

Radio Test Report

Report No.:STS2409307W05

Issued for

Buddi Limited

Talbot House 17 Church Street Rickmansworth, WD3 1DE
United Kingdom

Product Name: Smart ID

Brand Name: Buddi Limited

Model Name: S10-BUD-A-TEEU-SID,
S10-BUD-A-TEEU-SID14.1,
S10-BUD-A-TEEU-SIE14.1

Series Model(s): 7630001, 7630006, 7630007

FCC ID: ZDLST9

Test Standards: FCC Part15.247

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name: Buddi Limited
Address: Talbot House 17 Church Street Rickmansworth, WD3 1DE United Kingdom
Manufacturer's Name.....: Buddi Limited
Address: Talbot House 17 Church Street Rickmansworth, WD3 1DE United Kingdom

Product Description

Product Name: Smart ID
Brand Name.....: Buddi Limited
Model Name: S10-BUD-A-TEEU-SID, S10-BUD-A-TEEU-SID14.1, S10-BUD-A-TEEU-SIE14.1
Series Model(s): 7630001, 7630006, 7630007

Test Standards: FCC Part 15.247

Test Procedure.....: ANSI C63.10-2020

This device described above has been tested by STS, 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.

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test

Date of receipt of test item.....: 12 Oct. 2023

Date (s) of performance of tests: 12 Oct. 2024 ~ 19 Oct. 2024

Date of Issue: 19 Oct. 2024

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

Testing Engineer :

Aaron Bu

(Aaron Bu)

Technical Manager :

Tony Liu

(Tony Liu)

Authorized Signatory :

Bovey Yang

(Bovey Yang)



**Table of Contents****Page**

1. SUMMARY OF TEST RESULTS	5
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2. GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	9
2.3 TEST SOFTWARE AND POWER LEVEL	9
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	10
2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	11
2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
3. EMC EMISSION TEST	13
3.1 CONDUCTED EMISSION MEASUREMENT	13
3.2 RADIATED EMISSION MEASUREMENT	21
4. ANTENNA REQUIREMENT	42
4.1 STANDARD REQUIREMENT	42
4.2 EUT ANTENNA	42

**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	27 Dec. 2023	CTA231114011W01	ALL	Initial Issue
00	19 Oct. 2024	STS2409307W05	ALL	Add models, update hardware version numbers, spurious emissions and AC conducted emission.

Note:

1. The report number STS2409307W05 is based on a Class II change made on the FCC ID: ZDLST9, originally granted on 12/29/2023.
2. The updated test item are spurious emissions and AC conducted emission, Other testing items have met the requirements of the latest regulations, so they are not updated.



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	--
15.209	Radiated Spurious Emission	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
15.203	Antenna Requirement	PASS	--

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2020.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded 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	Unwanted Emissions, conducted	$\pm 2.874\text{dB}$
2	All emissions, radiated 9K-30MHz	$\pm 3.80\text{dB}$
3	All emissions, radiated 30M-1GHz	$\pm 4.18\text{dB}$
4	All emissions, radiated 1G-6GHz	$\pm 4.90\text{dB}$
5	All emissions, radiated >6G	$\pm 5.24\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Smart ID	
Brand Name	Buddi Limited	
Model Name	S10-BUD-A-TEEU-SID, S10-BUD-A-TEEU-SID14.1, S10-BUD-A-TEEU-SIE14.1	
Series Model(s)	7630001, 7630006, 7630007	
Model Difference	Only different in Model Name, Appearance(non-fingerprint or fingerprint), SIM(single SIM or dual SIM) and Hardware Version Number. Model Number: S10-BUD-A-TEEU-SID, 7630001 has non-fingerprint and support single SIM; Model Number: S10-BUD-A-TEEU-SID14.1, 7630006 has fingerprint, change the Hardware Version Number to v14.1 and support dual SIM; Model Number: S10-BUD-A-TEEU-SIE14.1, 7630007 has non-fingerprint, change the Hardware Version Number to v14.1 and support dual SIM.	
Product Description	The EUT is a Smart ID	
	Operation Frequency:	802.11b/g/n 20: 2412~2462 MHz
	Modulation Type:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n(20MHz): 65/58.5/52/39/26/19.5/13/6.5Mbps
	Number of Channel:	802.11b/g/n20: 11CH
	Antenna Type:	SMD
	Antenna Gain (dBi):	3.5 dBi
Channel List	Please refer to the Note 3.	
Adapter	Smart ID Dock (without battery) : Input: DC 5V, 1.2A Output: DC 5V, 1.2A Charging head: Input:100-240V~, 50/60Hz, 0.3A Output:DC 5V 1.2A	
Battery	Rated Voltage: 3.7V Charge Limit Voltage: 4.2V Capacity: 2650mAh	
Rating	Input:DC 5V 1.2A	
Hardware version number	V14.0;v14.1	
Software version number	1.41.2	
Connecting I/O Port(s)	Please refer to the Note 1.	



Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.

3.

Operation Frequency of channel			
802.11b/g/n(20MHz)			
Channel	Frequency	Channel	Frequency
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Carrier Frequency Channel

2.4GHz Test Frequency:

For 802.11b/g/n (HT20)	
Channel	Freq.(MHz)
01	2412
06	2437
11	2462



2.2 DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11b CH1	1 Mbps
Mode 2	TX IEEE 802.11b CH6	1 Mbps
Mode 3	TX IEEE 802.11 b CH11	1 Mbps
Mode 4	TX IEEE 802.11g CH1	6 Mbps
Mode 5	TX IEEE 802.11g CH6	6 Mbps
Mode 6	TX IEEE 802.11g CH11	6 Mbps
Mode 7	TX IEEE 802.11n HT20 CH1	MCS 0
Mode 8	TX IEEE 802.11n HT20 CH6	MCS 0
Mode 9	TX IEEE 802.11n HT20 CH11	MCS 0

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
- (2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V /60Hz is shown in the report.
- (3) The battery is fully-charged during the radited and RF conducted test.

AC Conducted Emission

Test Case	
AC Conducted Emission	Mode10: Keeping WIFI TX

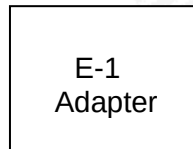
2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

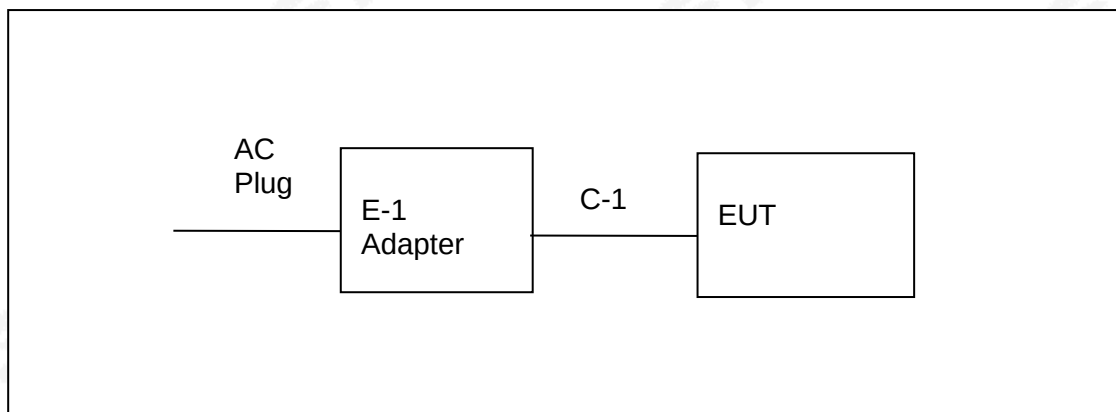
RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
WIFI(2.4G)	2.4G WIFI	802.11b	3.5	Default	The EUT has signal transmission when it is powered on
		802.11g		Default	
		802.11n(HT20)		Default	

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiation Test Set



Conducted Emission Test



2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

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.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	Adapter	HUAWEI	HW-050450C00	N/A	N/A
C-1	USB Cable	N/A	N/A	100cm	NO

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

RF Radiation Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2024.03.15	2025.03.14
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2024.02.23	2025.02.22
Pre-Amplifier(1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2024.09.23	2025.09.22
Pre-Amplifier(18G-40GHz)	SKET	LNPA_1840-50	SK2018101801	2024.02.23	2025.02.22
Active loop Antenna	ZHINAN	ZN30900C	16035	2023.02.28	2025.02.27
Bilog Antenna	TESEQ	CBL6111D	34678	2024.09.30	2025.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2023.09.24	2025.09.23
Horn Antenna	A-INFOMW	LB-180400-KF	J211020657	2023.10.10	2025.10.09
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2024.09.23	2025.09.22
Switch Control Box	N/A	N/A	N/A	N/A	N/A
Filter Box	BALUN Technology	SU319E	BL-SZ1530051	N/A	N/A
Antenna Mast	MF	MFA-440H	N/A	N/A	N/A
Turn Table	MF	SC100_1	60531	N/A	N/A
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A
DC power supply	HONGSHENGFENG	DPS-305AF	17064939	2024.09.23	2025.09.22
Test SW	EZ-EMC	Ver.STSLAB-03A1 RE			
Conduction Test equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2024.09.24	2025.09.23
Limtter	CYBERTEK	EM5010	N/A	2024.09.24	2025.09.23
LISN	R&S	ENV216	101242	2024.09.24	2025.09.23
LISN	EMCO	3810/2NM	23625	2024.09.24	2025.09.23
Temperature & Humidity	SW-108	SuWei	N/A	2024.03.15	2025.03.14
Test SW	EZ-EMC	Ver.STSLAB-03A1 CE			

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

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.

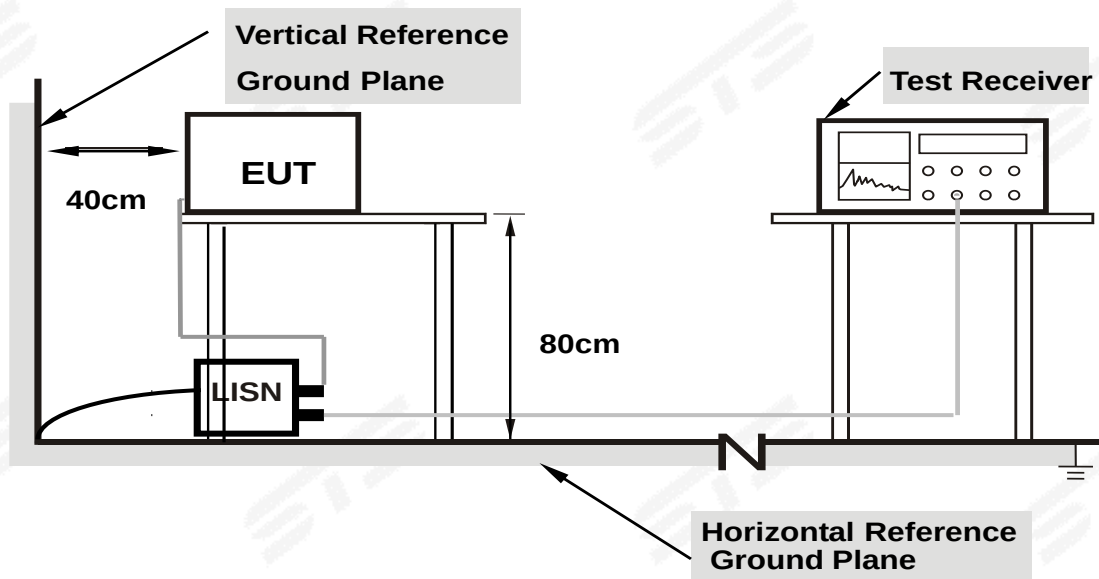
The following table is the setting of the receiver

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

3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- 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.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 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 cm from other units and other metal planes support units.

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

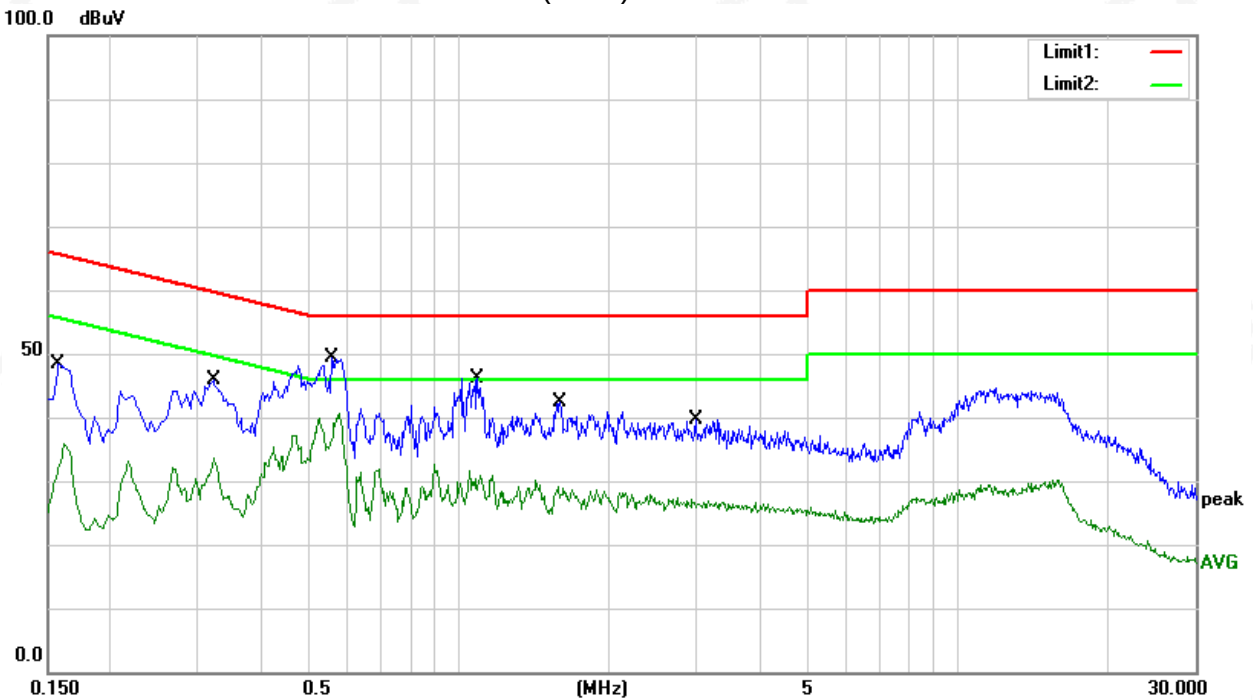
S10-BUD-A-TEEU-SID

Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1580	28.62	19.78	48.40	65.57	-17.17	QP
2	0.1580	16.07	19.78	35.85	55.57	-19.72	AVG
3	0.3220	25.76	20.17	45.93	59.66	-13.73	QP
4	0.3220	13.49	20.17	33.66	49.66	-16.00	AVG
5	0.5580	29.34	19.95	49.29	56.00	-6.71	QP
6	0.5580	20.64	19.95	40.59	46.00	-5.41	AVG
7	1.0900	26.29	19.77	46.06	56.00	-9.94	QP
8	1.0900	11.11	19.77	30.88	46.00	-15.12	AVG
9	1.5940	22.51	19.78	42.29	56.00	-13.71	QP
10	1.5940	9.26	19.78	29.04	46.00	-16.96	AVG
11	2.9820	19.75	19.83	39.58	56.00	-16.42	QP
12	2.9820	7.19	19.83	27.02	46.00	-18.98	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)



