



FCC Part 15B TEST REPORT

Report No.: STS2102009E02

Issued for

Shenzhen UniStrong Science & Technology Co.,Ltd.

B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

Product Name:	Rugged Smart Phone
Brand Name:	N/A
Model Name:	UT12P
Series Model:	N/A
FCC ID:	2AOPD-UT12P
Test Standard:	FCC 47 CFR Part 15: Subpart B

APPROVA

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	TEST RESULT CERTIFICATION
	Shenzhen UniStrong Science & Technology Co.,Ltd.
Address:	B,4-4Factory, Zhengcheng Road, FuyongBaoan District Shenzhen, China
	Shenzhen UniStrong Science & Technology Co.,Ltd.
Address:	B,4-4Factory, Zhengcheng Road, FuyongBaoan District Shenzhen, China
Product Description:	
Product Name:	Rugged Smart Phone
Brand Name:	N/A
Model Name:	UT12P
Series Model:	N/A

Standards FCC 47 CFR Part 15: Subpart B

Test Procedure...... ANSI C63.4-2014

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

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Date of Test:

02 Feb. 2021 Date of Receipt of Test Item:

Date of Issue 07 Feb. 2021

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

> Mickey Compiled by (Mickey Deng) **Technical Manager**

Authorized Signatory:







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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	07 Feb. 2021	STS2102009E02	ALL	Initial Issue







1. SUMMARY OF THE TEST RESULTS

Test procedures according to the technical standards:

EMISSION				
Standard	Item Result		Remarks	
FCC 47 CFD Dowl 45 Culprowt D	Conducted Emission	PASS	Meet Class B limit	
FCC 47 CFR Part 15 Subpart B	Radiated Emission	PASS	Meet Class B limit	

NOTE:

(1) N/A=Not Applicable.

1.1 TEST FACTORY

Company Name:	SHENZHEN STS TEST SERVICES CO.,LTD.
Address:	A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
Telephone:	+86-755 3688 6288
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	FCC test Firm Registration Number: 625569
Registration No.:	IC test Firm Registration Number: 12108A
	A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y \pm U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 % $^{\circ}$

No.	Item	Uncertainty
1	Conducted Emission (9KHz-150KHz)	±2.79dB
2	Conducted Emission (150KHz-30MHz)	±2.80dB
3	All emissions,radiated(<1G) 30MHz-1000MHz	±4.39dB
4	All emissions,radiated(>1G) 1GHz-6GHz	±5.10dB
5	All emissions,radiated(>1G) 6GHz-26GHz	±5.48dB



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Rugged Smart Phone		
N/A		
UT12P		
N/A		
N/A		
GSM	850: 824~849 MHz 1900: 1850~1910MHz	
WCDMA	Band 2: 1850 ~1910MHz Band 4: 1710~1755MHz Band 5: 824~849MHz	
LTE	Band 2: 1850~1910MHz Band 4: 1710~1755MHz Band 5: 824~849MHz Band 7: 2500~2570MHz Band 12: 699~716MHz Band 13: 777~787MHz Band 17: 704~716MHz Band 26: 814~849MHz Band 41: 2496~2690MHz	
2.4G WLAN	802.11b/g/n 20: 2412~2462 MHz 802.11n(40MHz):2422~2452MHz	
5G WLAN	IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.230GHz IEEE 802.11ac(VHT80): 5.210GHz IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 5.775GHz	
Bluetooth	2402~2480MHz	
NFC	13.56MHz	
GSM	GMSK for GPRS; GMSK and 8PSK for EDGE	
WCDMA	QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK	
LTE	QPSK/16QAM;	
2.4G WLAN	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM	
5G WLAN	802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM	
	N/A UT12P N/A N/A GSM WCDMA LTE 2.4G WLAN Bluetooth NFC GSM WCDMA LTE 2.4G WLAN	

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		802.11ac(OFDM): BPSK,QPSK,16-QAM,64-QAM,256-QAM	
	Divista eth	GFSK(1Mbps), π/4-DQPSK(2Mbps),	
	Bluetooth	8DPSK(3Mbps)	
	BLE	GFSK	
	NFC	ASK	
Adapter	Input: AC 100-240V 50/60Hz 0.7A		
Adaptei	Output: DC 5V 3A or 9V 2A or 12V 1.5A		
	Rated Voltage:3.8V		
Battery	Charge Limit Voltage:4.35V		
	Capacity: 8000	mAh	
Hardware Version Number	C602_MB_PCB_V102		
Software Version Number	RP00.53.84.08		

