

TEST REPORT


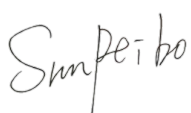
Applicant:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600 Espoo, Finland

Manufacturer or Supplier:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600 Espoo, Finland
Product:	Mobile phone
Brand Name:	NOKIA
Model Name:	TA-1541
FCC ID:	2AJOTTA-1541
Date of tests:	Jan. 16, 2023 ~ Feb. 23, 2023

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

- ☒ FCC Part 15, Subpart C, Section 15.247 ☒ ANSI C63.10-2013
☒ FCC Part 15, Subpart E, Section 15.407
☒ FCC Part 22 ☒ FCC Part 24
☒ FCC Part 27 ☒ FCC Part 90
☒ FCC Part 2

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Chao Wu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
 Date: Feb. 23, 2023	 Date: Feb. 23, 2023

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23010004-2RF04	Original release	Feb. 23, 2023
PSU-QSU2309010210RF04	Based on the original product adding 2G PA second supply. The FX5196 add 2nd supply FX5596Y, raw material of Wafer and the printing model have changes. The IC design has not changed and there is no impact on BT and WIFI, other has not changed. This report verify the RSE worse case. The test results are similar, so the original reported data is retained.	Feb. 23, 2023

1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Mobile phone	
BRAND NAME*	NOKIA	
MODEL NAME*	TA-1541	
NOMINAL VOLTAGE*	5.0Vdc(adapter) 3.85Vdc (Li-ion, battery)	
MODULATION TYPE*	BT_LE	GFSK
	Bluetooth	GFSK, $\pi/4$ -DQPSK, 8DPSK
	FM	FM
	WLAN	DSSS, OFDM
	GPS/GALILEO/GLO NASS/BDS/SBAS	BPSK
	GSM/GPRS/EDGE	GMSK, 8PSK
	WCDMA	HSDPA/HSUPA/DC-HSDPA/HSPA+
	LTE	QPSK/16QAM/64QAM
OPERATING FREQUENCY	Bluetooth/BT_LE	2402MHz ~ 2480MHz
	FM	87.5MHz ~ 108MHz
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20)
	GPS/GALILEO/GLO NASS/BDS/SBAS	1559MHz ~ 1610MHz
	GSM	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)
	WCDMA	1922.6MHz~ 1977.4MHz(FOR WCDMA Band 1) 1852.4MHz ~ 1907.6MHz(FOR WCDMA Band 2) 1712.4MHz ~ 1752.6MHz(FOR WCDMA Band 4) 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5) 882.4MHz ~ 912.6MHz (FOR WCDMA Band 8)
	LTE	1922.5MHz~ 1977.5MHz (FOR LTE Band1) 1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1784.3MHz (FOR LTE Band3) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4) 824.7MHz ~ 848.3MHz (FOR LTE Band5) 2502.5MHz ~ 2567.5MHz (FOR LTE Band7) 880.7MHz ~ 914.3MHz (FOR LTE Band8) 699.7MHz ~ 715.3MHz (FOR LTE Band12) 779.5MHz ~ 784.5MHz (FOR LTE Band13)

		706.5MHz ~ 713.5MHz (FOR LTE Band17) 704.5MHz ~ 746.5MHz (FOR LTE Band28) 1710.7MHz ~ 1779.3MHz (FOR LTE Band66)
HW VERSION*	SPR_S63Q0	
SW VERSION*	00WW_0_090	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	USB cable1: non-shielded cable, with w/o ferrite core, 1 meter USB cable2: non-shielded cable, with w/o ferrite core, 1 meter USB cable3: non-shielded cable, with w/o ferrite core, 1 meter Earphone: non-shielded cable, with w/o ferrite core, 1.2 meter	
ACCESSORY DEVICES*	Refer to note as below	

NOTE:

- *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- The product of TA-1541(FCC ID: 2AJOTTA-1541) have version and components manufacturer from a second supplier. The first version is 090, the second one is 103, only the version changes, and the RF parameters do not change, components manufacturer with following changes as below:

