GlobaTrac LLC

CheckSmart

Main Model: CheckSmart Luggage Tracker
Serial Model: SKU601169

January 14, 2016
Report No.: 15071232-FCC-R1
(This report supersedes NONE)

Modifications made to the product : None

This Test Report is Issued Under the Authority of:		
William Long	Herve Idoko	
William Long **Compliance Engineer**	**Herve Idoko** **Technical Manager**	

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Test result presented in this test report is applicable to the representative sample only.

RF Test Report

To: FCC Part 22(H); FCC Part 24(E): 2014; ANSI/TIA603 D: 2010

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Laboratory Introduction

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Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope
USA	FCC, A2LA	EMC , RF/Wireless , Telecom
Canada	IC, A2LA, NIST	EMC, RF/Wireless , Telecom
Taiwan	BSMI , NCC , NIST	EMC, RF, Telecom , Safety
Hong Kong	OFTA , NIST	RF/Wireless ,Telecom
Australia	NATA, NIST	EMC, RF, Telecom , Safety
Korea	KCC/RRA, NIST	EMI, EMS, RF , Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC , RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom , Safety

Accreditations for Product Certifications

Country/Region	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC , RF , Telecom
Canada	IC FCB , NIST	EMC , RF , Telecom
Singapore	iDA, NIST	EMC , RF , Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC, (RCB 208)	RF , Telecom
Hong Kong	OFTA (US002)	RF , Telecom

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CONTENTS

1. EXECUTIVE SUMMARY & EUT INFORMATION

The purpose of this test programmed was to demonstrate compliance of the GlobaTrac LLC CheckSmart and model: CheckSmart Luggage Tracker against the current Stipulated Standards.The CheckSmart has demonstrated compliance with the FCC Part 22(H) ; FCC Part 24(E): 2014; ANSI/TIA603 D: 2010.

EUT Information

EUT Description	:	**CheckSmart**
Main Model	:	**CheckSmart Luggage Tracker**
Serial Model	:	**SKU601169**
Antenna Gain	:	**GPRS850: 2.0 dBi** **GPRS1900: 2.0 dBi** **BLE: 3.0 dBi**
Input Power	:	**3 V DC**
Maximum Conducted Peak Power to Antenna	:	**GPRS850: 31.79 dBm** **GPRS1900: 29.19 dBm**
Maximum Radiated ERP/EIRP	:	**GPRS850: 28.61 dBm / ERP** **GPRS1900: 26.04 dBm / EIRP**
Classification Per Stipulated Test Standard	:	**FCC Part 22(H) ; FCC Part 24(E): 2014; ANSI/TIA603 D: 2010**

2. REPORT REVISION HISOTROY

Report No.	Report Version	Description	Issue Date
15071232-FCC-R1	V1	Original	December 24,2015
15071232-FCC-R1	V2	Change Testing Data and Setup Photos	January 14, 2016

3. TECHNICAL DETAILS

Purpose	**Compliance testing of CheckSmart with stipulated standard**
Applicant / Client	**GlobaTrac LLC 2930 Westwood Blvd., Suite 250, Los Angeles, CA. 90064 USA**
Manufacturer	**Anpinda Precision Industry (Huizhou)Co.Ltd Jizhun(Foxconn) Huizhou Technology Park,12 Gou Di Duan, Damen Group, Xialiao Village Committee, Longxi Town, Boluo County, Huizhou City, Guangdong Province, China**
Laboratory performing the tests	**SIEMIC Nanjing (China) Laboratories NO.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, China Tel:+86(25)86730128/86730129 Fax:+86(25)86730127 Email:info@siemic.com**
Test report reference number	**15071232-FCC-R1**
Date EUT received	**11st December, 2015**
Standard applied	**FCC Part 22(H) ; FCC Part 24(E): 2014; ANSI/TIA603 D: 2010**
Dates of test	**14th December, 2015 to 14th January, 2016**
No of Units	**#1**
Equipment Category	**PCE**
Trade Name	**N/A**
RF Operating Frequency (ies)	**GPRS850 TX : 824.2 ~ 848.8 MHz; RX : 869.2 ~ 893.8 MHz GPRS1900 TX : 1850.2 ~ 1909.8 MHz; RX : 1930.2 ~ 1989.8 MHz BLE: 2402-2480MHz**
Number of Channels	**299CH (GPRS1900) and 124CH (GPRS850) BLE: 40 CH**
Modulation	**GSM: GMSK Bluetooth: GFSK**
GPRS Multi-slot class	**8/10**
FCC ID	**2AADDVIC**

4. MODIFICATION

NONE

5. TEST SUMMARY

The product was tested in accordance with the following specifications.
All testing has been performed according to below product classification:

PCE

Test Results Summary

Test Standard	Description	Product Class	Pass / Fail
§ 1.1307, § 2.1091	RF Exposure	See Above	Pass
§2.1046; § 22.913 (a); § 24.232 (c)	RF Output Power	See Above	Pass
§ 2.1049; § 22.905 § 22.917; § 24.238	99% & -26 dB Occupied Bandwidth	See Above	Pass
§ 2.1051, § 22.917 (a); § 24.238 (a)	Spurious Emissions at Antenna Terminal	See Above	Pass
§ 2.1053 § 22.917 (a); § 24.238 (a)	Field Strength of Spurious Radiation	See Above	Pass
§ 22.917 (a); § 24.238 (a)	Out of band emission, Band Edge	See Above	Pass
§ 2.1055 § 22.355; § 24.235	Frequency stability vs. temperature Frequency stability vs. voltage	See Above	Pass

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different.

5.1 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

5.1 RF Exposure (SAR)

Test Result: Pass

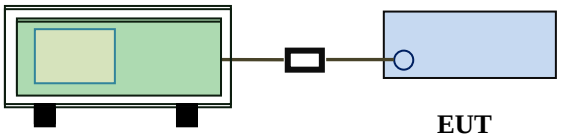
The EUT is a portable device, thus requires SAR evaluation;

Please refer to RF Exposure Evaluation Report: 15050054-FCC-H.

5.2 RF Output Power

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	24th December,2015
Tested By :	William Long

Requirement(s):

Spec	Item	Requirement	Applicable
§22.913 (a)	a)	ERP:38.45dBm	☑
§24.232 (c)	b)	EIRP:33dBm	☑
Test Setup		 Base Station	
Test Procedure		For Conducted Power: - The transmitter output port was connected to base station. - Set EUT at maximum power through base station. - Select lowest, middle, and highest channels for each band and different test mode. For ERP/EIRP: According with KDB 971168 - The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. - The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. - The frequency range up to tenth harmonic of the fundamental frequency was investigated. - Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-	

	radiating cable. The absolute levels of the spurious emissions were measured by the substitution. - Spurious emissions in dB = 10 log (TX power in Watts/0.001) – the absolute level - Spurious attenuation limit in dB = 43 + 10 Log10 (power out in Watts.
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

Conducted Power

GSM Mode:

Burst Average Power (dBm);								
Band	GSM850				PCS1900			
Channel	128	190	251	Tune up Power tolerant	512	661	810	Tune up Power tolerant
Frequency (MHz)	824.2	836.6	848.8	/	1850.2	1880	1909.8	/
GSM Voice (1 uplink),GMSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GPRS Multi-Slot Class 8 (1 uplink),GMSK	**31.79**	31.76	31.76	32±1	28.3	**28.61**	28.49	29±1
GPRS Multi-Slot Class 10 (2 uplink) GMSK	31.36	31.39	31.38	32±1	28.11	28.52	28.31	29±1
GPRS Multi-Slot Class 12 (4 uplink) GMSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Remark :

GPRS, CS1 coding scheme.

Multi-Slot Class 8 , Support Max 4 downlink, 1 uplink , 5 working link

Multi-Slot Class 10 , Support Max 4 downlink, 2 uplink , 5 working link

Multi-Slot Class 12 , Support Max 4 downlink, 4 uplink , 5 working link

ERP & EIRP

ERP for Cellular Band (Part 22H)

Frequency (MHz)	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
824.2	20.55	V	6.8	0.5	26.85	38.45
824.2	22.14	H	6.8	0.5	28.44	38.45
836.6	20.34	V	6.8	0.5	26.64	38.45
836.6	22.89	H	6.8	0.5	**29.19**	38.45
848.8	20.11	V	6.9	0.5	26.51	38.45
848.8	21.67	H	6.9	0.5	28.07	38.45

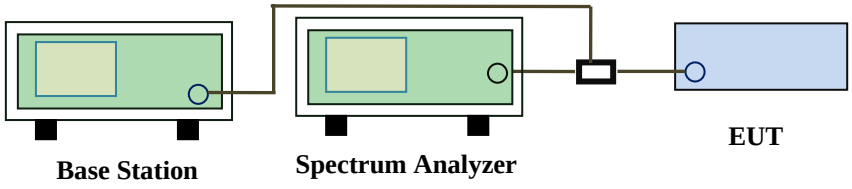
EIRP for PCS Band (Part 24E)

Frequency (MHz)	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1850.2	16.21	V	7.82	0.8	23.23	33
1850.2	18.45	H	7.82	0.8	25.47	33
1880	16.1	V	7.82	0.8	23.12	33
1880	19.02	H	7.82	0.8	**26.04**	33
1909.8	16.77	V	7.82	0.8	23.79	33
1909.8	19.01	H	7.82	0.8	26.03	33

5.3 Peak-Average Ratio

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	January 14, 2016
Tested By :	William Long

Requirement(s):

