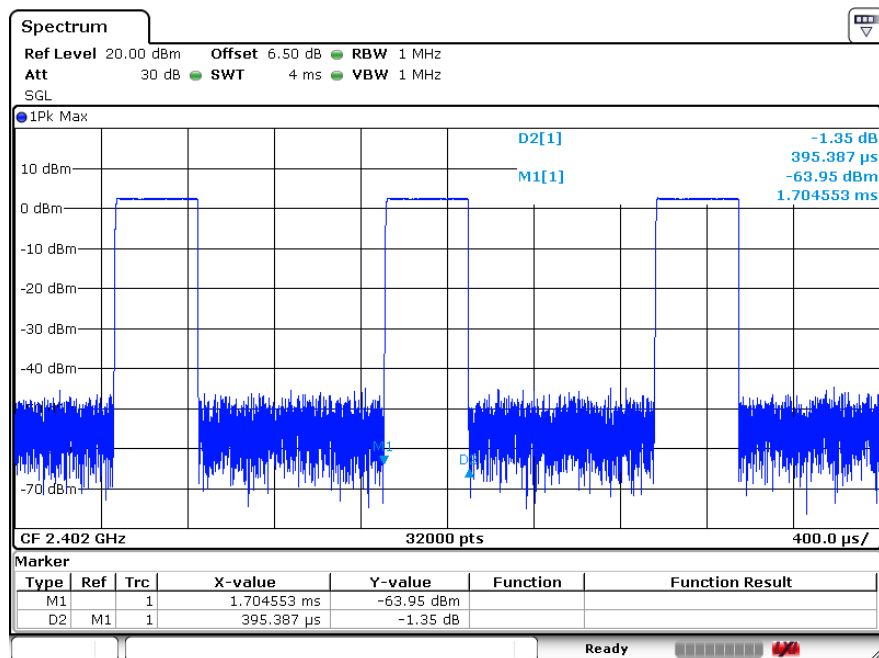
Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH1	2402 MHz	0.395	126.400	0.4000
DH3	2402 MHz	1.656	264.960	0.4000
DH5	2402 MHz	2.901	309.440	0.4000

Right earphone:

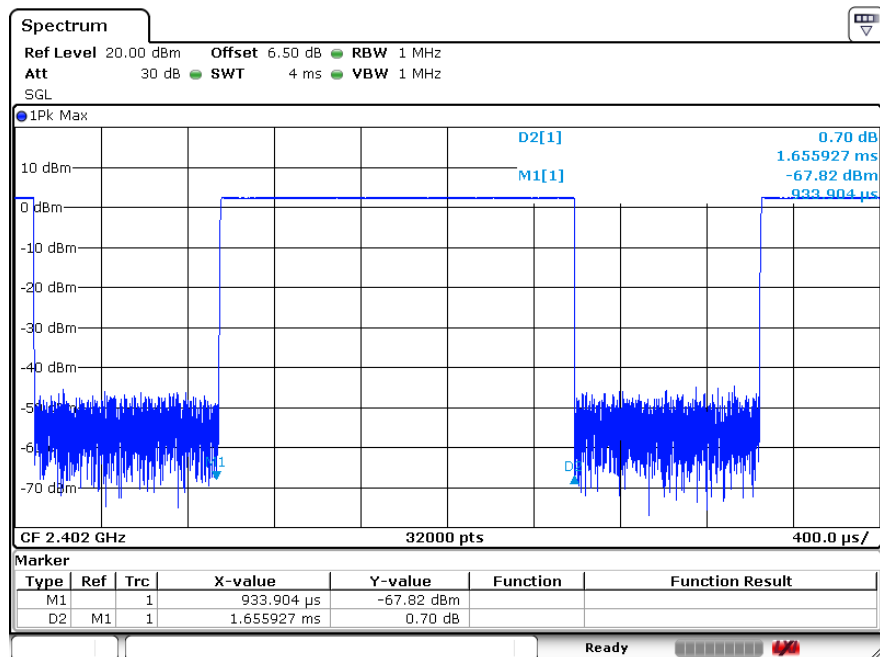
Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH1	2402 MHz	0.395	126.400	0.4000
DH3	2402 MHz	1.652	264.320	0.4000
DH5	2402 MHz	2.901	309.440	0.4000

Left earphone:

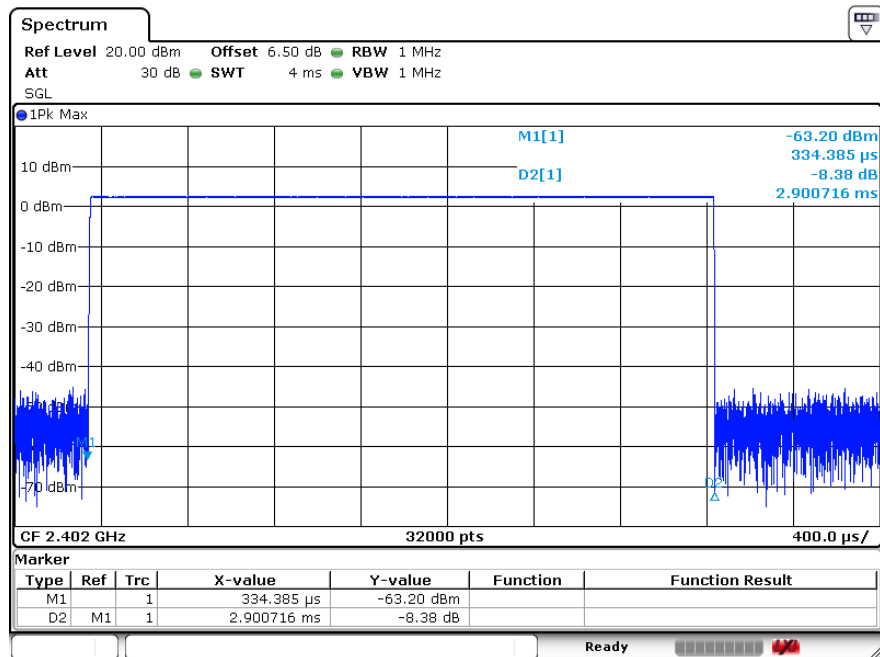
CH 00- DH1



CH 00- DH3

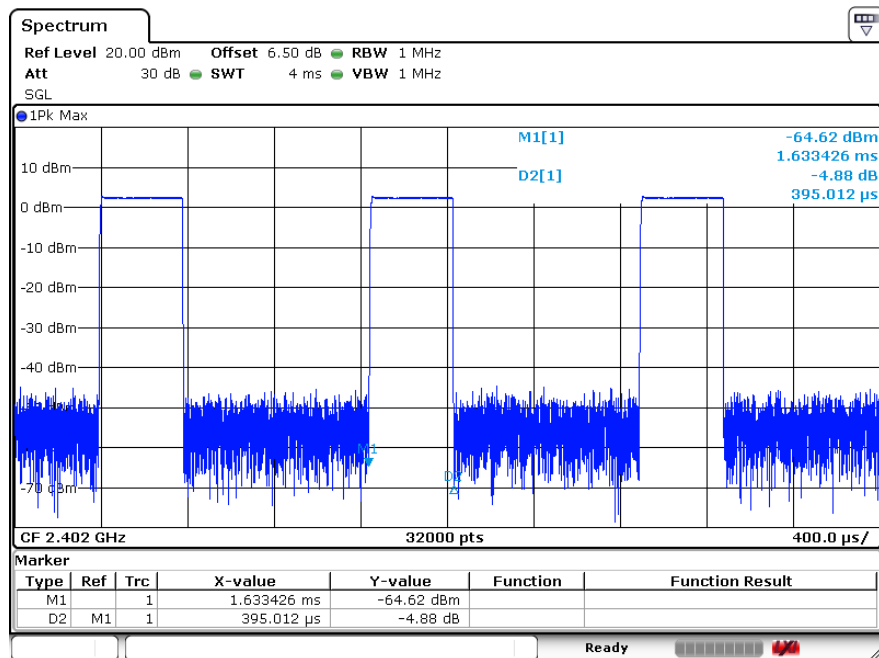


CH 00- DH5

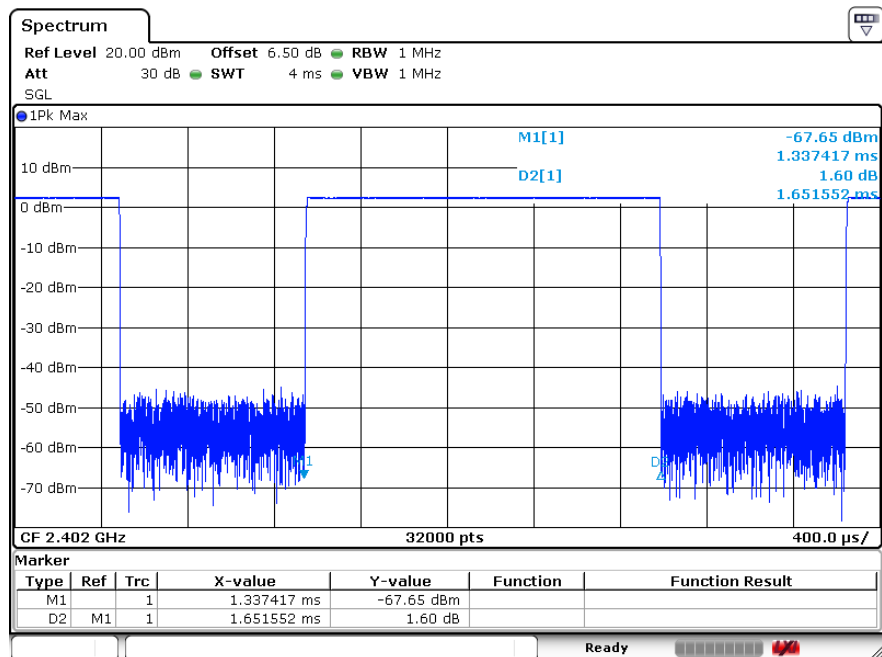


Right earphone:

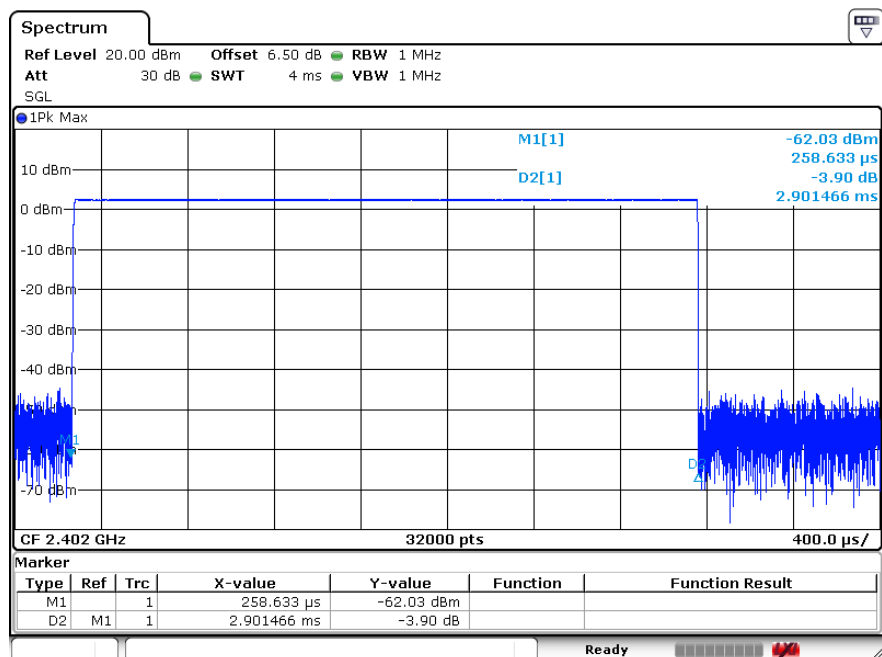
CH 00- DH1



CH 00- DH3



CH 00- DH5



EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00-DH1/DH3/DH5 (3Mbps Mode)		
Test Date :	2020-07-27		

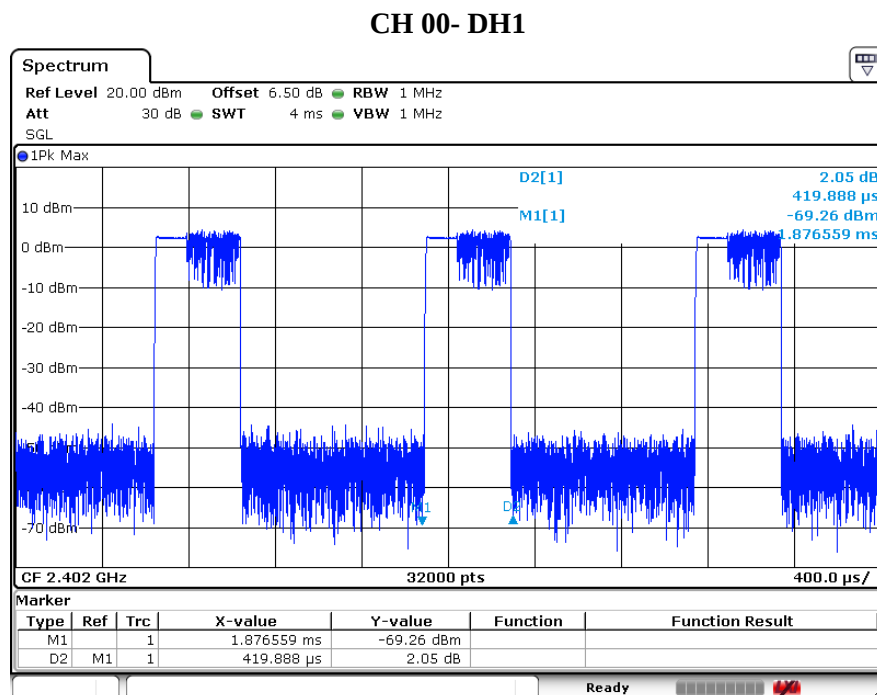
Left earphone:

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH1	2402 MHz	0.42	134.400	0.4000
DH3	2402 MHz	1.658	265.280	0.4000
DH5	2402 MHz	2.912	310.613	0.4000

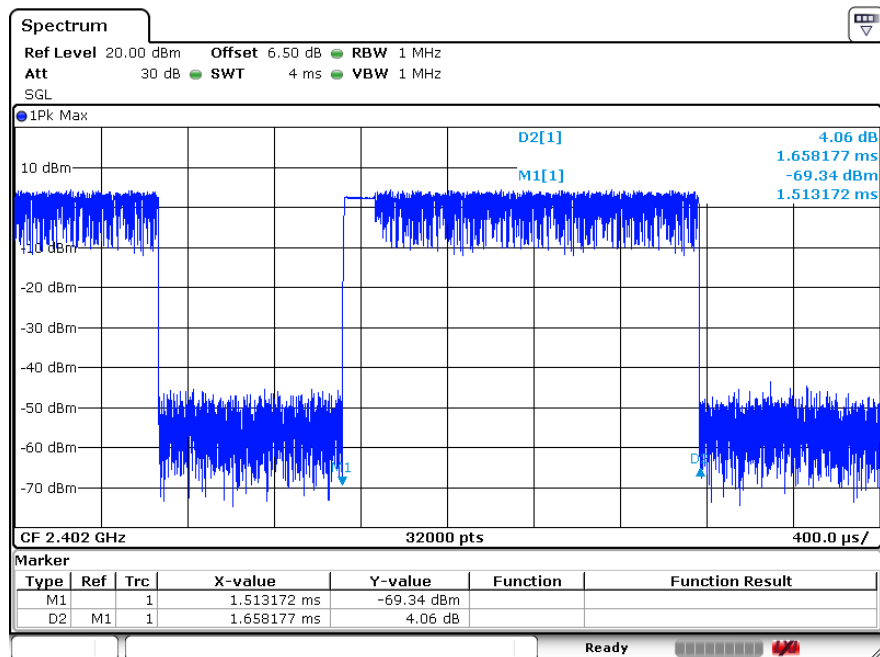
Right earphone:

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH1	2402 MHz	0.413	132.160	0.4000
DH3	2402 MHz	1.659	265.440	0.4000
DH5	2402 MHz	2.913	310.720	0.4000

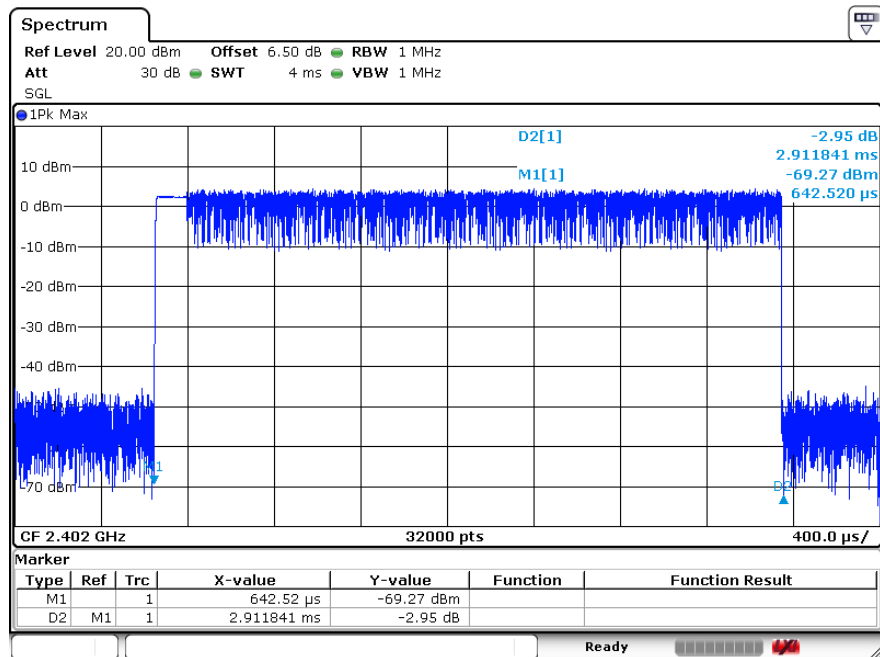
Left earphone:



