

# FCC PART 15.247 MEASUREMENT AND TEST REPORT

For

# **Shenzhen CE and IT Limited**

113 Zhenxing Road, Xinxin Building, Tower B, Suite 501, Futian District, Shenzhen, China

FCC ID: YG5STEALTH-9

Report Type: Product Type:
Original Report Tablets

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**Report Number:** RSZ130514006-00B

**Report Date:** 2013-06-18

**Reviewed By:** RF Engineer

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**Note**: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

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#### **GENERAL INFORMATION**

#### **Product Description for Equipment under Test (EUT)**

The Shenzhen CE and IT Limited's product, model number: Trio Stealth - 9 (FCC ID: YG5STEALTH-9) or the "EUT" as referred to in this report was named Tablets by applicant, which was measured approximately: 262.6 mm(L) x 159.8 mm (W) x 12.0 mm (H), rated with input voltage: DC 3.7V rechargeable Li-ion battery and DC 5V charging from adapter.

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Adapter information

Model: AW018WR-0500250UH Input: 100-240V~ 50/60Hz 0.5A

Output: DC 5.0V 2.5A

\* All measurement and test data in this report was gathered from production sample serial number: 1305059 (Assigned by the BACL, Shenzhen). The EUT supplied by the applicant was received on 2013-05-14.

#### **Objective**

This report is prepared on behalf of *Shenzhen CE and IT Limited in* accordance with Part 2-Subpart J, Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This equipment has the same radio frequency circuitry with previous approved product Tablets (FCC ID: YG5STEALTH-8), they share the same PCB layout, antenna location and antenna type, and they also have the same RF output power and software setup procedure, please refer to the declaration letter provided by the applicant.

#### **Related Submittal(s)/Grant(s)**

FCC Part 15B JBP submission with FCC ID: YG5STEALTH-9.

#### **Test Methodology**

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

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#### **Test Facility**

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, Shihua Road, Futian Free Trade Zone Shenzhen, Guangdong, China.

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Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

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#### SYSTEM TEST CONFIGURATION

#### **Description of Test Configuration**

For 802.11b, 802.11g mode, 802.11n-HT20 and 802.11n-HT40 mode, 11 channels are provided to testing:

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Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

EUT for 802.11b, 802.11g and 802.11n-HT20 modes were tested with Channel 1, 6 and 11. 802.11n-HT40 modes were tested with Channel 3, 6 and 9.

For 802.11n40 mode, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2422	6	2447
2	2427	7	2452
3	2432	/	/
4	2437	/	/
5	2442	/	/

EUT was tested with Channel 1, 4 and 7.

The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all date rates bandwidths, and modulations.

#### **EUT Exercise Software**

WiFi RF test built-in the the EUT.

The test was performed under:

802.11b: Data rate: 1 Mbps.Power level: 42 802.11g: Data rate: 6 Mbps. Power level: 32 802.11n-HT20: Data rate: MCS0. Power level: 30 802.11n-HT40: Data rate: MCS0. Power level: 30

#### **Equipment Modifications**

No modification was made to the EUT tested.

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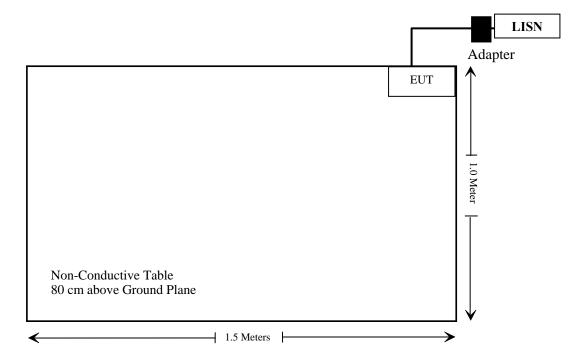
# **Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
/	/	/	/

# **External I/O Cabling List and Details**

Cable Description	Length (m)	From	То
Unshielded Detachable Adapter Cable	1.45	Adapter	EUT

# **Block Diagram of Test Setup**



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# **SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§15.247 (i), §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	Conducted Emissions	Compliance
§15.247(d)	Spurious Emissions at Antenna Port	Compliance*
\$15.205, \$15.209, \$15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance*
§15.247(b)(3)	Maximum Peak Output Power	Compliance*
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	Compliance*
§15.247(e)	Power Spectral Density	Compliance*

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Note: Compliant\* - Based on the applicant's declaration, this equipment has the same radio frequency circuitry with previous approved product Tablets (FCC ID: YG5STEALTH-8), the relevant test report from original filing can be accurately represented the test results under the new conditions.

