FCC RADIO TEST REPORT
FCC ID: 2AC3ES1C002A

Product： Interface System

Trade Name： Sitegrate

Model Name： S1C002A-Y01

Serial Model： S1C004A-P01, S1C004B-Y01, S1C005A-Y01, S1C009B-Y01, S1C013A-Y01, S1C014A-P01, S1C016A-Y01, S1C017A-Y01, S1C018A-Y01

Report No.： BZT-2014NT0814156F

Prepared for

Seamless Integration Electronics Technology Co.Limited

4/F Bldg.D No.1 Nanxiangzhi Rd.Economy Develepment Zone, Kexuecheng, Luogang District, Guangzhou, China.

Prepared by

Shenzhen BZT Testing Technology Co., Ltd.

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen P.R. China

TEST RESULT CERTIFICATION

Applicant's name ..... : Seamless Integration Electronics Technology Co.Limited

Address ..... : 4/F Bldg.D No.1 Nanxiangzhi Rd.Economy Develepment Zone, Kexuecheng, Luogang District, Guangzhou, China.

Manufacture's Name..... : Seamless Integration Electronics Technology Co.Limited

Address ..... : 4/F Bldg.D No.1 Nanxiangzhi Rd.Economy Develepment Zone, Kexuecheng, Luogang District, Guangzhou, China.

Product description

Product name ..... : Interface System

Model and/or type reference : S1C002A-Y01

Serial Model： S1C004A-P01, S1C004B-Y01, S1C005A-Y01, S1C009B-Y01, S1C013A-Y01, S1C014A-P01, S1C016A-Y01, S1C017A-Y01, S1C018A-Y01

Rating(s) ..... : DC 12V from battery

Standards ..... : FCC Part15.249

Test procedure..... ANSI C63.4-2003

This device described above has been tested by BZT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....:

Date (s) of performance of tests .....: 12 August. 2014 ~17 August. 2014

Date of Issue.....: 18 August. 2014

Test Result.....: **Pass**

Testing Engineer : Lynn Chen

(Lynn Chen)

Technical Manager : Carlen

(Carlen Liu)

Authorized Signatory : Tommy zhang

(Tommy zhang)

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	
15.203	Antenna Requirement	Pass	
15.249	Radiated Spurious Emission	Pass	
15.205	Band Edge Emission	Pass	
15.249	Occupied Bandwidth	Pass	

NOTE:

(1)” N/A” denotes test is not applicable in this Test Report

1.1 TEST FACILITY

BZT Testing Technology Co., Ltd
Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.
FCC Registration No.: 701733

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ± U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Interface System
Trade Name	Sitegrate Sintegrate
Model Name	S1C002A-Y01
Serial Model	S1C004A-P01, S1C004B-Y01, S1C005A-Y01, S1C009B-Y01, S1C013A-Y01, S1C014A-P01, S1C016A-Y01, S1C017A-Y01, S1C018A-Y01
Model Difference	All model's the function, software and electric circuit are the same , only with a product color and model named different, test mode is S1C002A-Y01.
Product Description	The EUT is a Interface System Operation Frequency: 2402~2480MHz Modulation Type: GFSK Antenna Designation: Internal antenna Antenna Gain(Peak) 0 dBi EIRP 95.05 dbuv/m@3m Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. Note: This radio test report only applies for transmitter 2.4GHz, For other transmitters is tested and reported in another radio test report.
Channel List	Please refer to the Note 2.
Adapter	N/A
Battery	DC 12V

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (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		

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Internal antenna	NA	0	Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH00
Mode 2	CH39
Mode 3	CH78
Mode 4	Link Mode

For Conducted Emission	
Final Test Mode	Description
Mode 4	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH00
Mode 2	CH39
Mode 3	CH78

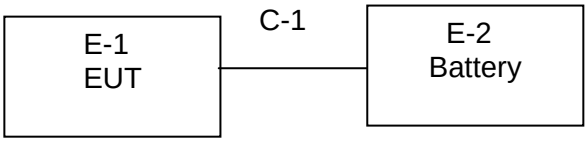
Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

(2) The EUT use new battery.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



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2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Interface System	Sitegrate	S1C002A-Y01	N/A	EUT
E-2	Battery	N/A	N/A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.5m	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2014.07.05	2015.07.04	1 year
2	Test Receiver	R&S	ESPI	101318	2014.07.05	2015.07.04	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2014.07.22	2015.07.21	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2014.07.05	2015.07.04	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2014.07.05	2015.07.04	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2014.07.22	2015.07.21	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2014.07.22	2015.07.21	1 year
8	Amplifier	EM	EM-30180	060538	2014.07.05	2015.07.04	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2014.07.22	2015.07.21	1 year
10	Power Meter	R&S	NRVS	100696	2014.07.05	2015.07.04	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2014.06.20	2015.06.19	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2014.07.05	2015.07.04	1 year
2	LISN	R&S	ENV216	101313	2014.07.05	2015.07.04	1 year
3	LISN	EMCO	3816/2	00042990	2014.07.05	2015.07.04	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2014.07.05	2015.07.04	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2014.07.05	2015.07.04	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2014.07.05	2015.07.04	1 year

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3. ANTENNA REQUIREMENT

3.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, 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.

3.2 EUT ANTENNA

The EUT antenna is Integral Antenna . It comply with the standard requirement.

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3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP002.
0.50 -5.0			56.00	46.00	LP002.
5.0 -30.0			60.00	50.00	LP002.

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

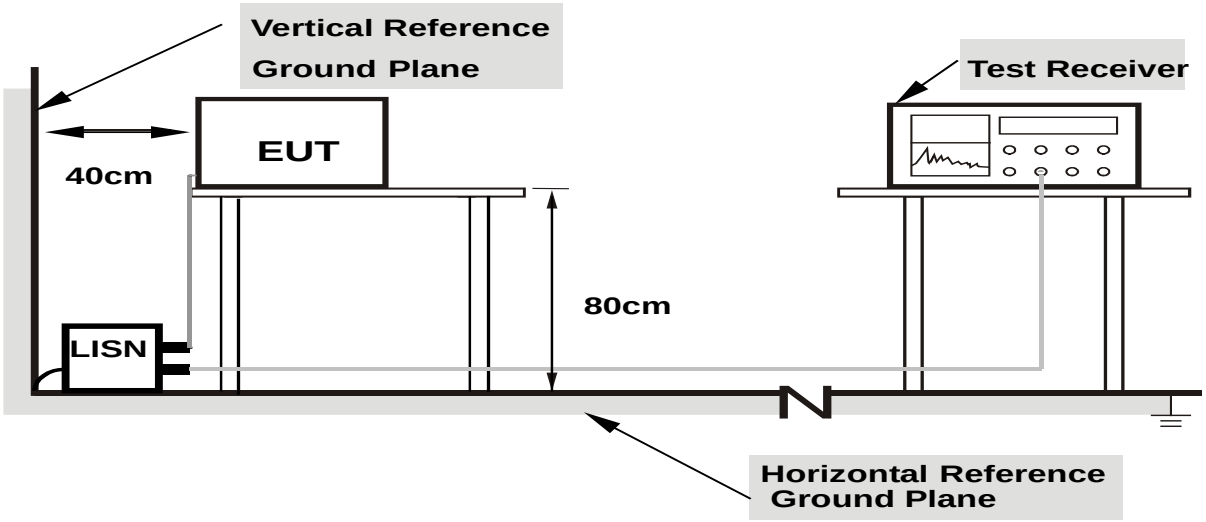
3.3.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.2.5 TEST RESULT

EUT：	Interface System	Model Name. ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	N/A
Test Mode ：	N/A	Phase :	N/A
Note: EUT power supply by battery, so the test not applicable.			

