

# **TEST REPORT**

Report No.	SST240923020EF02			
Applicant:	SHENZHEN ELECTRON TECHNOLOGY CO., LTD.			
Address of Applicant:	Bld.2, Yingfeng Industrial Zone, Tantou Community, Songgang Street, Bao'an, Shenzhen, China.			
Product Name:	Android Tablet			
Trade Mark:				
Standard(s):	FCC CFR Title 47 Part 15 Subpart E Section 15.247			
FCC ID:	2ABC5-E0078			
Test Report Form No:	SST-RD-7.5-02-E01(A/0)			
Date of sample receipt:	2024/9/23			
Date of Test:	2024/9/23 - 2024/10/30			
Date of report issued:	2024/11/1			

\*The equipment complies with the requirements according to the standard(s) or Specification above, it is applicable only to the tested sample identified in the report.



\*The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



# **Revision History**

Version	Description	Date of Issue
V1.0	Original	2024/11/1





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## 3 Test Summary

Test items	Basics standards	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Notes:

1: NA =Not Applicable

2: Determining compliance based on the results of the compliance measurement, not taking into account measurement uncertainty. If necessary, the applicant shall informing test lab in advance 3: Additions, Deviations and Exclusions from Standards: None.

## 4 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty (±) (k=2, 95%)		
Output Power, Conducted	0.54		
Power Spectral Density, Conducted	1.3	28	
Spurious Emissions, Conducted	1.3	28	
Dedicted Emissions(<10Uz)	9KHz~30MHz	2.6	
Radiated Emissions(<1GHz)	30MHz~1GHz	5.08	
	1GHz~6GHz	4.02	
Radiated Emissions(>1GHz)	6GHz~18GHz	4.62	
	18GHz~40GHz	4.7	
Occupied Bandwidth	1.	14	
Conducted Emissions—AC mains	9kHz~150KHz	1.76	
Conducted Emissions—AC mains	150kHz~30MHz	2.52	
Conducted Emissions—Telecom	2.0	64	



# 5 General Information

## 5.1 Client Information

Applicant: Address of applicant:	SHENZHEN ELECTRON TECHNOLOGY CO., LTD. Bld.2, Yingfeng Industrial Zone, Tantou Community, Songgang Street, Bao'an, Shenzhen, China.
Manufacturer: Address of	Same as applicant
Manufacturer:	Same as applicant
Factory: Address of Factory:	Same as applicant Same as applicant

## 5.2 General Description of EUT

Product Name:	Android Tablet				
Model No.:	WF3288T, FA3288T, WF3288T-4K, FA3288T-4K				
Test Model:	WF3288T				
Test sample(s) ID:	24092302001				
Sample(s) Status:	Continuously transmitter				
S/N:	1				
Hardware Version:					
Software Version:	1				
Operation Frequency:	2402MHz~2480MHz				
Channel Numbers:	40				
Channel Separation:	2MHz				
Modulation Type:	GFSK				
Antenna Gain:	Refer to section 5.7 for details				
Power supply:	Adapter 1: Model: FJ-SW729S1205000N Input: AC 100-240V, 50/60Hz Output: DC 12V, 5A Adapter 2: Model: S06S-1A120500B3 Input: AC 100-240V, 50/60Hz Output: DC 12V, 5A				

List adapters were test and compliance with relevant requirement, the worst condition report (adapter 1)



#### 5.3 Test mode(s)

Mode 1:	continuously transmitting		
Mode 2:			
Mode 3:			

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402 MHz	11	2422 MHz	21	2442 MHz	31	2462 MHz
2	2404 MHz	12	2424 MHz	22	2444 MHz	32	2464 MHz
3	2406 MHz	13	2426 MHz	23	2446 MHz	33	2466 MHz
4	2408 MHz	14	2428 MHz	24	2448 MHz	34	2468 MHz
5	2410 MHz	15	2430 MHz	25	2450 MHz	35	2470 MHz
6	2412 MHz	16	2432 MHz	26	2452 MHz	36	2472 MHz
7	2414 MHz	17	2434 MHz	27	2454 MHz	37	2474 MHz
8	2416 MHz	18	2436 MHz	28	2456 MHz	38	2476 MHz
9	2418 MHz	19	2438 MHz	29	2458 MHz	39	2478 MHz
10	2420 MHz	20	2440 MHz	30	2460 MHz	40	2480 MHz