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# §15.247 (i) and §1.1307 (b) (1), §2.1093 – RF EXPOSURE

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# **Standard Applicable**

According to FCC §15.247 (i) & §2.1093

**Result:** Compliant

Please refer to the SAR report, report No.: RSZ130514006-20.

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# FCC §15.203 - ANTENNA REQUIREMENT

#### **Applicable Standard**

According to § 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

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- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

#### Results

The EUT has one integrated antenna arrangement, which was permanently attached and the gain was 2.0 dBi, fulfill the requirement of this section. Please refer to the internal photos.

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# FCC §15.207 (a) - CONDUCTED EMISSIONS

#### **Applicable Standard**

According to FCC§15.207

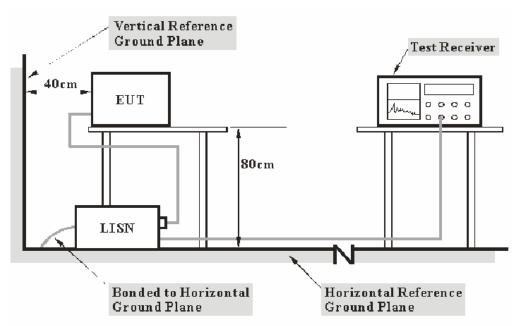
#### **Measurement Uncertainty**

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is 2.4 dB (k=2, 95% level of confidence), and the uncertainty will not be taken into consideration for the test data recorded in the report.

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#### **EUT Setup**



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

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

The setup of EUT is according with ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120  $V_{AC}/60~Hz$  power source.

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#### **EMI Test Receiver Setup**

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W	
150 kHz – 30 MHz	9 kHz	

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## **Test Equipment List and Details**

Manufacturer	Description	Description Model		Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2012-08-08	2013-08-08
Rohde & Schwarz	First L.I.S.N.	ESH2-Z5	892107/021	2012-08-22	2013-08-21
COM-POWER	2 <sup>nd</sup> LISN	LI-200	12208	NCR	NCR
BACL	CE Test software	BACL-CE	V1.0	-	-

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

#### **Test Procedure**

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

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#### **Corrected Factor & Margin Calculation**

The Corrected factor is calculated by adding LISN/ISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

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Correction Factor = LISN VDF + Cable Loss

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

 $Margin = Limit - Corrected\ Amplitude$ 

#### **Test Results Summary**

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, with the worst margin reading of:

5.6 dB at 0.440996 MHz in the Line conducted mode

#### **Test Data**

#### **Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

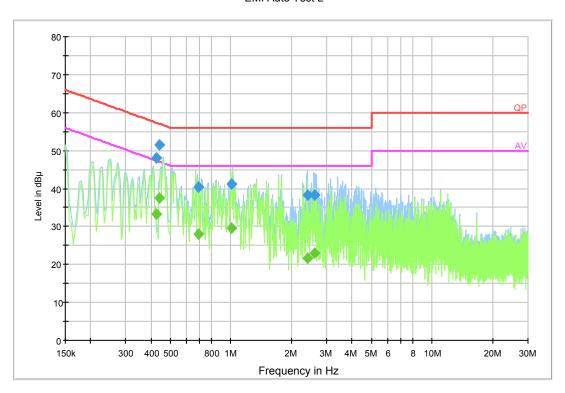
The testing was performed by Kyle Xu on 2013-05-18.

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EUT operation mode: Charging & Transmitting

