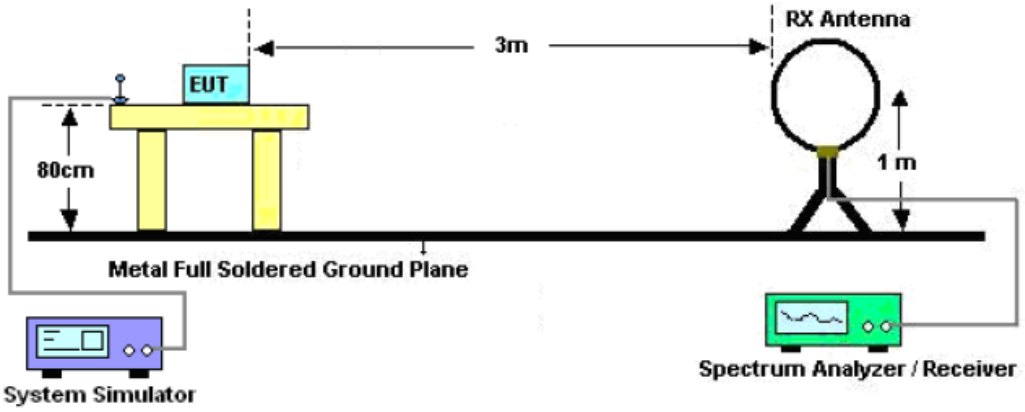
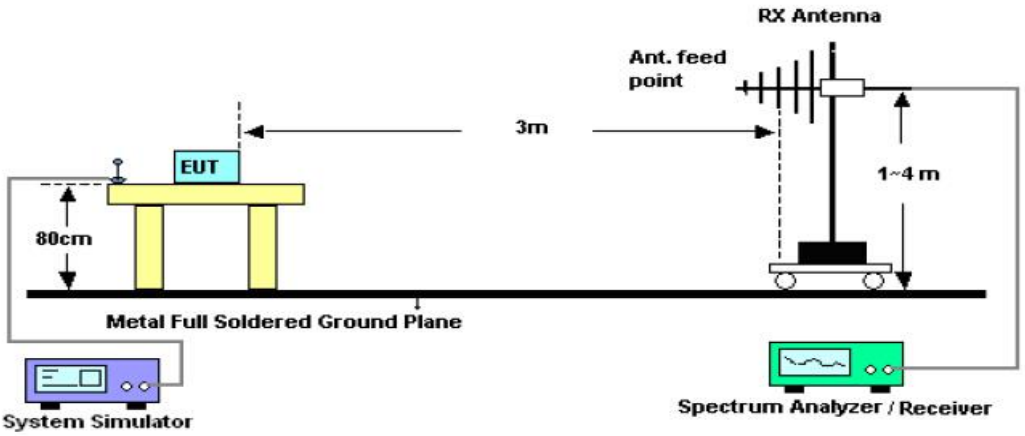
6.2. **Test Setup**

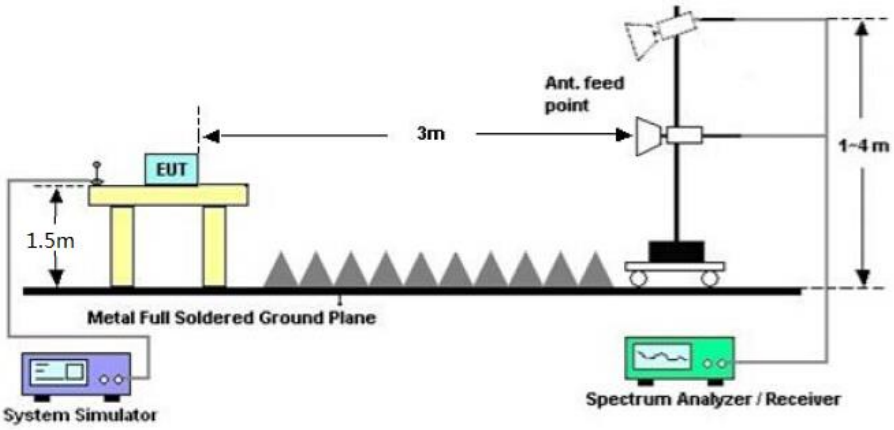
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



6.3. Limits and Measurement Result

15.209&RSS-GEN Limit in the below table has to be followed

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

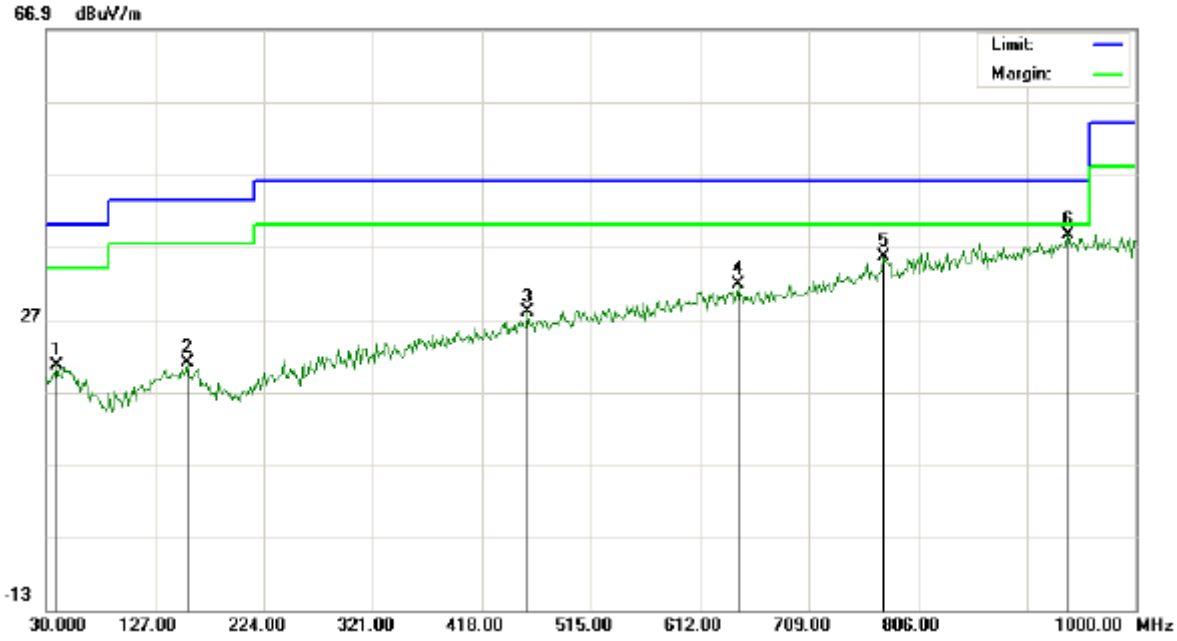
Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ

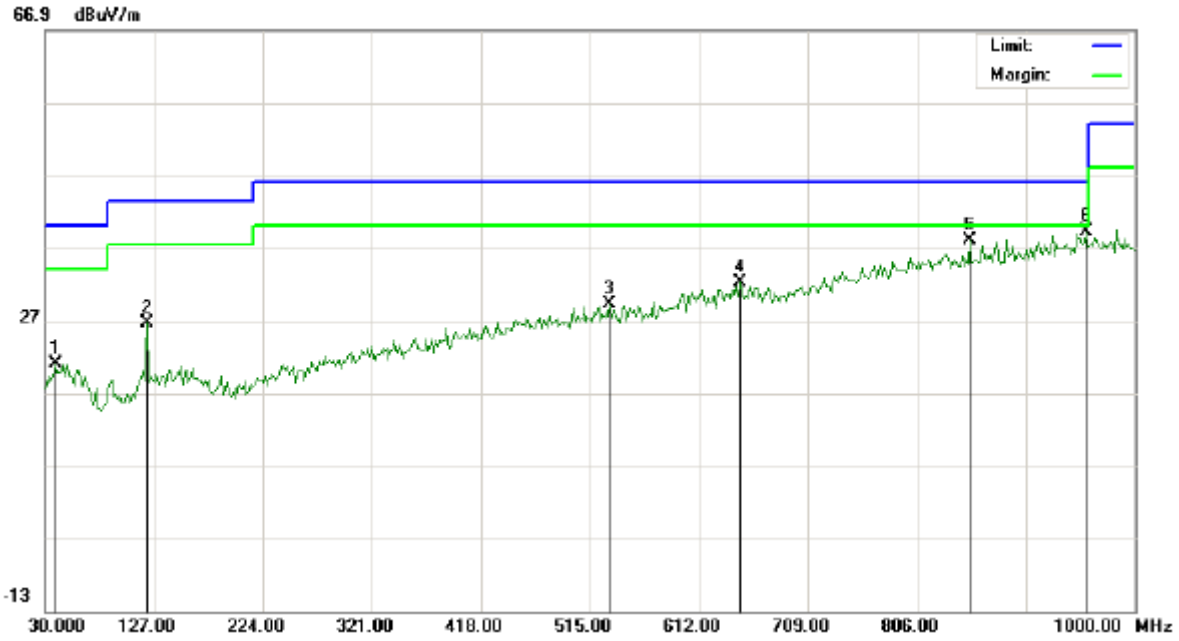
EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 4	**Antenna**	Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		39.7000	0.05	20.61	20.66	40.00	-19.34	peak			
2		156.1000	0.64	20.36	21.00	43.50	-22.50	peak			
3		458.4167	1.37	26.63	28.00	46.00	-18.00	peak			
4		645.9500	1.25	30.54	31.79	46.00	-14.21	peak			
5		775.2833	2.12	33.45	35.57	46.00	-10.43	peak			
6	*	940.1833	2.13	36.41	38.54	46.00	-7.46	peak			

RESULT: PASS

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	Model Name	FITACTJET5
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 4	Antenna	Vertical



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		39.7000	0.39	20.61	21.00	40.00	-19.00	peak			
2		120.5333	7.42	19.16	26.58	43.50	-16.92	peak			
3		532.7833	0.98	28.25	29.23	46.00	-16.77	peak			
4		649.1833	1.59	30.59	32.18	46.00	-13.82	peak			
5		852.8833	2.89	35.08	37.97	46.00	-8.03	peak			
6	*	956.3500	2.60	36.61	39.21	46.00	-6.79	peak			

RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. All test modes had been pre-tested. The mode 4 is the worst case and recorded in the report.

