FCC TEST REPORT

Test report On Behalf of GSM GLOBE. COM INC For Tablet PC Model No.: TEAM 7, Pro, PLUS+, Super

FCC ID: 2AEJAGOLTEAM7

Prepared for :	GSM GLOBE. COM INC		
	134 N.E 1 Street, Miami, FL 33132, USA		

Prepared By :Laboratory of Shenzhen United Testing Technology Co., LtdRoom 316-319, Block B, Honghualing Industrial Park of the Fifth Zone, Taoyuan
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Date of Test:	Apr. 05, 2017 ~ Apr. 12, 2017
Date of Report:	Apr. 12, 2017
Report Number:	UNI170405076-E

TEST RESULT CERTIFICATION

Applicant's name	GSM GLOBE. COM INC			
Address:	134 N.E 1 Street, Miami, FL 33132, USA			
Manufacture's Name	Shenzhen Forward Technology Co., LTD.			
Address:	5F B-blog, Hengmingzhu Industrial Park, QianjinEr Rd., Xixiang Sub-district, Bao'An Dist., Shenzhen City, China.			
Product description				
Trade Mark:	GOL			
Product name:	Tablet PC			
Model and/or type reference :	TEAM 7, Pro, PLUS+, Super			
Standards	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013			

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Date of Test	
Date (s) of performance of tests:	Apr. 05, 2017 ~ Apr. 12, 2017
Date of Issue	Apr. 12, 2017
Test Result	Pass

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1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT
CONDUCTED EMISSIONS TEST	COMPLIANT
RADIATED EMISSION TEST	COMPLIANT
BAND EDGE	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	COMPLIANT
ANTENNA REQUIREMENT	COMPLIANT

1.2 TEST FACILITY

Test Firm	: Dongguan Dongdian Testing Service Co., Ltd
	Certificated by FCC, Registration No.: 270092
Address	No.17 Zongbu road 2, Songshan Lake Sci&Tech Park, DongGuan
	City, Guangdong province,523808 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	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
Model DifferenceAll model's the function, software and electric circuiSame, only with a product color and model namedTest sample model: TEAM 7 .	
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	802.11b/g/n 20:2412~2462 MHz 802.11n 40: 2422~2452MHz
Number of Channels	802.11b/g/n20: 11CH 802.11n 40: 7CH
Modulation Type	CCK/OFDM/DBPSK/DAPSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Equipment	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
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: TEAM 7.
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	2402-2480MHz
Number of Channels	40CH
Modulation Type	GFSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Equipment	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
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: TEAM 7.
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	2402-2480MHz
Number of Channels	79CH
Modulation Type	GFSK, Pi/4 DQPSK, 8DPSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Note: This report only BT(79CH) test report, BT(40CH) and WIFI transmitters see the other test reports.

Channel List					
Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel	(MHz)	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
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
25	2427	52	2454		
26	2428	53	2455		

2.1.1 Carrier Frequency of Channels

Operation of EUT during testing

Operating Mode

The mode is used: Transmitting mode

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

2.2 DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing



Operation of EUT during radiation testing



2.3 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
2.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 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. 19, 2017	1 Year
6.	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Feb. 19, 2017	1 Year
7.	Pre-amplifier	Compliance Direction	PAP-0203	22008	Feb. 19, 2017	1 Year
8.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
9.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
10.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
11.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 2017	1 Year
12.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
13.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
14.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
15.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
16.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 2017	1 Year
17.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
18.	Power Meter	R&S	NRVD	SEL0069	Feb. 19, 2017	1 Year
19.	Power Sensor	R&S	URV5-Z2	SEL0071	Feb. 19, 2017	1 Year
20.	Power Sensor	R&S	URV5-Z2	SEL0072	Feb. 19, 2017	1 Year
21.	Software EMC32	R&S	EMC32-S	SEL0082	N/A	N/A
22.	Log-periodic Antenna	Amplifier Reasearch	AAS-118880	SEL0073	N/A	N/A
23.	Antenna Tripod	Amplifier Reasearch	TP1000A	SEL0074	N/A	N/A
24.	High Gain Horn Antenna(0.8-5GHz)	Amplifier Reasearch	AT4002A	SEL0075	N/A	N/A
25.	Spectrum analyzer	Agilent	N9020A	MY499110 048	Feb. 19, 2017	1 Year
26.	Spectrum analyzer	Agilent	E4407B	MY461843 26	Feb. 19, 2017	1 Year