Spec	Item	Requirement	Applicable
§24.232(d)	a)	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.	☑
Test Setup			
Test Procedure	According with KDB 971168 1. The signal analyzer' s CCDF measurement profile is enabled 2. Frequency = carrier center frequency 3. Measurement BW > Emission bandwidth of signal 4. The signal analyzer was set to collect one million samples to generate the CCDF curve 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the " on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

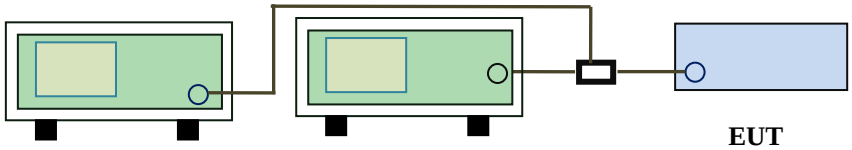
GSM 1900 PK-AV POWER(PART 24E)

Frequency (MHz)	Conducted power(dBm)		Peak-Average Ratio(PAR)
	Peak	Average	
1850.2	32.59	28.3	4.29
1880	32.86	28.61	4.25
1909.8	32.49	28.49	4

5.4 Occupied Bandwidth

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	January 14, 2016
Tested By :	William Long

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1049, §22.917, §22.905 §24.238	a)	99% Occupied Bandwidth(kHz)	☑
	b)	26 dB Bandwidth(kHz)	☑
Test Setup			
Test Procedure	- The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers.		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

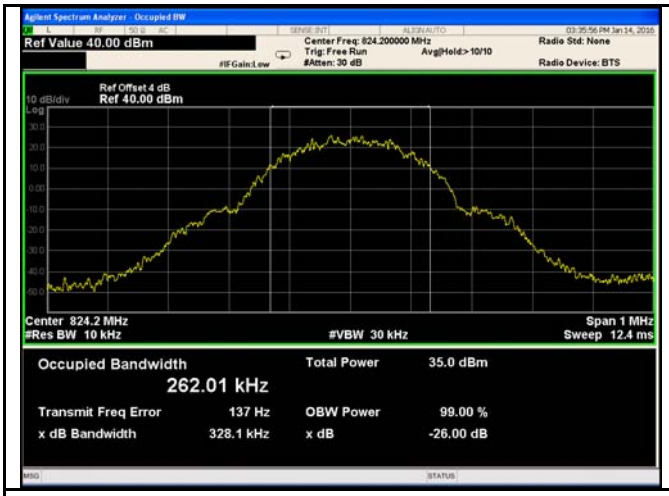
Cellular Band (Part 22H) result

Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Bandwidth (kHz)
128	824.2	262.01	328.1
190	836.6	246.93	322.4
251	848.8	251.40	323.8

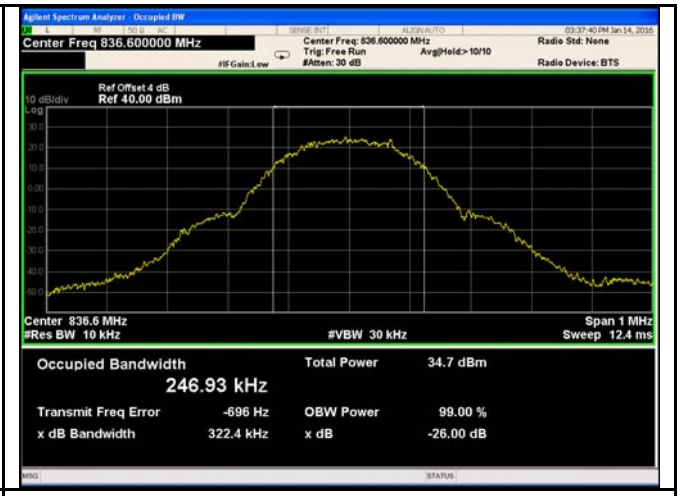
PCS Band (Part 24E) result

Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Bandwidth (kHz)
512	1850.2	246.86	320.8
661	1880.0	245.51	319.4
810	1909.8	244.77	318.4

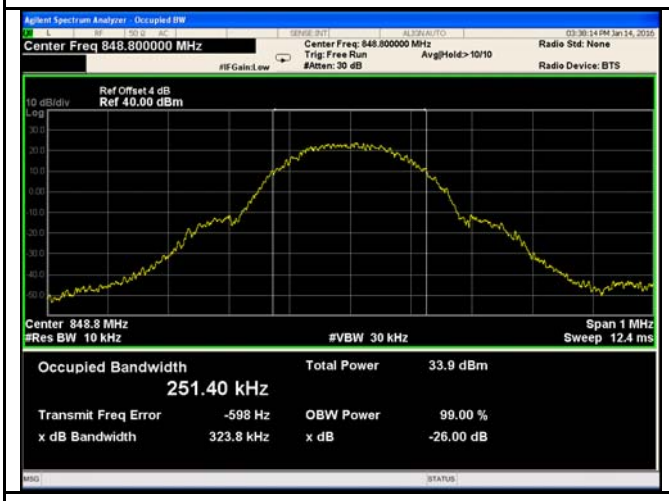
Test Plots



GSM 850 BW - Low CH 824.2MHz

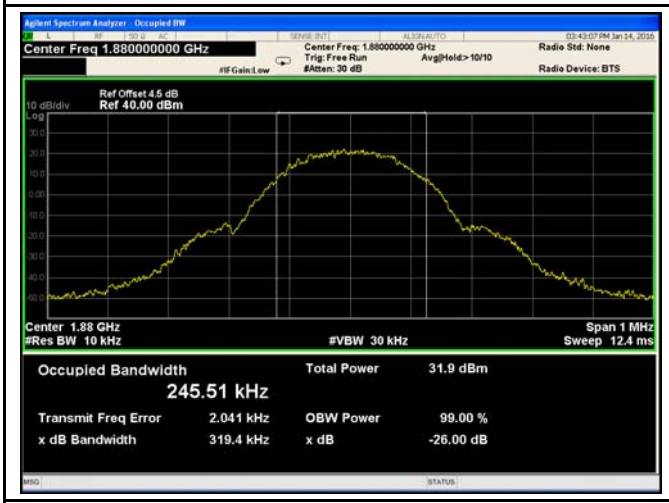


GSM 850 BW - Mid CH 836.6MHz

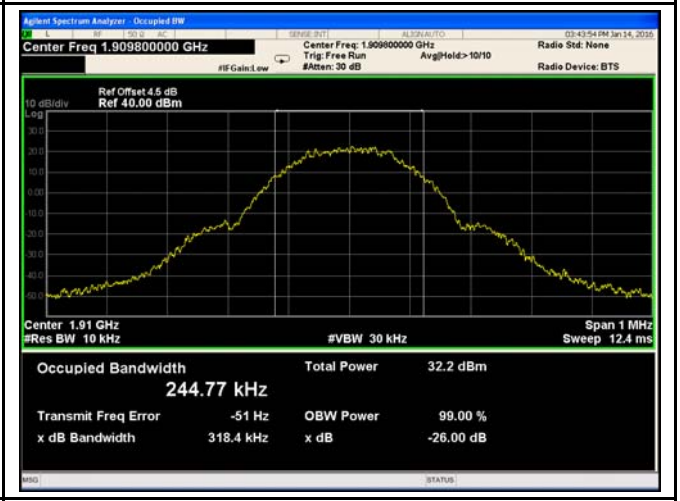


GSM 850 BW - High CH 848.8MHz

PCS 1900 BW - Low CH 1850.2MHz



PCS 1900 BW - Mid CH 1880MHz

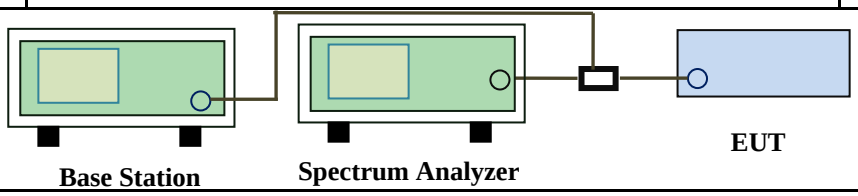


PCS 1900 BW - High CH 1909.8MHz

5.5 Spurious Emissions at Antenna Terminals

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	January 14, 2016
Tested By :	William Long

Requirement(s):

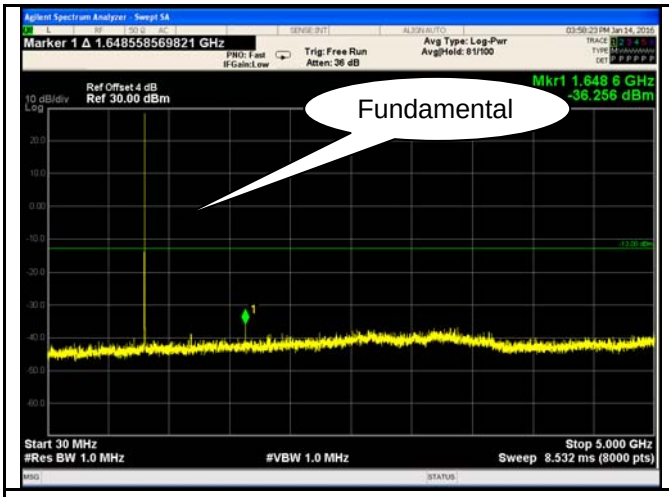
Spec	Item	Requirement	Applicable
§2.1051, §22.917(a)& §24.238(a)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB	☑
Test Setup			
Test Procedure	- The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The Band Edges of low and high channels for the highest RF powers were measured. - Setting RBW as roughly BW/100.		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