CH 00- DH3

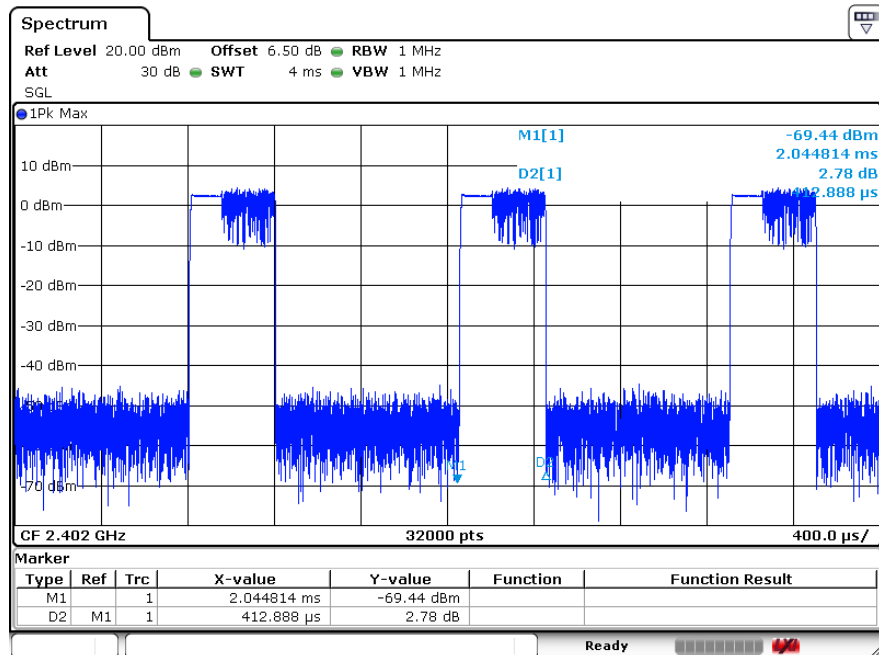


CH 00- DH5

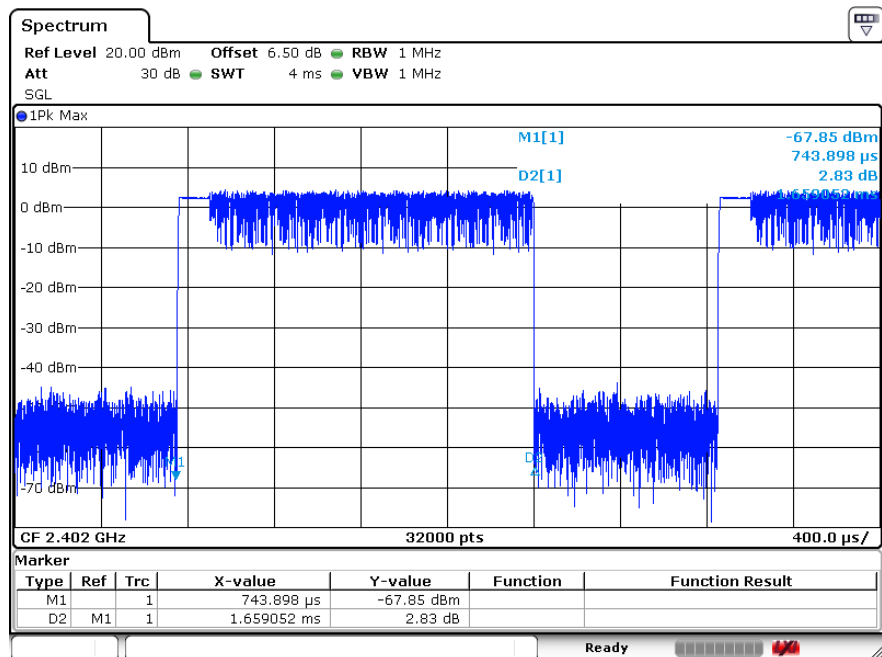


Right earphone:

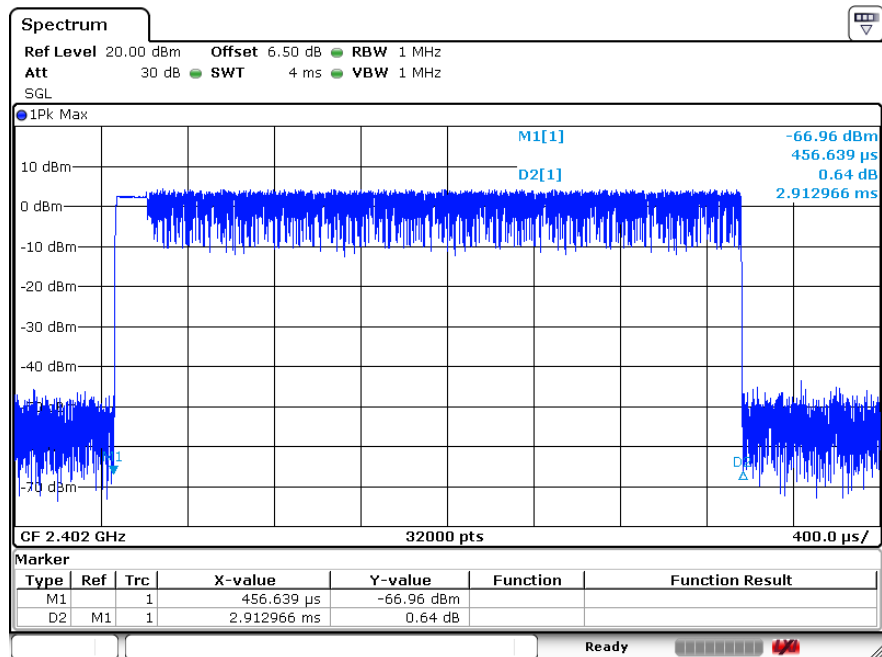
CH 00- DH1



CH 00- DH3



CH 00- DH5



7. HOPPING CHANNEL SEPARATION MEASUREMENT

7.1 APPLIED PROCEDURES / LIMIT

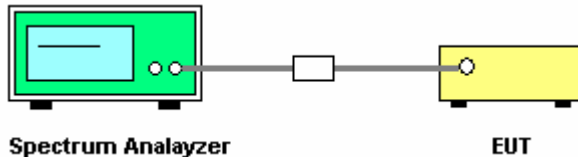
Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	30 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
VB	100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.1.1 TEST PROCEDURE

- The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- The resolution bandwidth of 30 kHz and the video bandwidth of 100 kHz were utilised for 20 dB bandwidth measurement.
- The resolution bandwidth of 100 kHz and the video bandwidth of 300 kHz were utilised for channel separation measurement.

7.1.2 TEST SETUP



7.1.3 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.1.4 TEST RESULTS

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH39 /CH78 (1Mbps Mode)		
Test Date :	2020-07-27		

Left earphone:

Frequency	Ch. Separation (KHz)	Limit 2/3(20dB bandwidth) (kHz)	Result
2402 MHz	999.0	617.80	PASS
2441 MHz	999.0	615.87	PASS
2480 MHz	999.0	615.33	PASS

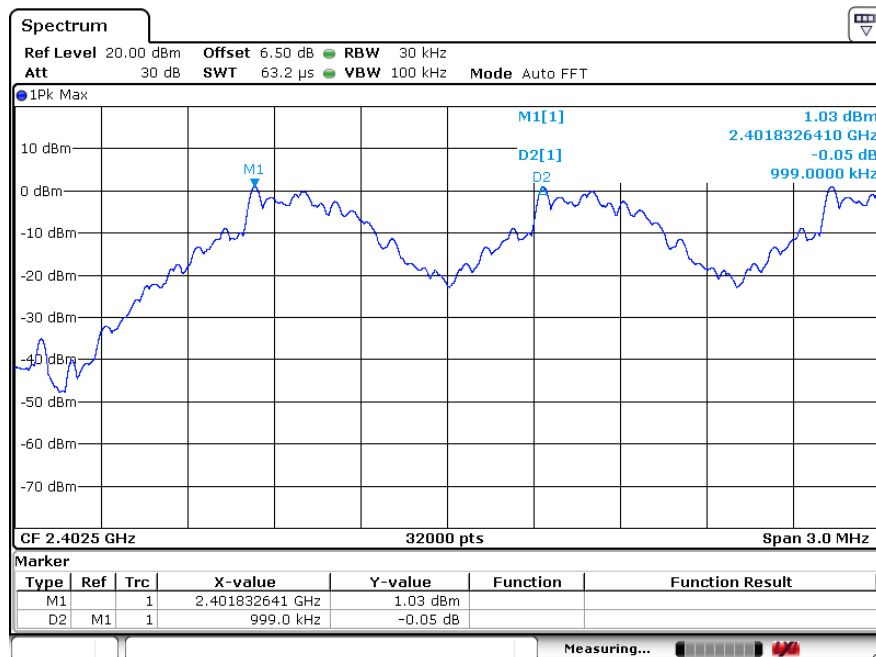
Right earphone:

Frequency	Ch. Separation (KHz)	Limit 2/3(20dB bandwidth) (kHz)	Result
2402 MHz	999.0	617.13	PASS
2441 MHz	999.0	616.07	PASS
2480 MHz	999.0	614.13	PASS

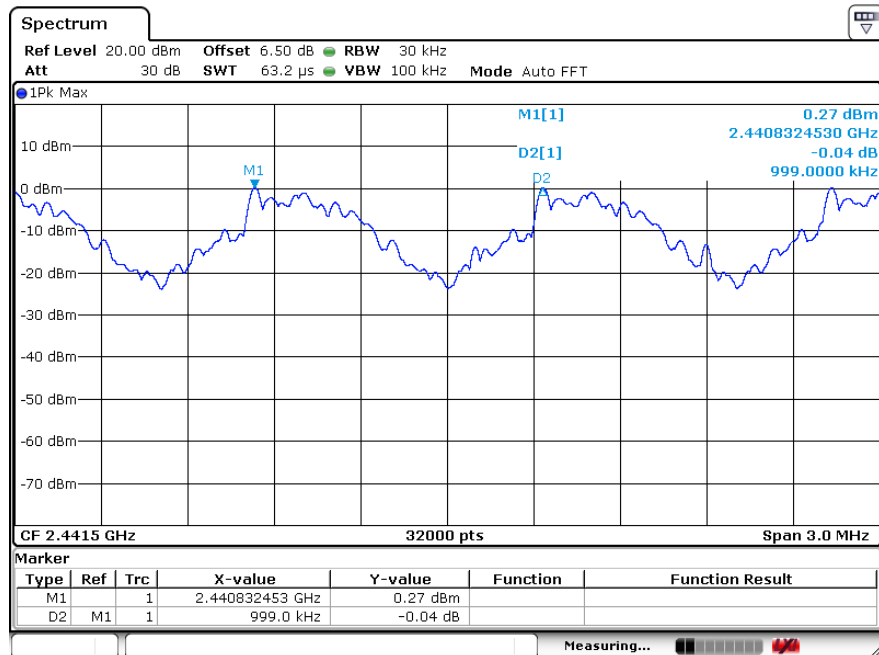
Ch. Separation >2/3(20dB bandwidth)

Left earphone:

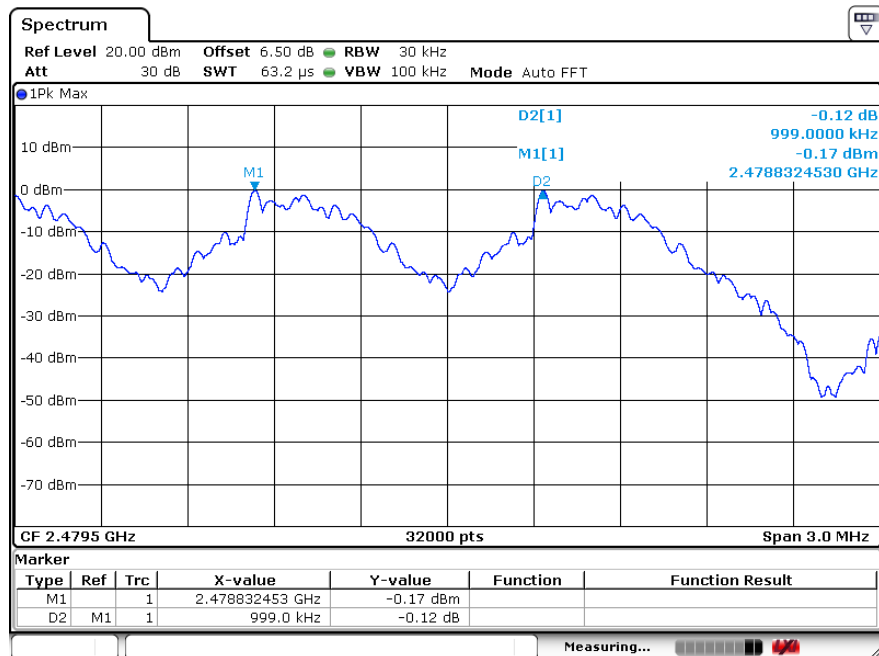
CH 00-1Mbps



CH 39-1Mbps

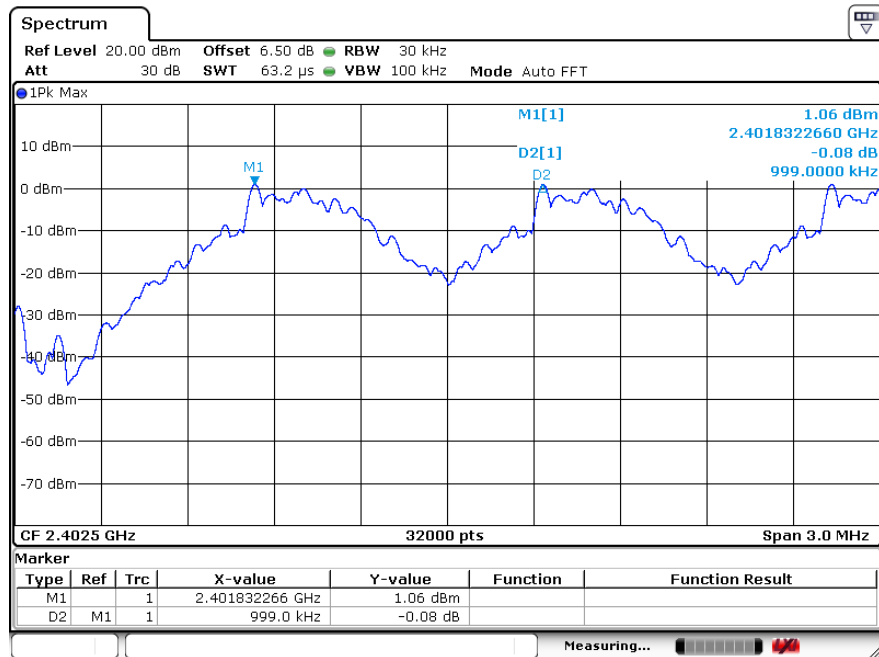


CH 78-1Mbps

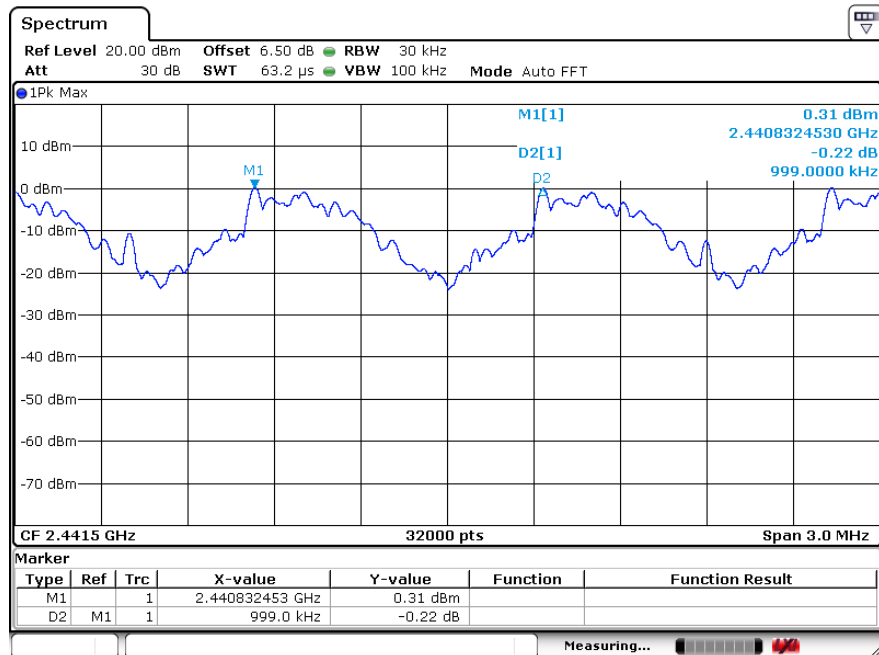


Right earphone:

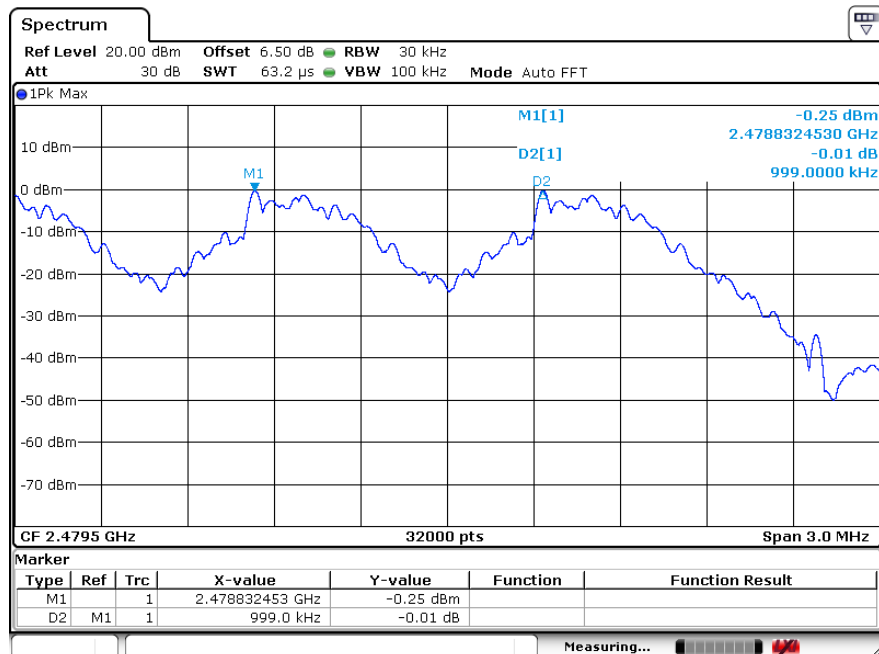
CH 00-1Mbps



CH 39-1Mbps



CH 78-1Mbps



EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH39 /CH78 (3Mbps Mode)		
Test Date :	2020-07-27		

Left earphone:

Frequency	Ch. Separation (KHz)	Limit 2/3(20dB bandwidth) (KHz)	Result
2402 MHz	999.0	839.73	PASS
2441 MHz	999.0	840.67	PASS
2480 MHz	999.0	840.87	PASS

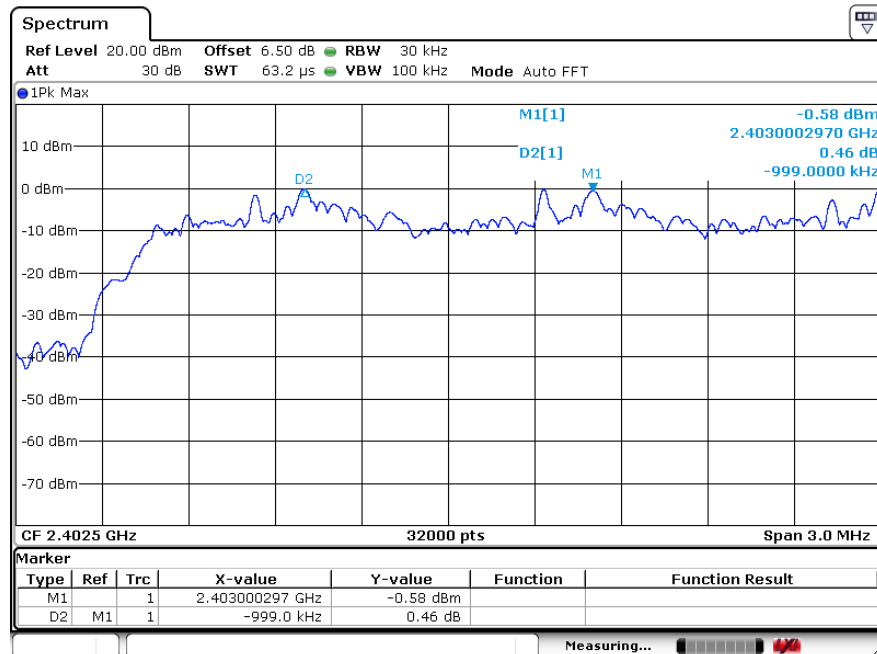
Right earphone:

Frequency	Ch. Separation (KHz)	Limit 2/3(20dB bandwidth) (KHz)	Result
2402 MHz	999.0	840.07	PASS
2441 MHz	999.0	841.33	PASS
2480 MHz	999.0	840.80	PASS

