

Test Report

Verified code: 601059

Report No.: E202307262325-12

Customer: BYD Auto Industry Company Limited

Address: No.3001,3007,HengPing Road, Pingshan, Shenzhen,P.R.China

Sample Name: DiLink, BYD Di3.0F

Sample Model: DiLink 3.0F, MTCF03

Receive Sample Date: Jul.28,2023

Test Date: Oct.25,2023 ~ Oct.26,2023

Reference Document: CFR 47, FCC Part 15 Subpart C
RADIO FREQUENCY DEVICES:Subpart C—Intentional Radiators

Test Result: Pass

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Peng Huarui

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Zhao Zetian

GRG METROLOGY & TEST GROUP CO., LTD.

Issued Date: 2023-11-08

GRG METROLOGY & TEST GROUP CO., LTD.

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TABLE OF CONTENTS

1.	TEST RESULT SUMMARY	5
2.	GENERAL DESCRIPTION OF EUT.....	6
2.1	APPLICANT	6
2.2	MANUFACTURER.....	6
2.3	FACTORY	6
2.4	BASIC DESCRIPTION OF EQUIPMENT UNDER TEST	6
2.5	TEST OPERATION MODE	7
2.6	LOCAL SUPPORTIVE	7
2.7	CONFIGURATION OF SYSTEM UNDER TEST	7
3.	LABORATORY AND ACCREDITATIONS AND MEASUREMENT UNCERTAINTY	9
3.1	LABORATORY	9
3.2	ACCREDITATIONS	9
3.3	MEASUREMENT UNCERTAINTY	10
4.	LIST OF USED TEST EQUIPMENT AT GRGT	11
5.	EUT TEST CONDITIONS	12
6.	RADIATED SPURIOUS EMISSIONS	14
6.1	LIMITS.....	14
6.2	TEST PROCEDURES	14
6.3	TEST SETUP	18
6.4	DATA SAMPLE	19
6.5	TEST RESULTS	20
	APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM	26
	APPENDIX B. PHOTOGRAPH OF THE EUT	26

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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E202307262325-12	Original Issue	2023-10-27

Note:

1. Based on the report number E20211217696105-2, E20211217696105-2& E202307262325-12 are the following changes:

Report No.	Product Name:	Adding Product Name:	Model No.:	Adding Model:	Note:
E20211217696105-2	DiLink	/	DiLink 3.0F	/	/
E202307262325-12	DiLink	BYD Di3.0F	DiLink 3.0F	MTCF03	Adding the product name BYD Di3.0F and the model MTCF03
1) Both models DiLink 3.0F and MTCF03 are identical except model number. The difference between the two versions of DiLink 3.0F is the broadcasting(AM/FM/DAB) chip only. in this report adding the product name BYD Di3.0F and the model MTCF03. 2) Except for the above changes, there are no other differences.					

2. After evaluation, this report does not need to be retested, in this report we only updates the section 2.2, adding the product name BYD Di3.0F and the model MTCF03, except for Radiated Spurious Emission below 1GHz, all test datas come from E20211217696105-2(FCC ID: SD4-DILINK6125F, Issued Date: 2022-06-08).

1. TEST RESULT SUMMARY

FCC 47 CFR Part 15 Subpart C 15.247, ANSI C63.10-2013 KDB 558074 D01 15.247 measurement guidance v05r02			
Standard	Item	Limit / Severity	Result
FCC 47 CFR Part 15 Subpart C (15.247)	Antenna Requirement	Section 15.203	PASS ⁽³⁾
	20dB Bandwidth	Section 15.247(a)(1)	PASS ⁽³⁾
	Carrier Frequencies Separated	Section 15.247(a)(1)	PASS ⁽³⁾
	Hopping Channel Number	Section 15.247(a)(1)(ii)	PASS ⁽³⁾
	Dwell Time	Section 15.247(a)(1)(iii)	PASS ⁽³⁾
	Maximum Peak Output Power	Section 15.247(b)(1)	PASS ⁽³⁾
	Conducted Emission	Section 15.207	Not Applicable
	Conducted band edges and Spurious Emission	Section 15.209 &15.247(d)	PASS ⁽³⁾
	Radiated Spurious Emission	Section 15.209 &15.247(d)	PASS
	Restricted bands of operation	Section 15.247 (d) &15.205 &15.209	PASS ⁽³⁾

Note:1) Not Applicable, the EUT is powered by DC 12V.

2)The EUT antenna is External antenna. Max Antenna gain is -1.77dBi .which accordance 15.203.is considered sufficient to comply with the provisions of this section.

3) Except for Radiated Spurious Emission below 1GHz, the test results of others please refer to the E20211217696105-2 report.