#### **AC 120V / 60Hz - Line**

EMI Auto Test L

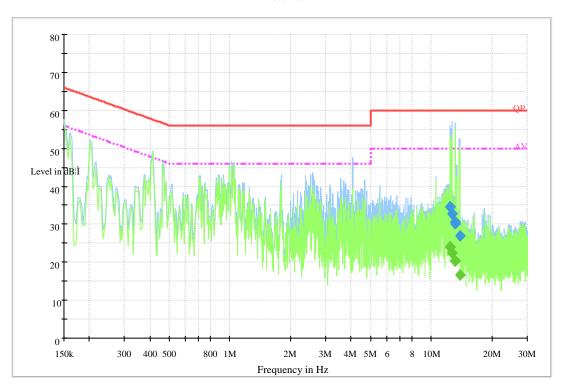


Frequency (MHz)	Corrected Amplitude (dBµV)	Corrected Factor (dB)	Limit (dBµV)	Margin (dB)	Remark (PK/ QP/Ave)
0.440996	51.4	0.4	57.0	5.6	QP
0.426944	48.0	0.4	57.3	9.3	QP
0.440996	37.6	0.4	47.0	9.4	Ave.
0.426944	33.4	0.4	47.3	13.9	Ave.
1.007987	41.2	0.4	56.0	14.8	QP
0.688213	40.4	0.4	56.0	15.6	QP
1.007987	29.7	0.4	46.0	16.3	Ave.
2.398137	38.4	0.4	56.0	17.6	QP
2.601752	38.2	0.4	56.0	17.8	QP
0.688213	28.1	0.4	46.0	17.9	Ave.
2.601752	22.9	0.4	46.0	23.1	Ave.
2.398137	21.7	0.4	46.0	24.3	Ave.

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#### AC 120V / 60Hz-Neutral:





Frequency (MHz)	Corrected Amplitude (dBµV)	Corrected Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/QP/Ave.)
12.469236	34.6	0.6	60.0	25.4	QP
12.474077	34.5	0.6	60.0	25.5	QP
12.469236	24.1	0.6	50.0	25.9	Ave.
12.474077	24.0	0.6	50.0	26.0	Ave.
12.747712	32.9	0.7	60.0	27.1	QP
12.747712	22.5	0.7	50.0	27.5	Ave.
13.089417	30.5	0.7	60.0	29.5	QP
13.089417	20.4	0.7	50.0	29.6	Ave.
13.091578	20.3	0.7	50.0	29.7	Ave.
13.091578	30.2	0.7	60.0	29.8	QP
13.851028	26.9	0.7	60.0	33.1	QP
13.851028	16.5	0.7	50.0	33.5	Ave.

#### Note:

- 1) Correction Factor =LISN/ISN VDF (Voltage Division Factor) + Cable Loss The corrected factor has been input into the transducer of the test software.
- 2) Corrected Amplitude = Reading + Correction Factor
  3) Margin = Limit Corrected Amplitude

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# FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

#### **Applicable Standard**

FCC §15.247 (d); §15.209; §15.205;

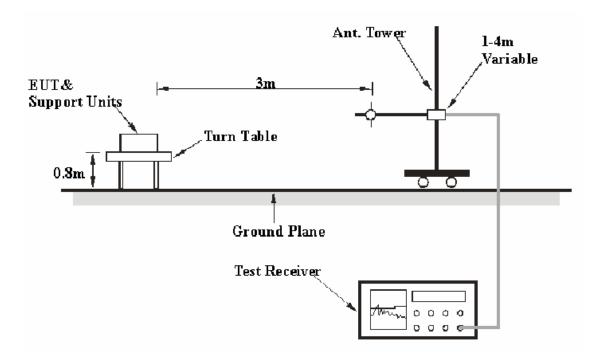
#### **Measurement Uncertainty**

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

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Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is 4.0 dB(k=2, 95% level of confidence), and the uncertainty will not be taken into consideration for the test data recorded in the report.

#### **EUT Setup**



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

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#### **EMI Test Receiver & Spectrum Analyzer Setup**

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

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Frequency Range	RBW Video B/W		IF B/W	Detector	
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP	
Above 1 GHz	1MHz	3 MHz	/	PK	
Above I GHZ	1MHz	10 Hz	/	Ave.	

#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2012-11-24	2013-11-23
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2012-11-24	2013-11-24
Sunol Sciences	Broadband Antenna	ЈВ1	A040904-2	2011-11-28	2014-11-27
Super Ultra	Amplifier	ZVA-213+	N/A	2012-11-24	2013-11-23
Sunol Sciences	Horn Antenna	DRH-118	A052304	2011-12-01	2014-11-30
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23
the electro- Mechanics Co.	Horn Antenna	3116	9510-2270	2010-10-14	2013-10-13

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

#### **Test Procedure**

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz and peak and Average detection modes for frequencies above 1 GHz.

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#### **Corrected Amplitude & Margin Calculation**

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

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Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

#### **Test Results Summary**

According to the recorded data in following table, the EUT complied with the <u>FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247</u>, with the worst margin reading of:

11.08 dB at 4824.0 MHz in the Horizontal polarization for 802.11b mode

#### **Test Data**

#### **Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	50 %
ATM Pressure:	100.0 kPa

The testing was performed by Kyle Xu on 2013-05-20.

