Radiated Spurious Emissions test Data:

Radiated Emission below 1GHz

Mode:			GFSK Transmitting				Channel:		2441	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	37.6638	11.55	0.69	-32.11	34.09	14.22	40.00	25.78	Pass	Horizontal
2	75.3035	7.99	1.01	-32.06	33.43	10.37	40.00	29.63	Pass	Horizontal
3	120.0250	9.20	1.30	-32.07	38.14	16.57	43.50	26.93	Pass	Horizontal
4	192.0062	10.14	1.62	-31.96	43.59	23.39	43.50	20.11	Pass	Horizontal
5	374.9665	14.85	2.30	-31.88	33.57	18.84	46.00	27.16	Pass	Horizontal
6	687.5318	19.70	3.14	-32.06	36.62	27.40	46.00	18.60	Pass	Horizontal

Mode:			GFSK Transmitting				Channel:		2441	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	52.5063	12.80	0.82	-32.10	39.01	20.53	40.00	19.47	Pass	Vertical
2	67.5428	9.64	0.94	-32.05	41.21	19.74	40.00	20.26	Pass	Vertical
3	120.0250	9.20	1.30	-32.07	41.04	19.47	43.50	24.03	Pass	Vertical
4	208.8859	11.13	1.71	-31.94	45.71	26.61	43.50	16.89	Pass	Vertical
5	398.7339	15.37	2.38	-31.77	33.54	19.52	46.00	26.48	Pass	Vertical
6	625.0575	19.20	2.97	-31.98	35.31	25.50	46.00	20.50	Pass	Vertical

Mode:			π/4DQPSK Transmitting				Channel:		2402	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	37.6638	11.55	0.69	-32.11	33.79	13.92	40.00	26.08	Pass	Horizontal
2	51.3421	12.99	0.81	-32.11	30.88	12.57	40.00	27.43	Pass	Horizontal
3	119.9280	9.21	1.30	-32.07	38.74	17.18	43.50	26.32	Pass	Horizontal
4	192.0062	10.14	1.62	-31.96	44.56	24.36	43.50	19.14	Pass	Horizontal
5	287.9488	12.96	2.02	-31.89	34.86	17.95	46.00	28.05	Pass	Horizontal
6	687.5318	19.70	3.14	-32.06	36.95	27.73	46.00	18.27	Pass	Horizontal

Mode:			π/4DQPSK Transmitting				Channel:		2402	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	40.4770	12.39	0.72	-32.11	36.27	17.27	40.00	22.73	Pass	Vertical
2	67.2517	9.71	0.93	-32.04	41.74	20.34	40.00	19.66	Pass	Vertical
3	120.0250	9.20	1.30	-32.07	42.15	20.58	43.50	22.92	Pass	Vertical
4	208.8859	11.13	1.71	-31.94	45.52	26.42	43.50	17.08	Pass	Vertical
5	374.9665	14.85	2.30	-31.88	33.95	19.22	46.00	26.78	Pass	Vertical
6	625.0575	19.20	2.97	-31.98	34.04	24.23	46.00	21.77	Pass	Vertical

Mode:			8DPSK Transmitting				Channel:		2480	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	37.6638	11.55	0.69	-32.11	33.78	13.91	40.00	26.09	Pass	Horizontal
2	120.0250	9.20	1.30	-32.07	38.14	16.57	43.50	26.93	Pass	Horizontal
3	192.0062	10.14	1.62	-31.96	44.25	24.05	43.50	19.45	Pass	Horizontal
4	479.9310	16.68	2.61	-31.90	32.89	20.28	46.00	25.72	Pass	Horizontal
5	687.5318	19.70	3.14	-32.06	36.60	27.38	46.00	18.62	Pass	Horizontal
6	832.9493	21.30	3.48	-31.95	38.45	31.28	46.00	14.72	Pass	Horizontal

Mode:			8DPSK Transmitting				Channel:		2480	
Remark:			QP							
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	37.6638	11.55	0.69	-32.11	35.93	16.06	40.00	23.94	Pass	Vertical
2	66.1846	9.99	0.93	-32.05	39.58	18.45	40.00	21.55	Pass	Vertical
3	120.0250	9.20	1.30	-32.07	41.69	20.12	43.50	23.38	Pass	Vertical
4	208.8859	11.13	1.71	-31.94	45.41	26.31	43.50	17.19	Pass	Vertical
5	360.0270	14.52	2.27	-31.84	34.69	19.64	46.00	26.36	Pass	Vertical
6	597.4097	18.95	2.94	-31.97	34.08	24.00	46.00	22.00	Pass	Vertical

Remark : All the channels are tested, only the worst data were reported.

Transmitter Emission above 1GHz

Mode:		GFSK Transmitting					Channel:		2402		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1447.8448	28.35	2.95	-42.68	51.15	39.77	74.00	34.23	Pass	H	PK
2	1986.4987	31.61	3.46	-42.62	50.85	43.30	74.00	30.70	Pass	H	PK
3	2834.7835	32.94	4.23	-42.21	51.22	46.18	74.00	27.82	Pass	H	PK
4	4804.0000	34.50	4.55	-40.66	47.87	46.26	74.00	27.74	Pass	H	PK
5	7206.0000	36.31	5.81	-41.02	44.22	45.32	74.00	28.68	Pass	H	PK
6	9608.0000	37.64	6.63	-40.76	42.97	46.48	74.00	27.52	Pass	H	PK
7	1288.6289	28.19	2.73	-42.79	52.68	40.81	74.00	33.19	Pass	V	PK
8	1778.2778	30.24	3.28	-42.70	54.65	45.47	74.00	28.53	Pass	V	PK
9	2598.9599	32.56	4.10	-42.34	54.05	48.37	74.00	25.63	Pass	V	PK
10	4804.0000	34.50	4.55	-40.66	45.47	43.86	74.00	30.14	Pass	V	PK
11	7206.0000	36.31	5.81	-41.02	44.59	45.69	74.00	28.31	Pass	V	PK
12	9608.0000	37.64	6.63	-40.76	42.31	45.82	74.00	28.18	Pass	V	PK