#### 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 above marked

## 5.4 Test Facility

	FCC Accredited Lab
The test facility is recognized, certified, or accredited by these organizations:	Test Firm Registration Number: 638130 Designation Number: CN1359
	IC Registration Lab
	CAB Identifier No. CN0154
	A2LA Accreditation Lab
	Certificate No.:7057.01

	Name
	GuangDong Set Sail Testing Co., Ltd.
Test Performed at:	Address
	101, No.19, Tianxin Hudie 1st Road, Huangjiang Town, Dongguan, Guangdong,
	China



#### 5.5 Description of Support Units

Device Type	Brand	Model	Series No.	Note
Notebook PC	HP	ZHAN 66P		

#### 5.6 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

#### 5.7 Antenna Information

Ant	Manufacturer	Model	Antenna Type	Antenna Gain (dBi)	Note
1	Shenzhen Yishengbang Technology Co., Ltd	1	FPC	1.67	WiFi, BT

All above information provided by the applicant which is fully responsible for those information.

#### 5.8 Others

The laboratory responsible for all the information provided in the report, except those information provided by the applicant.

The applicant shall fully responsible for the information they provided.

The report would be invalid without a stamp of test laboratory and the signatures of compiler and approver. The laboratory has not been responsible for the sampling stage; the test report merely corresponds to the test sample received.

Any objection to the test report shall submitted to the test laboratory within 15 days from the date of receipt of the report.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



# 6 Technical Requirement and Measurement Data

## 6.1 Generally requirement

#### 15.203 requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### 15.247(c) (1)(i) requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### EUT Antenna:

Reference to the appendix II for details

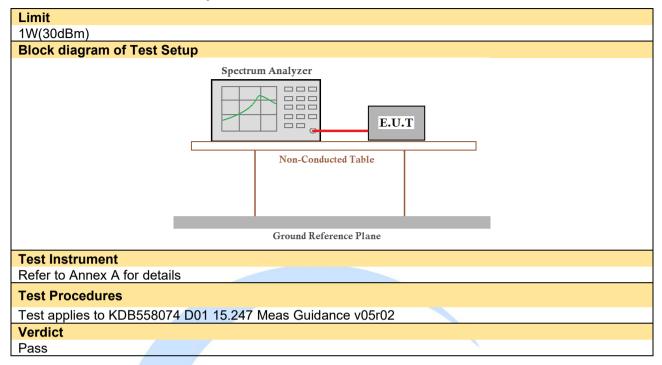


## 6.2 Duty Cycle

Limit
Report for use
Block diagram of Test Setup
Spectrum Analyzer E.U.T Non-Conducted Table
Ground Reference Plane
Test Instrument Refer to Annex A for details
Test Procedures
The transmitter output connected to the Spectrum Analyzer. Test according to Procedure 6.0)b in KDB 558074 v05r02.
1.RBW=8 MHz(the largest available value) 2.VBW=8 MHz(>RBW) 3.SPAN = 0 Hz 4.Detector = Peak 5.Number of points in sweep: 30001 6.Trace mode: Clear write 7.Measure T <sub>total</sub> and T <sub>on</sub>
8.Calculate Duty Cycle = T <sub>on</sub> /T <sub>total</sub> and Duty Cycle Factor = 10log(1/Duty Cycle)
Verdict           Pass



## 6.3 Conducted Peak Output Power





## 6.4 Channel Bandwidth

Limit
>500KHz
Block diagram of Test Setup
Spectrum Analyzer E.U.T Non-Conducted Table
Ground Reference Plane
Test Instrument
Refer to Annex A for details
Test Procedures
Test applies to KDB558074 D01 15.247 Meas Guidance v05r02
Verdict
Pass



## 6.5 Power Spectral Density

Limit
8dBm/3kHz
Block diagram of Test Setup
Spectrum Analyzer E.U.T Non-Conducted Table
Ground Reference Plane
Test Instrument
Refer to Annex A for details
Test Procedures
Test applies to KDB558074 D01 15.247 Meas Guidance v05r02
Verdict
Pass