EUT operation mode: Transmitting

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30 MHz-25 GHz 802.11b mode:

Frequency	R	eceiver	Turntable	Rx An	tenna	Corrected	Corrected	FCC 1 15.247/15.2	
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	Factor (dB)	Amplitude (dBμV/m)	Limit (dBµV/m)	Margin (dB)
			Low C	Channel (2	2412 MH	z)			
2412.0	101.78	PK	35	1.2	Н	6.13	107.91	/	/
2412.0	96.34	Ave.	35	1.2	Н	6.13	102.47	/	/
2412.0	100.37	PK	11	1.1	V	6.13	106.50	/	/
2412.0	94.91	Ave.	11	1.1	V	6.13	101.04	/	/
4824.0	30.52	Ave.	68	1.3	Н	12.40	42.92	54	11.08
498.7	42.44	QP	120	1.2	V	-10.10	32.34	46	13.66
9648.0	17.43	Ave.	153	1.1	Н	19.29	36.72	54	17.28
4824.0	43.27	PK	68	1.3	Н	12.40	55.67	74	18.33
7236.0	18.74	Ave.	74	1.2	Н	16.62	35.36	54	18.64
2493.5	27.99	Ave.	112	1.1	Н	7.21	35.20	54	18.80
9648.0	32.66	PK	153	1.1	Н	19.29	51.95	74	22.05
2335.5	25.42	Ave.	74	1.3	Н	5.48	30.90	54	23.10
2384.6	24.39	Ave.	101	1.2	Н	6.13	30.52	54	23.48
7236.0	32.03	PK	74	1.2	Н	16.62	48.65	74	25.35
2493.5	40.59	PK	112	1.1	Н	7.21	47.80	74	26.20
2335.5	38.08	PK	74	1.3	Н	5.48	43.56	74	30.44
2384.6	36.51	PK	101	1.2	Н	6.13	42.64	74	31.36
			Middle	Channel (	(2437 MI	Hz)			
2437.0	101.35	PK	68	1.2	Н	7.21	108.56	/	/
2437.0	96.75	Ave.	68	1.2	Н	7.21	103.96	/	/
2437.0	99.71	PK	16	1.1	V	7.21	106.92	/	/
2437.0	93.78	Ave.	16	1.1	V	7.21	100.99	/	/
4874.0	29.64	Ave.	85	1.2	Н	12.46	42.10	54	11.90
498.7	42.37	QP	39	1.3	V	-10.10	32.27	46	13.73
9748.0	17.29	Ave.	32	1.2	V	19.40	36.69	54	17.31
4874.0	43.21	PK	85	1.2	Н	12.46	55.67	74	18.33
7311.0	18.67	Ave.	66	1.1	Н	16.49	35.16	54	18.84
2492.6	27.29	Ave.	73	1.1	Н	7.21	34.50	54	19.50
2329.8	26.94	Ave.	77	1.0	V	5.48	32.42	54	21.58
9748.0	32.58	PK	32	1.2	V	19.40	51.98	74	22.02
2381.4	24.98	Ave.	36	1.1	V	6.13	31.11	54	22.89
7311.0	33.25	PK	66	1.1	Н	16.49	49.74	74	24.26
2492.6	41.22	PK	73	1.1	Н	7.21	48.43	74	25.57
2329.8	37.96	PK	77	1.0	V	5.48	43.44	74	30.56
2381.4	37.22	PK	36	1.1	V	6.13	43.35	74	30.65

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Frequency	Receiver		Turntable	Rx Antenna		Corrected Factor	Corrected	FCC Part 15.247/15.205/15.209	
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	(dB)	Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	High Channel(2462 MHz)								
2462.0	101.81	PK	321	1.2	Н	7.21	109.02	/	/
2462.0	95.39	Ave.	321	1.2	Н	7.21	102.60	/	/
2462.0	100.44	PK	58	1.1	V	7.21	107.65	/	/
2462.0	94.16	Ave.	58	1.1	V	7.21	101.37	/	/
4924.0	29.63	Ave.	25	1.3	Н	12.50	42.13	54	11.87
498.7	42.99	QP	93	1.6	V	-10.10	32.89	46	13.11
9848.0	17.67	Ave.	74	1.1	Н	19.39	37.06	54	16.94
4924.0	43.12	PK	25	1.3	Н	12.50	55.62	74	18.38
2499.9	28.21	Ave.	31	1.1	V	7.21	35.42	54	18.58
7386.0	18.64	Ave.	13	1.2	V	15.91	34.55	54	19.45
9848.0	33.21	PK	74	1.1	Н	19.39	52.60	74	21.40
2339.8	25.67	Ave.	33	1.3	Н	5.48	31.15	54	22.85
2382.9	24.67	Ave.	74	1.2	Н	6.13	30.80	54	23.20
7386.0	33.25	PK	13	1.2	V	15.91	49.16	74	24.84
2499.9	41.39	PK	31	1.1	V	7.21	48.60	74	25.40
2339.8	38.27	PK	33	1.3	Н	5.48	43.75	74	30.25
2382.9	36.69	PK	74	1.2	Н	6.13	42.82	74	31.18