RADIATED EMISSION ABOVE 1GHZ

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 1	**Antenna**	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804.062	46.58	3.76	50.34	74.00	-23.66	peak
4804.062	44.78	3.76	48.54	54.00	-5.46	AVG
7206.093	37.51	8.17	45.68	74.00	-28.32	peak
7206.093	32.24	8.17	40.41	54.00	-13.59	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 1	**Antenna**	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804.062	49.75	3.76	53.51	74.00	-20.49	peak
4804.062	45.09	3.76	48.85	54.00	-5.15	AVG
7206.093	38.74	8.17	46.91	74.00	-27.09	peak
7206.093	36.12	8.17	44.29	54.00	-9.71	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 2	**Antenna**	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4882.062	47.00	3.78	50.78	74.00	-23.22	peak
4882.062	43.00	3.78	46.78	54.00	-7.22	AVG
7323.093	41.38	8.23	49.61	74.00	-24.39	peak
7323.093	38.47	8.23	46.70	54.00	-7.30	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 2	**Antenna**	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4882.062	47.67	3.78	51.45	74.00	-22.55	peak
4882.062	44.95	3.78	48.73	54.00	-5.27	AVG
7323.093	41.38	8.23	49.61	74.00	-24.39	peak
7323.093	38.58	8.23	46.81	54.00	-7.19	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 3	**Antenna**	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960.062	47.03	3.81	50.84	74.00	-23.16	peak
4960.062	45.10	3.81	48.91	54.00	-5.09	AVG
7440.093	40.34	8.27	48.61	74.00	-25.39	peak
7440.093	38.01	8.27	46.28	54.00	-7.72	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	**Model Name**	FITACTJET5
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	Mode 3	**Antenna**	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960.062	46.56	3.81	50.37	74.00	-23.63	peak
4960.062	45.13	3.81	48.94	54.00	-5.06	AVG
7440.093	40.34	8.27	48.61	74.00	-25.39	peak
7440.093	37.95	8.27	46.22	54.00	-7.78	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RESULT: PASS

Note:

Other emissions from 1G to 25 GHz are considered as ambient noise. No recording in the test report.

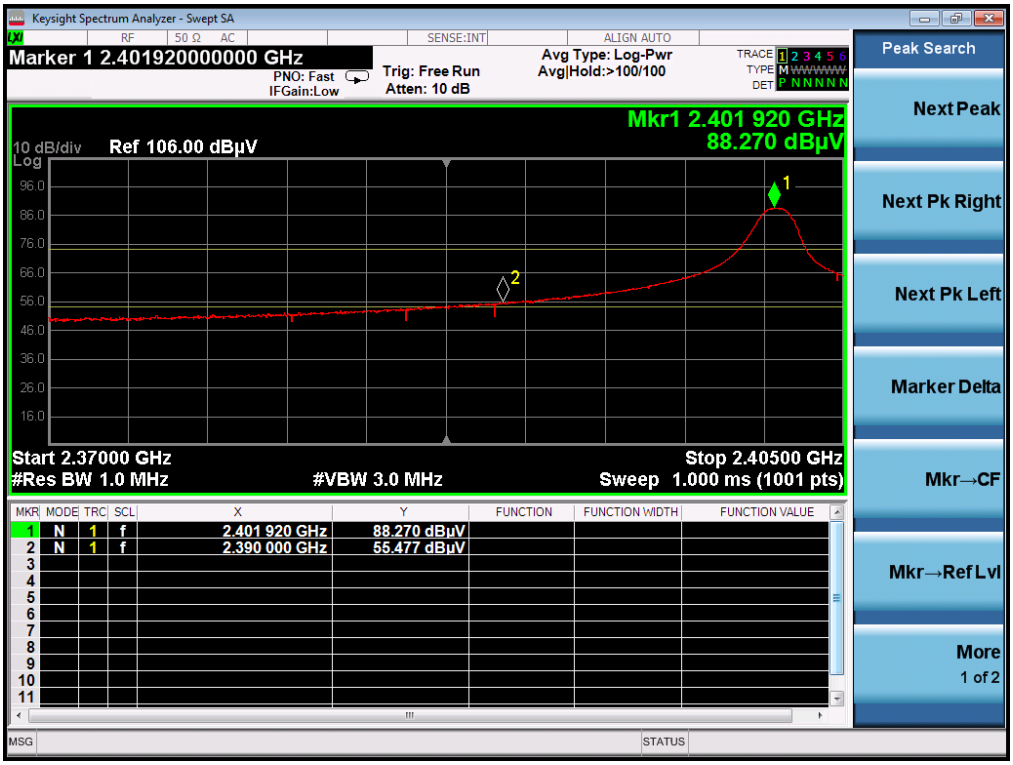
Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.
The “Factor” value can be calculated automatically by software of measurement system.

All test modes had been tested. The GFSK modulation is the worst case and recorded in the report.

TEST RESULT FOR RESTRICTED BANDS REQUIREMENTS

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	Model Name	FITACTJET5
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal

PK

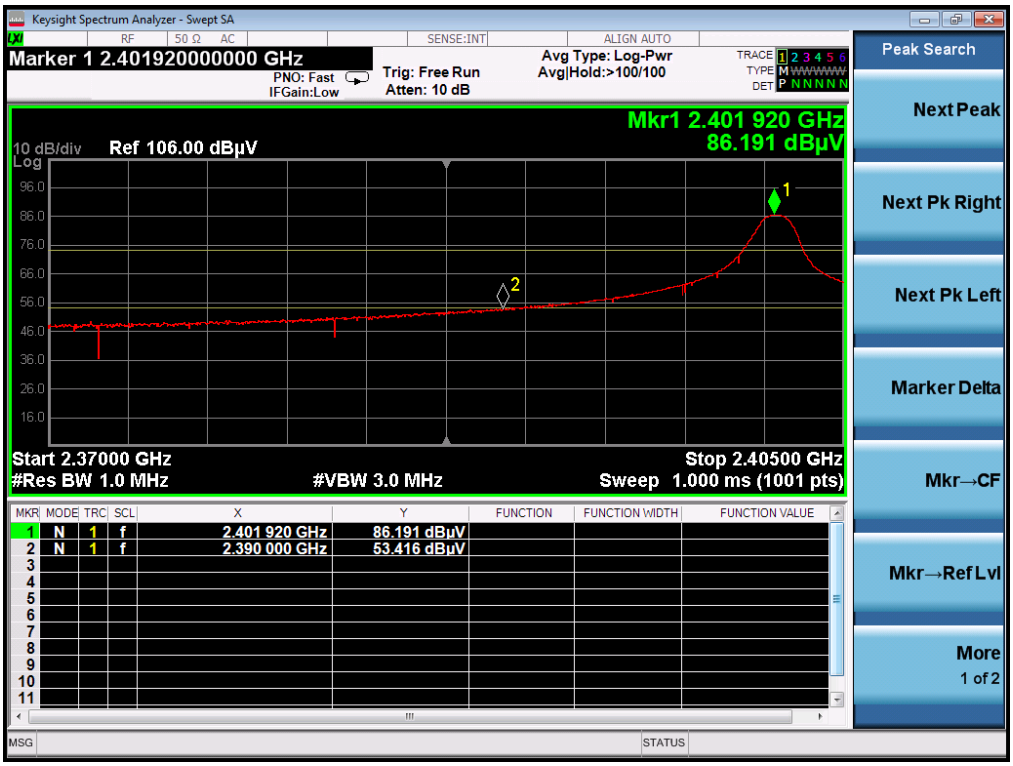


AV

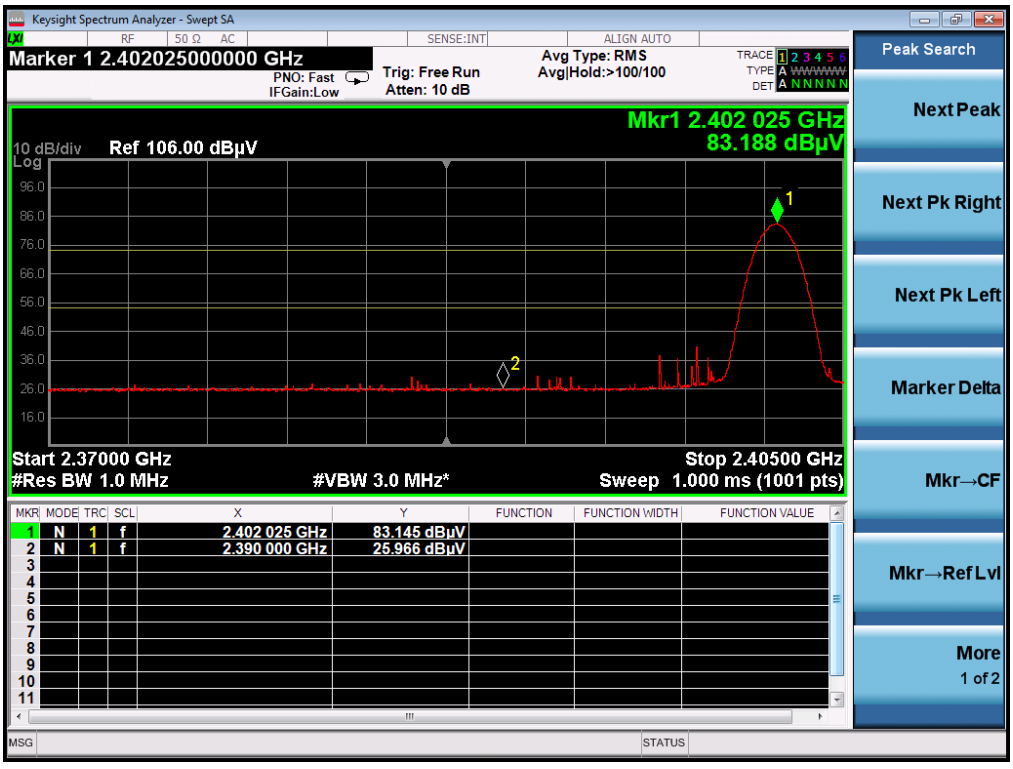
RESULT: PASS

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	Model Name	FITACTJET5
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical

PK



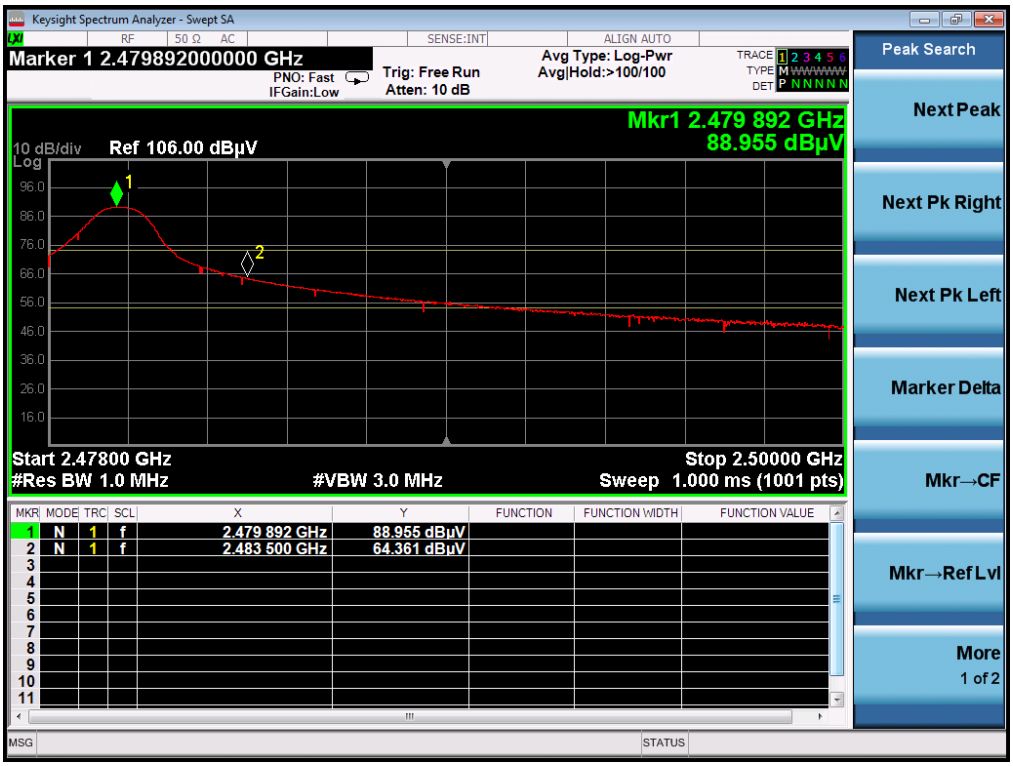
AV



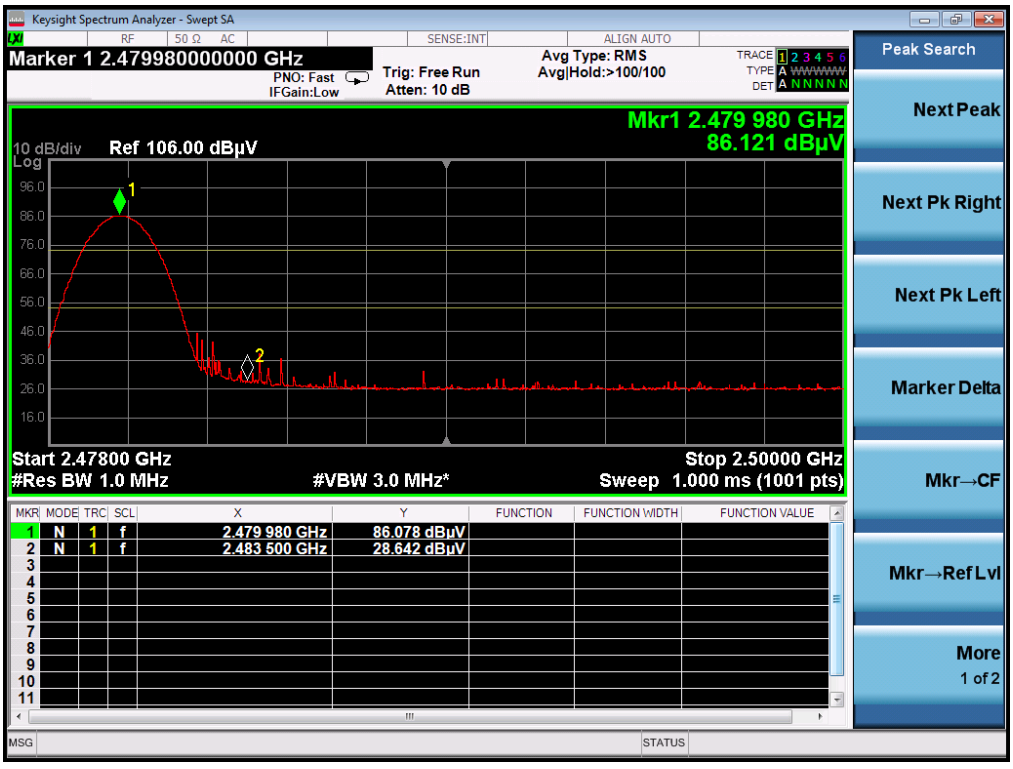
RESULT: PASS

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	Model Name	FITACTJET5
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna	Horizontal

PK



AV



RESULT: PASS

EUT	True Wireless Stereo In-ear Fitness Earbuds with Ear Hooks and Charging Case	Model Name	FITACTJET5
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna	Vertical

PK

AV

RESULT: PASS

Note: The factor had been edited in the “Input Correction” of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(µV) to represent the Amplitude. Use the F dB(µV/m) to represent the Field Strength. So A=F. All test modes had been pre-tested. The GFSK modulation is the worst case and recorded in the report.

7. Number of Hopping Frequency

7.1. Measurement Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:
1. Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
2. RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
3. VBW ⩾ RBW. Sweep: Auto. Detector function: Peak. Trace: Max hold.
4. Allow the trace to stabilize.

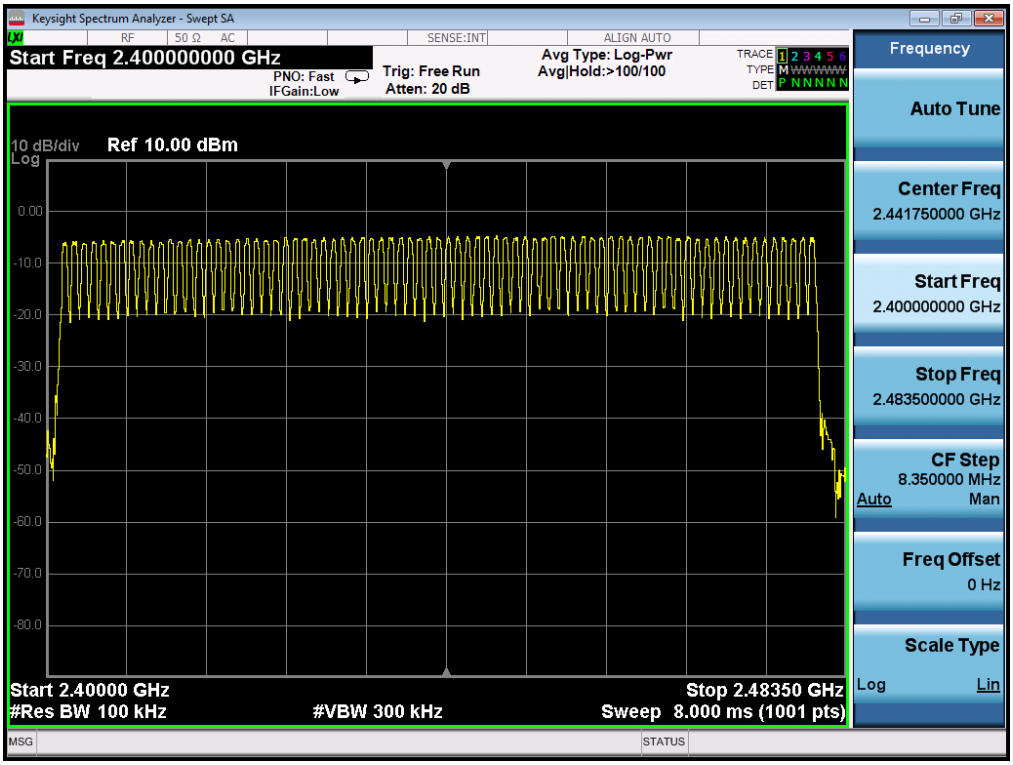
7.2. Test Setup (Block Diagram of Configuration)

Same as described in section 4.2

7.3. Limits and Measurement Result

TOTAL NO. OF HOPPING CHANNEL	LIMIT (NO. OF CH)	MEASUREMENT (NO. OF CH)	RESULT
	>=15	79	PASS

TEST PLOT FOR NO. OF TOTAL CHANNELS



Note: The 8-DPSK modulation is the worst case and recorded in the report.

8. Time Of Occupancy (Dwell Time)

8.1. Measurement Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:
1. Span: Zero span, centered on a hopping channel.
2. RBW shall be≤channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel.
3. Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel.
4. Detector function: Peak. Trace: Max hold.
5. Use the marker-delta function to determine the transmit time per hop.
6. Repeat the measurement using a longer sweep time to determine the number of hops over the period specified in the requirements. The sweep time shall be equal to, or less than, the period specified in the requirements. Determine the number of hops over the sweep time and calculate the total number of hops in the period specified in the requirements, using the following equation:
(Number of hops in the period specified in the requirements) = (number of hops on spectrum analyzer) × (period specified in the requirements / analyzer sweep time)
7. The average time of occupancy is calculated from the transmit time per hop multiplied by the number of hops in the period specified in the requirements.