## 6.6 Conducted Emission

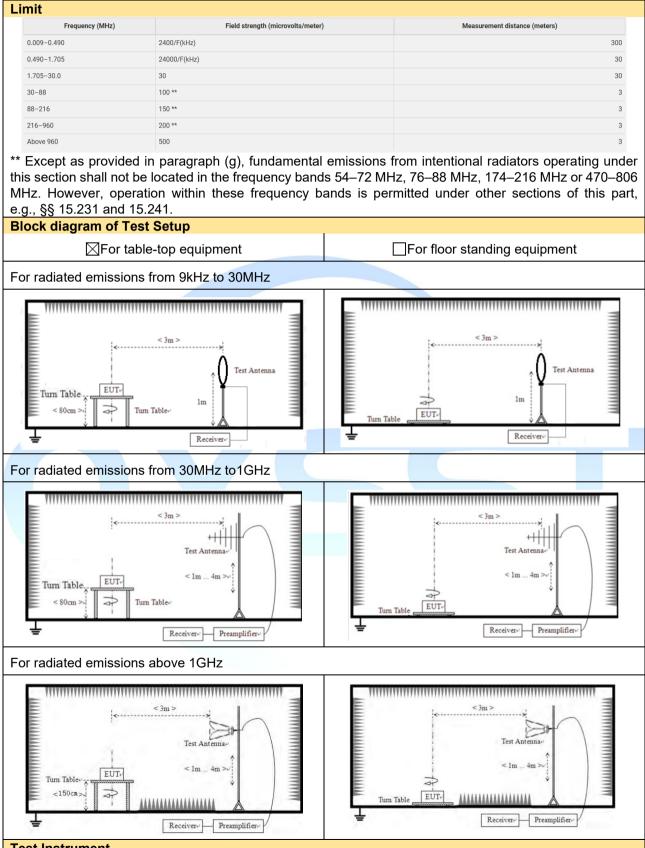
#### Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

Block diagram of Test Setu	ıp
	Spectrum Analyzer E.U.T Non-Conducted Table
	Ground Reference Plane
	Ground Reference Frane
Test Instrument	
Refer to Annex A for details	
Test Procedures	
Test applies to KDB558074	D01 15.247 Meas Guidance v05r02
Verdict	
Pass	



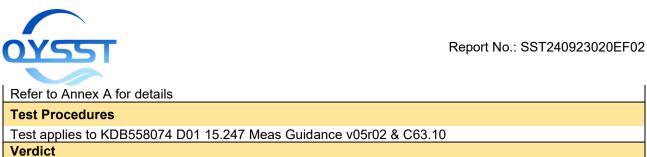
## 6.7 Radiated Spurious Emission



#### Test Instrument

GuangDong Set Sail Testing Co., Ltd.

101, No.19, Tianxin Hudie 1st Road, Huangjiang Town, Dongguan, Guangdong, China Tel: (86)-0769-26622875 Email: sst@sstesting.cn



Pass

Note1: The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

Note2: For those undesirable emission (in the Restricted Bands and out-of-band spurious) above 1GHz, According to KDB 558074 and ANSI C63.10 subclause 11, as an alternative, antenna-port conducted measurements in conjunction with cabinet emissions tests will be permitted to demonstrate compliance.