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3.4 RADIATED EMISSION MEASUREMENT

3.4.1 Radiated Emission Limits (FCC 15.209)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

(1) The tighter limit applies at the band edges.

(2) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (FCC 15.249)

Frequency of Emission (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
2400 - 2483.5	50	500

Notes:

(1) 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 Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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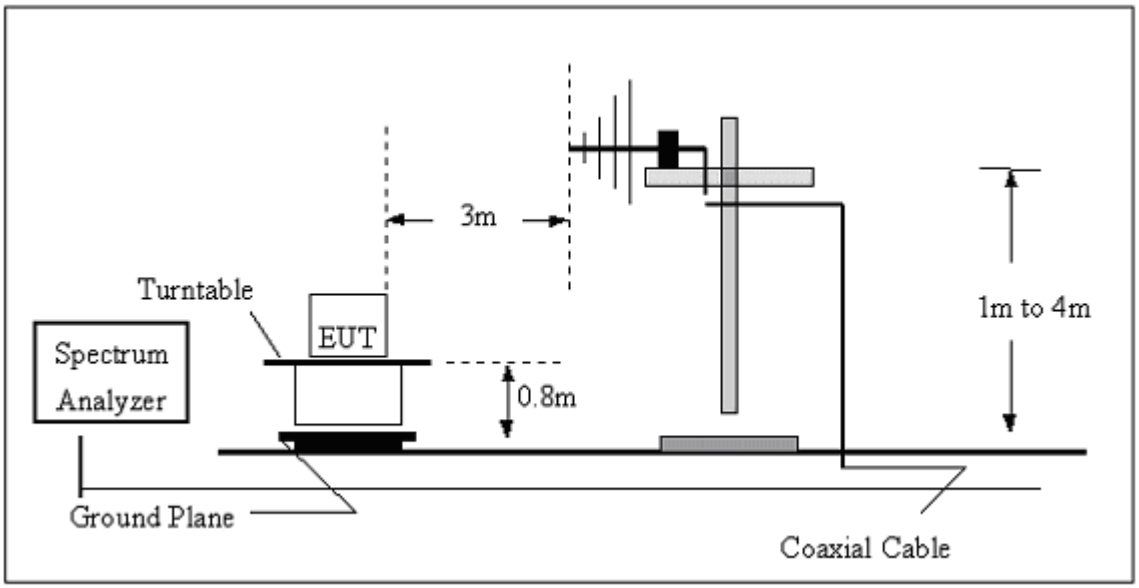
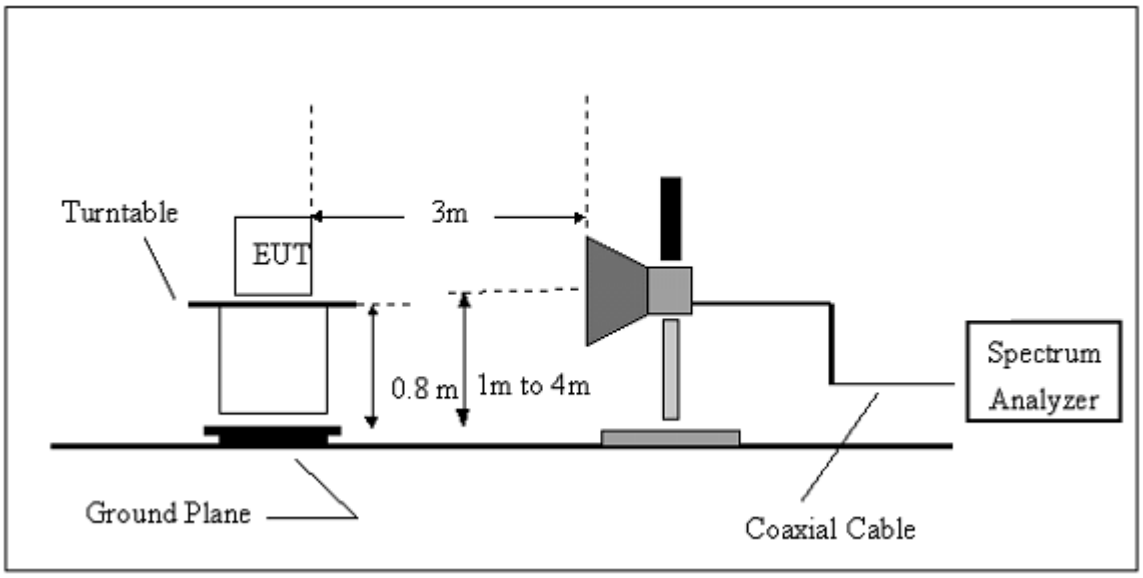
（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



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



3.4.5 TEST RESULTS (BLOW 30MHz)

EUT：	Interface System	Model Name. ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =20 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

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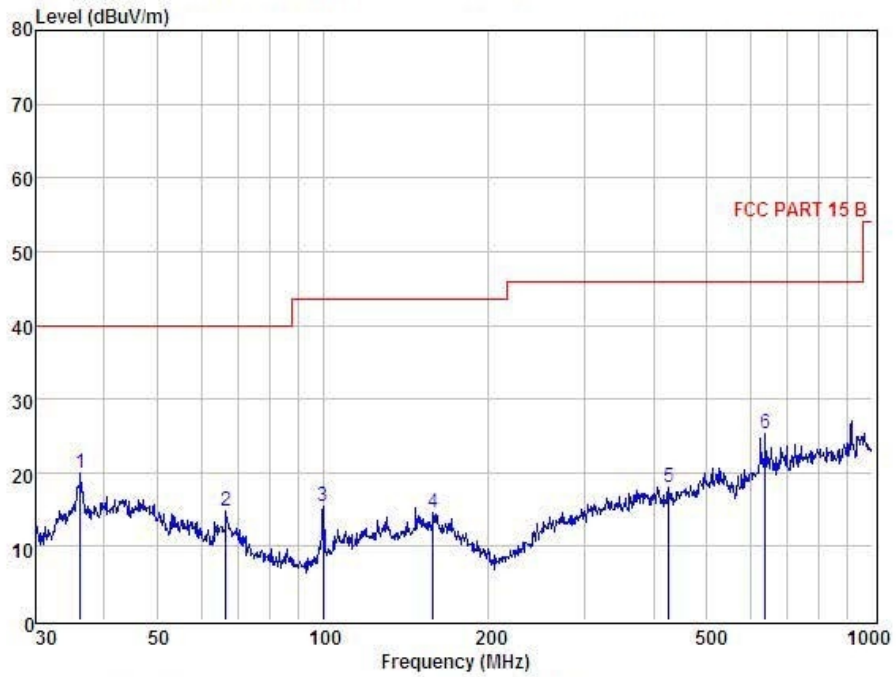
3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX	Polarization :	Vertical