8.2. Test Setup (Block Diagram of Configuration)

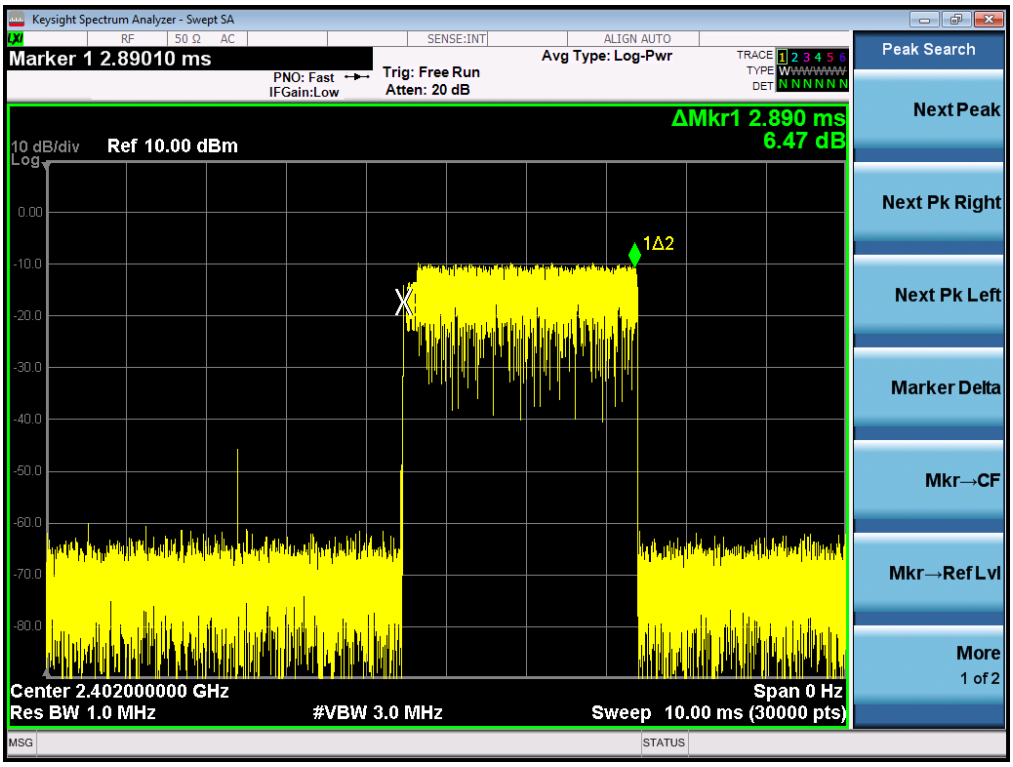
Same as described in section 4.2

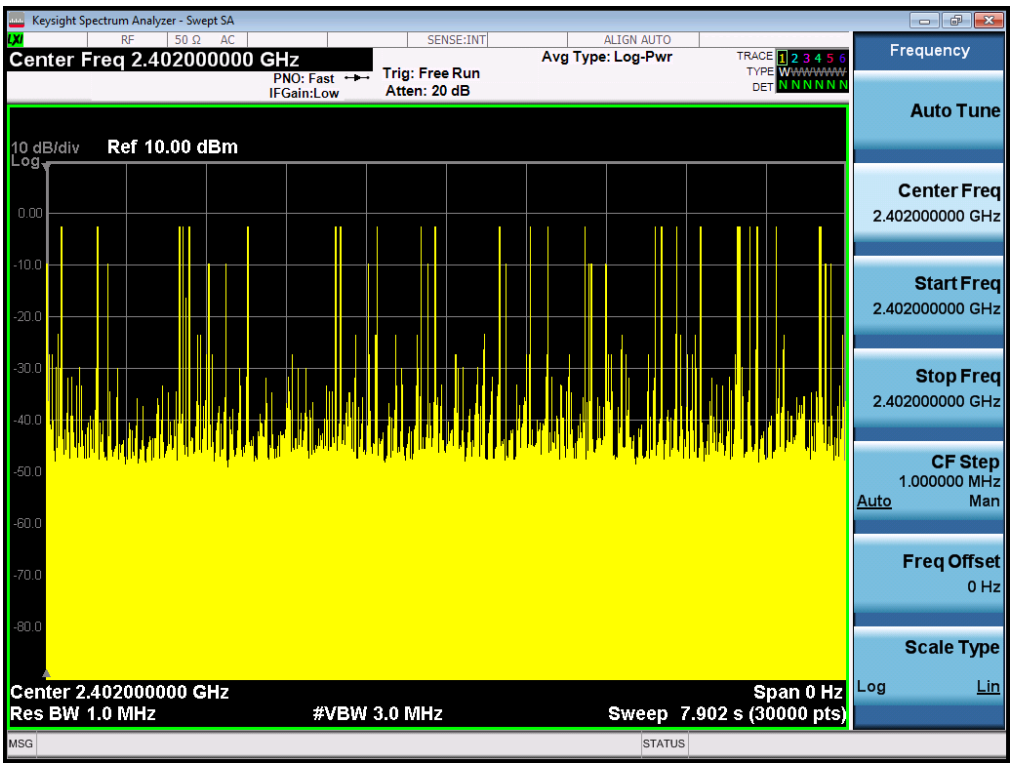
8.3. Limits and Measurement Result

Channel	Time of Pulse for DH5 (ms)	Number of hops in the period specified in the requirements	Sweep Time (ms)	Limit (ms)
Low	2.890	24*4	277.440	400
Middle	2.824	22*4	248.512	400
High	2.910	22*4	256.080	400

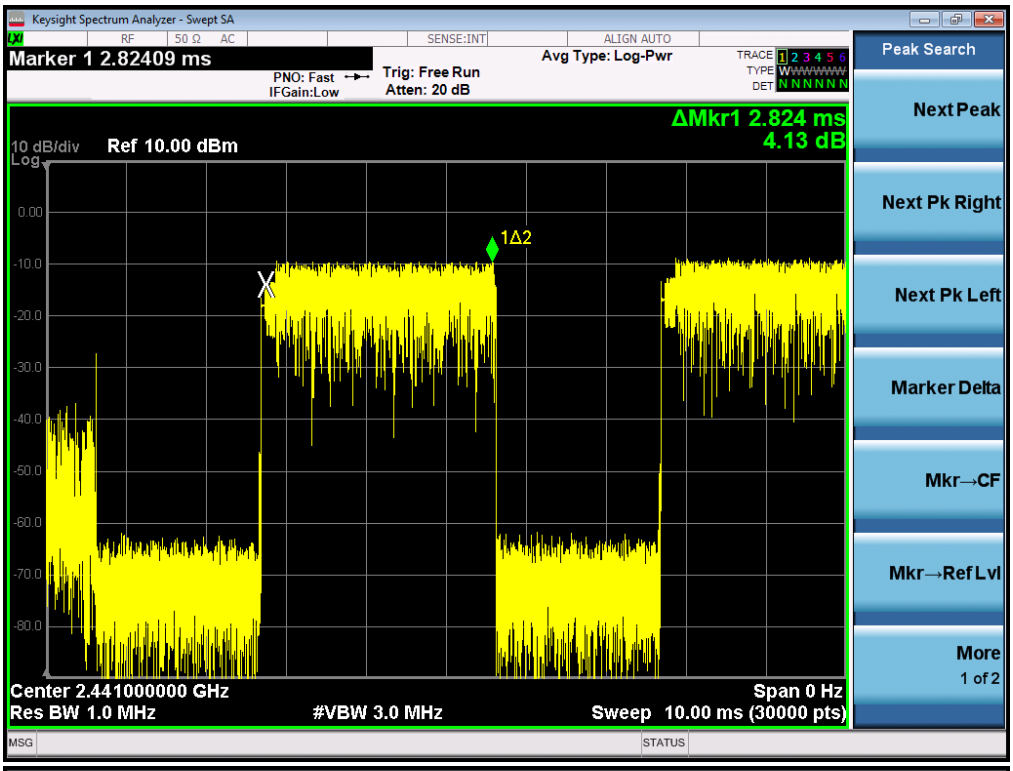
Note: The 8-DPSK modulation is the worst case and recorded in the report.