Mode:		GFSK Transmitting					Channel:		2441		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1328.0328	28.23	2.79	-42.76	51.15	39.41	74.00	34.59	Pass	H	PK
2	1955.6956	31.41	3.43	-42.64	51.41	43.61	74.00	30.39	Pass	H	PK
3	3014.3010	33.21	4.90	-42.11	49.91	45.91	74.00	28.09	Pass	H	PK
4	4882.0000	34.50	4.81	-40.60	45.61	44.32	74.00	29.68	Pass	H	PK
5	7323.0000	36.42	5.85	-40.91	43.72	45.08	74.00	28.92	Pass	H	PK
6	9764.0000	37.71	6.71	-40.62	42.41	46.21	74.00	27.79	Pass	H	PK
7	1396.4396	28.30	2.89	-42.68	56.29	44.80	74.00	29.20	Pass	V	PK
8	1878.8879	30.90	3.40	-42.67	54.59	46.22	74.00	27.78	Pass	V	PK
9	3191.1127	33.28	4.64	-42.01	51.67	47.58	74.00	26.42	Pass	V	PK
10	4882.0000	34.50	4.81	-40.60	44.32	43.03	74.00	30.97	Pass	V	PK
11	7323.0000	36.42	5.85	-40.91	44.49	45.85	74.00	28.15	Pass	V	PK
12	9764.0000	37.71	6.71	-40.62	42.20	46.00	74.00	28.00	Pass	V	PK

Mode:		GFSK Transmitting					Channel:		2480		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1263.0263	28.16	2.70	-42.82	51.18	39.22	74.00	34.78	Pass	H	PK
2	1599.8600	29.06	3.07	-42.90	52.67	41.90	74.00	32.10	Pass	H	PK
3	2847.9848	32.96	4.23	-42.20	50.98	45.97	74.00	28.03	Pass	H	PK
4	4960.0000	34.50	4.82	-40.53	46.01	44.80	74.00	29.20	Pass	H	PK
5	7440.0000	36.54	5.85	-40.82	43.16	44.73	74.00	29.27	Pass	H	PK
6	9920.0000	37.77	6.79	-40.48	42.75	46.83	74.00	27.17	Pass	H	PK
7	1399.6400	28.30	2.90	-42.68	53.98	42.50	74.00	31.50	Pass	V	PK
8	1833.0833	30.60	3.36	-42.70	53.38	44.64	74.00	29.36	Pass	V	PK
9	2998.9999	33.20	4.55	-42.13	50.37	45.99	74.00	28.01	Pass	V	PK
10	4960.0000	34.50	4.82	-40.53	44.29	43.08	74.00	30.92	Pass	V	PK
11	7440.0000	36.54	5.85	-40.82	44.39	45.96	74.00	28.04	Pass	V	PK
12	9920.0000	37.77	6.79	-40.48	41.90	45.98	74.00	28.02	Pass	V	PK

Mode:		π/4DQPSK Transmitting					Channel:		2402		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1196.6197	28.10	2.66	-42.89	53.20	41.07	74.00	32.93	Pass	H	PK
2	1770.4770	30.19	3.27	-42.70	51.20	41.96	74.00	32.04	Pass	H	PK
3	3061.7541	33.22	4.80	-42.07	50.32	46.27	74.00	27.73	Pass	H	PK
4	4804.0000	34.50	4.55	-40.66	46.19	44.58	74.00	29.42	Pass	H	PK
5	7206.0000	36.31	5.81	-41.02	44.96	46.06	74.00	27.94	Pass	H	PK
6	9608.0000	37.64	6.63	-40.76	44.35	47.86	74.00	26.14	Pass	H	PK
7	1396.0396	28.30	2.89	-42.68	55.51	44.02	74.00	29.98	Pass	V	PK
8	1880.0880	30.91	3.40	-42.67	56.01	47.65	74.00	26.35	Pass	V	PK
9	3194.3630	33.28	4.64	-42.00	50.51	46.43	74.00	27.57	Pass	V	PK
10	4804.0000	34.50	4.55	-40.66	45.29	43.68	74.00	30.32	Pass	V	PK
11	7206.0000	36.31	5.81	-41.02	43.97	45.07	74.00	28.93	Pass	V	PK
12	9608.0000	37.64	6.63	-40.76	43.06	46.57	74.00	27.43	Pass	V	PK

Mode:		π/4DQPSK Transmitting					Channel:		2441		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1486.2486	28.39	2.98	-42.68	52.12	40.81	74.00	33.19	Pass	H	PK
2	1990.8991	31.64	3.46	-42.61	50.90	43.39	74.00	30.61	Pass	H	PK
3	3175.5117	33.27	4.61	-42.01	50.07	45.94	74.00	28.06	Pass	H	PK
4	4882.0000	34.50	4.81	-40.60	45.25	43.96	74.00	30.04	Pass	H	PK
5	7323.0000	36.42	5.85	-40.91	43.25	44.61	74.00	29.39	Pass	H	PK
6	9764.0000	37.71	6.71	-40.62	41.85	45.65	74.00	28.35	Pass	H	PK
7	1394.4394	28.29	2.89	-42.68	55.25	43.75	74.00	30.25	Pass	V	PK
8	1773.8774	30.21	3.27	-42.70	54.89	45.67	74.00	28.33	Pass	V	PK
9	3031.2021	33.21	4.87	-42.10	49.88	45.86	74.00	28.14	Pass	V	PK
10	4882.0000	34.50	4.81	-40.60	45.14	43.85	74.00	30.15	Pass	V	PK
11	7323.0000	36.42	5.85	-40.91	43.48	44.84	74.00	29.16	Pass	V	PK
12	9764.0000	37.71	6.71	-40.62	42.80	46.60	74.00	27.40	Pass	V	PK
13	12205.0000	39.42	7.67	-41.16	42.63	48.56	74.00	25.44	Pass	V	PK