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2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: BYD Auto Industry Company Limited
Address: No. 3001, 3007, Hengping Road, Pingshan, Shenzhen, P. R. China

2.2 MANUFACTURER

Name: BYD Auto Industry Company Limited
Address: No. 3001, 3007, Hengping Road, Pingshan, Shenzhen, P. R. China

2.3 FACTORY

Name: Huizhou BYD Electronics Co., Ltd.
Address: Xiangshui River, Economic Development Zone, Daya Bay, Huizhou, Guangdong, P. R. China

2.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: DiLink
Adding Equipment Name: BYD Di3.0F
Model No.: DiLink 3.0F
Adding Model: MTCF03
Models discrepancy: Both models DiLink 3.0F and MTCF03 are identical except model number. The difference between the two versions of DiLink 3.0F is the broadcasting (AM/FM/DAB) chip only.
Trade Name: BYD
FCC ID: SD4-DILINK6125F
Power supply: DC 12V
Frequency Band: 2402MHz~2480MHz
Transmit Power: GFSK:-0.14dBm
 $\pi/4$ -DQPSK:-0.95dBm
8DPSK: -0.61dBm
Type of Modulation: FHSS (GFSK for 1Mbps, $\pi/4$ -DQPSK for 2Mbps, 8DPSK for 3Mbps)
Antenna Specification: External antenna with – 1.77dBi gain (Max)
Temperature Range: -30℃~70℃
Hardware Version: DiLink HW 6125F
Software Version: DiLink SW 4.0F

Sample No: E202307262325-0001

Note: The EUT antenna gain is provided by the applicant. This report is made solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

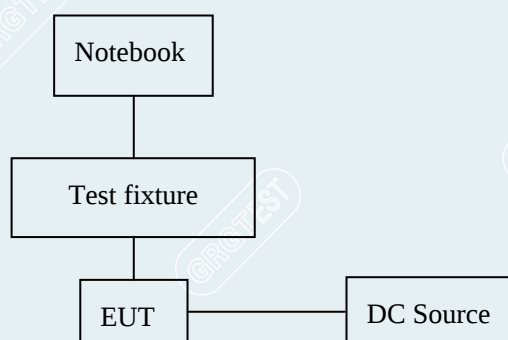
2.5 TEST OPERATION MODE

Mode No.	Description of the modes
1	Bluetooth(BT) fixed frequency transmitting

2.6 LOCAL SUPPORTIVE

Name of equipment	Manufacturer	Model	Serial number	Note
Notebook	LENOVO	TianYi 310-14ISK	MP18DLC6	/
Adapter(Notebook)	LENOVO	ADLX65NVV3A	SA10M42747	Unshielded, 1m (AC Cable) Shielded, 1.8m (DC Cable)
DC Source	LW	PS-305DM	/	/
Test fixture	/	/	/	/
Cable				
Test fixture cable	/	/	/	Unshielded 0.15m
USB cable	/	/	/	Unshielded 1.0m
DC cable	/	/	/	Unshielded 0.8m

2.7 CONFIGURATION OF SYSTEM UNDER TEST



Test software:

Software version	Test level
QRCT	7

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3. LABORATORY AND ACCREDITATIONS AND MEASUREMENT UNCERTAINTY

3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

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Shenzhen, 518110, People's Republic of China

P.C.: 518110

Tel : 0755-61180008

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3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to GB/T 27025(ISO/IEC 17025:2017).

USA	A2LA(Certificate #2861.01)
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The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	ISED (Company Number: 24897, CAB identifier:CN0069)
USA	FCC (Registration Number: 759402, Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site,
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3.3 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:

Measurement		Frequency	Uncertainty
Radiated Emission	Coplanar	9kHz~30MHz	4.40dB ¹⁾
	Coaxial	9kHz~30MHz	4.40dB ¹⁾
	Horizontal	30MHz~200MHz	4.60dB ¹⁾
		200MHz~1000MHz	4.80dB ¹⁾
		1GHz~18GHz	5.00dB ¹⁾
		18GHz~26.5GHz	5.20dB ¹⁾
	Vertical	30MHz~200MHz	4.70dB ¹⁾
		200MHz~1000MHz	4.70dB ¹⁾
		1GHz~18GHz	5.10dB ¹⁾
		18GHz~26.5GHz	5.40dB ¹⁾

Note:
¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95%.
This uncertainty represents an expanded uncertainty factor of $k=2$.

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4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Spurious Emission (Below 1GHz)				
Test software	Tonscend	JS32-RE		
Bi-log Antenna	Schwarzbeck	VULB 9160	VULB9160-3402	2024-09-24
Test Receiver	R&S	ESR26	101758	2024-09-22
Preamplifier	SHIRONG ELECTRONIC	DLNA-30M1G- G41	20200928003	2023-12-19

Note: The calibration interval of the above test instruments is 12 months.