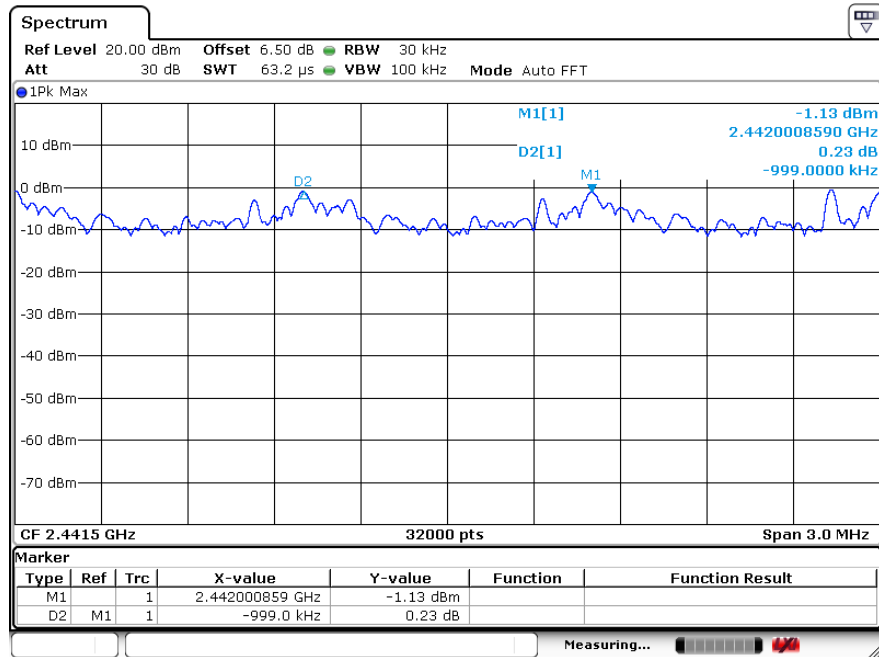
Ch. Separation >2/3(20dB bandwidth)

Left earphone:

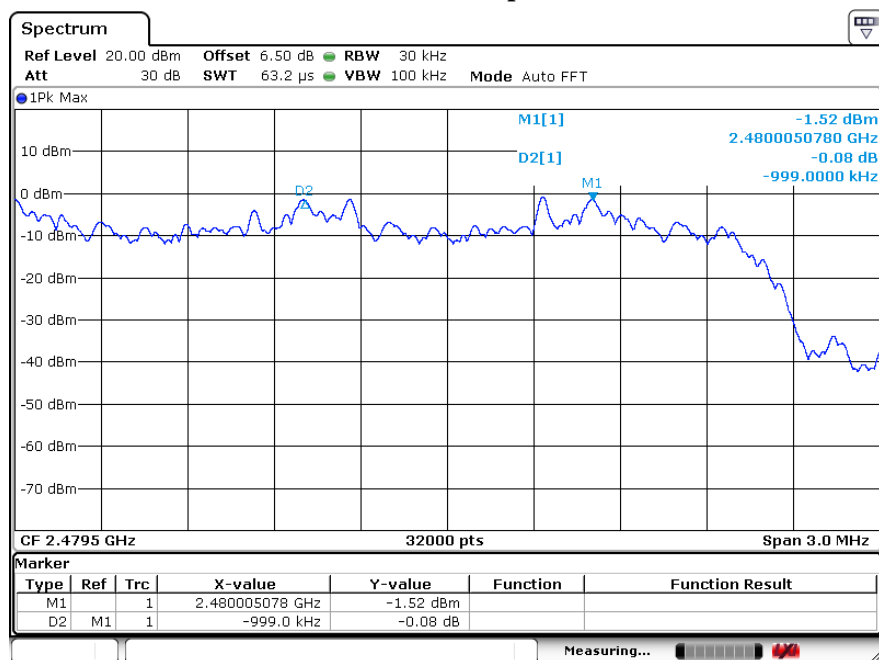
CH 00-3Mbps



CH 39-3Mbps

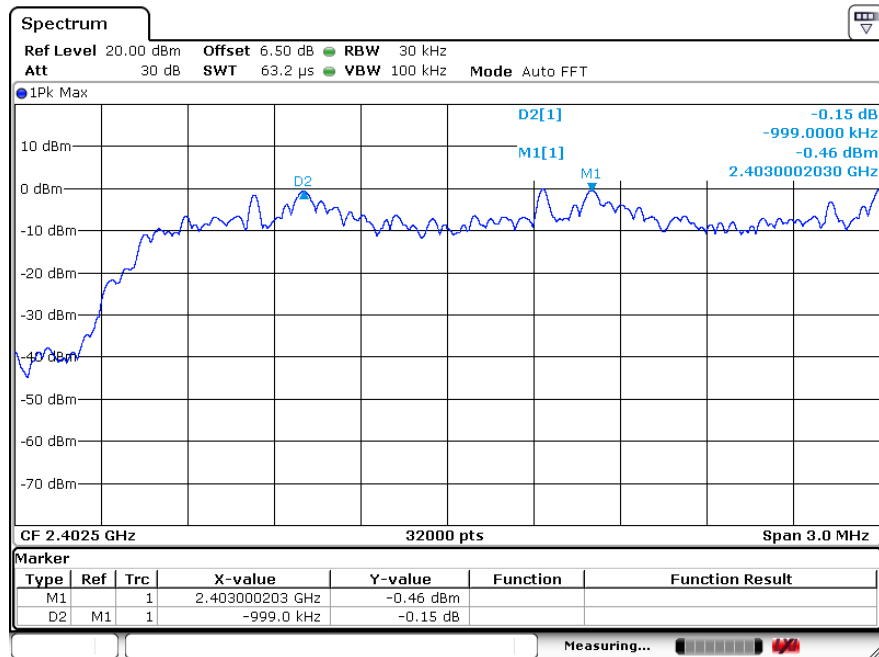


CH 78-3Mbps

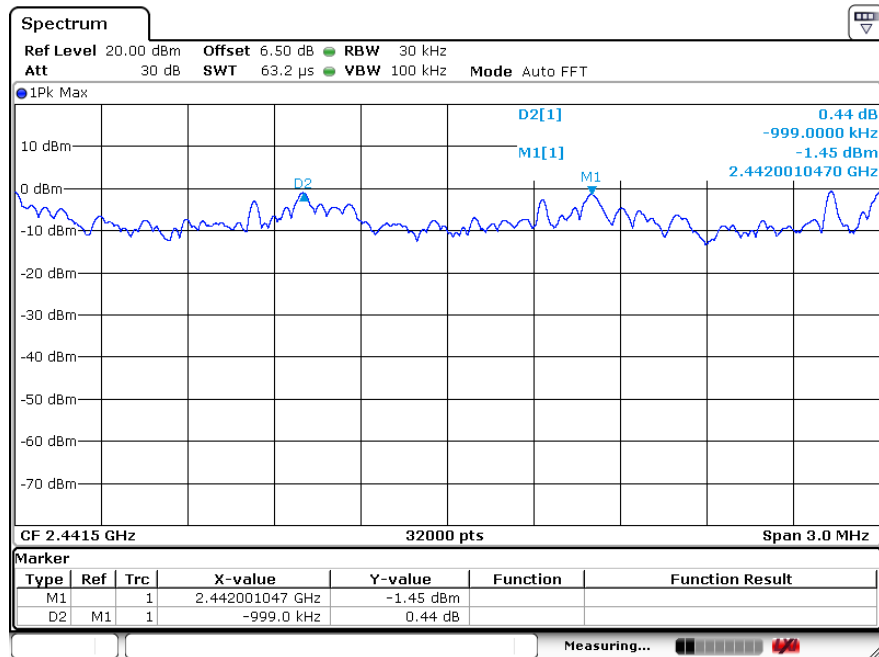


Right earphone:

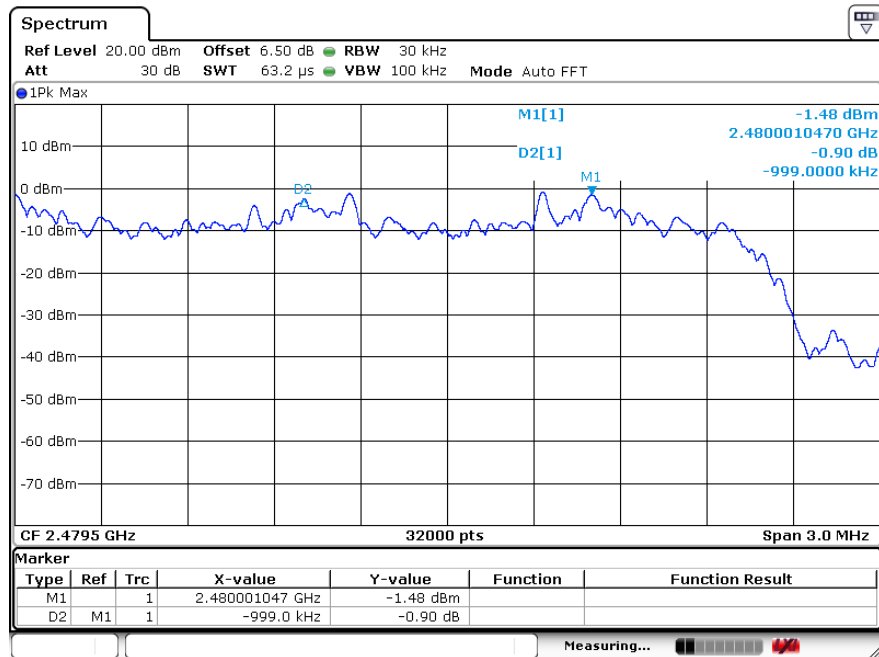
CH 00-3Mbps



CH 39-3Mbps



CH 78-3Mbps



8. PEAK OUTPUT POWER TEST

8.1 APPLIED PROCEDURES / LIMIT

LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
3.10.1(2)	Peak Output Power	0.125 watt or 21dBm	2400-2483.5	PASS

8.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : (1Mbps)RBW= 1MHz, VBW= 3MHz, Sweep time = Auto.
(3Mbps)RBW= 3MHz, VBW= 10MHz, Sweep time = Auto.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

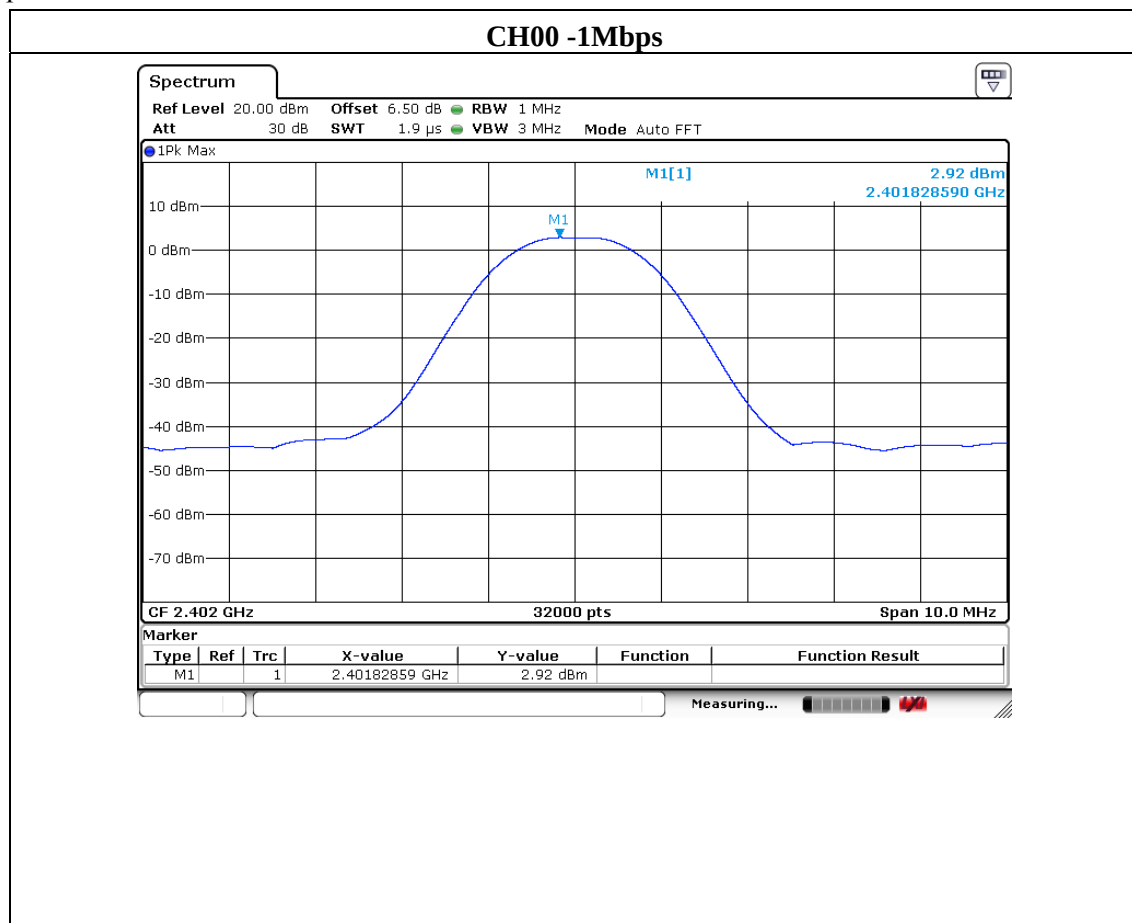
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

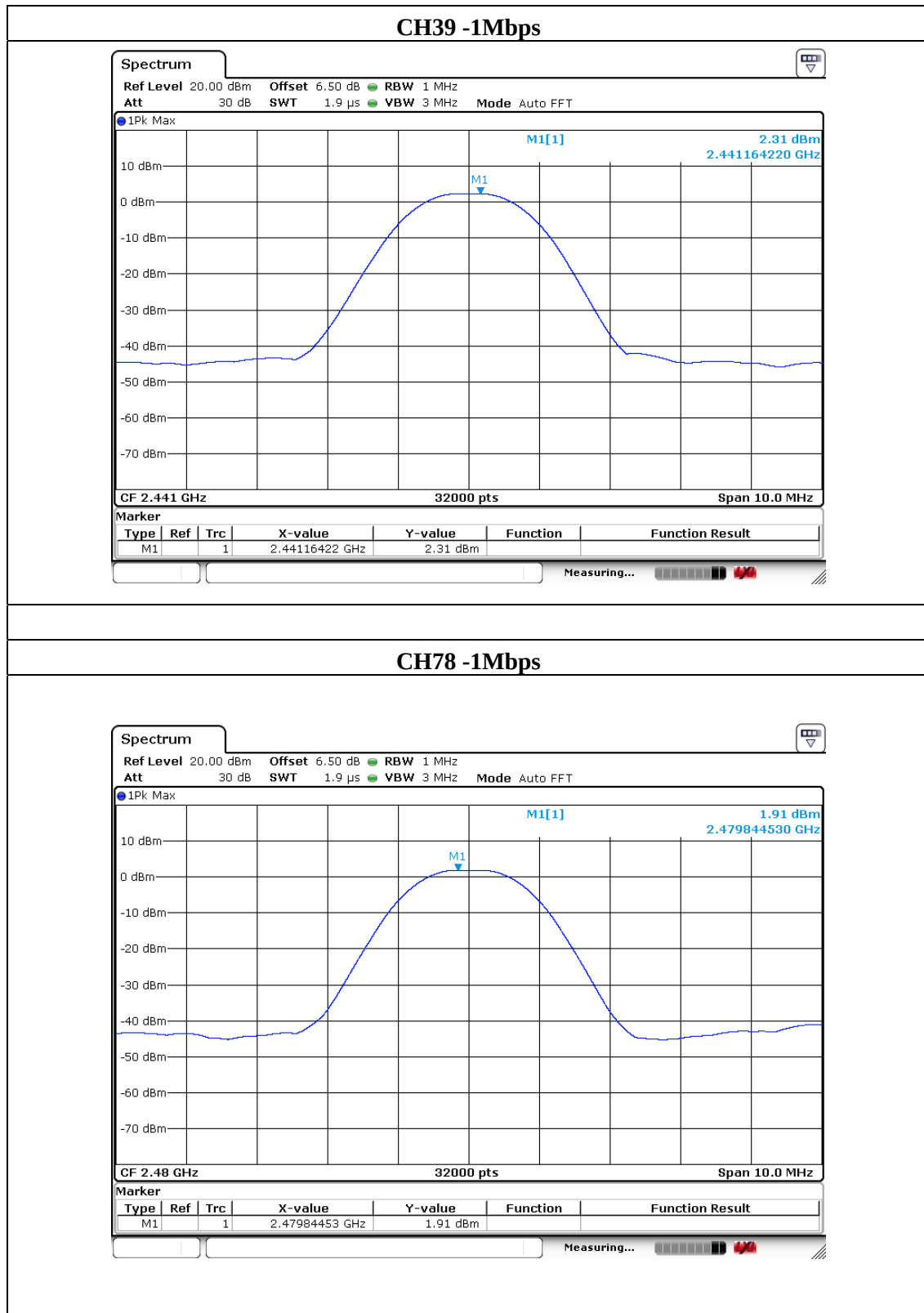
8.1.5 TEST RESULTS

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00/ CH39 /CH78 (1Mbps Mode, Left earphone)		

Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
2402	2.92	21	0.125
2441	2.31	21	0.125
2480	1.91	21	0.125

Left earphone:

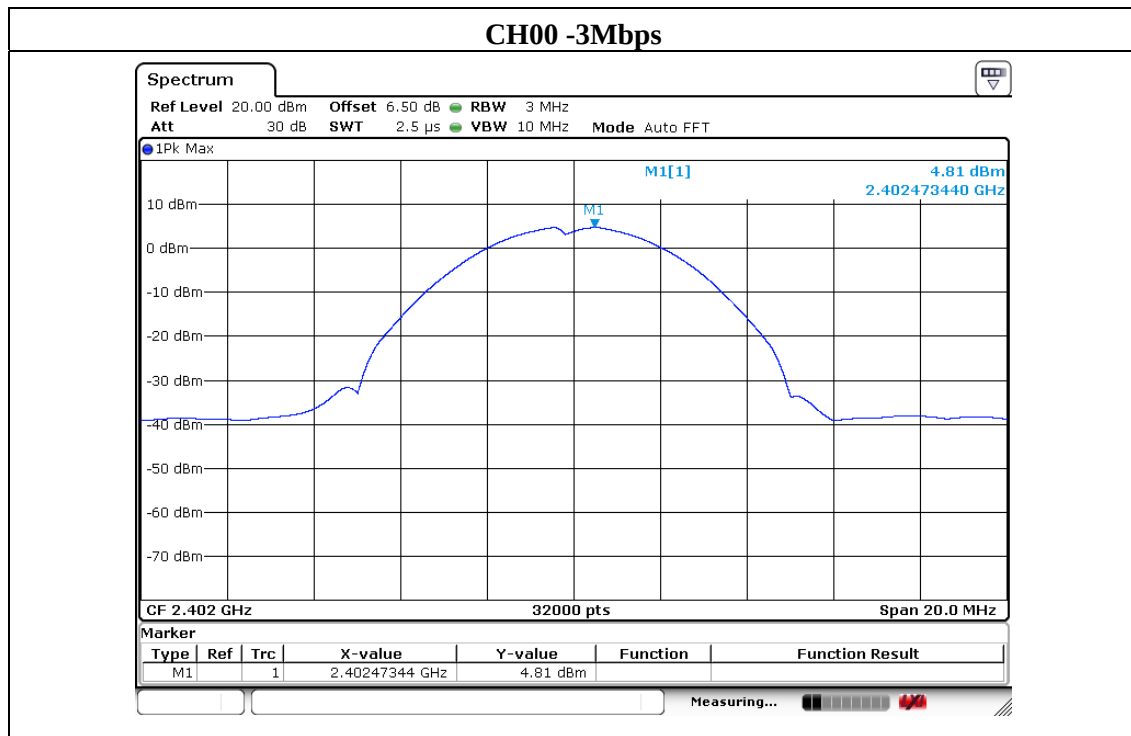




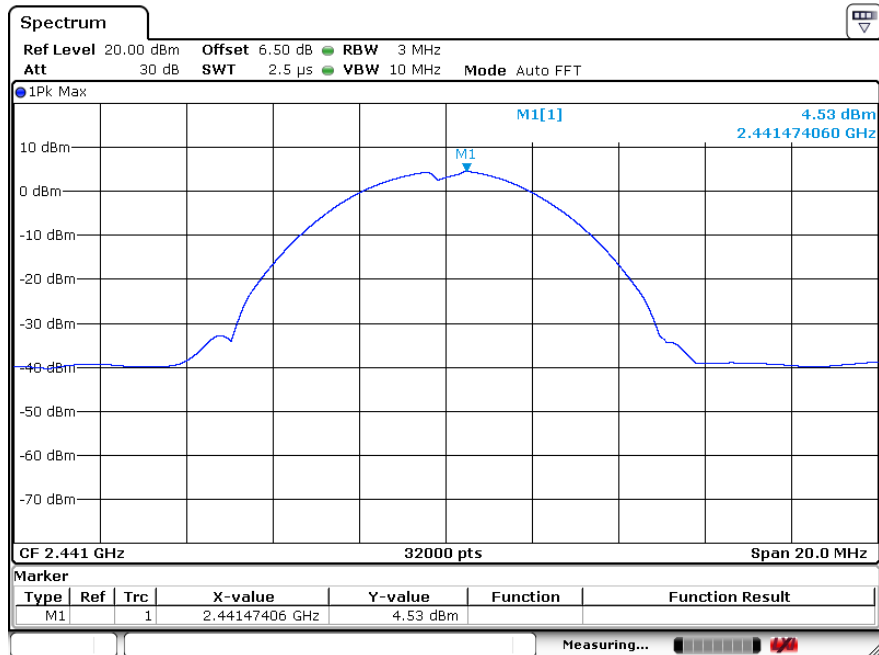
EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00/ CH39 /CH78 (3Mbps Mode, Left earphone)		
Test Date :	2020-07-27		

Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
2402	4.81	21	0.125
2441	4.53	21	0.125
2480	4.33	21	0.125

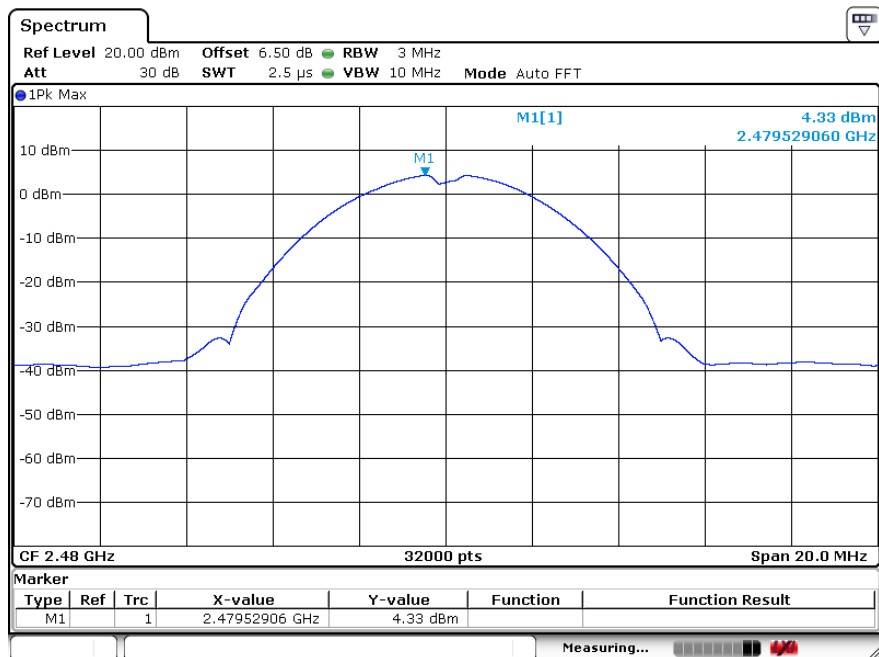
Left earphone:



CH39 -3Mbps

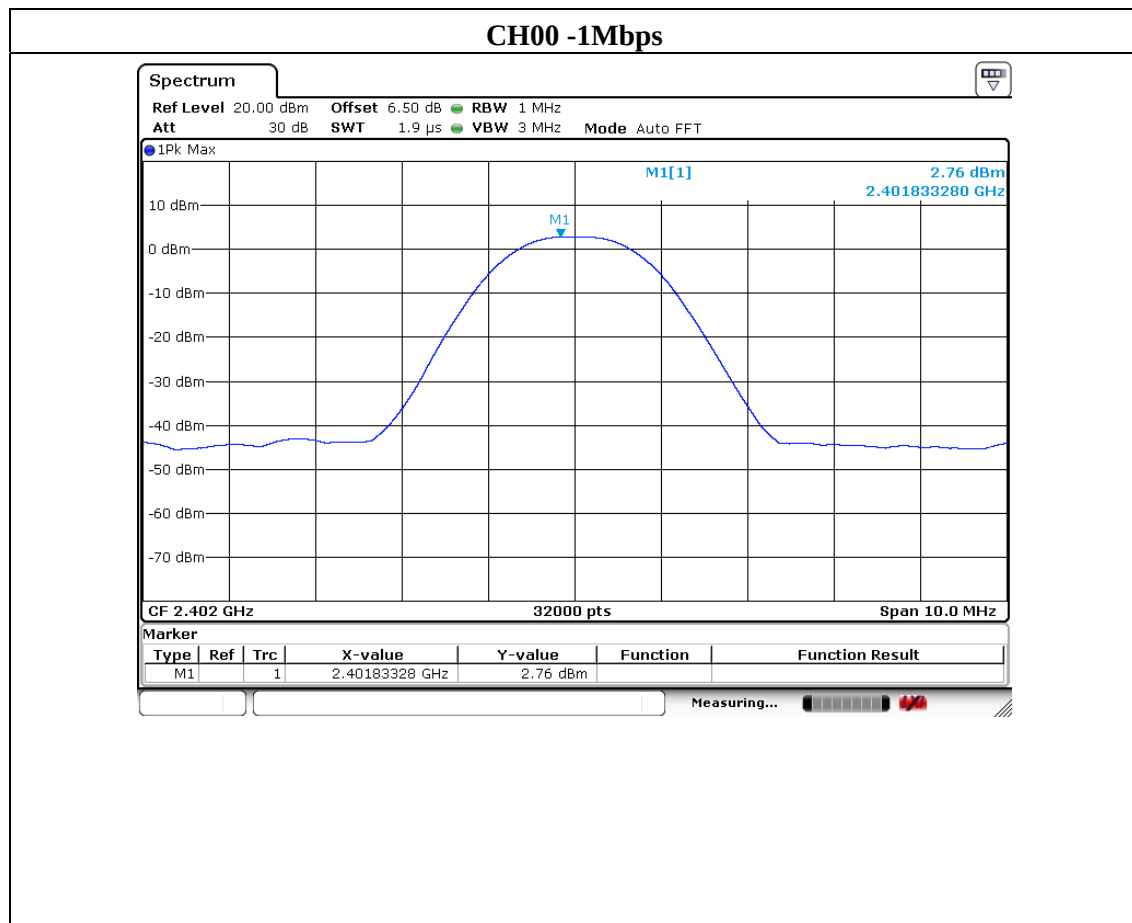


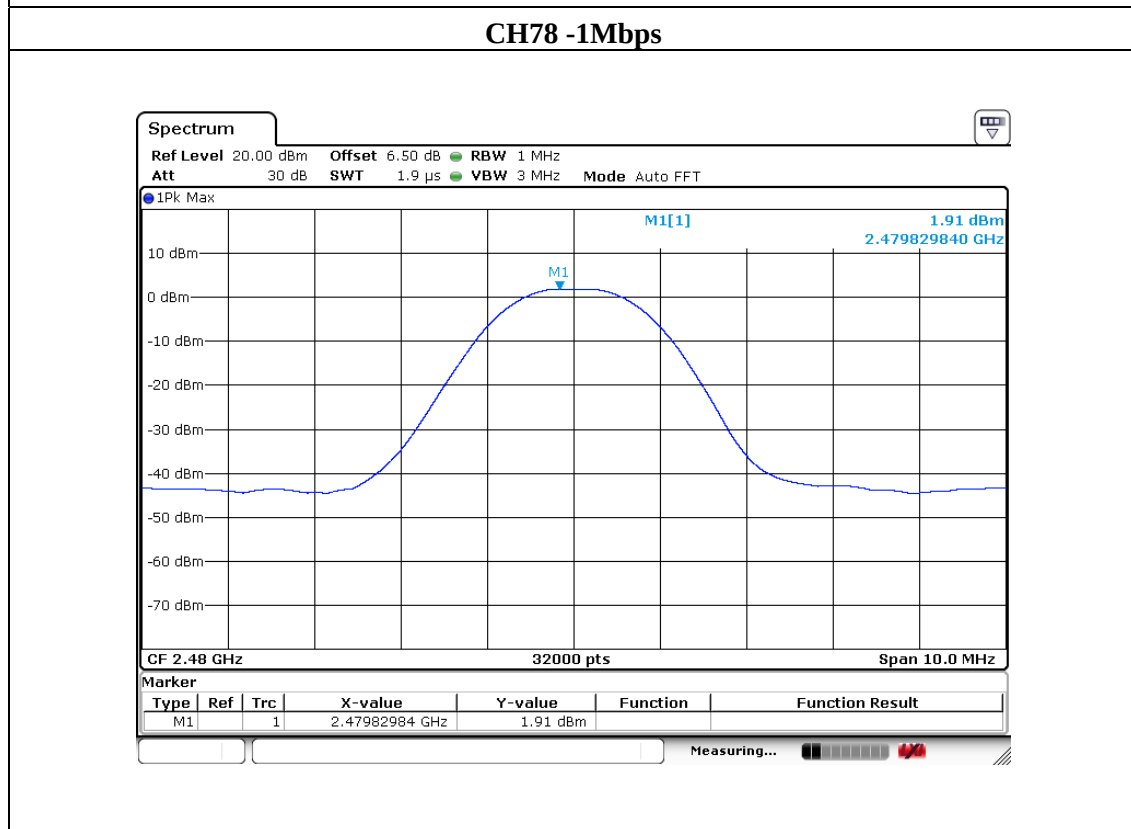
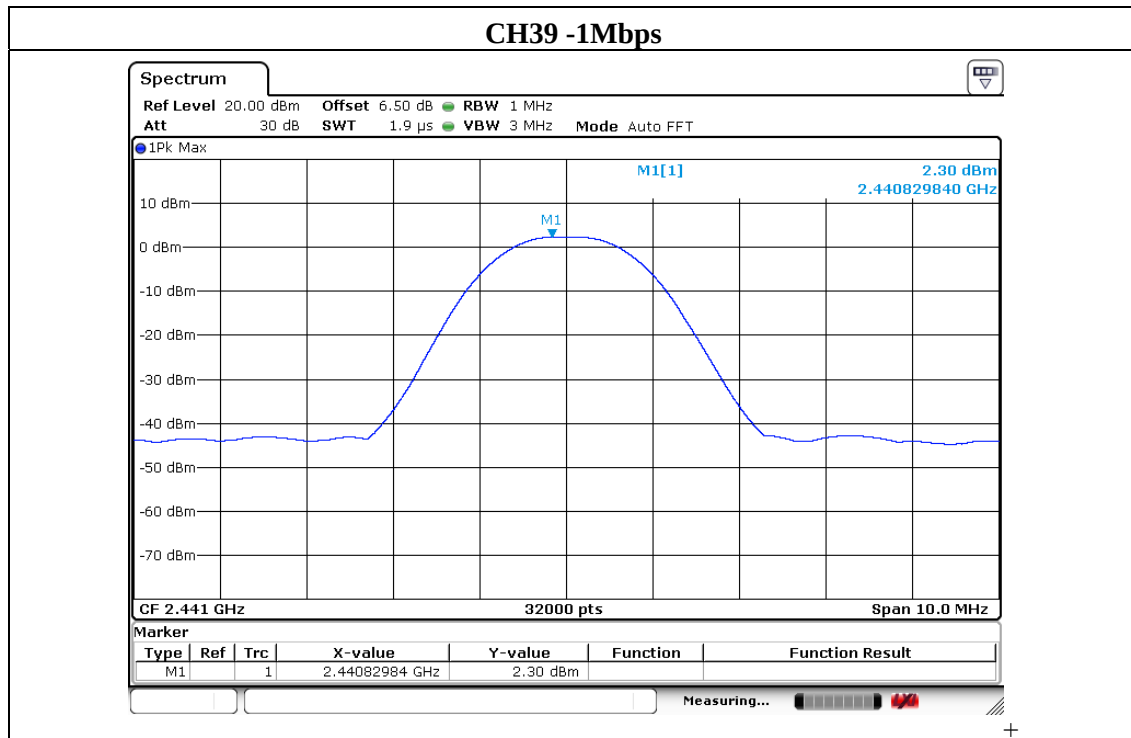
CH78 -3Mbps



EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00/ CH39 /CH78 (1Mbps Mode, Right earphone)		
Test Date :	2020-07-27		

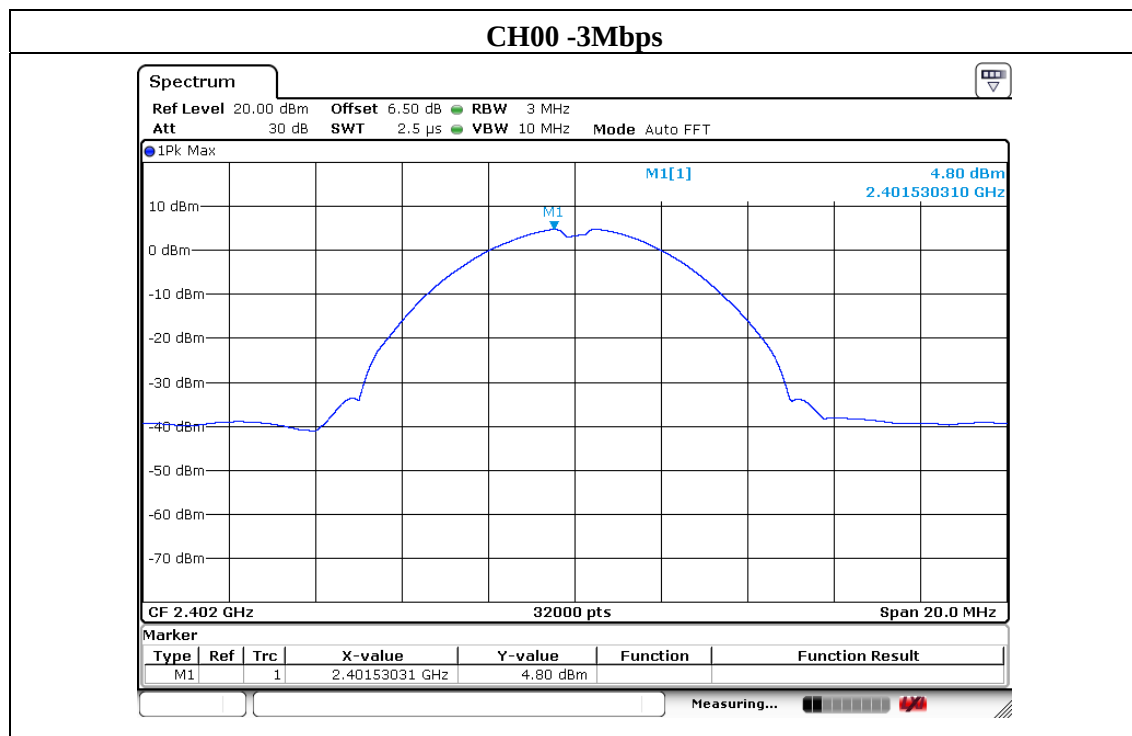
Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
2402	2.76	21	0.125
2441	2.30	21	0.125
2480	1.91	21	0.125



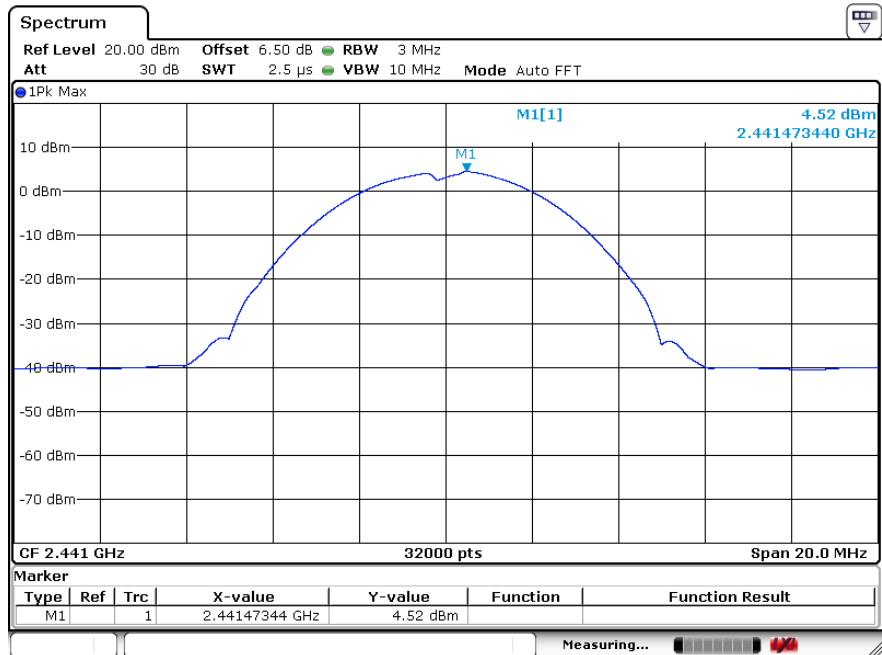


EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00/ CH39 /CH78 (3Mbps Mode, Right earphone)		
Test Date :	2020-07-27		

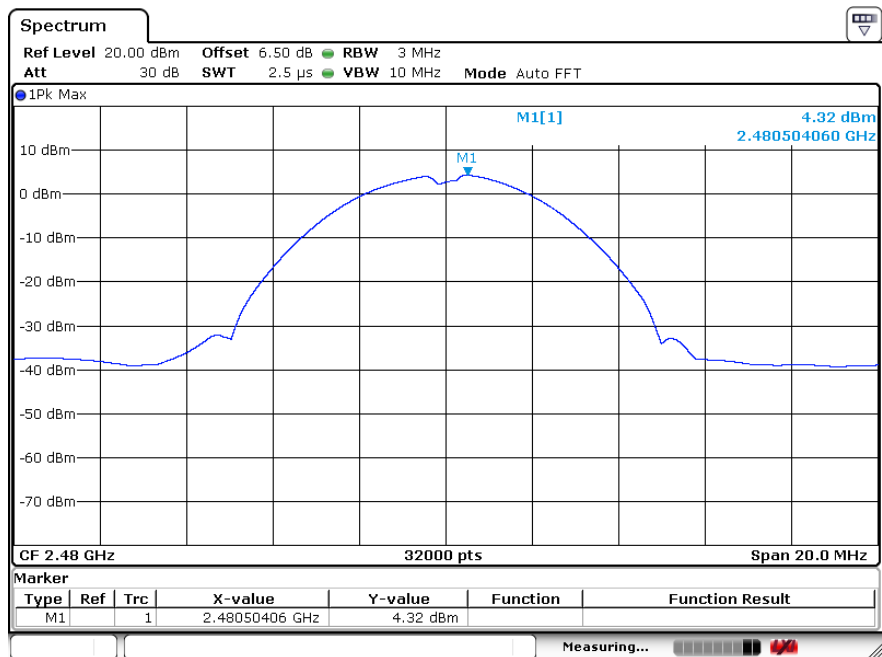
Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
2402	4.80	21	0.125
2441	4.52	21	0.125
2480	4.32	21	0.125



