TEST REPORT

Applicant:	CoreTigo Ltd
Address of Applicant:	Giborey Israel 5, Poleg, Natanya 4250405, Israel
Manufacturer:	CoreTigo Ltd
Address of Manufacturer:	Giborey Israel 5, Poleg, Natanya 4250405, Israel
Factory:	BMK professional electronics GmbH
Address of Factory:	Werner-von-Siemens-Strasse 6,86159 Augsburg, Germany

Equipment Under Test (EUT)

Product Name:	IO-Link class A wireless 2.4G transceiver module
Model No.:	TigoBridge A2-E
Trade Mark:	CoreTigo
FCC ID:	2ATSM-TGBRIDGEA2
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	July 04, 2023
Date of Test:	July 04, 2023-January 29, 2024
Date of report issued:	January 29, 2024
Test Result :	PASS *

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

Authorized Signature:

Robinson Luo
Laboratory Manager

TESTING
NVLAP LAB CODE 600179-0

2 Version

Report No.	Version No.	Date	Description
GTS2023070042F01	*00*	*September 21, 2023*	*Original*
GTS2023070043F01	*01*	*January 29, 2024*	*Class II permissive change*

Prepared By: ***Date:*** *January 29, 2024*

Project Engineer

Check By: ***Date:*** *January 29, 2024*

Reviewer

3 Contents

Page

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Output Power	15.247 (b)(3)	N/A
Channel Bandwidth	15.247 (a)(2)	N/A
Power Spectral Density	15.247 (e)	N/A
Band Edge	15.247(d)	N/A
Spurious Emission	15.205/15.209	Pass

Remarks:

1. *Pass: The EUT complies with the essential requirements in the standard.*
2. *N/A: Not applicable.This's a Class II permissive change report, all of the changes are not effect to the RF performance, function and power. So the RF conducted test data directly reference the original report number GTS2023070042F01.*
3. *Test according to ANSI C63.10:2013*

Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz-30MHz	3.1dB	(1)
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 General Description of EUT

Product Name:	IO-Link class A wireless 2.4G transceiver module
Model No.:	TigoBridge A2-E
S/N:	N/A
Test sample(s) ID:	GTS2023070043-1
Sample(s) Status	Engineered sample
Operation Frequency:	2401MHz~2480MHz
Channel numbers:	80
Modulation type:	GFSK
Antenna Type:	External antenna
Antenna gain:	-10dBi
Power supply:	DC 24V

Note:
1. Antenna gain information provided by the customer.
2.The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

Operation Frequency each of channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2401	21	2421	41	2441	61	2461
2	2402	22	2422	42	2442	62	2462
3	2403	23	2423	43	2443	63	2463
4	2404	24	2424	44	2444	64	2464
5	2405	25	2425	45	2445	65	2465
6	2406	26	2426	46	2446	66	2466
7	2407	27	2427	47	2447	67	2467
8	2408	28	2428	48	2448	68	2468
9	2409	29	2429	49	2449	69	2469
10	2410	30	2430	50	2450	70	2470
11	2411	31	2431	51	2451	71	2471
12	2412	32	2432	52	2452	72	2472
13	2413	33	2433	53	2453	73	2473
14	2414	34	2434	54	2454	74	2474
15	2415	35	2435	55	2455	75	2475
16	2416	36	2436	56	2456	76	2476
17	2417	37	2437	57	2457	77	2477
18	2418	38	2438	58	2458	78	2478
19	2419	39	2439	59	2459	79	2479
20	2420	40	2440	60	2460	80	2480

The test frequencies are below:

Channel	Frequency
The lowest channel	2401MHz
The middle channel	2440MHz
The Highest channel	2480MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
MEILI	DC POWER SUPPLY	MCH-305A	011121168