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5. EUT TEST CONDITIONS

Type of antenna:

External antenna

Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top 1 near middle and 1 near bottom

EUT channels and frequencies list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2416	28	2430
1	2403	15	2417	29	2431
2	2404	16	2418	30	2432
3	2405	17	2419	31	2433
4	2406	18	2420	32	2434
5	2407	19	2421	33	2435
6	2408	20	2422	34	2436
7	2409	21	2423	35	2437
8	2410	22	2424	36	2438
9	2411	23	2425	37	2439
10	2412	24	2426	38	2440
11	2413	25	2427	39	2441
12	2414	26	2428	40	2442
13	2415	27	2429	41	2443

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	2444	55	2457	68	2470
43	2445	56	2458	69	2471
44	2446	57	2459	70	2472
45	2447	58	2460	71	2473
46	2448	59	2461	72	2474
47	2449	60	2462	73	2475
48	2450	61	2463	74	2476
49	2451	62	2464	75	2477
50	2452	63	2465	76	2478
51	2453	64	2466	77	2479
52	2454	65	2467	78	2480
53	2455	66	2468		
54	2456	67	2469		

Test frequency is the lowest channel: 0 frequency(2402MHz), middle channel: 39 frequency (2441MHz) and highest channel: 78 frequency(2480MHz)

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6. RADIATED SPURIOUS EMISSIONS

6.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

Frequency (MHz)	Quasi-peak($\mu\text{V/m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V/m}$)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

NOTE:

- (1) The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.
- (2) The lower limit shall apply at the transition frequencies.
- (3) Above 18GHz test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.5 (dB $\mu\text{V/m}$).
The Avg Limit=54+20*log(3/1)=63.5 (dB $\mu\text{V/m}$)

6.2 TEST PROCEDURES

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 ° to 360 °.
- The antenna height is 1.0 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 360° .

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 4 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0° to 360° and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0 °to 360 °.

--- The antenna is polarized vertical and horizontal.

--- The antenna height scan range is 1 meter to 4 meter.

--- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0 °to 360 °and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.

--- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

----- The following blanks -----

4) Sequence of testing above 18 GHz**Setup:**

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Pre measurement:

- The antenna is moved spherical over the EUT in different polarisations of the antenna.

Final measurement:

- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

NOTE:

- (a).The frequency from 9kHz to 150kHz, Set RBW=300Hz(for Peak & AVG), VBW=300Hz(for Peak & AVG). The frequency from 150kHz to 30MHz, Set RBW=9kHz, VBW=9kHz, (for QP Detector).
- (b).The frequency from 30MHz to 1GHz, Set RBW=120kHz, VBW=300kHz, (for QP Detector).
- (c).The frequency above 1GHz, for Peak detector: Set RBW=1MHz,VBW=3MHz.
- (d). The frequency above 1GHz, for Avg detector: Set RBW=1MHz,if the EUT is configured to transmit with duty cycle $\geq 98\%$, set $VBW \leq RBW/100$ (i.e.,10kHz) but not less than 10 Hz. If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$, Where T is defined in section 2.8.

