

**Test Report No. 7191155156-EEC17/02**  
dated 07 Feb 2017



PSB Singapore

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FORMAL REPORT ON TESTING IN ACCORDANCE WITH  
47 CFR FCC Parts 15B & C  
OF AN  
**E-Log And Fleet Management Device**  
[ Model : DC200 ]  
[Contains FCC ID : A4C01005A & QIPXS8 ]

**TEST FACILITY** TÜV SÜD PSB Pte Ltd  
Electrical & Electronics Centre (EEC), Product Services,  
13 International Business Park #01-01, Singapore 609932

**FCC REG. NO.** 160581 (3m and 10m Semi-Anechoic Chamber, International Business Park)

**IND. CANADA REG. NO.** 2932N-1 (10m Semi-Anechoic Chamber, International Business Park)

**PREPARED FOR** PCI Limited  
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Singapore 628475  
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**QUOTATION NUMBER** 2191055485

**JOB NUMBER** 7191155156

**TEST PERIOD** 24 Jan 2017 – 25 Jan 2017

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LA-2007-0380-A LA-2007-0384-G  
LA-2007-0381-F LA-2007-0385-E  
LA-2007-0382-B LA-2007-0386-C  
LA-2007-0383-G LA-2010-0464-D

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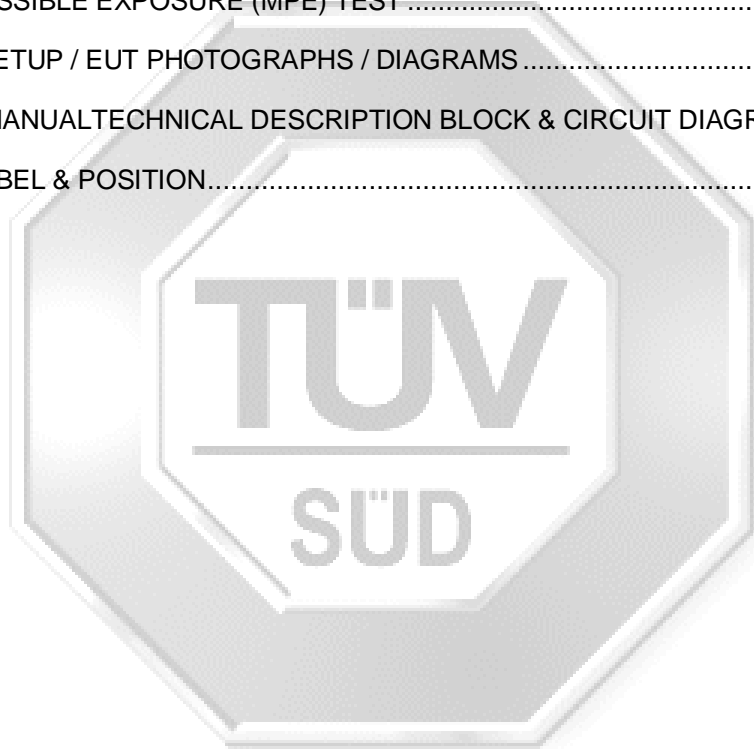
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**TEST SUMMARY**

The product was tested in accordance with the customer's specifications.

**Test Results Summary**

Test Standard	Description	Pass / Fail
47 CFR FCC Part 15		
15.107(a), 15.207	Conducted Emissions	Not Tested *See Note 4
15.109(a), 15.205, 15.209	Radiated Emissions (Spurious Emissions inclusive Restricted Bands Requirement)	Pass
15.247(a)(2)	Spectrum Bandwidth (6dB Bandwidth Measurement)	Not Tested *See Note 6
15.247(b)(3)	Maximum Peak Power	Not Tested *See Note 6
15.247(d)	RF Conducted Spurious Emissions (Non-Restricted Bands)	Not Tested *See Note 6
15.247(d)	RF Conducted Spurious Emissions (Restricted Bands)	Not Tested *See Note 6
15.247(d)	Band Edge Compliance (Conducted)	Not Tested *See Note 6
15.247(d)	Band Edge Compliance (Radiated)	Pass
15.247(e)	Peak Power Spectral Density	Not Tested *See Note 6
1.1310	Maximum Permissible Exposure	Pass



**TEST SUMMARY**

**Notes**

1. Three channels as listed below, which respectively represent the lower, middle and upper channels of the Equipment Under Test (EUT) were chosen and tested. For each channel, the EUT was configured to operate in the test mode.