		Mode 1	0011	Polarity	<b>1</b>		Horizontal	
st voltage	8	AC 120V/	OUHZ	Temp. /H	lum.	25 °C/60%	0	
90								
80								
70								
60 -								
[m/\/ftBbl/m								
40 -								
ے 				12 5 6		<u> </u>	An I MAN	
		WWWWW www	and the second s	and I	V water a water	Munut	un Manach una d	
20	pertilization of the protocologic and the state	www.and the way way	hu have a second se		All and a second s			
10								
0								
30N	1		100M				1G	
				Frequency[Hz]				
		Horizontal PK		Frequency[Hz]				
	QP Limit     QP Detector	Horizontal PK		Frequency[Hz]				
		Horizontal PK		Frequency[Hz]				
	QP Detector	/	221/1					
NO.	QP Detector  Freq.	Factor	QP Value	QP Limit	QP Margin	Polarity	Verdict	
NO.	QP Detector	/	QP Value [dBµV/m]		QP Margin [dB]	Polarity	Verdict	
NO.	QP Detector  Freq.	Factor		QP Limit		Polarity Horizontal	Verdict	
	• QP Detector Freq. [MHz]	Factor [dB]	[dBµV/m]	QP Limit [dBµV/m]	[dB]			
1	• QP Detector Freq. [MHz] 167.0186	Factor [dB] 9.69	[dBµV/m] 37.43	QP Limit [dBµV/m] 43.50	[dB] 6.07	Horizontal	PASS	
1 2	• QP Detector Freq. [MHz] 167.0186 173.585	Factor [dB] 9.69 10.16	[dBµV/m] 37.43 38.58	QP Limit [dBµV/m] 43.50 43.50	[dB] 6.07 4.92	Horizontal Horizontal	PASS PASS	
1 2 3	• QP Detector Freq. [MHz] 167.0186 173.585 180.8846	Factor [dB] 9.69 10.16 11.06	[dBµV/m] 37.43 38.58 39.85	QP Limit [dBµV/m] 43.50 43.50 43.50	[dB] 6.07 4.92 3.65	Horizontal Horizontal Horizontal	PASS PASS PASS	
1 2 3 4	• QP Detector Freq. [MHz] 167.0186 173.585 180.8846 186.3557	Factor [dB] 9.69 10.16 11.06 11.36	[dBµV/m] 37.43 38.58 39.85 39.95	QP Limit [dBµV/m] 43.50 43.50 43.50 43.50	[dB] 6.07 4.92 3.65 3.55	Horizontal Horizontal Horizontal Horizontal	PASS PASS PASS PASS	
1 2 3 4 5	• QP Detector Freq. [MHz] 167.0186 173.585 180.8846 186.3557 210.6833	Factor [dB] 9.69 10.16 11.06 11.36 12.44	[dBµV/m] 37.43 38.58 39.85 39.95 37.74	QP Limit [dBµV/m] 43.50 43.50 43.50 43.50 43.50	[dB] 6.07 4.92 3.65 3.55 5.76	Horizontal Horizontal Horizontal Horizontal Horizontal	PASS PASS PASS PASS PASS	
1 2 3 4 5 6	• QP Detector Freq. [MHz] 167.0186 173.585 180.8846 186.3557 210.6833	Factor [dB] 9.69 10.16 11.06 11.36 12.44 12.74	[dBµV/m] 37.43 38.58 39.85 39.95 37.74 38.57	QP Limit [dBµV/m] 43.50 43.50 43.50 43.50 43.50	[dB] 6.07 4.92 3.65 3.55 5.76	Horizontal Horizontal Horizontal Horizontal Horizontal	PASS PASS PASS PASS PASS	



90 80 70 60	AC 12	20V/60Hz	Temp. /ł	Hum.	25 °C/60		
80				V/60Hz Temp. /Hum. 25			
50 40 20 10 30M 		100M					
QP Dete		TUUW	Frequency[Hz]			1G	
	ector eq. Facto	or QP Valu	e QP Limit	QP Margin [dB]	Polarity	1G Verdict	
NO. Fre	eq. Facto Hz] [dB]	or QP Valu   [dBµV/m	e QP Limit ] [dBµV/m]	[dB]		Verdict	
NO. Fre [MH 1 32.8	eq. Facto Hz] [dB] 3341 11.39	or QP Valu [dBµV/m 9 31.15	e QP Limit [dBµV/m] 40.00	[dB] 8.85	Vertical	Verdict PASS	
NO. Fre [MH 1 32.8 2 114.8	eq. Facto [dB] 3341 11.39 3783 11.77	or   QP Valu [dBµV/m 9 31.15 7 37.72	e QP Limit [dBµV/m] 40.00 43.50	[dB] 8.85 5.78	Vertical Vertical	Verdict PASS PASS	
NO.         Free [MH           1         32.8           2         114.8           3         120.0	eq. Hz] Factor [dB] 341 11.39 3783 11.77 0243 10.97	or QP Valu [dBµV/m 9 31.15 7 37.72 7 37.02	e QP Limit [dBµV/m] 40.00 43.50 43.50	[dB] 8.85 5.78 6.48	Vertical Vertical Vertical	Verdict PASS PASS PASS	
NO. Fre [MH 1 32.8 2 114.8	eq. Hz] Facto [dB] 3341 11.39 3783 11.77 0243 10.97 5409 11.32	or QP Valu [dBµV/m 9 31.15 7 37.72 7 37.02 2 34.65	e QP Limit [dBµV/m] 40.00 43.50	[dB] 8.85 5.78	Vertical Vertical	Verdict PASS PASS	