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6.3 TEST SETUP

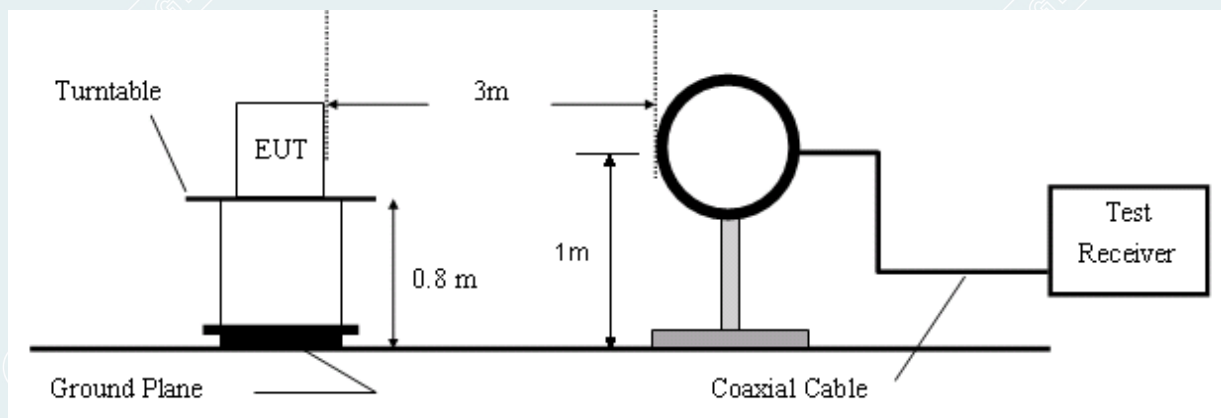


Figure 1. 9kHz to 30MHz radiated emissions test configuration

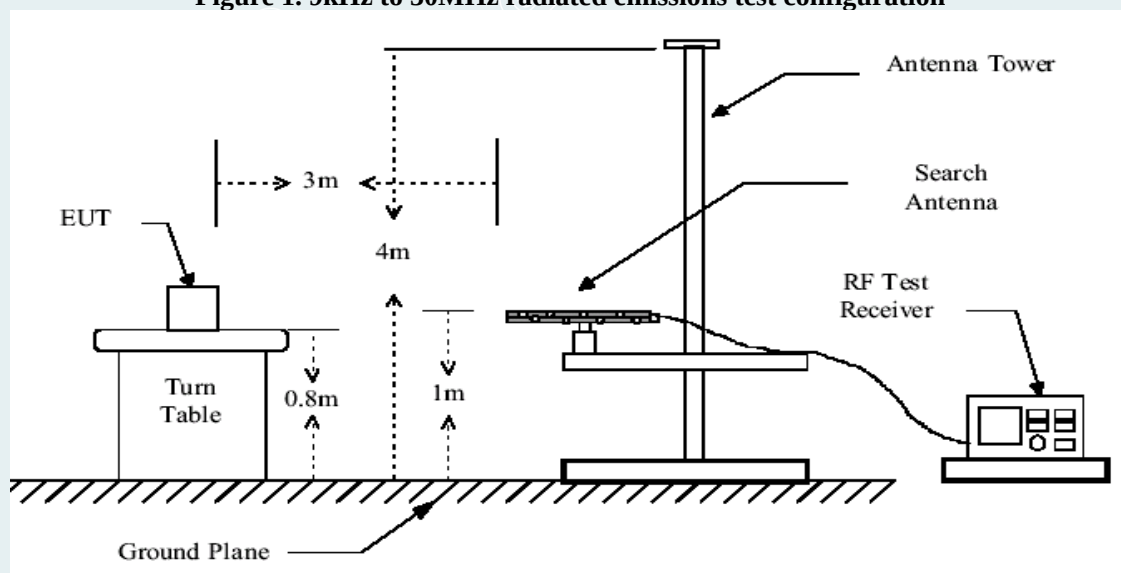


Figure 2. 30MHz to 1GHz radiated emissions test configuration

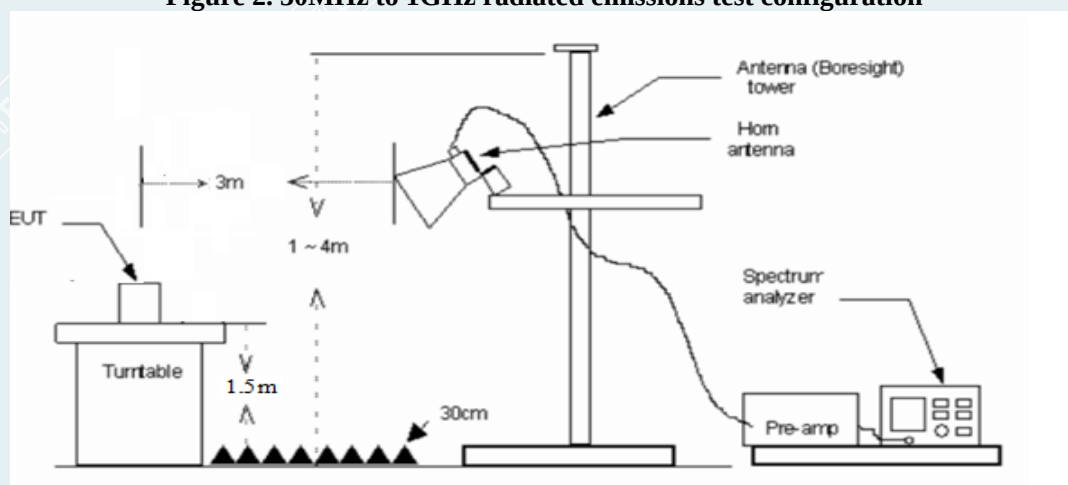


Figure 3. 1GHz to 18GHz radiated emissions test configuration

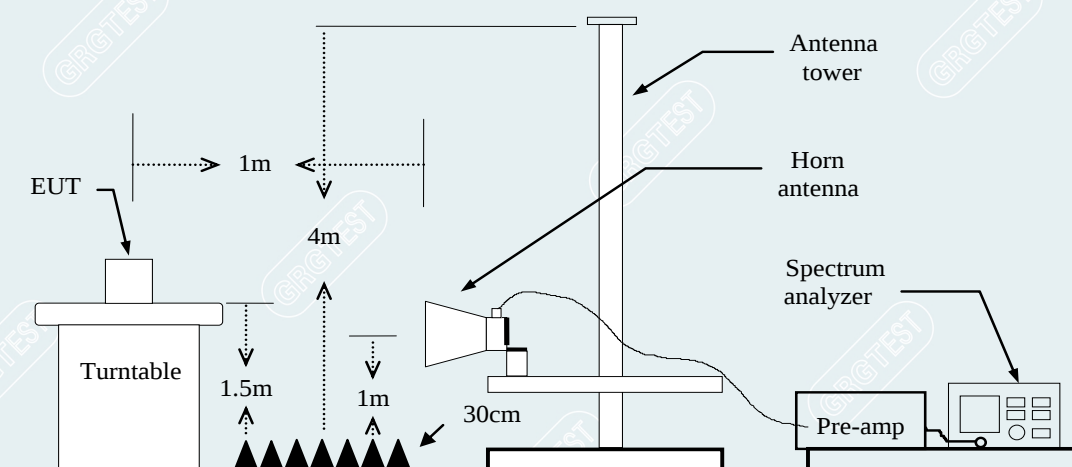


Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

6.4 DATA SAMPLE

30MHz to 1GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	37.06	-15.48	21.58	40.00	-18.42	PK	Vertical

1GHz to 18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	65.45	-11.12	54.33	74.00	-19.67	peak	Vertical
xxx	xxx	63.00	-11.12	51.88	54.00	-2.12	AVG	Vertical