<u>Transmit Channel</u>	<u>Frequency (MHz)</u>
Channel 0 (Lower Channel)	2402
Channel 39 (Middle Channel)	2440
Channel 78 (Upper Channel)	2480

2. The EUT is a Class B device when in non-transmitting state and meets the 47 CFR FCC Part15B Class B requirements.
3. All test measurement procedures are according to ANSI C63.4: 2014, ANSI C63.10: 2013 and KDB 558074 D01 DTS Measurement Guidance V03R05.
4. The Equipment Under Test (EUT) is a battery operated device / DC operated device and contains no provision for public utility connections.
5. The EUT was tested using fully charged batteries with DC voltage of 12.2V.
6. PCI Limited declares that the Bluetooth Module (Model: ODIN-W2) used in the product is a FCC & IC certified module (FCC ID: PVH0965, IC: 5325A-0965). The module was integrated into the main board without modifications in hardware nor firmware and this Bluetooth Module used was tested and reported in Report Number F151496E7 issued by PHOENIX TESTLAB GmbH dated 16 October 2015.
7. The EUT was operated in simultaneous multiple transmission (co-transmission) mode during the assessment. i.e. Cellular + WiFi + Bluetooth transmission.

**Modifications**

No modifications were made.

**PRODUCT DESCRIPTION**

Description : The Equipment Under Test (EUT) is an **E-Log And Fleet Management Device**.

Applicant : A4C-RM Acquisition LLC  
855 Woods Drive  
Skokie IL 60077  
USA

Manufacturer : PCI Limited  
35 Pioneer Road North  
Singapore 628475

Factory (ies) : Pt PCI Elektronik Internasional  
Panbil Industrial Estate  
Factory C Lot 2-3  
Jalan Ahmad Yani  
Muka Kuning, Batam  
29433 Indonesia

Model Number : DC200

Contains FCC ID : A4C01005A & QIPPS8

Serial Number : Nil

Microprocessor : STMicroelectronics STM32F746ZGT6 &  
IC ARM CORTEX M7 STM32 32-Bit LQFP144

Operating / Transmitting Frequency : Bluetooth  
2402MHz (lower channel) to 2480MHz (upper channel)  
79 channels

Bluetooth LE  
2402MHz (lower channel) to 2480MHz (upper channel)  
40 channels

WiFi 802.11b/g/n  
2412MHz (lower channel) to 2462MHz (upper channel)  
11 channels

Clock / Oscillator Frequency : 16MHz

Modulation : Gaussian Frequency Shift Keying (GFSK)

Antenna Gain : 3.0 dBi (Max)

Port / Connectors : Refer to manufacturer's user manual / operating manual

Rated Input Power : 12Vdc / 24Vdc

Accessories : Nil



**SUPPORTING EQUIPMENT DESCRIPTION**

<b>Equipment Description (Including Brand Name)</b>	<b>Model, Serial &amp; FCC ID Number</b>	<b>Cable Description (List Length, Type &amp; Purpose)</b>
Rohde & Schwarz Universal Radio Communication Tester	M/N: CMU200 S/N: 112123 FCC ID: Nil	2.00m unshielded power cable





**EUT OPERATING CONDITIONS**

**47 CFR FCC Part 15**

- 1. Radiated Emissions (Spurious Emissions inclusive Restricted Bands Requirement)**
- 2. Band Edge Compliance (Radiated)**
- 3. Maximum Permissible Exposure**

The EUT was exercised by operating in maximum continuous transmission in test mode, i.e transmitting at lower, middle and upper channels respectively at one time.



**RADIATED EMISSION TEST**

**47 CFR FCC Part 15.205 Restricted Bands**

MHz		MHz		MHz		GHz	
0.090	- 0.110	16.42	- 16.423	399.9	- 410	4.5	- 5.15
0.495	- 0.505	16.69475	- 16.69525	608	- 614	5.35	- 5.46
2.1735	- 2.1905	16.80425	- 16.80475	960	- 1240	7.25	- 7.75
4.125	- 4.128	25.5	- 25.67	1300	- 1427	8.025	- 8.5
4.17725	- 4.17775	37.5	- 38.25	1435	- 1626.5	9.0	- 9.2
4.20725	- 4.20775	73	- 74.6	1645.5	- 1646.5	9.3	- 9.5
6.215	- 6.218	74.8	- 75.2	1660	- 1710	10.6	- 12.7
6.26775	- 6.26825	108	- 121.94	1718.8	- 1722.2	13.25	- 13.4
6.31175	- 6.31225	123	- 138	2200	- 2300	14.47	- 14.5
8.291	- 8.294	149.9	- 150.05	2310	- 2390	15.35	- 16.2
8.362	- 8.366	156.52475	- 156.52525	2483.5	- 2500	17.7	- 21.4
8.37625	- 8.38675	156.7	- 156.9	2690	- 2900	22.01	- 23.12
8.41425	- 8.41475	162.0125	- 167.17	3260	- 3267	23.6	- 24.0
12.29	- 12.293	167.72	- 173.2	3332	- 3339	31.2	- 31.8
12.51975	- 12.52025	240	- 285	3345.8	- 3358	36.43	- 36.5
12.57675	- 12.57725	322	- 335.4	3600	- 4400	Above 38.6	
13.36	- 13.41						