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

● **ISED —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.
Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480
Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Continuous transmitter provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	June 23, 2021	June 22, 2024
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 14, 2023	April 13, 2024
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 14, 2023	April 13, 2024
8	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 13, 2023	Nov.12, 2024
9	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 14, 2023	April 13, 2024
10	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 14, 2023	April 13, 2024
11	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 29, 2023	Oct. 28, 2024
12	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 29, 2023	Oct. 28, 2024
13	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 13, 2023	March 12, 2024
14	Amplifier	/	LNA-1000-30S	GTS650	April 14, 2023	April 13, 2024
15	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 08, 2023	Nov.07, 2024
16	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	April 14, 2023	April 13, 2024
17	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 19, 2023	April 18, 2024
18	RE cable 1	GTS	N/A	GTS675	July 31. 2023	July 30. 2024
19	RE cable 2	GTS	N/A	GTS676	July 31. 2023	July 30. 2024
20	RE cable 3	GTS	N/A	GTS677	July 31. 2023	July 30. 2024
21	RE cable 4	GTS	N/A	GTS678	July 31. 2023	July 30. 2024
22	RE cable 5	GTS	N/A	GTS679	July 31. 2023	July 30. 2024
23	RE cable 6	GTS	N/A	GTS680	July 31. 2023	July 30. 2024
24	RE cable 7	GTS	N/A	GTS681	July 31. 2023	July 30. 2024
25	RE cable 8	GTS	N/A	GTS682	July 31. 2023	July 30. 2024

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 14, 2023	April 13, 2024
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 19, 2023	April 18, 2024
7	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 14, 2023	April 13, 2024
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 14, 2023	April 13, 2024
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 14, 2023	April 13, 2024
10	Antenna end assembly	Weinschel	1870A	GTS560	April 14, 2023	April 13, 2024

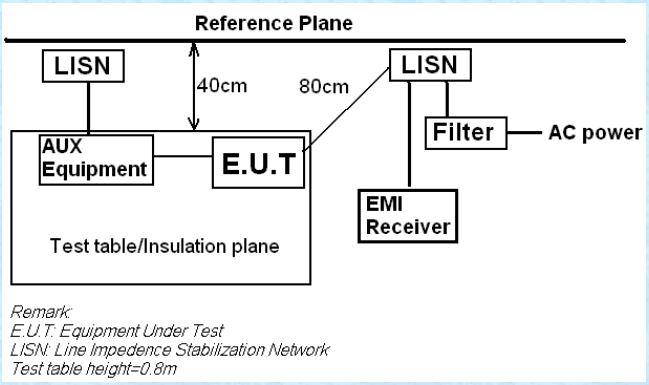
General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Barometer	KUMAO	SF132	GTS647	April 19, 2023	April 18, 2024

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
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, 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:** (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
E.U.T Antenna:	
The antenna is external antenna, reference to the appendix II for details	

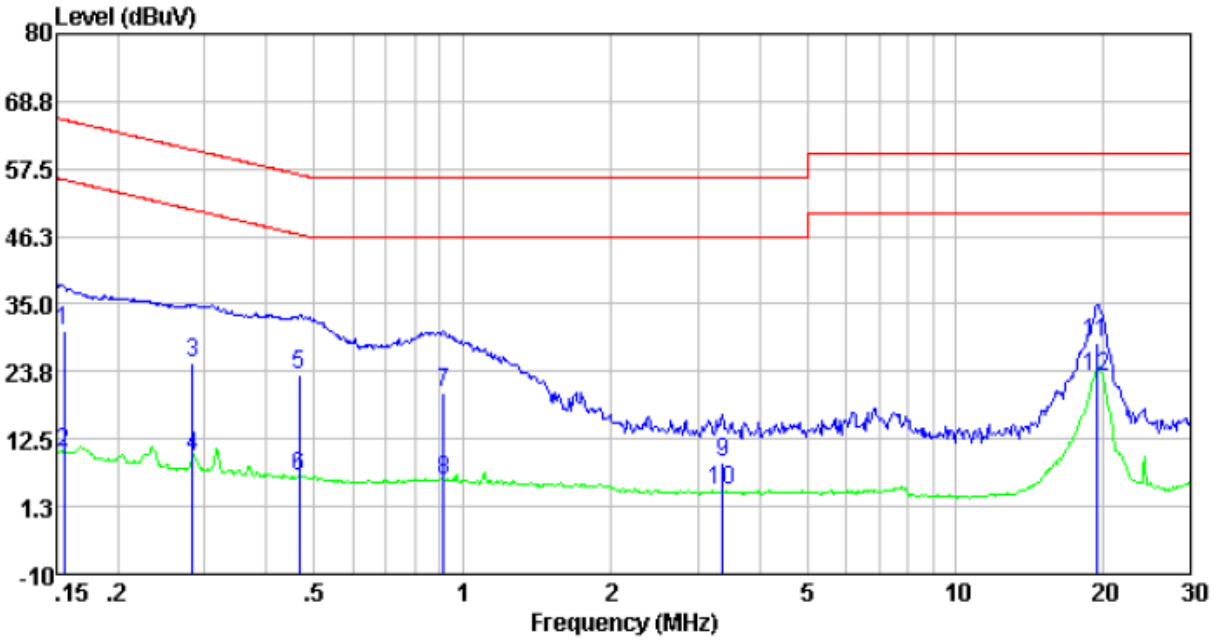
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2009 on conducted measurement.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 25 °C / Humid.: 52% / Press.: 1012mbar
Test voltage:	AC120V
Test results:	Pass

