

FCC ID: APYHRO00254 Report No.: E1/2017/C0033

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FCC CERTIFICATION REPORT

Based On SGS EMC Test Report No.: E1/2017/80099

Applicant : Sharp Corporation, IoT Communication B.U.

Address : 2-13-1, Hachihonmatsu-lida, Higashi-hiroshima-shi, Hiroshima

739-0192, Japan

Manufacturer : Sharp Corporation

: 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan **Address**

Equipment Under Test (EUT): Product Name : Smart Phone

Standards : FCC Part 15:2017, Subpart B, Class B

FCC Registration Numbers: 916890

Date of Receipt : Aug. 10, 2017, Dec. 12, 2017

Date of Test : Aug. 10 ~ Sep. 06, 2017, Dec. 12 ~ 26, 2017

Date of Issue : Dec. 28, 2017

Test Result: **PASS**

In the configuration tested, the EUT complied with the standards specified above.

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Dec. 28, 2017 Date

Approved By

TAF

0513

Tested By:

Date

Dec. 28, 2017

Eddy Cheng (Asst. Supervisor)

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Revision History

Report Number	Revision	Description	Issue Date
E1/2017/C0033	Rev.00	Based On E1/2017/80099 Changed PA Spot check Below / Above RE	Dec. 28, 2017

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1. General Information

1.1 Applicant & Manufacturer Information

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shi, Hiroshima 739-0192, Japan

Manufacturer : Sharp Corporation

Address of Manufacturer: 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-

8522, Japan

1.2 General Description of EUT

Product Name : Smart Phone

1.3 Details of EUT

Power Supply : AC 100~240V, 50~60Hz

. CE worst case : Config 3 Worst case

> Below / Above RE worst case : Config 2

Highest operate description : 2480 MHz

Battery : Model No.: UBATIA283AFN2

Supplier: SCUD(FUJIAN) Electronics Co., Ltd.

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QD43	Config 1	Config2	Config 3
Applicable standard		FCC 15B	-
Accessories	EUT + AC Adaptor(AC ADAPTER 06) +USB Cable +PHF	EUT +USB Cable +PHF	EUT + AC Adaptor(AC ADAPTER 06) +USB Cable +PHF
Main function	Speech	Data Link	Camera
Additional function		BT+WiFI +NF	-C
Description			
radiated emission	GSM 850/1900 WCDMA B5 LTE B5/B12/B17	Data R/W	MP3/ ;REC mode (Front/Back) ;play REC
conducted emission (DC Power)	NA	NA	NA
conducted emission (AC Power)	GSM 850/1900 WCDMA B5 LTE B5/B12/B17	Data R/W	MP3/ ;REC mode (Front/Back) ;play REC

1.4 Operation Procedure

Config 1

- 1. Let EUT connect to Adapter & USB Cable & Earphone and turn it on.
- Executed BT & WIFI & GPS & NFC & GSM 850/1900 or WCDMA B5 or LTE B5/B12/B17 Link.
- 3. Started the test.

Config 2

- 1. Let EUT connect to Earphone & USB Cable and NB Link.
- 2. Executed BT & WIFI & GPS & NFC Link.
- 3. NB and mobile phone USB data transmission (Reader / Write)
- 4. Started the test.

Config 3

- 1. Let EUT connect to Adapter & USB Cable & Earphone and turn it on.
- 2. Turned on front / rear camera to record / play the video or play music.
- 3. Executed BT & WIFI & GPS & NFC Link.
- 4. Started the test.

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1.5 Description of Support Units

PRODUCT	MANUFACTURER	MODEL NO.	SERIAL NO.
SIM Card	R&S	CMW-Z05	8952530076180167200
BT Speaker	Creative	MF8090	YFMF8090245R00855Y
Radio Communication Analyzer	R&S	CMU200	102189
Radio Communication Analyzer	R&S	CMW500	1201.002K50-152303-Zr
AP	BUFFALO	WZR-HP-G300NH2	44066221202559[[G]]
GPS Signal Generator	Spectracom	GSG53 GNSS4	200218
Notebook	DELL	Latitude E5430	COVZYW1
Mouse	DELL	MS111-T	CN-OKW2YH-71616-345-OL7T
Printer	HP	VCVRA-1004	CN33K19J3F
Micro SD	Transcend	Micro SDHC (Class4)	N/A
Adapter	HOSIDEN	AC ADAPTER 06	N/A
Earphone	SONY	MDR-EX15AP	N/A

Support Equipment Used in Tested Cable

Cable Type	Core	Length	Shielding/Non-shielding
USB cable	N/A	0.95m	Shielding
Earphone cable	N/A	1.25m	Non-shielding

1.6 Modification List

No modification was made by SGS Taiwan Electronics & Communication Laboratory.

1.7 Accessories Cable List

Cable Type	Core	Length	Shielding/Non-shielding
N/A	N/A	N/A	N/A

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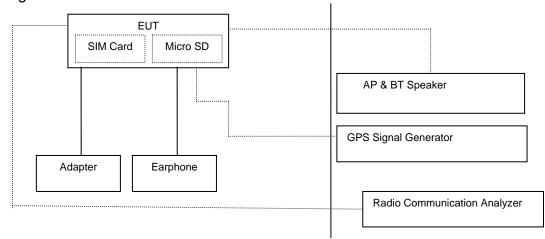


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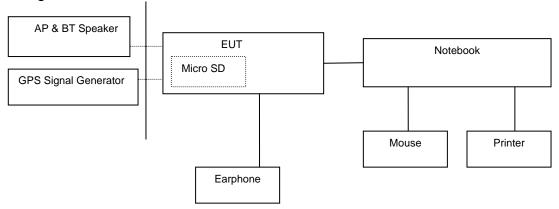


1.8 Test Set-Up Configuration

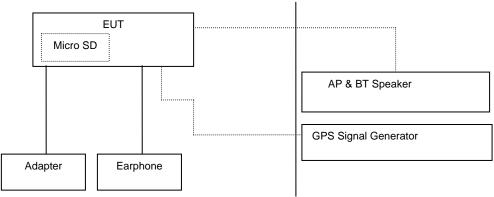
Config 1



Config 2



Config 3



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1.9 Measurement Procedure

Conducted Emission Testing was performed according to ANSI C63.4:2014 in a shielded room with peripherals placed on a table, 0.8m high over a metal floor. It was located more than required distance away from the shielded room wall.

Radiated Emission Testing was performed according to ANSI C63.4:2014 at the 3/10m semi-anechoic chamber. The EUT was placed on a 0.8m high table along with the peripherals. The turn table was placed 10m distance from the antenna. Cables were placed in a position to produce maximum emissions as determined by experimentation, and operation mode was selected for production of maximum emission.

The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities. Maximum emission levels are then reported.