CH39 -3Mbps



CH78 -3Mbps



9. ANTENNA CONDUCTED SPURIOUS EMISSION

9.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in Section 2.8.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

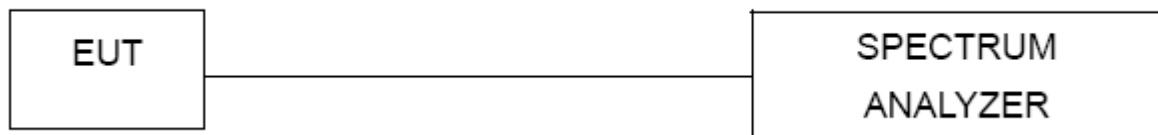
The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100 KHz /100 KHz for Peak

9.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

9.1.2 TEST SETUP



9.1.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.4 TEST RESULTS

EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH78 (1Mbps)		
Test Date :	2020-07-27		

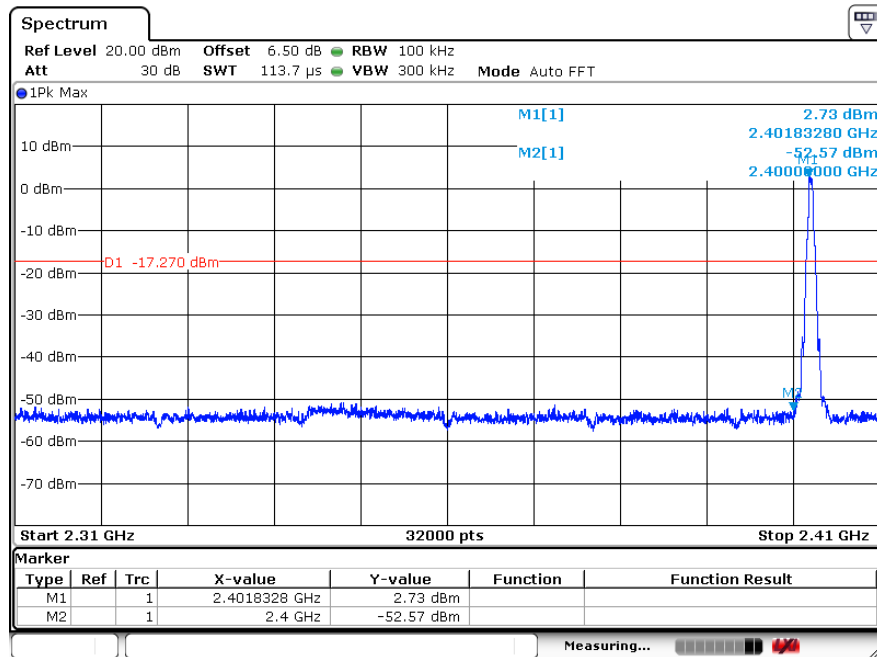
in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	

Remark :

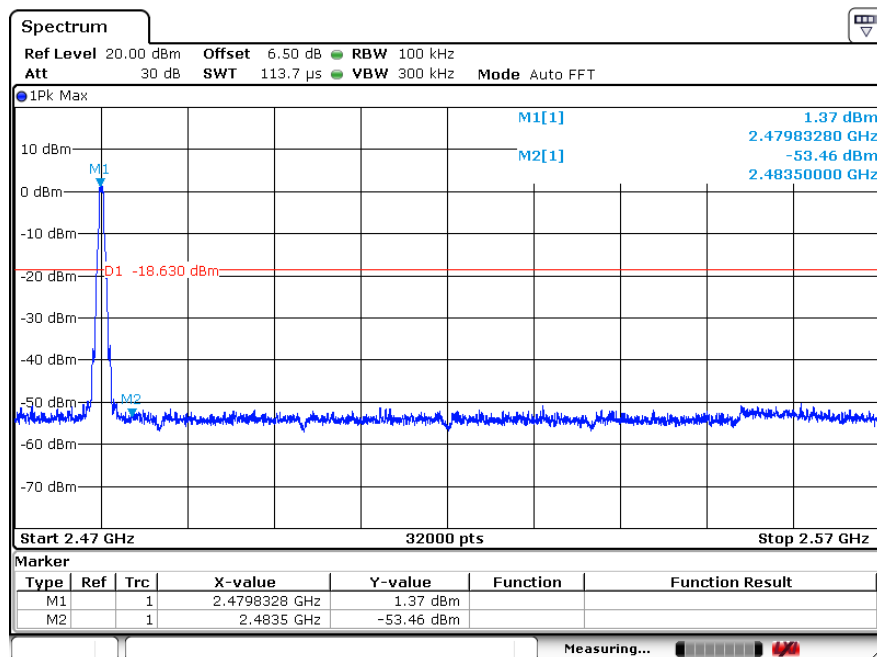
- (1) Hopping enabled and disabled have evaluated, and the worst data was reported

Left earphone:

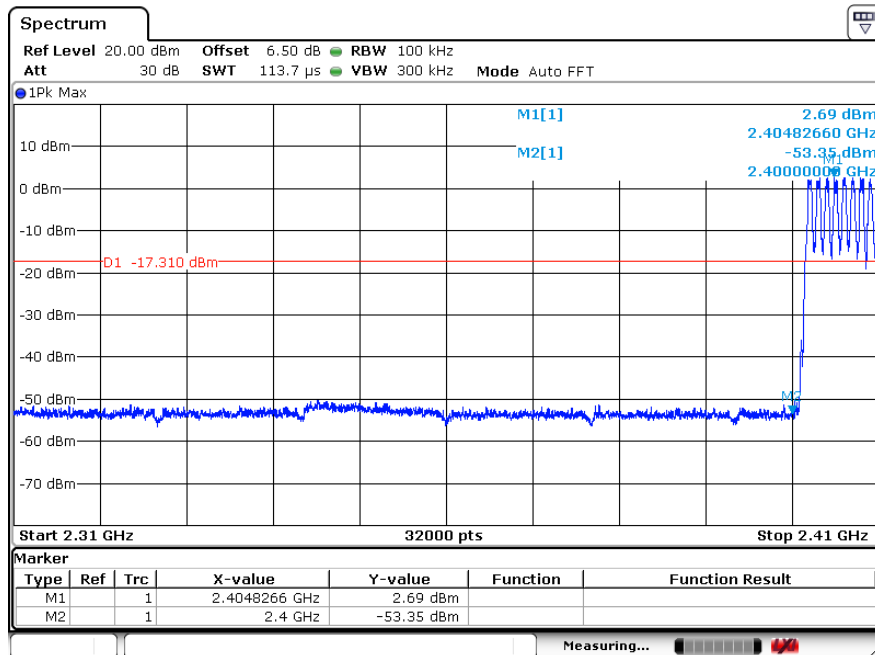
CH00 (Lower) Data rate 1Mbps



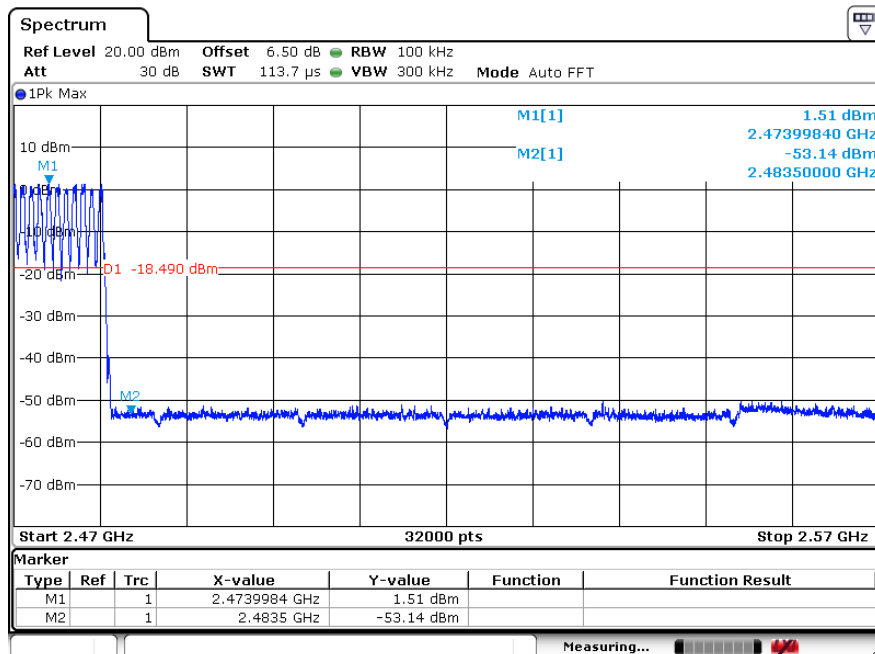
CH 78 (Upper) Data rate 1Mbps



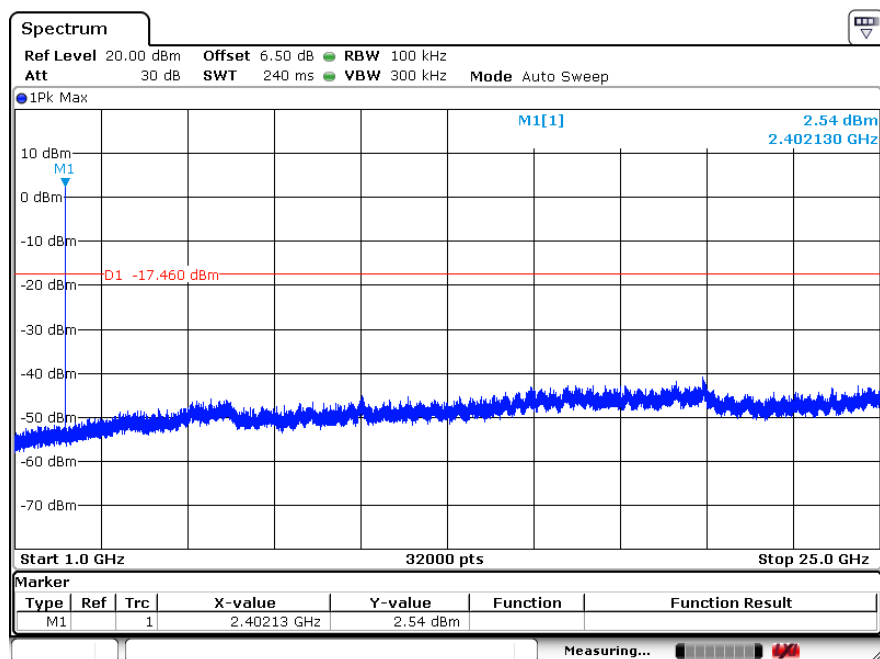
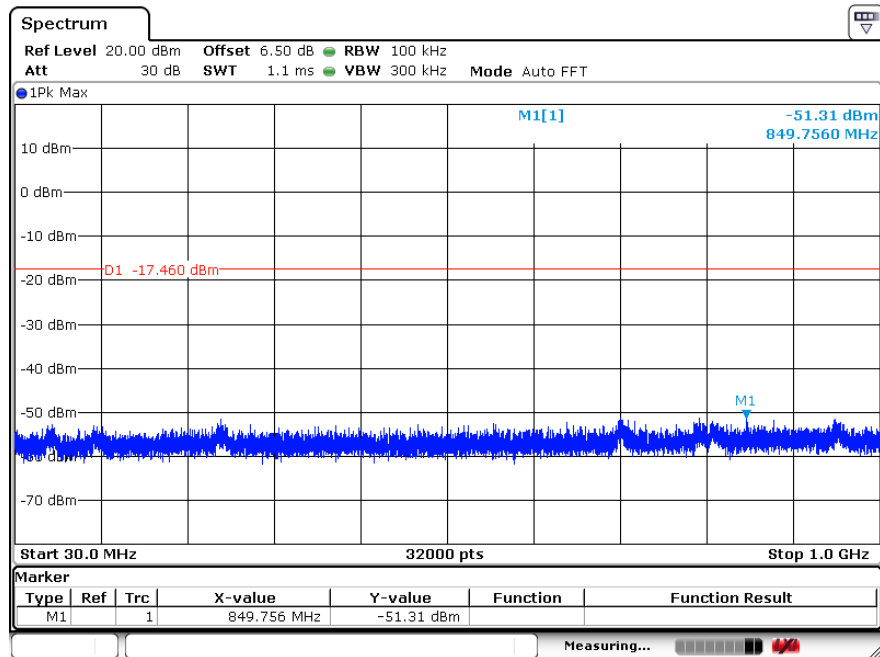
CH00 (Lower) Data rate 1Mbps



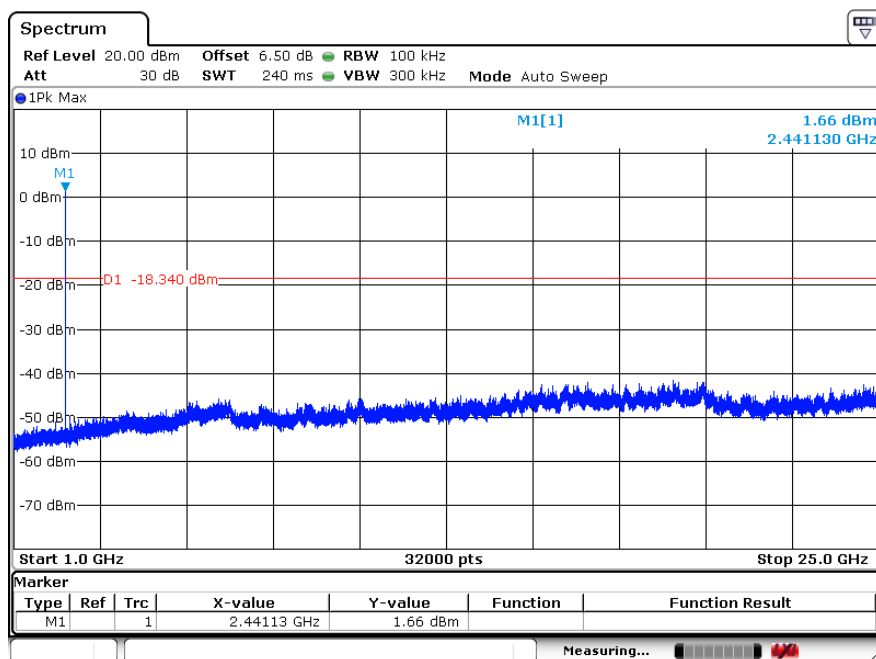
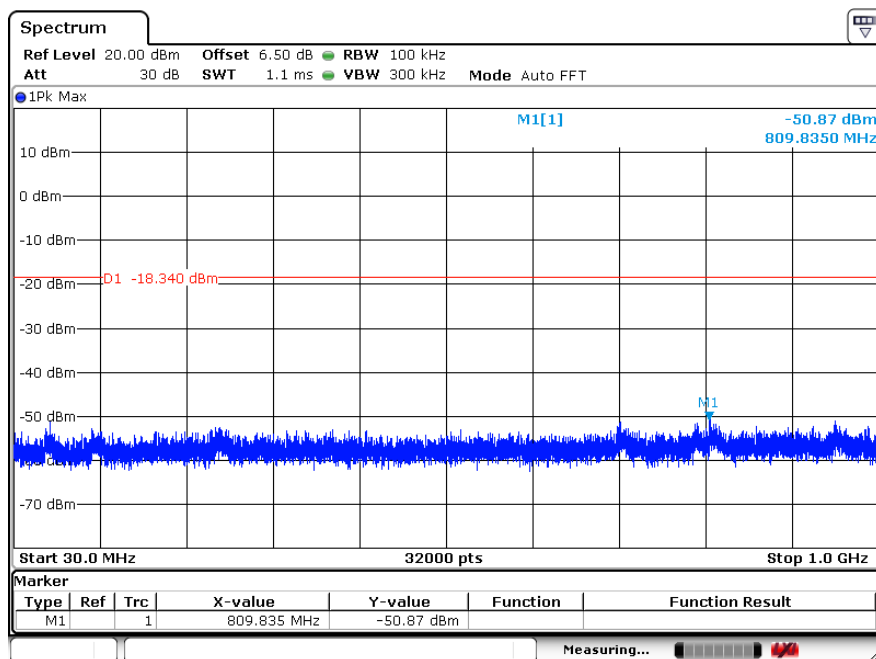
CH 78 (Upper) Data rate 1Mbps



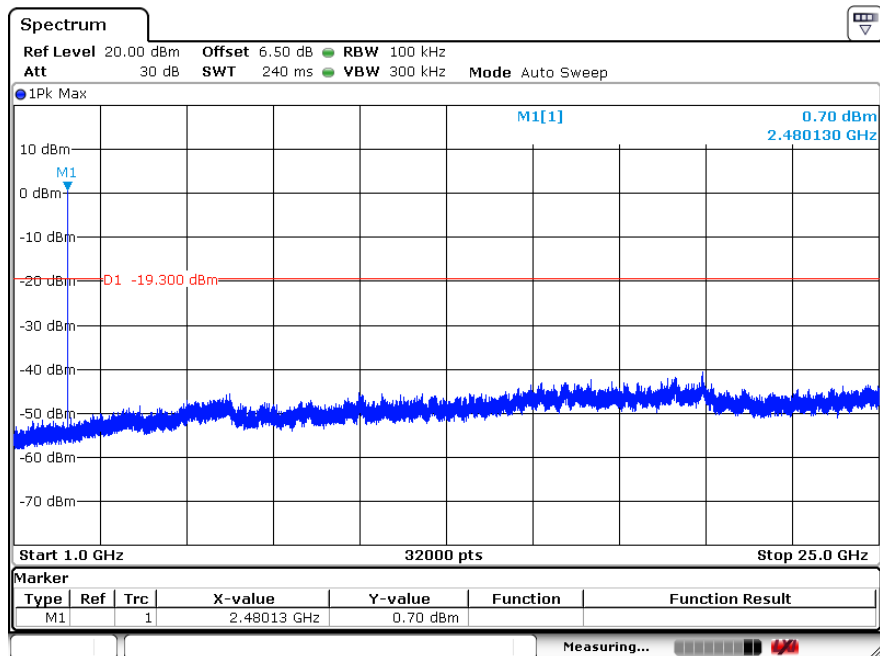
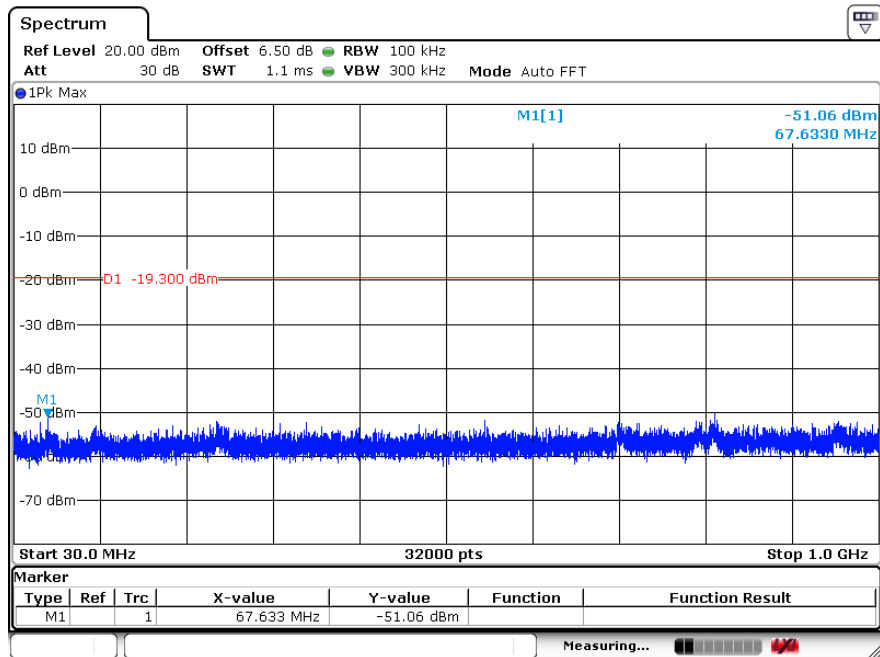
CH01