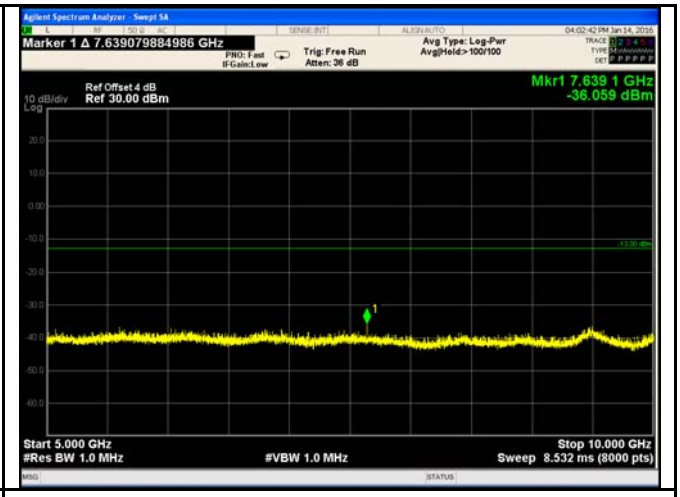
Test Plot ☑ Yes (See below) ☐ N/A

Test Plots

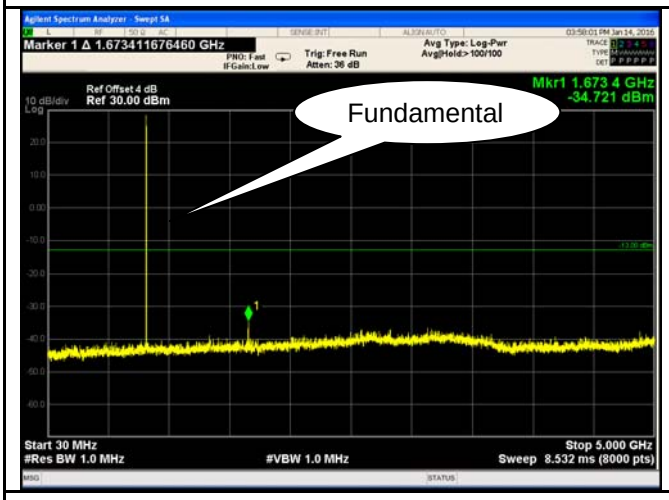
Cellular Band (Part 22H) result



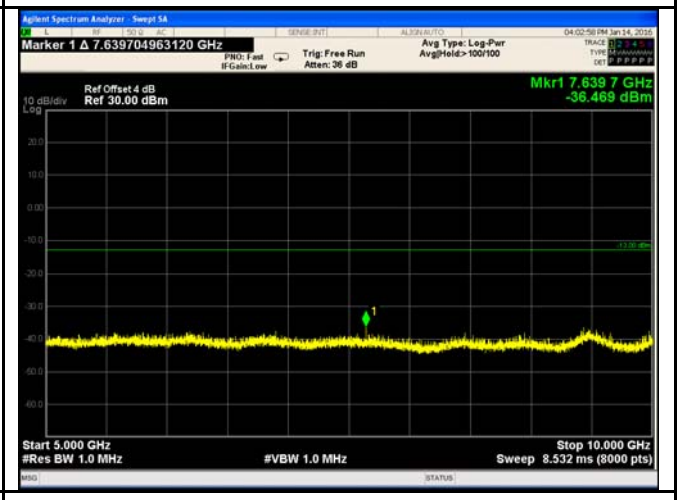
GSM 850 - Low Channel-1



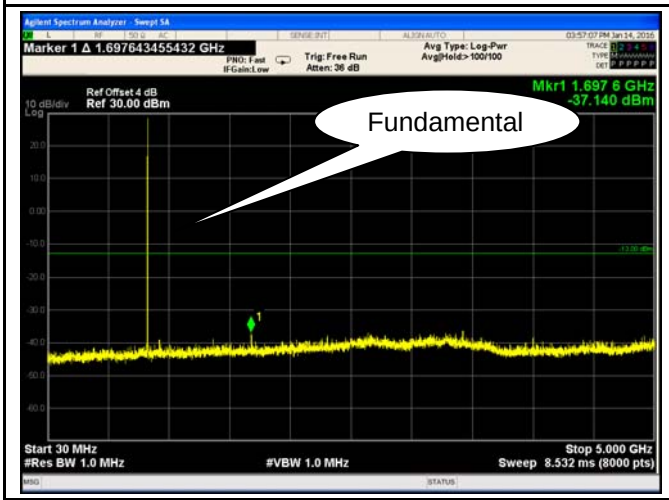
GSM 850 - Low Channel-2



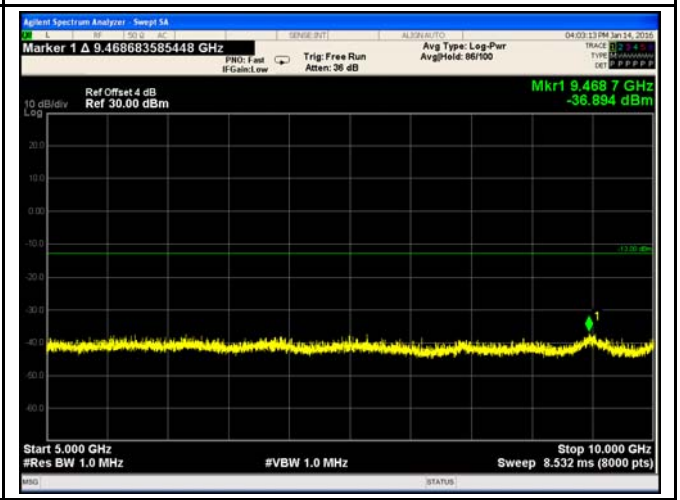
GSM 850 Middle Channel-1



GSM 850 Middle Channel-2

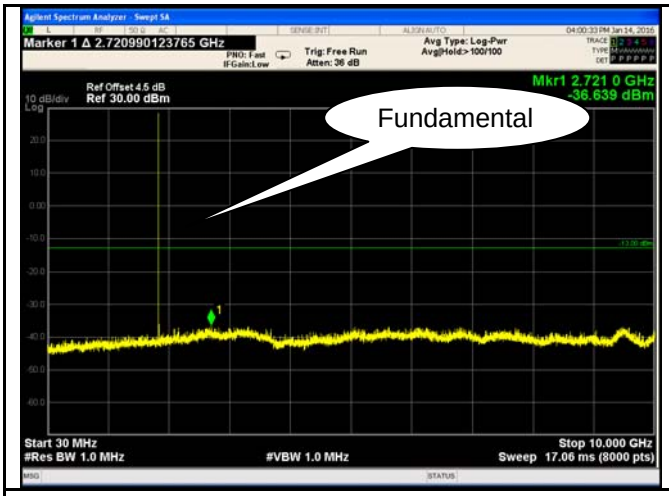


GSM 850 - High Channel-1

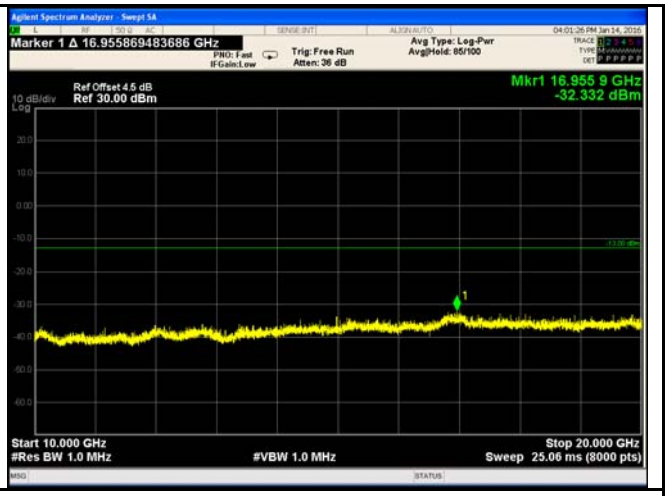


GSM 850 - High Channel-2

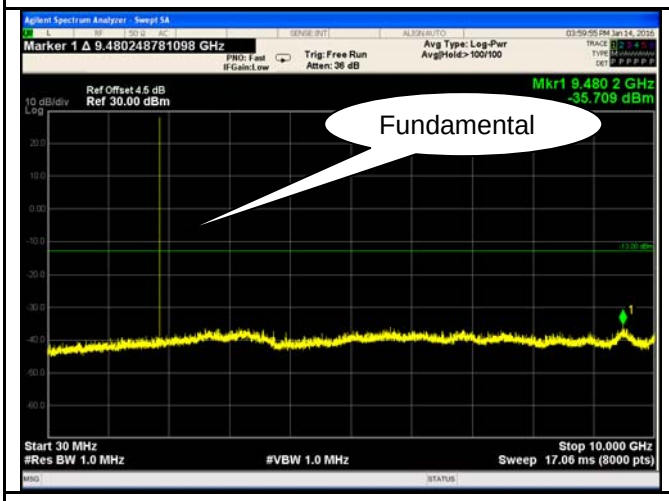
PCS Band (Part24E) result



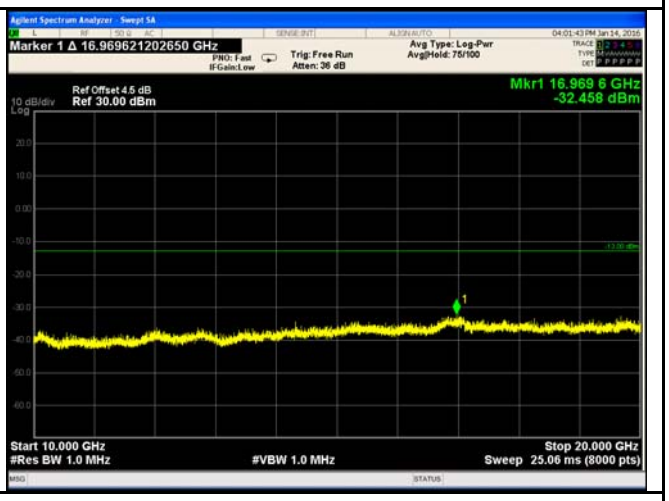
PCS1900 - Low Channel-1



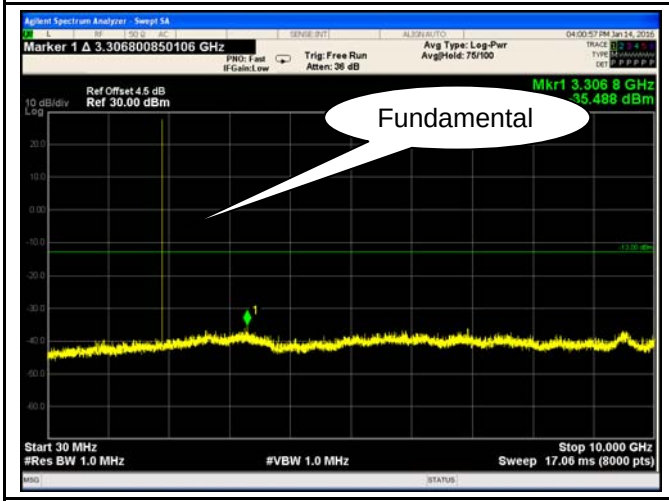
PCS 1900 - Low Channel-2



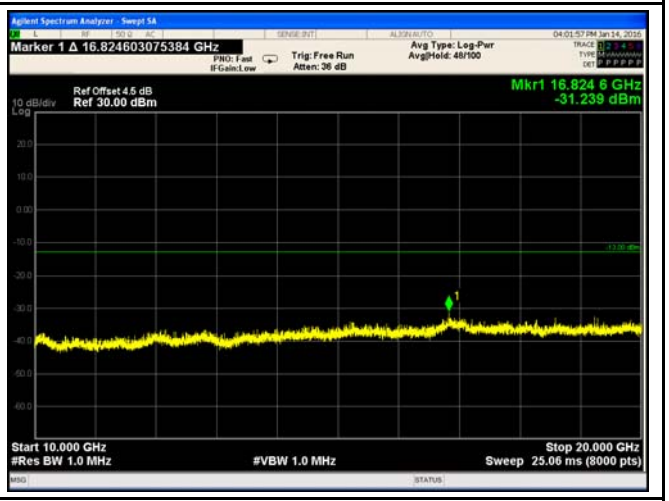
PCS1900 - Middle Channel-1



PCS 1900 - Middle Channel-2



PCS1900 - High Channel-1

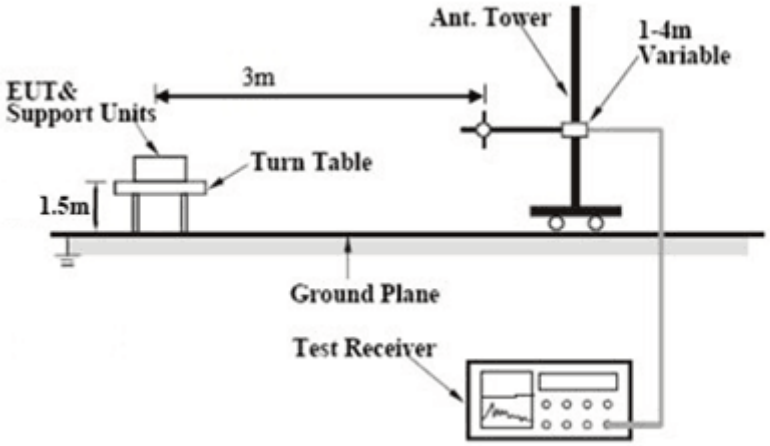


PCS 1900 - High Channel-2

5.6 Spurious Radiated Emissions

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	24th December,2015
Tested By :	William Long

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1053, §22.917 & §24.238	a)	The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.	☑
Test setup			
Test Procedure	1. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. 2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. 3. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. Sample Calculation: EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used)		

Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

Cellular Band (Part 22H) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1648.4	-48.22	V	7.95	0.78	-41.05	-13	-28.05
1648.4	-45.22	H	7.95	0.78	-38.05	-13	-25.05
250.9	-44.22	H	6.7	0.32	-37.84	-13	-24.84
262.11	-42.88	H	6.8	0.32	-36.4	-13	-23.4

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1673.2	-47.55	V	7.95	0.78	0	-13	-27.38
1673.2	-43.22	H	7.95	0.78	0	-13	-23.05
252.11	-44.88	H	6.7	0.32	0	-13	-25.5
258.99	-42.27	H	6.8	0.32	0	-13	-22.79