NO.	Change Description		specifications	first supplier	specifications	second supplier
1	PCBA	64GB EMMC	FEMDNN064G-A3 A56 BWCTARV11X64G	Longsys	FEMDNN064G-A3A56 BWCTARV11X64G	Biwin
2		2GB LPDDR	FLXC2002G-N2 BWMZEX32H2A-16G-X	Longsys	FLXC2002G-N2 BWMZEX32H2A-16G-X	Biwin
3		3GB LPDDR	FLXC4003G-50 BWMEXX32H2A-24Gb-X	Longsys	FLXC4003G-50 BWMEXX32H2A-24Gb-X	Biwin
4		4GB LPDDR	FLXC2004G-30 BWMZCX32H2A-32G-X	Longsys	FLXC2004G-30 BWMZCX32H2A-32G-X	Biwin
5		PCB	/	KINGSHINE	/	WUZH U
6	LCM	LCD	6.517 HKC, 360min,400typ, 2.5D	TCL	6.517 BOE (B8), 360min,400typ, 2.5D	Lian Chuan g
7	Front camera	Camera	8M FF COM	Lian Heyingxiang	8M FF COM	Shijia

8	Rear camera	Camera	13M-AF COB	Lian Heyingxiang	13M-AF COB	Ruiche ng
9	Macro CAM	Camera	2M FF	Shijia	2M FF	Lian Heying xiang
10	fingerprint	module	Back fingerprint	Hedayuan	Back fingerprint	Sanyin gxin
11	Speaker		1712 1W	Dong Sheng	1712 1W	Xin Rongd a
12	Vibrator		1027 FPC	Kai Long	1027 FPC	Chao Yin
13	Receiver		0809	Dong Sheng	0809	Xin Rongd a
14	FPC		/	Lante	/	Kaihon gxing
15	Battery		5000MAH	Gaoyuan	5000MAH	Feng Hua
16	Data cable		2A typeC	Yuwei	2A typeC	Juwei

5. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
LCD Panel 1	HKC	MianYang HKC Optoelectronics Technology Co., Ltd.	QM065HS03-1	6.517
LCD Panel 2	BOE	BOE	BV065WBQ-L1B	6.517
Battery 1	Nokia	Guangdong Fenghua New Energy Co.,Ltd.	WT510	Capacity : 3.85 Vdc, 4900mAh
Battery 2	Nokia	HUNAN GAOYUAN BATTERY Co., Ltd.	WT510	Capacity : 3.85 Vdc, 4900mAh
AC Adapter	Nokia	SHENZHEN BAIJUNDA ELECTRONICS.,LTD	AD-010U	I/P: 100-240Vac, 0.35A, O/P: 5.0Vdc, 2.0A
Earphone	Juwei Electronics Co., LTD	Juwei Electronics Co., LTD	JWEP1252-H21H	Signal Line, 1.2meter
USB Cable 1	Juwei Electronics Co., LTD	Juwei Electronics Co., LTD	JWUB1536-H21H	Signal Line, 1.0meter
USB Cable 2	Yu Wei	Dongguan Yuwei Electronic Technology Co., Ltd.	CH2212TC	Signal Line, 1.0meter
USB Cable 3	Sai bao	Saibao (Jiangxi) Industrial Co., Ltd	SHM1-A003A	Signal Line, 1.0meter

6. This report refers to the data of W7L-P23010004-1RF04(model:TA-1536, FCC ID: 2AJOTTA-1536), the difference of TA-1536 and TA-1541 is TA-1541 change model name, TA-1536 is dual card, TA-1541 is single card, and functions are realized through software. The test data of this report is

copied from the report W7L-P23010004-1RF04(model:TA-1536, FCC ID: 2AJOTTA-1536).