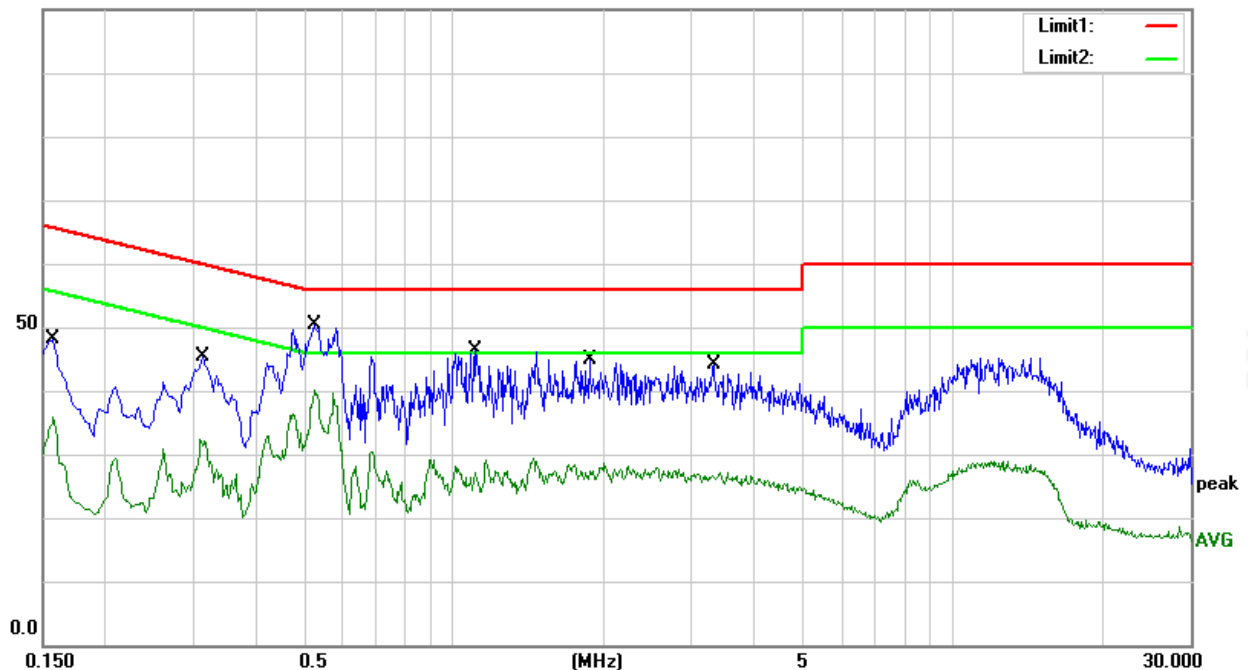
Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1580	28.39	19.76	48.15	65.57	-17.42	QP
2	0.1580	16.00	19.76	35.76	55.57	-19.81	AVG
3	0.3140	25.04	20.23	45.27	59.86	-14.59	QP
4	0.3140	12.21	20.23	32.44	49.86	-17.42	AVG
5	0.5260	30.37	19.94	50.31	56.00	-5.69	QP
6	0.5260	20.29	19.94	40.23	46.00	-5.77	AVG
7	1.1020	26.61	19.78	46.39	56.00	-9.61	QP
8	1.1020	9.29	19.78	29.07	46.00	-16.93	AVG
9	1.8700	25.02	19.86	44.88	56.00	-11.12	QP
10	1.8700	8.14	19.86	28.00	46.00	-18.00	AVG
11	3.3180	24.22	19.94	44.16	56.00	-11.84	QP
12	3.3180	7.20	19.94	27.14	46.00	-18.86	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBuV





S10-BUD-A-TEEU-SID14.1

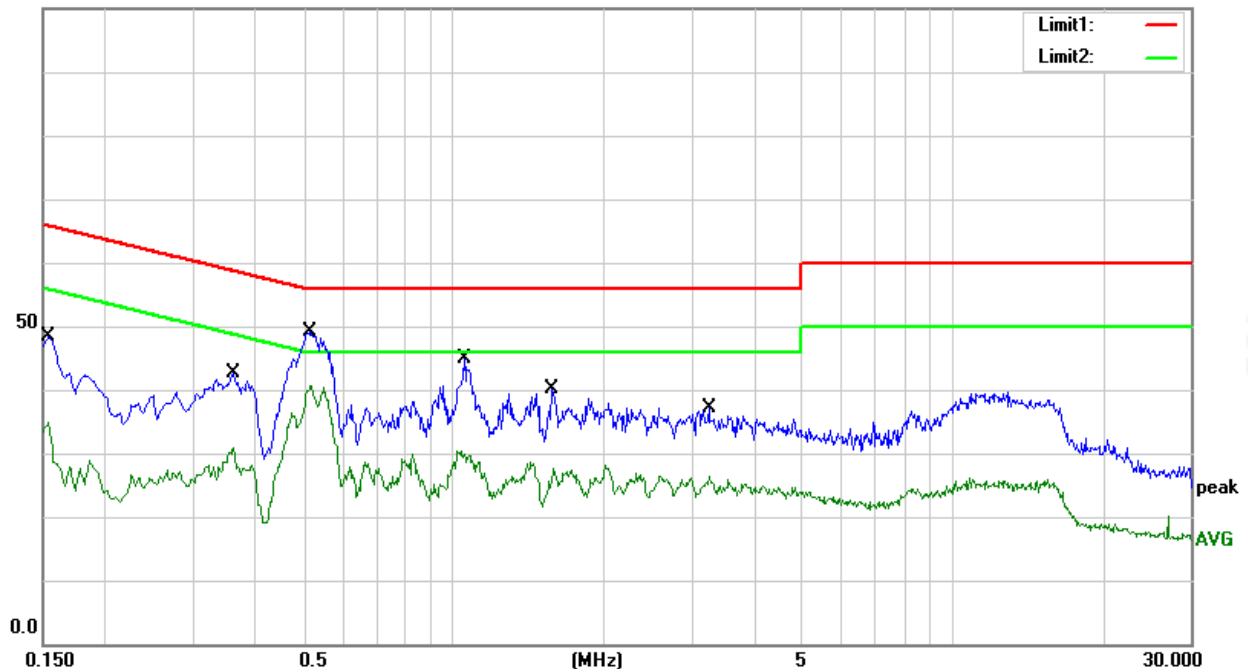
Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
1	0.1540	28.62	19.78	48.40	65.78	-17.38	QP
2	0.1540	15.10	19.78	34.88	55.78	-20.90	AVG
3	0.3620	22.45	20.09	42.54	58.68	-16.14	QP
4	0.3620	10.74	20.09	30.83	48.68	-17.85	AVG
5	0.5180	29.18	19.99	49.17	56.00	-6.83	QP
6	0.5180	20.60	19.99	40.59	46.00	-5.41	AVG
7	1.0500	25.03	19.77	44.80	56.00	-11.20	QP
8	1.0500	10.19	19.77	29.96	46.00	-16.04	AVG
9	1.5860	19.65	19.78	39.43	56.00	-16.57	QP
10	1.5860	7.73	19.78	27.51	46.00	-18.49	AVG
11	3.2500	17.21	19.83	37.04	56.00	-18.96	QP
12	3.2500	6.54	19.83	26.37	46.00	-19.63	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBUV





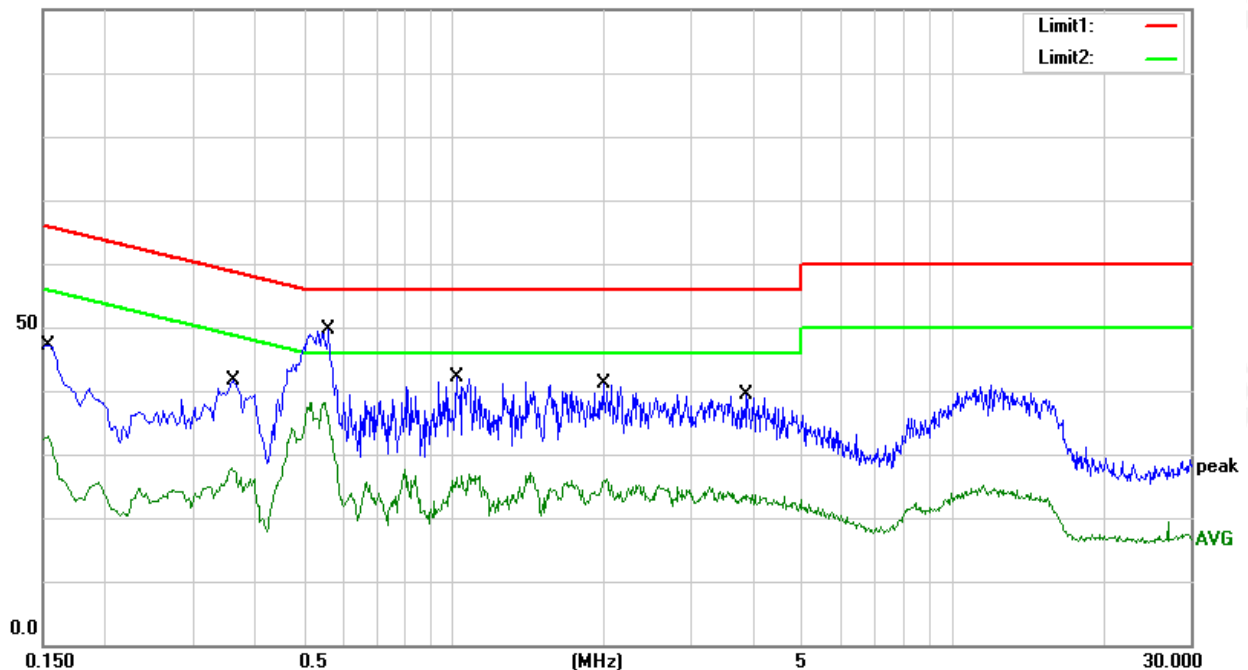
Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
1	0.1540	27.34	19.75	47.09	65.78	-18.69	QP
2	0.1540	13.16	19.75	32.91	55.78	-22.87	AVG
3	0.3620	21.40	20.12	41.52	58.68	-17.16	QP
4	0.3620	7.83	20.12	27.95	48.68	-20.73	AVG
5	0.5620	29.70	19.92	49.62	56.00	-6.38	QP
6	0.5620	18.30	19.92	38.22	46.00	-7.78	AVG
7	1.0140	22.24	19.77	42.01	56.00	-13.99	QP
8	1.0140	7.14	19.77	26.91	46.00	-19.09	AVG
9	1.9980	21.28	19.88	41.16	56.00	-14.84	QP
10	1.9980	6.20	19.88	26.08	46.00	-19.92	AVG
11	3.8700	19.36	19.95	39.31	56.00	-16.69	QP
12	3.8700	3.60	19.95	23.55	46.00	-22.45	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

100.0 dBUV





S10-BUD-A-TEEU-SIE14.1

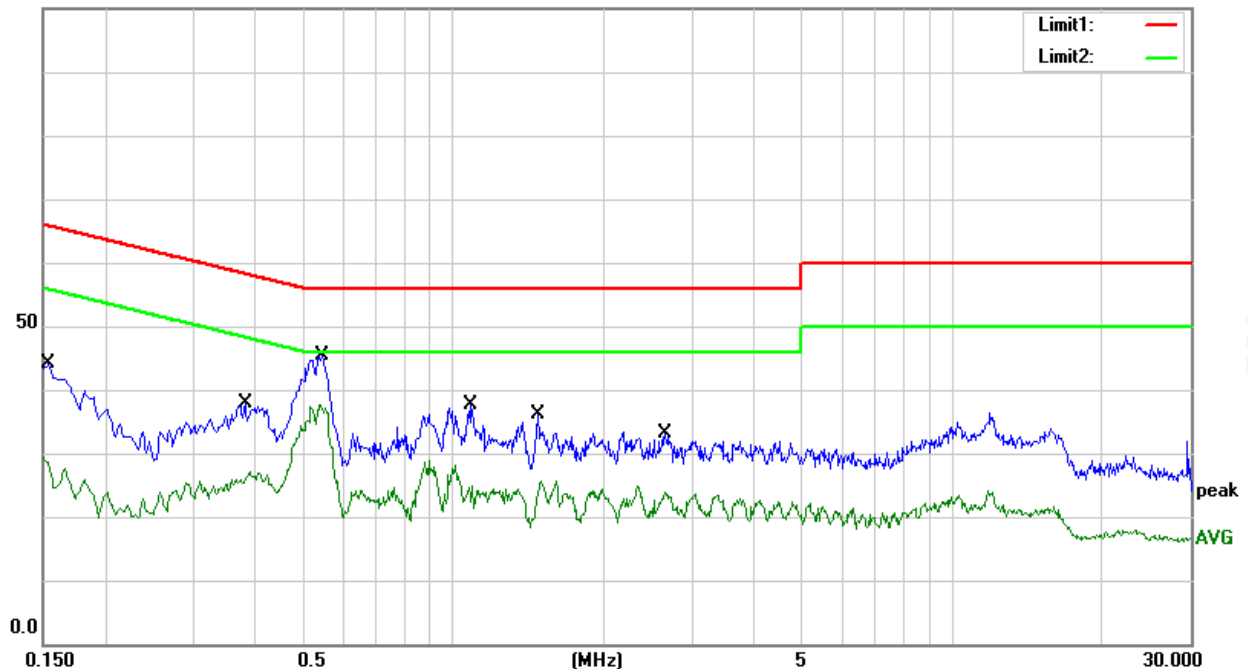
Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
1	0.1540	24.27	19.78	44.05	65.78	-21.73	QP
2	0.1540	9.50	19.78	29.28	55.78	-26.50	AVG
3	0.3820	17.80	20.05	37.85	58.24	-20.39	QP
4	0.3820	7.15	20.05	27.20	48.24	-21.04	AVG
5	0.5460	25.48	19.97	45.45	56.00	-10.55	QP
6	0.5460	17.76	19.97	37.73	46.00	-8.27	AVG
7	1.0780	17.74	19.77	37.51	56.00	-18.49	QP
8	1.0780	5.21	19.77	24.98	46.00	-21.02	AVG
9	1.4780	16.24	19.78	36.02	56.00	-19.98	QP
10	1.4780	5.86	19.78	25.64	46.00	-20.36	AVG
11	2.6500	13.25	19.81	33.06	56.00	-22.94	QP
12	2.6500	4.19	19.81	24.00	46.00	-22.00	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBUV





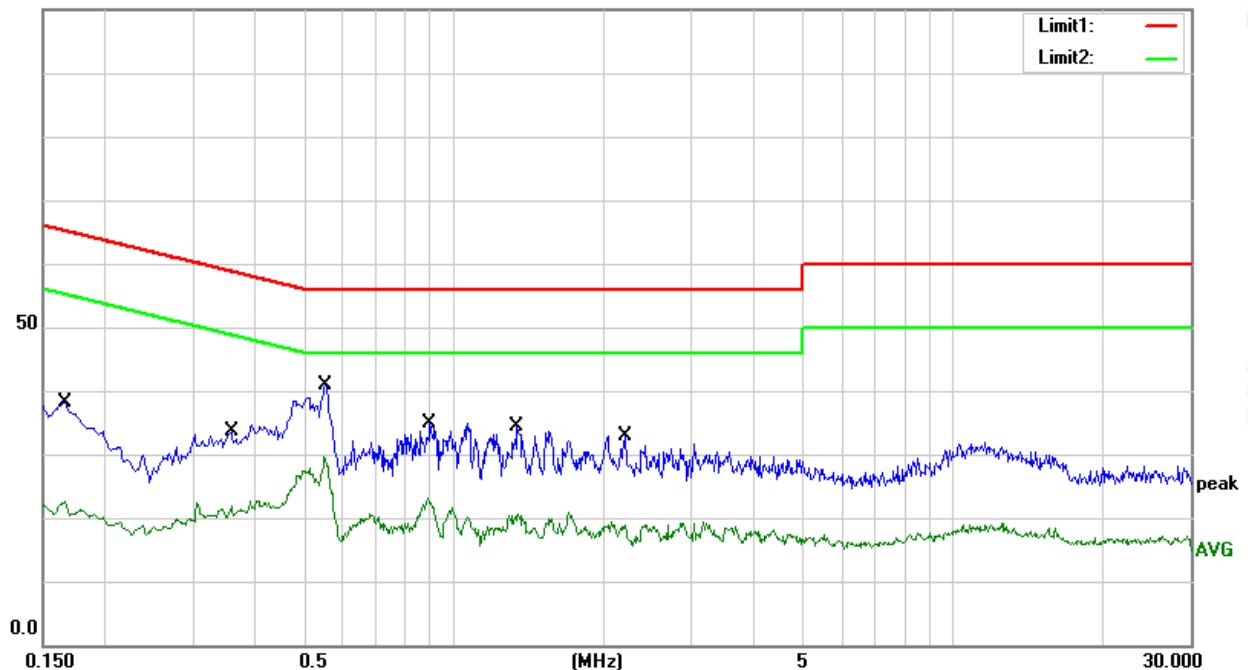
Temperature:	23.5°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 10		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor(dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Remark
1	0.1660	18.44	19.78	38.22	65.16	-26.94	QP
2	0.1660	2.85	19.78	22.63	55.16	-32.53	AVG
3	0.3580	13.60	20.13	33.73	58.77	-25.04	QP
4	0.3580	2.50	20.13	22.63	48.77	-26.14	AVG
5	0.5540	21.01	19.93	40.94	56.00	-15.06	QP
6	0.5540	9.60	19.93	29.53	46.00	-16.47	AVG
7	0.8980	15.07	19.79	34.86	56.00	-21.14	QP
8	0.8980	3.25	19.79	23.04	46.00	-22.96	AVG
9	1.3420	14.56	19.80	34.36	56.00	-21.64	QP
10	1.3420	0.81	19.80	20.61	46.00	-25.39	AVG
11	2.2100	12.88	19.89	32.77	56.00	-23.23	QP
12	2.2100	-0.49	19.89	19.40	46.00	-26.60	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

100.0 dBUV





3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2020 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

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

LIMITS OF RADIATED EMISSION MEASUREMENT (1000MHz-25GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

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

For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz(Peak/QP/AV)
Stop Frequency	150KHz/30MHz(Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz(Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 KHz / 300 KHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/AV
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

For Restricted band

Spectrum Parameter	Setting
Detector	Peak/AV
Start/Stop Frequency	Lower Band Edge: 2310 to 2430 MHz Upper Band Edge: 2445 to 2500 MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

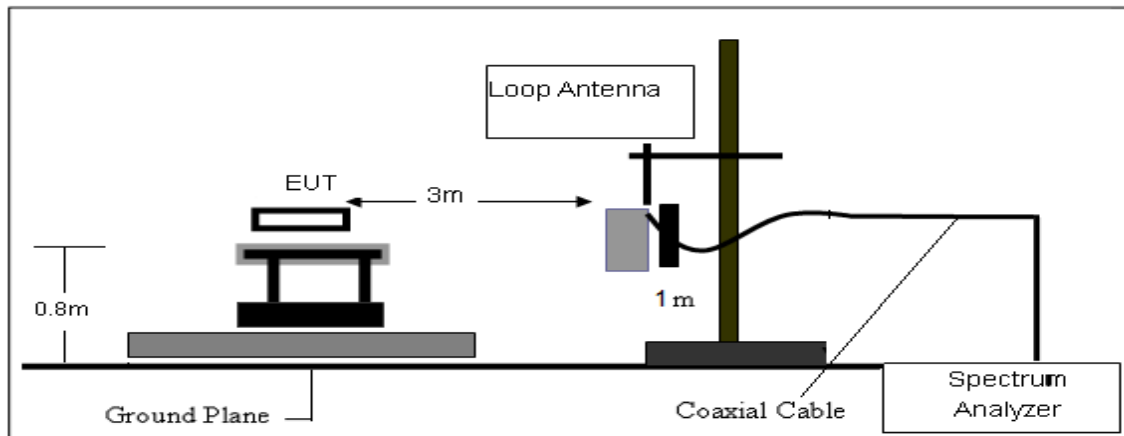
- The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

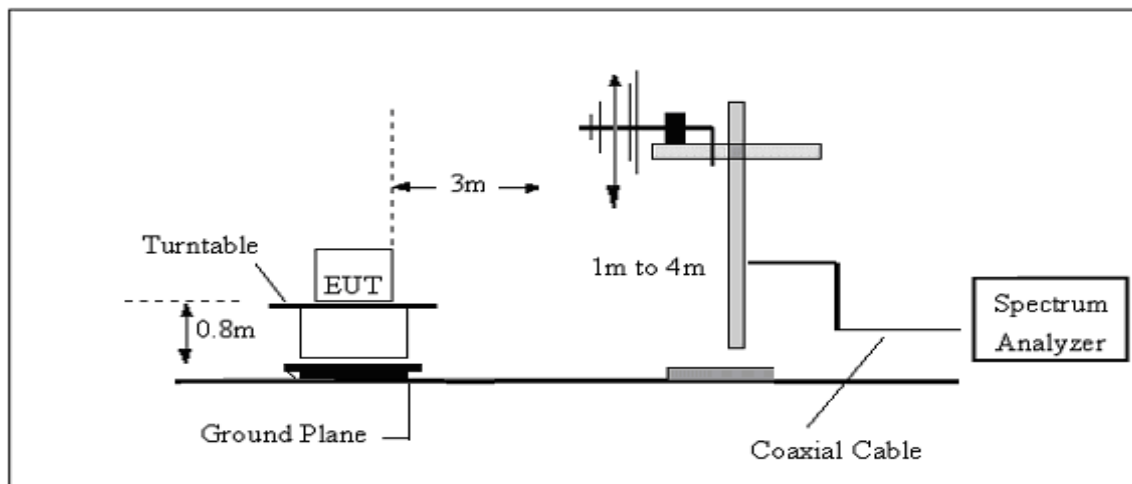
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 TEST SETUP

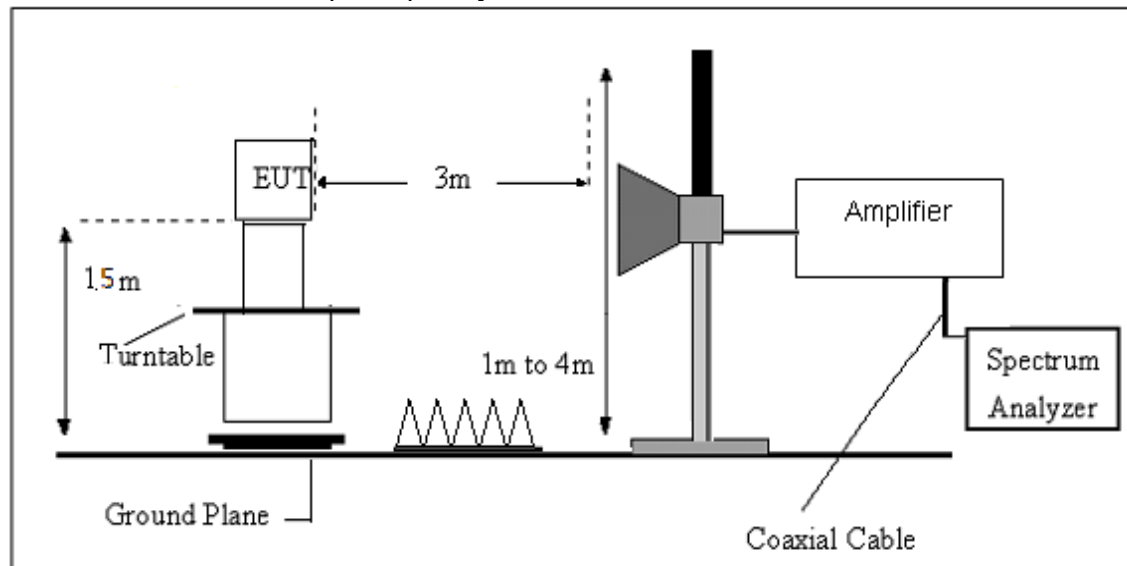
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.2.4 EUT OPERATING CONDITIONS

Please refer to section 3.1.4 of this report.



3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = AF + CL - AG$$



3.2.6 TEST RESULT

9KHz-30MHz

Temperature:	23.1℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Polarization:	--
Test Mode:	TX Mode		

Freq.	Reading	Limit	Margin	State	Test Result
(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 = $40 \log (\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dBuV) + distance extrapolation factor.



(30MHz - 1000MHz)

S10-BUD-A-TEEU-SID

Temperature:	23.4℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Horizontal
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/ m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	46.4900	43.15	-21.41	21.74	40.00	-18.26	peak
2	85.2900	40.83	-22.13	18.70	40.00	-21.30	peak
3	302.5700	31.96	-14.72	17.24	46.00	-28.76	peak
4	536.3400	33.06	-7.08	25.98	46.00	-20.02	peak
5	844.8000	28.48	-0.53	27.95	46.00	-18.05	peak
6	978.6600	28.16	2.58	30.74	54.00	-23.26	peak

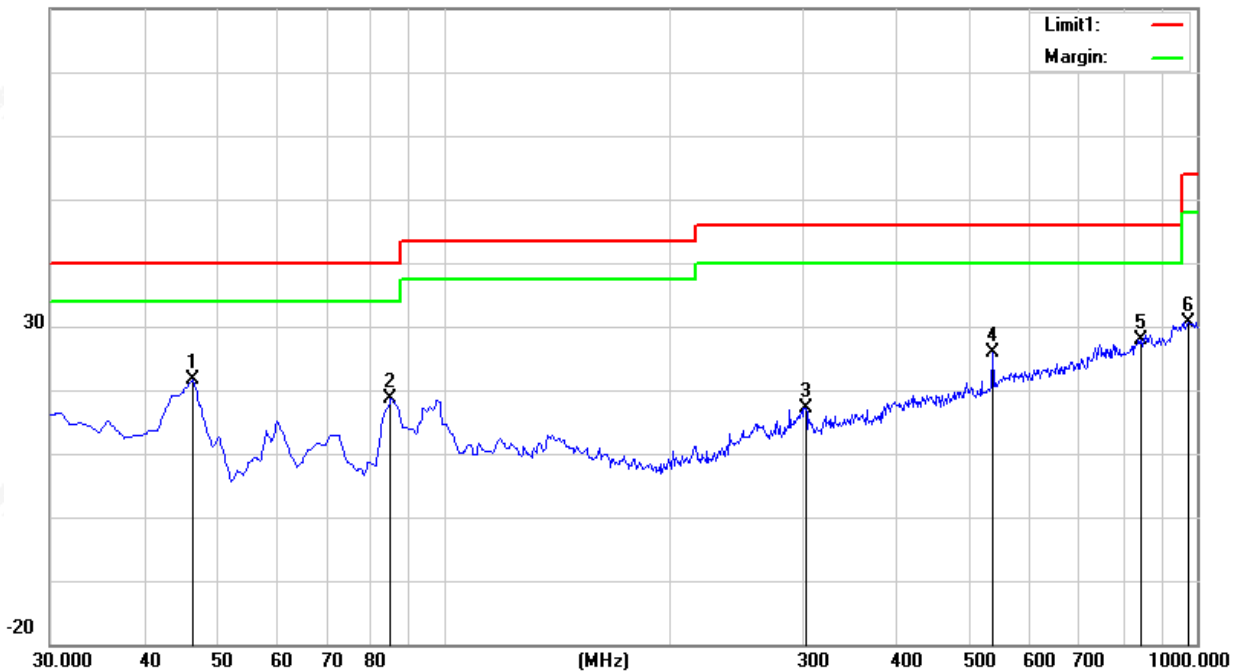
Remark:

Margin = Result (Result = Reading + Factor) – Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.