CH39

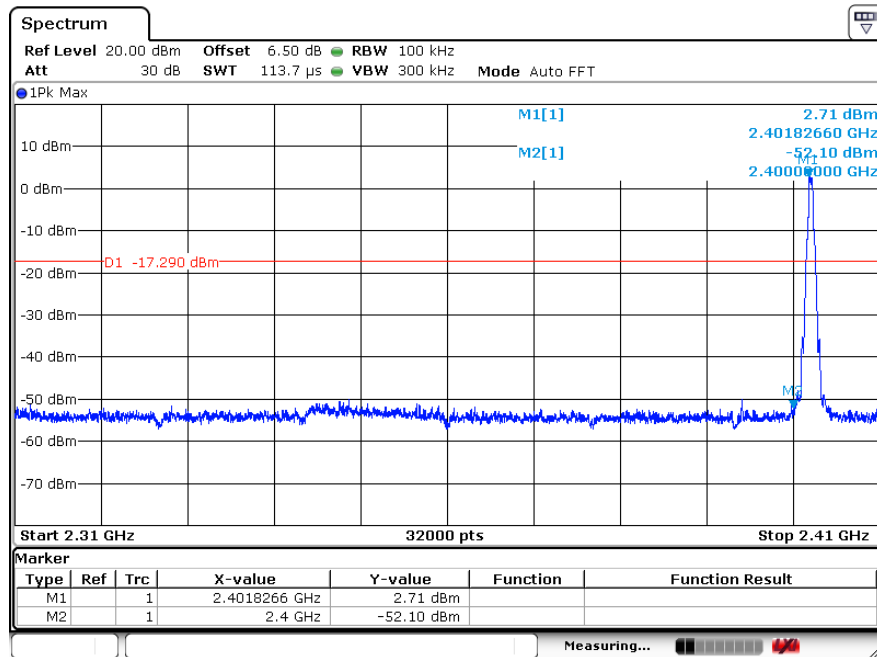


CH78

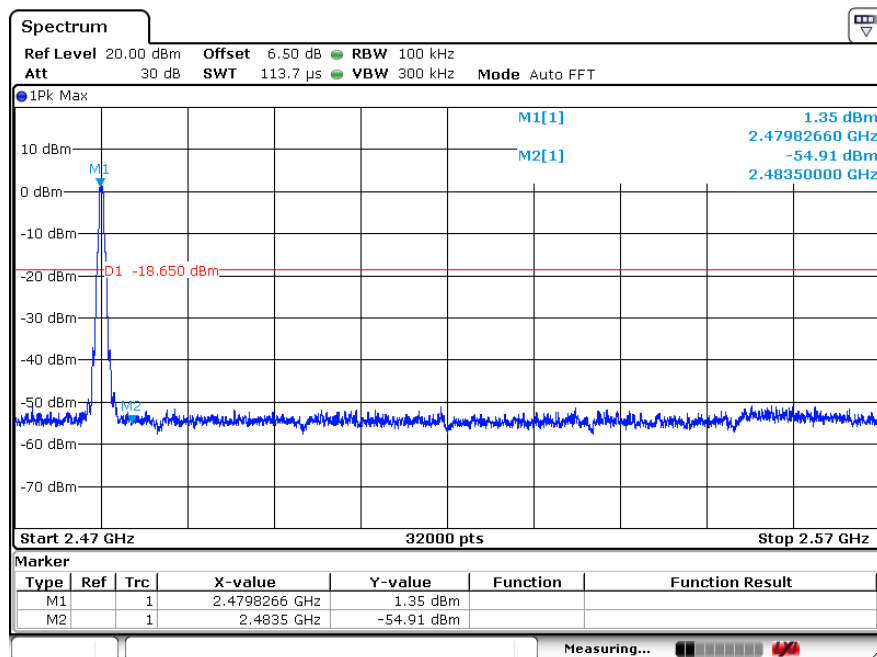


Right earphone:

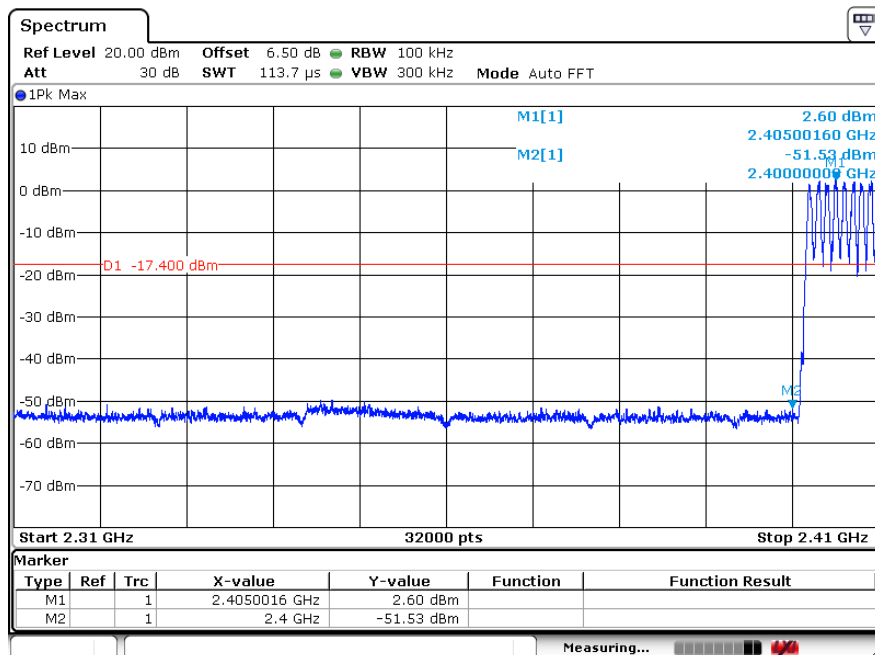
CH00 (Lower) Data rate 1Mbps



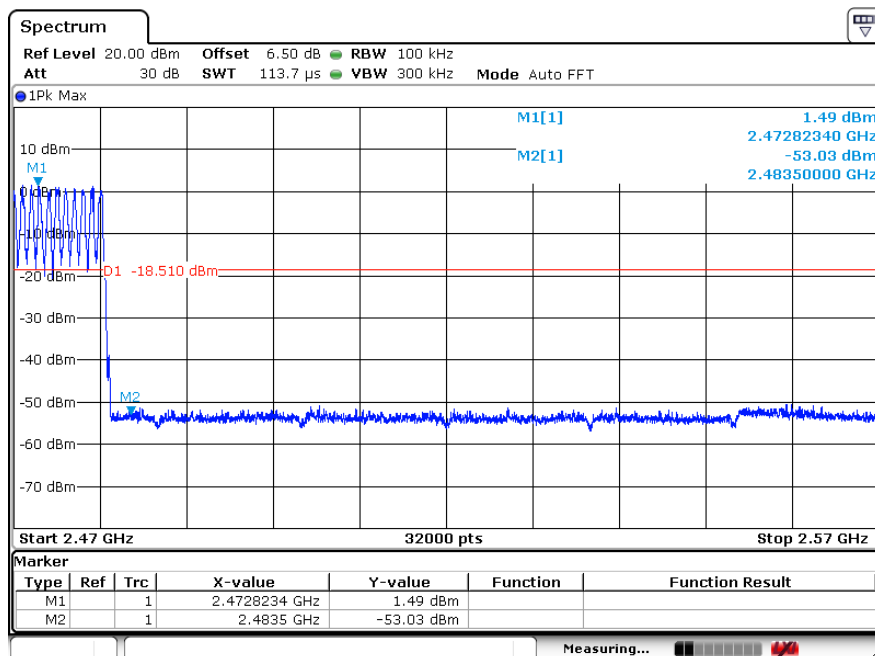
CH 78 (Upper) Data rate 1Mbps



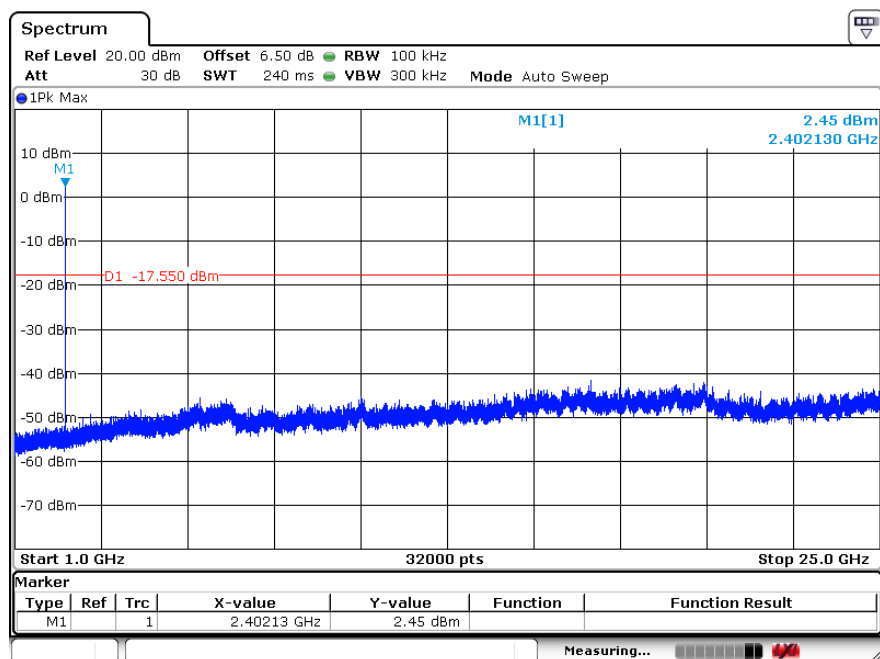
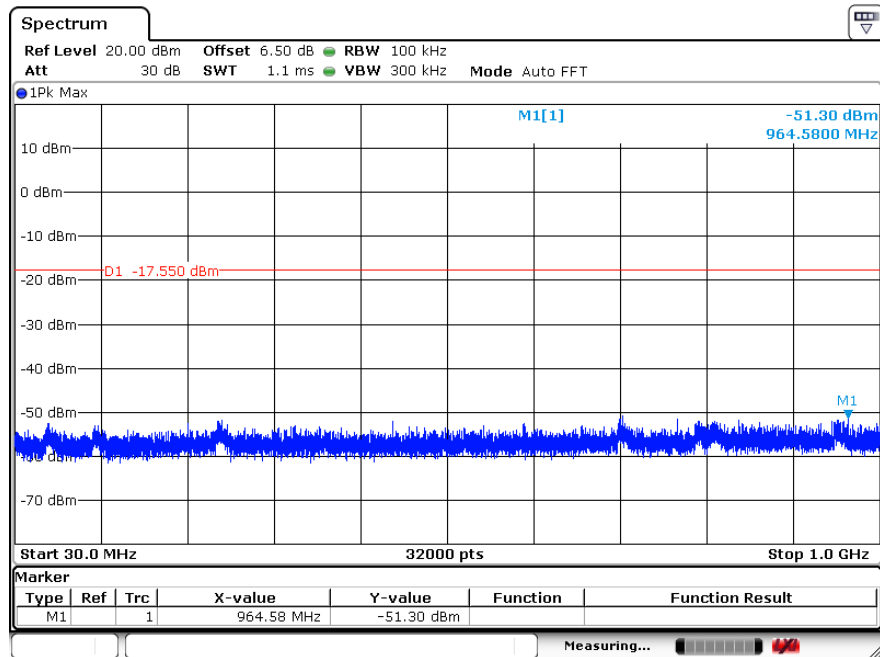
CH00 (Lower) Data rate 1Mbps



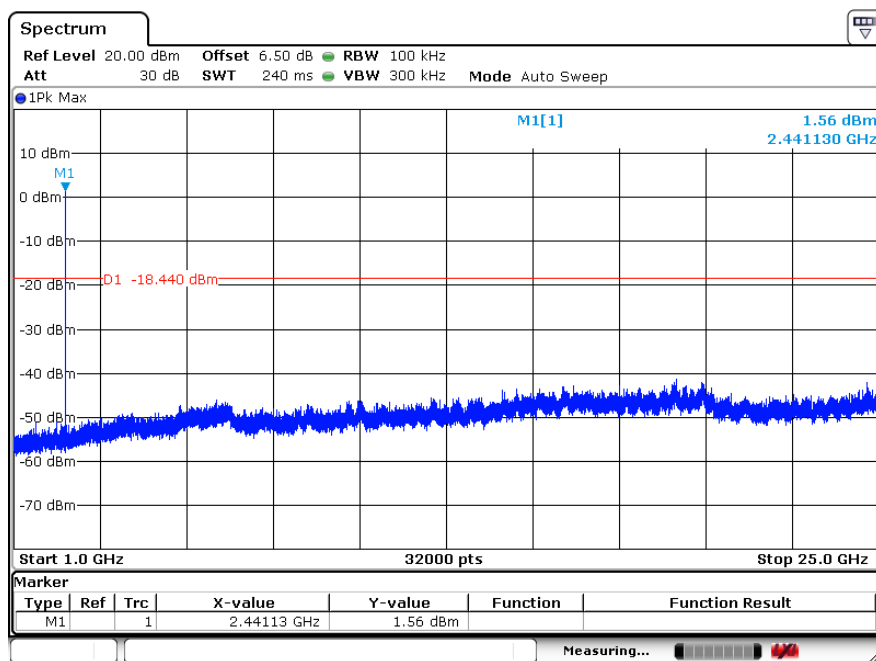
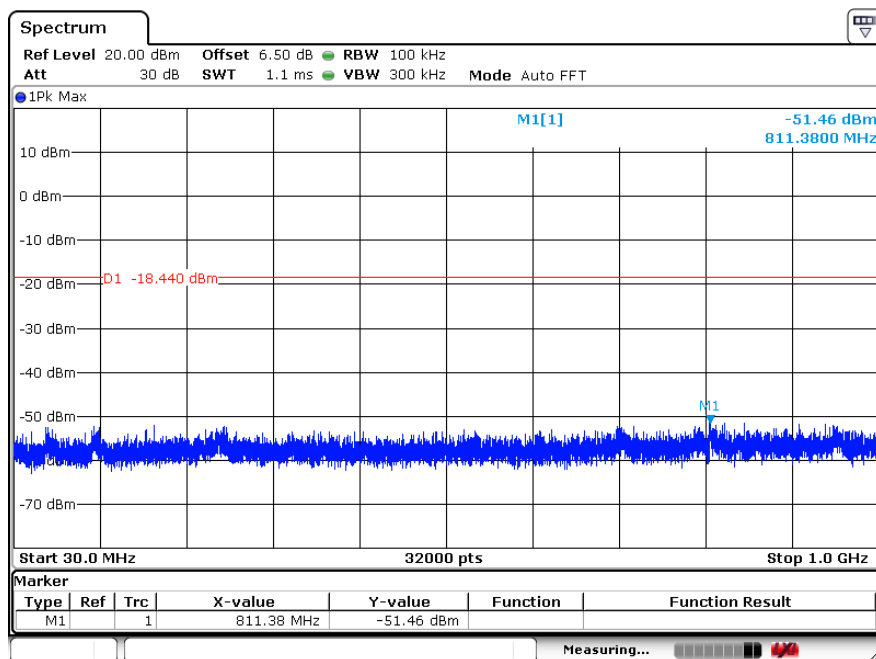
CH 78 (Upper) Data rate 1Mbps



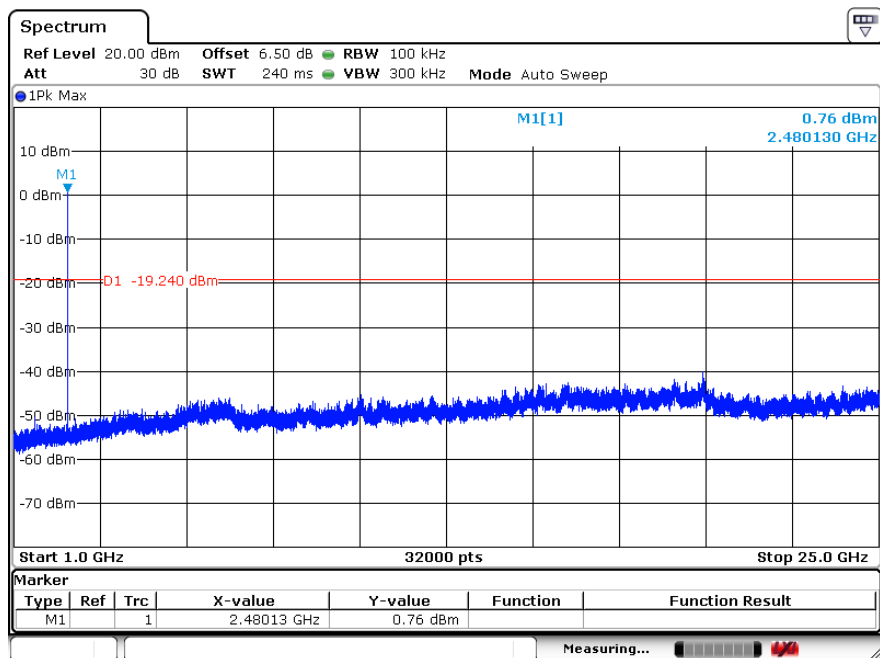
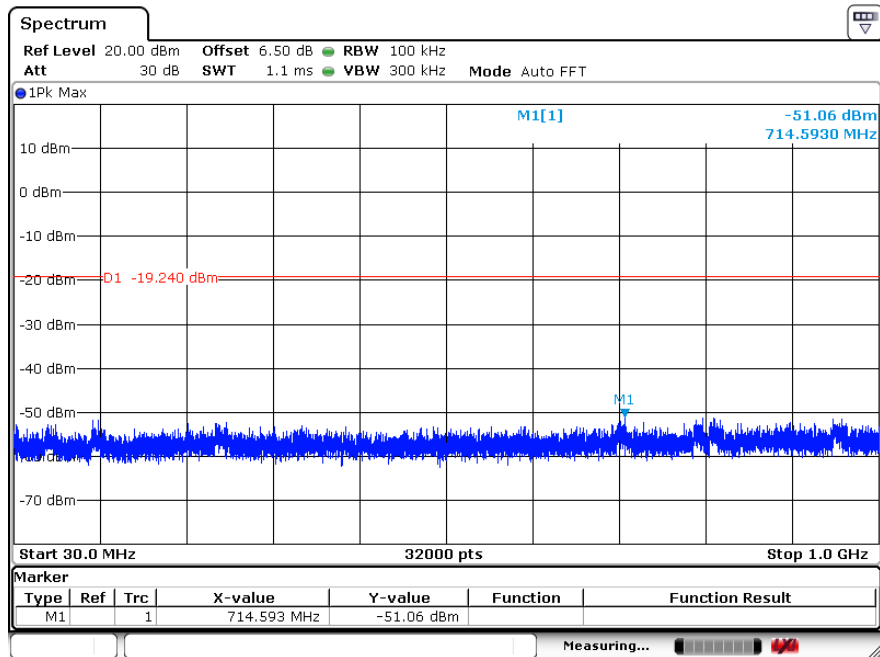
CH01