2 SUMMARY OF TEST RESULTS

2.1 TEST RESULTS

TEST TYPE	Result	Test lab*
Radiated Emissions	Pass	A

***Test Lab Information Reference**

Lab A:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

2.2 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	UNCERTAINTY
Radiated emissions & Radiated Power (30MHz~1GMHz)	±4.98dB
Radiated emissions & Radiated Power (1GMHz ~6GMHz)	±4.70dB
Radiated emissions (6GMHz ~18GMHz)	±4.60dB
Radiated emissions (18GMHz ~40GMHz)	±4.12dB

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

2.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,22	Aug.29,24
Pre-Amplifier	R&S	SCU08F1	101028	Sep.16,22	Sep.15,24
Signal Generator	R&S	SMB100A	182185	Feb.16,22	Feb.15,24
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-E MC-01 Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-E MC-02 Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESW44	101973	Feb.25,22	Feb.24,24
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.28,22	Feb.27,24
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,22	Aug.21,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.23,22	Feb.22,24
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,22	Aug.21,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.23,22	Feb.22,24
WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.27,22	Jun.26,24
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	N/A	N/A
DC Source	HYELEC	HY3010B	551016	Aug.31,22	Aug.30,24
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.28,23	Oct.27,23
CABLE	R&S	W12.14	N/A	Apr.28,23	Oct.27,23

- NOTE:**
1. The calibration interval of the above test instruments is 6 months or 24 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Chamber.
 3. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 4. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

2.4 REFERENCED STANDARDS

The following referenced standards are necessary for the report. For undated references in this report, the cited version applies.

No.	Identify	Note
1	FCC Part 15, Subpart C, Section 15.247	For 2.4G WIFI
2	FCC Part 15, Subpart E, Section 15.407	For 5G WIFI
3	FCC PART 22, Subpart H	For WWAN
4	FCC PART 24, Subpart E	For WWAN
5	FCC Part 27	For WWAN
6	FCC Part 90	For WWAN

Note: More informations and test procedures pls refer to 15.247/15.407/Part22/Part24/ Part27 reports.

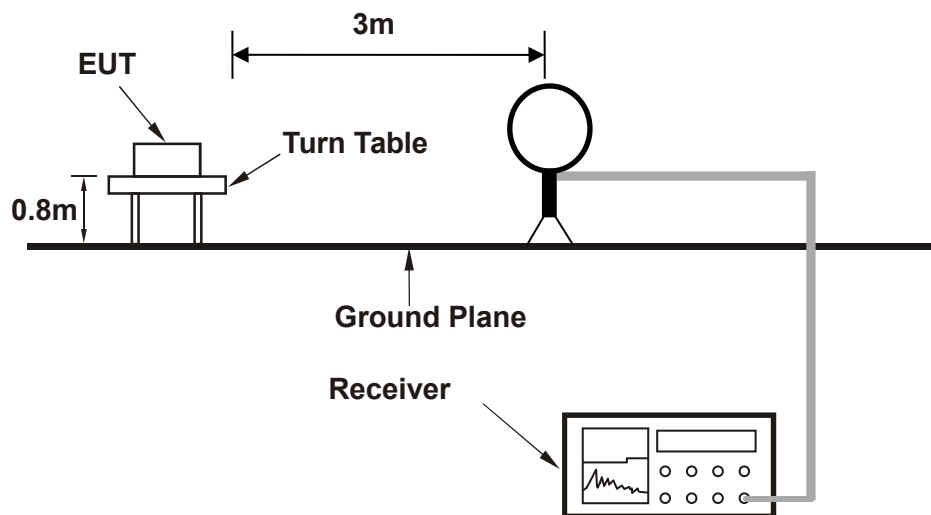
2.5 TEST CONFIGURATIONS

Test Configurations	Description
Worst case test Mode	
1	GSM850 Link+BT2.0_GFSK_TX_CH0
2	WCDMA B5 Link + 2.4G WIFI_11B_TX_CH6
3	LTE B5 Link + BT2.0_GFSK_TX_CH0

