



FCC TEST REPORT

Test report
On Behalf of
Shenzhen Zidoo Technology Co., Ltd.
For
SMART TV BOX
Model No.: H6 PRO, H6

FCC ID: 2AGN7-H6PRO

Prepared for: Shenzhen Zidoo Technology Co., Ltd.

Room 12 D, Block A CENTRAL GREAT SEARCHINGS, Xixiang Avenue, BaoAn

District, Shenzhen, Guangdong, P.R.C. 518100

Prepared By: Shenzhen HUAK Testing Technology Co., Ltd.

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District, Shenzhen City, China

Date of Test: Jun. 15, 2017 ~ Jun. 26, 2017

Date of Report: Jun. 26, 2017

Report Number: HK1700615040-E

Page 2 of 24 Report No.: **HK1700615040-E**

TEST RESULT CERTIFICATION

• •	Shenzhen Zidoo Technology Co., Ltd.
Address:	Room 12 D, Block A CENTRAL GREAT SEARCHINGS, Xixiang Avenue, BaoAn District, Shenzhen, Guangdong, P.R.C. 518100
Manufacture's Name:	Shenzhen Zidoo Technology Co., Ltd.
Address:	Room 12 D, Block A CENTRAL GREAT SEARCHINGS, Xixiang Avenue, BaoAn District, Shenzhen, Guangdong, P.R.C. 518100
Product description	
Trade Mark:	zidoo
Product name:	SMART TV BOX
Model and/or type reference :	H6 PRO, H6
Standards:	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013
the Shenzhen HUAK Testing source of the material. Shenzhe	
Date (s) of performance of tests .	: Jun. 15, 2017 ~ Jun. 26, 2017
Date of Issue	
Test Result	·
Testing Engine	eer : Xie(Eric Xie)
Technical Man	eager : Dota Qin (Dora Qin)
Authorized Sig	gnatory:
	(Kait Chen)



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8.1 Radiated Emission

8.2 Conducted Emission

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1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST

CONDUCTED EMISSIONS TEST

RADIATED EMISSION TEST

BAND EDGE

OCCUPIED BANDWIDTH MEASUREMENT

ANTENNA REQUIREMENT

RESULT

COMPLIANT

COMPLIANT

COMPLIANT

COMPLIANT

1.2 TEST FACILITY

Test Firm : QTC Certification & Testing Co., Ltd.

Certificated by FCC, Registration No.: 588523

Address 2nd Floor,B1 Building,Fengyeyuan Industrial Plant, Liuxian 2st. Road,

Xin'an Street, Bao'an District, Shenzhen, China

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2 Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2 Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2 Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	SMART TV BOX
Model Name	H6 PRO
Serial No	H6
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: H6 PRO.
FCC ID	2AGN7-H6PRO
Antenna Type	Integral Antenna
Antenna Gain	2 dBi
Operation frequency	2402-2480Mhz
Number of Channels	79CH
Modulation Type	GFSK
Power Source	DC5V, 2A From Adapter With AC 120V/60Hz
Power Rating	DC5V, 2A From Adapter With AC 120V/60Hz