80.0 dBuV/m





Temperature:	23.4℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Vertical
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/ m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	46.4900	54.34	-21.41	32.93	40.00	-7.07	peak
2	119.2400	36.40	-18.38	18.02	43.50	-25.48	peak
3	359.8000	32.54	-12.87	19.67	46.00	-26.33	peak
4	615.8800	28.99	-5.49	23.50	46.00	-22.50	peak
5	848.6800	29.14	-0.70	28.44	46.00	-17.56	peak
6	979.6300	28.37	2.65	31.02	54.00	-22.98	peak

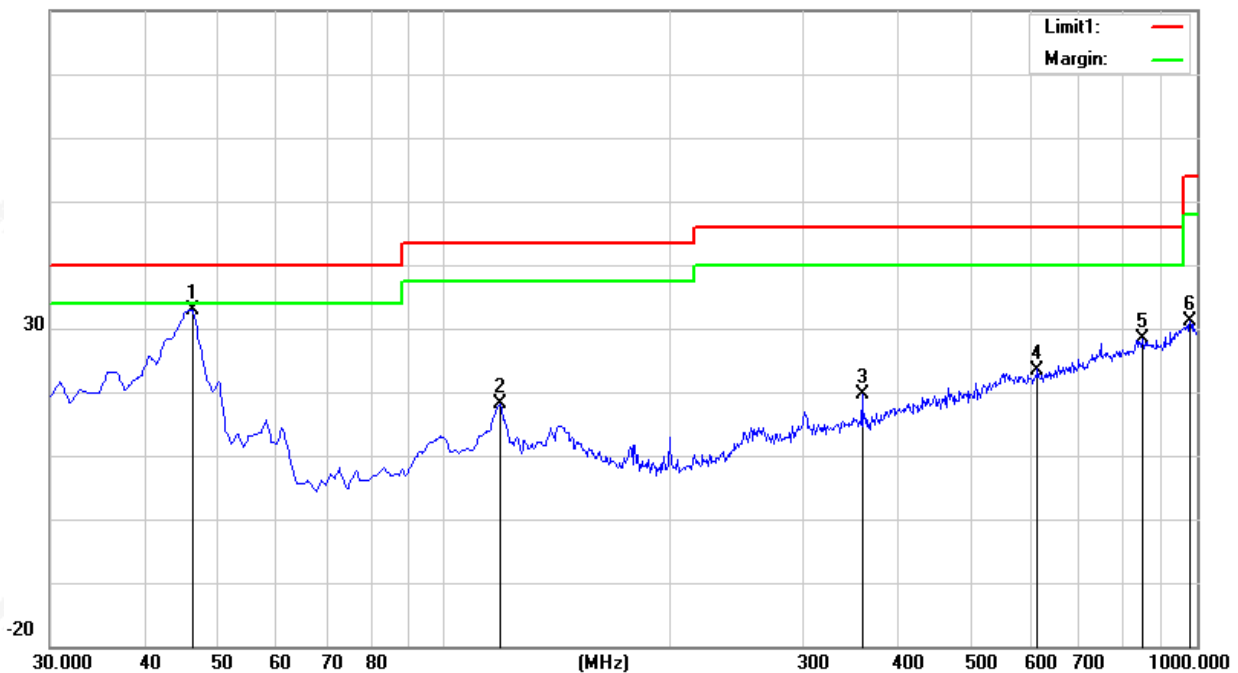
Remark:

Margin = Result (Result = Reading + Factor) – Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.

80.0 dBuV/m





S10-BUD-A-TEEU-SID14.1

Temperature:	23.4℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Horizontal
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

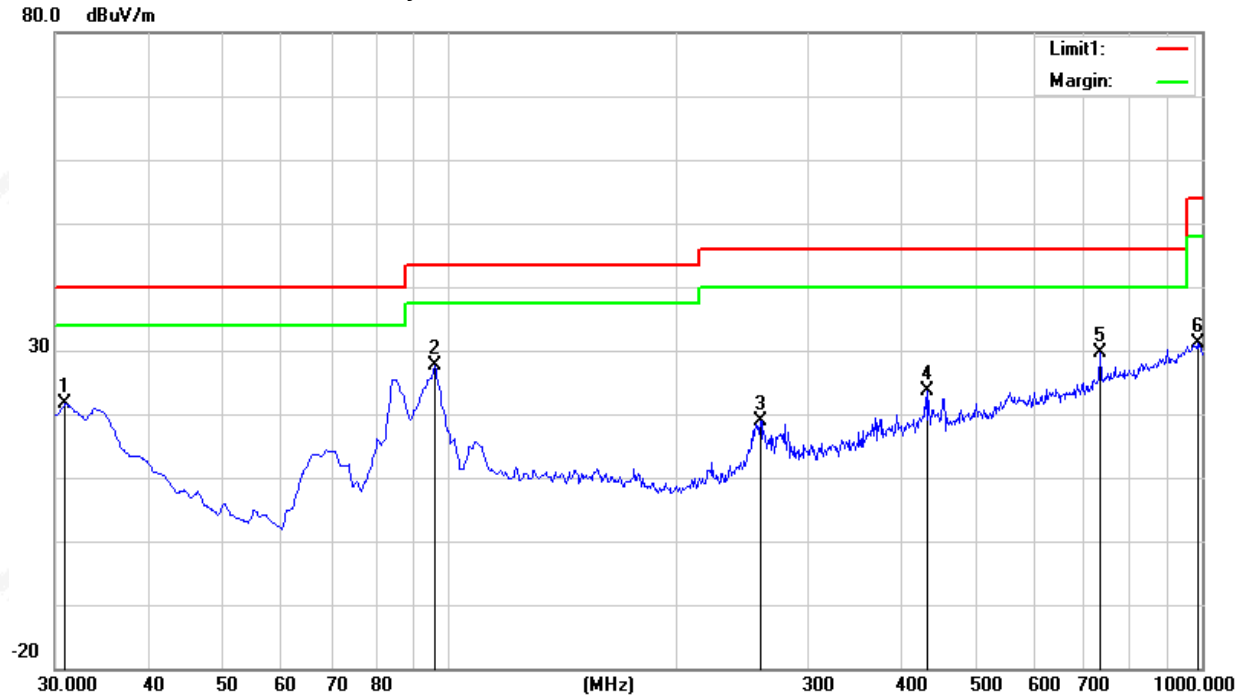
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/ m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.9700	35.00	-13.35	21.65	40.00	-18.35	peak
2	95.9600	48.18	-20.67	27.51	43.50	-15.99	peak
3	259.8900	33.65	-14.79	18.86	46.00	-27.14	peak
4	432.5500	33.79	-10.13	23.66	46.00	-22.34	peak
5	733.2500	32.10	-2.35	29.75	46.00	-16.25	peak
6	987.3900	28.96	2.21	31.17	54.00	-22.83	peak

Remark:

Margin = Result (Result =Reading + Factor)–Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.



Temperature:	23.4℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Vertical
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.8800	47.33	-14.80	32.53	40.00	-7.47	peak
2	65.8900	47.66	-25.60	22.06	40.00	-17.94	peak
3	279.2900	42.27	-15.58	26.69	46.00	-19.31	peak
4	455.8300	32.96	-9.55	23.41	46.00	-22.59	peak
5	733.2500	29.27	-2.35	26.92	46.00	-19.08	peak
6	979.6300	29.20	2.65	31.85	54.00	-22.15	peak

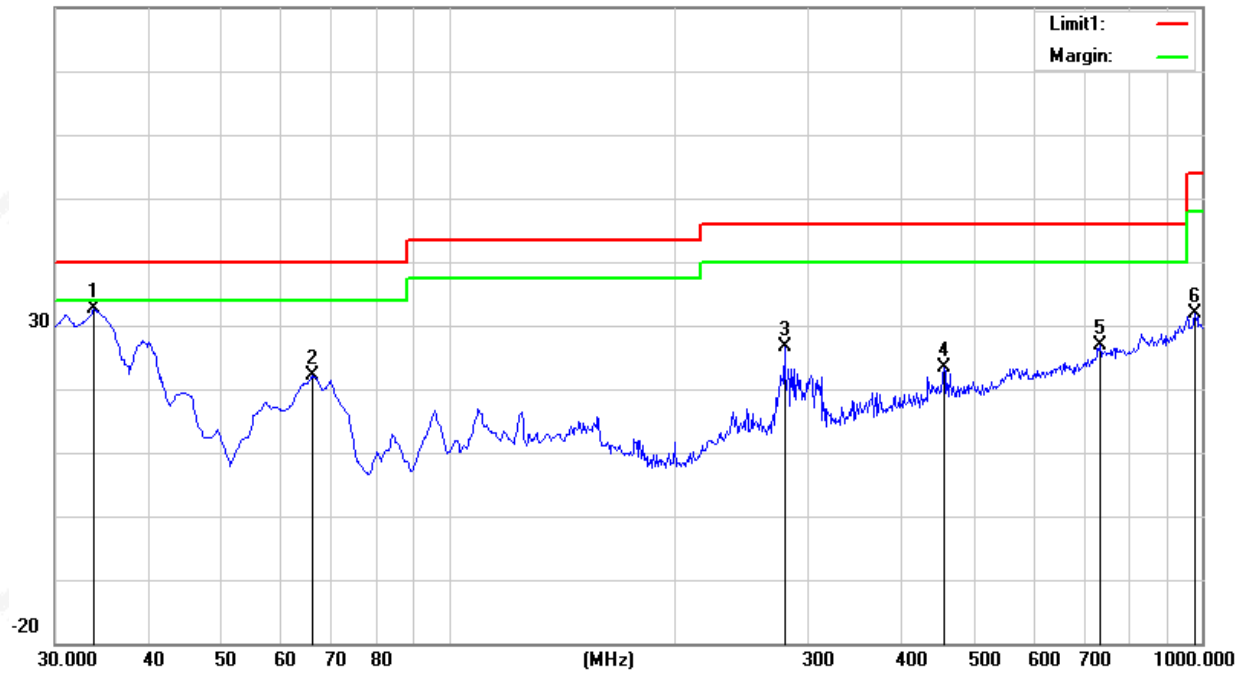
Remark:

Margin = Result (Result = Reading + Factor) – Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.

80.0 dBuV/m





S10-BUD-A-TEEU-SID14.1

Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Horizontal
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/ m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.9700	37.33	-13.35	23.98	40.00	-16.02	peak
2	95.9600	50.37	-20.67	29.70	43.50	-13.80	peak
3	212.3600	48.68	-20.27	28.41	43.50	-15.09	peak
4	342.3400	45.26	-13.33	31.93	46.00	-14.07	peak
5	754.5900	29.01	-2.16	26.85	46.00	-19.15	peak
6	985.4500	29.13	2.33	31.46	54.00	-22.54	peak

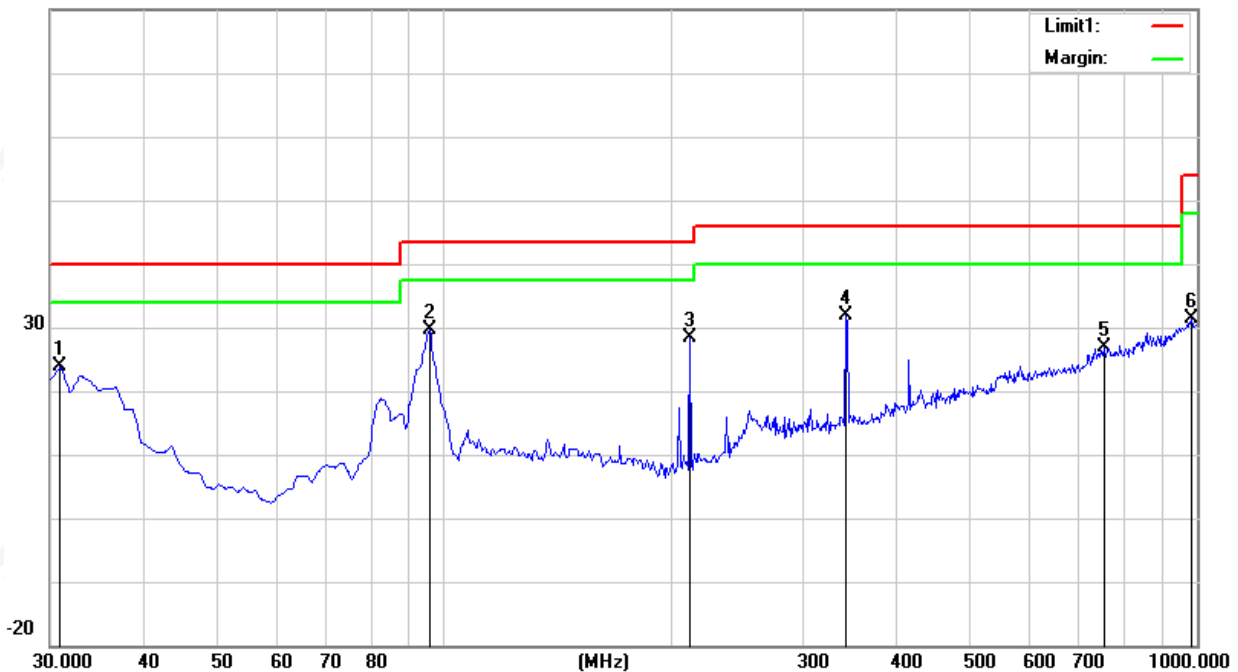
Remark:

Margin = Result (Result =Reading + Factor)-Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.