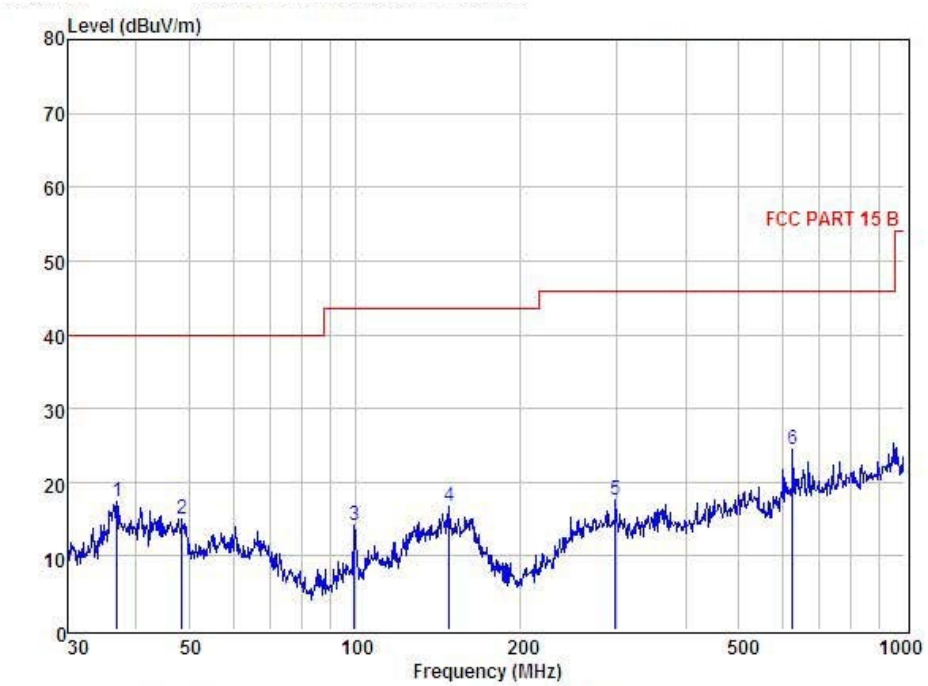


Condition : FCC PART 15 B 3m POL: VERTICAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	36.13	32.14	13.39	25.66	0.11	19.98	40.00	-20.02	Peak
2	66.50	30.05	11.59	27.20	0.28	14.72	40.00	-25.28	Peak
3	100.23	31.49	10.35	26.84	0.46	15.46	43.50	-28.04	Peak
4	158.67	26.88	14.14	26.91	0.41	14.52	43.50	-28.98	Peak
5	426.52	26.39	15.38	24.46	0.67	17.98	46.00	-28.02	Peak
6	638.37	30.94	18.94	25.80	1.22	25.30	46.00	-20.70	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX	Polarization :	Horizontal



Condition : FCC PART 15 B 3m POL: HORIZONTAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	36.90	29.27	13.73	25.74	0.10	17.36	40.00	-22.64	Peak
2	48.50	27.22	13.59	25.82	0.09	15.08	40.00	-24.92	Peak
3	99.88	30.34	10.15	26.84	0.46	14.11	43.50	-29.39	Peak
4	148.44	29.37	14.03	26.90	0.32	16.82	43.50	-26.68	Peak
5	298.27	28.22	12.80	24.19	0.77	17.60	46.00	-28.40	Peak
6	625.08	30.41	18.80	25.82	1.11	24.50	46.00	-21.50	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2402MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2402	108.04	-12.99	95.05	114.0 0	-18.95	peak
2402	95.33	-12.99	82.34	94	-11.66	AVG
4804	54.61	-3.57	51.04	74	-22.96	peak
4804	44.73	-3.57	41.16	54	-12.84	AVG
9608	48.67	1.78	50.45	74	-23.55	peak
9608	37.44	1.78	39.22	54	-14.78	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2402MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2402	107.61	-12.99	94.62	114.0 0	-19.38	peak
2402	96.20	-12.99	83.21	94	-10.79	AVG
4804	53.87	-3.59	50.28	74	-23.72	peak
4804	42.90	-3.59	39.31	54	-14.69	AVG
7206	52.69	-0.96	51.73	74	-22.27	peak
7206	41.45	-0.96	40.49	54	-13.51	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

`

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2441 MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2441	106.42	-12.93	93.49	114.0 0	-20.51	peak
2441	95.45	-12.93	82.52	94	-11.48	AVG
4882	55.56	-3.55	52.01	74	-21.99	peak
4882	42.69	-3.55	39.14	54	-14.86	AVG
7323	53.99	-0.72	53.27	74	-20.73	peak
7323	40.70	-0.72	39.98	54	-14.02	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

EUT：	Interface System	Model Name ：	S1C002A-Y01[3]
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2441 MHz	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2441	105.57	-12.93	92.64	114.0 0	-21.36	peak
2441	95.04	-12.93	82.11	94	-11.89	AVG
4882	56.98	-3.55	53.43	74	-20.57	peak
4882	43.86	-3.55	40.31	54	-13.69	AVG
7323	55.24	-0.72	54.52	74	-19.48	peak
7323	42.56	-0.72	41.84	54	-12.16	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

`

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2480 MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2480	104.17	-12.92	91.25	114.0 0	-22.75	peak
2480	94.83	-12.92	81.91	94	-12.09	AVG
4960	54.11	-3.55	50.56	74	-23.44	peak
4960	43.83	-3.55	40.28	54	-13.72	AVG
7440	54.04	-0.68	53.36	74	-20.64	peak
7440	42.83	-0.68	42.15	54	-11.85	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2480 MHz	Polarization :	Vertical