2.1.1 Carrier Frequency of Channels

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

2.2 Operation of EUT during testing

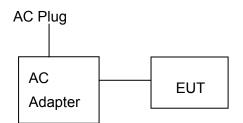
Operating Mode

The mode is used: Transmitting mode

Low Channel: 2402MHz Middle Channel: 2441MHz High Channel: 2480MHz

2.3 DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing and Radiation and Above1GHz Radiation testing:





2.4 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 18, 2017	Feb. 17, 2018
2.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 18, 2017	Feb. 17, 2018
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 18, 2017	1 Year
4.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
5.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Feb. 18, 2017	Feb. 17, 2018
6.	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Feb. 18, 2017	Feb. 17, 2018
7.	Pre-amplifier	Compliance Direction	PAP-0203	22008	Feb. 18, 2017	Feb. 17, 2018
8.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
9.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 18, 2017	Feb. 17, 2018
10.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 18, 2017	Feb. 17, 2018
11.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 18, 2017	Feb. 17, 2018
12.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
13.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 18, 2017	Feb. 17, 2018
14.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 18, 2017	Feb. 17, 2018
15.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 18, 2017	Feb. 17, 2018
16.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 18, 2017	Feb. 17, 2018
17.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
18.	Power Meter	R&S	NRVD	SEL0069	Feb. 18, 2017	Feb. 17, 2018
19.	Power Sensor	R&S	URV5-Z2	SEL0071	Feb. 18, 2017	Feb. 17, 2018
20.	Power Sensor	R&S	URV5-Z2	SEL0072	Feb. 18, 2017	Feb. 17, 2018
21.	Software EMC32	R&S	EMC32-S	SEL0082	N/A	N/A
22.	Log-periodic Antenna	Amplifier Reasearch	APT1.580	SEL0073	Feb. 18, 2017	Feb. 17, 2018
23.	Loop Antenna	Schwarz beck	FMZB 1516	9773	Feb. 18, 2017	Feb. 17, 2018
24.	Broadband Antenna	Schwarz beck	VULB9163	9163-333	Feb. 18, 2017	Feb. 17, 2018
25.	Horn Antenna	ETS	3117	00086197	Feb. 18, 2017	Feb. 17, 2018
26.	Horn Antenna	Schwarzbeck	BBHA9170	BBHA91705 82	Feb. 18, 2017	Feb. 17, 2018
27.	Antenna Tripod	Amplifier Reasearch	TP1000A	SEL0074	Feb. 18, 2017	Feb. 17, 2018
28.	High Gain Horn Antenna	Amplifier Reasearch	AT4002A	SEL0075	Feb. 18, 2017	Feb. 17, 2018
29.	Spectrum analyzer	Agilent	N9020A	MY49911004 8	Feb. 18, 2017	Feb. 17, 2018
30.	Spectrum analyzer	Agilent	E4407B	MY46184326	Feb. 18, 2017	Feb. 17, 2018
31.	Spectrum analyzer	R&S	FSP30	836079/035	Feb. 18, 2017	Feb. 17, 2018



3. CONDUCTED EMISSIONS TEST

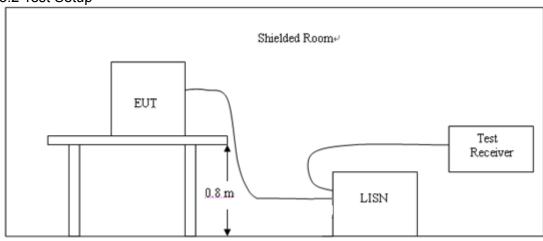
3.1 Conducted Power Line Emission Limit

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Eroguenev	M	Maximum RF Line Voltage (dBμV)						
Frequency (MHz)	CLAS	SS A	CLASS B					
(11112)	Q.P.	Ave.	Q.P.	Ave.				
0.15 - 0.50	79	66	66-56*	56-46*				
0.50 - 5.00	73	60	56	46				
5.00 - 30.0	73	60	60	50				

^{*} Decreasing linearly with the logarithm of the frequency
For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup



3.3 Test Procedure

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.1 meters is used and is placed on the ground plane as per ANSI C63.10.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

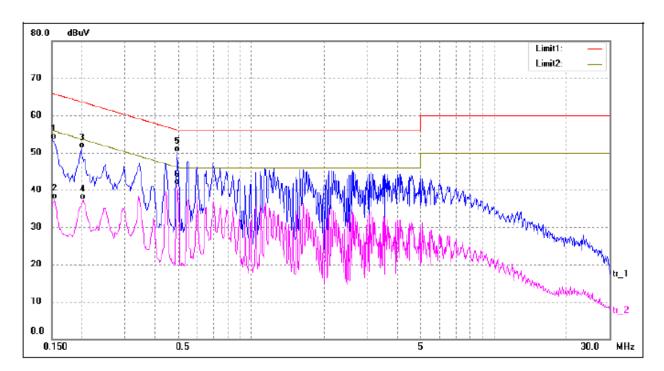
3.4 Test Result

PASS

All the test modes completed for test.