Mode:		π/4DQPSK Transmitting					Channel:		2480		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1454.0454	28.35	2.95	-42.67	51.78	40.41	74.00	33.59	Pass	H	PK
2	1771.2771	30.19	3.27	-42.70	50.50	41.26	74.00	32.74	Pass	H	PK
3	3184.6123	33.27	4.63	-42.01	49.66	45.55	74.00	28.45	Pass	H	PK
4	4960.0000	34.50	4.82	-40.53	44.65	43.44	74.00	30.56	Pass	H	PK
5	7440.0000	36.54	5.85	-40.82	43.58	45.15	74.00	28.85	Pass	H	PK
6	9920.0000	37.77	6.79	-40.48	41.91	45.99	74.00	28.01	Pass	H	PK
7	1393.6394	28.29	2.89	-42.68	54.67	43.17	74.00	30.83	Pass	V	PK
8	1620.0620	29.19	3.10	-42.85	51.39	40.83	74.00	33.17	Pass	V	PK
9	3070.2047	33.23	4.79	-42.08	50.14	46.08	74.00	27.92	Pass	V	PK
10	4960.0000	34.50	4.82	-40.53	46.67	45.46	74.00	28.54	Pass	V	PK
11	7440.0000	36.54	5.85	-40.82	44.92	46.49	74.00	27.51	Pass	V	PK
12	9920.0000	37.77	6.79	-40.48	42.39	46.47	74.00	27.53	Pass	V	PK

Mode:		8DPSK Transmitting					Channel:		2402		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1194.8195	28.09	2.66	-42.87	51.71	39.59	74.00	34.41	Pass	H	PK
2	1503.2503	28.42	2.99	-42.67	50.86	39.60	74.00	34.40	Pass	H	PK
3	2951.3951	33.12	4.40	-42.14	50.99	46.37	74.00	27.63	Pass	H	PK
4	4804.0000	34.50	4.55	-40.66	48.75	47.14	74.00	26.86	Pass	H	PK
5	7206.0000	36.31	5.81	-41.02	43.99	45.09	74.00	28.91	Pass	H	PK
6	9608.0000	37.64	6.63	-40.76	43.30	46.81	74.00	27.19	Pass	H	PK
7	1397.6398	28.30	2.90	-42.69	55.12	43.63	74.00	30.37	Pass	V	PK
8	1872.8873	30.86	3.40	-42.67	55.10	46.69	74.00	27.31	Pass	V	PK
9	3015.6010	33.21	4.90	-42.12	50.13	46.12	74.00	27.88	Pass	V	PK
10	4804.0000	34.50	4.55	-40.66	46.23	44.62	74.00	29.38	Pass	V	PK
11	7206.0000	36.31	5.81	-41.02	44.45	45.55	74.00	28.45	Pass	V	PK
12	9608.0000	37.64	6.63	-40.76	41.93	45.44	74.00	28.56	Pass	V	PK

Mode:		8DPSK Transmitting					Channel:		2441		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1593.2593	29.02	3.06	-42.88	52.42	41.62	74.00	32.38	Pass	H	PK
2	1994.8995	31.67	3.46	-42.61	50.50	43.02	74.00	30.98	Pass	H	PK
3	3281.4688	33.31	4.53	-41.95	50.77	46.66	74.00	27.34	Pass	H	PK
4	4882.0000	34.50	4.81	-40.60	46.15	44.86	74.00	29.14	Pass	H	PK
5	7323.0000	36.42	5.85	-40.91	43.77	45.13	74.00	28.87	Pass	H	PK
6	9764.0000	37.71	6.71	-40.62	42.11	45.91	74.00	28.09	Pass	H	PK
7	1399.0399	28.30	2.90	-42.68	55.66	44.18	74.00	29.82	Pass	V	PK
8	1927.2927	31.22	3.42	-42.65	52.46	44.45	74.00	29.55	Pass	V	PK
9	3208.0139	33.28	4.62	-41.99	50.67	46.58	74.00	27.42	Pass	V	PK
10	4882.0000	34.50	4.81	-40.60	43.96	42.67	74.00	31.33	Pass	V	PK
11	7323.0000	36.42	5.85	-40.91	44.04	45.40	74.00	28.60	Pass	V	PK
12	9764.0000	37.71	6.71	-40.62	41.97	45.77	74.00	28.23	Pass	V	PK

Mode:		8DPSK Transmitting					Channel:		2480		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1451.4451	28.35	2.95	-42.67	51.76	40.39	74.00	33.61	Pass	H	PK
2	1796.0796	30.35	3.31	-42.70	53.05	44.01	74.00	29.99	Pass	H	PK
3	3103.3569	33.24	4.71	-42.06	50.47	46.36	74.00	27.64	Pass	H	PK
4	4960.0000	34.50	4.82	-40.53	46.52	45.31	74.00	28.69	Pass	H	PK
5	7440.0000	36.54	5.85	-40.82	43.39	44.96	74.00	29.04	Pass	H	PK
6	9920.0000	37.77	6.79	-40.48	42.81	46.89	74.00	27.11	Pass	H	PK
7	1395.4395	28.30	2.89	-42.69	55.09	43.59	74.00	30.41	Pass	V	PK
8	1840.6841	30.65	3.37	-42.69	54.39	45.72	74.00	28.28	Pass	V	PK
9	3185.2624	33.27	4.63	-42.01	50.49	46.38	74.00	27.62	Pass	V	PK
10	4960.0000	34.50	4.82	-40.53	44.39	43.18	74.00	30.82	Pass	V	PK
11	7440.0000	36.54	5.85	-40.82	43.91	45.48	74.00	28.52	Pass	V	PK
12	9920.0000	37.77	6.79	-40.48	43.79	47.87	74.00	26.13	Pass	V	PK

Note:

1) Through Pre-scan transmitter mode with all kind of modulation and all kind of data type, find the 1-DH5 of data type is the worse case of GFSK modulation type, the 2-DH5 of data type is the worse case of π/4DQPSK modulation type, he 3-DH5 of data type is the worse case of 8DPSKmodulation type in transmitter mode.

2) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specifi ed above by more than 20 dB under any condition of modulation. So, only the peak values are measured.

3) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading -Correct Factor

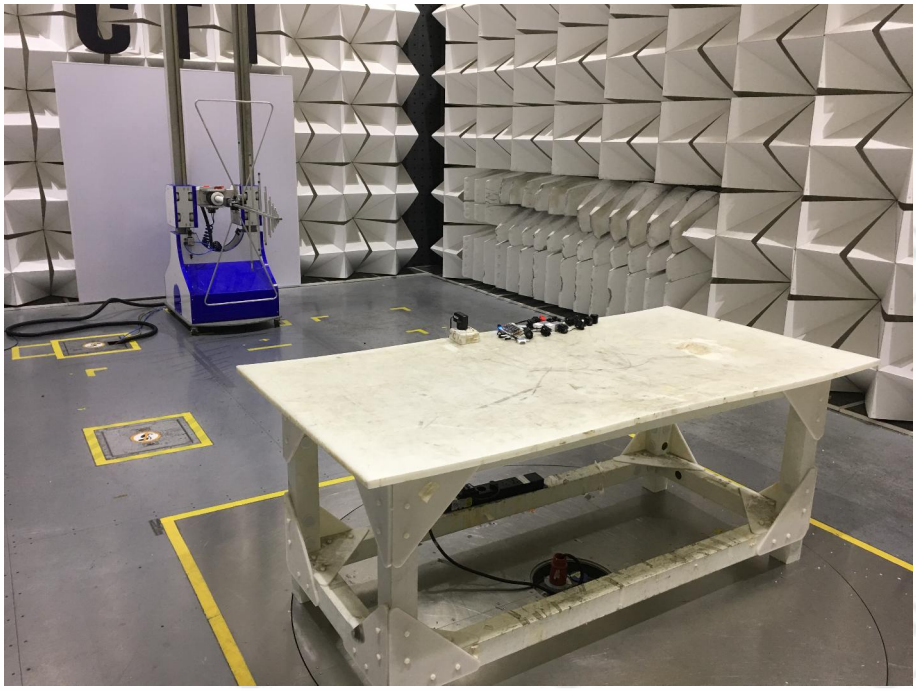
Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

4) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

PHOTOGRAPHS OF TEST SETUP

Test model No.: EREI101

Radiated spurious emission Test Setup-1(Below 30MHz)



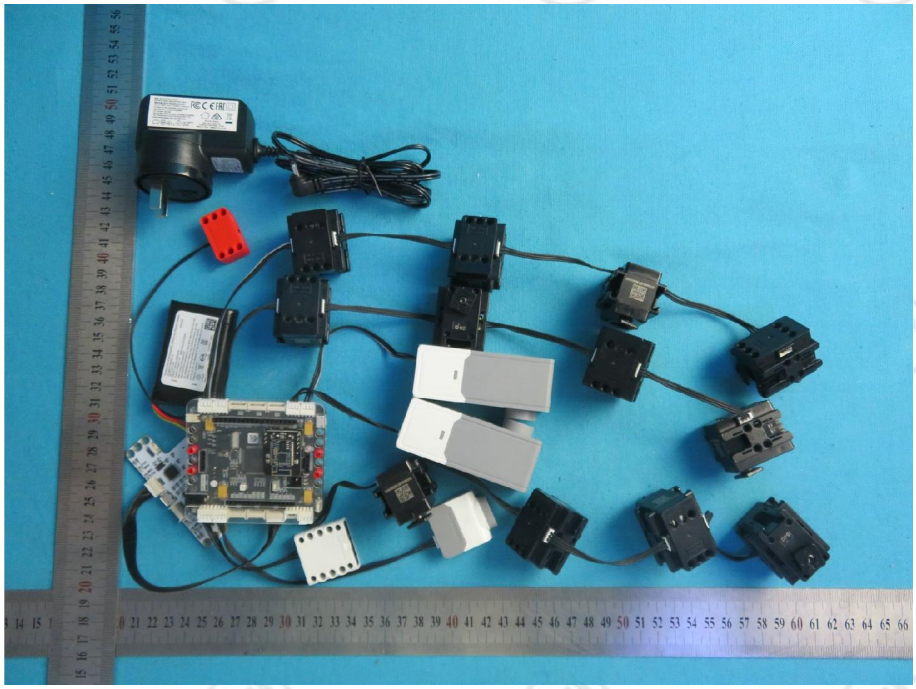
Radiated spurious emission Test Setup-2(30MHz-1GHz)

Radiated spurious emission Test Setup-3(Above 1GHz)