Above 18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	68.86	57.66	-11.20	83.54	25.88	peak	Vertical
xxx	xxx	68.89	-11.20	57.69	63.54	5.85	AVG	Vertical

Frequency (MHz)

= Emission frequency in MHz

Ant.Pol. (H/V)

= Antenna polarization

Reading (dBuV)

= Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m)

= Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m)

= Reading (dBuV) + Correction Factor (dB/m)

Limit (dBuV/m)

= Limit stated in standard

Margin (dB)

= Remark Result (dBuV/m) – Limit (dBuV/m)

PK & Peak

= Peak Reading

QP

= Quasi-peak Reading

AVG

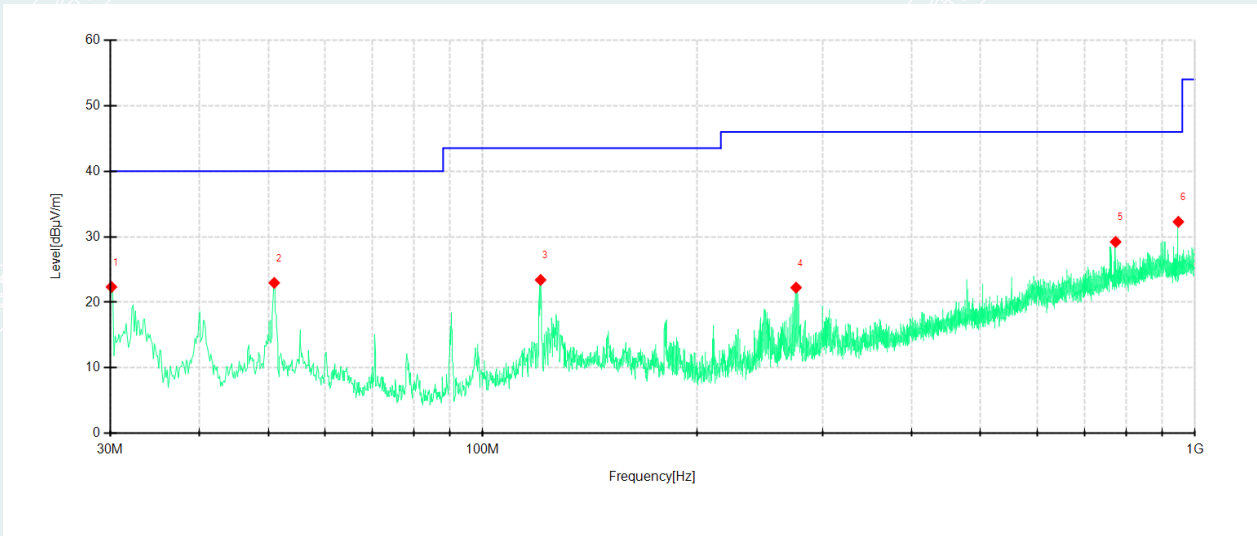
= Average Reading

6.5 TEST RESULTS

Below 1GHz:

Mode: Mode 1/DH5
Low Frequency (2402MHz)
Test Environment:
Test Engineer:
Test Voltage:

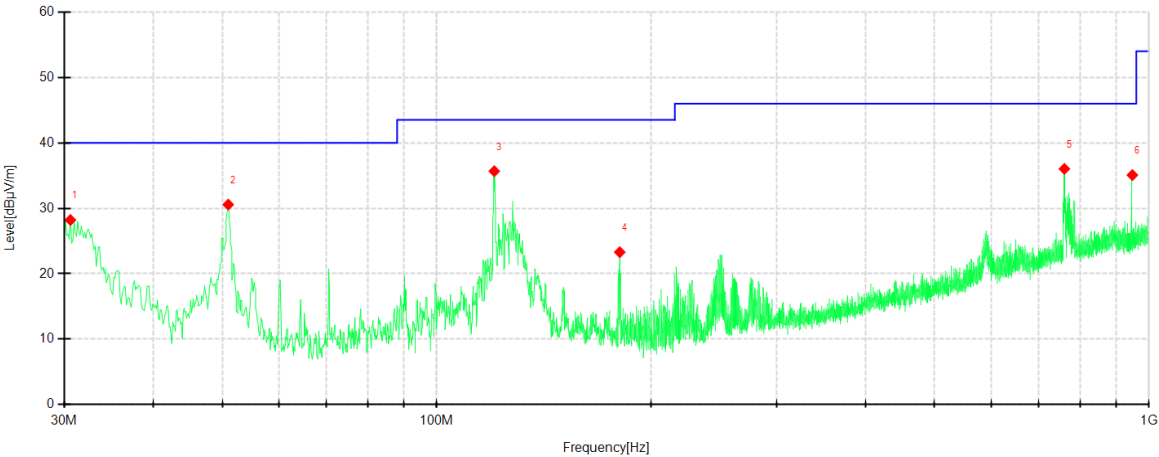
Date: 2023-10-26
25.0℃/54%RH/101.0kPa
Zhang Zishan
DC 12V



Suspected Data List											
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	30.1213	51.58	22.35	-29.23	40.00	17.65	PK	100	196	Horizontal	PASS
2	50.9789	51.54	22.97	-28.57	40.00	17.03	PK	200	177	Horizontal	PASS
3	120.5851	53.37	23.42	-29.95	43.50	20.08	PK	200	124	Horizontal	PASS
4	275.4407	50.67	22.25	-28.42	46.00	23.75	PK	100	220	Horizontal	PASS
5	773.7192	45.78	29.22	-16.56	46.00	16.78	PK	200	306	Horizontal	PASS
6	947.7347	47.69	32.28	-15.41	46.00	13.72	PK	200	177	Horizontal	PASS

Mode: Mode 1/DH5
Low Frequency (2402MHz)
Test Environment:
Test Engineer:
Test Voltage:

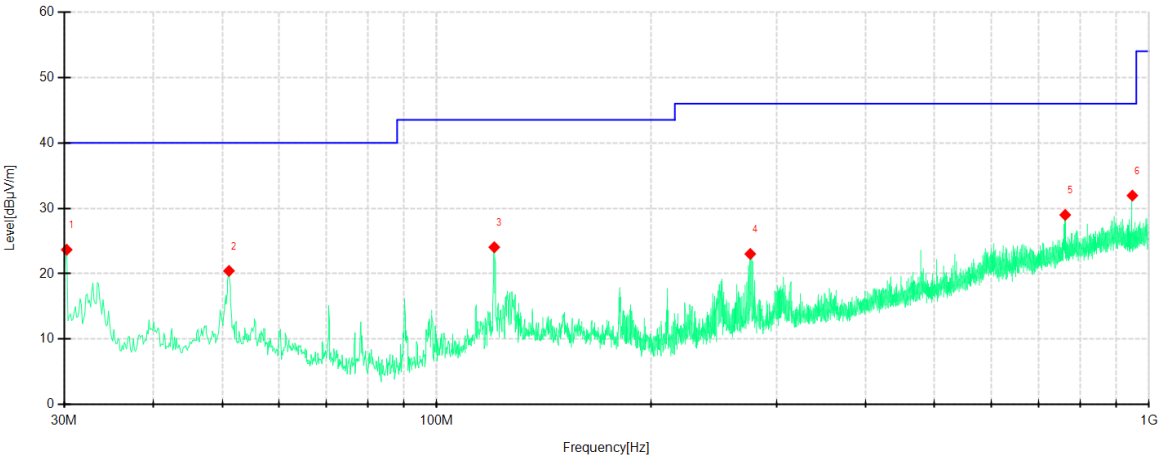
Date: 2023-10-26
25.0℃/54%RH/101.0kPa
Zhang Zishan
DC 12V



Suspected Data List											
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	30.6063	57.43	28.22	-29.21	40.00	11.78	PK	100	152	Vertical	PASS
2	50.9789	59.14	30.57	-28.57	40.00	9.43	PK	100	190	Vertical	PASS
3	120.4638	65.63	35.67	-29.96	43.50	7.83	PK	100	48	Vertical	PASS
4	180.7326	52.92	23.30	-29.62	43.50	20.20	PK	100	152	Vertical	PASS
5	760.7438	52.76	36.03	-16.73	46.00	9.73	PK	100	152	Vertical	PASS
6	947.7347	50.49	35.08	-15.41	46.00	10.92	PK	200	196	Vertical	PASS

Mode: Mode 1/DH5
Middle Frequency (2441MHz)
Test Environment:
Test Engineer:
Test Voltage:

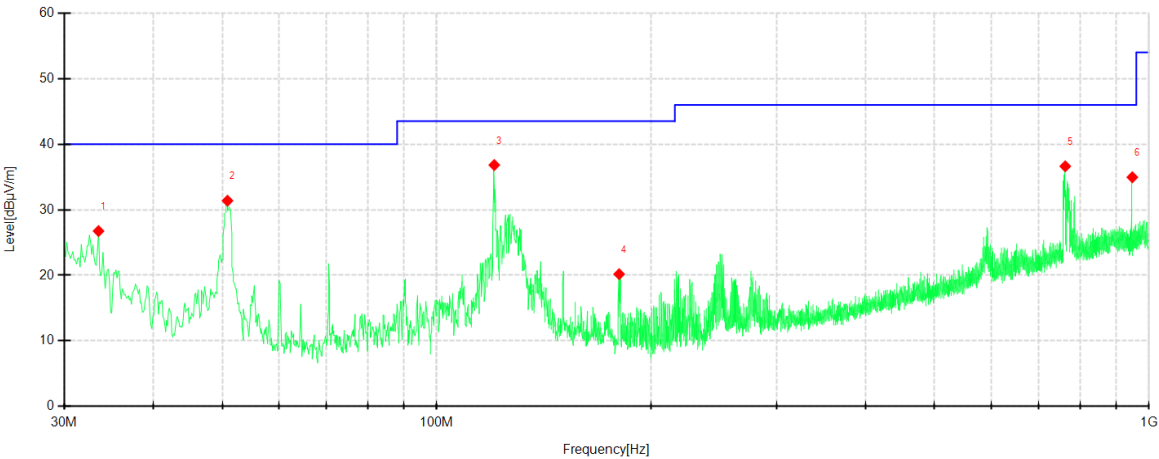
Date: 2023-10-26
25.0℃/54%RH/101.0kPa
Zhang Zishan
DC 12V



Suspected Data List											
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	30.2425	52.91	23.68	-29.23	40.00	16.32	PK	100	209	Horizontal	PASS
2	51.1001	49.02	20.44	-28.58	40.00	19.56	PK	200	344	Horizontal	PASS
3	120.4638	54.02	24.06	-29.96	43.50	19.44	PK	200	98	Horizontal	PASS
4	275.5619	51.43	23.03	-28.40	46.00	22.97	PK	100	209	Horizontal	PASS
5	762.8054	45.69	28.99	-16.70	46.00	17.01	PK	100	209	Horizontal	PASS
6	947.7347	47.36	31.95	-15.41	46.00	14.05	PK	200	320	Horizontal	PASS

Mode: Mode 1/DH5
Middle Frequency (2441MHz)
Test Environment:
Test Engineer:
Test Voltage:

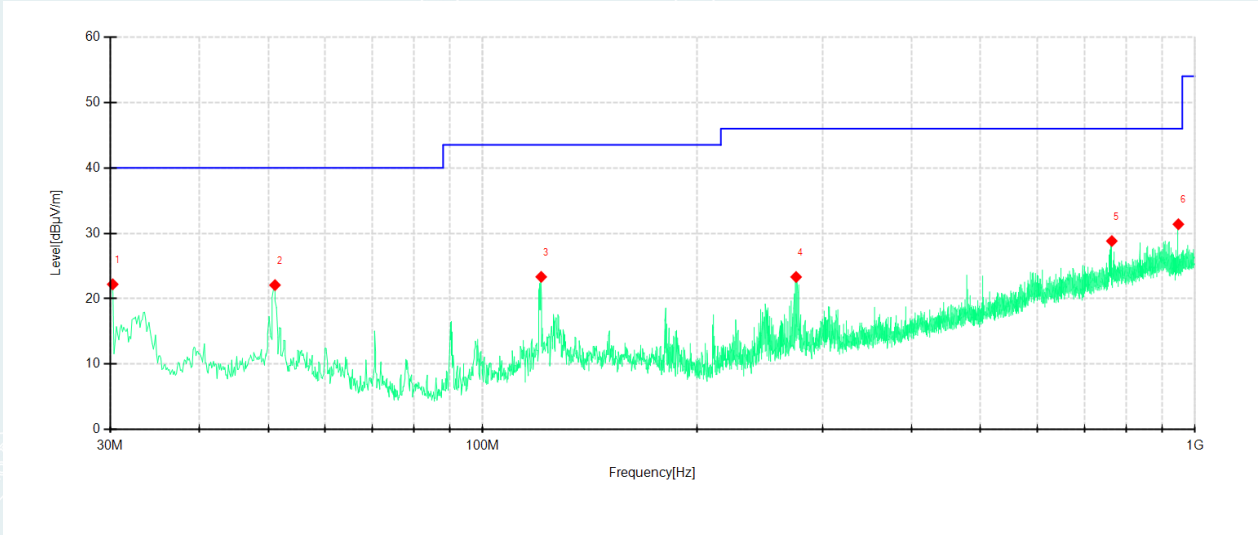
Date: 2023-10-26
25.0℃/54%RH/101.0kPa
Zhang Zishan
DC 12V