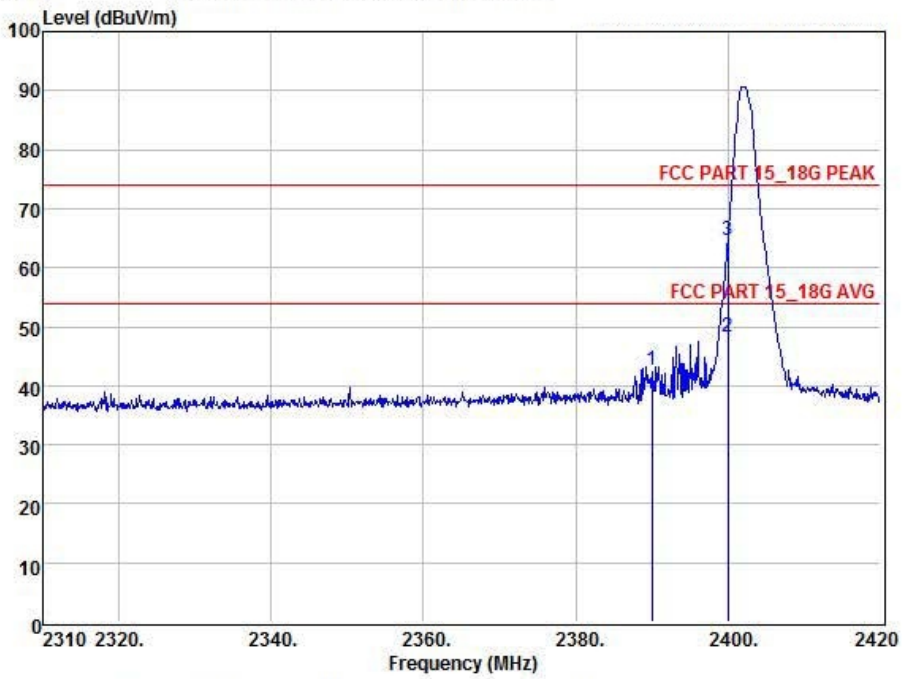
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2480	106.78	-12.92	93.86	114.0 0	-20.14	peak
2480	94.13	-12.92	81.21	94	-12.79	AVG
4960	56.87	-3.8	53.07	74	-20.93	peak
4960	43.94	-3.8	40.14	54	-13.86	AVG
7440	55.23	-0.68	54.55	74	-19.45	peak
7440	41.80	-0.68	41.12	54	-12.88	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected above 18GHz.

`

3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2402MHz	Polarization :	Vertical

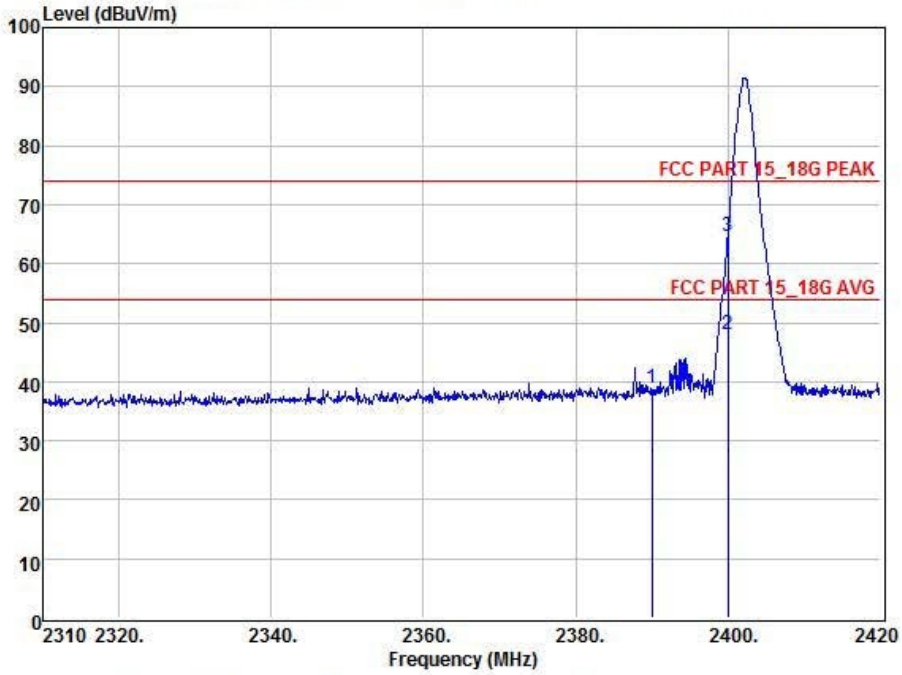


Condition : FCC PART 15_18G PEAK 3m POL: VERTICAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2390.00	46.11	27.62	34.97	3.92	42.68	74.00	-31.32	Peak
2	2400.00	51.76	27.62	34.97	3.94	48.35	54.00	-5.65	Average
3	2400.00	68.13	27.62	34.97	3.94	64.72	74.00	-9.28	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2402MHz	Polarization :	Horizontal

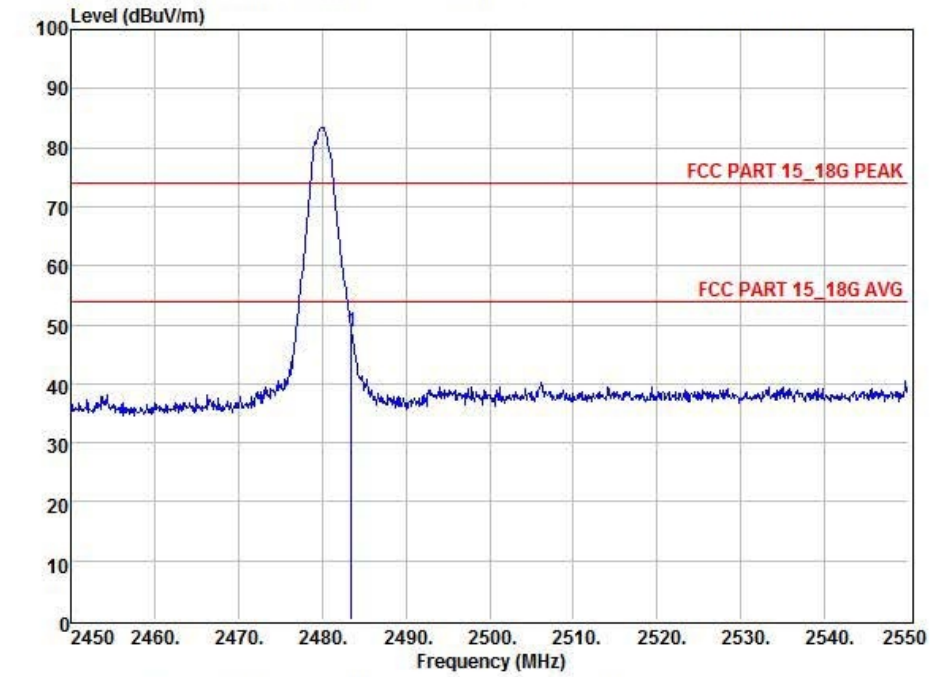


Condition : FCC PART 15_18G PEAK 3m POL: HORIZONTAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2390.00	42.17	27.62	34.97	3.92	38.74	74.00	-35.26	Peak
2	2400.00	51.28	27.62	34.97	3.94	47.87	54.00	-6.13	Average
3	2400.00	67.90	27.62	34.97	3.94	64.49	74.00	-9.51	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2480MHz	Polarization :	Vertical