80.0 dBuV/m





Temperature:	23.4℃	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Phase:	Vertical
Test Mode:	Mode 1/2/3/4/5/6/7/8/9 (Mode 6 worst mode)		

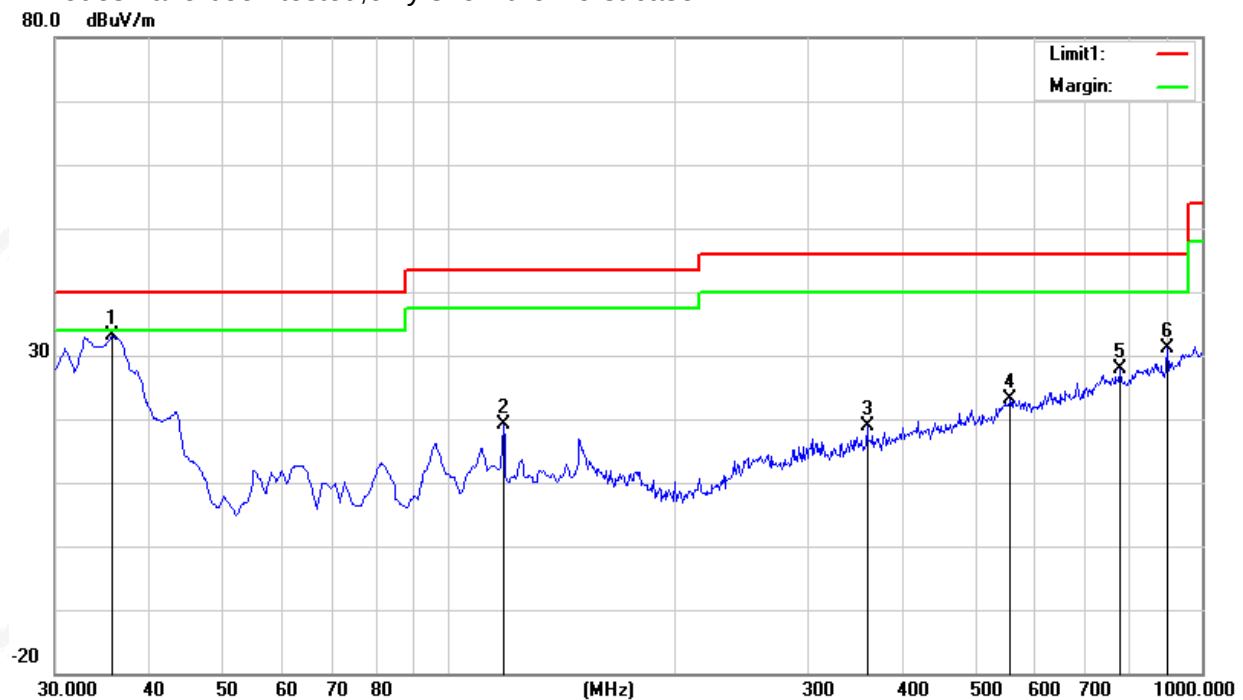
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/ m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	35.8200	48.95	-15.91	33.04	40.00	-6.96	peak
2	118.2700	37.50	-18.43	19.07	43.50	-24.43	peak
3	359.8000	31.71	-12.87	18.84	46.00	-27.16	peak
4	558.6500	28.65	-5.52	23.13	46.00	-22.87	peak
5	779.8100	29.99	-2.22	27.77	46.00	-18.23	peak
6	903.0000	31.41	-0.37	31.04	46.00	-14.96	peak

Remark:

Margin = Result (Result = Reading + Factor) – Limit

Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

All modes have been tested,only show the worst case.





(1000MHz-25GHz) Spurious emission Requirements

S10-BUD-A-TEEU-SID

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel (802.11g/2412 MHz)										
3264.63	61.93	44.70	6.70	28.20	-9.80	52.13	74.00	-21.87	PK	Vertical
3264.63	50.66	44.70	6.70	28.20	-9.80	40.86	54.00	-13.14	AV	Vertical
3264.74	62.01	44.70	6.70	28.20	-9.80	52.21	74.00	-21.79	PK	Horizontal
3264.74	50.33	44.70	6.70	28.20	-9.80	40.53	54.00	-13.47	AV	Horizontal
4824.29	59.11	44.20	9.04	31.60	-3.56	55.55	74.00	-18.45	PK	Vertical
4824.29	50.33	44.20	9.04	31.60	-3.56	46.77	54.00	-7.23	AV	Vertical
4824.61	58.93	44.20	9.04	31.60	-3.56	55.37	74.00	-18.63	PK	Horizontal
4824.61	49.66	44.20	9.04	31.60	-3.56	46.10	54.00	-7.90	AV	Horizontal
5359.87	48.97	44.20	9.86	32.00	-2.34	46.63	74.00	-27.37	PK	Vertical
5359.87	39.88	44.20	9.86	32.00	-2.34	37.54	54.00	-16.46	AV	Vertical
5359.65	48.47	44.20	9.86	32.00	-2.34	46.13	74.00	-27.87	PK	Horizontal
5359.65	38.99	44.20	9.86	32.00	-2.34	36.65	54.00	-17.35	AV	Horizontal
7235.83	54.26	43.50	11.40	35.50	3.40	57.66	74.00	-16.34	PK	Vertical
7235.83	43.82	43.50	11.40	35.50	3.40	47.22	54.00	-6.78	AV	Vertical
7235.71	54.59	43.50	11.40	35.50	3.40	57.99	74.00	-16.01	PK	Horizontal
7235.71	43.88	43.50	11.40	35.50	3.40	47.28	54.00	-6.72	AV	Horizontal
Middle Channel (802.11g/2437 MHz)										
3264.63	62.05	44.70	6.70	28.20	-9.80	52.25	74.00	-21.75	PK	Vertical
3264.63	50.52	44.70	6.70	28.20	-9.80	40.72	54.00	-13.28	AV	Vertical
3264.68	62.23	44.70	6.70	28.20	-9.80	52.43	74.00	-21.57	PK	Horizontal
3264.68	50.65	44.70	6.70	28.20	-9.80	40.85	54.00	-13.15	AV	Horizontal
4874.41	59.40	44.20	9.04	31.60	-3.56	55.84	74.00	-18.16	PK	Vertical
4874.41	50.12	44.20	9.04	31.60	-3.56	46.56	54.00	-7.44	AV	Vertical
4874.52	58.50	44.20	9.04	31.60	-3.56	54.94	74.00	-19.06	PK	Horizontal
4874.52	49.81	44.20	9.04	31.60	-3.56	46.25	54.00	-7.75	AV	Horizontal
5359.87	48.88	44.20	9.86	32.00	-2.34	46.54	74.00	-27.46	PK	Vertical
5359.87	40.40	44.20	9.86	32.00	-2.34	38.06	54.00	-15.94	AV	Vertical
5359.87	48.32	44.20	9.86	32.00	-2.34	45.98	74.00	-28.02	PK	Horizontal
5359.87	38.47	44.20	9.86	32.00	-2.34	36.13	54.00	-17.87	AV	Horizontal
7310.84	53.91	43.50	11.40	35.50	3.40	57.31	74.00	-16.69	PK	Vertical
7310.84	44.21	43.50	11.40	35.50	3.40	47.61	54.00	-6.39	AV	Vertical
7310.74	54.71	43.50	11.40	35.50	3.40	58.11	74.00	-15.89	PK	Horizontal
7310.74	43.53	43.50	11.40	35.50	3.40	46.93	54.00	-7.07	AV	Horizontal
High Channel (802.11g/2462 MHz)										
3264.83	62.05	44.70	6.70	28.20	-9.80	52.25	74.00	-21.75	PK	Vertical
3264.83	50.42	44.70	6.70	28.20	-9.80	40.62	54.00	-13.38	AV	Vertical
3264.86	61.92	44.70	6.70	28.20	-9.80	52.12	74.00	-21.88	PK	Horizontal
3264.86	51.10	44.70	6.70	28.20	-9.80	41.30	54.00	-12.70	AV	Horizontal
4924.51	58.25	44.20	9.04	31.60	-3.56	54.69	74.00	-19.31	PK	Vertical
4924.51	50.26	44.20	9.04	31.60	-3.56	46.70	54.00	-7.30	AV	Vertical
4924.55	58.78	44.20	9.04	31.60	-3.56	55.22	74.00	-18.78	PK	Horizontal
4924.55	49.34	44.20	9.04	31.60	-3.56	45.78	54.00	-8.22	AV	Horizontal
5359.80	48.49	44.20	9.86	32.00	-2.34	46.15	74.00	-27.85	PK	Vertical
5359.80	40.29	44.20	9.86	32.00	-2.34	37.95	54.00	-16.05	AV	Vertical
5359.67	48.34	44.20	9.86	32.00	-2.34	46.00	74.00	-28.00	PK	Horizontal
5359.67	38.36	44.20	9.86	32.00	-2.34	36.02	54.00	-17.98	AV	Horizontal
7385.73	54.61	43.50	11.40	35.50	3.40	58.01	74.00	-15.99	PK	Vertical
7385.73	43.60	43.50	11.40	35.50	3.40	47.00	54.00	-7.00	AV	Vertical
7385.67	53.70	43.50	11.40	35.50	3.40	57.10	74.00	-16.90	PK	Horizontal
7385.67	44.63	43.50	11.40	35.50	3.40	48.03	54.00	-5.97	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

2. All modes have been measurement, only worst mode was reported.

Emission Level = Reading + Factor

Margin = Emission Level-Limit

3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



S10-BUD-A-TEEU-SID14.1

Above 1000 MHz

Frequency (MHz)	Meter Reading (dBμV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel (802.11g/2412 MHz)										
3264.62	61.11	44.70	6.70	28.20	-9.80	51.31	74.00	-22.69	PK	Vertical
3264.62	51.75	44.70	6.70	28.20	-9.80	41.95	54.00	-12.05	AV	Vertical
3264.68	61.34	44.70	6.70	28.20	-9.80	51.54	74.00	-22.46	PK	Horizontal
3264.68	51.31	44.70	6.70	28.20	-9.80	41.51	54.00	-12.49	AV	Horizontal
4824.57	59.51	44.20	9.04	31.60	-3.56	55.95	74.00	-18.05	PK	Vertical
4824.57	49.74	44.20	9.04	31.60	-3.56	46.18	54.00	-7.82	AV	Vertical
4824.54	59.02	44.20	9.04	31.60	-3.56	55.46	74.00	-18.54	PK	Horizontal
4824.54	49.63	44.20	9.04	31.60	-3.56	46.07	54.00	-7.93	AV	Horizontal
5359.82	49.13	44.20	9.86	32.00	-2.34	46.79	74.00	-27.21	PK	Vertical
5359.82	39.31	44.20	9.86	32.00	-2.34	36.97	54.00	-17.03	AV	Vertical
5359.79	47.57	44.20	9.86	32.00	-2.34	45.23	74.00	-28.77	PK	Horizontal
5359.79	38.69	44.20	9.86	32.00	-2.34	36.35	54.00	-17.65	AV	Horizontal
7235.78	54.57	43.50	11.40	35.50	3.40	57.97	74.00	-16.03	PK	Vertical
7235.78	44.11	43.50	11.40	35.50	3.40	47.51	54.00	-6.49	AV	Vertical
7235.84	53.85	43.50	11.40	35.50	3.40	57.25	74.00	-16.75	PK	Horizontal
7235.84	43.57	43.50	11.40	35.50	3.40	46.97	54.00	-7.03	AV	Horizontal
Middle Channel (802.11g/2437 MHz)										
3264.70	62.22	44.70	6.70	28.20	-9.80	52.42	74.00	-21.58	PK	Vertical
3264.70	49.85	44.70	6.70	28.20	-9.80	40.05	54.00	-13.95	AV	Vertical
3264.62	61.40	44.70	6.70	28.20	-9.80	51.60	74.00	-22.40	PK	Horizontal
3264.62	51.31	44.70	6.70	28.20	-9.80	41.51	54.00	-12.49	AV	Horizontal
4874.41	58.63	44.20	9.04	31.60	-3.56	55.07	74.00	-18.93	PK	Vertical
4874.41	50.35	44.20	9.04	31.60	-3.56	46.79	54.00	-7.21	AV	Vertical
4874.51	59.03	44.20	9.04	31.60	-3.56	55.47	74.00	-18.53	PK	Horizontal
4874.51	49.93	44.20	9.04	31.60	-3.56	46.37	54.00	-7.63	AV	Horizontal
5359.60	48.66	44.20	9.86	32.00	-2.34	46.31	74.00	-27.69	PK	Vertical
5359.60	39.25	44.20	9.86	32.00	-2.34	36.91	54.00	-17.09	AV	Vertical
5359.59	48.07	44.20	9.86	32.00	-2.34	45.73	74.00	-28.27	PK	Horizontal
5359.59	38.95	44.20	9.86	32.00	-2.34	36.61	54.00	-17.39	AV	Horizontal
7310.70	53.60	43.50	11.40	35.50	3.40	57.00	74.00	-17.00	PK	Vertical
7310.70	43.86	43.50	11.40	35.50	3.40	47.26	54.00	-6.74	AV	Vertical
7310.95	54.71	43.50	11.40	35.50	3.40	58.11	74.00	-15.89	PK	Horizontal
7310.95	44.17	43.50	11.40	35.50	3.40	47.57	54.00	-6.43	AV	Horizontal
High Channel (802.11g/2462 MHz)										
3264.81	62.32	44.70	6.70	28.20	-9.80	52.52	74.00	-21.48	PK	Vertical
3264.81	51.44	44.70	6.70	28.20	-9.80	41.64	54.00	-12.36	AV	Vertical
3264.65	61.62	44.70	6.70	28.20	-9.80	51.82	74.00	-22.18	PK	Horizontal
3264.65	51.22	44.70	6.70	28.20	-9.80	41.42	54.00	-12.58	AV	Horizontal
4924.42	59.26	44.20	9.04	31.60	-3.56	55.70	74.00	-18.30	PK	Vertical
4924.42	49.98	44.20	9.04	31.60	-3.56	46.42	54.00	-7.58	AV	Vertical
4924.59	59.44	44.20	9.04	31.60	-3.56	55.88	74.00	-18.12	PK	Horizontal
4924.59	50.34	44.20	9.04	31.60	-3.56	46.78	54.00	-7.22	AV	Horizontal
5359.86	48.57	44.20	9.86	32.00	-2.34	46.23	74.00	-27.77	PK	Vertical
5359.86	40.02	44.20	9.86	32.00	-2.34	37.68	54.00	-16.32	AV	Vertical
5359.66	48.05	44.20	9.86	32.00	-2.34	45.71	74.00	-28.29	PK	Horizontal
5359.66	38.45	44.20	9.86	32.00	-2.34	36.11	54.00	-17.89	AV	Horizontal
7385.84	54.23	43.50	11.40	35.50	3.40	57.63	74.00	-16.37	PK	Vertical
7385.84	43.87	43.50	11.40	35.50	3.40	47.27	54.00	-6.73	AV	Vertical
7385.75	54.17	43.50	11.40	35.50	3.40	57.57	74.00	-16.43	PK	Horizontal
7385.75	44.97	43.50	11.40	35.50	3.40	48.37	54.00	-5.63	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

2. All modes have been measurement, only worst mode was reported.

Emission Level = Reading + Factor

Margin = Emission Level-Limit

3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.