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



2.2 DESCRIPTION OF THE TEST MODES

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

Pretest Mode	Description
Mode 1	PC+USB Transmitting+SD Card
Mode 2	Adapter + Back camera on + BT Link+ +NFC
Mode 3	GSM850 Link + Adapter + USB cable + BT Link + WLAN Link(2.4G) +NFC
Mode 4	DCS1900 Idle + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 5	WCDMA850 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 6	WCDMA1900 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 7	LTE B2 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 8	LTE B4 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 9	LTE B5 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 10	LTE B7 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 11	LTE B12 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 12	LTE B13 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 13	LTE B17 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 14	LTE B26 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC
Mode 15	LTE B41 Link + Adapter + USB cable + BT Link + WLAN Link(5G) +NFC

For Conducted Test		
Final Test Mode	Description	
Mode 1	PC+USB Transmitting+SD Card	

For Radiated Test		
Final Test Mode	Description	
Mode 1	PC+USB Transmitting+SD Card	

Note:

- For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
- 2. For radiated emission test, test mode 1 was the worst case and only this mode was presented

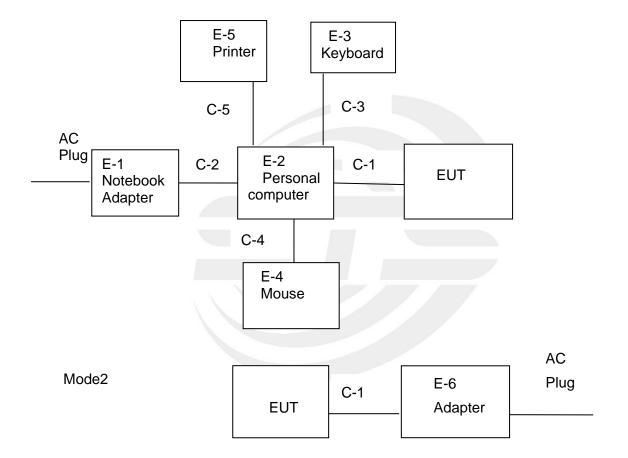


in this report.

We have be tested for all avaiable U.S. voltage and frequencies (For 120V, 50/60Hz) for which the device is capable of operation.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF THE SYSTEM TESTED

Mode1





2.4 DESCRIPTION OF THE 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	srand Model/Type No.		Note
C-1	USB Cable	N/A	N/A	100cm	YES
E-6	Adpater	Aquilstar	ASUC71w-050912300	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Mfr/Brand Model/Type No.		Note
E-1	Notebook Adapter	DELL	HSTNN-CA15	N/A	N/A
E-2	Personal computer	DELL	VOSTRO.3800	N/A	N/A
E-3	Keyboard	Acer	SK-9624	N/A	N/A
E-4	Mouse	HP	MODGUO	N/A	N/A
E-5	Printer	LENOVO	LJ2400L	N/A	N/A
C-2	DC Cable	N/A	N/A	120cm	NO
C-3	USB Cable	N/A	N/A	110cm	NO
C-4	USB Cable	N/A	N/A	110cm	NO
C-5	USB Cable	N/A	N/A	110cm	NO

Note:

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



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

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.

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until		
EMI Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11		
Bi-log Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11		
Horn Antenna	SCHWARZB ECK	BBHA 9120D	1343	2020.10.12	2022.10.11		
Pre-amplifier(1-26.5 G)	Agilent	8449B	3008A02383	2020.10.12	2021.10.11		
Pre-amplifier(0.1M-3 GHz)	EM	EM330	060665	2020.10.12	2021.10.11		
Spectrum Analyzer	Agilent	N9020A	MY49100060	2020.10.12	2021.10.11		
RE Cable (9K-1G)	N/A	R01	N/A	2020.10.12	2021.10.11		
RE Cable (1-26G)	N/A	R02	N/A	2020.10.12	2021.10.11		
Temperature & Humidity	Mieo	HH660	N/A	2020.10.13	2021.10.12		
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11		
Testing Software		EZ-EMC(Ver.STSLAB-03A1 RE)					

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until	
EMI Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11	
LISN	R&S	ENV216	101242	2020.10.12	2021.10.11	
LISN	ETS	3810/2NM	00023625	2020.10.12	2021.10.11	
Absorbing Clamp	R&S	MDS-21	100668	2020.10.13	2021.10.12	
CE Cable	N/A	C01	N/A	2020.10.13	2021.10.12	
Temperature & Humidity	Mieo	HH660	N/A	2020.10.13	2021.10.12	
Testing Software	EZ-EMC(Ver.STSLAB-03A1 CE)					