Suspected Data List											
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	33.5167	55.78	26.75	-29.03	40.00	13.25	PK	100	357	Vertical	PASS
2	50.8576	59.94	31.38	-28.56	40.00	8.62	PK	100	307	Vertical	PASS
3	120.4638	66.78	36.82	-29.96	43.50	6.68	PK	100	97	Vertical	PASS
4	180.3688	49.77	20.18	-29.59	43.50	23.32	PK	100	123	Vertical	PASS
5	762.9266	53.33	36.63	-16.70	46.00	9.37	PK	100	202	Vertical	PASS
6	947.6135	50.38	34.96	-15.42	46.00	11.04	PK	200	26	Vertical	PASS

Mode: Mode 1/DH5
Highest Frequency (2480MHz)
Test Environment:
Test Engineer:
Test Voltage:

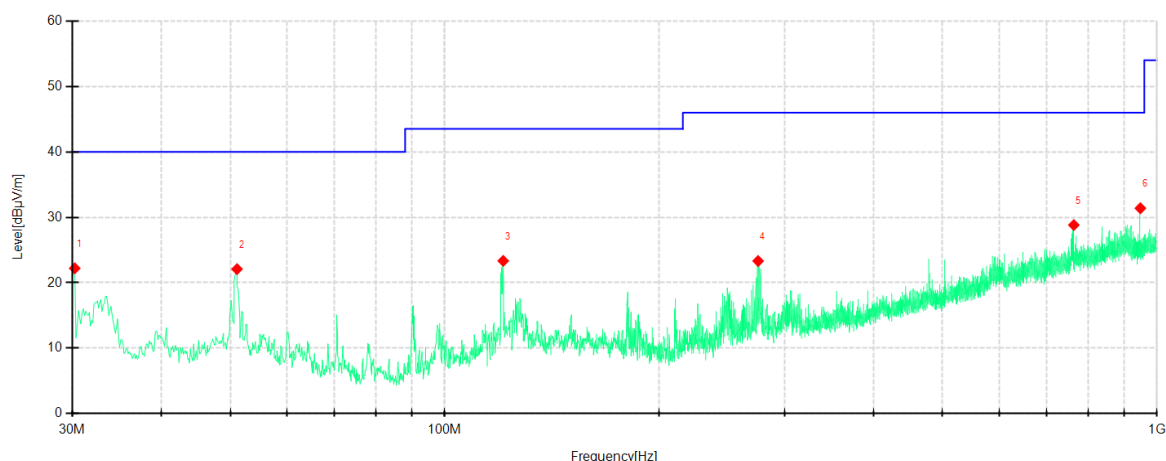
Date: 2023-10-26
25.0℃/54%RH/101.0kPa
Zhang Zishan
DC 12V



Suspected Data List											
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	30.2425	51.44	22.21	-29.23	40.00	17.79	PK	200	268	Horizontal	PASS
2	51.1001	50.67	22.09	-28.58	40.00	17.91	PK	200	18	Horizontal	PASS
3	120.8276	53.27	23.35	-29.92	43.50	20.15	PK	100	80	Horizontal	PASS
4	275.4407	51.75	23.33	-28.42	46.00	22.67	PK	100	224	Horizontal	PASS
5	764.2605	45.50	28.82	-16.68	46.00	17.18	PK	100	145	Horizontal	PASS
6	947.7347	46.80	31.39	-15.41	46.00	14.61	PK	200	18	Horizontal	PASS

Mode: Mode 1/DH5
 Highest Frequency (2480MHz)
 Test Environment:
 Test Engineer:
 Test Voltage:

Date: 2023-10-26
 25.0°C/54%RH/101.0kPa
 Zhang Zishan
 DC 12V



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity	Verdict
1	32.1828	55.28	26.17	-29.11	40.00	13.83	PK	100	31	Vertical	PASS
2	50.9789	60.22	31.65	-28.57	40.00	8.35	PK	100	265	Vertical	PASS
3	120.2213	64.91	34.92	-29.99	43.50	8.58	PK	100	58	Vertical	PASS
4	180.3688	50.48	20.89	-29.59	43.50	22.61	PK	100	162	Vertical	PASS
5	762.1990	54.17	37.46	-16.71	46.00	8.54	PK	100	149	Vertical	PASS
6	947.7347	49.78	34.37	-15.41	46.00	11.63	PK	200	328	Vertical	PASS

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Pre-scan all mode and recorded the worst case results in this report (DH5)
- 3 Measuring frequencies from 9kHz to the 1GHz.
- 4 Radiated emissions measured in frequency range from 30MHz to 1GHz were made with an instrument using Peak/Quasi-peak detector mode.
- 5 Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 6 The IF bandwidth of SPA between 30MHz to 1GHz was 120kHz.

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E202307262325-20 Test photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E202307262325-21 EUT photo.

----- End of Report -----