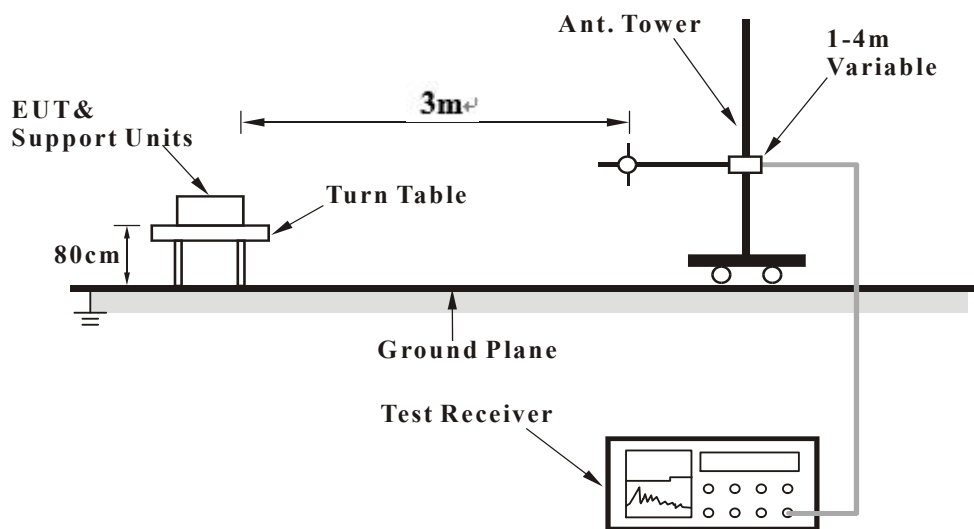
- Note:**
1. Test equipment and site refer to Referenced Standards report
 2. For higher frequency, the emission is 20dB below the limit was not record

2.6 TEST DATA

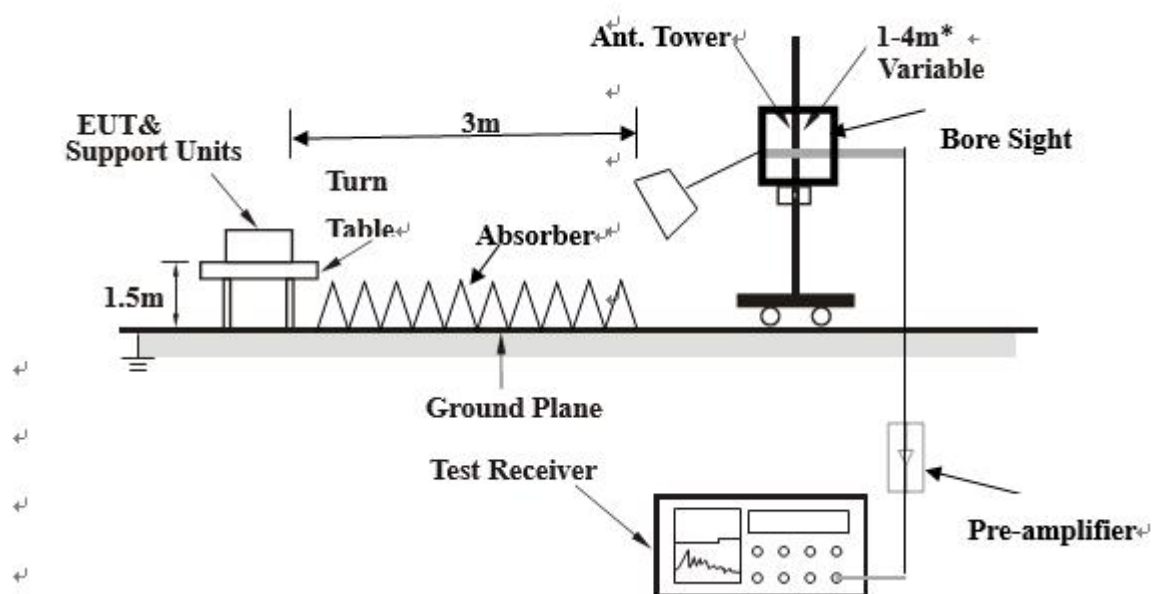
<Frequency Range 9KHz~30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

2.6.1 EUT OPERATING CONDITIONS

- Set the EUT under full load condition and placed them on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.