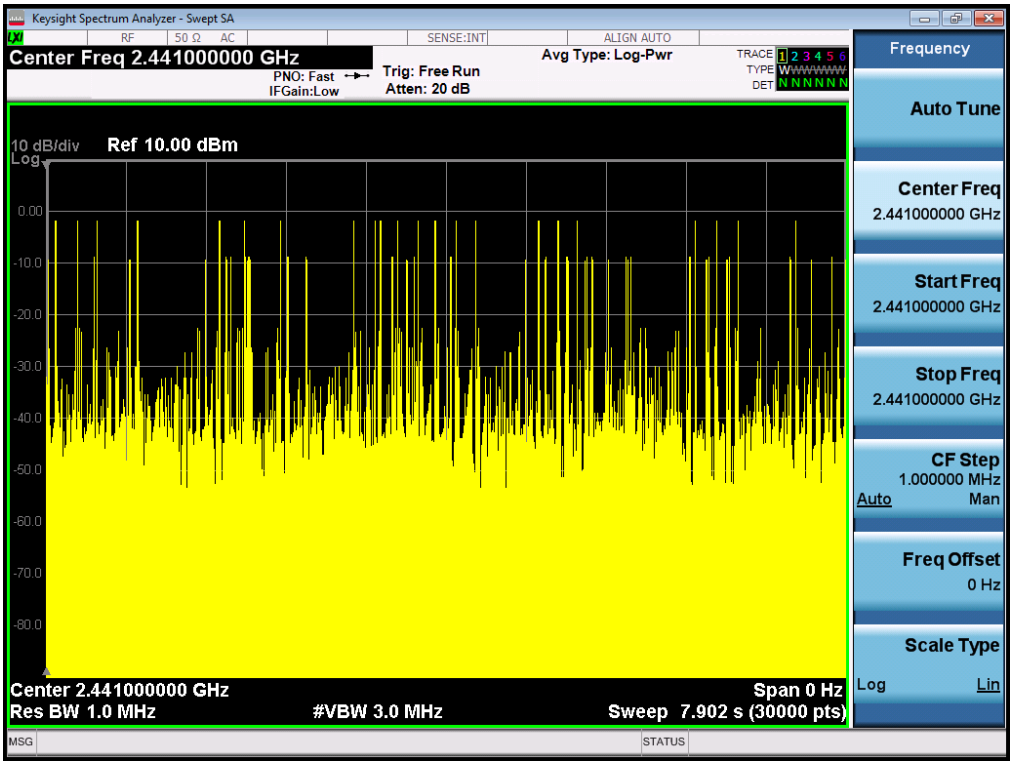
TEST PLOT OF LOW CHANNEL



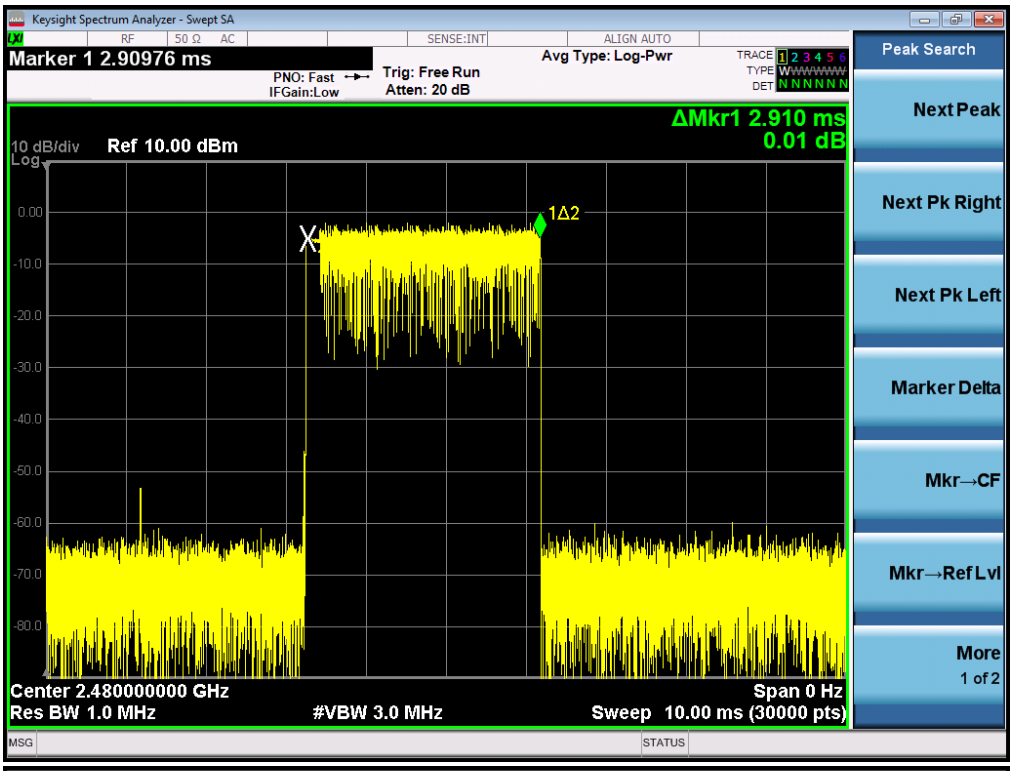


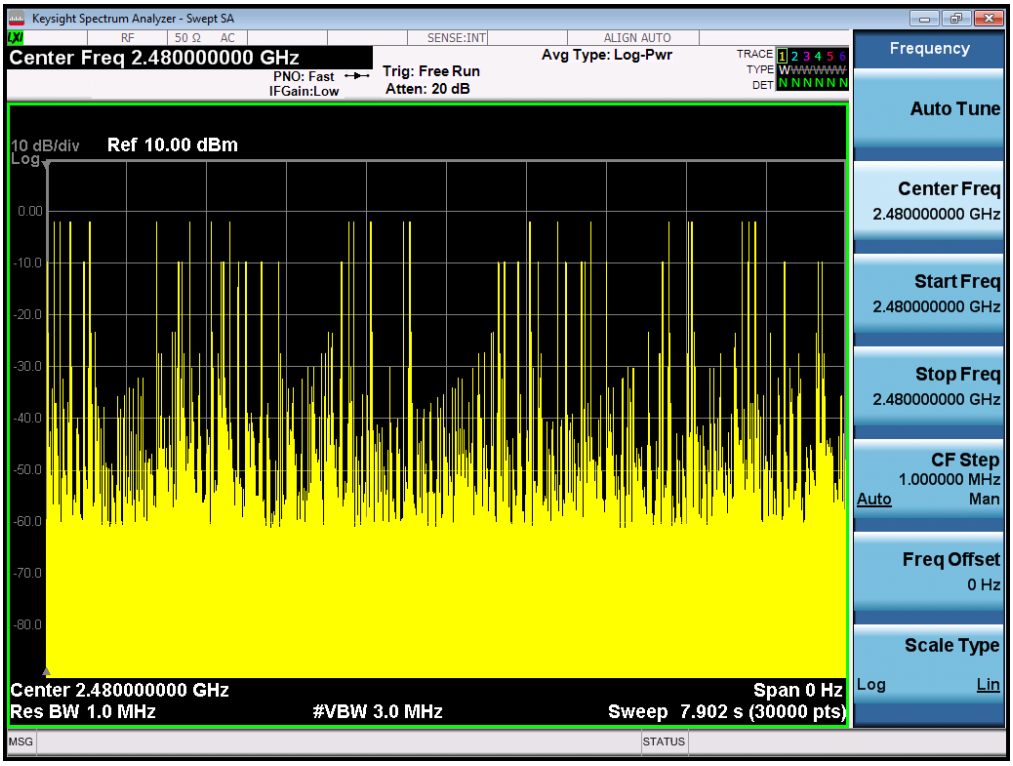
TEST PLOT OF MIDDLE CHANNEL





TEST PLOT OF HIGH CHANNEL





9. Frequency Separation

9.1. Measurement Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:
1. Span: Wide enough to capture the peaks of two adjacent channels.
2. RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
3. Video (or average) bandwidth (VBW) ≥ RBW.
4. Sweep: Auto. e) Detector function: Peak. f) Trace: Max hold. g) Allow the trace to stabilize.
Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

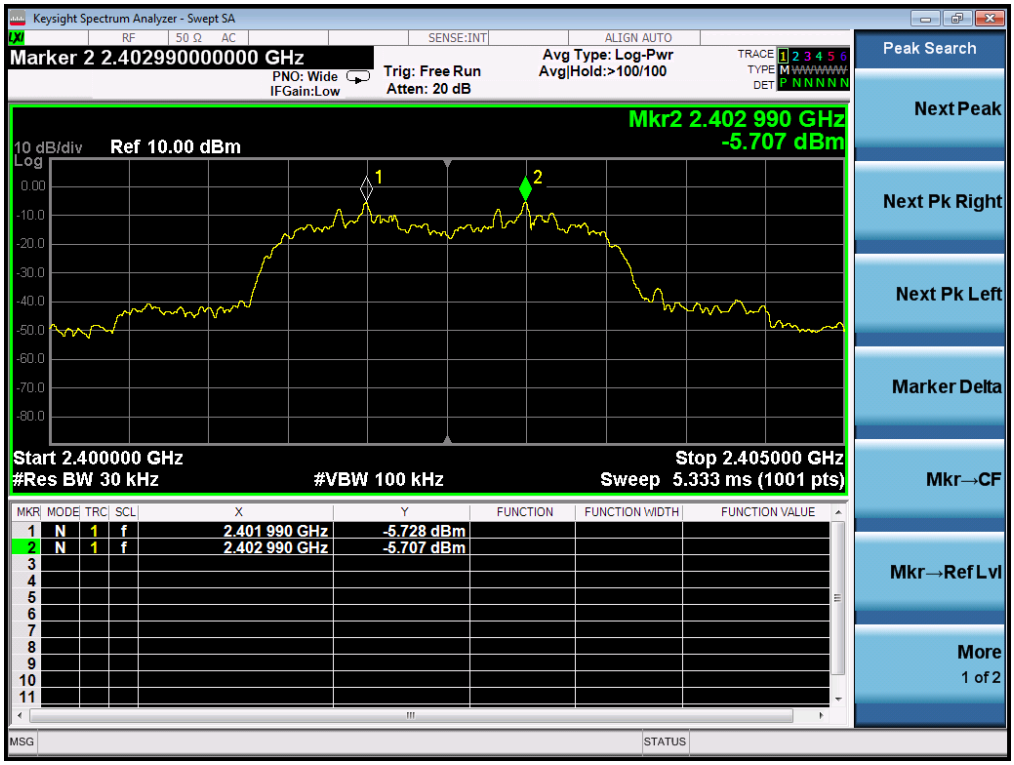
9.2. Test Setup (Block Diagram of Configuration)

Same as described in section 4.2

9.3. Limits and Measurement Result

CHANNEL	CHANNEL SEPARATION	LIMIT	RESULT
	KHz	KHz	Pass
CH01-CH02	1000	>=25 KHz or 2/3 20 dB BW	

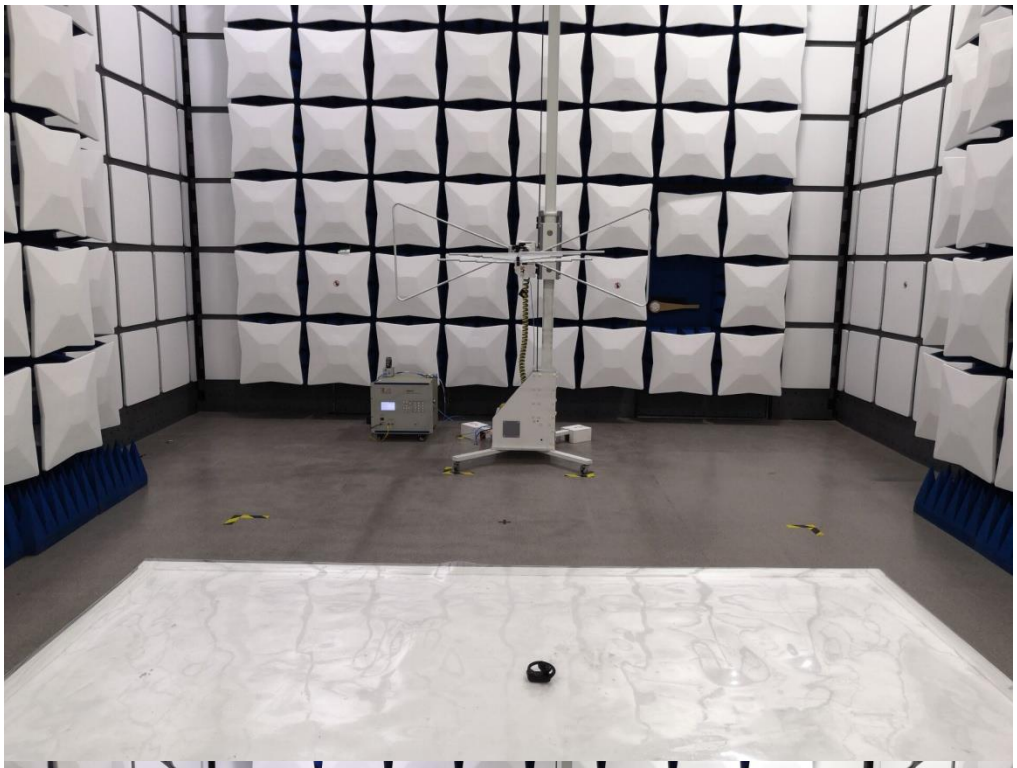
TEST PLOT FOR FREQUENCY SEPARATION



Note: The 8-DPSK modulation is the worst case and recorded in the report.