S10-BUD-A-TEEU-SIE14.1

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier (dB)	Loss (dB)	Antenna Factor (dB/m)	Corrected Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel (802.11g/2412 MHz)										
3264.89	62.02	44.70	6.70	28.20	-9.80	52.22	74.00	-21.78	PK	Vertical
3264.89	50.41	44.70	6.70	28.20	-9.80	40.61	54.00	-13.39	AV	Vertical
3264.59	61.22	44.70	6.70	28.20	-9.80	51.42	74.00	-22.58	PK	Horizontal
3264.59	50.89	44.70	6.70	28.20	-9.80	41.09	54.00	-12.91	AV	Horizontal
4824.48	59.51	44.20	9.04	31.60	-3.56	55.95	74.00	-18.05	PK	Vertical
4824.48	49.70	44.20	9.04	31.60	-3.56	46.14	54.00	-7.86	AV	Vertical
4824.53	59.63	44.20	9.04	31.60	-3.56	56.07	74.00	-17.93	PK	Horizontal
4824.53	49.96	44.20	9.04	31.60	-3.56	46.40	54.00	-7.60	AV	Horizontal
5359.72	48.30	44.20	9.86	32.00	-2.34	45.96	74.00	-28.04	PK	Vertical
5359.72	38.99	44.20	9.86	32.00	-2.34	36.65	54.00	-17.35	AV	Vertical
5359.79	48.47	44.20	9.86	32.00	-2.34	46.13	74.00	-27.87	PK	Horizontal
5359.79	38.87	44.20	9.86	32.00	-2.34	36.53	54.00	-17.47	AV	Horizontal
7235.72	53.89	43.50	11.40	35.50	3.40	57.29	74.00	-16.71	PK	Vertical
7235.72	44.07	43.50	11.40	35.50	3.40	47.47	54.00	-6.53	AV	Vertical
7235.75	54.67	43.50	11.40	35.50	3.40	58.07	74.00	-15.93	PK	Horizontal
7235.75	43.86	43.50	11.40	35.50	3.40	47.26	54.00	-6.74	AV	Horizontal
Middle Channel (802.11g/2437 MHz)										
3264.70	62.07	44.70	6.70	28.20	-9.80	52.27	74.00	-21.73	PK	Vertical
3264.70	50.13	44.70	6.70	28.20	-9.80	40.33	54.00	-13.67	AV	Vertical
3264.78	62.19	44.70	6.70	28.20	-9.80	52.39	74.00	-21.61	PK	Horizontal
3264.78	49.91	44.70	6.70	28.20	-9.80	40.11	54.00	-13.89	AV	Horizontal
4874.54	59.17	44.20	9.04	31.60	-3.56	55.61	74.00	-18.39	PK	Vertical
4874.54	49.99	44.20	9.04	31.60	-3.56	46.43	54.00	-7.57	AV	Vertical
4874.59	58.51	44.20	9.04	31.60	-3.56	54.95	74.00	-19.05	PK	Horizontal
4874.59	49.17	44.20	9.04	31.60	-3.56	45.61	54.00	-8.39	AV	Horizontal
5359.64	48.26	44.20	9.86	32.00	-2.34	45.92	74.00	-28.08	PK	Vertical
5359.64	39.36	44.20	9.86	32.00	-2.34	37.02	54.00	-16.98	AV	Vertical
5359.62	48.32	44.20	9.86	32.00	-2.34	45.98	74.00	-28.02	PK	Horizontal
5359.62	38.91	44.20	9.86	32.00	-2.34	36.57	54.00	-17.43	AV	Horizontal
7310.81	54.72	43.50	11.40	35.50	3.40	58.12	74.00	-15.88	PK	Vertical
7310.81	44.17	43.50	11.40	35.50	3.40	47.57	54.00	-6.43	AV	Vertical
7310.95	54.62	43.50	11.40	35.50	3.40	58.02	74.00	-15.98	PK	Horizontal
7310.95	44.65	43.50	11.40	35.50	3.40	48.05	54.00	-5.95	AV	Horizontal
High Channel (802.11g/2462 MHz)										
3264.75	61.61	44.70	6.70	28.20	-9.80	51.81	74.00	-22.19	PK	Vertical
3264.75	51.80	44.70	6.70	28.20	-9.80	42.00	54.00	-12.00	AV	Vertical
3264.72	62.17	44.70	6.70	28.20	-9.80	52.37	74.00	-21.63	PK	Horizontal
3264.72	50.39	44.70	6.70	28.20	-9.80	40.59	54.00	-13.41	AV	Horizontal
4924.30	58.64	44.20	9.04	31.60	-3.56	55.08	74.00	-18.92	PK	Vertical
4924.30	49.81	44.20	9.04	31.60	-3.56	46.25	54.00	-7.75	AV	Vertical
4924.42	59.08	44.20	9.04	31.60	-3.56	55.52	74.00	-18.48	PK	Horizontal
4924.42	50.43	44.20	9.04	31.60	-3.56	46.87	54.00	-7.13	AV	Horizontal
5359.82	48.23	44.20	9.86	32.00	-2.34	45.89	74.00	-28.11	PK	Vertical
5359.82	38.99	44.20	9.86	32.00	-2.34	36.65	54.00	-17.35	AV	Vertical
5359.81	48.32	44.20	9.86	32.00	-2.34	45.98	74.00	-28.02	PK	Horizontal
5359.81	38.89	44.20	9.86	32.00	-2.34	36.55	54.00	-17.45	AV	Horizontal
7385.93	53.64	43.50	11.40	35.50	3.40	57.04	74.00	-16.96	PK	Vertical
7385.93	43.72	43.50	11.40	35.50	3.40	47.12	54.00	-6.88	AV	Vertical
7385.68	54.65	43.50	11.40	35.50	3.40	58.05	74.00	-15.95	PK	Horizontal
7385.68	44.86	43.50	11.40	35.50	3.40	48.26	54.00	-5.74	AV	Horizontal

Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- All modes have been measurement, only worst mode was reported.

Emission Level = Reading + Factor

Margin = Emission Level-Limit

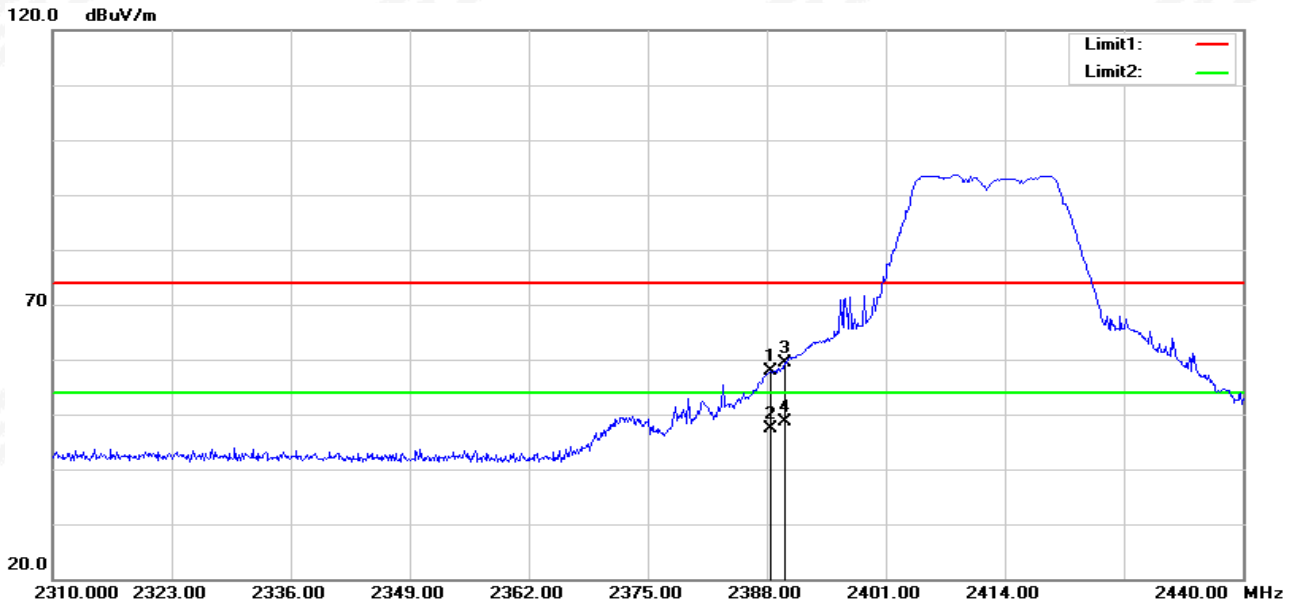
- The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

3.2.6 TEST RESULTS(Band edge Requirements)

S10-BUD-A-TEEU-SID

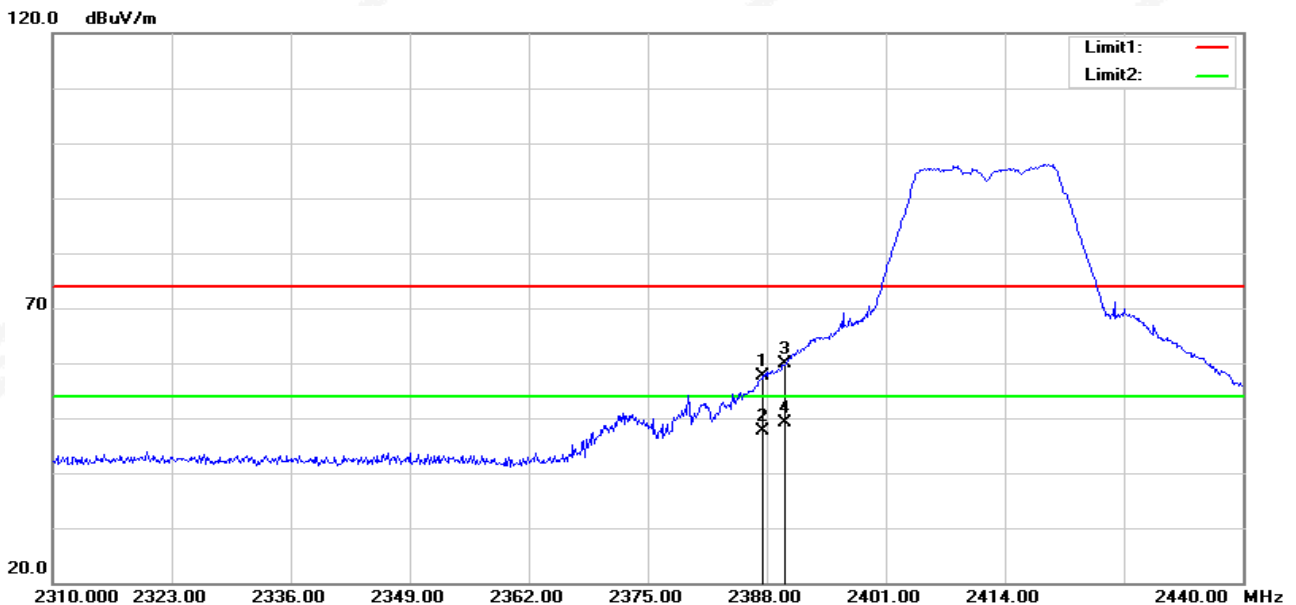
802.11 g-Low

Horizontal



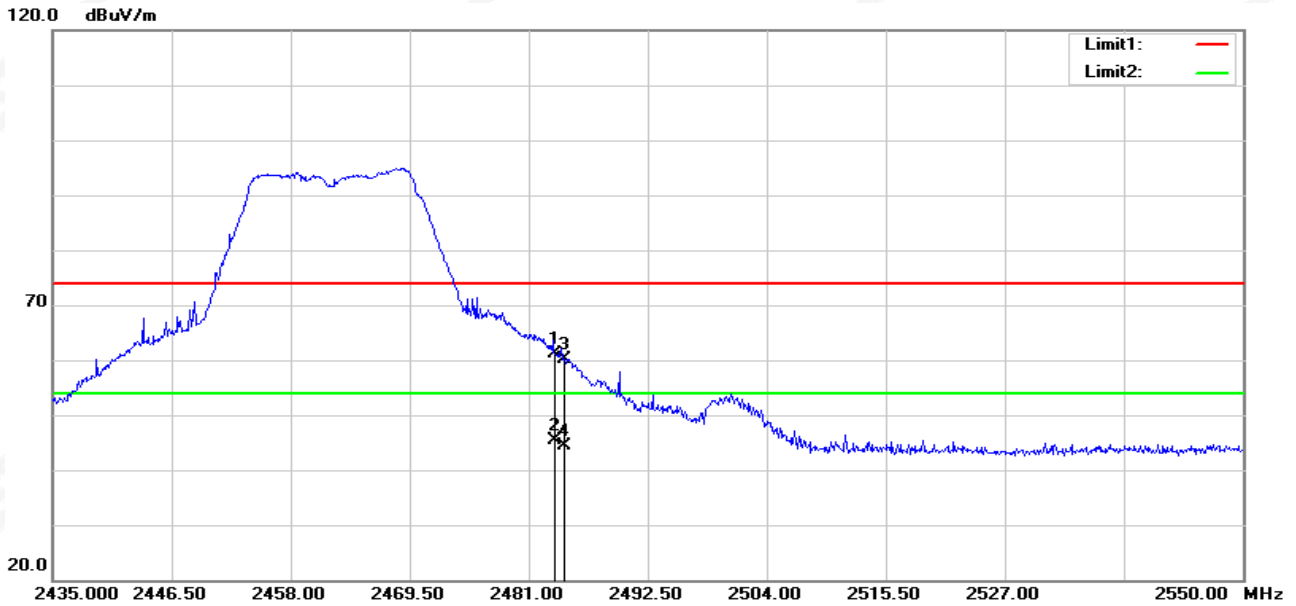
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.390	53.68	4.32	58.00	74.00	-16.00	peak
2	2388.390	43.09	4.32	47.41	54.00	-6.59	AVG
3	2390.000	55.03	4.34	59.37	74.00	-14.63	peak
4	2390.000	44.39	4.34	48.73	54.00	-5.27	AVG