Measurement data

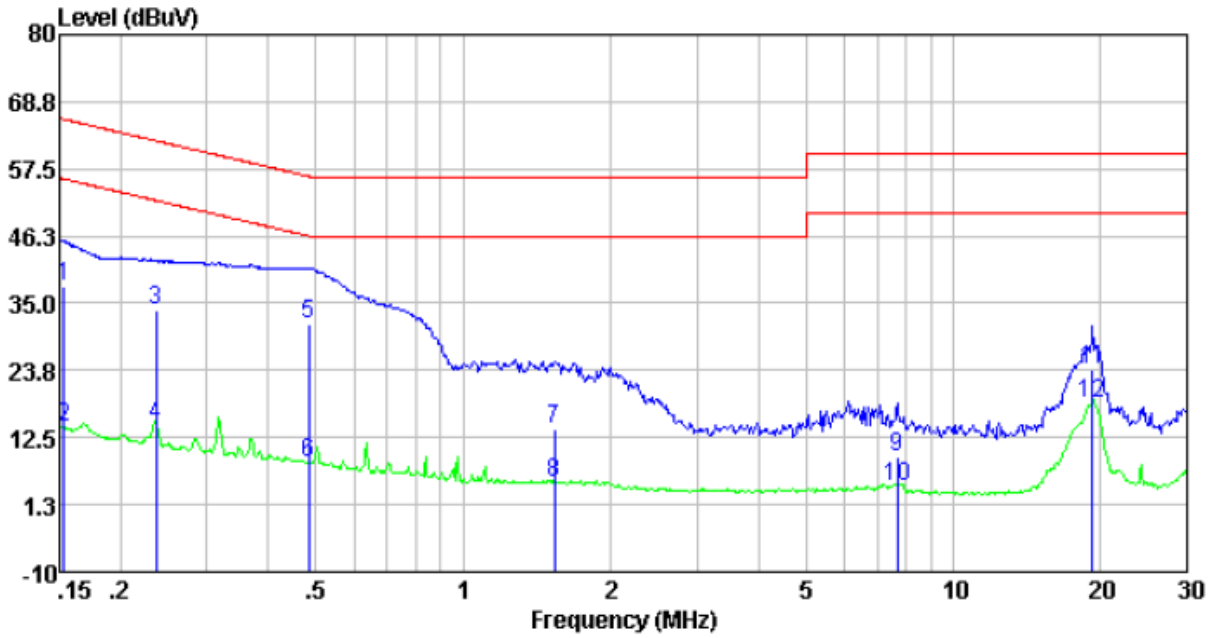
Pre-scan all test modes, found worst case at 2480MHz, and so only show the test result of 2480MHz,

Line:



Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.16	20.80	9.55	0.01	30.36	65.69	-35.33	QP
0.16	0.68	9.55	0.01	10.24	55.69	-45.45	Average
0.28	15.81	9.49	0.01	25.31	60.72	-35.41	QP
0.28	0.26	9.49	0.01	9.76	50.72	-40.96	Average
0.47	13.64	9.49	0.01	23.14	56.58	-33.44	QP
0.47	-3.37	9.49	0.01	6.13	46.58	-40.45	Average
0.91	10.81	9.49	0.03	20.33	56.00	-35.67	QP
0.91	-3.82	9.49	0.03	5.70	46.00	-40.30	Average
3.36	-0.84	9.52	0.05	8.73	56.00	-47.27	QP
3.36	-5.65	9.52	0.05	3.92	46.00	-42.08	Average
19.33	18.30	9.95	0.18	28.43	60.00	-31.57	QP
19.33	12.70	9.95	0.18	22.83	50.00	-27.17	Average

Neutral:



Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.15	28.10	9.55	0.01	37.66	65.82	-28.16	QP
0.15	4.55	9.55	0.01	14.11	55.82	-41.71	Average
0.24	24.18	9.56	0.01	33.75	62.22	-28.47	QP
0.24	5.05	9.56	0.01	14.62	52.22	-37.60	Average
0.48	22.07	9.57	0.01	31.65	56.27	-24.62	QP
0.48	-1.16	9.57	0.01	8.42	46.27	-37.85	Average
1.54	4.47	9.55	0.04	14.06	56.00	-41.94	QP
1.54	-4.63	9.55	0.04	4.96	46.00	-41.04	Average
7.69	-0.41	9.52	0.09	9.20	60.00	-50.80	QP
7.69	-5.27	9.52	0.09	4.34	50.00	-45.66	Average
19.22	13.78	10.03	0.18	23.99	60.00	-36.01	QP
19.22	8.10	10.03	0.18	18.31	50.00	-31.69	Average

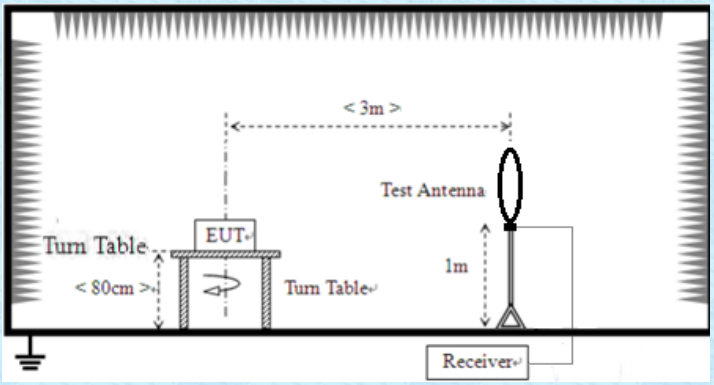
Notes:

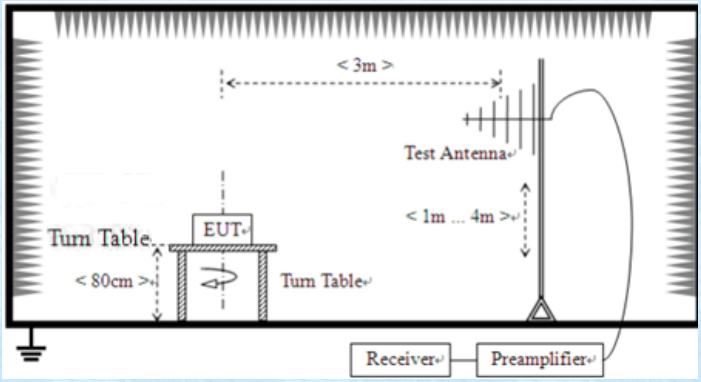
1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss*

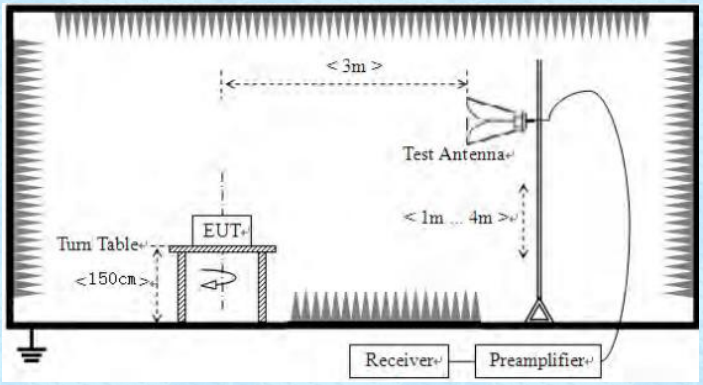
If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

7.3 Spurious Emission in Non-restricted & restricted Bands

7.3.1 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>9kHz to 25GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr>
<tr><td>9KHz-150KHz</td><td>Quasi-peak</td><td>200Hz</td><td>600Hz</td><td>Quasi-peak</td></tr>
<tr><td>150KHz-30MHz</td><td>Quasi-peak</td><td>9KHz</td><td>30KHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average</td></tr>
<tr><td colspan="5">Note: For Duty cycle ≥ 98%, average detector set as aboveFor Duty cycle < 98%, average detector set as below: VBW ≥ 1 / T</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (uV/m)</th><th>Value</th><th>Measurement Distance</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(KHz)</td><td>QP</td><td>30m</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>QP</td><td>30m</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>QP</td><td rowspan="6">3m</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>QP</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>QP</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>QP</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>500</td><td>Average</td></tr>
<tr><td>5000</td><td>Peak</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions from 9kHz to 30MHz
 