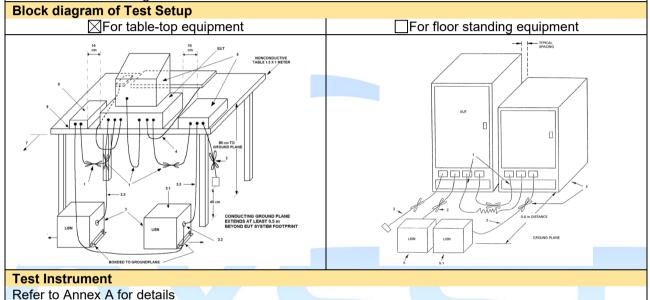


## 6.8 Conducted Emissions

Frequency (MHz)	Quasi-peak	Average
0.15~0.50	66 to 56*	56 to 46*
0.50~5.0	56	46
5.0~30	60	50
*Deereese with the leverithms of the fra		•

\*Decreases with the logarithm of the frequency.

If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out



#### Test Procedures

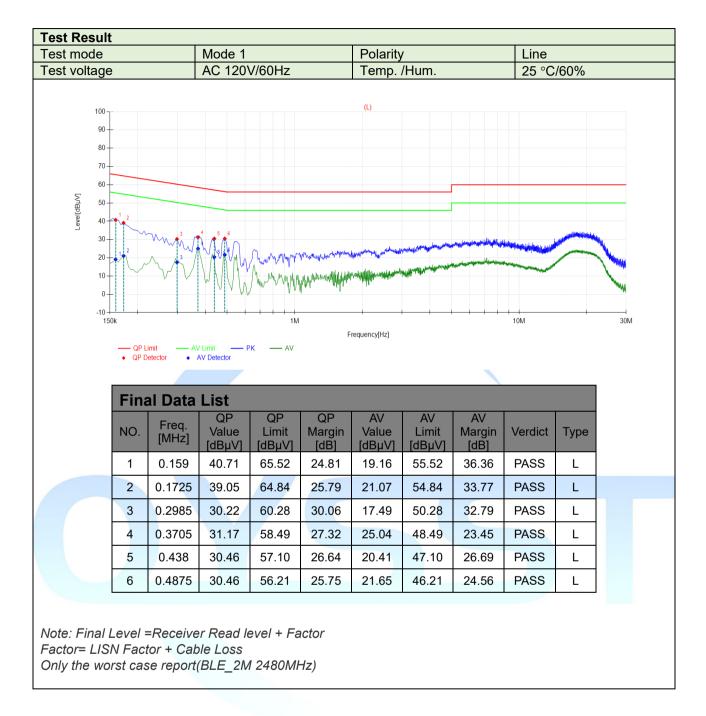
The measurement was performed in a shield room.

Measured levels of ac power-line conducted emission shall be the radio-noise voltage from the voltage probe, where permitted, or across the 50  $\Omega$  LISN port (to which the EUT is connected), as terminated into a 50  $\Omega$  EMI receiver or spectrum analyzer. All radio-noise voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord or calibrated extension cord by the use of mating plugs and receptacles on the EUT and LISN, if used. The manufacturer shall test equipment with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended. For measurements using a LISN, the 50  $\Omega$  measuring port is terminated into a 50  $\Omega$  EMI receiver or spectrum analyzer. All other ports are terminated into 50  $\Omega$  loads.