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802.11g mode:

Frequency	R	eceiver	Turntable	Rx An	tenna	Corrected	Corrected Amplitude	FCC 1 15.247/15.2	
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	Factor (dB)	(dBµV/m)	Limit (dBµV/m)	Margin (dB)
			Low (	Channel (2	2412 MH	z)			
2412.0	95.43	PK	39	1.2	Н	6.13	101.56	/	/
2412.0	82.05	Ave.	39	1.2	Н	6.13	88.18	/	/
2412.0	93.16	PK	77	1.4	V	6.13	99.29	/	/
2412.0	80.44	Ave.	77	1.4	V	6.13	86.57	/	/
498.7	41.83	QP	54	1.2	V	-10.10	31.73	46	14.27
9648.0	17.15	Ave.	184	1.0	V	19.28	36.43	54	17.57
4824.0	23.69	Ave.	39	1.1	V	12.40	36.09	54	17.91
2499.6	27.95	Ave.	222	1.1	V	7.21	35.16	54	18.84
7236.0	18.24	Ave.	103	1.3	V	16.62	34.86	54	19.14
4824.0	41.26	PK	39	1.1	V	12.40	53.66	74	20.34
9648.0	32.09	PK	184	1.0	V	19.28	51.37	74	22.63
2382.3	24.92	Ave.	35	1.0	Н	6.13	31.05	54	22.95
2327.5	24.18	Ave.	111	1.2	Н	5.48	29.66	54	24.34
7236.0	33.02	PK	103	1.3	V	16.62	49.64	74	24.36
2499.6	40.11	PK	222	1.1	V	7.21	47.32	74	26.68
2382.3	37.44	PK	35	1.0	Н	6.13	43.57	74	30.43
2327.5	37.66	PK	111	1.2	Н	5.48	43.14	74	30.86
			Middle	Channel	(2437 M)	Hz)			
2437.0	95.45	PK	49	1.1	Н	7.21	102.66	/	/
2437.0	82.62	Ave.	49	1.1	Н	7.21	89.83	/	/
2437.0	93.01	PK	77	1.3	V	7.21	100.22	/	/
2437.0	78.86	Ave.	77	1.3	V	7.21	86.07	/	/
498.7	41.67	QP	55	1.6	V	-10.10	31.57	46	14.43
9748.0	16.68	Ave.	27	1.1	V	19.40	36.08	54	17.92
4874.0	23.37	Ave.	101	1.3	V	12.46	35.83	54	18.17
7311.0	18.97	Ave.	35	1.2	V	16.49	35.46	54	18.54
2496.2	27.11	Ave.	74	1.2	Н	7.21	34.32	54	19.68
4874.0	41.25	PK	101	1.3	V	12.46	53.71	74	20.29
9748.0	33.28	PK	27	1.1	V	19.40	52.68	74	21.32
2331.5	25.22	Ave.	36	1.2	V	5.48	30.70	54	23.30
2389.7	24.19	Ave.	25	1.1	V	6.13	30.32	54	23.68
7311.0	33.23	PK	35	1.2	V	16.49	49.72	74	24.28
2496.2	39.67	PK	74	1.2	Н	7.21	46.88	74	27.12
2389.7	36.68	PK	25	1.1	V	6.13	42.81	74	31.19
2331.5	37.15	PK	36	1.2	V	5.48	42.63	74	31.37