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

Frequency	М	aximum RF L	ine Voltage (d	3μV)			
(MHz)	CLAS	SS A	C	LASS 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 0.8 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

Remark: All modes of GFSK, Pi/4 DQPSK, 8DPSK were test at Low, Middle, and High channel; only the worst result of 8DPSK High Channel was reported as below:



Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501 0.159001 0.190501 0.217501 0.249001	58.70 58.40 55.30 52.30 49.10	10.2 10.2 10.2 10.2 10.2	66 66 63 62	7.1 7.1 8.7 10.6 12.7	QP QP QP QP QP	L1 L1 L1 L1 L1	GND GND GND GND GND
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501 0.186001 0.478501 0.559501 0.595501	46.70 43.70 27.80 27.00 27.30	10.2 10.2 10.2 10.2 10.2	56 54 46 46	9.1 10.5 18.6 19.0 18.7	AV AV AV AV AV	L1 L1 L1 L1 L1	GND GND GND GND GND

Line





Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501 0.159001 0.186001 0.222001 0.249001 0.276001	61.20 60.60 58.20 54.20 51.40 48.40	10.2 10.2 10.2 10.2 10.2 10.2	66 66 63 62 61	4.6 4.9 6.0 8.5 10.4 12.5	QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501 0.190501 0.217501 0.285001 0.316501	49.40 44.90 42.80 33.20 30.10	10.2 10.2 10.2 10.2 10.2	56 54 53 51 50	6.4 9.1 10.1 17.5 19.7	AV AV AV AV AV	N N N N	GND GND GND GND GND

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)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	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 0.8m 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).

Note:

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

4.4 Test Result

PASS

Remark:

- 1. All modes of GFSK, Pi/4 DQPSK, 8DPSK were test at Low, Middle, and High channel; only the worst result of GFSK DH5 low Channel was reported for below 1GHz test.
- 2. For BT3.0 above 1GHz test all modes of GFSK, Pi/4 DQPSK, and 8DPSK were test at Low, Middle, and High channel; only the worst result of GFSK DH5 was reported.
- 3. By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "Z axis" position was the worst, and test data recorded in this report.
- 4. Radiated emission test from 9KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9KHz to 30MHz and not recorded in this report.





	Qr Lini	FK							
Suspected List									
NO.	Freq. [MHz]	Result Level [dBµV]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle[°]	Polarity	
1	45.520	17.44	-13.94	40.00	22.56	100	47	Horizontal	
2	408.30	29.67	-9.88	46.50	16.83	100	11	Horizontal	
3	431.58	31.08	-9.41	46.50	15.42	100	7	Horizontal	
4	455.83	38.26	-8.94	46.50	8.24	100	9	Horizontal	
5	480.08	32.67	-8.46	46.50	13.83	100	9	Horizontal	
6	504.33	34.55	-7.95	46.50	11.95	100	19	Horizontal	

Antenna polarity: V



Suspected List									
NO.	Freq. [MHz]	Result Level [dBµV]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle[°]	Polarity	
1	40.670	17.32	-14.55	40.00	22.68	100	88	Vertical	
2	45.520	17.37	-13.94	40.00	22.63	100	247	Vertical	
3	60.070	16.47	-15.67	40.00	23.53	100	352	Vertical	
4	108.57	15.42	-16.01	43.50	28.08	100	238	Vertical	
5	217.21	17.78	-14.90	46.50	28.72	100	240	Vertical	
6	252.13	18.16	-13.83	46.50	28.34	100	105	Vertical	

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: BT3.0 GFSK Mode (above 1GHz) CH Low (2402MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	112.36	-5.84	106.52	114	-7.48	peak
2402	85.29	-5.84	79.45	94	-14.55	AVG
4804	57.85	-3.64	54.21	74	-19.79	peak
4804	44.07	-3.64	40.43	54	-13.57	AVG
7206	53.61	-0.95	52.66	74	-21.34	peak
7206	39.44	-0.95	38.49	54	-15.51	AVG
Bomarki Faat	or - Antonno Fo	ator I Cabla I c	Dro omplifior	-		