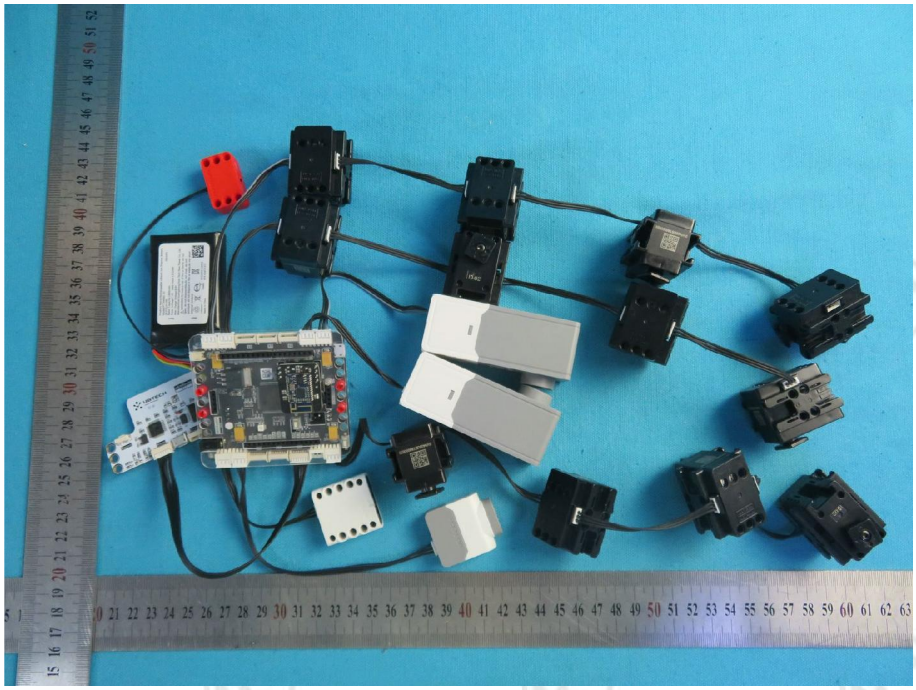
Conducted Emissions Test Setup

PHOTOGRAPHS OF EUT Constructional Details

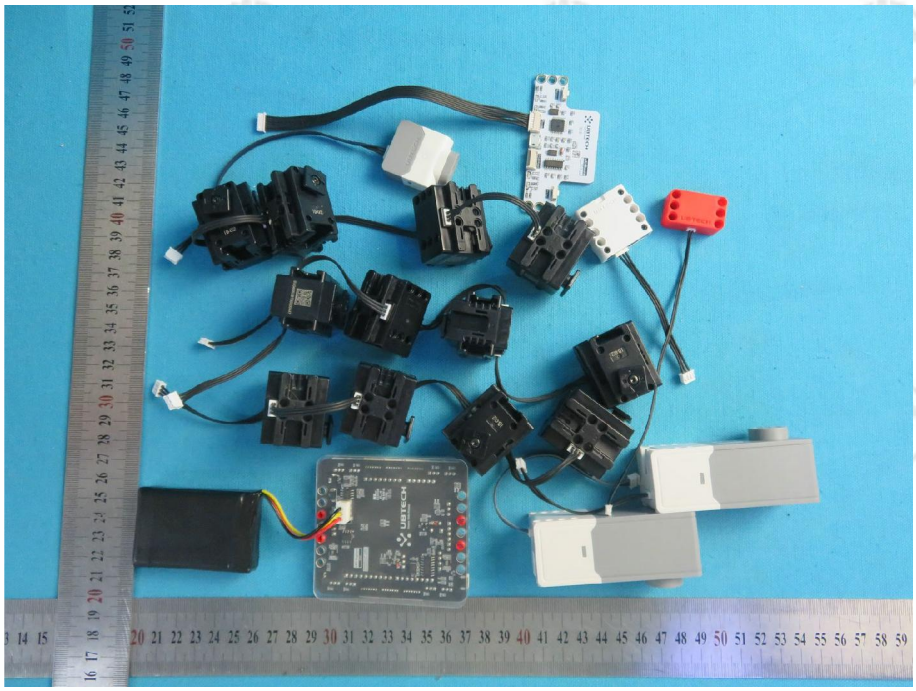
Test model No.: EREI101



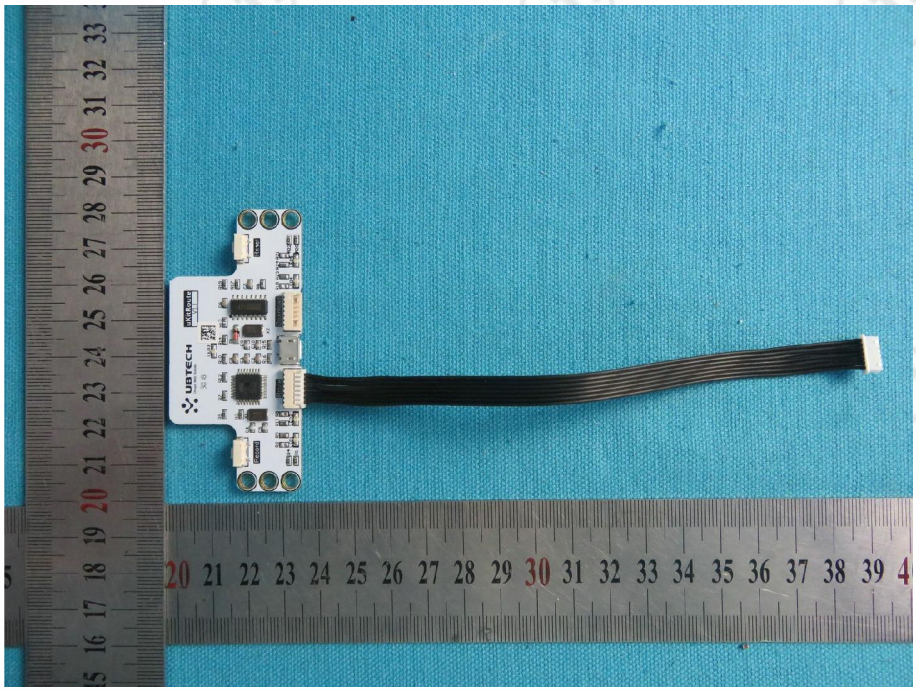
View of Product-1



View of Product-2



View of Product-3



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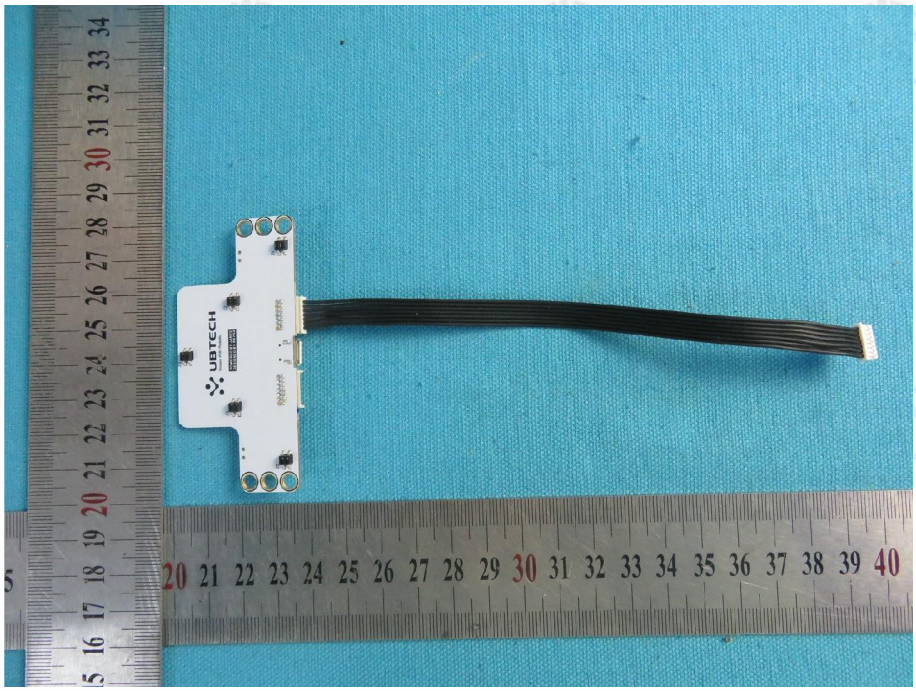