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Frequency	Receiver		Turntable	Rx An	Rx Antenna		Corrected	FCC 1 15.247/15.2		
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	Factor (dB)	Amplitude (dBμV/m)	Limit (dBµV/m)	Margin (dB)	
	High Channel(2462 MHz)									
2462.0	95.13	PK	93	1.2	Н	7.21	102.34	/	/	
2462.0	82.54	Ave.	93	1.2	Н	7.21	89.75	/	/	
2462.0	92.46	PK	77	1.3	V	7.21	99.67	/	/	
2462.0	78.23	Ave.	77	1.3	V	7.21	85.44	/	/	
498.7	41.13	QP	116	1.8	V	-10.10	31.03	46	14.97	
9848.0	17.67	Ave.	36	1.3	Н	19.39	37.06	54	16.94	
4924.0	23.01	Ave.	32	1.2	Н	12.50	35.51	54	18.49	
7386.0	19.05	Ave.	74	1.1	Н	15.91	34.96	54	19.04	
2489.6	27.39	Ave.	111	1.3	Н	7.21	34.60	54	19.40	
4924.0	41.33	PK	32	1.2	Н	12.50	53.83	74	20.17	
9848.0	33.05	PK	36	1.3	Н	19.39	52.44	74	21.56	
2329.1	25.28	Ave.	65	1.2	Н	5.48	30.76	54	23.24	
2385.5	24.16	Ave.	74	1.1	V	6.13	30.29	54	23.71	
7386.0	33.21	PK	74	1.1	Н	15.91	49.12	74	24.88	
2489.6	40.14	PK	111	1.3	Н	7.21	47.35	74	26.65	
2385.5	36.94	PK	74	1.1	V	6.13	43.07	74	30.93	
2329.1	37.51	PK	65	1.2	Н	5.48	42.99	74	31.01	

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## 802.11n-HT20 mode:

Frequency	R	eceiver	Turntable	Rx An	tenna	Corrected	Corrected	FCC 1 15.247/15.2	Part 05/15.209
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	Factor (dB)	Amplitude (dBμV/m)	Limit (dBµV/m)	Margin (dB)
			Low (	Channel (2	2412 MH	z)			
2412.0	92.23	PK	69	1.3	Н	6.13	98.36	/	/
2412.0	77.16	Ave.	69	1.3	Н	6.13	83.29	/	/
2412.0	90.81	PK	32	1.2	V	6.13	96.94	/	/
2412.0	75.32	Ave.	32	1.2	V	6.13	81.45	/	/
498.7	40.96	QP	22	1.7	V	-10.10	30.86	46	15.14
9648.0	17.45	Ave.	66	1.2	V	19.29	36.74	54	17.26
2497.6	28.55	Ave.	55	1.2	Н	7.21	35.76	54	18.24
7236.0	18.09	Ave.	73	1.4	V	16.62	34.71	54	19.29
4824.0	22.15	Ave.	41	1.0	V	12.40	34.55	54	19.45
4824.0	40.26	PK	41	1.0	V	12.40	52.66	74	21.34
9648.0	32.67	PK	66	1.2	V	19.29	51.96	74	22.04
2332.5	25.24	Ave.	117	1.1	V	5.48	30.72	54	23.28
2383.9	24.56	Ave.	36	1.3	Н	6.13	30.69	54	23.31
7236.0	33.25	PK	73	1.4	V	16.62	49.87	74	24.13
2497.6	40.11	PK	55	1.2	Н	7.21	47.32	74	26.68
2332.5	37.66	PK	117	1.1	V	5.48	43.14	74	30.86
2383.9	36.67	PK	36	1.3	Н	6.13	42.80	74	31.20
	l		Middle	Channel	(2437 MI	Hz)	l	<u> </u>	
2437.0	92.01	PK	102	1.2	Н	7.21	99.22	/	/
2437.0	77.26	Ave.	102	1.2	Н	7.21	84.47	/	/
2437.0	90.28	PK	16	1.1	V	7.21	97.49	/	/
2437.0	75.31	Ave.	16	1.1	V	7.21	82.52	/	/
498.7	40.81	QP	168	1.6	V	-10.10	30.71	46	15.29
9748.0	17.49	Ave.	69	1.1	Н	19.40	36.89	54	17.11
2498.9	27.86	Ave.	87	1.1	Н	7.21	35.07	54	18.93
7311.0	18.54	Ave.	311	1.2	V	16.49	35.03	54	18.97
4874.0	21.25	Ave.	44	1.3	Н	12.46	33.71	54	20.29
4874.0	40.12	PK	44	1.3	Н	12.46	52.58	74	21.42
9748.0	32.66	PK	69	1.1	Н	19.40	52.06	74	21.94
2339.6	25.98	Ave.	78	1.3	V	5.48	31.46	54	22.54
2381.7	24.67	Ave.	93	1.2	Н	6.13	30.80	54	23.20
7311.0	33.29	PK	311	1.2	V	16.49	49.78	74	24.22
2498.9	40.22	PK	87	1.1	Н	7.21	47.43	74	26.57
2339.6	39.67	PK	78	1.3	V	5.48	45.15	74	28.85
2381.7	36.94	PK	93	1.2	Н	6.13	43.07	74	30.93