CH39



CH78



EUT :	Wireless TWS earphones	Model Name :	Melomania Touch
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V from battery
Test Mode :	CH00 / CH78 (3Mbps)		
Test Date :	2020-07-27		

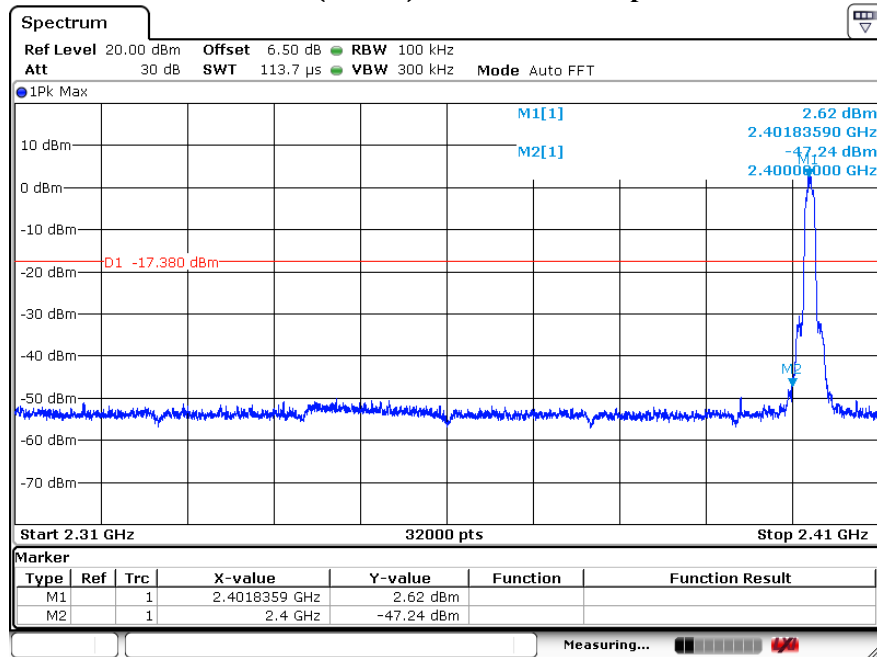
in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	

Remark :

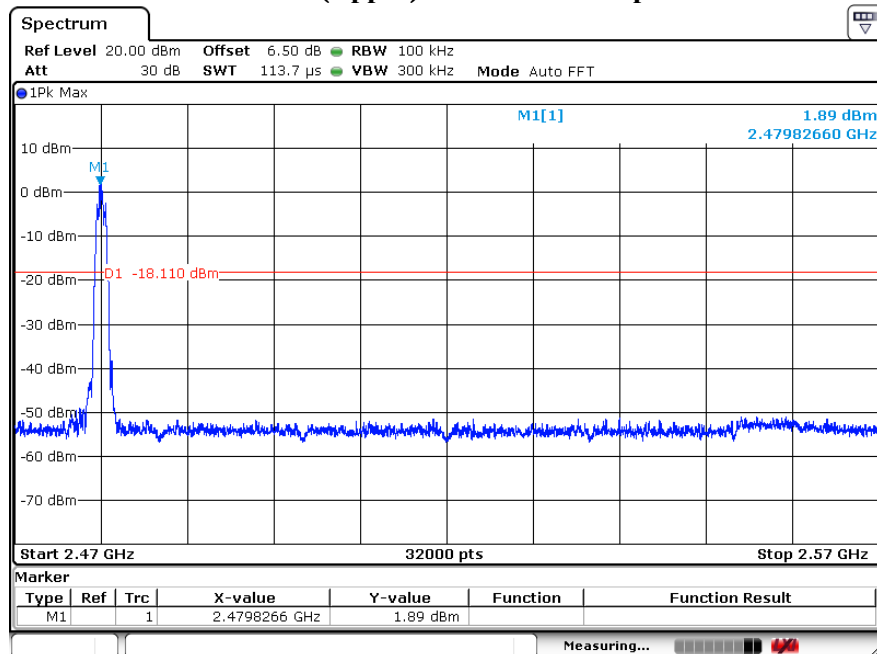
- (1) Hopping enabled and disabled have evaluated, and the worst data was reported

Left earphone:

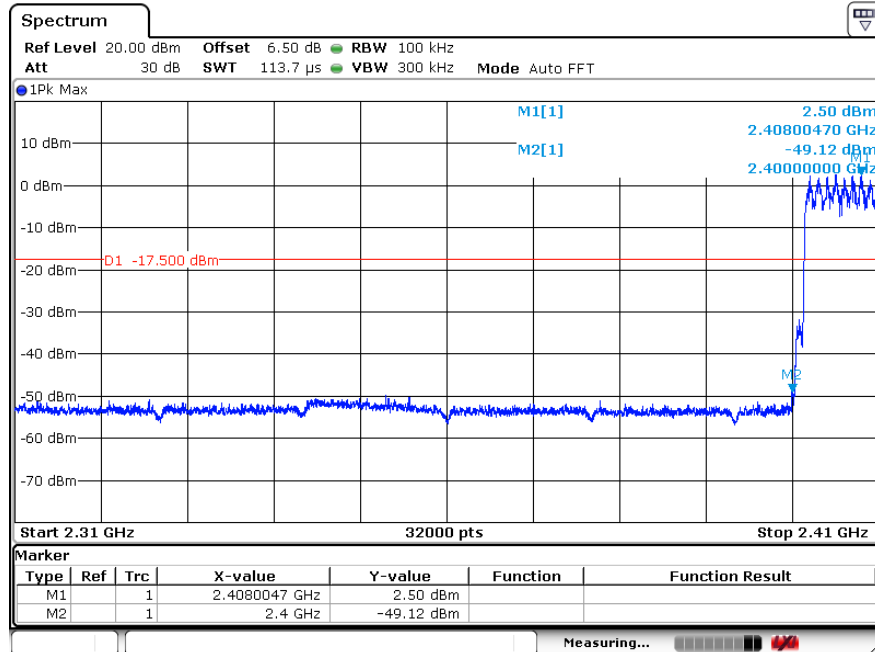
CH00 (Lower) Data rate 3Mbps



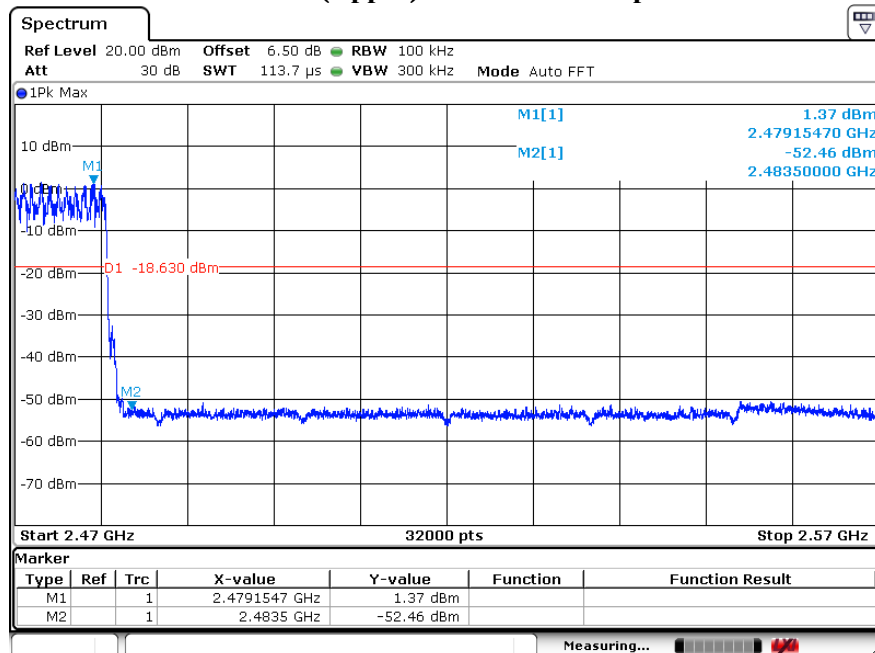
CH 78 (Upper) Data rate 3Mbps



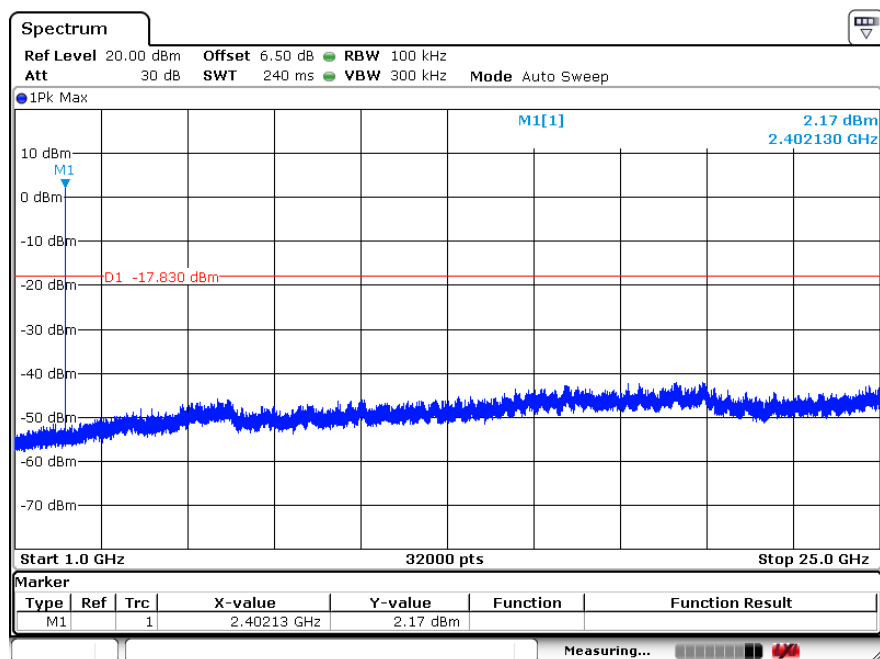
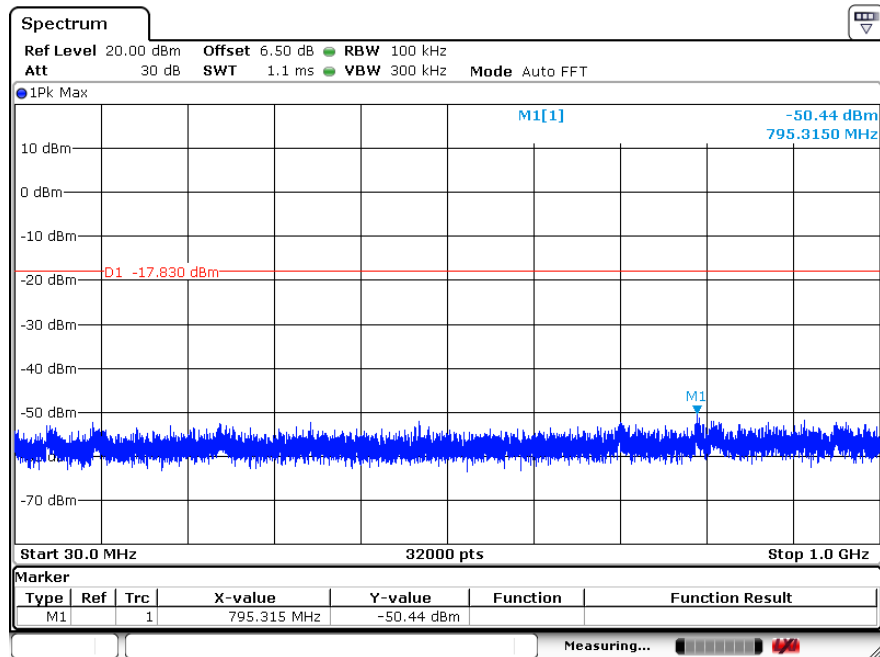
CH00 (Lower) Data rate 3Mbps



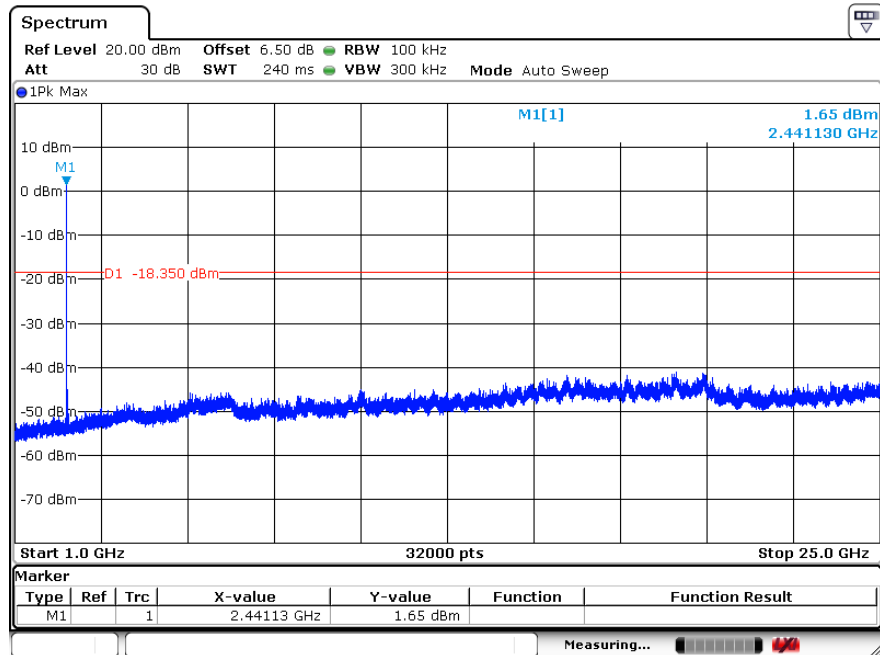
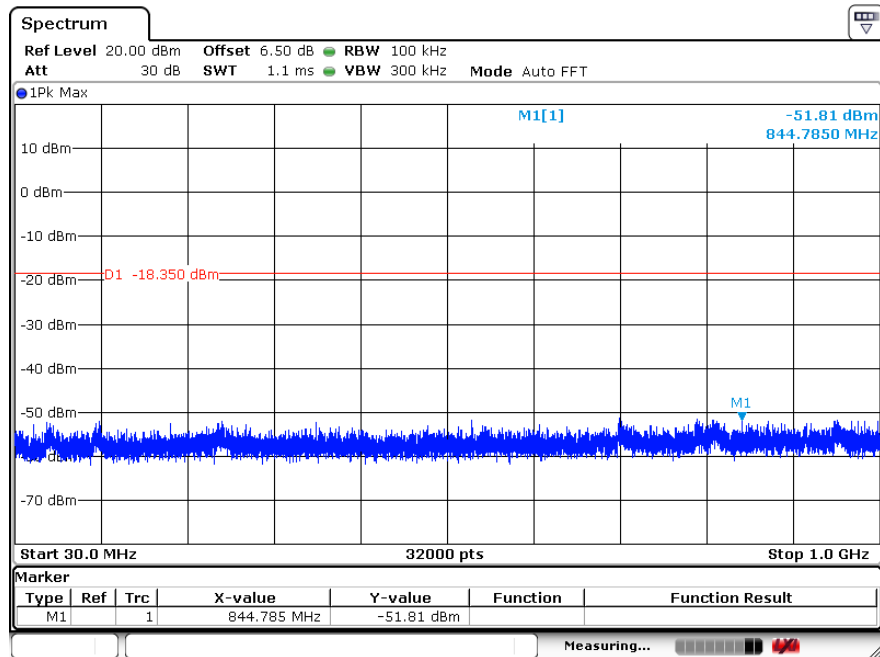
CH 78 (Upper) Data rate 3Mbps



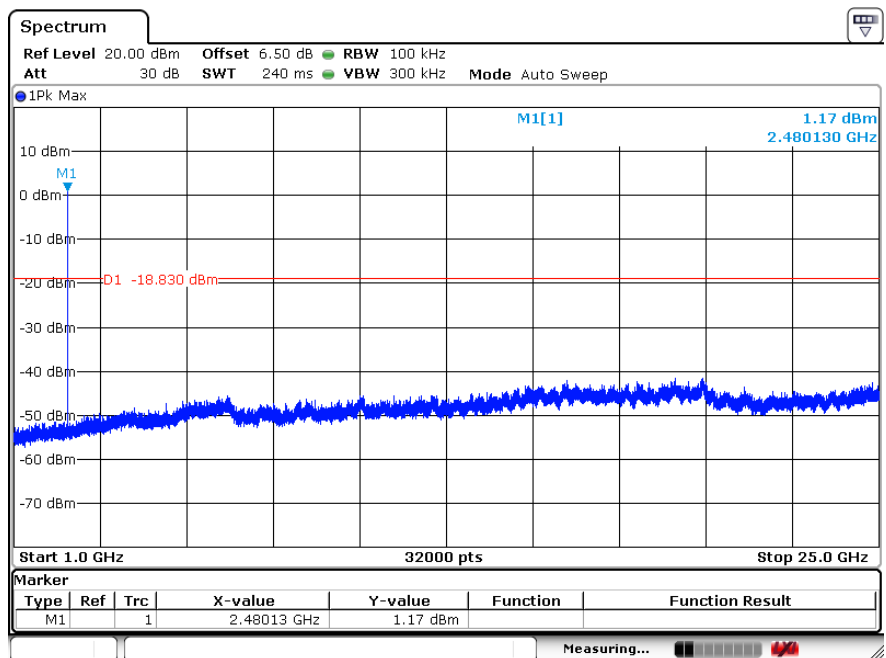
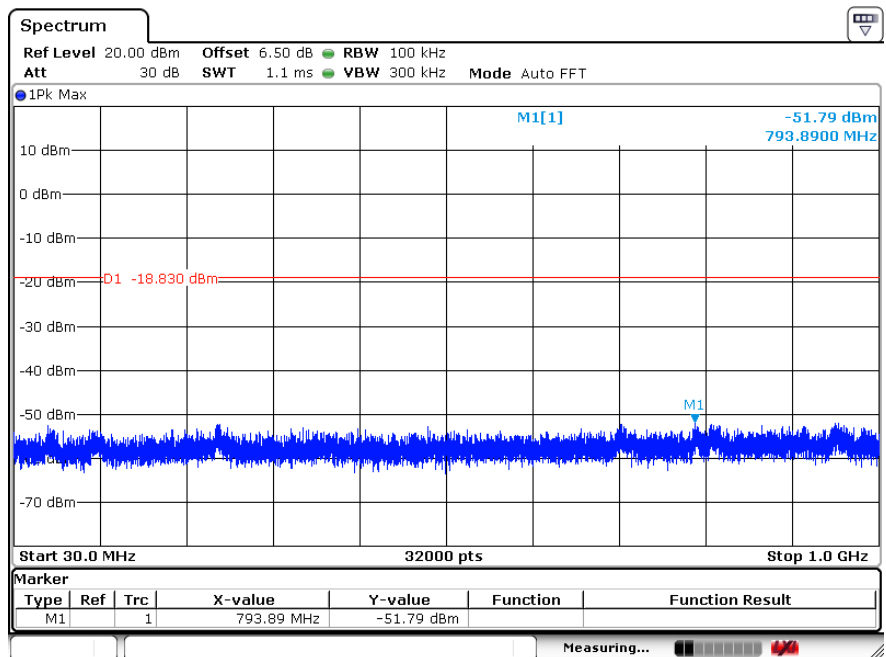
CH01