</td></tr>
</table>

<table>
<tr><td></td><td>For radiated emissions from 30MHz to1GHz
 

For radiated emissions above 1GHz
 
</td></tr>
<tr><td>Test Procedure:</td><td>1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters 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.
4. 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 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</td></tr>
<tr><td>Test Instruments:</td><td colspan="6">Refer to section 6.0 for details</td></tr>
<tr><td>Test mode:</td><td colspan="6">Refer to section 5.2 for details</td></tr>
<tr><td>Test environment:</td><td>Temp.:</td><td>25 °C</td><td>Humid.:</td><td>52%</td><td>Press.:</td><td>1012mbar</td></tr>
</table>

Test voltage:	DC 24V
Test results:	Pass

Measurement data:

Remark:
Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

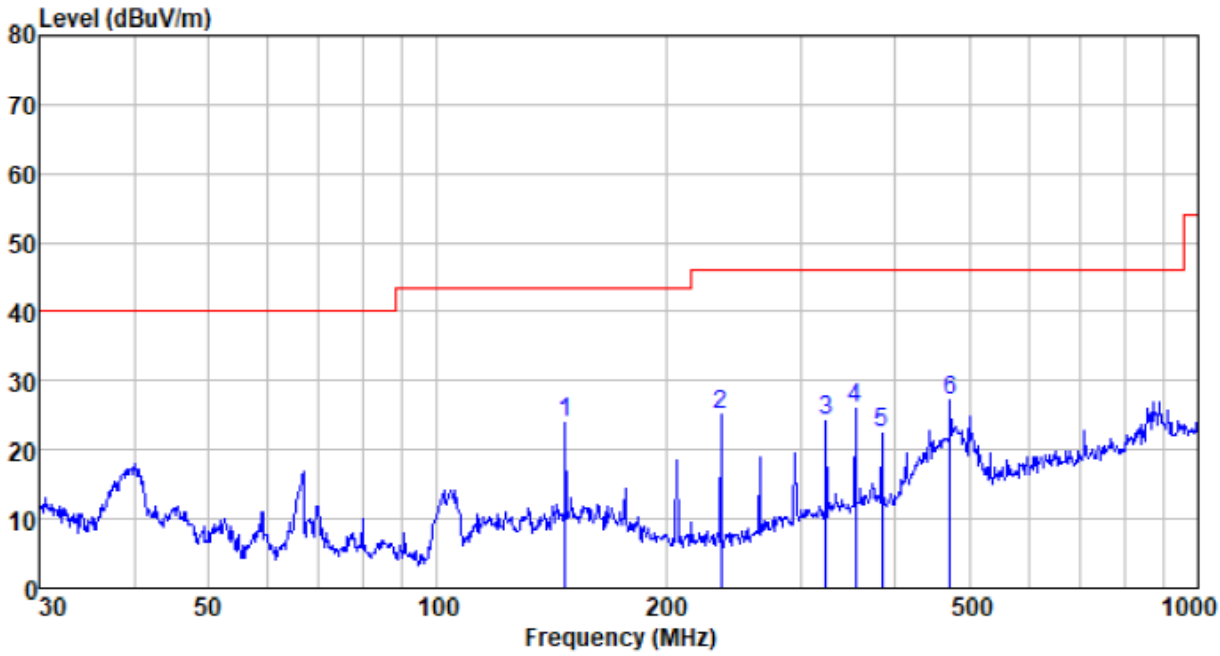
■ **9kHz~30MHz**

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

■ **Below 1GHz**

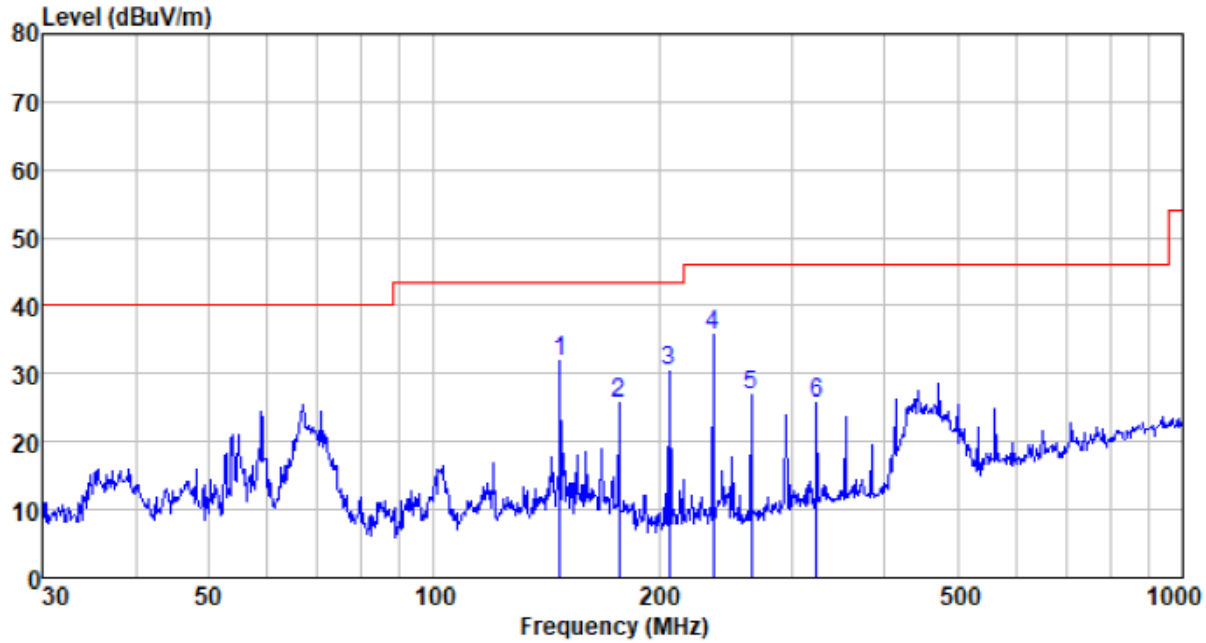
Pre-scan all test modes, found worst case at 2401MHz, and so only show the test result of it

Horizontal:



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
147.404	40.84	14.60	1.55	33.15	23.84	43.50	-19.66	QP
235.816	45.95	9.83	2.05	32.76	25.07	46.00	-20.93	QP
324.456	41.23	12.99	2.49	32.59	24.12	46.00	-21.88	QP
354.183	42.20	13.68	2.64	32.47	26.05	46.00	-19.95	QP