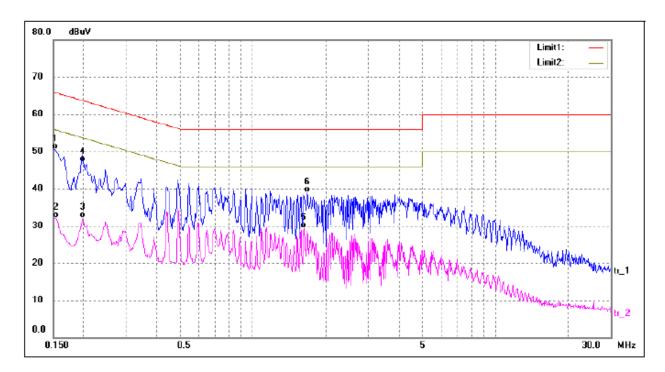
Test Specification: Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1500	43.57	9.85	53.42	66.00	-12.58	QP
2	0.1540	27.69	9.85	37.54	55.78	-18.24	AVG
3	0.1980	41.30	9.80	51.10	63.69	-12.59	QP
4	0.2020	27.51	9.80	37.31	53.53	-16.22	AVG
5	0.4940	40.34	9.80	50.14	56.10	-5.96	QP
6*	0.4940	31.48	9.80	41.28	46.10	-4.82	AVG



Test Specification: Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1500	40.63	9.85	50.48	66.00	-15.52	QP
2	0.1540	22.29	9.85	32.14	55.78	-23.64	AVG
3	0.1980	22.30	9.80	32.10	53.69	-21.59	AVG
4	0.1997	37.37	9.80	47.17	63.62	-16.45	QP
5	1.6300	19.56	9.74	29.30	46.00	-16.70	AVG
6	1.6780	29.08	9.74	38.82	56.00	-17.18	QP



4 RADIATED EMISSION TEST

4.1 Radiation Limit

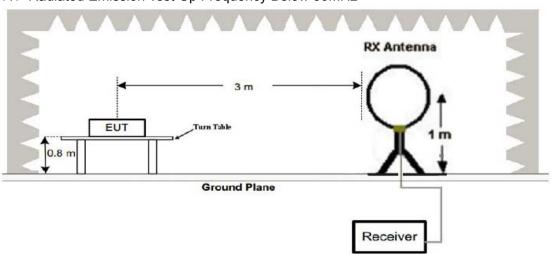
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

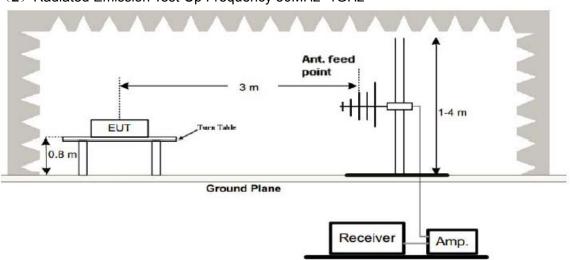
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

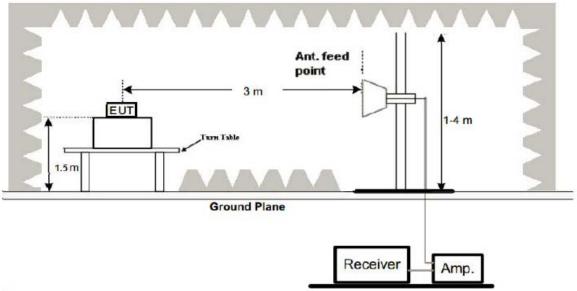
(1) Radiated Emission Test-Up Frequency Below 30MHz



(2) Radiated Emission Test-Up Frequency 30MHz~1GHz



(3) Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

- 1. Below 1GHz measurement the EUT is placed on turntable which is 0.1m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.
- 7. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

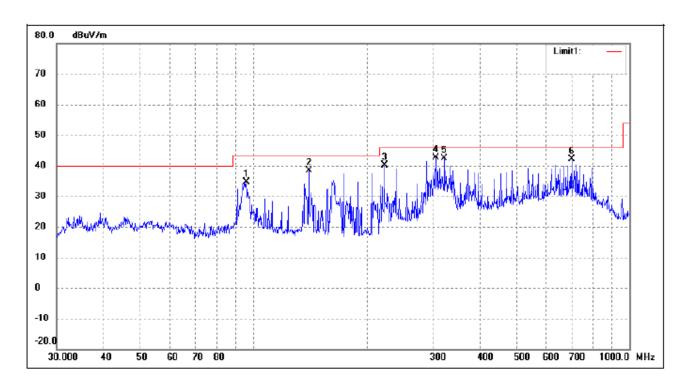
PASS

All the test modes completed for test. The worst case of Radiated Emission; the test data of this mode was reported.