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	□Class /	A (dBμV)	⊠Class B (dBμV)		
	Quasi-peak	Average	Quasi-peak	Average	
0.15 ~ 0.5	79.00	66.00	66 - 56 *	56 - 46 *	
0.5 ~ 5	73.00	60.00	56.00	46.00	
5 ~ 30	73.00	60.00	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		

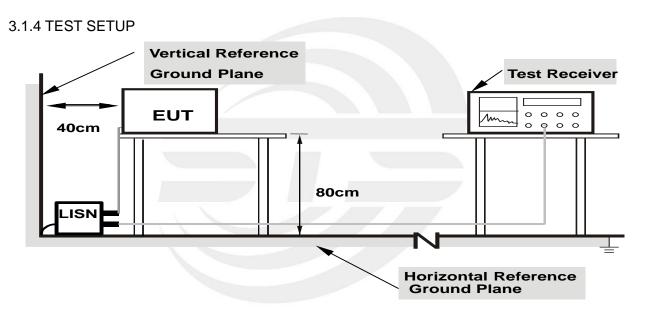


3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 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.

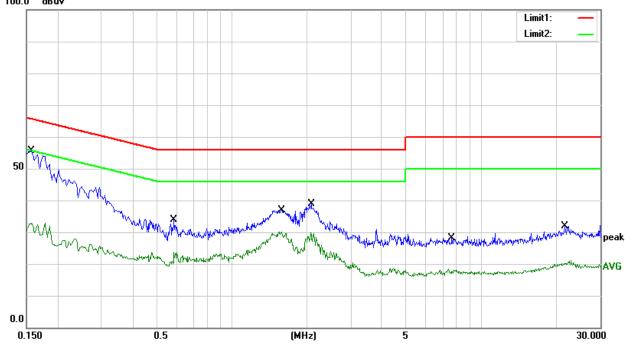


3.1.6 TEST RESULTS

Temperature:	26.8 ℃	Relative Humidity:	66%
Phase:	L	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.02.03

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	35.32	20.21	55.53	65.57	-10.04	QP
2	0.1580	12.56	20.21	32.77	55.57	-22.80	AVG
3	0.5860	13.42	20.37	33.79	56.00	-22.21	QP
4	0.5860	3.25	20.37	23.62	46.00	-22.38	AVG
5	1.5900	16.81	20.15	36.96	56.00	-19.04	QP
6	1.5900	10.09	20.15	30.24	46.00	-15.76	AVG
7	2.0820	18.68	20.14	38.82	56.00	-17.18	QP
8	2.0820	9.77	20.14	29.91	46.00	-16.09	AVG
9	7.6300	8.26	19.89	28.15	60.00	-31.85	QP
10	7.6300	-1.64	19.89	18.25	50.00	-31.75	AVG
11	21.6260	11.29	20.65	31.94	60.00	-28.06	QP
12	21.6260	0.36	20.65	21.01	50.00	-28.99	AVG

- 1. All readings are Quasi-Peak and Average values
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor = Insertion loss + Cable loss 100.0 dBuV



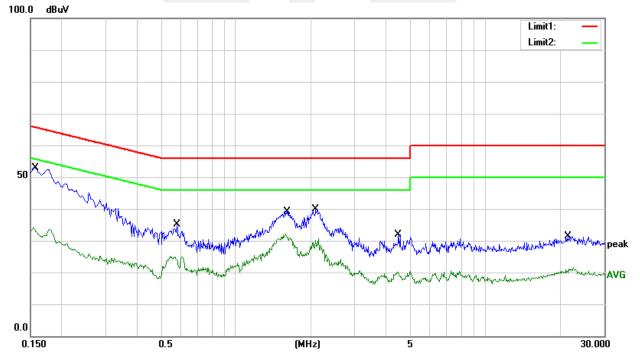


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Temperature:	26.8 ℃	Relative Humidity:	66%
Phase:	N	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.02.03