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Frequency	Receiver		Turntable	Rx Antenna		Corrected Factor	Corrected	FCC Part 15.247/15.205/15.209	
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	(dB)	Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
High Channel(2462 MHz)									
2462.0	92.03	PK	136	1.2	Н	7.21	99.24	/	/
2462.0	77.38	Ave.	136	1.2	Н	7.21	84.59	/	/
2462.0	90.75	PK	85	1.1	V	7.21	97.96	/	/
2462.0	75.06	Ave.	85	1.1	V	7.21	82.27	/	/
498.7	40.88	QP	99	1.2	V	-10.10	30.78	46	15.22
9848.0	17.69	Ave.	87	1.1	Н	19.39	37.08	54	16.92
4924.0	22.51	Ave.	77	1.2	Н	12.50	35.01	54	18.99
7386.0	18.54	Ave.	36	1.5	V	15.91	34.45	54	19.55
2496.6	27.06	Ave.	135	1.1	V	7.21	34.27	54	19.73
4924.0	40.25	PK	77	1.2	Н	12.50	52.75	74	21.25
9848.0	32.94	PK	87	1.1	Н	19.39	52.33	74	21.67
2337.9	25.66	Ave.	32	1.3	V	5.48	31.14	54	22.86
2383.1	24.63	Ave.	77	1.2	V	6.13	30.76	54	23.24
7386.0	33.67	PK	36	1.5	V	15.91	49.58	74	24.42
2496.6	39.67	PK	135	1.1	V	7.21	46.88	74	27.12
2337.9	37.69	PK	32	1.3	V	5.48	43.17	74	30.83
2383.1	36.97	PK	77	1.2	V	6.13	43.1	74	30.9

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## 802.11n-HT40 mode:

Frequency	R	eceiver	Turntable	Rx An	tenna	Corrected	Corrected	FCC 1 15.247/15.2	Part 05/15.209
(MHz)	Reading (dBµV)	Detector (PK/QP/Ave.)	Degree	Height (m)	Polar (H/V)	Factor (dB)	Amplitude (dBμV/m)	Limit (dBµV/m)	Margin (dB)
	-		Low (	Channel (2	2422 MH	z)			
2422.0	90.98	PK	18	1.2	Н	6.13	97.11	/	/
2422.0	72.63	Ave.	18	1.2	Н	6.13	78.76	/	/
2422.0	88.74	PK	73	1.1	V	6.13	94.87	/	/
2422.0	70.03	Ave.	73	1.1	V	6.13	76.16	/	/
4844.0	25.63	Ave.	189	1.1	V	12.40	38.03	54	15.97
498.7	40.11	QP	33	1.7	V	-10.10	30.01	46	15.99
9688.0	17.46	Ave.	74	1.2	Н	19.29	36.75	54	17.25
7266.0	18.64	Ave.	69	1.3	Н	16.62	35.26	54	18.74
2494.4	27.99	Ave.	136	1.2	V	7.21	35.20	54	18.80
4844.0	40.12	PK	189	1.1	V	12.40	52.52	74	21.48
9688.0	32.68	PK	74	1.2	Н	19.29	51.97	74	22.03
2339.1	25.67	Ave.	80	1.3	V	5.48	31.15	54	22.85
2381.3	24.62	Ave.	2	1.3	Н	6.13	30.75	54	23.25
7266.0	33.29	PK	69	1.3	Н	16.62	49.91	74	24.09
2494.4	40.29	PK	136	1.2	V	7.21	47.50	74	26.50
2339.1	37.69	PK	80	1.3	V	5.48	43.17	74	30.83
2381.3	36.97	PK	2	1.3	Н	6.13	43.10	74	30.90
			Middle	Channel	(2437 MI	Hz)			
2437.0	90.36	PK	39	1.2	Н	6.13	96.49	/	/
2437.0	72.54	Ave.	39	1.2	Н	6.13	78.67	/	/
2437.0	88.37	PK	11	1.1	V	6.13	94.50	/	/
2437.0	70.06	Ave.	11	1.1	V	6.13	76.19	/	/
2386.3	34.91	Ave.	185	1.5	V	6.13	41.04	54	12.96
498.7	39.89	QP	66	1.4	V	-10.10	29.79	46	16.21
9748.0	17.95	Ave.	13	1.1	Н	19.40	37.35	54	16.65
7311.0	18.91	Ave.	336	1.2	V	16.49	35.40	54	18.60
2492.5	27.66	Ave.	93	1.1	Н	7.21	34.87	54	19.13
9748.0	33.67	PK	13	1.1	Н	19.40	53.07	74	20.93
4874.0	20.11	Ave.	77	1.3	Н	12.46	32.57	54	21.43
4874.0	39.61	PK	77	1.3	Н	12.46	52.07	74	21.93
2333.9	24.96	Ave.	267	1.3	V	5.48	30.44	54	23.56
7311.0	33.68	PK	336	1.2	V	16.49	50.17	74	23.83
2492.5	39.66	PK	93	1.1	Н	7.21	46.87	74	27.13
2333.9	38.67	PK	267	1.3	V	5.48	44.15	74	29.85
2386.3	37.55	PK	185	1.5	V	6.13	43.68	74	30.32