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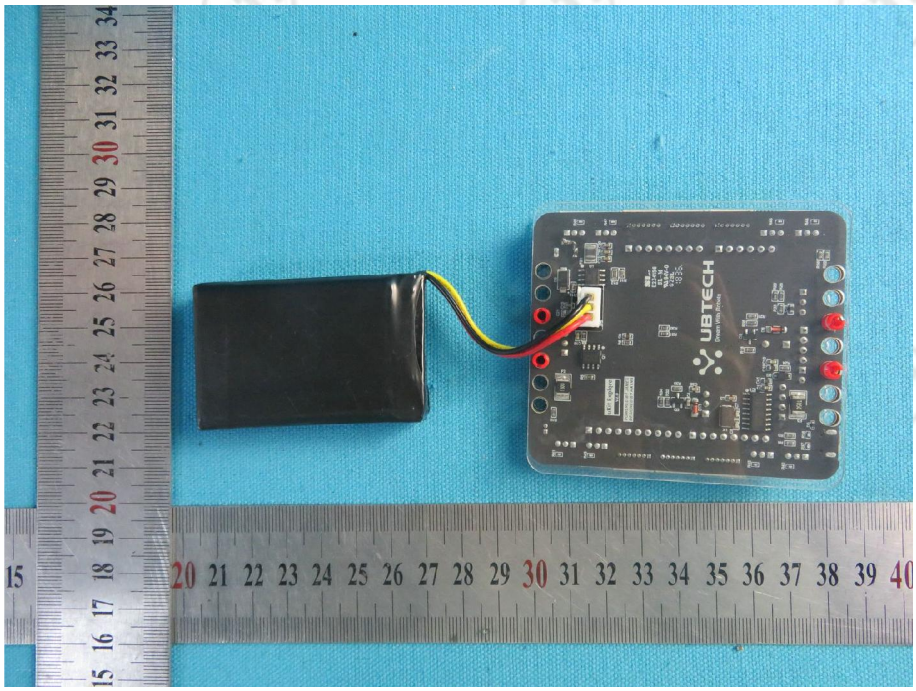
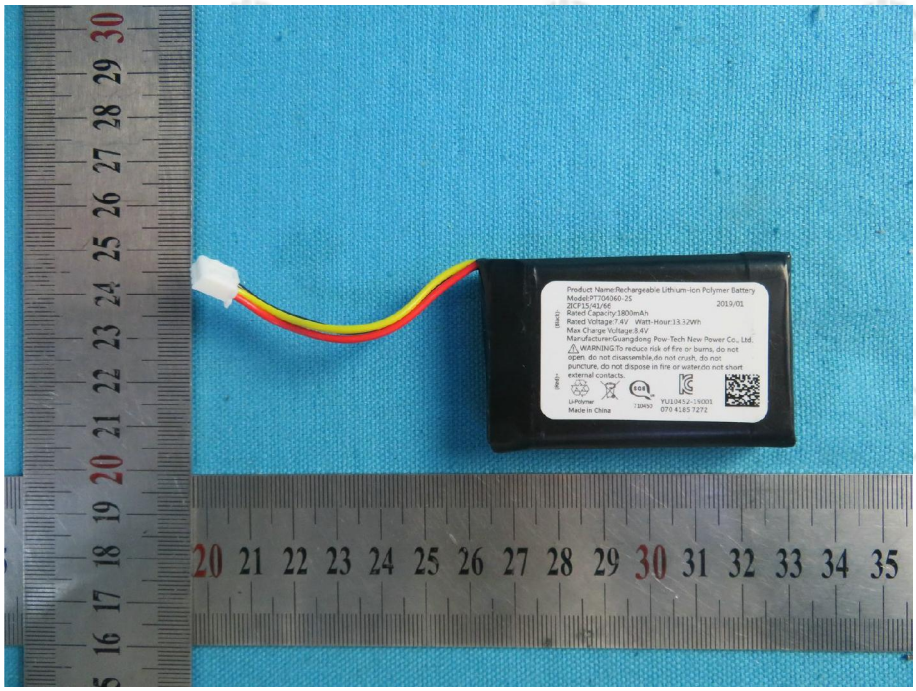
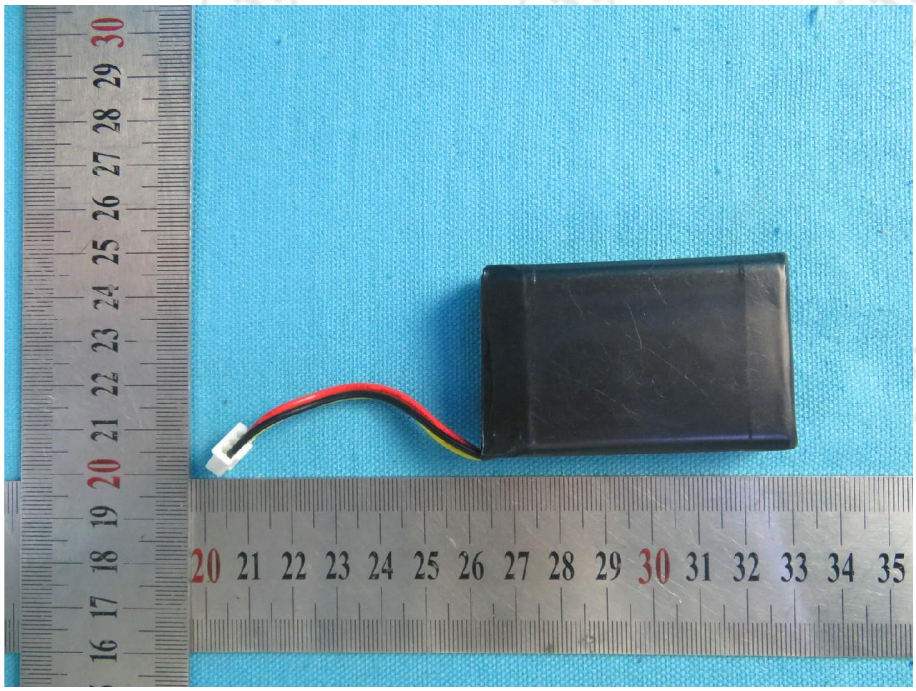