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1697.6	-48.12	V	7.95	0.78	-40.95	-13	-27.95
1697.6	-44.52	H	7.95	0.78	-37.35	-13	-24.35
255.9	-42.19	H	6.8	0.32	-35.71	-13	-22.71
259.2	-43.19	H	6.8	0.32	-36.71	-13	-23.71

Note:

*1, The testing has been conformed to 10*848.8MHz=8,488MHz*
2, All other emissions more than 30 dB below the limit

PCS Band (Part24E) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3700.4	-52.19	V	10.25	2.73	-44.67	-13	-31.67
3700.4	-49.66	H	10.25	2.73	-42.14	-13	-29.14
250.2	-42.88	H	6.6	0.32	-36.6	-13	-23.6
252.1	-44.12	H	6.7	0.32	-37.74	-13	-24.74

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3760	-53.99	V	10.25	2.73	-46.47	-13	-33.47
3760	-49.22	H	10.25	2.73	-41.7	-13	-28.7
252.6	-43.22	H	6.6	0.32	-36.94	-13	-23.94
254.3	-42.11	H	6.7	0.32	-35.73	-13	-22.73

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3819.6	-53.88	V	10.36	2.73	-46.25	-13	-33.25
3819.6	-52.15	H	10.36	2.73	-44.52	-13	-31.52
242.1	-44.2	H	6.7	0.32	-37.82	-13	-24.82
256.2	-43.2	H	6.8	0.32	-36.72	-13	-23.72

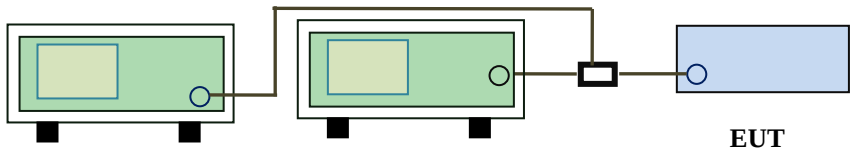
Note:

*1, The testing has been conformed to 10*1909.8MHz=19,098MHz*
2, All other emissions more than 30 dB below the limit

5.7 Band Edge

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	January 14, 2016
Tested By :	William Long

Requirement(s):

Spec	Item	Requirement	Applicable
§22.917(a) §24.238(a)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.	☑
Test setup			
Procedure	- The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The Band Edges of low and high channels for the highest RF powers were measured. Setting RBW as roughly BW/100.		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

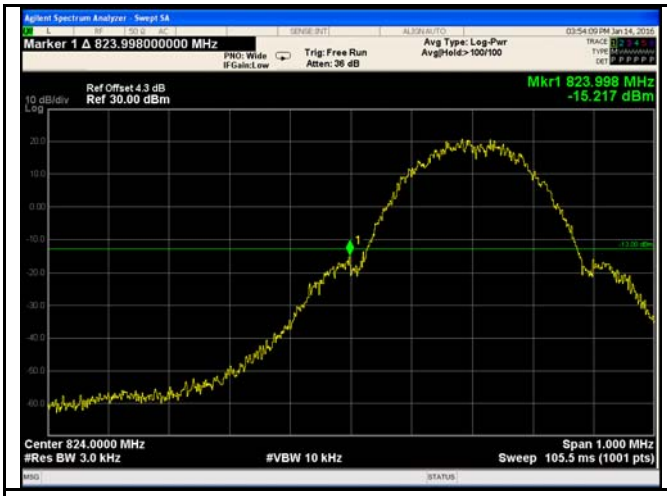
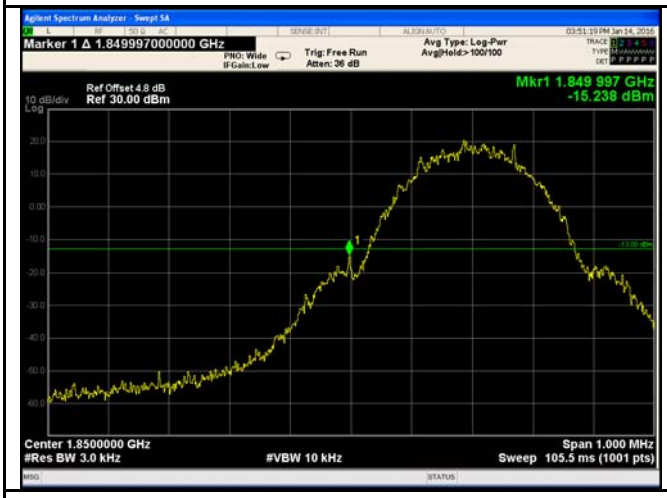
Cellular Band (Part 22H) result

Frequency (MHz)	Emission (dBm)	Limit (dBm)
823.998	-15.217	-13
849.023	-16.418	-13

PCS Band (Part24E) result

Frequency (MHz)	Emission (dBm)	Limit (dBm)
1849.997	-15.238	-13
1910.020	-16.601	-13