10. Test Setup Photos of the EUT

Radiated Emission



11. Photograph of EUT

All VIEW OF EUT

TOP VIEW OF EUT

BOTTOM VIEW OF EUT

FRONT VIEW OF EUT

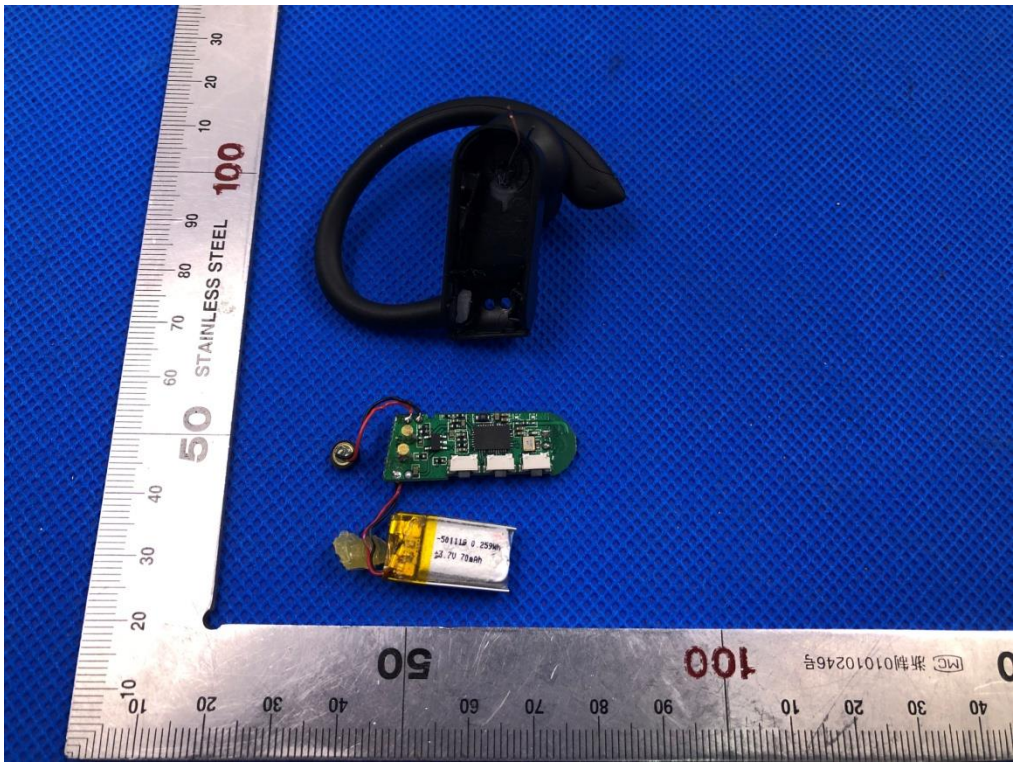
BACK VIEW OF EUT

LEFT VIEW OF EUT

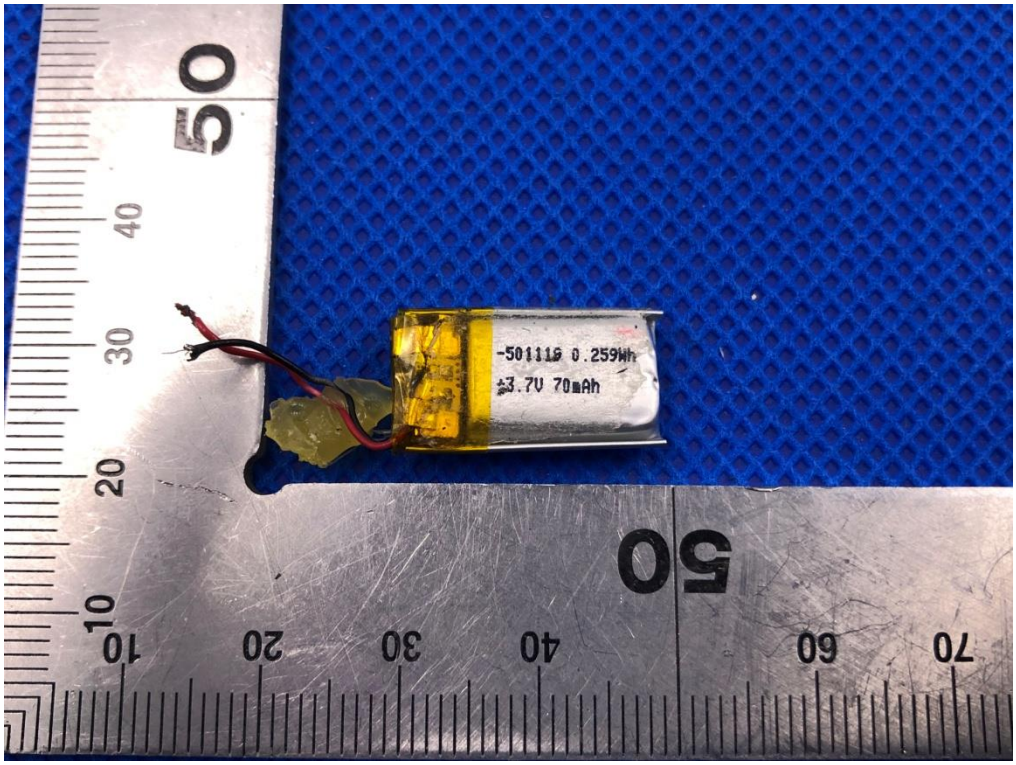
RIGHT VIEW OF EUT

OPEN VIEW OF EUT-1

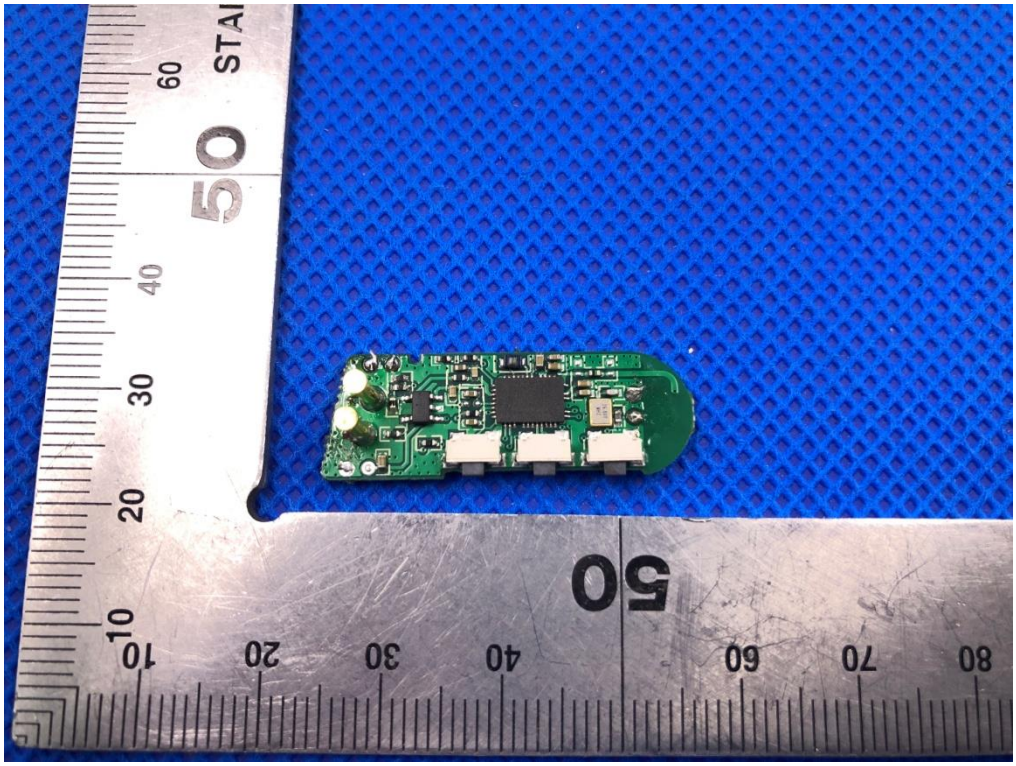
OPEN VIEW OF EUT-2(Left)