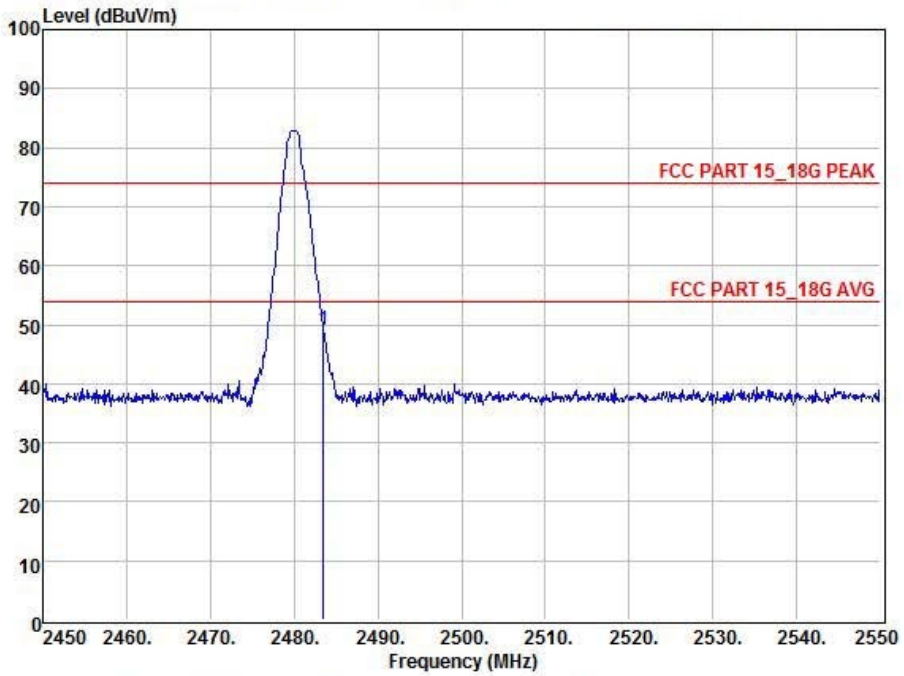


Condition : FCC PART 15_18G PEAK 3m POL: VERTICAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2483.50	52.25	27.59	34.97	4.00	48.87	74.00	-25.13	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	TX /2480MHz	Polarization :	Horizontal

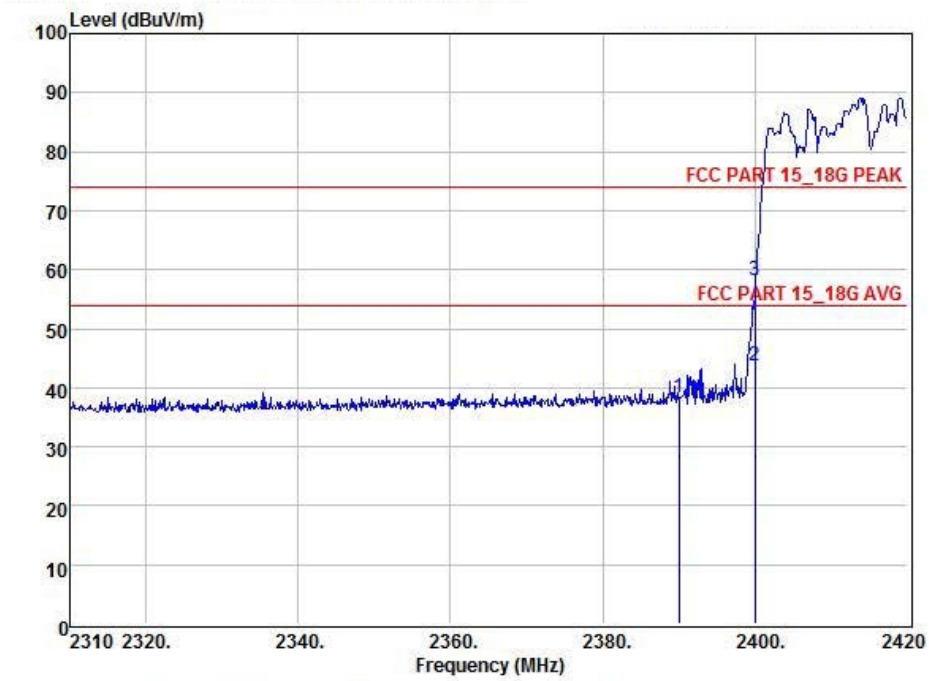


Condition : FCC PART 15_18G PEAK 3m POL: HORIZONTAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2483.50	52.57	27.59	34.97	4.00	49.19	74.00	-24.81	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

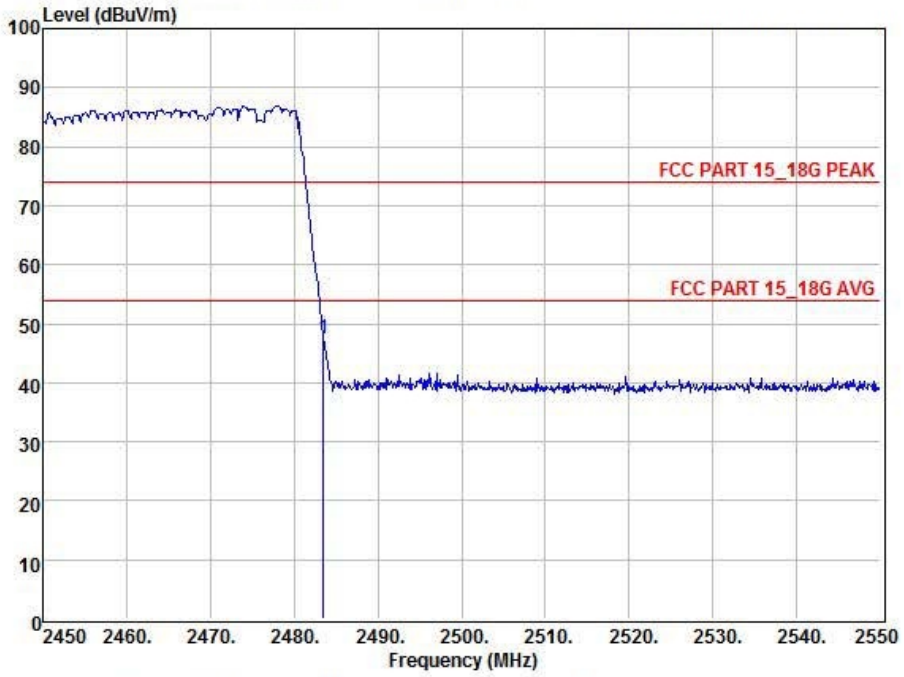
EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	Hopping	Polarization :	Horizontal