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	111.39	-5.84	105.55	114	-8.45	peak
2402	84.58	-5.84	78.74	94	-15.26	AVG
4804	56.91	-3.64	53.27	74	-20.73	peak
4804	43.72	-3.64	40.08	54	-13.92	AVG
7206	53.67	-0.95	52.72	74	-21.28	peak
7206	38.16	-0.95	37.21	54	-16.79	AVG
Remark: Facto	or = Antenna Fac	ctor + Cable Lo	oss – Pre-amplifier			

CH Middle (2441MHz)

Horizontal.		
	Lorizontal	
	TIONZONIA	
		•

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2441	110.22	-5.71	104.51	114	-9.49	peak
2441	84.13	-5.71	78.42	94	-15.58	AVG
4882	56.76	-3.51	53.25	74	-20.75	peak
4882	45.08	-3.51	41.57	54	-12.43	AVG
7323	54.32	-0.82	53.5	74	-20.5	peak
7323	38.77	-0.82	37.95	54	-16.05	AVG
Remark: Facto	or = Antenna Fac	ctor + Cable Lo	oss – Pre-amplifier			

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2441	109.72	-5.71	104.01	114	-9.99	peak
2441	82.95	-5.71	77.24	94	-16.76	AVG
4882	56.18	-3.51	52.67	74	-21.33	peak
4882	43.06	-3.51	39.55	54	-14.45	AVG
7323	53.49	-0.82	52.67	74	-21.33	peak
7323	38.25	-0.82	37.43	54	-16.57	AVG
Remark: Facto	or = Antenna Fa	ctor + Cable Lo	oss – Pre-amplifier			

CH High (2480MHz)

Horizontal	•
TIONZONIA	•

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2480	108.54	-5.65	102.89	114	-11.11	peak
2480	83.83	-5.65	78.18	94	-15.82	AVG
4960	56.12	-3.43	52.69	74	-21.31	peak
4960	44.77	-3.43	41.34	54	-12.66	AVG
7440	54.04	-0.75	53.29	74	-20.71	peak
7440	39.36	-0.75	38.61	54	-15.39	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2480	106.94	-5.65	101.29	114	-12.71	peak
2480	81.55	-5.65	75.9	94	-18.1	AVG
4960	56.14	-3.43	52.71	74	-21.29	peak
4960	41.97	-3.43	38.54	54	-15.46	AVG
7440	52.08	-0.75	51.33	74	-22.67	peak
7440	38.45	-0.75	37.7	54	-16.3	AVG

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

Note: GFSK, Pi/4 DQPSK and 8DPSK all have been tested, only worse case GFSK is reported.

Radiated Band Edge Test: Operation Mode: TX CH Low (2402MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	53.23	-5.81	47.42	74	-26.58	peak
2310	/	-5.81	/	54	/	AVG
2390	55.17	-5.84	49.33	74	-24.67	peak
2390	/	-5.84	/	54	/	AVG
	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)	Туре
2310	52.32	-5.81	46.51	74	-27.49	peak
2310	/	-5.81	/	54	/	AVG
2390	54.47	-5.84	48.63	74	-25.37	peak
2390	/	-5.84	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	52.65	-5.65	47	74	-27	peak
2483.5	/	-5.65	/	54	/	AVG
2500	53.72	-5.72	48	74	-26	peak
2500	1	-5.72	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2480MHz) Horizontal

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	51.05	-5.65	45.4	74	-28.6	peak
2483.5	1	-5.65	/	54	/	AVG
2500	52.46	-5.72	46.74	74	-27.26	peak
2500	/	-5.72	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.

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= 100 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

GFSK Modulation:

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.042	PASS
2441 MHz	1.038	PASS
2480 MHz	1.039	PASS

CH: 2402MHz



CH: 2441MHz



CH: 2480MHz



π /4 DQPSK Modulation:

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.099	PASS
2441 MHz	1.101	PASS
2480 MHz	1.102	PASS

CH: 2402MHz



CH: 2441MHz



CH: 2480MHz



8DPSK Modulation:

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.358	PASS
2441 MHz	1.347	PASS
2480 MHz	1.352	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 PCB Antenna, The directional gains of antenna used for transmitting is 1dBi.



8 PHOTOGRAPH OF TEST

8.1 Radiated Emission





8.2 Conducted Emission