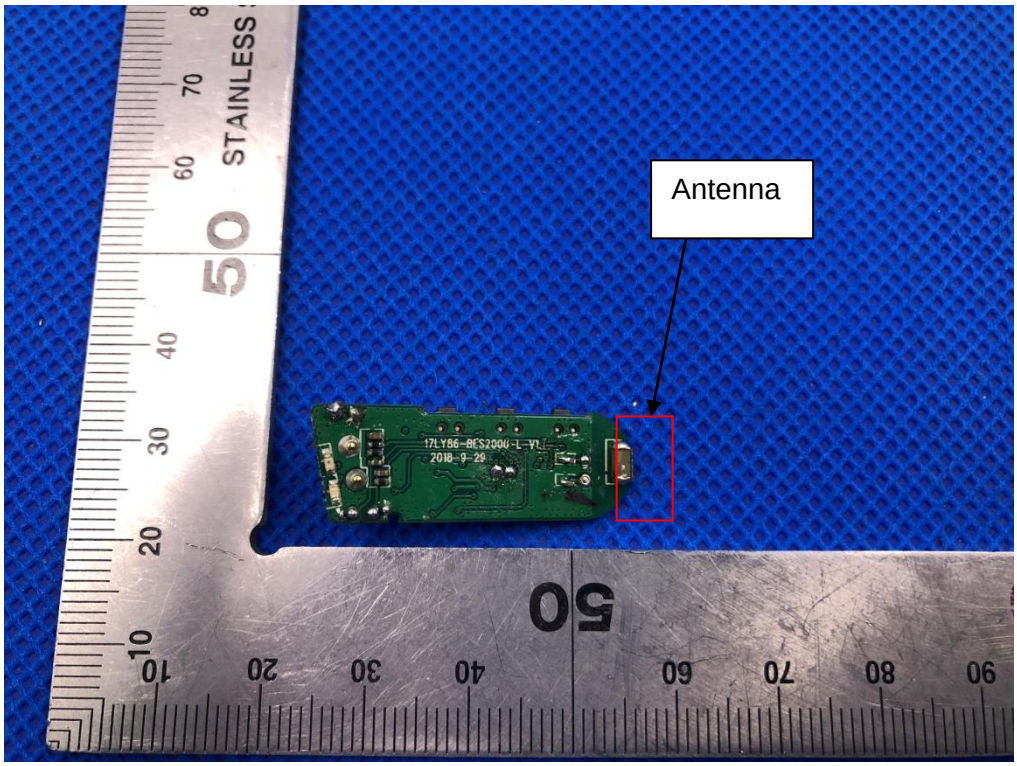
VIEW OF BATTERY



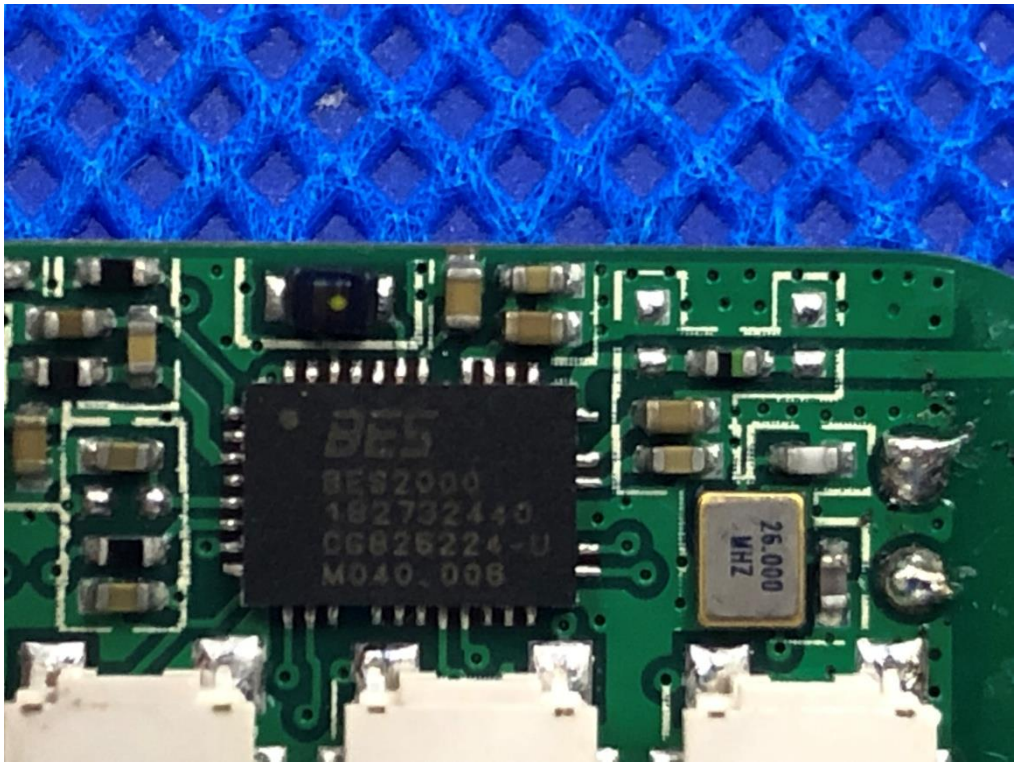
INTERNAL VIEW OF EUT-1



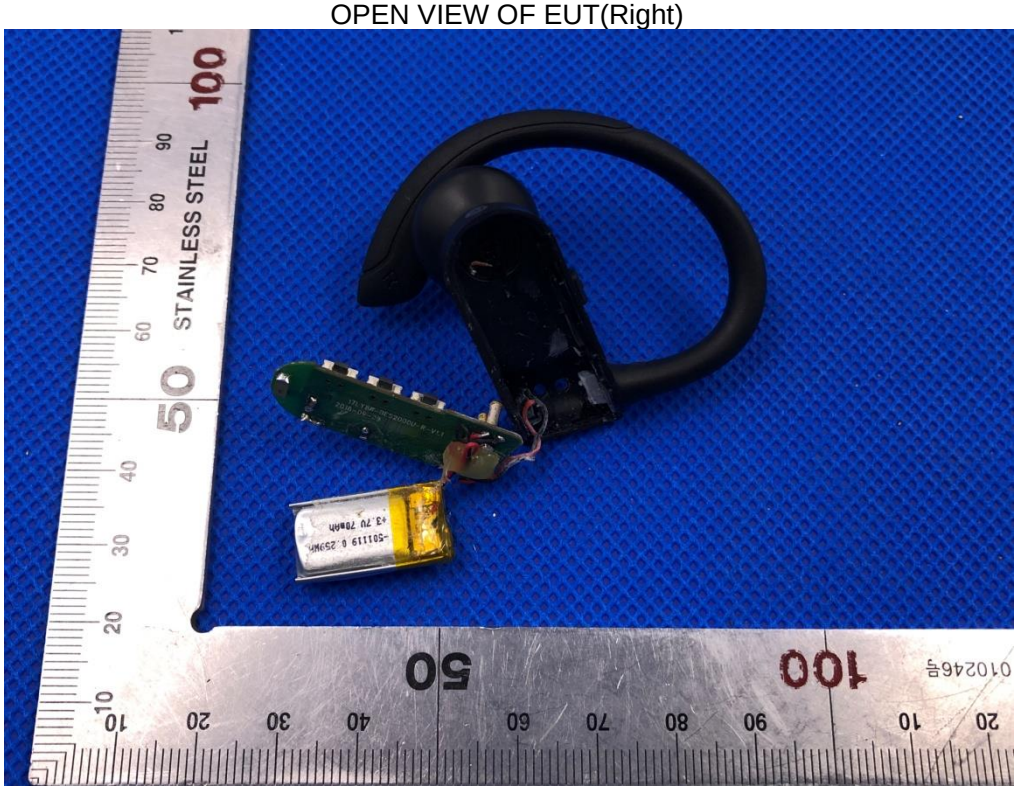
INTERNAL VIEW OF EUT-2



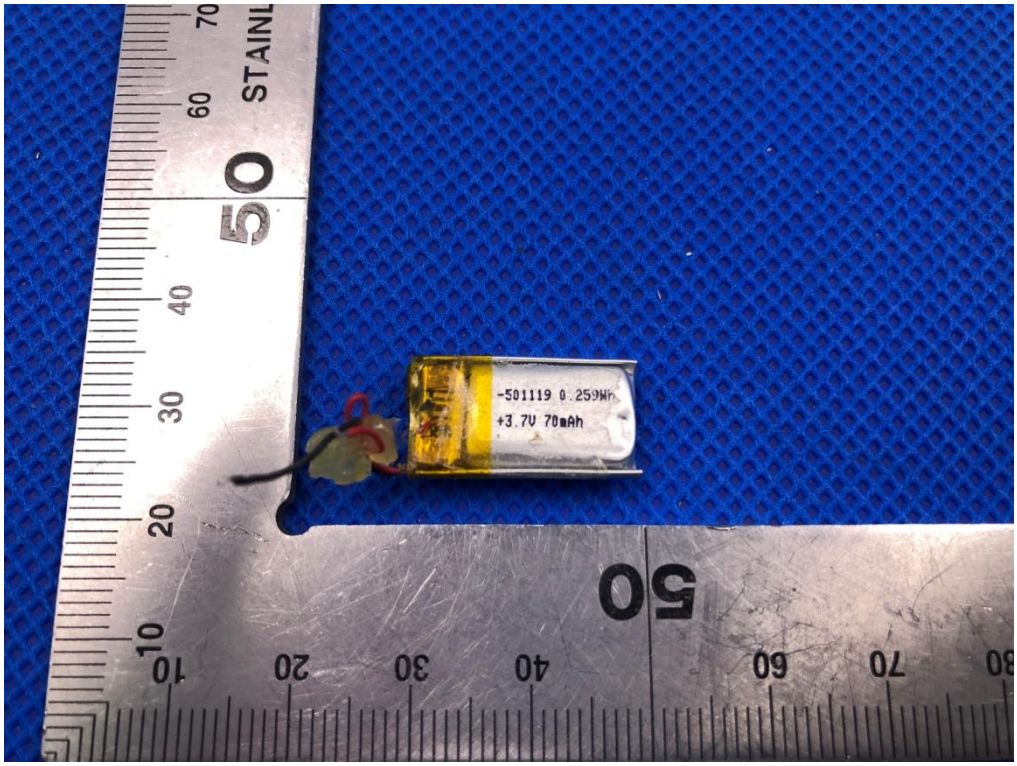
INTERNAL VIEW OF EUT-3



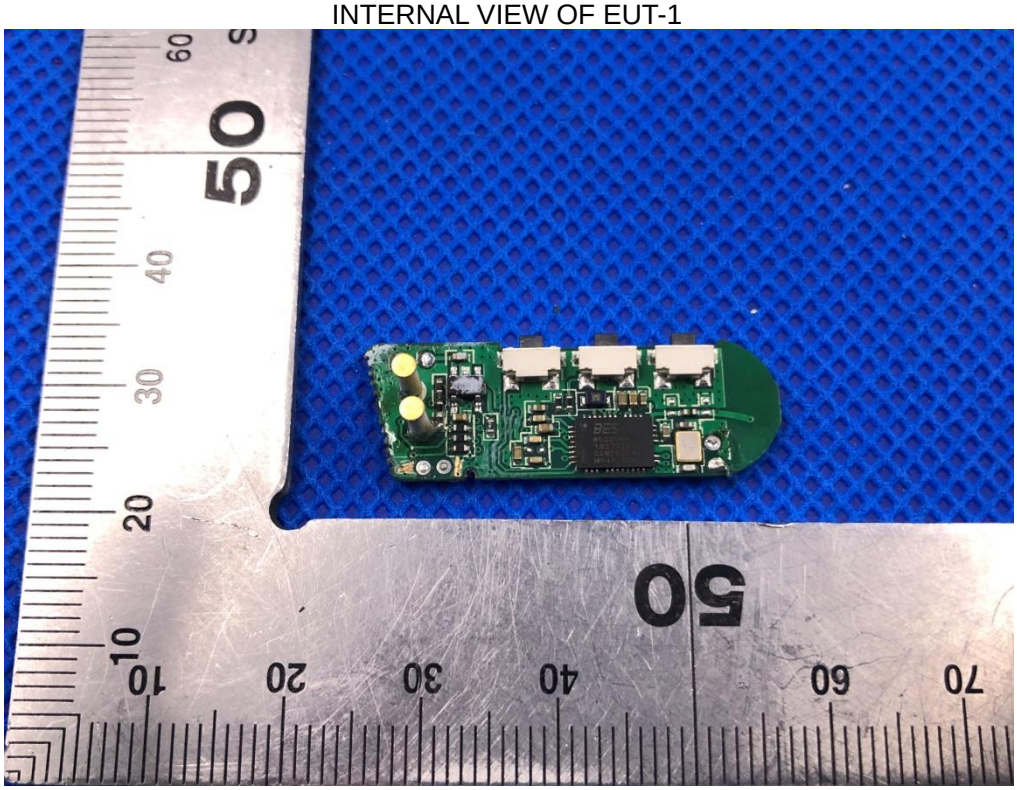
OPEN VIEW OF EUT(Right)



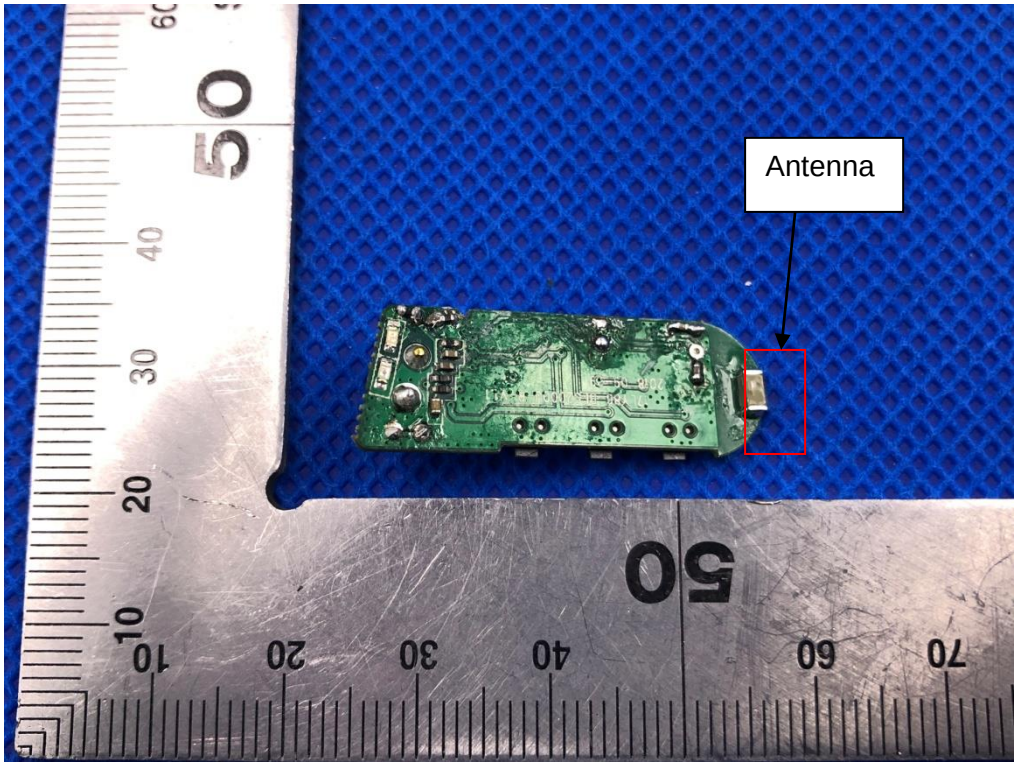
VIEW OF BATTERY



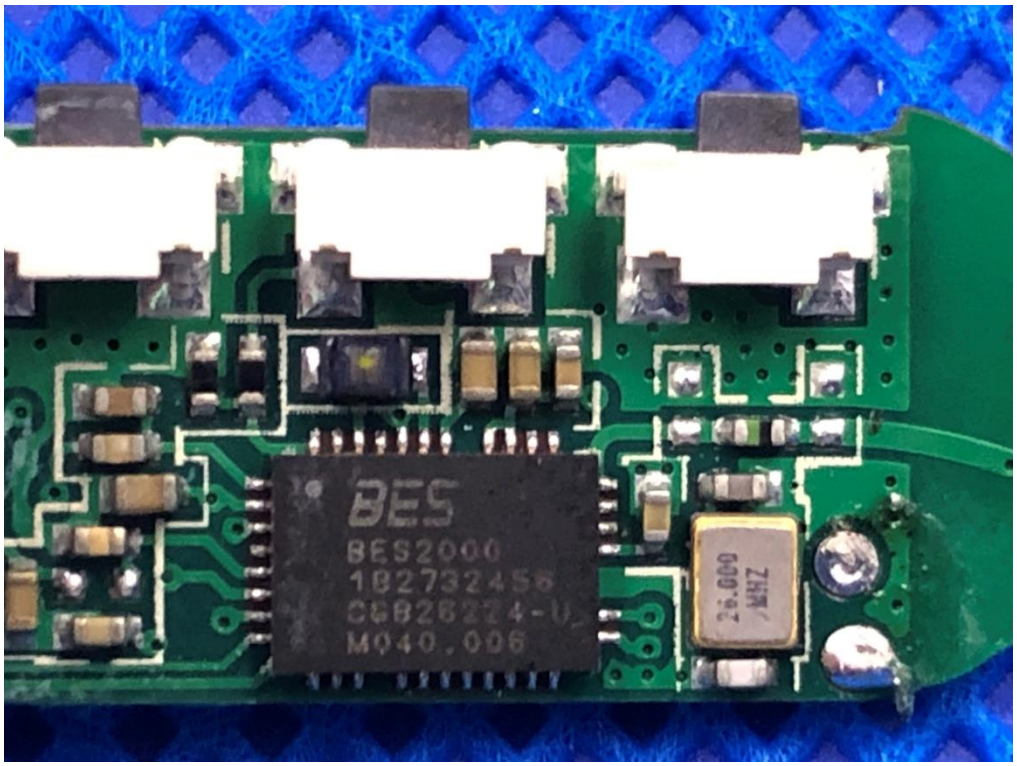
INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3