Condition : FCC PART 15_18G PEAK 3m POL: HORIZONTAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2390.00	41.72	27.62	34.97	3.92	38.29	74.00	-35.71	Peak
2	2400.00	47.00	27.62	34.97	3.94	43.59	54.00	-10.41	Average
3	2400.00	61.58	27.62	34.97	3.94	58.17	74.00	-15.83	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

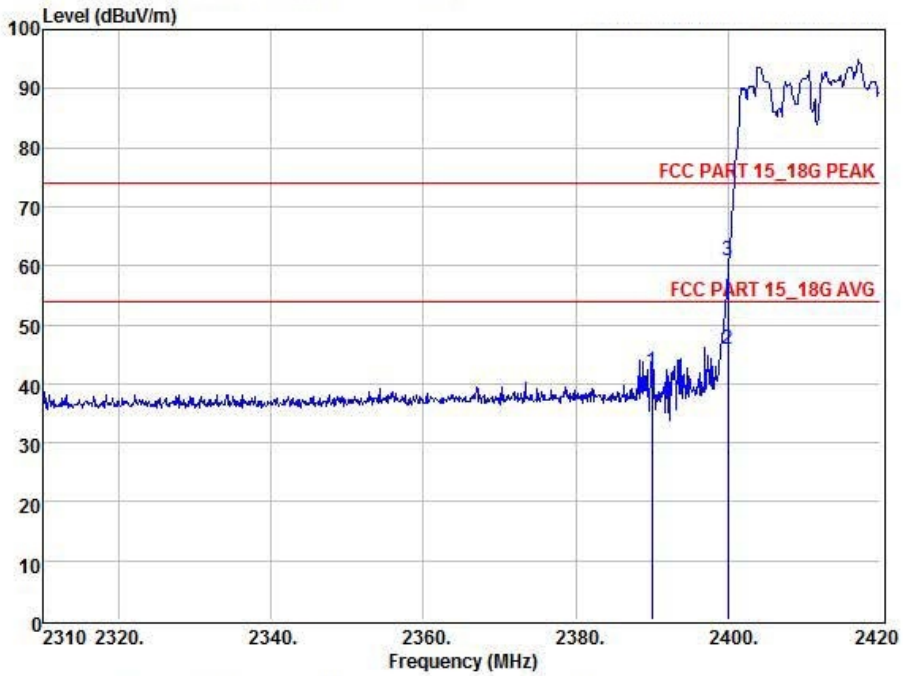


Condition : FCC PART 15_18G PEAK 3m POL: HORIZONTAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2483.50	50.91	27.59	34.97	4.00	47.53	74.00	-26.47	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

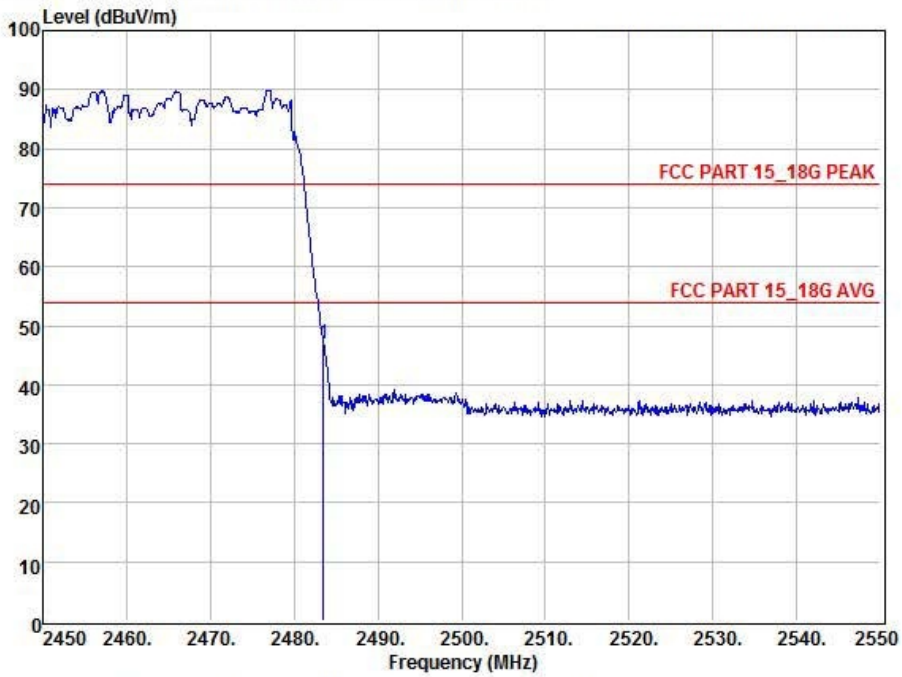
EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12 from Battery
Test Mode ：	Hopping	Polarization :	Vertical



Condition : FCC PART 15_18G PEAK 3m POL: VERTICAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2390.00	45.64	27.62	34.97	3.92	42.21	74.00	-31.79	Peak
2	2400.00	49.34	27.62	34.97	3.94	45.93	54.00	-8.07	Average
3	2400.00	64.28	27.62	34.97	3.94	60.87	74.00	-13.13	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss



Condition : FCC PART 15_18G PEAK 3m POL: VERTICAL

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2483.50	50.42	27.59	34.97	4.00	47.04	74.00	-26.96	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

4. BANDWIDTH TEST

4.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 100KHz, VBW≧RBW, Sweep time = Auto.

4.2 DEVIATION FROM STANDARD

No deviation.