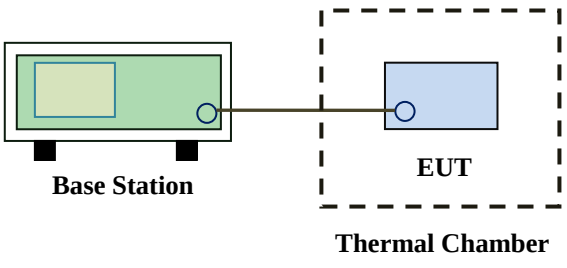
Test Plots

	
Cellular Band - Low Channel	Cellular Band - High Channel
Note: Offset=Cable loss (4.0) + 10log (3.28/3)=4.0+0.3=4.3 dB	Note: Offset=Cable loss (4.0) + 10log (3.24/3)=4.0+0.3=4.3 dB
	
PCS Band - Low Channel	PCS Band - High Channel
Note: Offset=Cable loss (4.5) + 10log (3.21/3)=4.5+0.3=4.8 dB	Note: Offset=Cable loss (4.5) + 10log (3.18/3)=4.5+0.3=4.8 dB

5.8 Frequency Stability

Temperature	23℃
Relative Humidity	55%
Atmospheric Pressure	1003mbar
Test date :	January 14, 2016
Tested By :	William Long

Requirement(s):

<table>
<tr><th>Spec</th><th>Item</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>§2.1055, §22.355 & §24.235</td><td>a)</td><td>According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:
Frequency Tolerance for Transmitters in the Public Mobile Services
<table>
<tr><th>Frequency Range (MHz)</th><th>Base, fixed (ppm)</th><th>Mobile ≤ 3 watts (ppm)</th><th>Mobile ≤ 3 watts (ppm)</th></tr>
<tr><td>25 to 50</td><td>20.0</td><td>20.0</td><td>50.0</td></tr>
<tr><td>50 to 450</td><td>5.0</td><td>5.0</td><td>50.0</td></tr>
<tr><td>45 to 512</td><td>2.5</td><td>5.0</td><td>.0</td></tr>
<tr><td>821 to 896</td><td>1.5</td><td>2.5</td><td>2.5</td></tr>
<tr><td>928 to 29.</td><td>5.0</td><td>N/A</td><td>N/A</td></tr>
<tr><td>929 to 960.</td><td>1.5</td><td>N/A</td><td>N/A</td></tr>
<tr><td>2110 to 2220</td><td>10.0</td><td>N/A</td><td>N/A</td></tr>
</table>
According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency block.</td><td>☑</td></tr>
<tr><td>Test setup</td><td colspan="3"> 
</td></tr>
</table>

Procedure	A communication link was established between EUT and base station. The frequency error was monitored and measured by base station under variation of ambient temperature and variation of primary supply voltage. Limit: The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

Cellular Band (Part 22H) result

Middle Channel, f_o = 836.6 MHz				
Temperature (℃)	Power Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	20	0.0239	2.5
0		21	0.0251	2.5
10		21	0.0251	2.5
20		20	0.0239	2.5
30		18	0.0215	2.5
40		17	0.0203	2.5
50		16	0.0191	2.5
55		25	0.0299	2.5
25	4.2	21	0.0251	2.5
	3.5	20	0.0239	2.5

PCS Band (Part 24E) result

Middle Channel, f_o = 1880 MHz				
Temperature (℃)	Power Supplied (V_{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	20	0.0106	2.5
0		22	0.0117	2.5
10		16	0.0085	2.5
20		14	0.0074	2.5
30		18	0.0096	2.5
40		18	0.0096	2.5
50		21	0.0112	2.5
55		21	0.0112	2.5
25	4.2	20	0.0106	2.5
	3.5	22	0.0117	2.5

Annex A. TEST INSTRUMENT & METHOD

Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Model	Serial #	Calibration Date	Calibration Due Date
Radiated Emissions				
EMI test receiver	ESL6	100262	11/15/2015	11/14/2016
Positioning Controller	UC3000	MF780208282	11/14/2015	11/13/2016
OPT 010 AMPLIFIER(0.1-1300MHz)	8447E	2727A02430	11/14/2015	11/13/2016
Microwave Preamplifier(0.5～18GHz)	PAM-118	443008	11/03/2015	11/02/2016
Bilog Antenna (30MHz~6GHz)	JB6	A110712	1/15/2015	1/14/2016
Bilog Antenna (30MHz~2GHz)	JB1	A112107	2/5/2015	2/4/2016
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	071259	11/12/2015	11/11/2016
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	071283	11/12/2015	11/11/2016
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	04/10/2015	04/09/2016
Tunable Notch Filter	3NF-800/1000-S	AA4	12/05/2015	12/04/2016
Tunable Notch Filter	3NF-1000/2000-S	AM 4	2/27/2015	2/26/2016
Universal Radio Communication Tester	CMU200	121393	02/15/2015	02/14/2016
RF CONDUCTED TEST				
R&S EMI Receiver	ESPI3	101216	11/04/2015	11/03/2016
Power Splitter	1#	1#	02/02/2015	02/01/2016
Hp Spectrum Analyzer	8563E	3821A09023	10/09/2015	10/08/2016
Temperature/Humidity Chamber	1007H	N/A	01/07/2015	01/06/2016