**47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Limits**

Frequency Range (MHz)	Quasi-Peak Limit Values (dBµV/m)
0.009 - 0.490	20 log [2400 / F (kHz)] @ 300m
0.490 - 1.705	20 log [24000 / F (kHz)] @ 30m
1.705 - 30.0	30.0 @ 30m
30 - 88	40.0 @ 3m
88 - 216	43.5 @ 3m
216 - 960	46.0 @ 3m
Above 960	54.0* @ 3m

\* For frequency bands 9kHz – 90kHz, 110kHz – 490kHz and above 1GHz, average detector was used. A peak limit of 20dB above the average limit does apply.

**47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Instrumentation**

Instrument	Model	S/No	Cal Due Date
Rohde & Schwarz EMI Test Receiver (20Hz – 26.5GHz)	ESMI	849182/003 848926/007	22 Apr 2017
TDK RF Solutions Hybrid Log Periodic Antenna (30MHz-3GHz)	HLP-3003C	130238	22 Feb 2017
Sonoma Preamplifier (9kHz – 1GHz)	310N	270640	27 Dec 2017
Eletro-Metrics Double Ridged Antenna (Horn) Antenna (1-18GHz)	EM-6961	6525	24 Jan 2018
R&S Preamplifier (1GHz -18GHz)	SCU18	102191	11 Mar 2017
ETS Horn Antenna(18GHz-40GHz) (Ref)	3116	0004-2474	18 Oct 2017
Agilent Preamplifier(1GHz-26.5GHz) (PA18)	8449D	3008A02305	12 Oct 2017
Micro-tronics Bandstop Filter (2.4GHz)	BRM50701-02	007	13 Aug 2017
Micro-tronics Bandstop Filter (900MHz)	BRM14753	002	13 Aug 2017





**RADIATED EMISSION TEST**

**47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Setup**

1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table for measurement up to 1GHz. For measurement above 1GHz, 1.5m height table was used.
2. The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
3. The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.

**47 CFR FCC Parts 15.109(a) and 15.209 Radiated Emission Test Method**

1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. A prescan was carried out to pick the worst emission frequencies from the EUT. For EUT which is a portable device, the prescan was carried out by rotating the EUT through three orthogonal axes to determine which altitude and equipment arrangement produces such emissions.
3. The test was carried out at the selected frequency points obtained from the prescan in step 2. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
  - a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
  - b. The EUT was then rotated to the direction that gave the maximum emission.
  - c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
4. A Quasi-peak measurement was made for that frequency point if it was less than or equal to 1GHz. For frequency point in the range of 9kHz – 90kHz, 110kHz – 490kHz and above 1GHz, both Peak and Average measurements were carried out.
5. Steps 3 and 4 were repeated for the next frequency point, until all selected frequency points were measured.
6. The frequency range covered was from the lowest radio frequency signal generated from the EUT, without going below 9kHz to 10<sup>th</sup> harmonics of the EUT fundamental frequency, using the loop antenna for frequency below 30MHz, Bi-log antenna for frequencies from 30MHz up to 1GHz, and the Horn antenna above 1GHz.

**Sample Calculation Example**

At 300 MHz	Q-P limit = 46.0 dB $\mu$ V/m
Log-periodic antenna factor & cable loss at 300 MHz = 18.5 dB	
Q-P reading obtained directly from EMI Receiver = 40.0 dB $\mu$ V/m (Calibrated level including antenna factors & cable losses)	
Therefore, Q-P margin = 46.0 - 40.0 = 6.0	i.e. 6.0 dB below Q-P limit



**RADIATED EMISSION TEST**

**47 CFR FCC Parts 15.109(a), 15.205 and 15.209 Radiated Emission Results**

Test Input Power	12Vdc	Temperature	24°C
Test Distance	3m (<30MHz) 3m (≥30MHz – 25GHz)	Relative Humidity	60%
Modulation	GFSK @ 1Mbps	Atmospheric Pressure	1030mbar
		Tested By	Dylan Lin / Derrick Ng

Spurious Emissions ranging from 9kHz – 30MHz (for 9kHz – 90kHz, 110kHz – 490kHz) \*See Note 5

Freq (GHz)	Peak Value (dBμV/m)	Peak Limit (dBμV/m)	Peak Margin (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Ch
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Spurious Emissions ranging from 9kHz – 30MHz \*See Note 5

Frequency (MHz)	Q-P Value (dBμV/m)	Q-P Limit (dBμV/m)	Q-P Margin (dB)	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Channel
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Spurious Emissions ranging from 30MHz – 1GHz