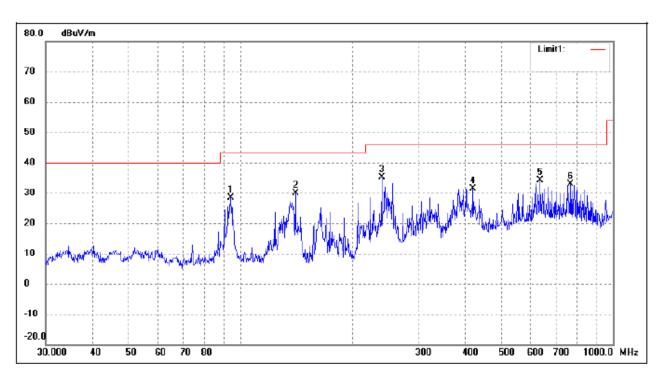
Below 1GHz Test Results:

Antenna polarity: H



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	95.7622	54.70	-20.19	34.51	43.50	-8.99	327	100	peak
2	140.3420	59.68	-21.35	38.33	43.50	-5.17	93	100	peak
3	222.9501	56.86	-16.66	40.20	46.00	-5.80	120	100	peak
4	305.6800	55.25	-12.53	42.72	46.00	-3.28	111	100	peak
5	322.1886	54.65	-12.38	42.27	46.00	-3.73	281	100	peak
6	701.7609	46.82	-4.76	42.06	46.00	-3.94	262	100	peak

Antenna polarity: V



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	94.0979	48.82	-20.44	28.38	43.50	-15.12	212	100	peak
2	140.3421	51.33	-21.35	29.98	43.50	-13.52	100	100	peak
3	239.1473	50.83	-15.60	35.23	46.00	-10.77	181	100	peak
4	420.5803	42.75	-11.32	31.43	46.00	-14.57	95	100	peak
5	636.1340	38.37	-4.15	34.22	46.00	-11.78	163	100	peak
6	768.7482	37.05	-4.10	32.95	46.00	-13.05	274	100	peak

Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
- (2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.



Above 1 GHz Test Results:

CH Low (2402MHz) Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	D. L. L.
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	112.67	-5.84	106.83	114	-7.17	peak
2402	85.13	-5.84	79.29	94	-14.71	AVG
4804	56.48	-3.64	52.84	74	-21.16	peak
4804	45.24	-3.64	41.6	54	-12.4	AVG
7206	52.35	-0.95	51.4	74	-22.6	peak
7206	41.56	-0.95	40.61	54	-13.39	AVG
Remark: Facto	or = Antenna Fac	tor + Cable Lo	ss – Pre-amplifier.			

Vertical:

	Meter Reading	Factor	Emission Level	Limits	Margin	Bataataa
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	111.76	-5.84	105.92	114	-8.08	peak
2402	84.54	-5.84	78.7	94	-15.3	AVG
4804	55.48	-3.64	51.84	74	-22.16	peak
4804	45.31	-3.64	41.67	54	-12.33	AVG
7206	53.62	-0.95	52.67	74	-21.33	peak
7206	38.17	-0.95	37.22	54	-16.78	AVG



CH Middle (2441MHz) Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastas	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2441	110.55	-5.71	104.84	114	-9.16	peak	
2441	85.39	-5.71	79.68	94	-14.32	AVG	
4882	55.42	-3.51	51.91	74	-22.09	peak	
4882	45.73	-3.51	42.22	54	-11.78	AVG	
7323	54.16	-0.82	53.34	74	-20.66	peak	
7323	36.84	-0.82	36.02	54	-17.98	AVG	
Remark: Fact	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2441	108.69	-5.71	102.98	114	-11.02	peak
2441	84.25	-5.71	78.54	94	-15.46	AVG
4882	55.72	-3.51	52.21	74	-21.79	peak
4882	45.18	-3.51	41.67	54	-12.33	AVG
7323	53.06	-0.82	52.24	74	-21.76	peak
7323	37.54	-0.82	36.72	54	-17.28	AVG