CH39

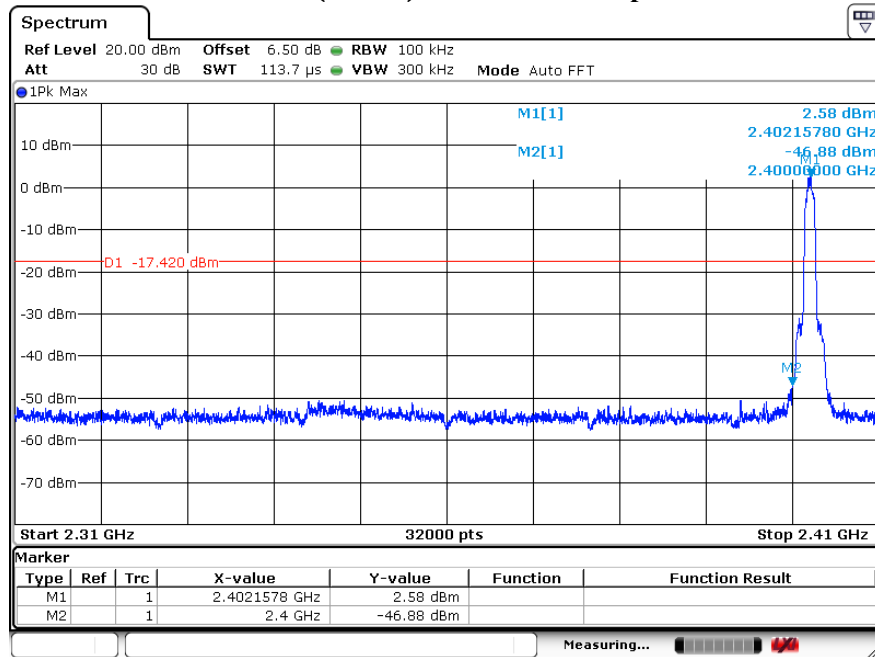


CH78

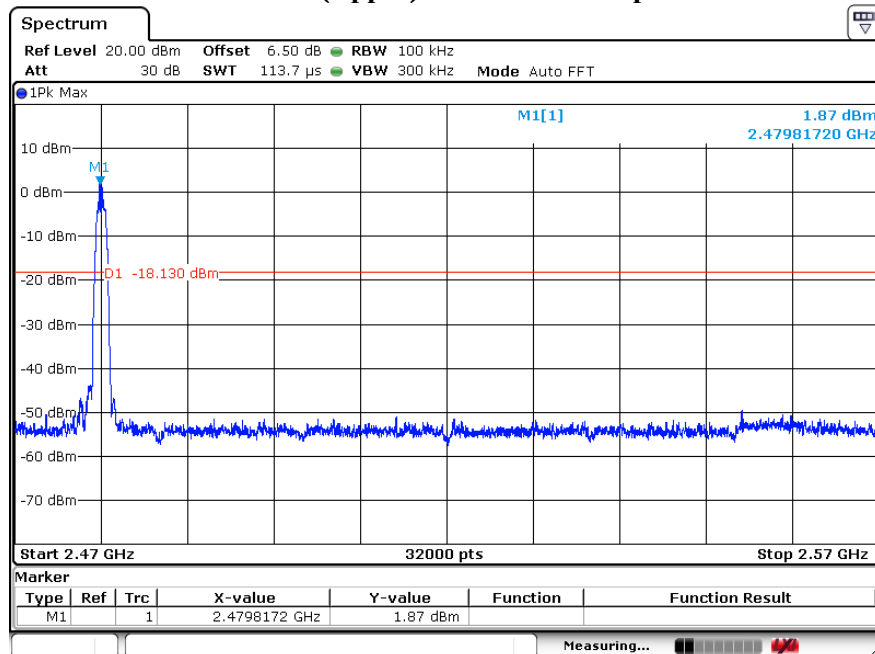


Right earphone:

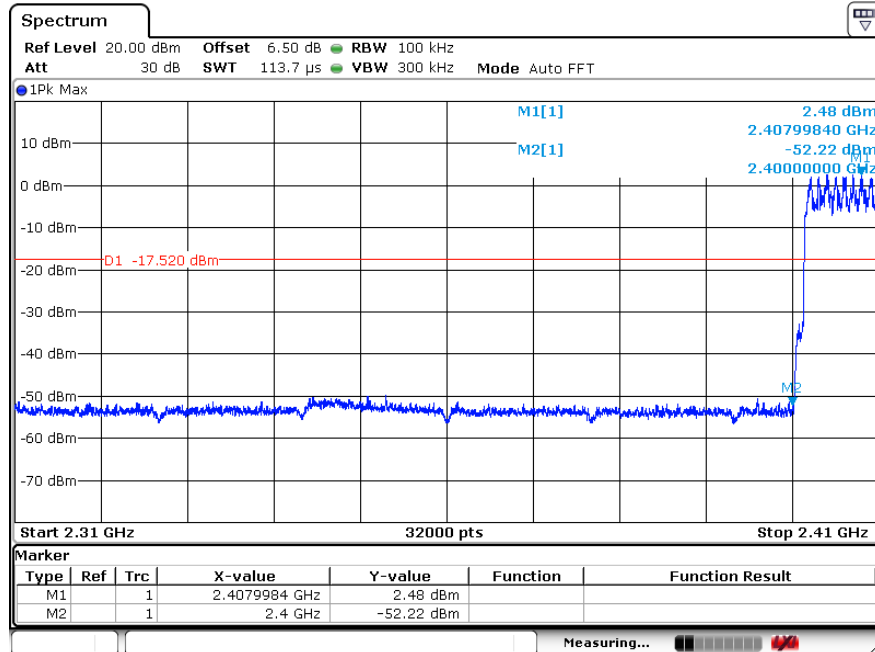
CH00 (Lower) Data rate 3Mbps



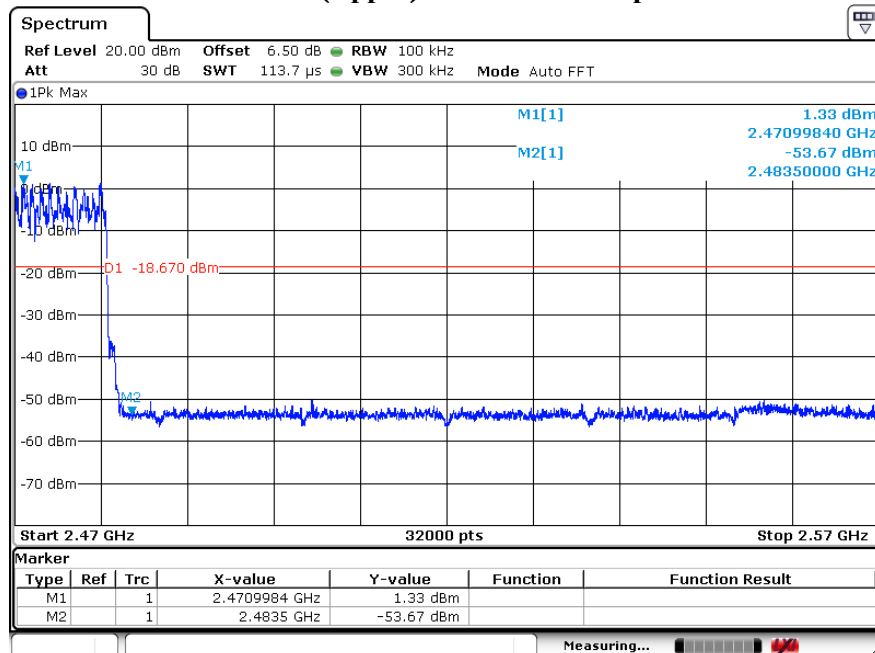
CH 78 (Upper) Data rate 3Mbps



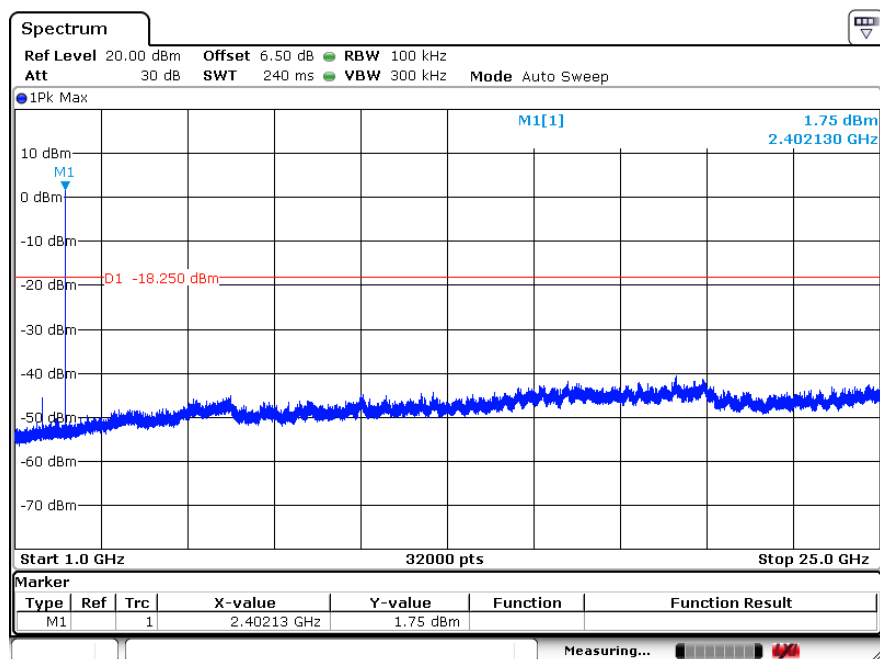
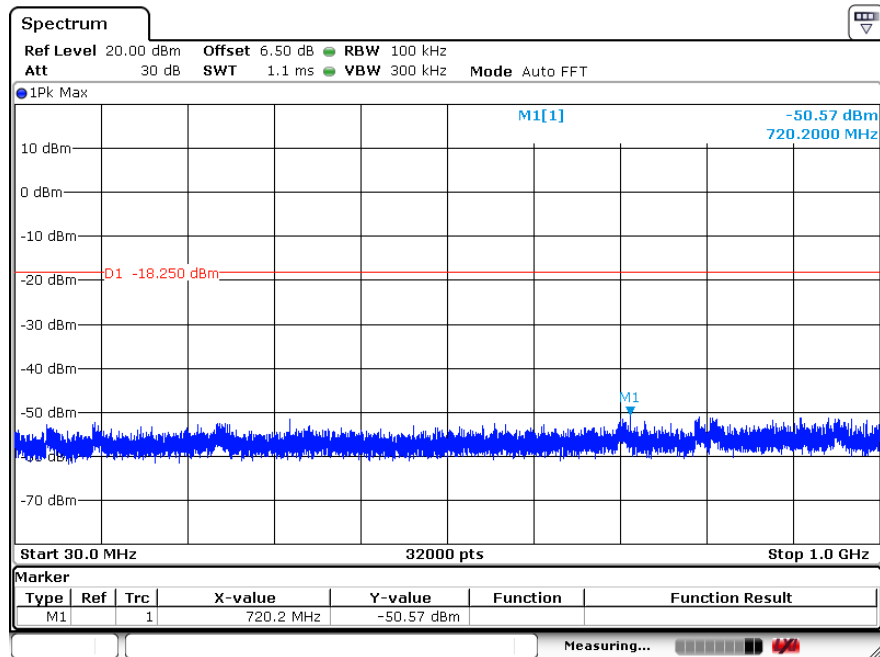
CH00 (Lower) Data rate 3Mbps



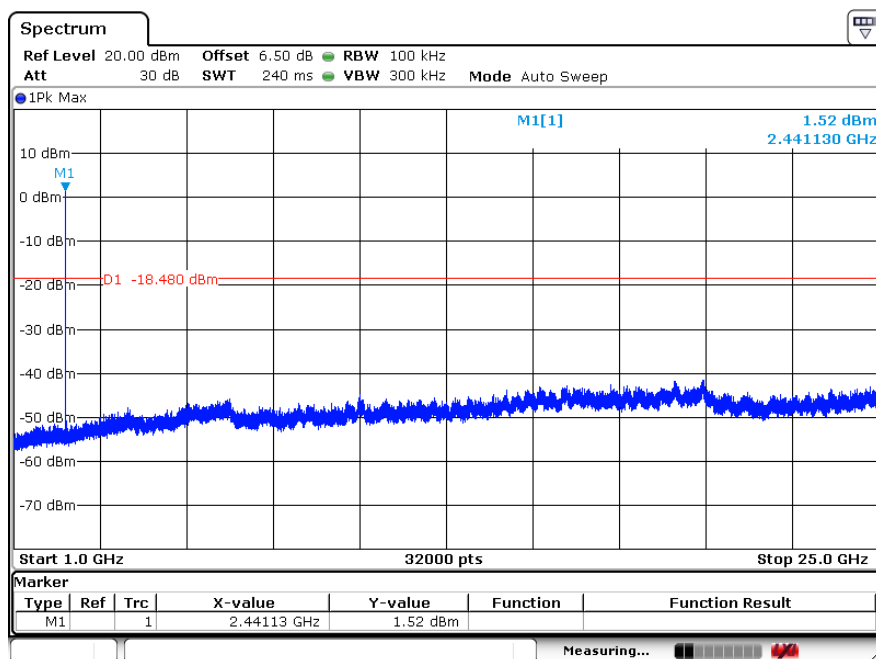
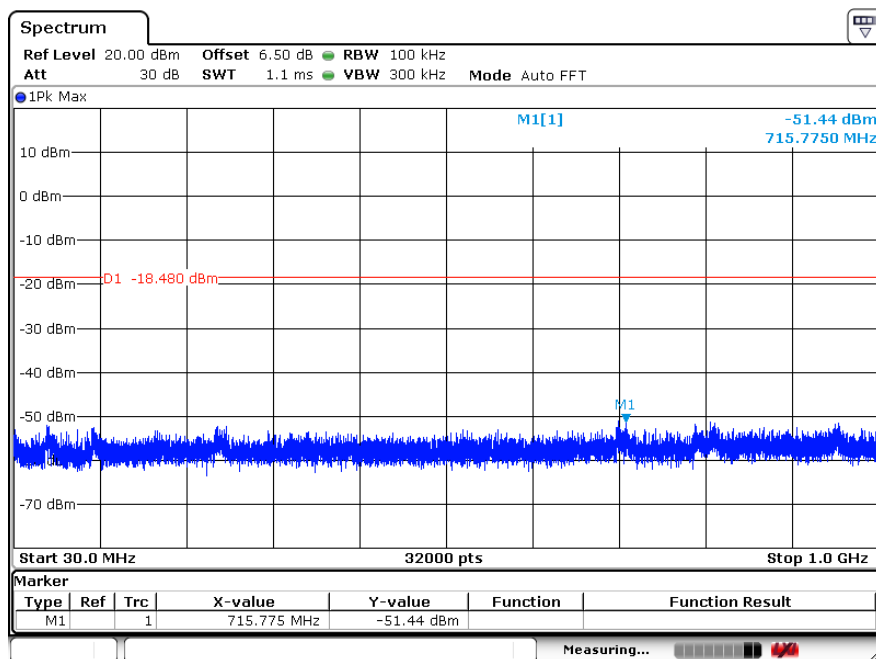
CH 78 (Upper) Data rate 3Mbps



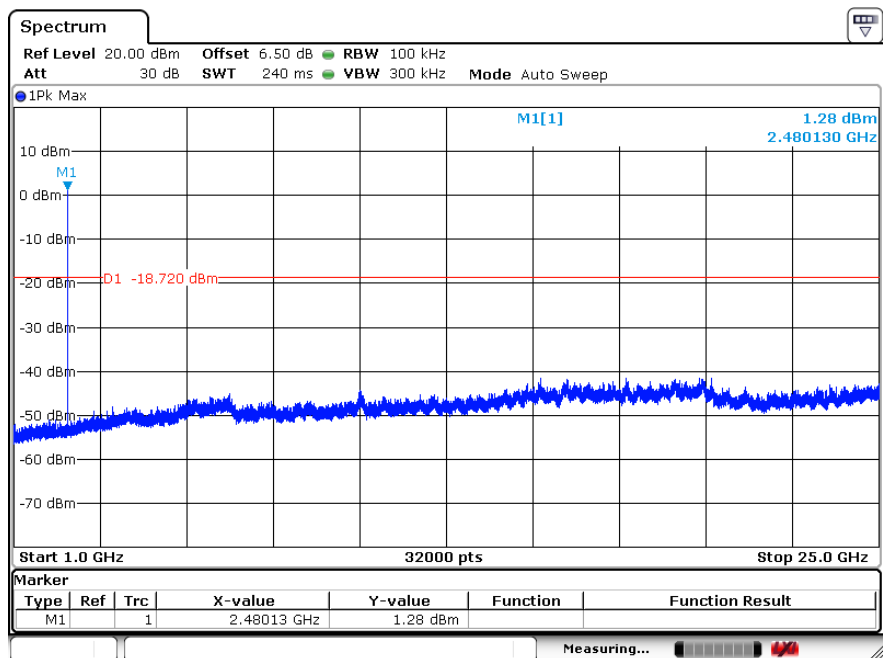
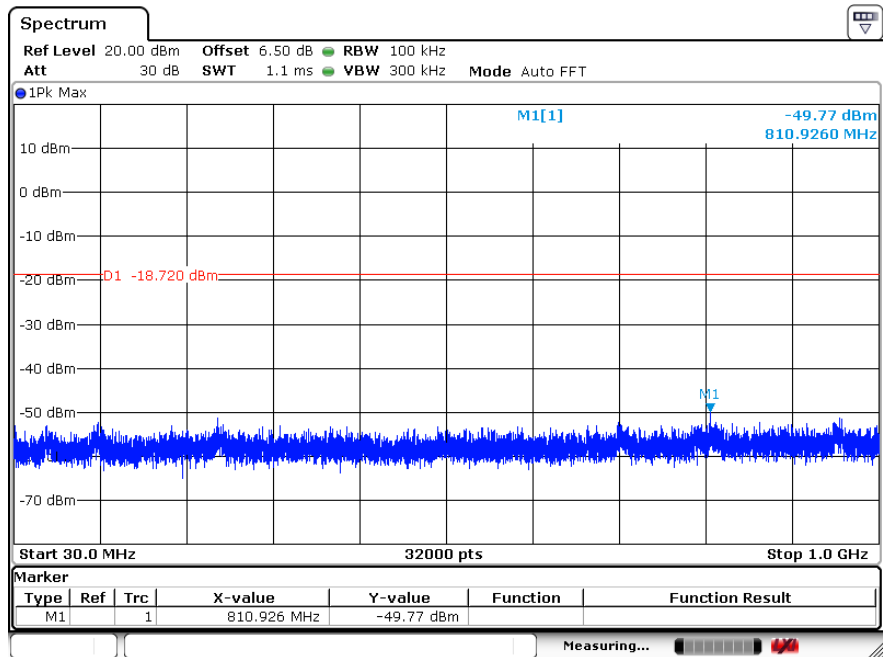
CH01



CH39



CH78



10. ANTENNA REQUIREMENT

10.1 STANDARD REQUIREMENT

3.10.3.1.1 requirement: Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

10.2 EUT ANTENNA

The antenna is a Chip antenna and no consideration of replacement. Antenna max gain is 2.50 dBi from 2.4GHz to 2.5GHz.

11. EUT TEST PHOTO**Radiated Measurement Photos
30MHz-1GHz**

Above 1GHz

Conducted Measurement Photos**APPENDIX-Photographs of EUT Constructional Details**

Refer to Appendi-photographs