Frequency (MHz)	Q-P Value (dBμV/m)	Q-P Limit (dBμV/m)	Q-P Margin (dB)	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Channel (Worst)
58.3020	17.6	40.0	22.4	101	24	V	39
151.9180	22.2	43.5	21.3	101	228	V	39
179.1320	25.9	43.5	17.6	101	329	V	39
277.1020	25.5	46.0	20.5	199	212	H	39
291.2530	25.8	46.0	20.2	101	243	H	39
302.1390	28.9	46.0	17.1	101	96	H	39

**RADIATED EMISSION TEST**

**47 CFR FCC Parts 15.109(a), 15.205 and 15.209 Radiated Emission Results**

Spurious Emissions above 1GHz - 25GHz

Freq (GHz)	Peak Value (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dB)	AV Value (dBµV/m) *See Note 2	AV Limit (dBµV/m)	AV Margin (dB) *See Note 3	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Ch
1.1683	38.2	74.0	35.8	--	54.0	15.8	199	254	H	0
1.2132	37.2	74.0	36.8	--	54.0	16.8	100	77	H	0
1.2637	37.4	74.0	36.6	--	54.0	16.6	100	91	H	0
1.6621	44.2	74.0	29.8	--	54.0	9.8	101	115	V	0
3.3511	46.0	74.0	28.0	--	54.0	8.0	101	201	V	0
4.9951	53.2	74.0	20.8	--	54.0	0.8	199	164	H	0

Spurious Emissions above 1GHz - 25GHz

Freq (GHz)	Peak Value (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dB)	AV Value (dBµV/m) *See Note 2	AV Limit (dBµV/m)	AV Margin (dB) *See Note 3	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Ch
1.1571	37.8	74.0	36.2	--	54.0	16.2	199	267	H	19
1.6621	43.2	74.0	30.8	--	54.0	10.8	199	198	V	19
3.0481	43.4	74.0	30.6	--	54.0	10.6	199	294	V	19
3.2388	45.6	74.0	28.4	--	54.0	8.4	199	120	H	19
3.9122	48.9	74.0	25.1	--	54.0	5.1	199	13	V	19
4.1815	49.2	74.0	24.8	--	54.0	4.8	199	35	V	19

Spurious Emissions above 1GHz - 25GHz

Freq (GHz)	Peak Value (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dB)	AV Value (dBµV/m) *See Note 2	AV Limit (dBµV/m)	AV Margin (dB) *See Note 3	Height (cm)	Azimuth (Degrees)	Pol (H/V)	Ch
1.1627	38.0	74.0	36.0	--	54.0	16.0	199	49	V	39
1.6677	42.7	74.0	31.3	--	54.0	11.3	199	59	H	39
4.8268	53.4	74.0	20.6	--	54.0	0.6	199	127	V	39
5.3879	52.4	74.0	21.6	--	54.0	1.6	199	164	H	39
5.4945	52.3	74.0	21.7	--	54.0	1.7	199	284	H	39
5.7526	52.4	74.0	21.6	--	54.0	1.6	199	190	H	39

**RADIATED EMISSION TEST**

Notes

1. All possible modes of operation were investigated. Only the worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. As the measured peak shows compliance to the average limit, as such no average measurement was required.
3. The average margin indicates the margin of the measured peak value below the average limit.
4. "--" indicates no emissions were found and shows compliance to the limits.
5. The measurement was done at 3m. The measured results were extrapolated to the specified test limits as specified in § 15.209 (a) based on 40dB/decade.
6. Quasi-peak measurement was used for frequency measurement up to 1GHz. Average and peak measurements were used for emissions above 1GHz. The average measurement was done by averaging over a complete cycle of the pulse train, including the blanking interval as the pulse train duration does not exceed 0.1 second.
7. A "positive" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency. Conversely, a "negative" margin indicates a FAIL.
8. EMI receiver Resolution Bandwidth (RBW) and Video Bandwidth (VBW) settings:  
30MHz - 1GHz  
RBW: 120kHz                      VBW: 1MHz  
>1GHz  
RBW: 1MHz                        VBW: 3MHz
9. The upper frequency of radiated emission investigations was according to requirements stated in Section 15.33(a) for intentional radiators & Section 15.33(b) for unintentional radiators.
10. The channel in the table refers to the transmit channel of the EUT.
11. Radiated Emissions Measurement Uncertainty  
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 30MHz – 25GHz is  $\pm 4.0\text{dB}$ .



## **BAND EDGE COMPLIANCE (RADIATED) TEST**

### **47 CFR FCC Part 15.247(d) Band Edge Compliance (Radiated) Limits**

The EUT shows compliance to the requirements of this section, which states in any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator (EUT) is operating, the radio frequency power that is produced by the EUT shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands shall comply to the radiated emission limits specified in 15.209.