1.10 Standards Applicable for Testing

Tests to be carried out under FCC Part 15, Subpart B/CISPR 22

Test Standards	Status
FCC Part 15, Subpart B/ CISPR 22	Applicable
Deviation from Standard	No deviation

1.11 Summary of Results

Highest Emission					
Standard Test Type Result Phase/Pol. Frequency(MHz) Margin(dB				Margin(dB)	
Class B	Conducted Emission	PASS	Line	0.1540	-10.54 (QP)
			Neutral	0.1540	-10.66 (QP)
	Radiated Emission	PASS	Ver.	47.1100	-5.30 (QP)

Changed PA

Highest Emission					
Standard	Test Type	Result	Phase/Pol.	Frequency(MHz)	Margin(dB)
FCC Part 15 Subpart B Class B	Conducted Emission	N/A	Line	N/A	N/A
			Neutral	N/A	N/A
	Radiated Emission	PASS	Hor.	224.0000	-9.41 (QP)

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2. EMISSION

2.1 Test Results

	Results
Conducted Emission	Pass
Radiated Emission	Pass

2.2 Frequency Range

FCC Part 15, Subpart B:

Conducted Emission : 150 kHz - 30 MHz Radiated Emission : See below table

Highest frequency generated or Upper frequency of measurement used in the device or on which the range (MHz)

device operates or tunes (MHz)

Below 1.705 30 1.705 - 1081000 108 - 500 2000 500 - 1000 5000

5th harmonic of the highest frequency or Above 1000

40 GHz, whichever is lower

2.3 Limits of Conducted and Radiated Emission

2.3.1 Limits of Conducted Emission

FCC Part 15, Subpart B/CISPR 22:

FREQUENCY	Class A (dBuV)		Class B (dBuV)		
(MHz)	Quasi - peak	Average	Quasi - peak	Average	
0.15 - 0.5	79	66	66 - 56	56 - 46	
0.50 - 5.0	73	60	56	46	
5.0 - 30.0	73	60	60	50	

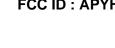
Note: (1) The lower limit shall apply at the transition frequencies.

- (2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
- (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected there to, shall not exceed the level of field strengths specified above.

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2.3.2 Limits of Radiated Emissions

FCC Part 15, Subpart B Limit:

Detector Function : Quasi – Peak

- Detector i anotici i Quaer i car				
FREQUENCY	Class A (at 10m)	Class B (at 3m)		
(MHz)	dBuV/m	dBuV/m		
30~88	39	40		
88~216	43.5	43.5		
216~960	46.44	46		
Above 960	49.54	54		

Detector Function : Peak , Average

FREQUENCY	Class A (dBu	uV/m) (at 3m)	Class B (dBu	uV/m) (at 3m)
(MHz)	Peak	Average	Peak	Average
Above 1000	79.3	59.3	73.9	53.9

CISPR 22 Limit:

Detector Function : Quasi – Peak

FREQUENCY	Class A (at 10m)	Class B (at 10m)
(MHz)	dBuV/m	dBuV/m
30-230	40	30
230-1000	47	37

NOTE 1 The lower limit shall apply at the transition frequency.

NOTE 2 Additional provisions may be required for cases where interference occurs.

FREQUENCY	Class A (dB	BuV/m) (at 3m)	Class B (dBuV/m) (at 3m)			
(GHz)	Average	Peak	Average	Peak		
1~3	56	76	50	70		
3~6	60	80	54	74		

NOTE The lower limit applies at the transition frequency.

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2.4.Test of Conducted Emission

2.4.1 Test Equipments

SC	SS Conducted_Emi	ssion HWAYA Conducted I	Room No.A_E	MC	
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI 3	101311	2017/6/23	2018/6/22
Coaxial Cables	EMC Instruments Corp	EMCRG58-BM-BM-3000	160812	2017/8/30	2018/8/29
LISN	SCHWARZBECK	NSLK 8127	8127-648	2017/6/18	2018/6/17
Pulse Limiter	Narda S.T.S.	PMM PL01	1110X30602	2017/8/12	2018/8/11
LISN	FCC	FCC-LISN-50/250-25-2- 01	4034	2017/3/19	2018/3/18
Universal Digital Radio Communication Tester	R&S	CMU 200	122498	2016/11/9	2017/11/8
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22
Test S/W	Farad	EZ-EMC	Ver. SGS- 03A2	N.C.R.	N.C.R.

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Measurement Uncertainty of Conducted Emission

Expanded uncertainty (K=2) of conducted emission is 2.25 dB

2.4.2 Operating Environment

Temperature: 25 degree C Humidity: 64 %RH

Atmospheric Pressure: 992 mBar

2.4.3 Measurement Level Calculation

Factor = LISN insertion loss + Cable loss + Pulse Limiter Insertion Loss

Measurement Level = Reading Level + Factor

Over (Margin) = Measurement Level - Limit

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2.4.4 Measurement Data:

Config_1_L

Power:

Site : Conduction Room

Limit: FCC Class B Conduction(QP)

Mode: Config 1 GSM1900

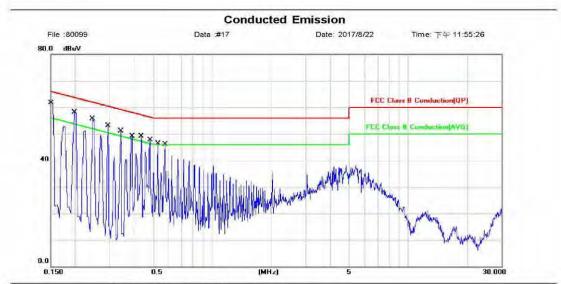
Note: Hynix

Phase:

L1 AC 120V/60Hz

25 °C Temperature:

Humidity:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	54.80	0.34	55.14	66.00	-10.86	QP	
2		0.1500	32.60	0.34	32.94	56.00	-23.06	AVG	
3		0.1980	50.80	0.33	51,13	63.69	-12.56	QP	
4		0.1980	27.50	0.33	27.83	53,69	-25.86	AVG	
5		0.2460	47.60	0.33	47.93	61.89	-13.96	QP	
6		0.2460	24.50	0.33	24.83	51,89	-27.06	AVG	
7		0.2940	44.50	0.33	44.83	60.41	-15.58	QP	
8		0.2940	19.50	0.33	19.83	50.41	-30.58	AVG	
9		0.3420	43.00	0.34	43.34	59.15	-15.81	QP	
10		0.3420	17.70	0.34	18.04	49.15	-31.11	AVG	
11		0.3900	41.50	0.34	41.84	58.06	-16.22	QP	
12		0.3900	23.40	0.34	23.74	48.06	-24.32	AVG	
13		0.4340	42.00	0.34	42.34	57.18	-14.84	QP	

^{*:}Maximum data x:Over limit !:over margin

File: 80099\Data:#17

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Config_1_L2

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
14		0.4340	27.20	0.34	27.54	47.18	-19.64	AVG	
15		0.4820	41.20	0.34	41.54	56.30	-14.76	QP	
16		0.4820	26.70	0.34	27.04	46.30	-19.26	AVG	
17	-	0.5300	38.30	0.35	38.65	56.00	-17.35	QP	
18		0.5300	23.80	0.35	24.15	46.00	-21.85	AVG	
19		0.5780	35.70	0,35	36,05	56.00	-19.95	QP	
20		0.5780	22.60	0.35	22.95	46.00	-23.05	AVG	

*: Maximum data x:Over limit Lover margin

File :80099\Data :#17

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Config_1_N

Conduction Room Site :

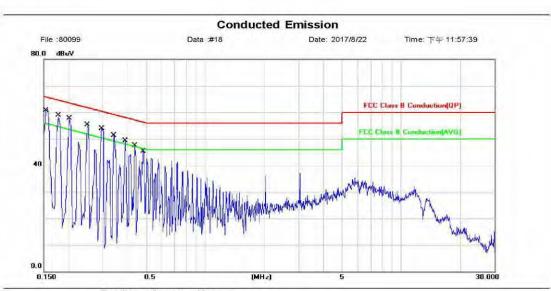
Limit: FCC Class B Conduction(QP) Mode: Config 1 GSM1900