Vertical



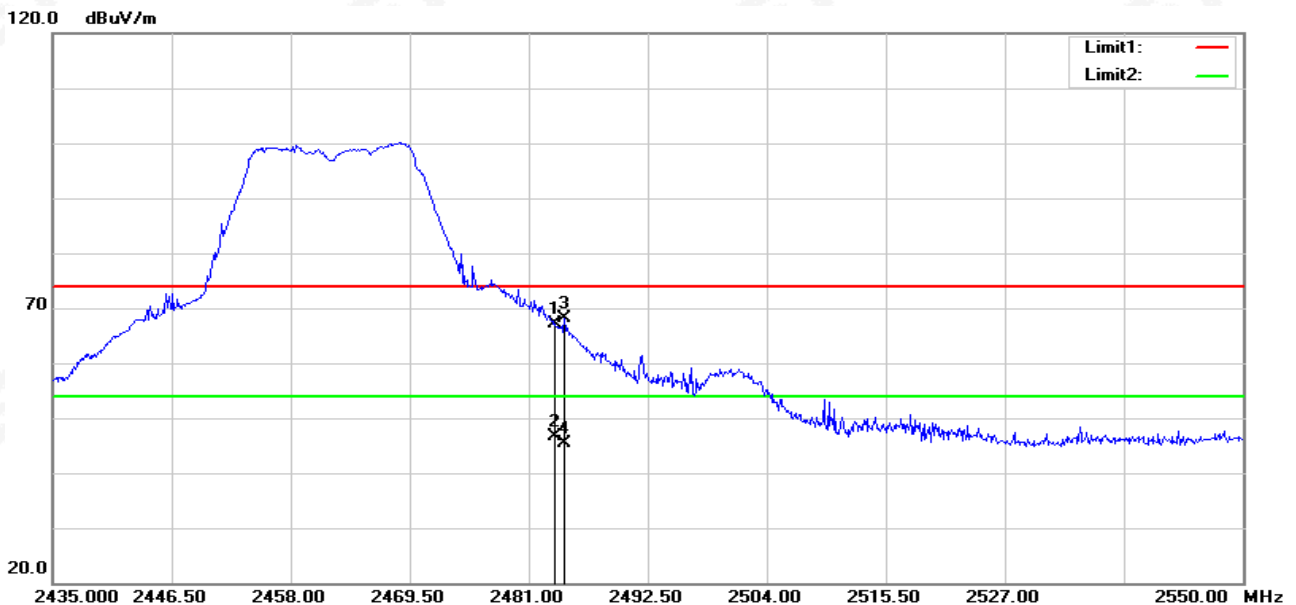
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.610	53.43	4.31	57.74	74.00	-16.26	peak
2	2387.610	43.34	4.31	47.65	54.00	-6.35	AVG
3	2390.000	55.51	4.34	59.85	74.00	-14.15	peak
4	2390.000	44.83	4.34	49.17	54.00	-4.83	AVG

802.11 g-High Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.47	4.60	61.07	74.00	-12.93	peak
2	2483.500	40.76	4.60	45.36	54.00	-8.64	AVG
3	2484.450	55.59	4.61	60.20	74.00	-13.80	peak
4	2484.450	39.68	4.61	44.29	54.00	-9.71	AVG

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	62.60	4.60	67.20	74.00	-6.80	peak
2	2483.500	42.02	4.60	46.62	54.00	-7.38	AVG
3	2484.450	63.57	4.61	68.18	74.00	-5.82	peak
4	2484.450	40.88	4.61	45.49	54.00	-8.51	AVG

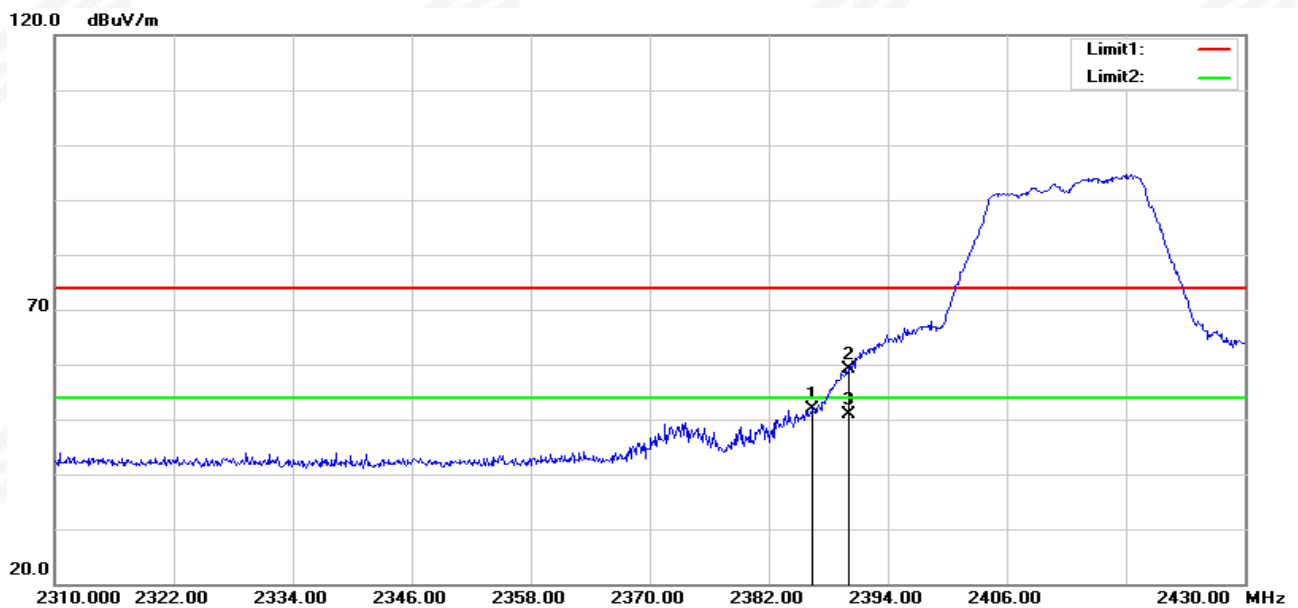
Note: .All modes have been measurement, only worst mode was reported.



S10-BUD-A-TEEU-SID14.1

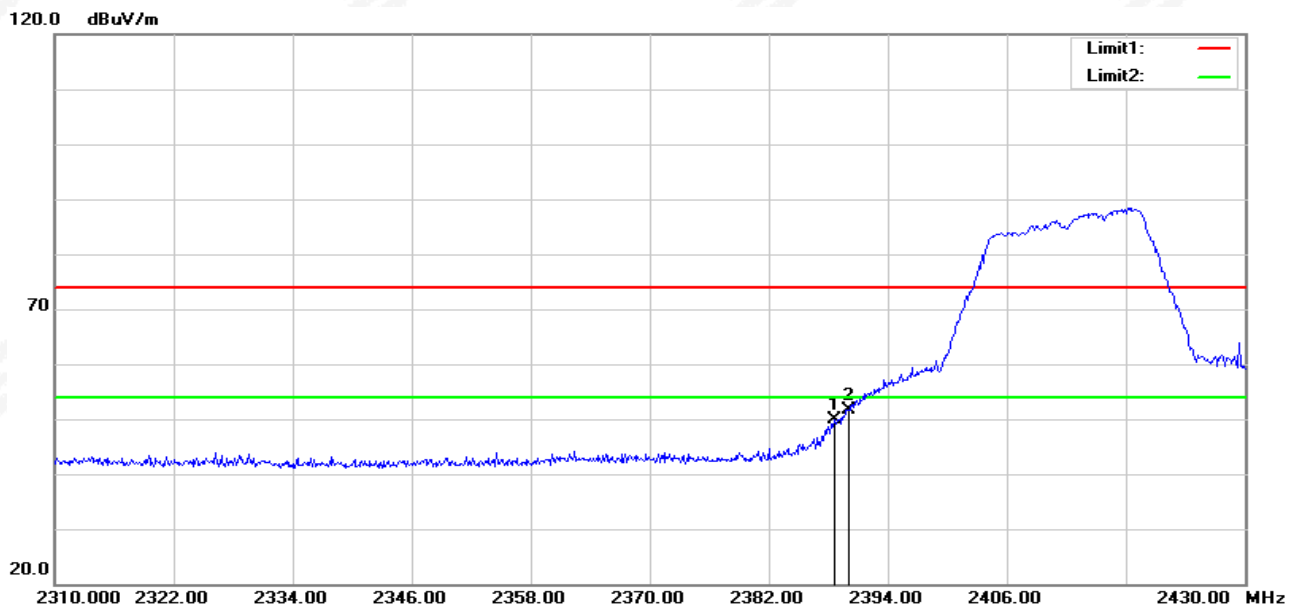
802.11 g-Low

Horizontal

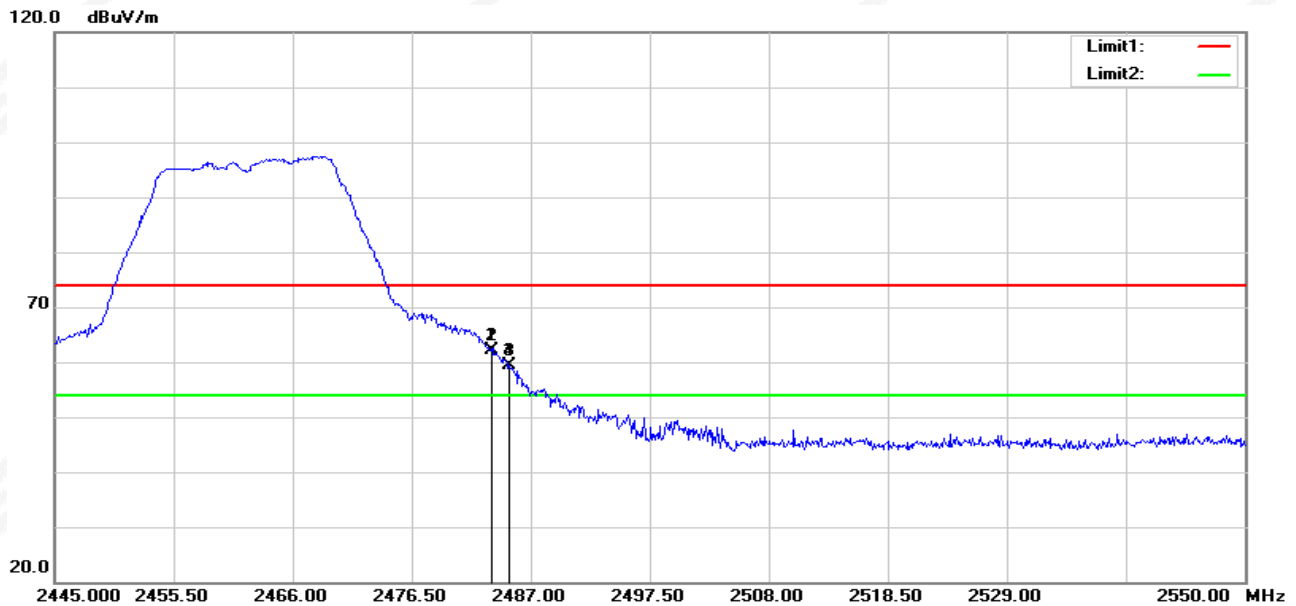


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.320	47.67	4.28	51.95	74.00	-22.05	peak
2	2390.000	54.82	4.34	59.16	74.00	-14.84	peak
3	2390.000	46.43	4.34	50.77	54.00	-3.23	AVG