### **47 CFR FCC Part 15.247(d) Band Edge Compliance (Radiated) Test Instrumentation**

<b>Instrument</b>	<b>Model</b>	<b>S/No</b>	<b>Cal Due Date</b>
Rohde & Schwarz EMI Test Receiver (20Hz – 26.5GHz)	ESMI	849182/003 848926/007	22 Apr 2017
Eletro-Metrics Double Ridged Antenna (Horn) Antenna (1-18GHz)	EM-6961	6525	24 Jan 2018
R&S Preamplifier (1GHz -18GHz)	SCU18	102191	11 Mar 2017
Micro-tronics Bandstop Filter (900MHz)	BRM14753	002	13 Aug 2017

### **47 CFR FCC Part 15.247(d) Band Edge Compliance (Radiated) Test Setup**

1. The EUT and supporting equipment were set up as shown in the setup photo.
2. The power supply for the EUT was connected to a filtered mains.
3. The resolution bandwidth (RBW) and the video bandwidth (VBW) of the spectrum analyser were respectively set to 100kHz and 300kHz to show compliance of spurious at band edges are at least 20dB below the carriers. For restricted band spurious at band edges, peak and average measurement plots were taken using the following setting:
  - a. Peak Plot:  
RBW = 1MHz, VBW = 3RBW
  - b. Average Plot  
RBW = 1MHz, VBW = 10Hz
4. All other supporting equipment were powered separately from another filtered mains.

### **47 CFR FCC Part 15.247(d) Band Edge Compliance (Radiated) Test Method**

1. The EUT was switched on and allowed to warm up to its normal operating condition. The EUT was then configured to operate in the test mode.
2. The frequency span of the spectrum analyser was set to wide enough to capture the lower band edge of the transmission band, 2.400GHz and any spurious emissions at the band edge.
3. The spectrum analyser was set to max hold to capture any spurious emissions within the span. The signal capturing was continuous until no further spurious emissions were detected.
4. The steps 2 to 3 were repeated with the frequency span of the spectrum analyser was set to wide enough to capture the upper band edge frequency of the transmission band, 2.4835GHz and the any spurious emissions at the band-edge.



**BAND EDGE COMPLIANCE (RADIATED) TEST**

**47 CFR FCC Part 15.247(d) Band Edge Compliance (Radiated) Results**

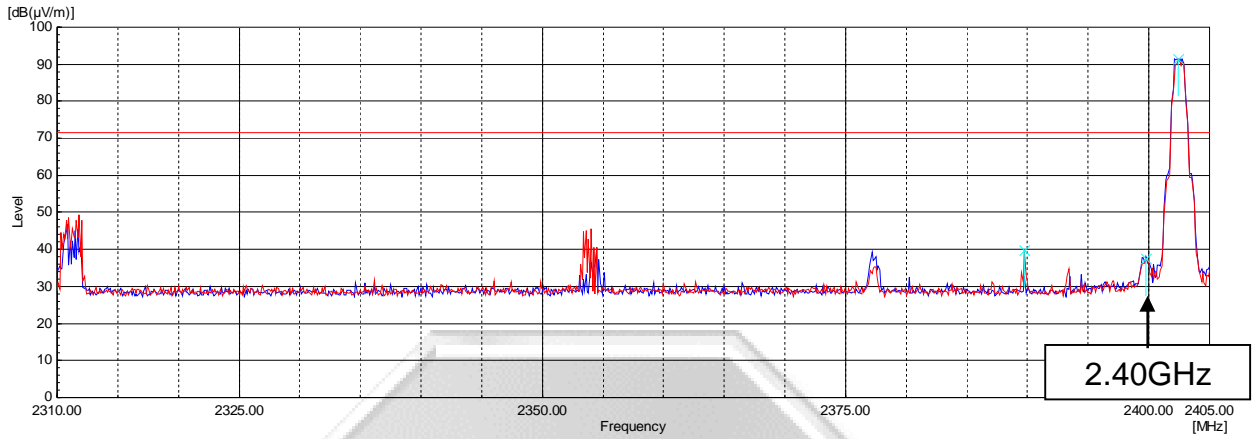
Test Input Power	12Vdc	Temperature	24°C
Attached Plots	1 – 6	Relative Humidity	60%
Modulation	GFSK @ 1Mbps	Atmospheric Pressure	1030mbar
		Tested By	Nazrulhizat

No significant signal was found and they were below the specified limit.