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	32.63	20.21	52.84	65.57	-12.73	QP
2	0.1580	12.65	20.21	32.86	55.57	-22.71	AVG
3	0.5820	14.85	20.37	35.22	56.00	-20.78	QP
4	0.5820	4.44	20.37	24.81	46.00	-21.19	AVG
5	1.6260	18.92	20.15	39.07	56.00	-16.93	QP
6	1.6260	10.80	20.15	30.95	46.00	-15.05	AVG
7	2.0940	19.70	20.14	39.84	56.00	-16.16	QP
8	2.0940	9.97	20.14	30.11	46.00	-15.89	AVG
9	4.4820	11.93	20.05	31.98	56.00	-24.02	QP
10	4.4820	0.12	20.05	20.17	46.00	-25.83	AVG
11	21.3980	10.82	20.65	31.47	60.00	-28.53	QP
12	21.3980	0.51	20.65	21.16	50.00	-28.84	AVG

- 1. All readings are Quasi-Peak and Average values
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor = Insertion loss + Cable loss







3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

Below 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

ANOI 000.4.							
Frequency		⊠Class B					
(MHz)	Field strength Field strength		Field strength				
(111112)	(dBuV/m) (at 10m) (dBuV/m) (at 3m)		(dBuV/m) (at 3m)				
30 ~ 88	39	49	40				
88 ~ 216	43.5	53.5	43.5				
216 ~ 960	46	56	46				
Above 960	49.5	59.5	54				

Above 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)		□Cla	⊠Class B			
	(dBuV/m) (at 3m)	(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

Frequency Range of Radiated Disturbance Measurement

Frequency Range of Radiated Disturbance Mea	asurement	
Highest frequency generated or Upper		
frequency of measurement used in the device	Range (MHz)	
or on which the device operates or tunes	Kange (MHz)	
(MHz)		
Below 1.705	30	
1.705 ~ 108	1000	
108 ~ 500	2000	
500 ~ 1000	5000	
Above 1000	5th harmonic of the highest frequency or 40 GHz,	
7,5575 1000	whichever is lower	

Note:

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



3.2.2 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meter.
- c. The height of antenna is varied from 1 meter to 4 meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
- f. 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

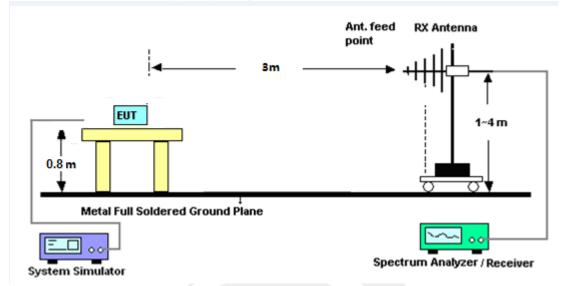
3.2.3 DEVIATION FROM TEST STANDARD

No deviation

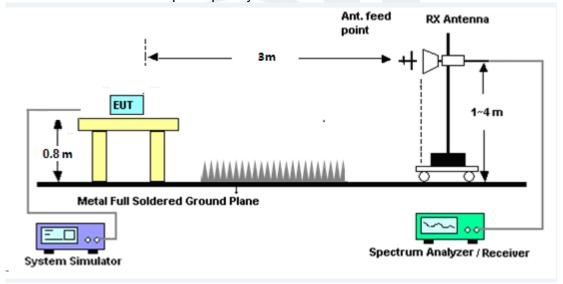


3.2.4 TEST SETUP

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



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



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 described unless otherwise a special operating condition is specified in the following during the testing.



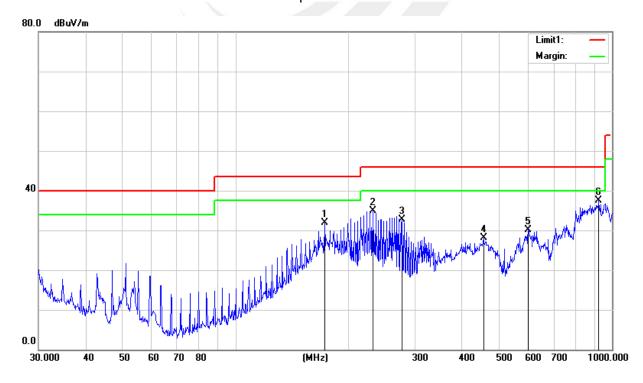
3.2.6 TEST RESULTS

30MHz - 1000MHz

Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	172.5988	51.95	-20.13	31.82	43.50	-11.68	QP
2	231.7180	53.71	-18.77	34.94	46.00	-11.06	QP
3	277.0935	48.54	-15.89	32.65	46.00	-13.35	QP
4	455.9058	39.98	-11.93	28.05	46.00	-17.95	QP
5	599.3212	38.77	-8.57	30.20	46.00	-15.80	QP
6	922.5157	40.13	-2.67	37.46	46.00	-8.54	QP