2.6.2 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

GSM850 Link+BT2.0_GFSK_TX_CH0:

BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

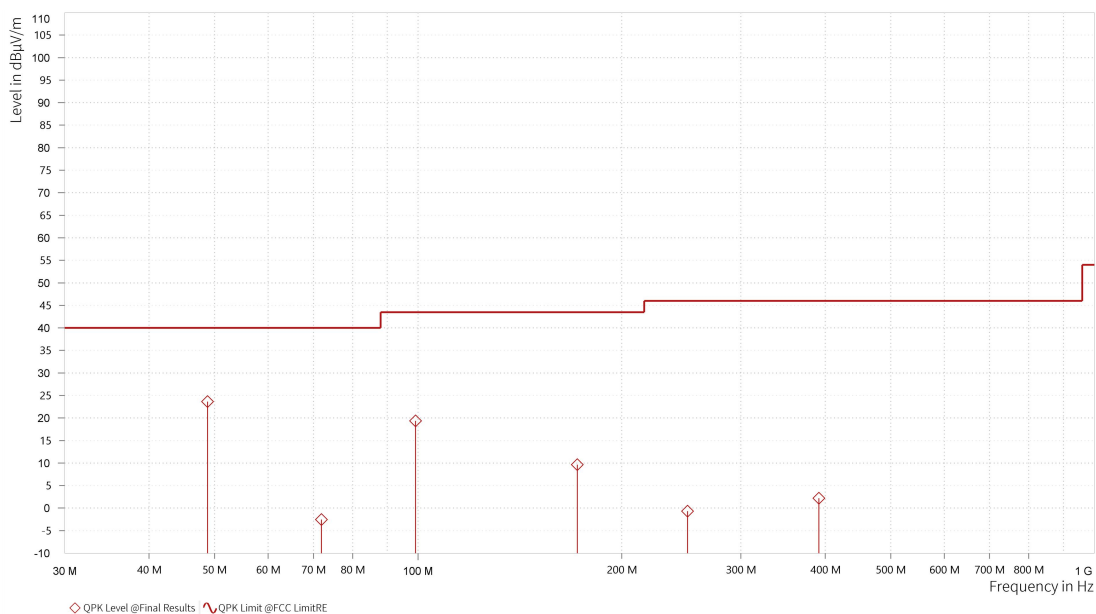
CHANNEL	GSM850 Link+BT2.0_GFSK_TX_CH 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	48.818	26.32	40.00	13.68	-17.46	H	260.6	2
1	71.953	16.30	40.00	23.70	-24.74	H	63.4	2
1	99.113	22.77	43.50	20.73	-21.19	H	0.9	2
1	171.911	16.45	43.50	27.05	-25.15	H	198.8	1
1	250.336	23.35	46.00	22.65	-23.16	H	198.8	1
1	391.471	25.41	46.00	20.59	-20.24	H	5	1