Table top devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

The bandwidth of the test receiver is set at 9 kHz. Verdict Pass







est mode			Mode 1			Polarity			Neutr		
est voltage			AC 120\	//60Hz		Temp.	Hum.		25 °C	/60%	
100 - 90 - 80 - 70 - 60 - 50 - 90 - 40 -						(N)					
₹ 30- 20- 10- -10- 150	k - OP Li + OP D		/ Limit - P AV Detector	итиностра ////////////////////////////////////	http://www.http://httpi	requency[Hz]	****	,-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10M		30М
	Fina	al Data	List								
	NO.	Freq. [MHz]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict	Туре	
	1	0.1725	39.75	64.84	25.09	27.39	54.84	27.45	PASS	Ν	
	2	0.2355	37.37	62.25	24.88	29.79	52.25	22.46	PASS	Ν	
	3	0.312	35.27	59.92	24.65	24.32	49.92	25.60	PASS	Ν	
	4	0.4245	37.50	57.36	19.86	30.70	47.36	16.66	PASS	Ν	
	5	0.492	35.25	56.13	20.88	27.22	46.13	18.91	PASS	Ν	
	6	0.6	32.97	56.00	23.03	23.27	46.00	22.73	PASS	N	
ote: Final L octor= LISI	V Fact	tor + Cab	ole Loss	evel + Fa 1 2480Mi							

Report No.: SST240923020EF02



# 7

Test Setup Photo Reference to the appendix I for details.

#### **EUT Constructional Details** 8 Reference to the **appendix II** for details.

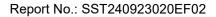




# Annex A -- Test Instruments list

Radiated Emiss	sion:					
Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. cycle	Cal.Date
SST-E-SAC001	3m Semi- Anechoic Chamber	BOST	966	1	3 years	2023.01.07
SST-E-SCC001	Control Room	BOST	333	/	3 years	2023.01.07
SST-E-SAC002	Breiband TRILOG Messantenne	Schwarzbeck	VULB 9162	00556	1 year	2024.04.20
SST-E-SAC004	Broad-band Horn Antenna	Schwarzbeck	BBHA 9120 D	02783	1 year	2024.04.16
SST-E-SCC003	EMI Test Receiver	R&S	ESU 8	100372	1 year	2024.04.16
SST-E-SCC004	Amplifier	Schwarzbeck	BBV 9744	00327	1 year	2024.04.16
SST-E-SCC015	Amplifie (1-18GHz)	TSTPASS	LNA10180G45	TSAM2303003	1 year	2024.04.16
SST-E-SCC016	Amplifier (40G)	RFsystem	TRLA- 180400G45B	23060801	1 year	2024.04.16
SST-E-SAC006	Broadband Horn Antenna(40G)	Schwarzbeck	BBHA9170	01306	1 year	2024.04.17
SST-E-RSC010	Spectrum analyzer	R&S	FSV40-N	1	1 year	2024.04.16
SST-E-SAC007	Loop Antenna	Schwarzbeck	FMZB 1513- 60B	1513-60B 044	1 year	2024.04.17
SST-E-SAC005	5W 6dB attenuator	1	DC-6GHz	1	Internal calibration	1
SST-E-EMC006	Thermohygrometer	KTJ	TA218A	879030	1 year	2024.04.18
/	EMI Test Software	Tonscend	TS+	/	/	1

Conducted Emission										
Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. cycle	Cal.Date				
SST-E-CSC001	Shielding Room	BOST	854	/	3 year	2023.01.07				
SST-E-CSC002	EMI Test Receiver	R&S	ESR3	103057	1 year	2024.04.16				
SST-E-CSC003	LISN	R&S	ENV 216	102832	1 year	2024.04.16				
SST-E-CSC004	ISN	R&S	NTFM 8158	00347	1 year	2024.04.16				
SST-E-CSC007	Antenna port test assembly	/	DC-3GHz	/	Internal calibration	/				
SST-E-EMC011	Thermohygrometer	KTJ	TA218A	879036	1 year	2024.04.18				
/	EMI Test Software	Tonscend	TS+	V4.0	/	1				





RF conducted						
Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. cycle	Cal.Date
SST-E-RSC001	Shielding Room	BOST	543	/	3 year	2023.01.07
SST-E-RSC007	Spectrum analyzer	keysight	N9020A	MY51280659	1 year	2024.04.16
SST-E-RSC008	Analog signal source	Agilent	N5181A	MY48180054	1 year	2024.04.16
SST-E-RSC009	Vector signal source	keysight	N5172B	MY57281610	1 year	2024.04.16
SST-E-EMC007	Thermohygrometer	KTJ	TA218A	879032	1 year	2024.04.18
SST-E-RSC010	Spectrum analyzer	R&S	FSV40-N	/	1 year	2024.04.16
SST-E-RSC015- 1	Power meter 1	TST	TST V2	/	1 year	2024.04.16
/	Test Software	TST PASS	TST PASS	V2.0	/	1

## **END OF REPORT**