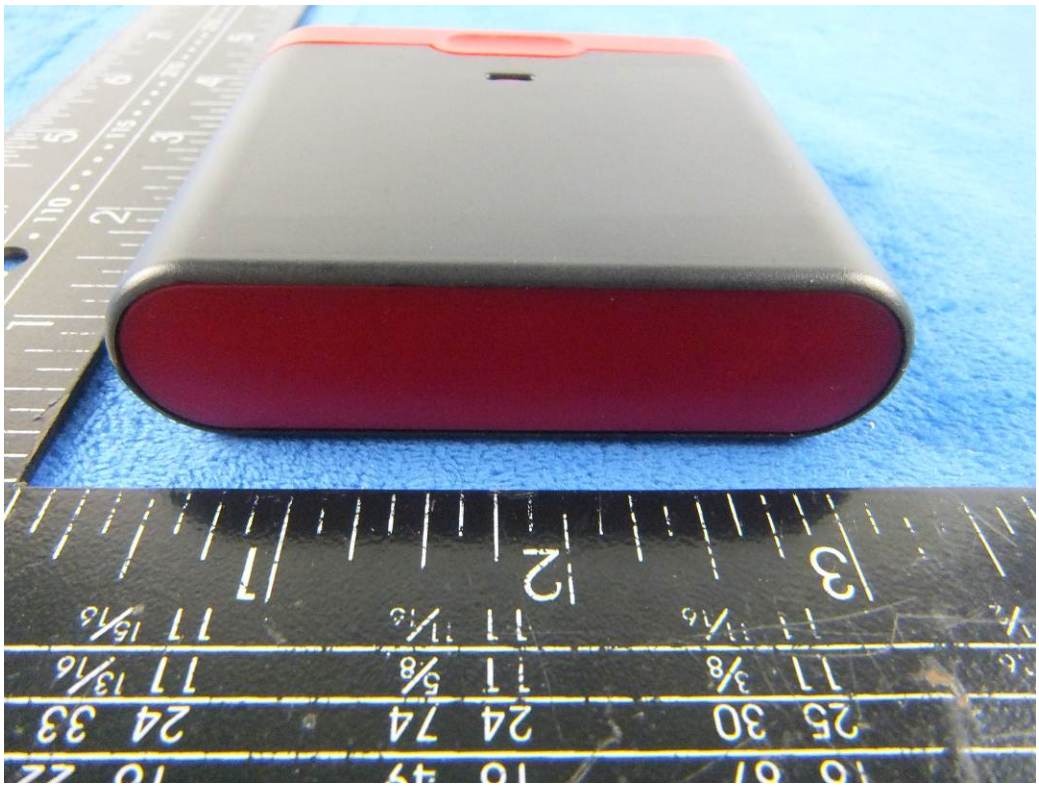
Annex B. EUT AND TEST SETUP PHOTOGRAPHS

Annex B.i. Photograph 1: EUT External Photo

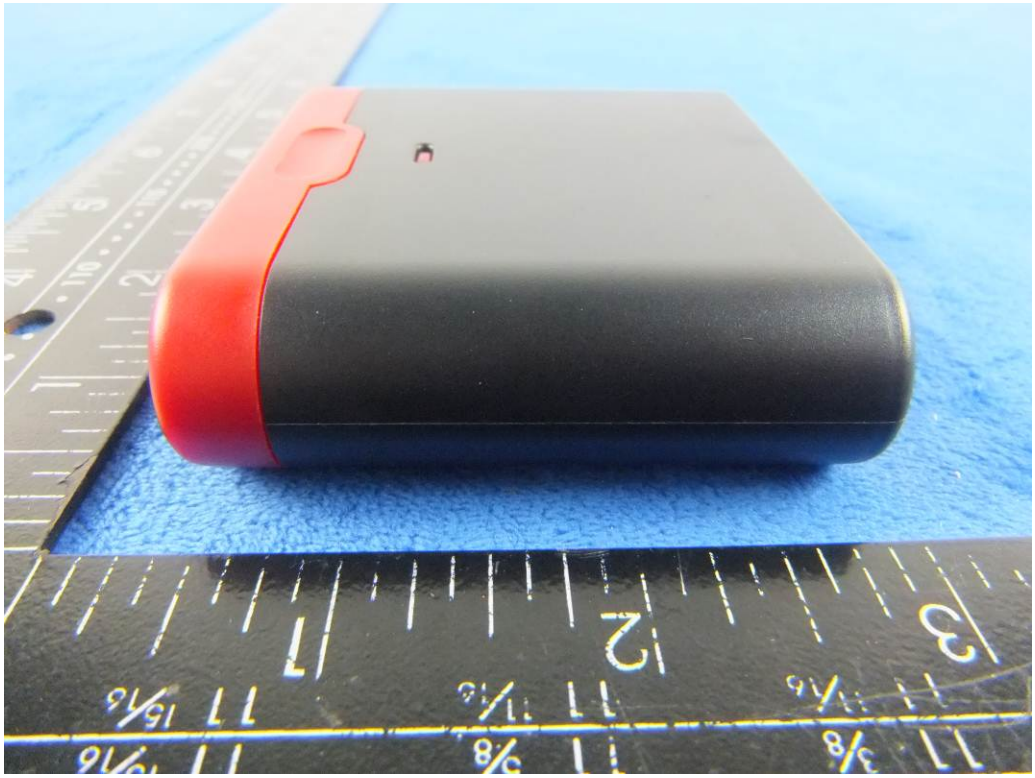
EUT - Front View

EUT - Rear View

EUT - Top View



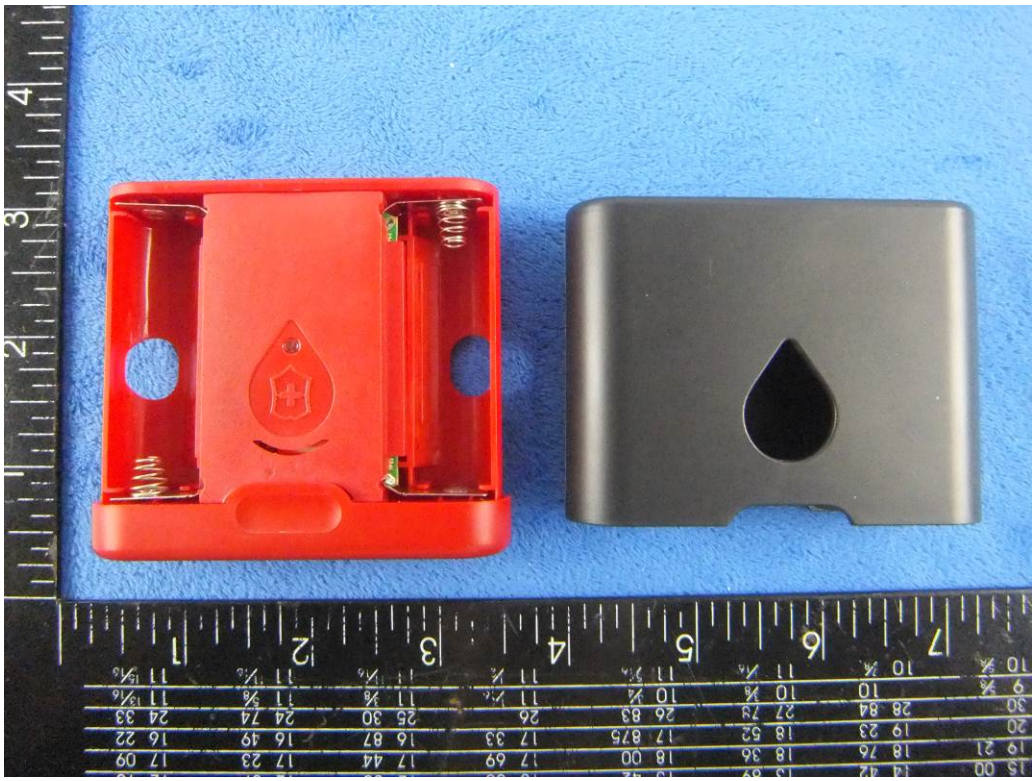
EUT - Bottom View



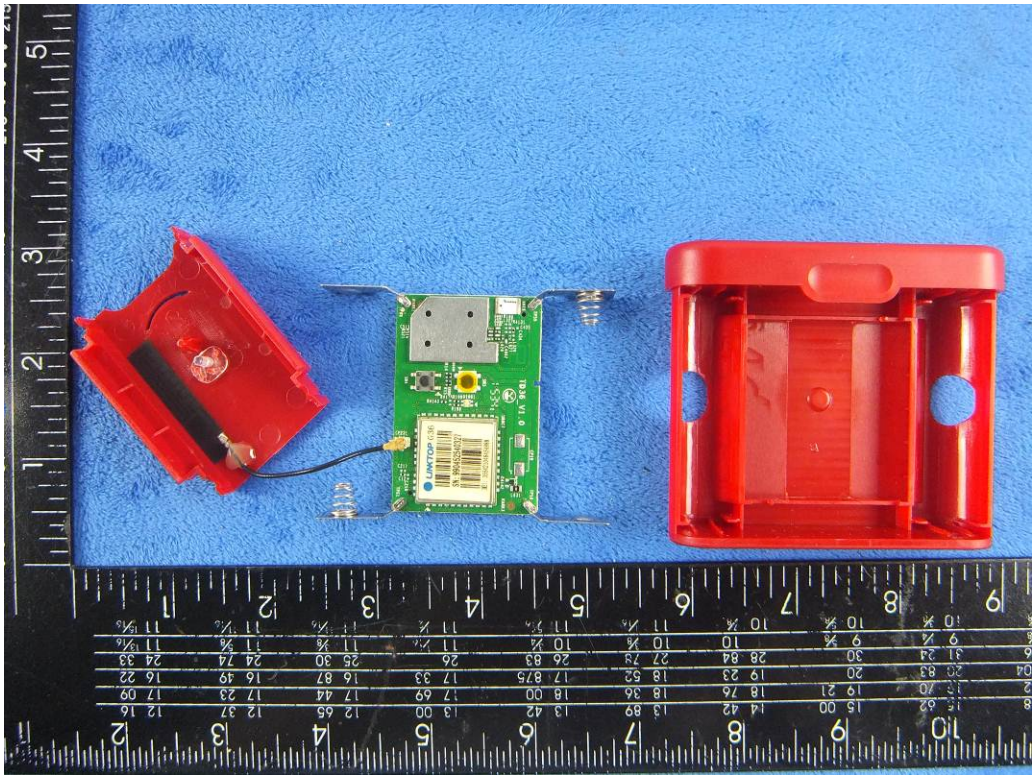
EUT - Left View