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor

Margin value =Limit value– Emission level

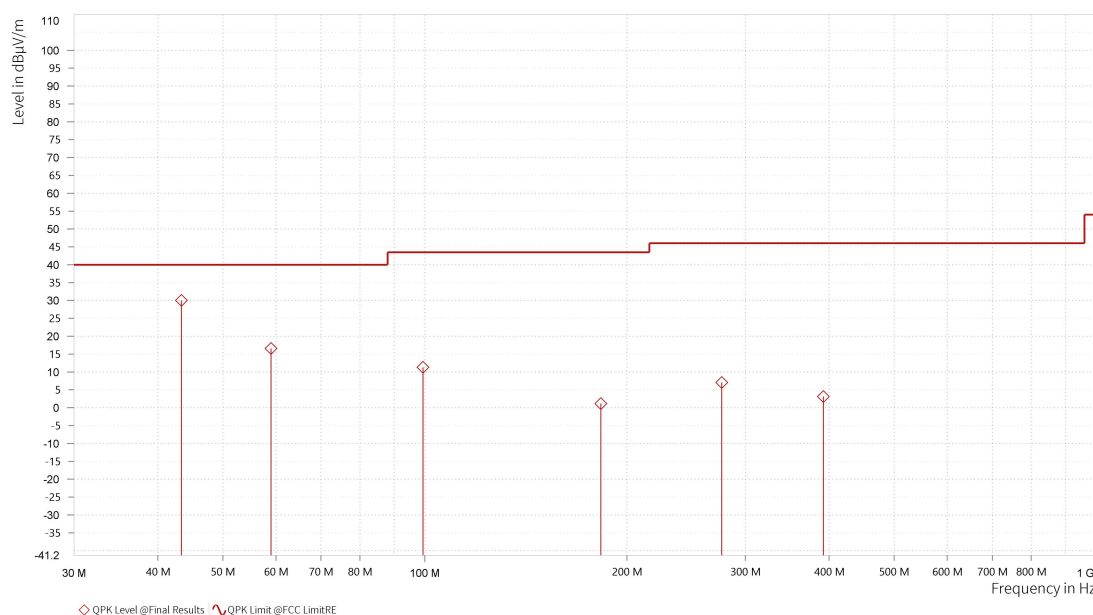


CHANNEL	GSM850 Link+BT2.0_GFSK_TX_CH 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	43.386	34.25	40.00	5.75	-17.04	V	102.9	1
1	59.003	27.89	40.00	12.11	-19.63	V	293.8	1
1	99.307	20.16	43.50	23.34	-21.17	V	162.2	2
1	182.872	28.87	43.50	14.63	-25.18	V	102.9	1
1	276.817	23.56	46.00	22.44	-22.06	V	293.8	1
1	392.295	26.32	46.00	19.68	-20.34	V	5	1

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value =Limit value– Emission level



ABOVE 1GHz WORST-CASE DATA:

Note: 1. For radiated emissions testing, the full testing range of different modes have been scanned, only the worst case harmonic data is reported in the sheet.

2. All other emissions that more than 20dB below the limit were not recorded

CHANNEL	GSM850 Link+BT2.0_GFSK_TX_CH 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,648.900	45.03	74.00	28.97	37.78	54.00	16.22	4.39	H	1	2
3	2,472.606	44.41	74.00	29.59	35.48	54.00	18.52	11.46	H	359	1
4	4,805.000	45.27	74.00	28.73	34.30	54.00	19.70	16.74	H	189.6	1
5	7,205.675	51.53	74.00	22.47	40.12	54.00	13.88	24.08	H	359	1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,647.800	40.48	74.00	33.52	28.46	54.00	25.54	4.38	V	359	2
3	2,472.000	43.74	74.00	30.26	31.87	54.00	22.13	11.46	V	151.4	1
4	4,805.500	45.85	74.00	28.15	34.29	54.00	19.71	16.74	V	0.9	2
5	7,204.400	51.52	74.00	22.48	40.46	54.00	13.54	24.07	V	96.2	2

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value =Limit value– Emission level

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

WCDMA B5 Link + 2.4G WIFI_11B_TX_CH6:

BELOW 1GHz WORST-CASE DATA:

30MHz – 1GHz data:

CHANNEL	WCDMA B5 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	41.689	26.94	40.00	13.06	-17.40	H	262.3	2
1	72.001	16.85	40.00	23.15	-24.76	H	297.4	1
1	99.355	23.46	43.50	20.04	-21.17	H	1	2
1	159.738	20.52	43.50	22.98	-26.37	H	64.3	2
1	248.493	22.74	46.00	23.26	-23.05	H	64.3	2
1	336.908	23.76	46.00	22.24	-20.93	H	262.3	2

REMARKS:

1. Emission level (dBμV/m) = Read level (dBμV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission level.



CHANNEL	WCDMA B5 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	43.047	33.79	40.00	6.21	-17.05	V	359.1	1
1	65.939	24.66	40.00	15.34	-20.90	V	220.3	1
1	96.591	16.47	43.50	27.03	-21.74	V	162.1	2
1	124.478	20.91	43.50	22.59	-25.46	V	0.9	1
1	239.811	27.14	46.00	18.86	-22.74	V	355	2
1	324.444	26.62	46.00	19.38	-21.95	V	0.9	1

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value =Limit value– Emission level.