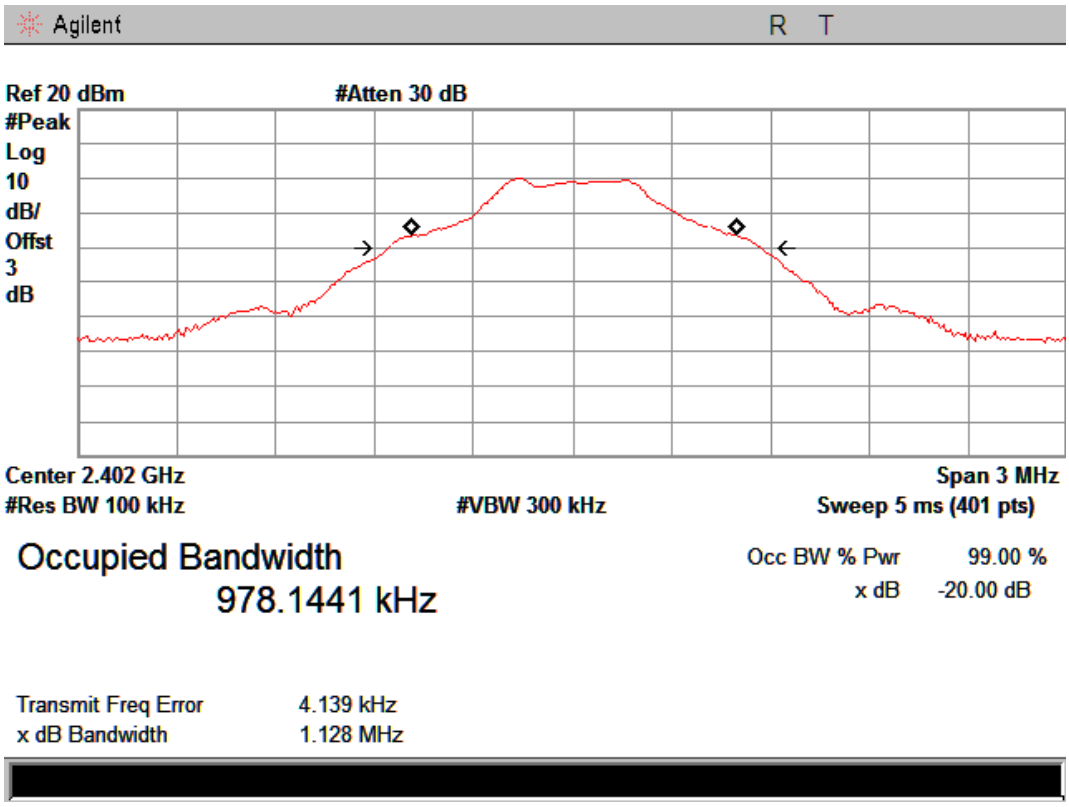
4.3 TEST SETUP

4.4 TEST RESULTS

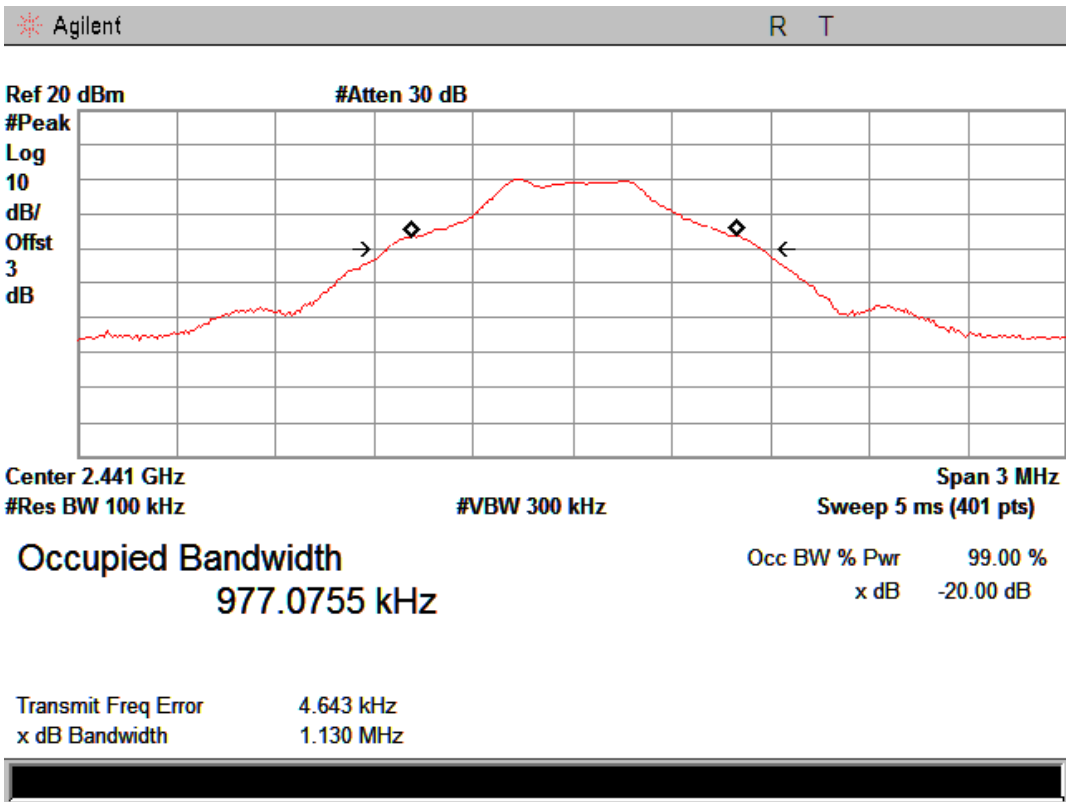
EUT：	Interface System	Model Name ：	S1C002A-Y01
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1020 hPa	Test Power ：	DC 12 from Battery
Test Mode ：	TX CH00/40/79		

Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)
CH00	2402	1.128
CH40	2441	1.130
CH79	2480	1.133