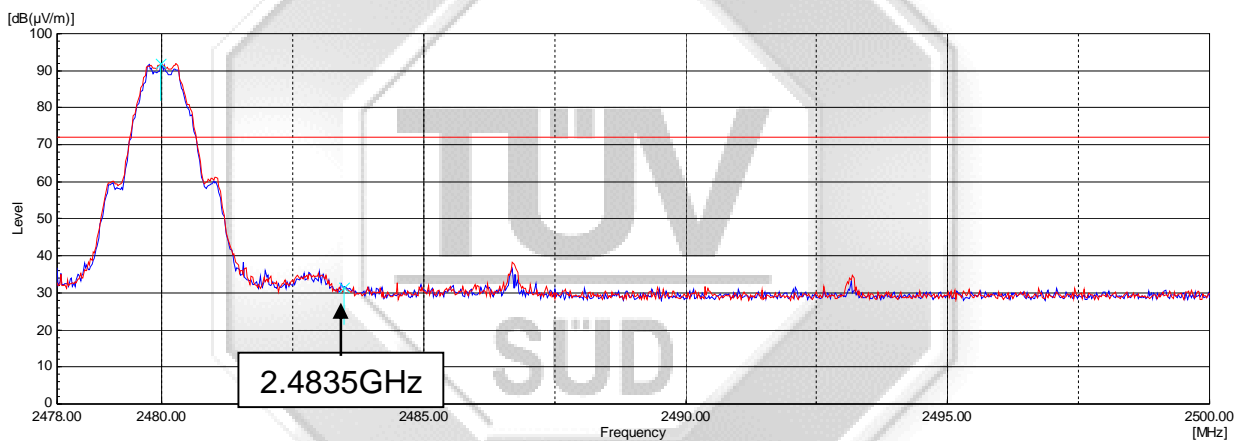


**BAND EDGE COMPLIANCE (RADIATED) TEST**

**Band Edge Compliance (Radiated) Plots (20dB Delta from Carrier at Band Edge)**



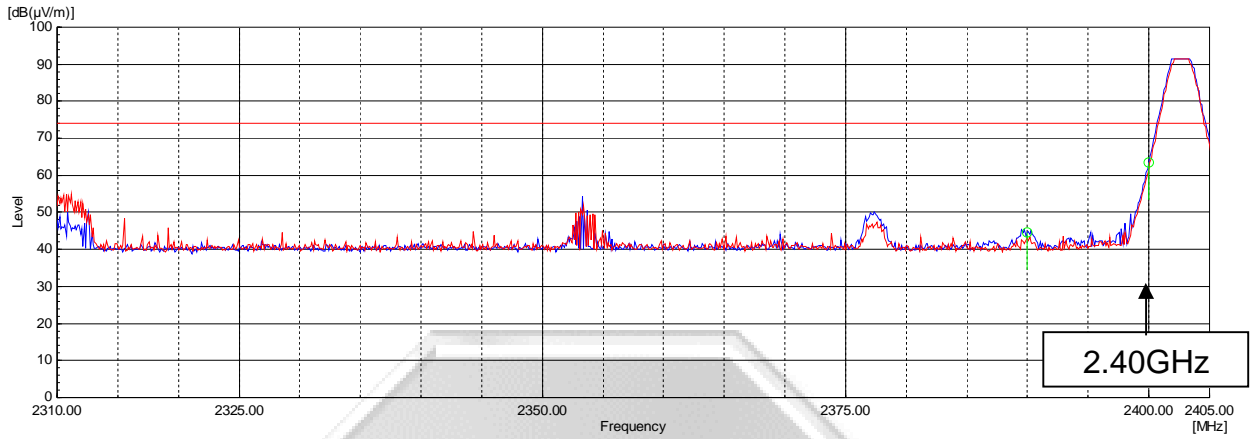
**Plot 1 – Lower Band Edge at 2.4000GHz**



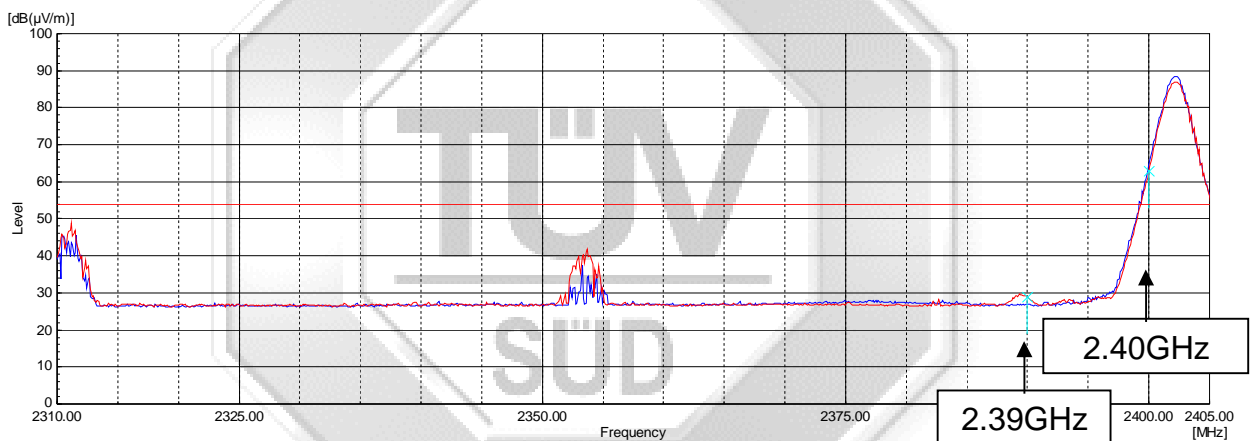
**Plot 2 – Upper Band Edge at 2.4835GHz**