EUT - Right View

Annex B.ii. Photograph 2: EUT Internal Photo

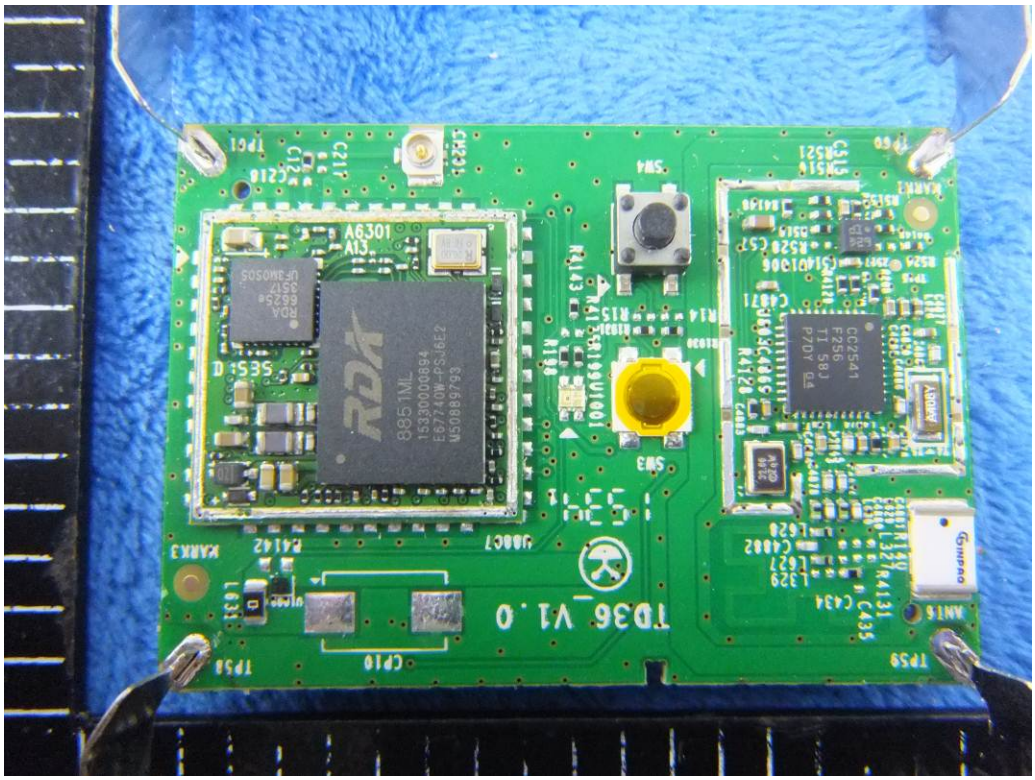


Cover Off – Top 1

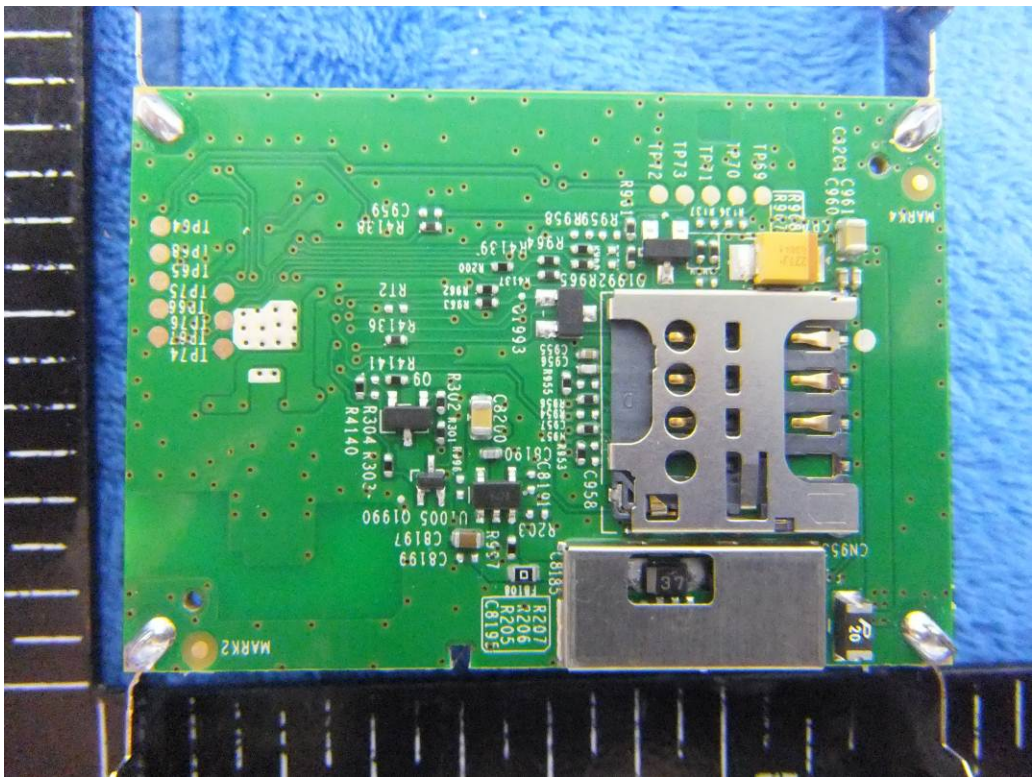


Cover Off – Top 2

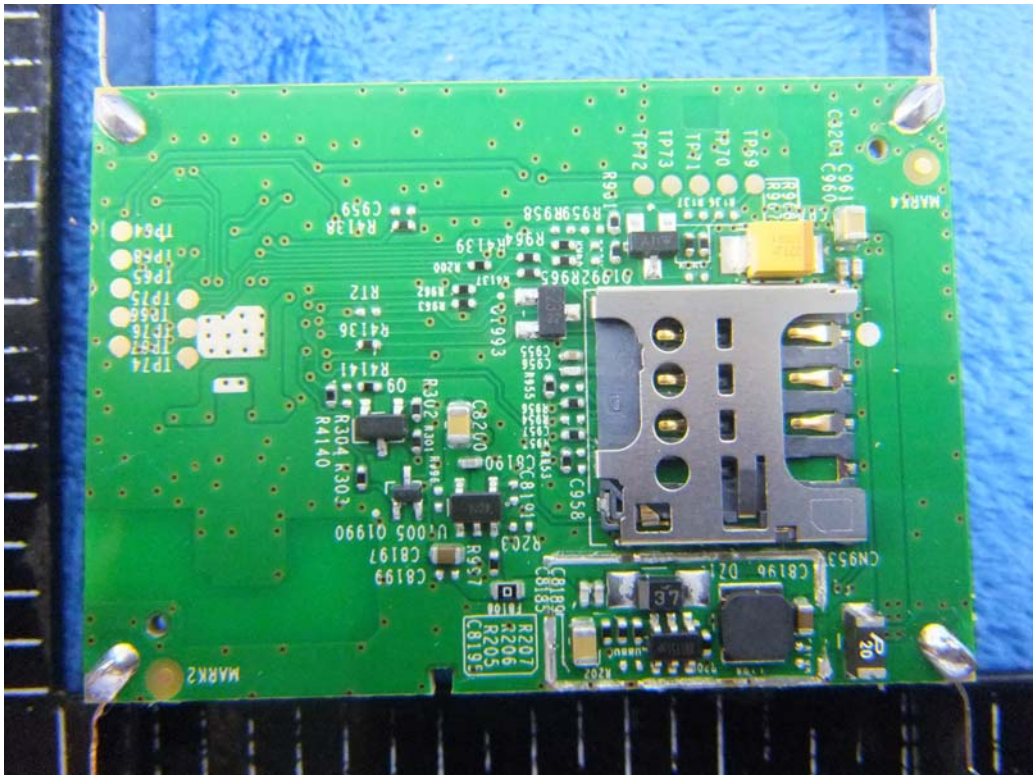
Mainboard with Shielding - Front View



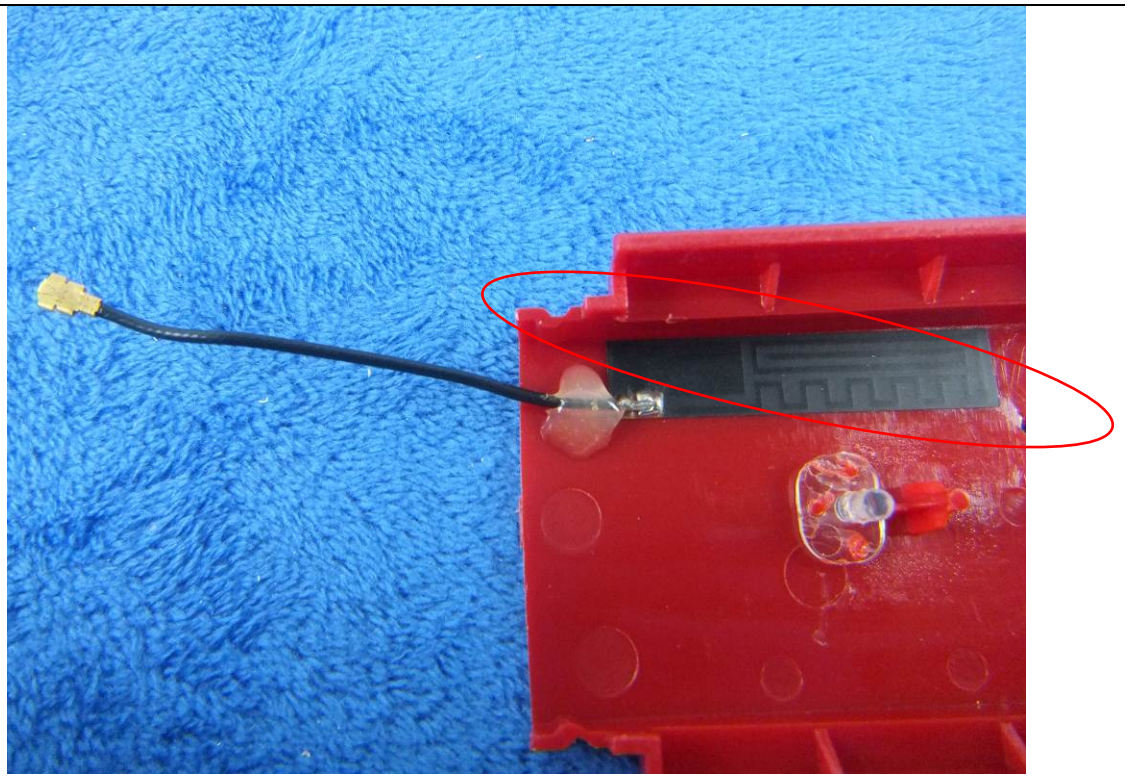
Main Borad Without Shielding - Front View