Note: Hynix

Phase: AC 120V/60Hz Power:

Temperature:

Humidity: 64 %



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	55.00	0.42	55.42	66.00	-10.58	QP	
2		0.1500	33.70	0.42	34.12	56.00	-21.88	AVG	
3		0.1780	52.10	0.41	52.51	64.58	-12.07	QP	
4		0.1780	30.30	0.41	30,71	54.58	-23.87	AVG	
5		0.2020	50.20	0.41	50.61	63,53	-12.92	QP	
6		0.2020	27.00	0.41	27,41	53.53	-26.12	AVG	
7		0.2500	46.60	0.41	47.01	61.76	-14.75	QP	
8		0.2500	23.50	0.41	23.91	51.76	-27.85	AVG	
9		0.2980	44.40	0.41	44.81	60.30	-15.49	QP	
10		0.2980	18.60	0.41	19.01	50,30	-31.29	AVG	
11		0.3420	42.70	0.42	43.12	59.15	-16.03	QP	
12		0.3420	16.70	0.42	17.12	49.15	-32.03	AVG	
13		0.3900	40.90	0.42	41.32	58.06	-16.74	QP	

*:Maximum data x:Over limit !:over margin

File :80099\Data :#18

Page: 1

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Config_1_N2

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
14		0.3900	24.00	0.42	24.42	48.06	-23.64	AVG	
15		0.4380	40.30	0.42	40.72	57.10	-16.38	QP	
16		0.4380	24.20	0.42	24.62	47.10	-22.48	AVG	
17	-	0.4860	40.30	0.42	40.72	56.24	-15.52	QP	
18		0.4860	25.50	0.42	25.92	46.24	-20.32	AVG	

*: Maximum data x:Over limit Lover margin

File :80099\Data :#18

Page: 2

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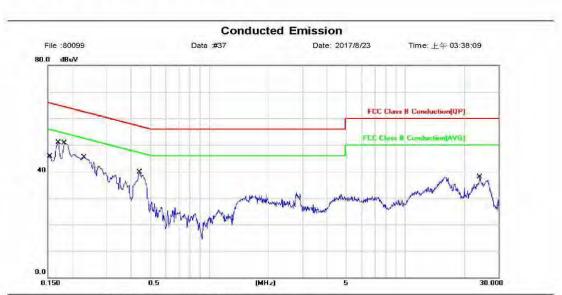


Config_2_L

Temperature: Conduction Room Phase: Site : Limit: FCC Class B Conduction(QP) From System Humidity: 64 % Power:

Mode: Config 2

Note: Hynix, AC 120V/60Hz, Internal Sotrage Write



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1540	43.30	0.42	43.72	65.78	-22.06	QP	
2		0.1540	24.40	0.42	24.82	55.78	-30.96	AVG	
3	*	0.1700	47.90	0.42	48.32	64.96	-16.64	QP	
4		0.1700	34.30	0.42	34,72	54.96	-20.24	AVG	
5		0.1820	38.70	0.41	39.11	64.39	-25.28	QP	
6		0.1820	21.70	0.41	22.11	54.39	-32.28	AVG	
7		0.2300	35.90	0.41	36.31	62.45	-26.14	QP	
8		0.2300	20.60	0,41	21.01	52.45	-31.44	AVG	
9		0.4420	31.30	0.42	31.72	57.02	-25.30	QP	
10		0.4420	16.20	0.42	16.62	47.02	-30.40	AVG	
11		24.0780	26.80	0.87	27.67	60.00	-32.33	QP	
12		24.0780	20.90	0.87	21.77	50.00	-28.23	AVG	

*:Maximum data x:Over limit

File :80099\Data :#37 Page: 1

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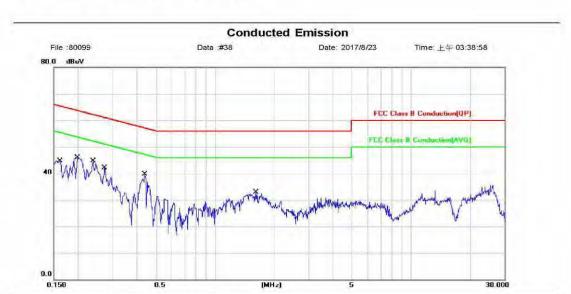


Config_2_N

Temperature: Conduction Room Phase: Site : L1 Limit: FCC Class B Conduction(QP) From System Humidity: 64 % Power:

Mode: Config 2

Note: Hynix, AC 120V/60Hz, Internal Sotrage Write



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	42.00	0.34	42.34	65.36	-23.02	QP	
2		0.1620	28.70	0.34	29.04	55.36	-26.32	AVG	
3		0.1980	38.30	0.33	38.63	63.69	-25.06	QP	
4		0.1980	22.00	0.33	22.33	53.69	-31.36	AVG	
5		0.2380	38.60	0.33	38.93	62.17	-23.24	QP	
6		0.2380	24.30	0.33	24.63	52.17	-27.54	AVG	
7		0.2740	37.40	0.33	37.73	61.00	-23.27	QP	
8		0.2740	25.80	0.33	26.13	51.00	-24.87	AVG	
9	*	0.4380	35.00	0.34	35.34	57.10	-21.76	QP	
10	11	0.4380	20.70	0.34	21.04	47.10	-26.06	AVG	
11		1.6260	27.90	0.41	28.31	56.00	-27.69	QP	
12		1.6260	20.70	0.41	21.11	46.00	-24.89	AVG	

*:Maximum data x:Over limit

File :80099\Data :#38 Page: 1

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Config_3_L

Power:

Conduction Room Site :

Limit: FCC Class B Conduction(QP)

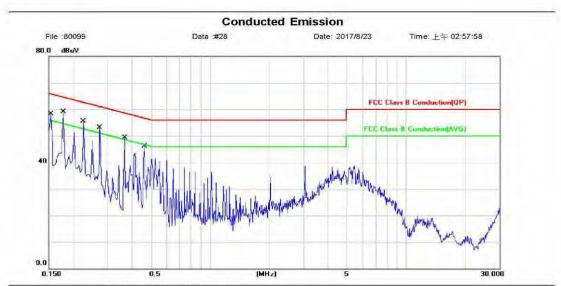
Mode: Config 3 play REC

Note: Hynix

Phase:

L1 AC 120V/60Hz Temperature:

Humidity: 64 %



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1540	54.90	0.34	55.24	65.78	-10.54	QP	
2	0	0.1540	34.20	0.34	34.54	55.78	-21.24	AVG	
3		0.1780	52.30	0.33	52.63	64.58	-11.95	QP	
4		0.1780	29.80	0.33	30.13	54.58	-24.45	AVG	
5		0.2260	49.20	0.33	49.53	62.60	-13.07	QP	
6	()	0.2260	24.40	0.33	24.73	52.60	-27.87	AVG	
7		0.2740	46.40	0.33	46.73	61.00	-14.27	QP	
8	Y.	0.2740	21.50	0.33	21.83	51.00	-29.17	AVG	
9		0.3660	42.60	0.34	42.94	58.59	-15.65	QP	
10		0.3660	24.30	0.34	24.64	48.59	-23,95	AVG	
11		0.4620	42.80	0.34	43.14	56.66	-13.52	QP	
12		0.4620	30.50	0.34	30.84	46.66	-15.82	AVG	

*:Maximum data x:Over limit

File :80099\Data :#28

Page: 1

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Config_3_N

Conduction Room Site :