**BAND EDGE COMPLIANCE (RADIATED) TEST**

**Band Edge Compliance (Radiated) Plots (Restricted Band)**



**Plot 3 – Peak Plot at Lower Band Edge at 2.4000GHz**

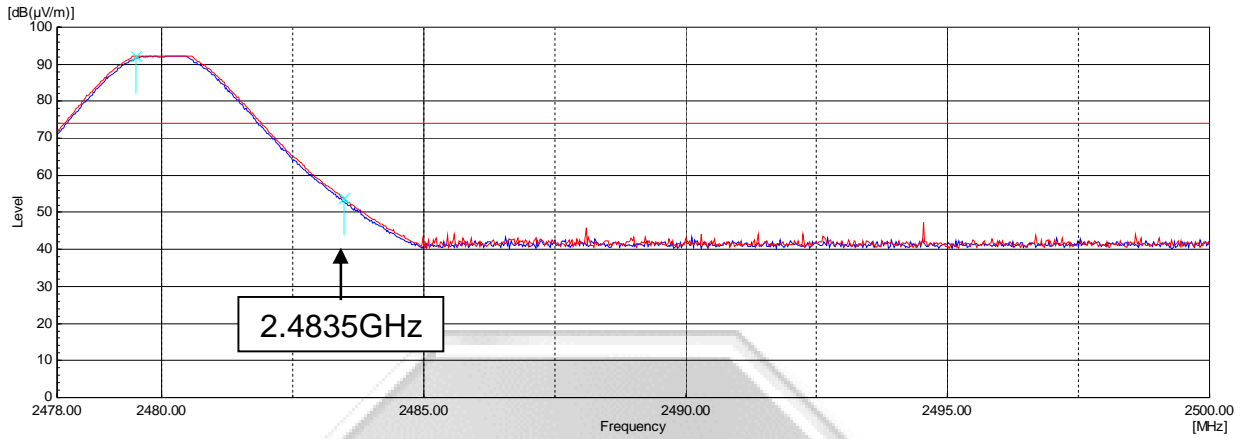


**Plot 4 – Average Plot at Lower Band Edge at 2.4000GHz**

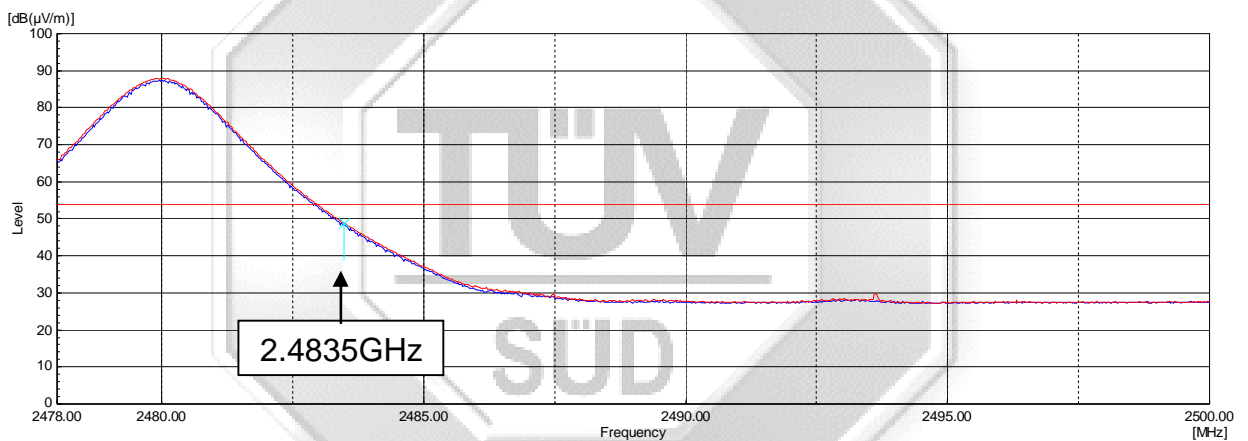


**BAND EDGE COMPLIANCE (RADIATED) TEST**

**Band Edge Compliance (Radiated) Plots (Restricted Band)**



**Plot 5 – Peak Plot at Upper Band Edge at 2.4835GHz**



**Plot 6 – Average Plot at Upper Band Edge at 2.4835GHz**

**MAXIMUM PERMISSIBLE EXPOSURE (MPE) TEST**

**47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Limits**

The EUT shows compliance to the requirements of this section, which states the MPE limits for general population / uncontrolled exposure are as shown below:

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (min)
0.3 - 1.34	614	1.63	100 <sup>Note 2</sup>	30
1.34 - 30	824 / f	2.19 / f	180 / f <sup>2</sup> <sup>Note 2</sup>	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	-	-	f / 1500	30
1500 - 100000	-	-	1.0	30
Notes				
1. f = frequency in MHz				
2. Plane wave equivalent power density				

**47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Test Instrumentation**

Instrument	Model	S/No	Cal Due Date
PMM 8053 Portable Field Meter	8053	0220J10308	20 Jan 2019
PMM EP330 Electric Field Probe	EP330	1010J10301	20 Jan 2019

**47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Test Setup**

- The EUT and supporting equipment were set up as shown on the setup photo.
- The relevant field probe was positioned at least 20cm away from the EUT and supporting equipment boundary.

**47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Test Method**

- The EUT was switched on and allowed to warm up to its normal operating condition.
- The test was first carried out at one of the positions / sides of the EUT.
- Power density measurement (mW/cm<sup>2</sup>) was made using the field meter set to the required averaging time.
- Steps 2 and 3 were repeated for the next position and its associate EUT operating mode, until all possible positions and modes were measured.

**Sample Calculation Example**

At 2400 MHz, limit = 1.0 mW/cm<sup>2</sup>

Power density reading obtained directly from field meter = 0.3 mW/cm<sup>2</sup> averaged over the required 30 minutes.

Therefore, margin = 0.3 – 1.0 = -0.7 mW/cm<sup>2</sup> i.e. 0.7 mW/cm<sup>2</sup> below limit



**MAXIMUM PERMISSIBLE EXPOSURE (MPE) TEST**

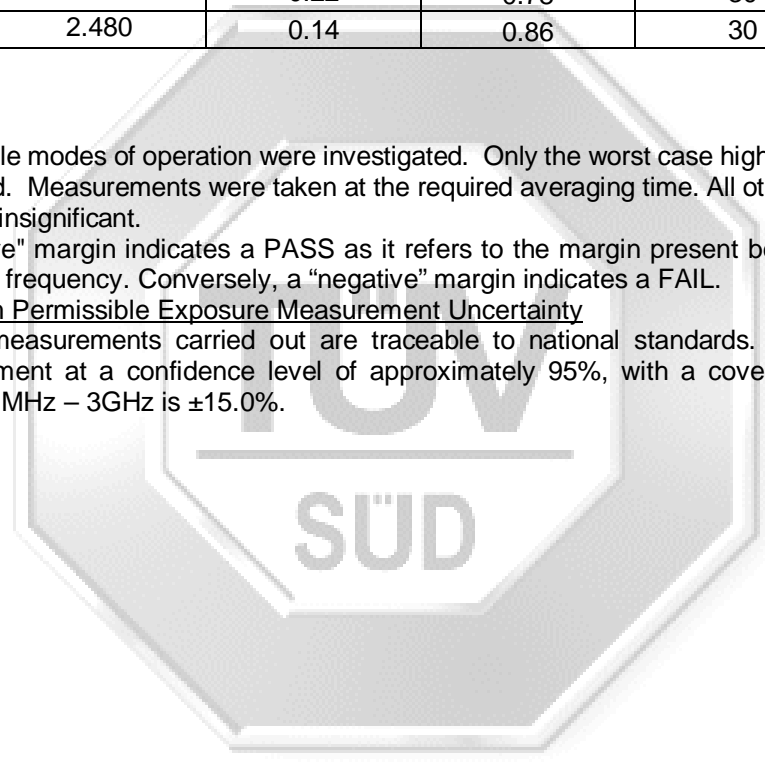
**47 CFR FCC Part 1.1310 Maximum Permissible Exposure (MPE) Results**

Test Input Power	12Vdc	Temperature	24°C
Test Distance	20cm	Relative Humidity	60%
Modulation	GFSK @ 1Mbps	Atmospheric Pressure	1030mbar
		Tested By	Chang Wai Kit

Channel	Channel Frequency (GHz)	Power Density Value (mW/cm <sup>2</sup> )	Margin (mW/cm <sup>2</sup> )	Averaging Time (min)	Limit (mW/cm <sup>2</sup> )
0 (lower ch)	2.402	0.23	0.77	30	1.0
19 (mid ch)	2.440	0.22	0.78	30	1.0
39 (upper ch)	2.480	0.14	0.86	30	1.0

Notes

- All possible modes of operation were investigated. Only the worst case highest radiation levels were measured. Measurements were taken at the required averaging time. All other radiation levels were relatively insignificant.
- A "positive" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency. Conversely, a "negative" margin indicates a FAIL.
- Maximum Permissible Exposure Measurement Uncertainty  
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95%, with a coverage factor of 2, in the range 0.1MHz – 3GHz is ±15.0%.





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July 2011