Vertical

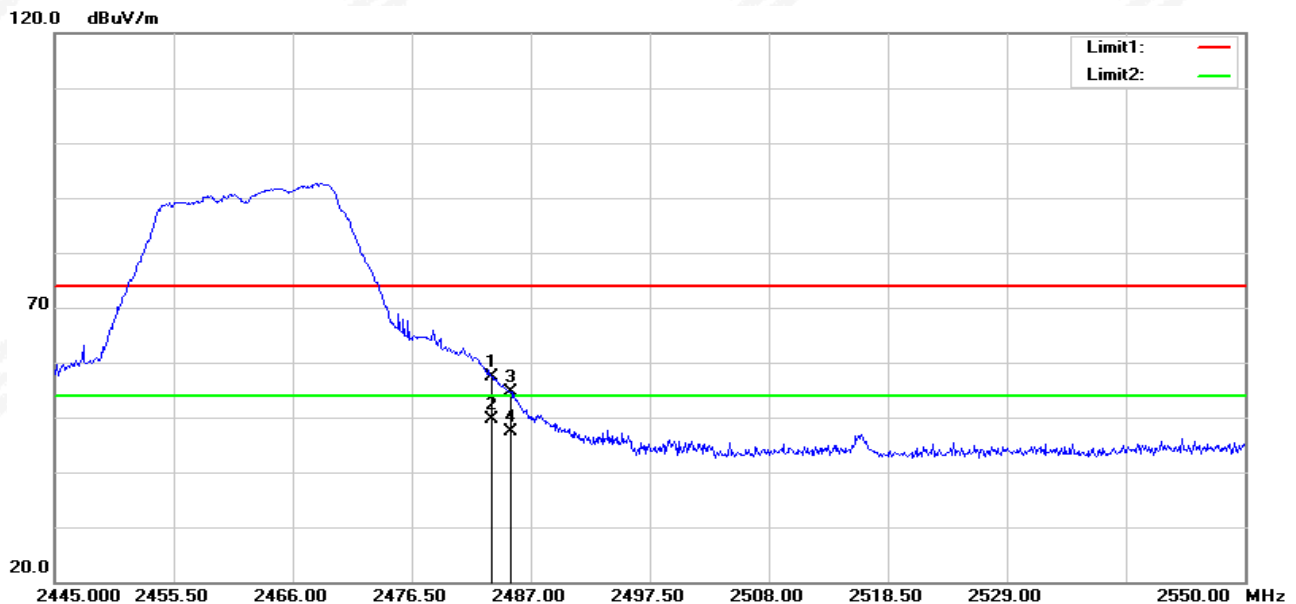


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.600	45.45	4.32	49.77	74.00	-24.23	peak
2	2390.000	47.29	4.34	51.63	74.00	-22.37	peak

802.11 g-High
Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	57.51	4.60	62.11	74.00	-11.89	peak
2	2483.500	57.51	4.60	62.11	74.00	-11.89	peak
3	2485.110	54.79	4.61	59.40	74.00	-14.60	peak
4	2485.110	54.79	4.61	59.40	74.00	-14.60	peak

Vertical

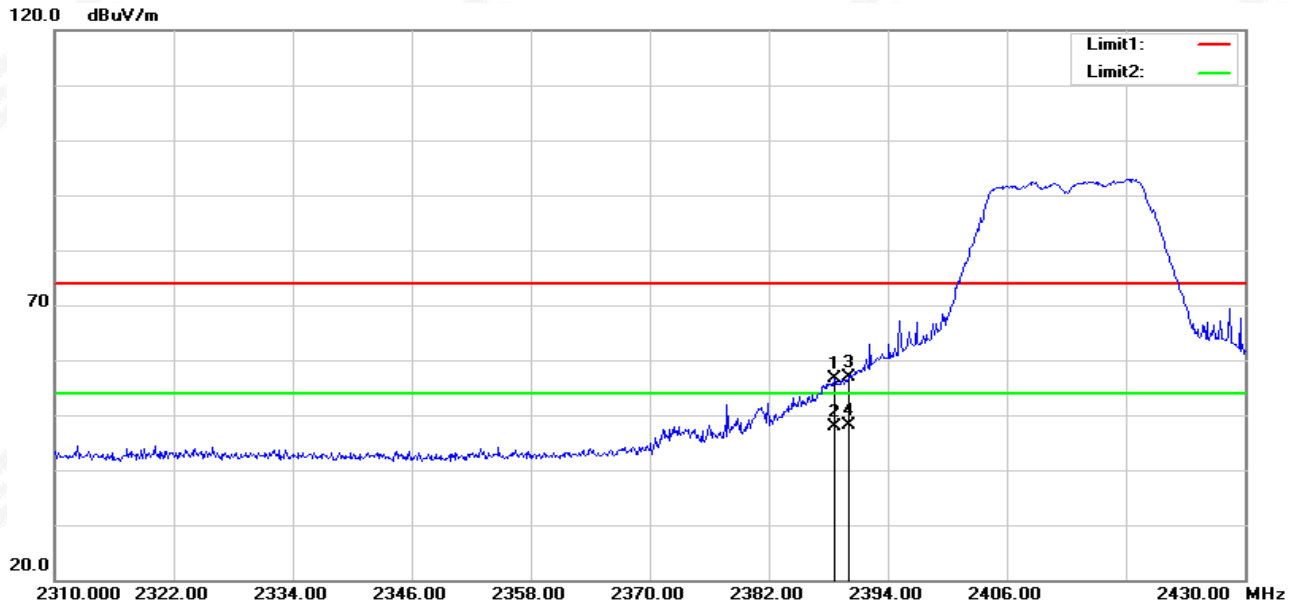


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	52.75	4.60	57.35	74.00	-16.65	peak
2	2483.500	45.00	4.60	49.60	54.00	-4.40	AVG
3	2485.215	50.07	4.61	54.68	74.00	-19.32	peak
4	2485.215	42.77	4.61	47.38	54.00	-6.62	AVG

Note: .All modes have been measurement, only worst mode was reported.

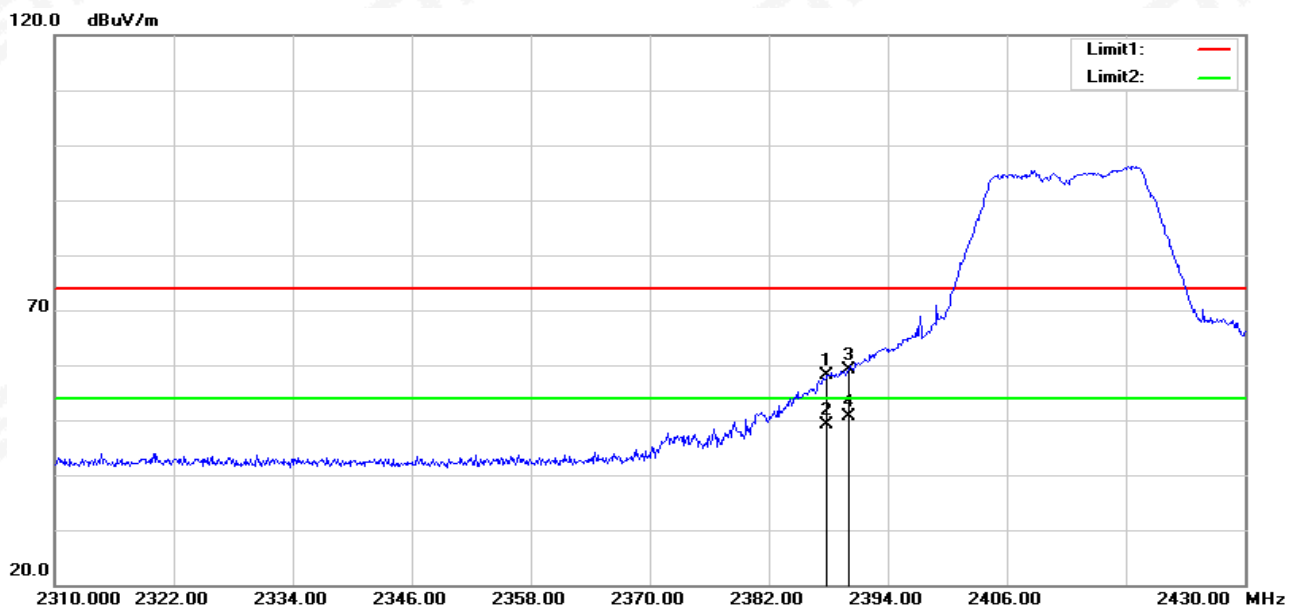


S10-BUD-A-TEEU-SIE14.1
802.11 g-Low
Horizontal



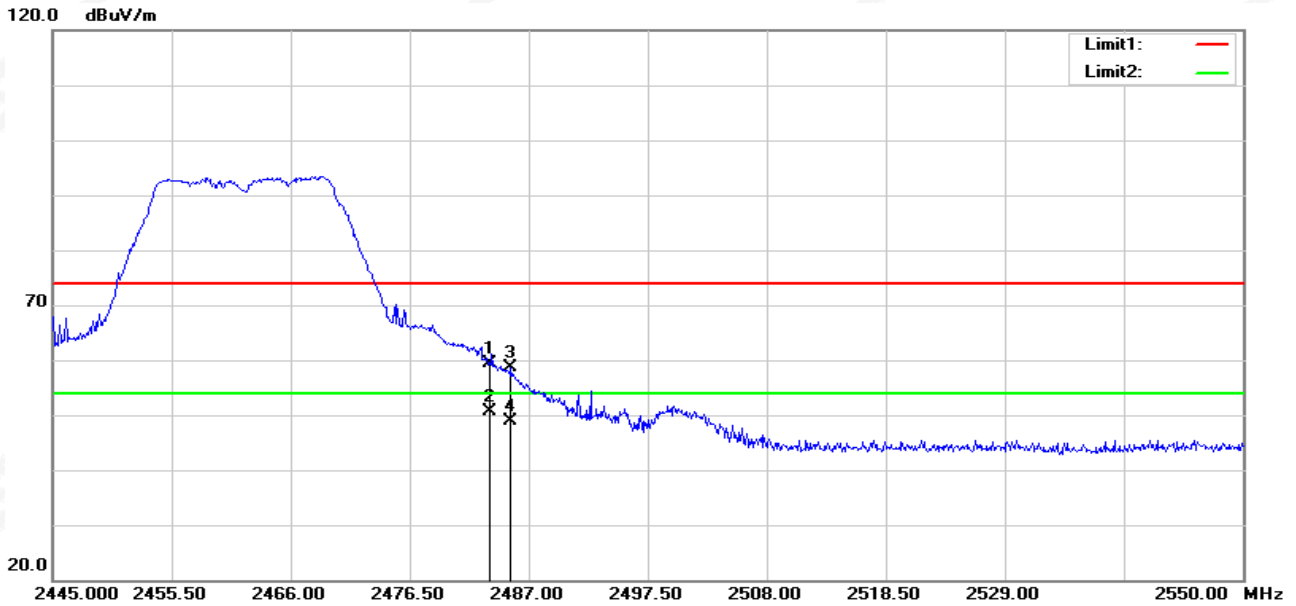
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.600	52.19	4.32	56.51	74.00	-17.49	peak
2	2388.600	43.44	4.32	47.76	54.00	-6.24	AVG
3	2390.000	52.61	4.34	56.95	74.00	-17.05	peak
4	2390.000	43.72	4.34	48.06	54.00	-5.94	AVG

Vertical



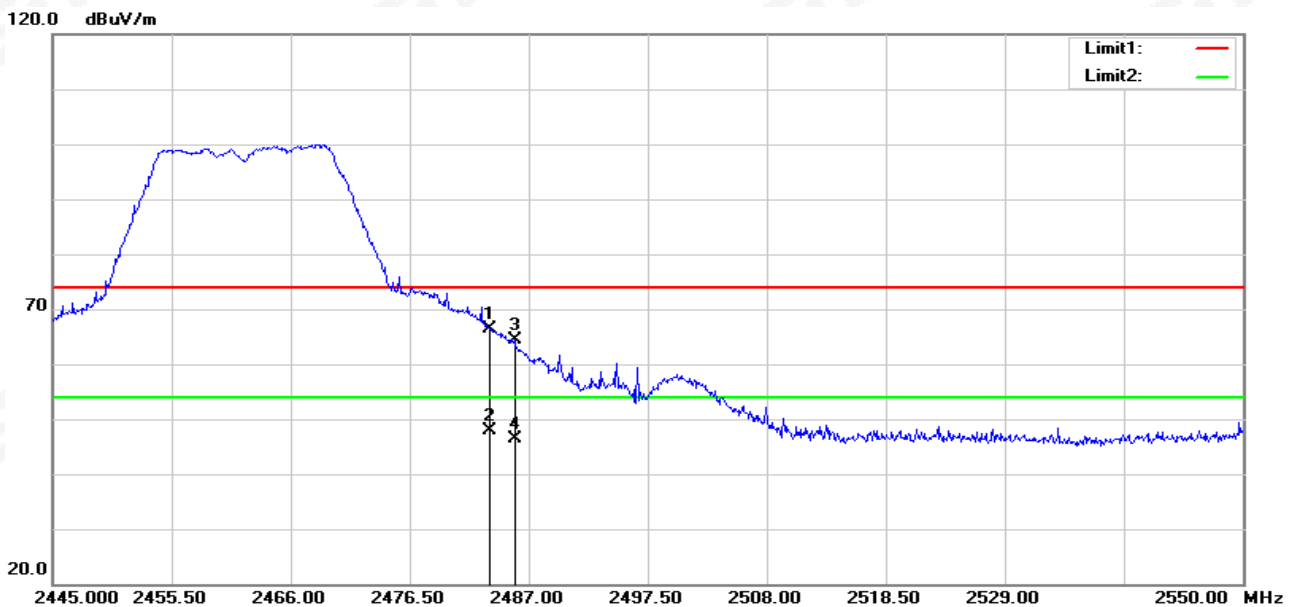
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.880	53.74	4.31	58.05	74.00	-15.95	peak
2	2387.880	44.79	4.31	49.10	54.00	-4.90	AVG
3	2390.000	54.87	4.34	59.21	74.00	-14.79	peak
4	2390.000	46.20	4.34	50.54	54.00	-3.46	AVG

802.11 g-High Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	54.87	4.60	59.47	74.00	-14.53	peak
2	2483.500	45.95	4.60	50.55	54.00	-3.45	AVG
3	2485.425	54.02	4.61	58.63	74.00	-15.37	peak
4	2485.425	44.15	4.61	48.76	54.00	-5.24	AVG

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	61.87	4.60	66.47	74.00	-7.53	peak
2	2483.500	43.37	4.60	47.97	54.00	-6.03	AVG
3	2485.740	59.66	4.61	64.27	74.00	-9.73	peak
4	2485.740	41.84	4.61	46.45	54.00	-7.55	AVG

Note: .All modes have been measurement, only worst mode was reported.

4. ANTENNA REQUIREMENT

4.1 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.

4.2 EUT ANTENNA

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



APPENDIX 2-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

*****END OF THE REPORT*****