Limit: FCC Class B Conduction(QP)

Mode: Config 3 play REC

Note: Hynix

Phase: AC 120V/60Hz Power:

Temperature:

Humidity: 64 %

Conducted Emission File: 80099 Date: 2017/8/23 Time: 上午 02:51:58 80.0 dRuV 0.0 (MHz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1540	54.70	0.42	55.12	65.78	-10.66	QP	
2	1	0.1540	34.20	0.42	34.62	55.78	-21.16	AVG	
3		0.1900	51.30	0.41	51,71	64.04	-12.33	QP	
4		0.1900	28.40	0.41	28.81	54.04	-25.23	AVG	
5	7	0.2220	48.90	0.41	49.31	62.74	-13.43	QP	
6		0.2220	24.40	0.41	24.81	52.74	-27.93	AVG	
7		0.2700	46.60	0.41	47.01	61.12	-14.11	QP	
8		0.2700	22.20	0,41	22.61	51.12	-28.51	AVG	
9		0.3180	43.90	0.42	44.32	59.76	-15.44	QP	
10		0.3180	20.30	0.42	20.72	49.76	-29.04	AVG	
11		0.3660	41.90	0.42	42.32	58.59	-16.27	QP	
12		0.3660	21.70	0.42	22.12	48.59	-26.47	AVG	

*:Maximum data x:Over limit

File :80099\Data :#27

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2.5 Test of Radiated Emission

2.5.1 Test Equipments

Below 1GHz

	SGS Radiated_B	selow_1GHz HWAYA	10m_EMC		
EQUIPMENT TYPE	Manufacturer	Model Number	Serial	Calibration	Calibration
EQUIPMENT TYPE	Manufacturer	Model Number	Number	Date	Due
EMI Test Receiver	R&S	ESCI 7	100924	2016/9/30	2017/9/29
EMI Test Receiver	R&S	ESCI 3	101343	2016/12/21	2017/12/20
Broadband Antenna	SCHWAZBECK	VULB9168	9168-628	2016/9/22	2017/9/21
Broadband Antenna	SCHWAZBECK	VULB9168	9168-629	2016/9/22	2017/9/21
Pre Amplifier	EMC Instruments Corp.	EMC330	980178	2017/3/31	2018/3/30
Pre Amplifier	EMC Instruments Corp.	EMC330	980179	2017/3/31	2018/3/30
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150917	2016/9/18	2017/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150919	2016/9/18	2017/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150820	2016/9/18	2017/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150918	2016/9/18	2017/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150821	2016/9/18	2017/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150822	2016/9/18	2017/9/17
Universal Digital Radio Communication Tester	R&S	CMU 200	122498	2016/11/9	2017/11/8
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Site NSA	Chance Most	10M Chamber	10M SAC	2016/12/31	2017/12/31
Test S/W	Farad	EZ-EMC	Ver. SGS- 03A2	N.C.R.	N.C.R.

SGS Taiwan LTD. Electronics & Communication Laboratory

No.2, Keji 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

Measurement Uncertainty of Radiated Emission

Expanded uncertainty of radiated emission is 4.09 dB. (30MHz ~ 1000MHz)

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Above 1GHz

	SGS Radiated_Ab	ove_1GHz HWA`	YA 966B_EMC		
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	R&S	FSV 40	101419	2017/3/1	2018/2/28
EMI Test Receiver	R&S	ESR 7	101507	2017/5/27	2018/5/26
Horn Antenna	SCHWARZBEC K	BBHA9120D	BBHA9120D67 3	2016/10/14	2017/10/13
Pre Amplifier	R&S	SCU-18	100203	2017/3/26	2018/3/26
Coaxial Cable	EMC Instruments	EMC104-SM- SM	140923	2016/9/30	2017/9/29
Coaxial Cable	EMC Instruments	EMC104-SM- SM	140925	2016/9/30	2017/9/29
Coaxial Cable	EMC Instruments	EMC104-SM- SM	140927	2016/9/30	2017/9/29
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2152/2	2017/6/5	2018/6/4
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2153/2	2017/6/5	2018/6/4
Universal Digital Radio Communication Tester	R&S	CMU 200	122498	2016/11/9	2017/11/8
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22
Controller	MF-7802	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	N/A	N/A	N/A	N.C.R.	N.C.R.
Turn Table	N/A	N/A	N/A	N.C.R.	N.C.R.
Site VSWR	SGS	966 Chamber B	SAC-B	2016/10/8	2017/10/7
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.

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No.2, Keji 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

Measurement Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 5.06 dB. (1-6GHz)

Expanded uncertainty (k=2) of radiated emission measurement is 5.15 dB. (6-18GHz)

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Changed PA Below 1GHz

SGS Radiated Below 1GHz HWAYA 10m EMC											
	SGS Radiated_E	Below_1GHz HWAYA		l o	0 111 11						
EQUIPMENT TYPE	Manufacturer	Model Number	Serial	Calibration	Calibration						
			Number	Date	Due						
EMI Test Receiver	R&S	ESCI 7	100924	2017/10/20	2018/10/19						
EMI Test Receiver	R&S	ESCI 3	101343	2017/12/21	2018/12/20						
Broadband Antenna	SCHWAZBECK	VULB9168	9168-628	2017/9/8	2018/9/7						
Broadband Antenna	SCHWAZBECK	VULB9168	9168-629	2017/9/12	2018/9/11						
Pre Amplifier	EMC Instruments Corp.	EMC330	980178	2017/3/31	2018/3/30						
Pre Amplifier	EMC Instruments Corp.	EMC330	980179	2017/3/31	2018/3/30						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150917	2017/9/18	2018/9/17						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150919	2017/9/18	2018/9/17						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150820	2017/9/18	2018/9/17						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150918	2017/9/18	2018/9/17						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150821	2017/9/18	2018/9/17						
Coaxial Cable	EMC Instruments	EMCCFD400-NM- NM	150822	2017/9/18	2018/9/17						
Universal Digital Radio Communication Tester	R&S	CMU 200	119988	2017/3/7	2018/3/6						
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22						
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.						
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.						
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.						
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.						
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.						
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.						
Site NSA	Chance Most	10M Chamber	10M SAC	2016/12/31	2017/12/31						
Test S/W	Farad	EZ-EMC	Ver. SGS- 03A2	N.C.R.	N.C.R.						

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Measurement Uncertainty of Radiated Emission

Expanded uncertainty of radiated emission is 4.09 dB. (30MHz ~ 1000MHz)

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Above 1GHz

	SGS Radiated_	Above_1GHz HWAY	A 966A_EMC		
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	R&S	FSV 40	101419	2017/3/1	2018/2/28
EMI Test Receiver	R&S	ESR 7	101459	2017/2/17	2018/2/16
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D67 3	2017/10/16	2018/10/15
Pre Amplifier	EMC Instruments Corp.	EMC012645B	980216	2017/4/25	2018/4/24
Coaxial Cable	JUNFLOW	MWX221-NMSNMS	J0778929	2017/4/23	2018/4/22
Coaxial Cable	Huber+Suhner	SUCCOFLEX 104PEA	30255/4PEA	2017/4/23	2018/4/22
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140927	2017/4/23	2018/4/22
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2152/2	2017/6/5	2018/6/4
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2153/2	2017/6/5	2018/6/4
Universal Digital Radio Communication Tester	R&S	CMU 200	119988	2017/3/7	2018/3/6
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22
Controller	MF	MF-7802	N.C.R.	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Site VSWR	SGS	966 Chamber A	SAC-A	2017/1/12	2018/1/11
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.