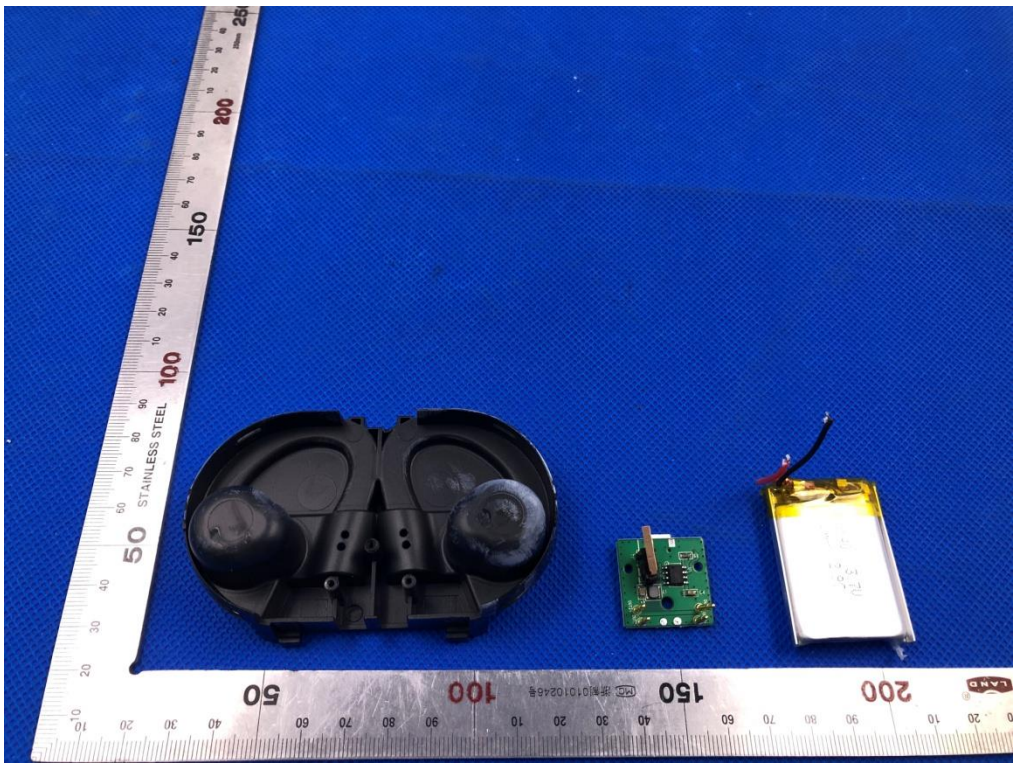


TOP VIEW OF EUT

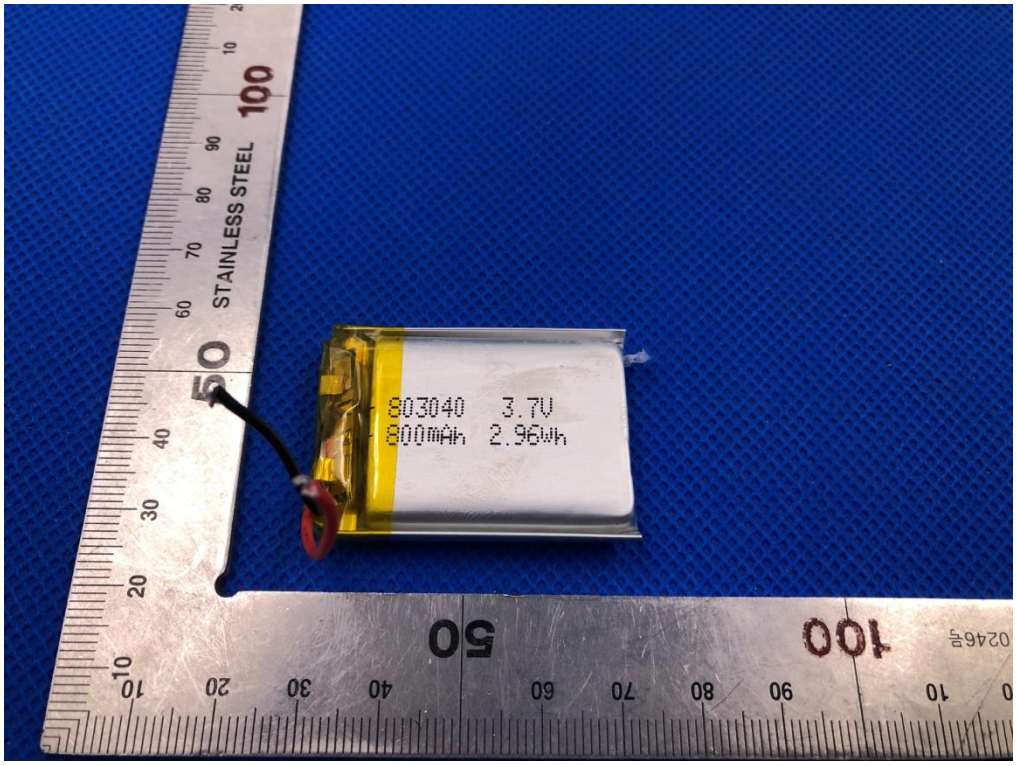
OPEN VIEW OF EUT-1

OPEN VIEW OF EUT-2

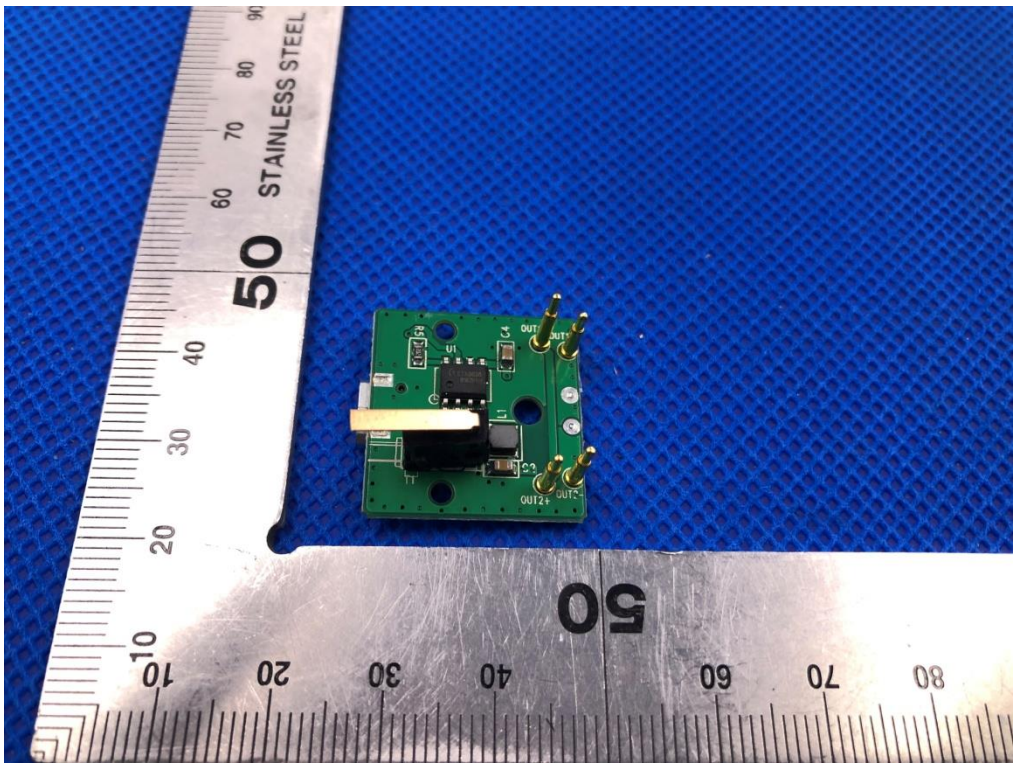
OPEN VIEW OF EUT-3



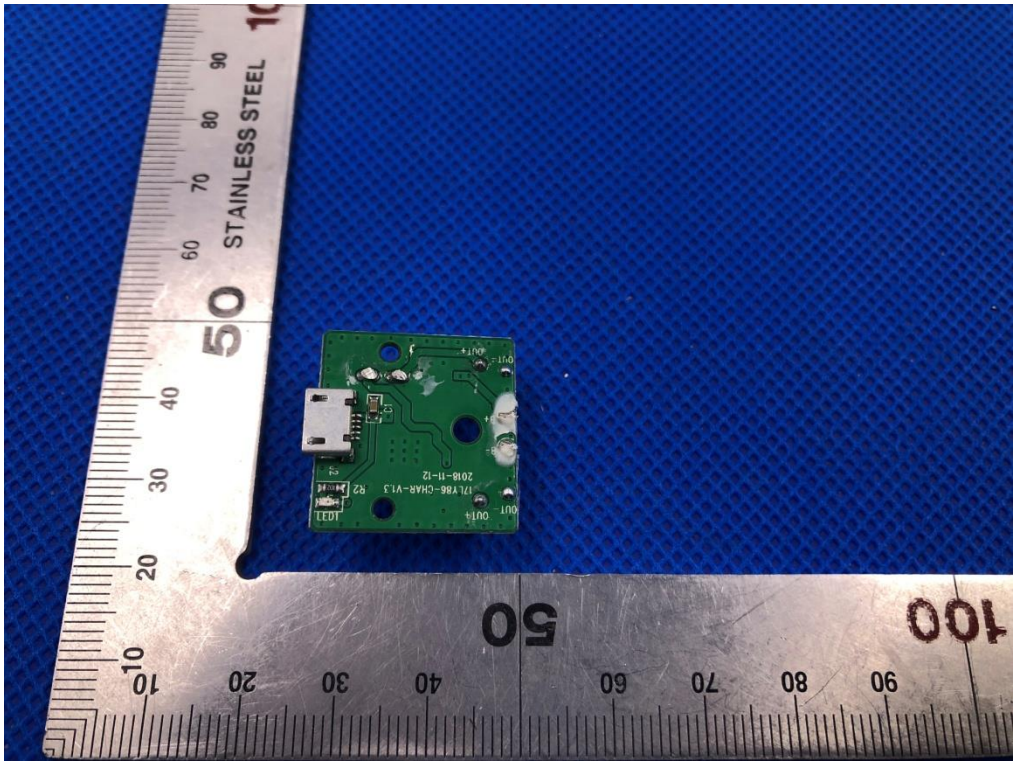
VIEW OF BATTERY



INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



----END OF REPORT----