- 1. All readings are Quasi-Peak
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain



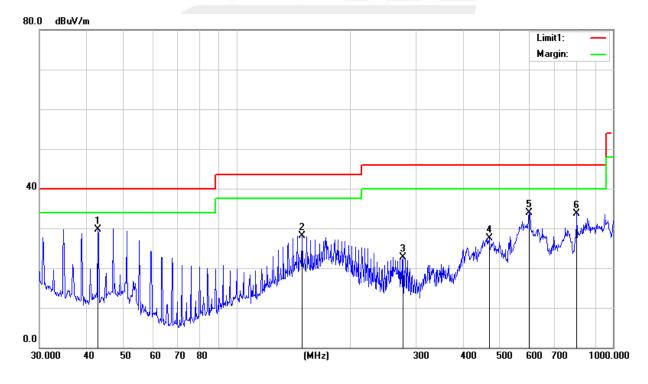


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Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.8998	47.76	-18.07	29.69	40.00	-10.31	QP
2	149.4857	46.25	-18.12	28.13	43.50	-15.37	QP
3	277.0935	38.63	-15.89	22.74	46.00	-23.26	QP
4	468.8762	38.95	-11.38	27.57	46.00	-18.43	QP
5	599.3212	42.47	-8.57	33.90	46.00	-12.10	QP
6	801.7863	38.63	-4.83	33.80	46.00	-12.20	QP

- 1. All readings are Quasi-Peak
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain



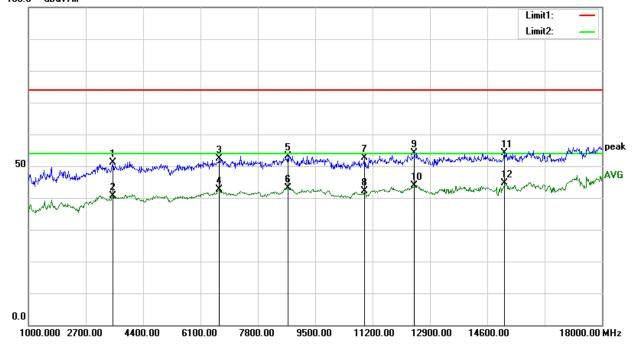


(1 GHz - 18GHz)

Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	3499.000	48.82	2.41	51.23	74.00	-22.77	Peak
2	3499.000	38.24	2.41	40.65	54.00	-13.35	AVG
3	6661.000	42.14	10.17	52.31	74.00	-21.69	Peak
4	6661.000	32.38	10.17	42.55	54.00	-11.45	AVG
5	8684.000	39.89	13.23	53.12	74.00	-20.88	Peak
6	8684.000	30.01	13.23	43.24	54.00	-10.76	AVG
7	10962.000	38.42	14.21	52.63	74.00	-21.37	Peak
8	10962.000	28.01	14.21	42.22	54.00	-11.78	AVG
9	12441.000	38.69	15.46	54.15	74.00	-19.85	Peak
10	12441.000	28.50	15.46	43.96	54.00	-10.04	AVG
11	15110.000	36.20	17.87	54.07	74.00	-19.93	Peak
12	15110.000	26.74	17.87	44.61	54.00	-9.39	AVG

- 1. All readings are Peak and Average values
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain



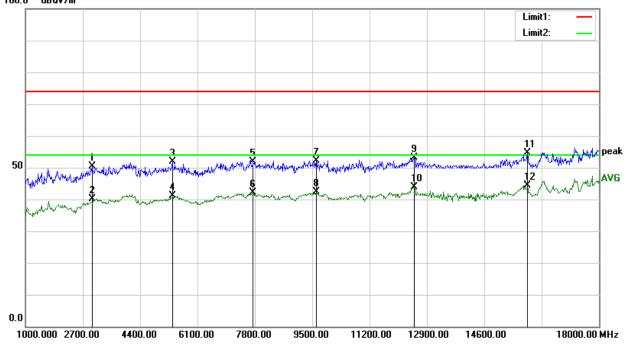


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Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2972.000	48.34	2.11	50.45	74.00	-23.55	Peak
2	2972.000	37.98	2.11	40.09	54.00	-13.91	AVG
3	5352.000	44.80	7.03	51.83	74.00	-22.17	Peak
4	5352.000	34.10	7.03	41.13	54.00	-12.87	AVG
5	7749.000	40.67	11.10	51.77	74.00	-22.23	Peak
6	7749.000	31.00	11.10	42.10	54.00	-11.90	AVG
7	9619.000	38.66	13.43	52.09	74.00	-21.91	Peak
8	9619.000	28.96	13.43	42.39	54.00	-11.61	AVG
9	12526.000	37.66	15.55	53.21	74.00	-20.79	Peak
10	12526.000	28.36	15.55	43.91	54.00	-10.09	AVG
11	15875.000	38.13	16.57	54.70	74.00	-19.30	Peak
12	15875.000	27.76	16.57	44.33	54.00	-9.67	AVG