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CH High (2480MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2480	107.56	-5.65	101.91	114	-12.09	peak	
2480	84.32	-5.65	78.67	94	-15.33	AVG	
4960	55.27	-3.43	51.84	74	-22.16	peak	
4960	43.16	-3.43	39.73	54	-14.27	AVG	
7440	52.94	-0.75	52.19	74	-21.81	peak	
7440	37.15	-0.75	36.4	54	-17.6	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastan	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2480	106.36	-5.65	100.71	114	-13.29	peak	
2480	82.59	-5.65	76.94	94	-17.06	AVG	
4960	54.11	-3.43	50.68	74	-23.32	peak	
4960	42.47	-3.43	39.04	54	-14.96	AVG	
7440	55.62	-0.75	54.87	74	-19.13	peak	
7440	37.18	-0.75	36.43	54	-17.57	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



5 BAND EDGE

5.1 Limits

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

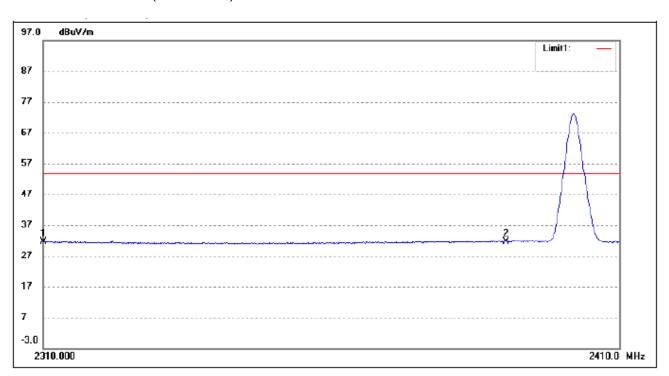
5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 100KHz and VBM to 300KHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength. The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz, to measure the conducted peak band edge.

5.3 Test Result

PASS

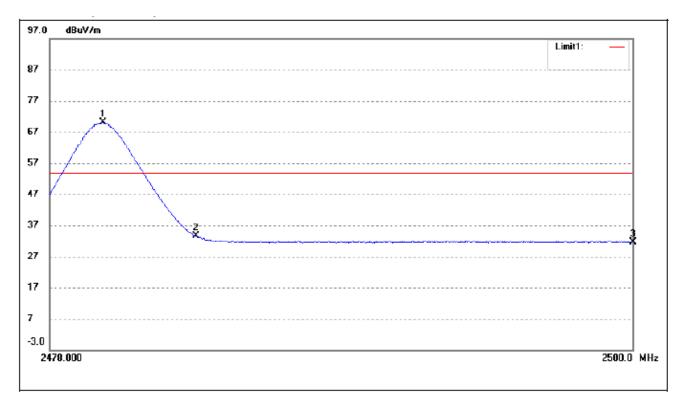
Restricted Bandedge (Radiated) Lowest Bandedge Horizontal (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	35.29	-3.69	31.60	54.00	-22.40	Average Detector
	2310.000	47.99	-3.69	44.30	74.00	-29.70	Peak Detector
2	2390.000	35.23	-3.49	31.74	54.00	-22.26	Average Detector
	2390.000	49.23	-3.49	45.74	74.00	-28.26	Peak Detector

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Highest Bandedge Horizontal (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2479.994	73.28	-3.25	70.03	/	/	Average Detector
	2479.819	77.23	-3.25	73.98	/	/	Peak Detector
2	2483.500	36.85	-3.25	33.60	54.00	-20.40	Average Detector
	2483.500	48.27	-3.25	45.02	74.00	-28.98	Peak Detector
3	2500.000	34.95	-3.20	31.75	54.00	-22.25	Average Detector
	2500.000	47.29	-3.20	44.09	74.00	-29.91	Peak Detector





6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Setup

Same as Radiated Emission Measurement

6.2 Test Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Set EUT as normal operation.
- 3. Based on FCC Part15 C Section 15.249(a): RBW= 30KHz. VBW= 300 KHz, Span=3MHz.
- 4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