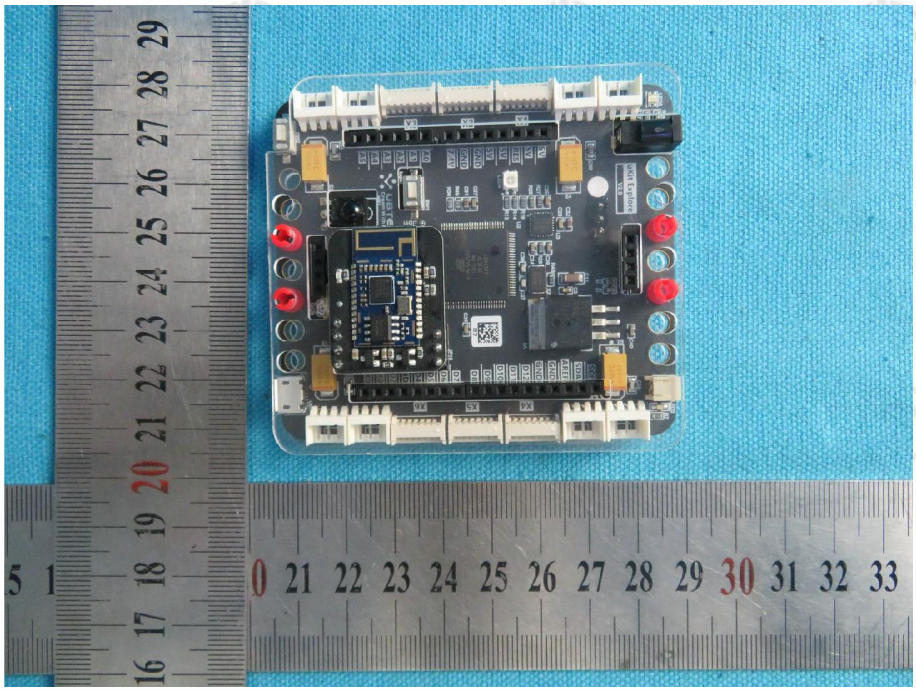
View of Product-6



View of Product-7



View of Product-8



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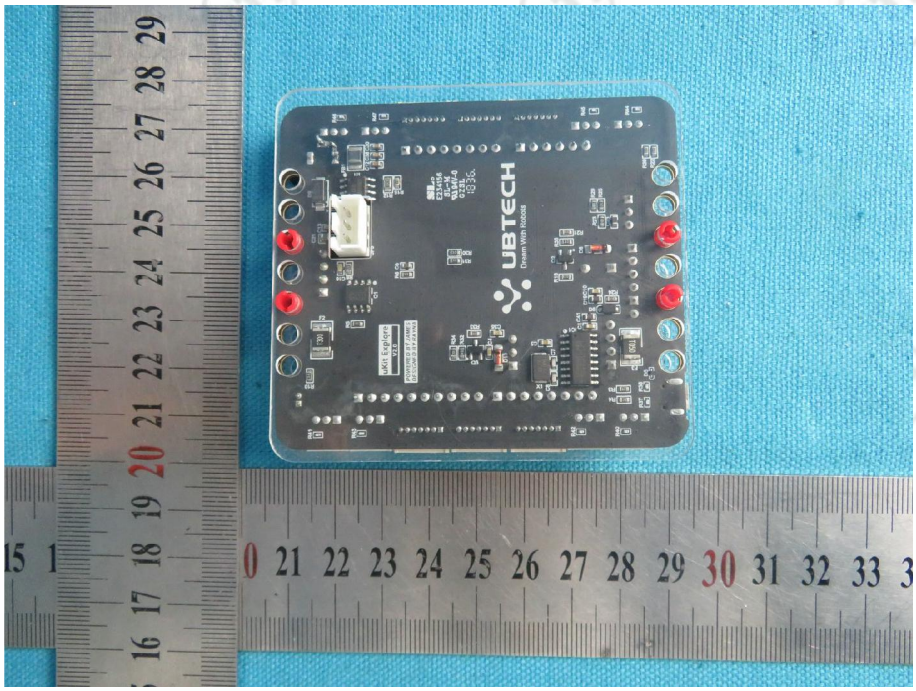
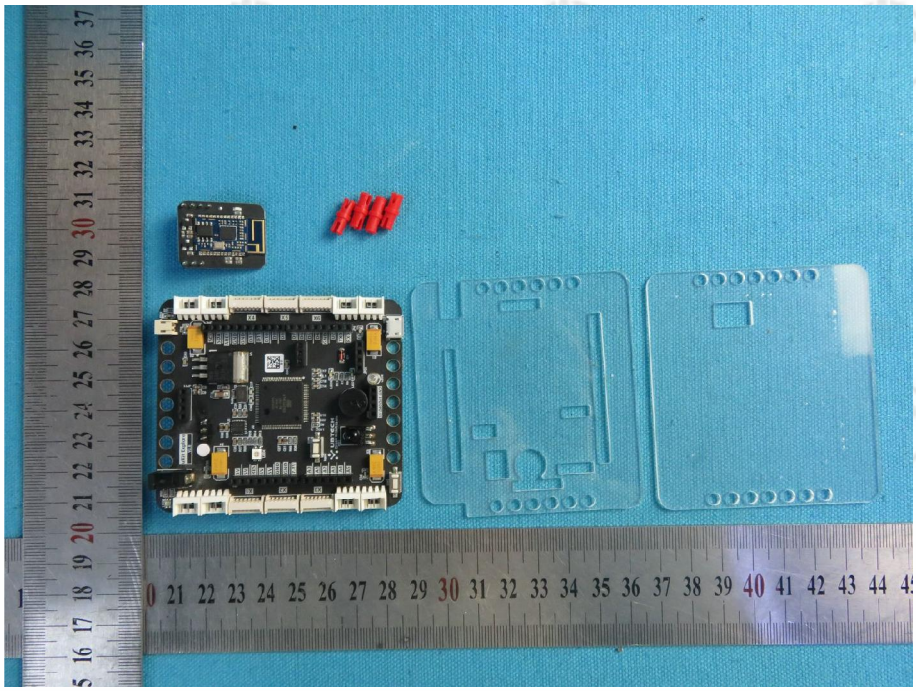
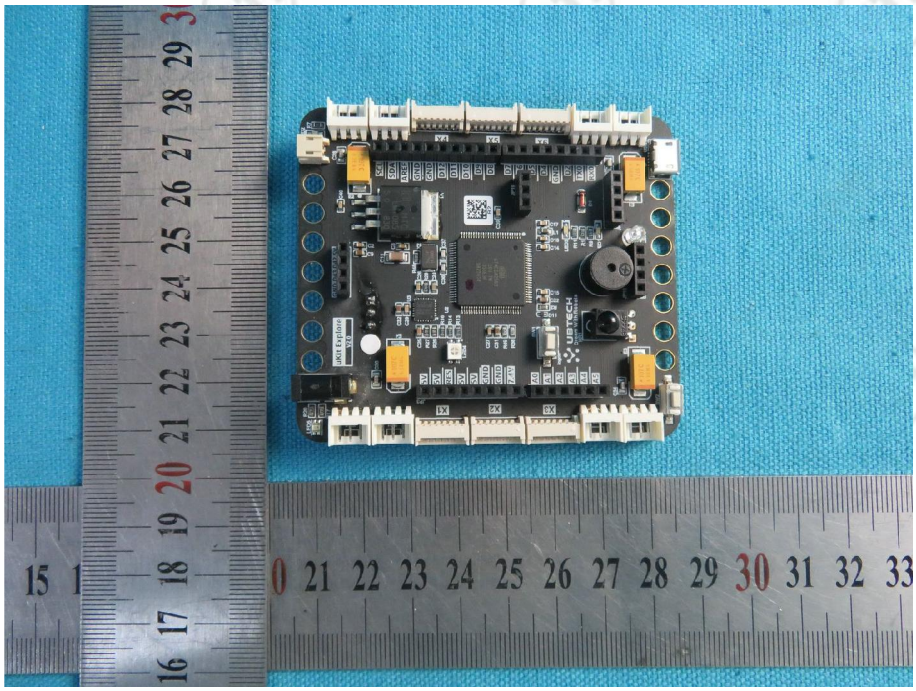