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Measurement Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 5.05 dB. (1-6GHz)

2.5.2 Operating Environment

Temperature: 25 degree C Humidity: 65 %RH

Atmospheric Pressure: 996 mBar

2.5.3 Measurement Level Calculation

Correction Factor = Antenna Factor + Cable loss- Amplifier Gain Measurement Level = Reading Level + Correction Factor Over (Margin) = Measurement Level – Limit

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2.5.4 Measurement Data

Below 1GHz

SGS

Config_1_H

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 1

Note: Sample 2 LTE B5 Link

Polarization: Horizontal Power: AC 120V/60Hz

Temperature: 27°C

Humidity: 64 %

Distance:



No.	lo. Mk.	k. Freq.	Freq.		Freq.	Freq.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment					
1		32.2400	26.62	-12.72	13.90	30.00	-16.10	QP						
2		47.9600	26,90	-11.40	15.50	30.00	-14.50	QP						
3		146.4600	25.75	-12.05	13.70	30,00	-16.30	QP						
4		923.5900	25.08	1.32	26 40	37.00	-10.60	QP						
5		943,9800	25.04	1.76	26.80	37.00	-10.20	QP						
6	*	972,1100	25.05	1.85	26.90	37.00	-10.10	QP						

File: 80099\Data: #22

Page: 1

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^{*:} Maximum data x:Over limit !:over margin



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Config_1_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 1

Note: Sample 2 LTE B5 Link

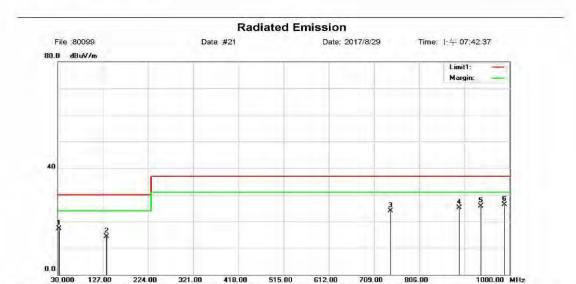
Polarization: Vertical

Power: AC 120V/60Hz

Distance:

Temperature: 27 °C

Humidity: 64 %



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		32.6900	29.66	-12.36	17.30	30.00	-12.70	QP	
2	0.0	135.6500	26.25	-11.95	14.30	30.00	-15.70	QP	
3		744.2600	24.58	-0.68	23.90	37.00	-13.10	QP	
4		891.6200	24.37	0.83	25.20	37.00	-11.80	QP	
5		938,7100	24.47	1.23	25.70	37.00	-11.30	QP	
6	*	988,1200	24.65	1,75	26.40	37.00	-10.60	QP	

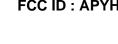
*: Maximum data x:Over limit !:over margin

File :80099\Data :#21

Page: 1

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FCC ID: APYHRO00254

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Config_2_H

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 2

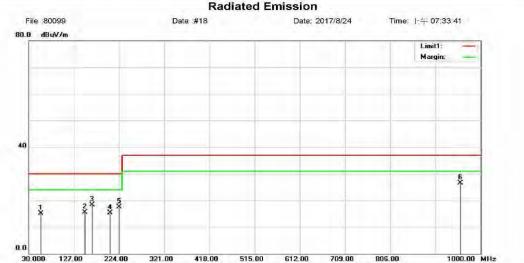
Note: Sample 2 Internal shared sorage Write

Polarization: Horizontal From System

Temperature: 25 %

Humidity: 65 %

Distance:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		55.3800	27.04	-11.84	15.20	30.00	-14.80	QP	
2		150.1800	27.40	-11.90	15.50	30.00	-14.50	QP	
3		165,9000	30.18	-11.78	18.40	30,00	-11.60	QP	
4		204.8600	30.34	-14.94	15.40	30.00	-14.60	QP	
5		224,8300	32.20	-14.70	17.50	30.00	-12.50	QP	
6	*	955.7000	24.72	1.88	26.60	37.00	-10.40	QP	

*: Maximum data x:Over limit !:over margin

File :80099\Data :#18

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Config_2_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 2

Note: Sample 2 Internal shared sorage Write

Polarization: Vertical Power: From System

Temperature:

Humidity: 65 %

25 %

Distance:

Radiated Emission File: 80099 Data :#17 Date: 2017/8/24 Time: |-+ 07:33:38 80.0 dBuV/m Limit1: Margin:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	47.1100	35.73	-11.03	24.70	30.00	-5.30	QP	
2		140.7800	27.97	-11.57	16,40	30.00	-13.60	QP	
3		172.0600	32.27	-12.17	20.10	30.00	-9.90	QP	
4		958.6300	24.70	1.40	26 10	37.00	-10.90	QP	
5		977.9300	24.77	1.63	26.40	37.00	-10.60	QP	
6		993.0700	24.79	1.81	26.60	37.00	-10.40	QP	

612.00

*: Maximum data x:Over limit !:over margin

File :80099\Data :#17

Page: 1

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Config_3_H

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 3

Note: Sample 2 REC Back

File: 80099

Polarization: Horizontal

Power: AC 120V/60Hz

Distance:

Temperature: 25 %

Humidity: 65 %

Radiated Emission Data :#20 Date: 2017/8/24



	30.0	000 127.00	224.00	321.00	418.00	515.00	612.00	709.00	806.00	1000.00 MHz
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		54.4900	26.06	-11.76	14.30	30.00	-15.70	QP		
2		166.9500	25,71	-11.81	13,90	30.00	-16.10	QP		
3		853.7300	25.05	0.15	25.20	37.00	-11.80	QP		
4	111	889.1200	24.95	0.65	25.60	37.00	-11.40	QP		
5		938.1400	25.26	1.64	26.90	37.00	-10.10	QP		
6	*	966.7600	25.23	1.87	27.10	37.00	-9.90	QP		

*: Maximum data x:Over limit !:over margin

File :80099\Data :#20

Page: 1

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Config_3_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config 3

Note: Sample 2 REC Back

Polarization: Vertical

Power: AC 120V/60Hz

Distance:

Temperature: 25 %

Humidity: 65 %

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		42.4900	25.78	-11.28	14.50	30.00	-15.50	QP	
2		53.4400	25,68	-11.28	14.40	30.00	-15.60	QP	
3		135.0400	25.40	-12.00	13.40	30,00	-16.60	QP	
4		890.2300	24.50	0.80	25.30	37.00	-11.70	QP	
5		963.0600	24.75	1,45	26.20	37.00	-10.80	QP	
6	*	976.9400	24.77	1.63	26.40	37.00	-10.60	QP	

*: Maximum data x:Over limit !:over margin

File :80099\Data :#19

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Above 1GHz

Config_1_H

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

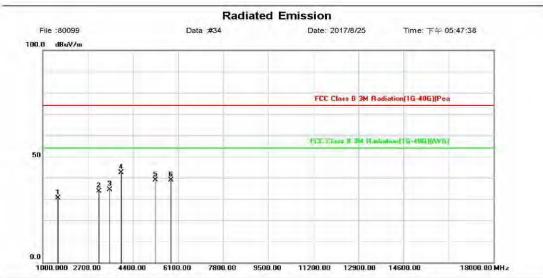
Mode: Config_1 Note: LTE B5 Link Polarization: Horizontal

AC 120V/60Hz

Distance:

Temperature: 22 %

Humidity: 68 %



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1578.000	46.92	-16.52	30.40	74.00	-43.60	peak	
2		3125.000	46.57	-12.89	33.68	74.00	-40.32	peak	
3		3533.000	46.97	-12.52	34,45	74.00	-39.55	peak	
4	*	3958.000	53.69	-11.41	42.28	74.00	-31.72	peak	
5		5250.000	46.96	-8.20	38.76	74.00	-35.24	peak	
6		5828.000	46.18	-7,31	38.87	74.00	-35.13	peak	

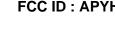
*:Maximum data x:Over limit !:over margin

File: 80099\Data: #34

Page: 1

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FCC ID: APYHRO00254

Report No.: E1/2017/C0033

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Config_1_V

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config_1 Note: LTE B5 Link Polarization: Vertical

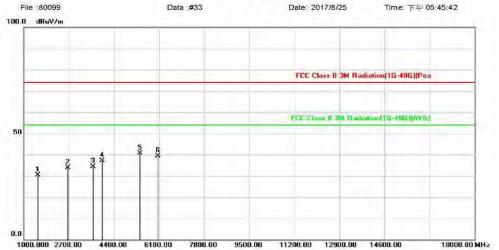
AC 120V/60Hz

Distance:

22 %

Humidity: 68 %

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1527.000	46.98	-16.64	30.34	74.00	-43.66	peak	
2		2666.000	47.62	-13.74	33.88	74.00	-40.12	peak	
3		3618.000	46.79	-12.29	34.50	74.00	-39.50	peak	
4		3958,000	48.65	-11.41	37.24	74.00	-36.76	peak	
5	*	5386,000	48.61	-8.04	40.57	74.00	-33,43	peak	
6	111	6066.000	46.00	-6.74	39.26	74.00	-34.74	peak	

*:Maximum data x:Over limit !:over margin

File: 80099\Data: #33

Page: 1

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Config_2_H

Distance:

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config_2

File: 80099

Note: Internal shared sorage Write

Polarization: Horizontal From System

22 %

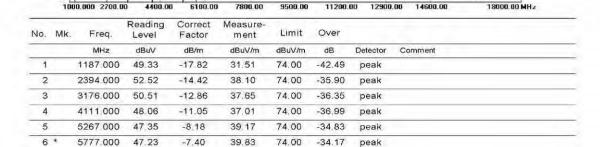
Temperature:

Humidity: 68 %

Radiated Emission Data :#32 Date: 2017/8/25

Time: 下午 04:35:54





*:Maximum data x:Over limit !:over margin

File :80099\Data :#32

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Config_2_V

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config_2

Note: Internal shared sorage Write

Polarization: Vertical From System

22 % Temperature:

18000.00 MHz

Humidity: 68 %

Distance:

Radiated Emission File: 80099 Data :#31 Date: 2017/8/25 Time: 下午 04:34:13 100 ft dRuV/m

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1391.000	51.63	-17.10	34.53	74.00	-39.47	peak	
2	*	2394.000	60.58	-14.42	46.16	74.00	-27.84	peak	
3		2989.000	54.91	-13.03	41.88	74.00	-32.12	peak	
4		3176.000	56.17	-12.86	43.31	74,00	-30.69	peak	
5		4128.000	50.58	-11.02	39.56	74.00	-34.44	peak	
6		5998.000	46.90	-7,00	39.90	74.00	-34.10	peak	

11200.00

*:Maximum data x:Over limit !:over margin

File: 80099\Data:#31

Page: 1

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6100.00

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Config_3_H

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config_3 Note: REC Back Polarization: Horizontal

AC 120V/60Hz

Temperature: Humidity: 68 %

22 %

Distance:

Radiated Emission File: 80099 Data :#36 Date: 2017/8/25 Time: 下午 07:05:39 100 ft dRuV/m 6100.00 9500.00 18000.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1714.000	47.52	-16.23	31.29	74.00	-42.71	peak	
2		2666.000	47.44	-13.74	33.70	74.00	-40.30	peak	
3		3584.000	46.86	-12,39	34,47	74.00	-39.53	peak	
4		4111.000	47.80	-11.05	36.75	74,00	-37.25	peak	
5		4876,000	46.78	-8.91	37.87	74.00	-36.13	peak	
6	*	5777.000	47.96	-7.40	40.56	74.00	-33,44	peak	

*:Maximum data x:Over limit

File: 80099\Data: #36

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Config_3_V

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

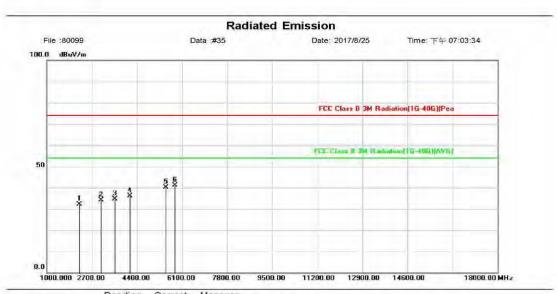
Mode: Config_3 Note: REC Back Polarization: Vertical

AC 120V/60Hz Power:

Distance:

22 %

Humidity: 68 %



No.	Mk.	Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2241.000	47.00	-14.89	32.11	74.00	-41.89	peak	
2		3057.000	46.98	-12.96	34.02	74.00	-39.98	peak	
3		3567.000	46.99	-12.42	34.57	74.00	-39.43	peak	
4		4128,000	47.27	-11.02	36.25	74,00	-37.75	peak	
5		5488.000	47.99	-7.91	40.08	74.00	-33.92	peak	
6	*	5828.000	48.34	-7,31	41,03	74.00	-32.97	peak	
_									

*:Maximum data x:Over limit !:over margin

File :80099\Data :#35

Page: 1

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Config_1_H

Site SGS 10m Chamber

Below 1GHz

Limit: CISPR22 Class B 10M Radiation

Mode: Config_1 Note: LTE B5 Link Polarization: Horizontal

Power: AC 120V/60Hz

Distance: 10m

Temperature: 20 ℃

Humidity: 65 %

Radiated Emission



No.	lo. Mk.	. Freq.	Freq.	Freq.	Freq.	Freq.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment					
1		52.3100	24.41	-11.29	13.12	30.00	-16.88	QP						
2		153.1900	24.83	-11.48	13.35	30.00	-16.65	QP						
3		174.5300	26.55	-11.69	14.86	30.00	-15.14	QP						
4		736.1600	23.57	-0.80	22.77	37.00	-14.23	QP						
5		917.5500	23.92	0.99	24.91	37.00	-12,09	QP						
6	*	968.9600	23.77	1.66	25.43	37.00	-11,57	QP						

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data #8

Page: 1

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Config_1_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

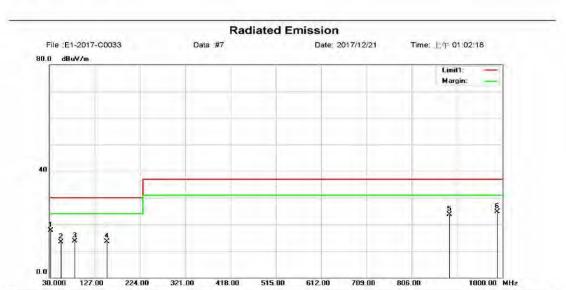
Mode: Config_1 Note: LTE B5 Link Polarization: Vertical Temperature:

20 ℃

Power: AC 120V/60Hz

Distance: 10m

Humidity: 65 %



No.	lo. Mk.		Reading Level	Correct Factor	Measure- ment dBuV/m	Limit	Over		
		MHz	dBuV	dB/m		dBuV/m	dB	Detector	Comment
1	*	32.0200	30.03	-12.30	17_73	30.00	-12.27	QP	
2		55.2200	24.37	-11.12	13.25	30.00	-16.75	QP	
3		84.3200	30.28	-16.63	13.65	30.00	-16.35	QP	
4		153.1900	24.42	-11.00	13.42	30.00	-16.58	QP	
5		886.5100	23.09	0.59	23.68	37.00	-13.32	QP	
6		988.3600	23.19	1.49	24.68	37.00	-12.32	QP	

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data :#7

Page: 1

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Config_2_H

Site SGS 10m Chamber

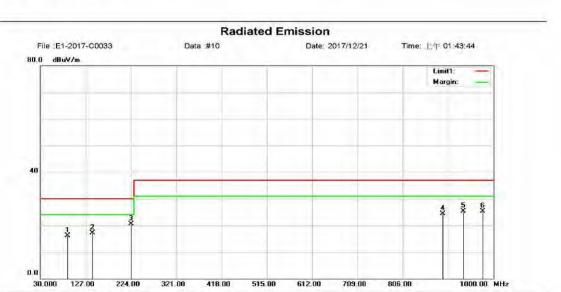
Limit: CISPR22 Class B 10M Radiation

Mode: Config_2 Note: Data-Link Write Polarization: Horizontal Temperature: 20 ℃

From System

Distance: 10m

Humidity: 65 %



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		89.1700	33,50	-17.39	16.11	30.00	-13.89	QP	
2		141.5500	29.13	-11.93	17.20	30.00	-12.80	QP	
3	*	224.0000	34.73	-14.14	20.59	30.00	-9.41	QP	
4		891.3600	23.78	0.51	24.29	37.00	-12.71	QP	
5		935.9800	23.85	1.39	25.24	37.00	-11.76	QP	
6		976.7200	23.65	1.65	25.30	37.00	-11.70	QP	

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data :#10

Page: 1

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Config_2_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config_2 Note: Data-Link Write Polarization: Vertical

From System

Temperature: 20 ℃

Humidity: 65 %

Distance: 10m

Radiated Emission File :E1-2017-C0033 Data:#9 Date: 2017/12/21 Time: 上午 01:43:42 80.0 dBuV/m Limit1: Margin: 6 224.00 321.00 418.00 515.00 612.00 709.00 806.00 1000.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		46.4900	23.95	-10.81	13.14	30.00	-16.86	QP		
2		140.5800	25.28	-11.47	13.81	30.00	-16.19	QP		
3	1.17	259.8900	36.12	-12.00	24.12	37.00	-12.88	QP		
4		839.9500	22.94	-0.02	22.92	37.00	-14.08	QP		
5	+	896.2100	22.95	0.74	23.69	37.00	-13.31	QP		
6	*	988,3600	23.20	1.49	24.69	37.00	-12.31	QP		

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data :#9

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Config_3_H

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

Mode: Config_3 Note: REC Back Polarization: Horizontal

Power: AC 120V/60Hz

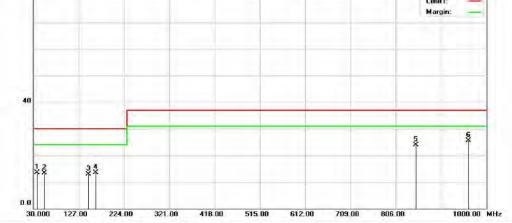
Distance: 10m

Temperature: 20 ℃

Humidity: 65 %

Radiated Emission

File :E1-2017-C0033 Data #12 Date: 2017/12/21 Time: 上午 01:17:24 80.0 dBuV/m Limit1: Margin:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		38.7300	25.23	-11.64	13.59	30.00	-16.41	QP		
2		53.2800	24.63	-11.37	13.26	30.00	-16.74	QP		
3		148.3400	24.64	-11.67	12.97	30.00	-17.03	QP		
4	1	163.8600	24.65	-11.19	13.46	30.00	-16.54	QP		
5	-	848.6800	23.79	0.10	23.89	37.00	-13.11	QP		
6	*	961.2000	23.75	1.68	25.43	37.00	-11.57	QP		

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data :#12

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Config_3_V

Site SGS 10m Chamber

Limit: CISPR22 Class B 10M Radiation

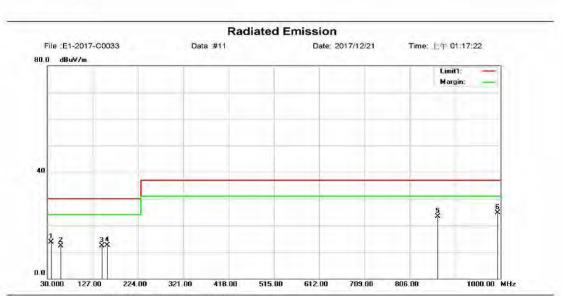
Mode: Config_3 Note: REC Back Polarization: Vertical

Power: AC 120V/60Hz

Temperature: 20 ℃

Humidity: 65 %

Distance: 10m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		38.7300	25.22	-11.55	13.67	30.00	-16,33	QP	
2		59.1000	23.83	-11.43	12.40	30.00	-17.60	QP	
3		146.4000	23.43	-11.11	12.32	30.00	-17.68	QP	
4		158.0400	23.65	-11.14	12.51	30.00	-17.49	QP	
5		866.1400	22.99	0.26	23.25	37.00	-13.75	QP	
6	*	994.1800	23.26	1.54	24.80	37.00	-12.20	QP	

*: Maximum data x:Over limit !:over margin

File :E1-2017-C0033\Data :#11

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Above 1GHz

Config_1_H

Site SGS 966 Chamber A

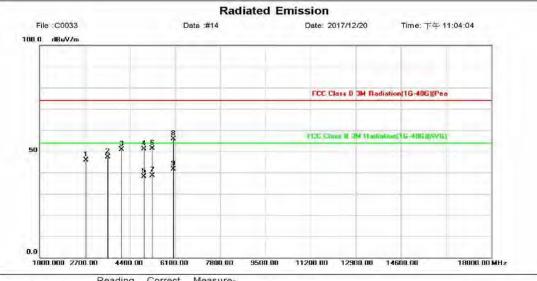
Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config 1 Note: LTE/B5 Link Polarization: Horizontal

AC 120V/60Hz

Temperature: 26 °C Humidity: 60 %

Distance:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2751.000	59.23	-13.35	45.88	74.00	-28.12	peak	
2		3567.000	58.60	-11.32	47.28	74.00	-26.72	peak	
3		4094.000	60.34	-9.49	50.85	74.00	-23.15	peak	
4		4927.000	58.54	-7.51	51.03	74.00	-22.97	peak	
5		4927.000	45.73	-7.51	38.22	54.00	-15.78	AVG	
6		5250.000	58.50	-7.00	51.50	74.00	-22.50	peak	
7		5250.000	45.64	-7.00	38.64	54.00	-15.36	AVG	
8		6032.000	61.35	-5.38	55.97	74.00	-18.03	peak	
9	*	6032.000	46.97	-5.38	41.59	54.00	-12.41	AVG	
_									

*:Maximum data x:Over limit !:over margin

File : C0033\Data :#14

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Config_1_V

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config 1 Note: LTE/B5 Link Polarization: Vertical AC 120V/60Hz