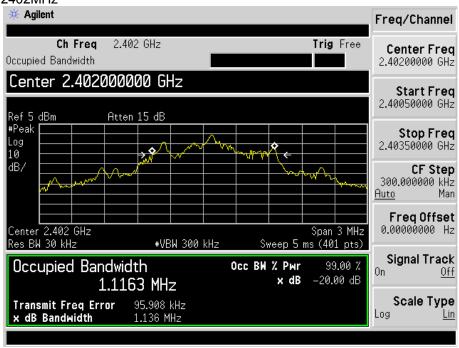
Same as Radiated Emission Measurement

6.4 Test Result

PASS

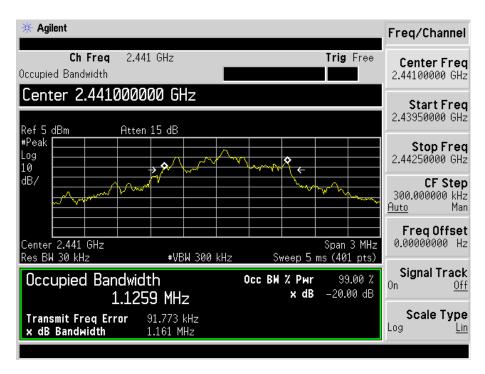
Frequency	20dB Bandwidth (KHz)	Result
2402 MHz	1136	PASS
2441 MHz	1161	PASS
2480 MHz	1163	PASS

CH: 2402MHz

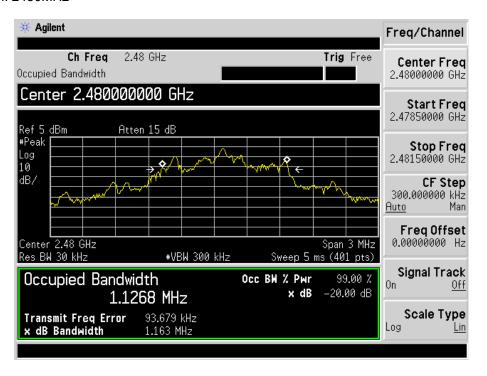




CH: 2441MHz



CH: 2480MHz





7 ANTENNA REQUIREMENT

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.249, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

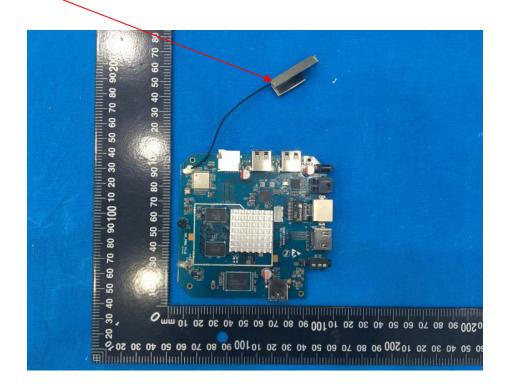
Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The antenna used in this product is a Integral Antenna, The directional gains of antenna used for transmitting is 2dBi.

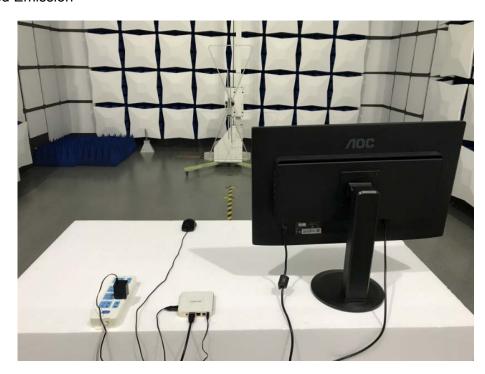
ANTENNA

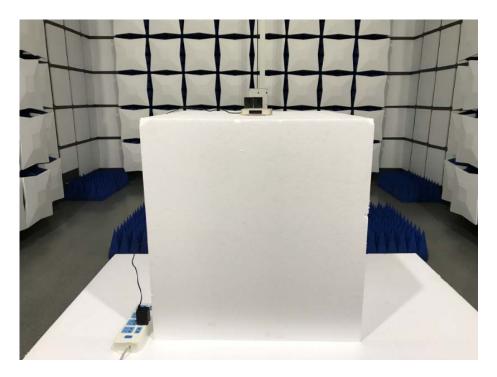




8 PHOTOGRAPH OF TEST

8.1 Radiated Emission







8.2 Conducted Emission