ABOVE 1GHz WORST-CASE DATA:

Note: For higher frequency, the emission is too low to be detected.

CHANNEL	WCDMA B5 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 18GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,695.100	43.43	74.00	30.57	33.98	54.00	20.02	5.28	H	57	1
3	2,540.121	45.63	74.00	28.37	33.46	54.00	20.54	11.47	H	117.9	1
4	4,871.000	47.23	74.00	26.77	35.12	54.00	18.88	16.93	H	0.9	2
5	7,281.750	51.47	74.00	22.53	40.29	54.00	13.71	24.21	H	0.9	2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,694.733	41.38	74.00	32.62	31.71	54.00	22.29	5.27	V	58.1	1
3	2,537.212	42.89	74.00	31.11	31.77	54.00	22.23	11.48	V	240.8	2
4	4,873.500	46.53	74.00	27.47	35.94	54.00	18.06	16.95	V	1	1
5	7,283.450	51.37	74.00	22.63	40.27	54.00	13.73	24.20	V	92.6	2

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value =Limit value– Emission level.

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

LTE B5 Link + BT2.0_GFSK_TX_CH0:

BELOW 1GHz WORST-CASE DATA:

30MHz – 1GHz data:

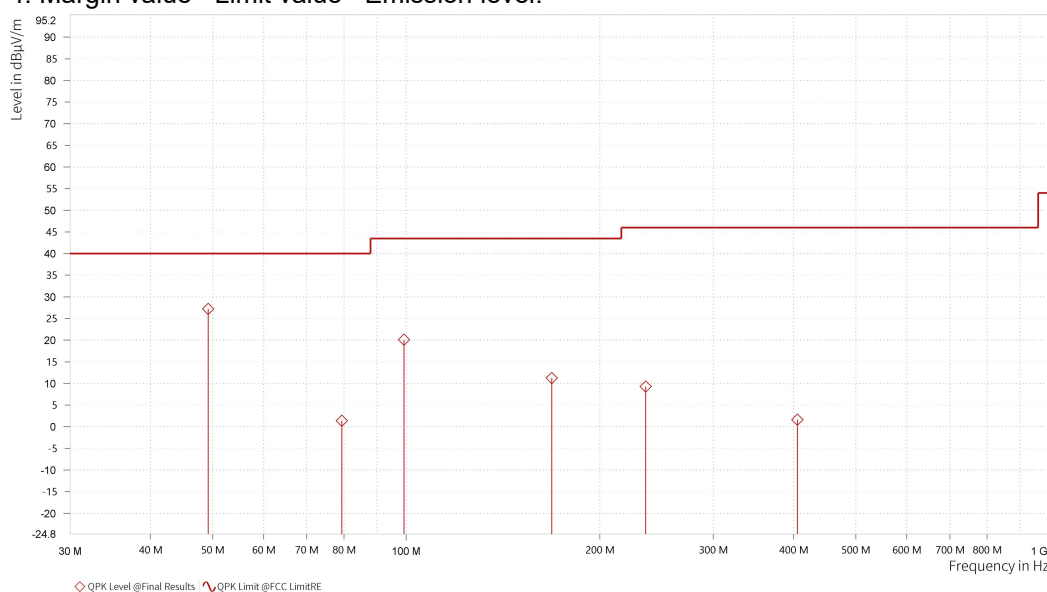
CHANNEL	LTE B5 Link + BT2.0_GFSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	49.206	28.58	40.00	11.42	-17.59	H	260.6	2
1	79.373	16.72	40.00	23.28	-24.70	H	355	2
1	99.161	23.73	43.50	19.77	-21.19	H	0.9	2
1	168.371	23.91	43.50	19.59	-25.31	H	198.8	1
1	235.543	22.19	46.00	23.81	-23.40	H	62.6	2
1	405.584	25.74	46.00	20.26	-19.66	H	4.4	1

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value =Limit value– Emission level.