- All readings are Peak and Average values
 Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain 100.0 dBuV/m



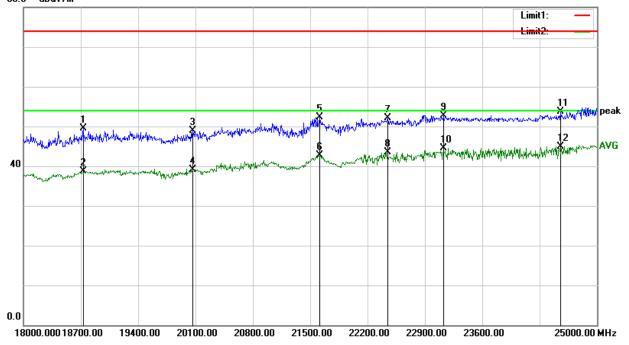


(18 GHz - 25GHz)

Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	18728.000	24.77	24.69	49.46	74.00	-24.54	Peak
2	18728.000	13.95	24.69	38.64	54.00	-15.36	AVG
3	20065.000	24.24	24.68	48.92	74.00	-25.08	Peak
4	20065.000	14.49	24.68	39.17	54.00	-14.83	AVG
5	21619.000	27.64	24.69	52.33	74.00	-21.67	Peak
6	21619.000	18.05	24.69	42.74	54.00	-11.26	AVG
7	22445.000	27.76	24.43	52.19	74.00	-21.81	Peak
8	22445.000	19.00	24.43	43.43	54.00	-10.57	AVG
9	23131.000	28.13	24.60	52.73	74.00	-21.27	Peak
10	23131.000	19.82	24.60	44.42	54.00	-9.58	AVG
11	24559.000	28.68	24.95	53.63	74.00	-20.37	Peak
12	24559.000	20.04	24.95	44.99	54.00	-9.01	AVG

- 1. All readings are Peak and Average values
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain 80.0 dBuV/m





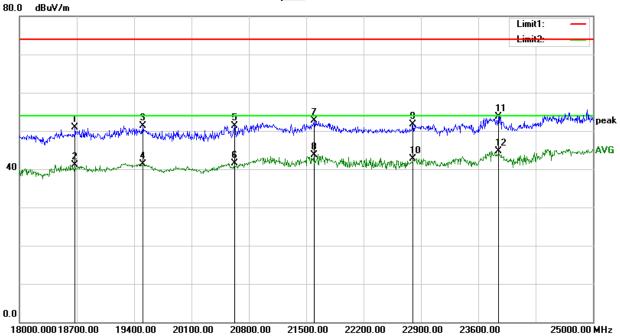
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Temperature:	23.1 ℃	Relative Humidity:	45%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.02.02

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	18679.000	26.23	24.62	50.85	74.00	-23.15	Peak
2	18679.000	16.50	24.62	41.12	54.00	-12.88	AVG
3	19505.000	25.62	25.63	51.25	74.00	-22.75	Peak
4	19505.000	15.64	25.63	41.27	54.00	-12.73	AVG
5	20625.000	26.33	24.94	51.27	74.00	-22.73	Peak
6	20625.000	16.52	24.94	41.46	54.00	-12.54	AVG
7	21598.000	27.99	24.71	52.70	74.00	-21.30	Peak
8	21598.000	19.09	24.71	43.80	54.00	-10.20	AVG
9	22802.000	27.26	24.50	51.76	74.00	-22.24	Peak
10	22802.000	18.22	24.50	42.72	54.00	-11.28	AVG
11	23845.000	28.86	24.81	53.67	74.00	-20.33	Peak
12	23845.000	19.91	24.81	44.72	54.00	-9.28	AVG

Remark:

- 1. All readings are Peak and Average values
- 2. Margin = Result (Result = Reading + Factor) Limit
- 3. Factor= Cable Loss +Antenna Factor-Amplifier Gain



Notes:

- 1. Measuring frequencies from 1 GHz to 25GHz.
- 2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak and average detector mode of the emission shown in Actual FS column.

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