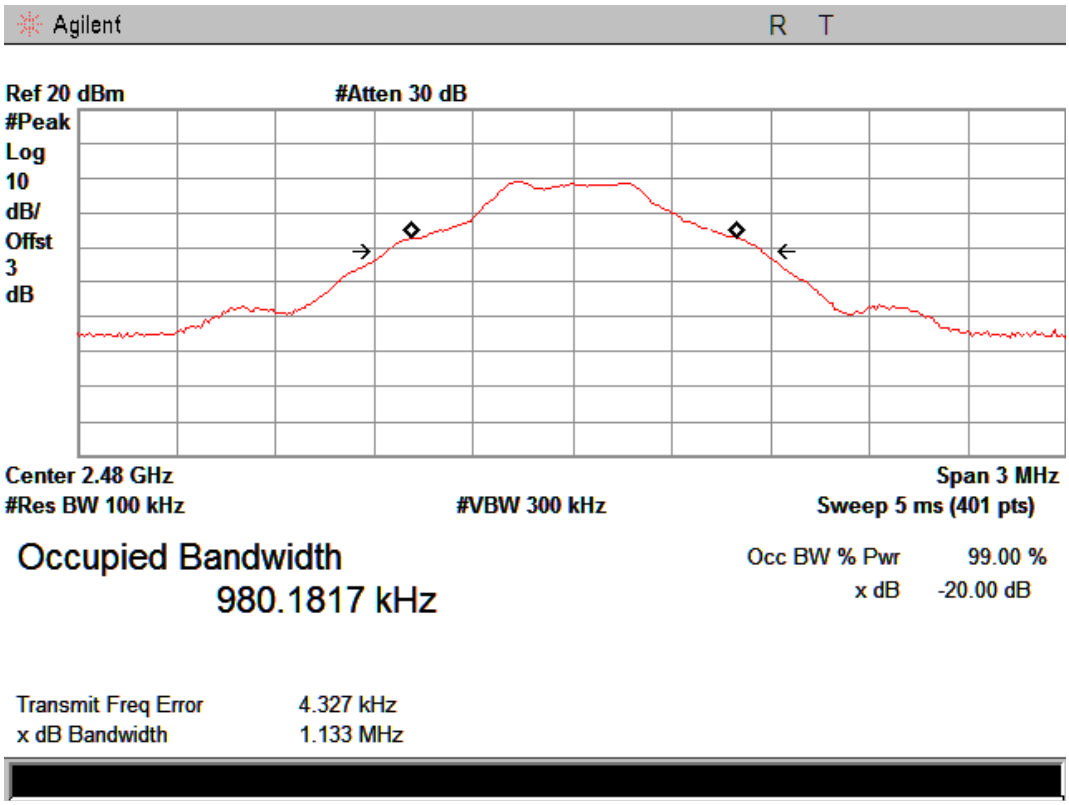
The Lowest Channel:2402MHz



The Middle Channel: 2441MHz

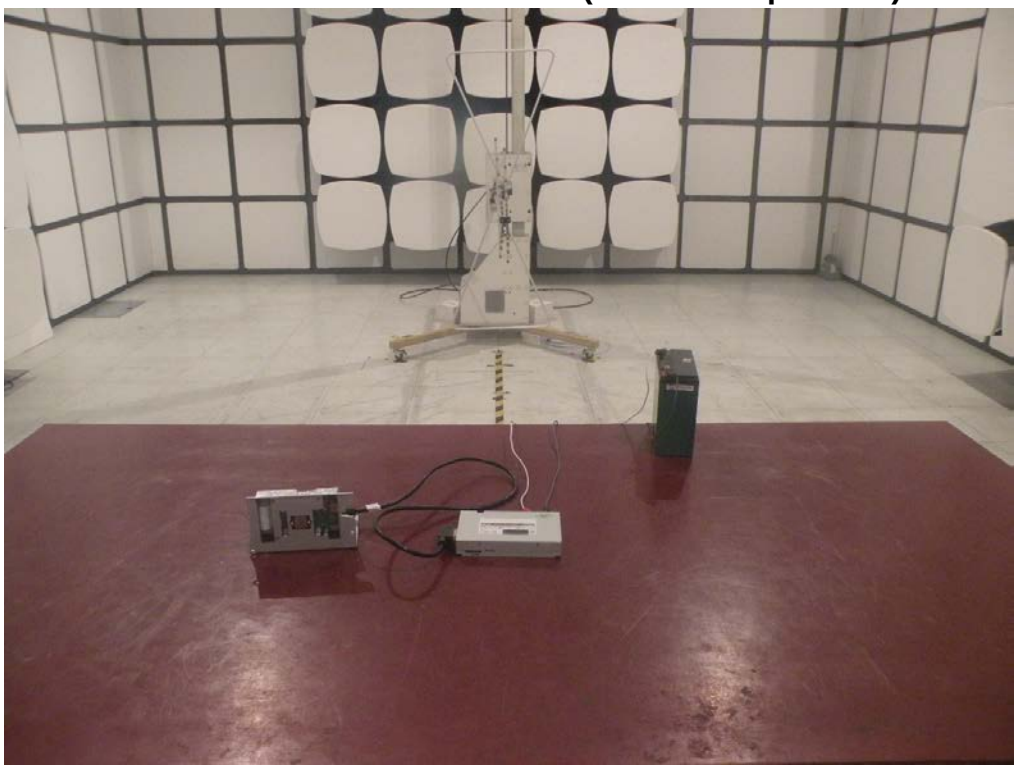


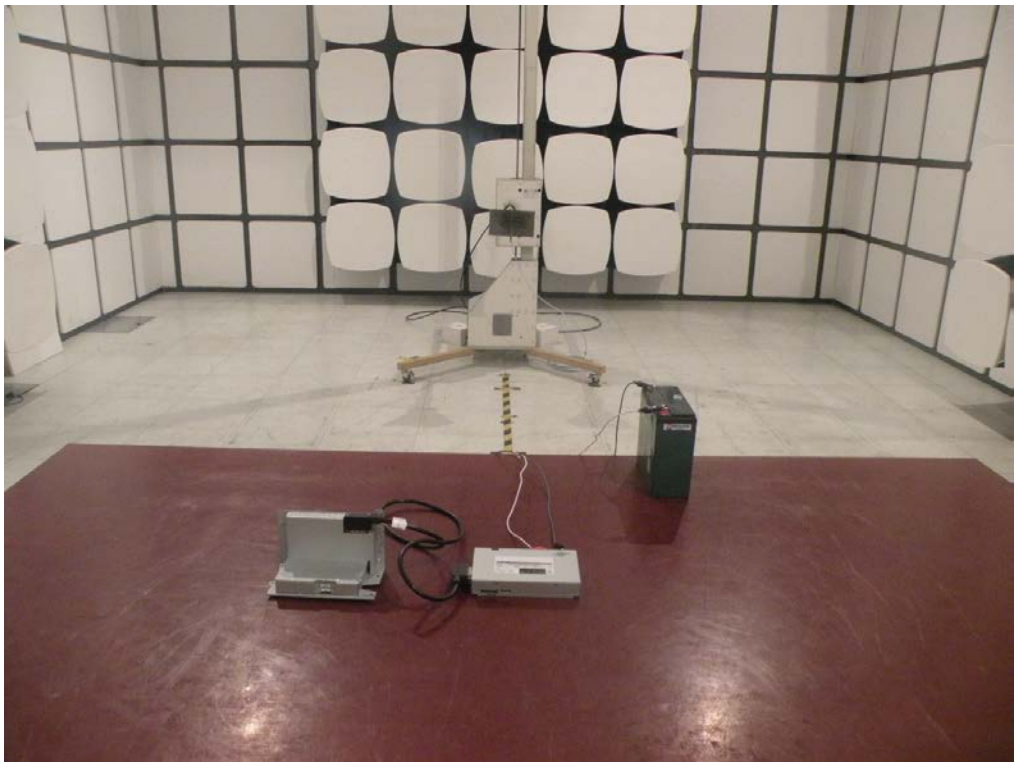
The High Channel:2480MHz



5. EUT TEST PHOTO

Radiated Measurement Photos(worst case position)





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