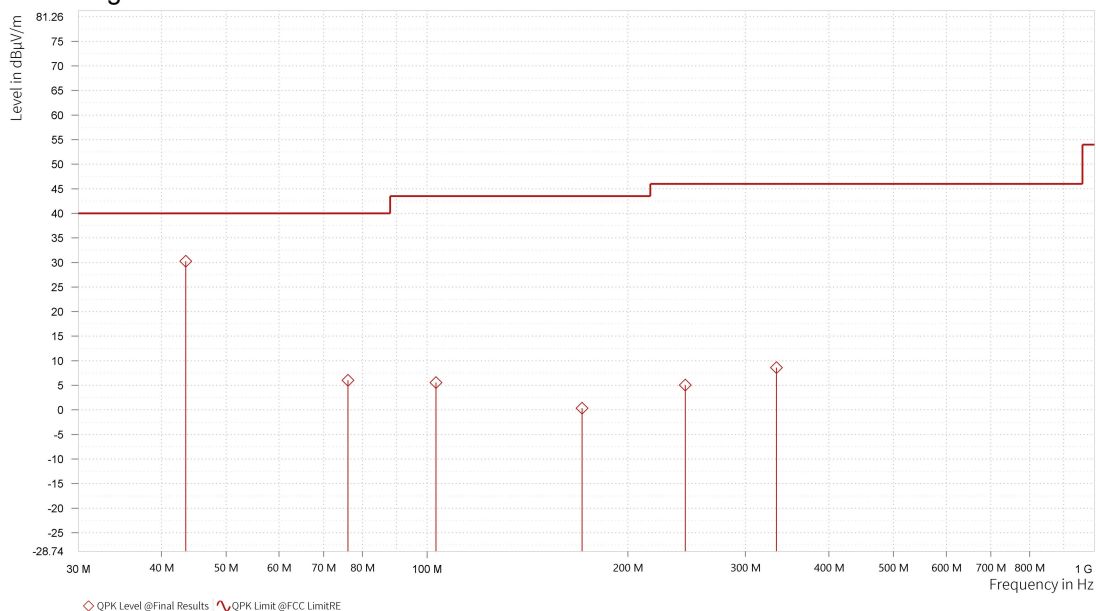


CHANNEL	LTE B5 Link + BT2.0_GFSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	43.483	33.52	40.00	6.48	-17.04	V	359.1	1
1	76.124	30.63	40.00	9.37	-25.15	V	217.7	1
1	103.138	26.10	43.50	17.40	-21.51	V	11.5	1
1	170.699	21.31	43.50	22.19	-25.12	V	355	2
1	243.691	20.89	46.00	25.11	-22.61	V	11.5	1
1	334.047	27.32	46.00	18.68	-20.72	V	11.5	1

REMARKS:

1. Emission level (dBμV/m) = Read level (dBμV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission level.



ABOVE 1GHz WORST-CASE DATA:

Note: For higher frequency, the emission is too low to be detected.

CHANNEL	LTE B5 Link + BT2.0_GFSK_TX_CH0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M											
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,658.067	43.85	74.00	30.15	35.94	54.00	18.06	4.53	H	56.9	1
3	2,486.788	43.18	74.00	30.82	31.50	54.00	22.50	11.31	H	119	1
4	4,804.000	45.19	74.00	28.81	34.75	54.00	19.25	16.74	H	1	2
5	7,207.375	51.27	74.00	22.73	40.28	54.00	13.72	24.10	H	95	2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M											
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,658.433	44.36	74.00	29.64	34.66	54.00	19.34	4.54	V	359	2
3	2,486.909	44.13	74.00	29.87	31.96	54.00	22.04	11.31	V	359	1
4	4,804.500	45.75	74.00	28.25	34.56	54.00	19.44	16.74	V	1	2
5	7,204.825	51.99	74.00	22.01	40.17	54.00	13.83	24.07	V	1	2

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value =Limit value– Emission level.

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