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1.3

5.48

41.85

74

32.15

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#### Note:

36.37

2336.3

1) Corrected Amplitude = Corrected Factor + Reading

PK

2) Corrected Factor=Antenna factor (RX) + Cable loss – Amplifier factor

254

3) Margin = Limit - Corrected Amplitude

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# FCC $\S15.247(a)$ (2) – 6 dB EMISSION BANDWIDTH

#### **Applicable Standard**

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Report No.: RSZ130514006-00B

#### **Results**

Please refer to the report RSZ130513003-00B for Shenzhen CE and IT Limited with FCC ID: YG5STEALTH-8 issued by Bay Area Compliance Laboratories Corp. (Shenzhen) on 2013-05-23.

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# FCC §15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

#### **Applicable Standard**

According to §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Report No.: RSZ130514006-00B

#### **Results**

Please refer to the report RSZ130513003-00B for Shenzhen CE and IT Limited with FCC ID: YG5STEALTH-8 issued by Bay Area Compliance Laboratories Corp. (Shenzhen) on 2013-05-23.

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# FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Report No.: RSZ130514006-00B

#### **Applicable Standard**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

#### Results

Please refer to the report RSZ130513003-00B for Shenzhen CE and IT Limited with FCC ID: YG5STEALTH-8 issued by Bay Area Compliance Laboratories Corp. (Shenzhen) on 2013-05-23.

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# FCC §15.247(e) - POWER SPECTRAL DENSITY

#### **Applicable Standard**

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Report No.: RSZ130514006-00B

#### **Results**

Please refer to the report RSZ130513003-00B for Shenzhen CE and IT Limited with FCC ID: YG5STEALTH-8 issued by Bay Area Compliance Laboratories Corp. (Shenzhen) on 2013-05-23.

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#### **DECLARATION LETTER**



# Shenzhen CE and IT Limited

113 Zhenxing Road, Xinxin Building, Tower B, Suite 501, Futian District, Shenzhen, China Tel: 86-755-83689256 Fax: 86-755-83778726

# Product Similarity Declaration

Report No.: RSZ130514006-00B

June 18, 2013

To:
FEDERAL COMMUNICATIONS COMMISSIONS
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

Dear Sir or Madam:

We, Shenzhen CE and IT Limited, hereby declare that our product: Tablets; model: Trio Stealth - 9 (FCC ID: YG5STEALTH-9) has the same radio frequency circuitry with previous approved product Tablets, model: Trio Stealth - 8 (FCC ID: YG5STEALTH-8) that was certified by BACL. In other words they share the same PCB layout, antenna location and antenna type, and they also have the same RF output power and software setup procedure, the differences between these two models for details as below:

- The material of cover sheet is different, While the cover sheet for Trio Stealth 9 is metal, Trio Stealth 8 is plastic.
- 2. The battery capacity is different.

3. The screen size is different.

Please contact me should there be need for any additional clarification or information.

Best Regards,

Benjamin Dolgin-Gardner

General Manager

BACL-NF0028-A

\*\*\*\*\*END OF REPORT\*\*\*\*

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