383.932	37.72	14.38	2.78	32.36	22.52	46.00	-23.48	QP
472.176	39.83	16.34	3.19	32.08	27.28	46.00	-18.72	QP

Vertical:



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
147.404	48.97	14.60	1.55	33.15	31.97	43.50	-11.53	QP
176.888	44.05	12.80	1.72	32.94	25.63	43.50	-17.87	QP
206.398	51.05	10.19	1.88	32.79	30.33	43.50	-13.17	QP
235.816	56.73	9.83	2.05	32.76	35.85	46.00	-10.15	QP
265.676	46.18	11.23	2.20	32.73	26.88	46.00	-19.12	QP
324.456	42.73	12.99	2.49	32.59	25.62	46.00	-20.38	QP

- **Above 1GHz**
- **Unwanted Emissions in Non-restricted Frequency Bands**

Test channel:	Lowest channel

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4802.00	35.73	31.22	4.63	37.68	33.90	74.00	-40.10	Vertical
7203.00	30.79	36.25	6.52	37.81	35.75	74.00	-38.25	Vertical
9604.00	30.54	37.97	7.98	37.93	38.56	74.00	-35.44	Vertical
4802.00	39.70	31.22	4.63	37.68	37.87	74.00	-36.13	Horizontal
7203.00	32.41	36.25	6.52	37.81	37.37	74.00	-36.63	Horizontal
9604.00	29.82	37.97	7.98	37.93	37.84	74.00	-36.16	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4802.00	24.85	31.22	4.63	37.68	23.02	54.00	-30.98	Vertical
7203.00	19.65	36.25	6.52	37.81	24.61	54.00	-29.39	Vertical
9604.00	18.83	37.97	7.98	37.93	26.85	54.00	-27.15	Vertical
4802.00	28.90	31.22	4.63	37.68	27.07	54.00	-26.93	Horizontal
7203.00	21.72	36.25	6.52	37.81	26.68	54.00	-27.32	Horizontal
9604.00	18.43	37.97	7.98	37.93	26.45	54.00	-27.55	Horizontal