Temperature: 26 °C Humidity: 60 %

Distance:

Radiated Emission File: C0033 Data :#13 Date: 2017/12/20 Time: 下午 11:01:16 100.0 dBuV/m 0.0 11200 00 12900 00 18000.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2972.000	59.04	-12.96	46.08	74.00	-27.92	peak	
2		3618.000	58.62	-11.10	47.52	74.00	-26.48	peak	
3		4519,000	59.19	-9.32	49.87	74.00	-24.13	peak	
4		4859.000	58.69	-7.83	50.86	74.00	-23.14	peak	
5		5318.000	58.72	-6.95	51.77	74.00	-22.23	peak	
6		5318.000	45.36	-6.95	38.41	54.00	-15.59	AVG	
7		6032.000	58.96	-5.38	53.58	74.00	-20.42	peak	
8	*	6032.000	47.52	-5.38	42.14	54.00	-11.86	AVG	

*:Maximum data x:Over limit

File : C0033\Data :#13

Page: 1

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Config_2_H

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config 2

Note: Internal shared sorage Write

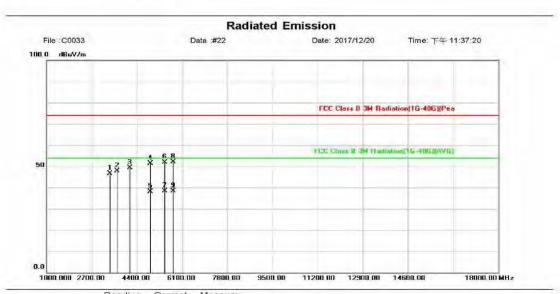
Polarization: Vertical

AC 120V/60Hz

Temperature: 26 °C

Humidity: 60 %

Distance:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		3380.000	58.64	-11.91	46.73	74.00	-27.27	peak	
2		3652.000	58.78	-10.97	47.81	74.00	-26.19	peak	
3		4145.000	58.84	-9.48	49.36	74.00	-24.64	peak	
4	- 1	4910.000	58.92	-7.60	51.32	74.00	-22.68	peak	
5		4910.000	45.62	-7.60	38.02	54.00	-15.98	AVG	
6	111	5454.000	58.82	-6.84	51.98	74.00	-22.02	peak	
7	*	5454.000	45.29	-6.84	38.45	54.00	-15.55	AVG	
8		5760.000	58.42	-6.17	52.25	74.00	-21.75	peak	
9		5760.000	44.43	-6.17	38.26	54.00	-15.74	AVG	

*:Maximum data x:Over limit !:over margin

File : C0033\Data :#22

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Config_2_V

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Config 2

Note: Internal shared sorage Write

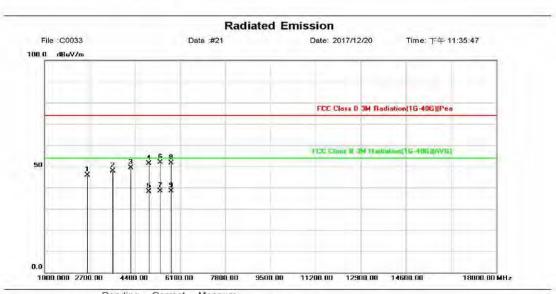
Polarization: Vertical

Temperature: 26 °C

Humidity: 60 %

AC 120V/60Hz

Distance:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2615.000	59.50	-13.60	45.90	74.00	-28.10	peak	
2		3567.000	59.13	-11.32	47.81	74.00	-26.19	peak	
3		4247.000	58.88	-9.44	49.44	74.00	-24.56	peak	
4	-	4927.000	58.93	-7.51	51.42	74.00	-22.58	peak	
5	-	4927.000	45.72	-7.51	38.21	54.00	-15.79	AVG	
6		5369.000	58.67	-6.90	51.77	74.00	-22.23	peak	
7	*	5369.000	45.34	-6.90	38.44	54.00	-15.56	AVG	
8		5760.000	57.85	-6.17	51.68	74.00	-22.32	peak	
9		5760.000	44.54	-6.17	38.37	54.00	-15.63	AVG	

*:Maximum data x:Over limit

File : C0033\Data :#21

Page: 1

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Config_3_H

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

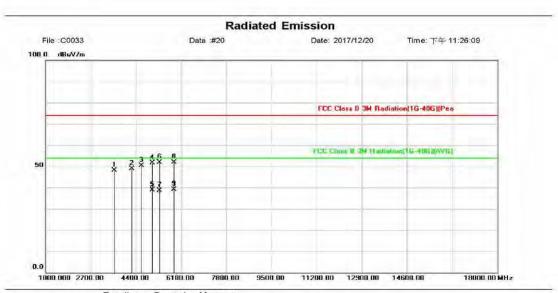
Mode: Config 3 Note: REC Back Polarization: Horizontal

AC 120V/60Hz

Temperature: 26 °C

Humidity: 60 %

Distance:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		3584.000	59.48	-11.25	48.23	74.00	-25.77	peak	
2		4247.000	58.33	-9.44	48.89	74.00	-25.11	peak	
3		4621.000	59.18	-8.88	50.30	74.00	-23.70	peak	
4	-	5012.000	58.83	-7.20	51.63	74.00	-22.37	peak	
5		5012.000	46.06	-7.20	38.86	54.00	-15.14	AVG	
6		5284.000	58.79	-6.97	51.82	74.00	-22.18	peak	
7		5284.000	45.51	-6.97	38.54	54.00	-15.46	AVG	
8		5845.000	57.94	-5.97	51.97	74.00	-22.03	peak	
9	*	5845.000	45.14	-5.97	39.17	54.00	-14.83	AVG	

*:Maximum data x:Over limit

File : C0033\Data :#20

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FCC ID: APYHRO00254

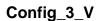
Report No.: E1/2017/C0033

26 °C

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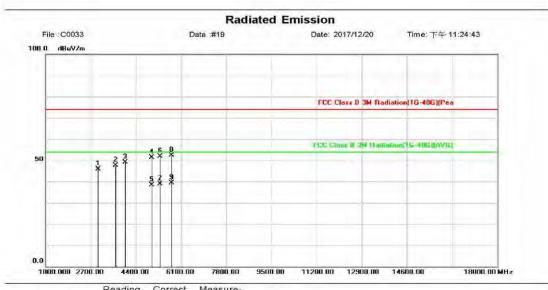
Temperature:

Humidity: 60 %



Site SGS 966 Chamber A Polarization: Vertical Limit: FCC Class B 3M Radiation(1G-40G)(Pea AC 120V/60Hz

Mode: Config 3 Note: REC Back Distance:



No.	Mk.	Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2972.000	58.77	-12.96	45.81	74.00	-28.19	peak	
2		3635.000	58.56	-11.03	47.53	74.00	-26.47	peak	
3		4009.000	58.66	-9.51	49.15	74.00	-24.85	peak	
4	-	4995.000	58.69	-7.22	51.47	74.00	-22.53	peak	
5		4995.000	45.66	-7.22	38.44	54.00	-15.56	AVG	
6		5318.000	58.83	-6.95	51.88	74.00	-22.12	peak	
7		5318.000	45.89	-6.95	38.94	54.00	-15.06	AVG	
8	1	5743.000	58.70	-6.22	52.48	74.00	-21.52	peak	
9	*	5743.000	45.69	-6.22	39.47	54.00	-14.53	AVG	

*:Maximum data x:Over limit I:over margin

File : C0033\Data :#19

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** End of Report **

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