Mainboard with Shielding – Rear View



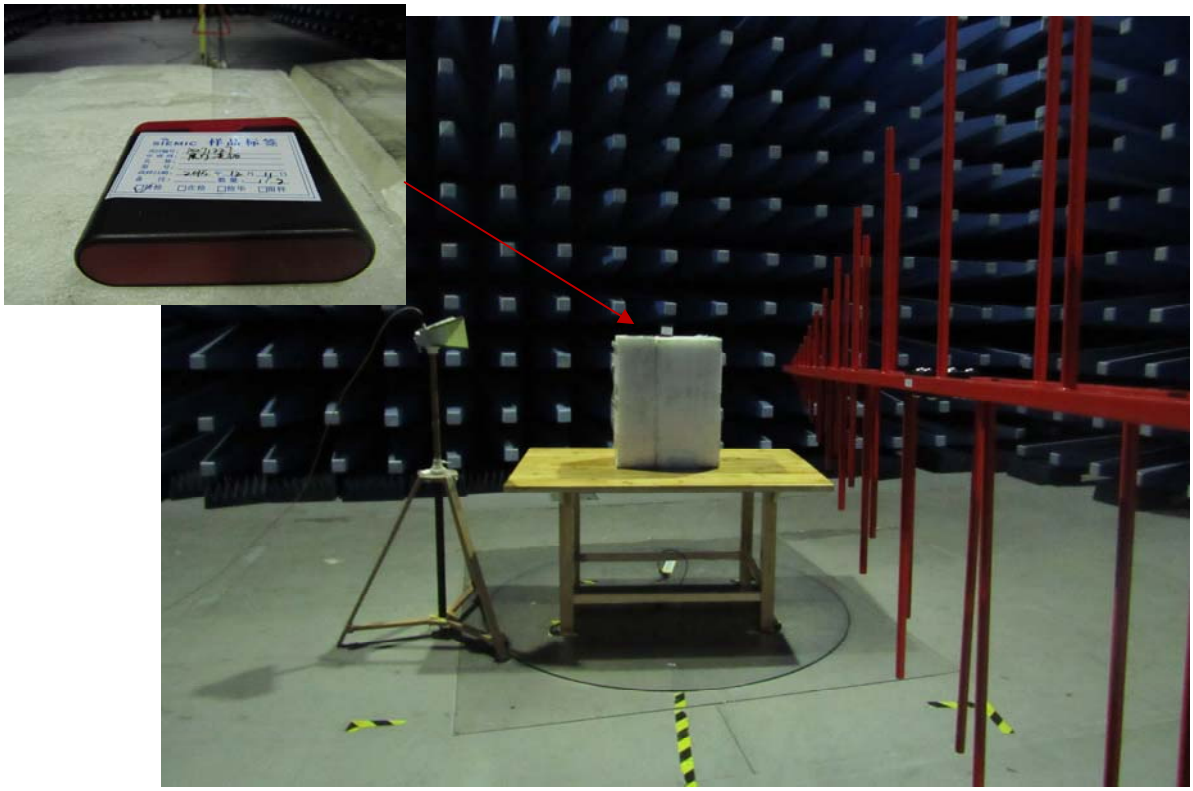
Mainboard witout Shielding - Rear View



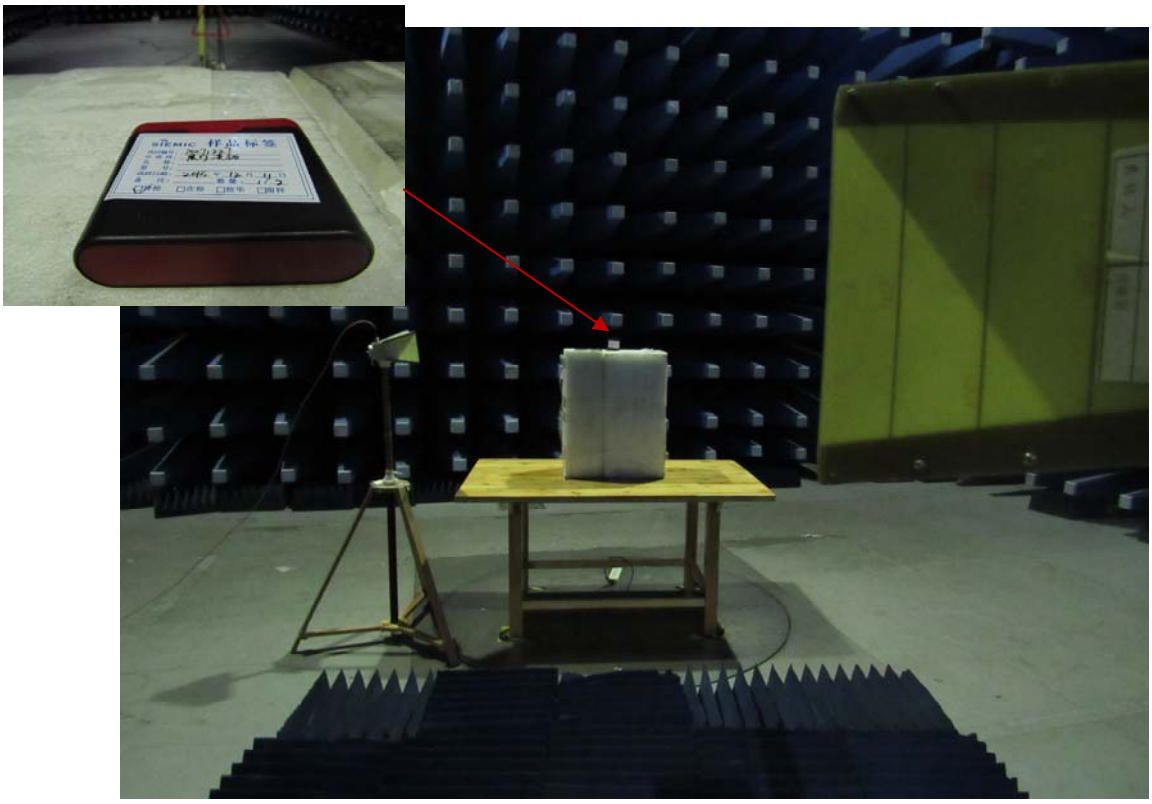
GPRS Antenna View

BLE Antenna View

Annex B.iii. Photograph 3: Test Setup Photo



Radiated Spurious Emissions Test Setup Below 1GHz - Front View



Radiated Spurious Emissions Test Setup Above 1GHz –Front View

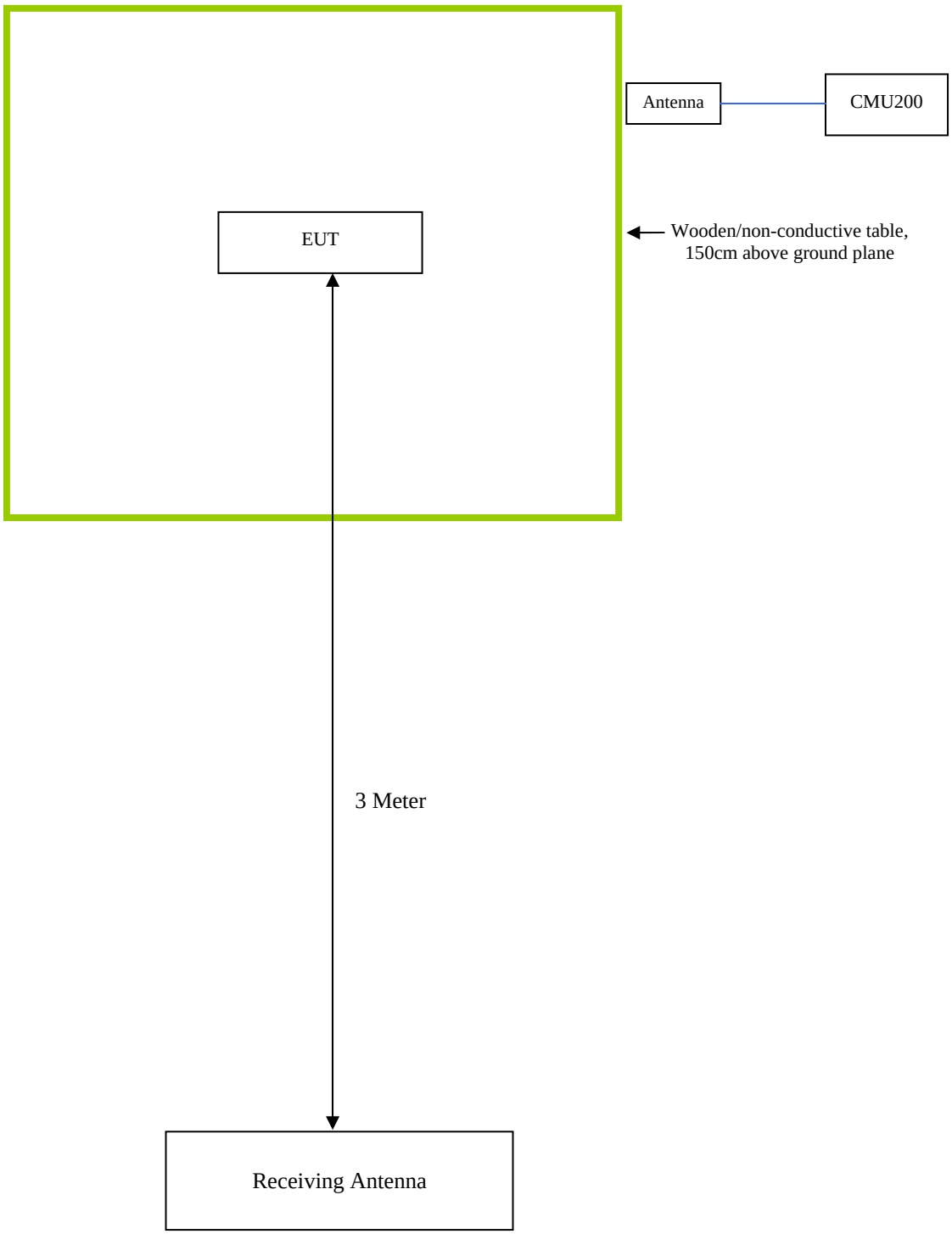
Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

EUT TEST CONDITIONS

Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Block Configuration Diagram for Radiated Emissions



Annex C.ii. EUT OPERATING CONDITIONS

The following is the description of how the EUT is exercised during testing.

Test	Description Of Operation
Emissions Testing	The EUT was communicating with base station and set to work at maximum output power.
Others Testing	The EUT was communicating with base station and set to work at maximum output power.

Annex D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PART LIST

Please see attachment

Annex E. DECLARATION OF SIMILARITY

Globatrac

To: SIEMIC , 775 Montague Expressway. Milpitas, CA 95035, USA

Declaration Letter

Dear Sir,

We declare that the power supply of product is provided by 2 AA batteries, so the normal working voltage is 3.0V. There is a step-up DC-DC circuit in the PCBA, so the power supply of the GSM module is 3.7V.

Thank you!

Printed name/title: Harry Steck / Manager
Tel: 310-362-7200
Fax: 310-362-7255
Address: 2930 Westwood Blvd., Suite 250, Los Angeles, CA. 90064 USA

To: SIEMIC , 775 Montague Expressway, Milpitas, CA 95035,USA

Declaration Letter

Dear Sir,

For our business issue and marketing requirement, we would like to list 2 model numbers on the XX certificates and reports, as following:

Model No.: CheckSmart Luggage Tracker/SKU601169
We declare that the difference of these is listed as below:

Main Model No	Serial Model No	Difference
CheckSmart Luggage Tracker	SKU601169	Color

Thank you!

Signature:

Printed name/title: Harry Steck
Tel: 424-239 - 6200
Fax: 424-239 - 6200
Address: 2930 Westwood Blvd., Suite 250, Los Angeles, CA. 90064 USA