Test channel:	Middle channel

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	34.94	31.33	4.69	37.62	33.34	74.00	-40.66	Vertical
7320.00	30.26	36.43	6.63	37.77	35.55	74.00	-38.45	Vertical
9760.00	30.07	38.10	8.03	37.95	38.25	74.00	-35.75	Vertical
4880.00	38.75	31.33	4.69	37.62	37.15	74.00	-36.85	Horizontal
7320.00	31.81	36.43	6.63	37.77	37.10	74.00	-36.90	Horizontal
9760.00	29.27	38.10	8.03	37.95	37.45	74.00	-36.55	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	24.21	31.33	4.69	37.62	22.61	54.00	-31.39	Vertical
7320.00	19.22	36.43	6.63	37.77	24.51	54.00	-29.49	Vertical
9760.00	18.44	38.10	8.03	37.95	26.62	54.00	-27.38	Vertical
4880.00	28.17	31.33	4.69	37.62	26.57	54.00	-27.43	Horizontal
7320.00	21.24	36.43	6.63	37.77	26.53	54.00	-27.47	Horizontal
9760.00	17.98	38.10	8.03	37.95	26.16	54.00	-27.84	Horizontal

Test channel:	Highest channel

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	34.72	31.41	4.77	37.56	33.34	74.00	-40.66	Vertical
7440.00	30.12	36.62	6.73	37.73	35.74	74.00	-38.26	Vertical
9920.00	29.94	38.27	8.08	37.98	38.31	74.00	-35.69	Vertical
4960.00	38.48	31.41	4.77	37.56	37.10	74.00	-36.90	Horizontal
7440.00	31.64	36.62	6.73	37.73	37.26	74.00	-36.74	Horizontal
9920.00	29.12	38.27	8.08	37.98	37.49	74.00	-36.51	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	24.03	31.41	4.77	37.56	22.65	54.00	-31.35	Vertical
7440.00	19.10	36.62	6.73	37.73	24.72	54.00	-29.28	Vertical
9920.00	18.34	38.27	8.08	37.98	26.71	54.00	-27.29	Vertical
4960.00	27.97	31.41	4.77	37.56	26.59	54.00	-27.41	Horizontal
7440.00	21.10	36.62	6.73	37.73	26.72	54.00	-27.28	Horizontal
9920.00	17.85	38.27	8.08	37.98	26.22	54.00	-27.78	Horizontal

Remarks:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

■ **Unwanted Emissions in Restricted Frequency Bands**

Test channel:	Lowest channel

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	46.75	27.14	2.81	38.64	38.06	74.00	-35.94	Horizontal
2390.00	51.10	27.37	2.91	38.84	42.54	74.00	-31.46	Horizontal
2310.00	47.67	27.14	2.81	38.64	38.98	74.00	-35.02	Vertical
2390.00	52.55	27.37	2.91	38.84	43.99	74.00	-30.01	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	36.43	27.14	2.81	38.64	27.74	54.00	-26.26	Horizontal
2390.00	37.90	27.37	2.91	38.84	29.34	54.00	-24.67	Horizontal
2310.00	36.65	27.14	2.81	38.64	27.96	54.00	-26.04	Vertical
2390.00	38.91	27.37	2.91	38.84	30.35	54.00	-23.65	Vertical

Test channel:	Highest channel

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	49.32	27.82	2.99	39.05	41.08	74.00	-32.92	Horizontal
2500.00	47.75	27.70	3.01	39.10	39.36	74.00	-34.64	Horizontal
2483.50	50.81	27.82	2.99	39.05	42.57	74.00	-31.43	Vertical
2500.00	49.12	27.70	3.01	39.10	40.73	74.00	-33.27	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.30	27.82	2.99	39.05	29.06	54.00	-24.94	Horizontal
2500.00	36.75	27.70	3.01	39.10	28.36	54.00	-25.64	Horizontal
2483.50	36.93	27.82	2.99	39.05	28.69	54.00	-25.31	Vertical
2500.00	36.99	27.70	3.01	39.10	28.60	54.00	-25.40	Vertical

Remarks:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

------End------