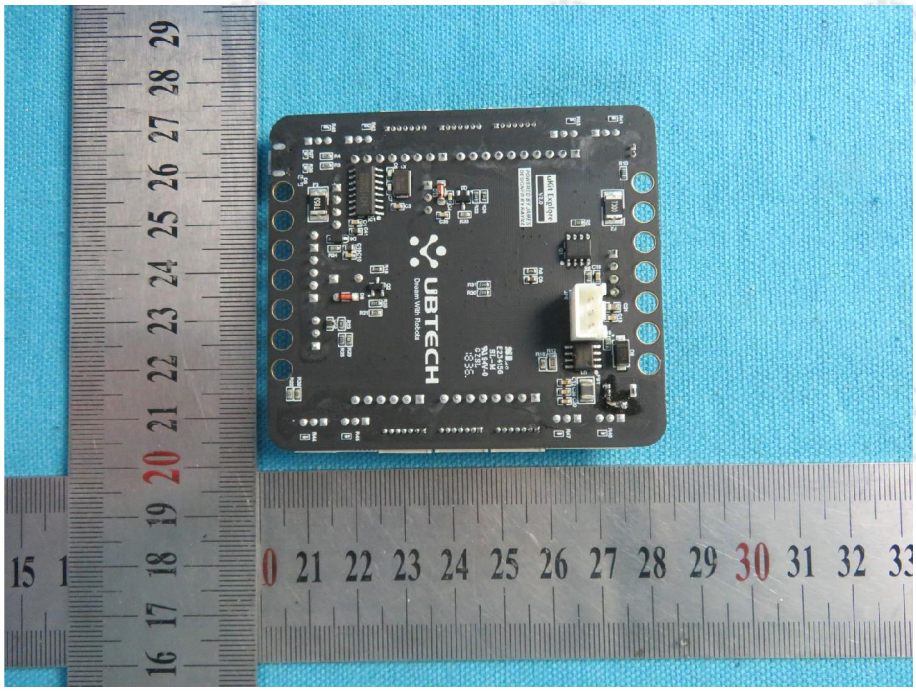
View of Product-10



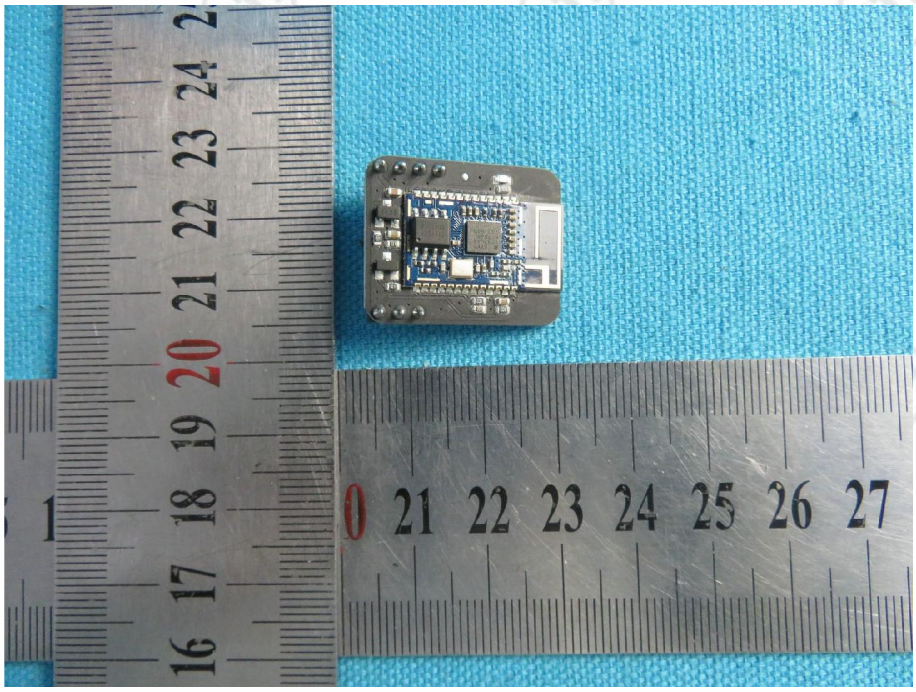
View of Product-11



View of Product-12



View of Product-13



View of Product-14