



## **TEST REPORT**

Applicant:	HMD Global Oy		
Address:	Bertel Jungin aukio 9, 02600 Espoo, Finland		
	1		
Manufacturer or Supplier:	HMD Global Oy		
Address:	Bertel Jungin aukio 9, 02600 Espo	oo, Finland	
Product:	Mobile phone		
Brand Name:	NOKIA		
Model Name:	TA-1542		
FCC ID:	2AJOTTA-1542		
Date of tests:	Feb. 02, 2023 ~ Mar. 02, 2023		
	The submitted sample of the above equipment has been tested for according to the requirements of the following standards:		
<ul> <li>➢ FCC Part 15, S</li> <li>➢ FCC Part 22</li> <li>➢ FCC Part 27</li> <li>➢ FCC Part 2</li> </ul>	Subpart C, Section 15.247 🛛 🖂 A I FCC Part 24 I FCC Part 90	NSI C63.10-2013	
CONCLUSION: Th	ne submitted sample was found to	o <u>COMPLY</u> with the test requirement	
	pared by Chao Wu er / Mobile Department	Approved by Peibo Sun Manager / Mobile Department	
Chao Wu Sunpeibo			
Date: Mar. 02, 2023 Date: Mar. 02, 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 <a href="http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/">http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/</a> 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 that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple accredited taking measurement uncertainty into account, unless otherwises 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 with to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of the report contents.			



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## **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23010016RF04	Original release	Mar. 02, 2023
PSU-QSU2308280414RF04	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.	Mar. 02, 2023



## **1 GENERAL INFORMATION**

## **1.1 GENERAL DESCRIPTION OF EUT**

PRODUCT*	Mobile phone		
BRAND NAME*	NOKIA		
MODEL NAME*	TA-1542		
NOMINAL VOLTAGE*	5.0Vdc(adapter) 3.85Vdc (Li-ion, battery)		
	BT_LE	GFSK	
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK	
	FM	FM	
MODULATION	WLAN	DSSS, OFDM	
TYPE*	GPS/GALILEO/GLO NASS/BDS/SBAS	BPSK	
	GSM/GPRS/EDGE	GMSK, 8PSK	
	WCDMA	HSDPA/HSUPA/DC-HSDPA/HSPA+	
	LTE	QPSK/16QAM/64QAM	
	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/GPRS/EDGE	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)	
OPERATING FREQUENCY	WCDMA	1852.4MHz ~ 1907.6MHz(FOR WCDMA Band 2) 1712.4MHz ~ 1752.6MHz(FOR WCDMA Band 4) 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5)	
	LTE	1850.7MHz ~ 1909.3MHz       (FOR LTE Band2)         1710.7MHz ~ 1754.3MHz       (FOR LTE Band4)         824.7MHz ~ 848.3MHz       (FOR LTE Band5)         2502.5MHz ~ 2567.5MHz       (FOR LTE Band7)         699.7MHz ~ 715.3MHz       (FOR LTE Band12)         779.5MHz ~ 784.5MHz       (FOR LTE Band13)         706.5MHz ~ 713.5MHz       (FOR LTE Band17)         1710.7MHz ~ 1779.3MHz       (FOR LTE Band66)	
HW VERSION*	SPR_S63Q0		



SW VERSION*	00WW_0_122	
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:

- 1. \*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.
- 2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- 4. The product of TA-1542(FCC ID: 2AJOTTA-1542), only the following manufacturer of key parts is different between the first and second supply, other parameters are the same. The details are as follows:

NO.	Cha Descr		specificatons	first supplier	specificatons	second supplier
		64GB EMMC	FEMDNN064G-A3A56 BWCTARV11X64G	Longsys	FEMDNN064G-A3A56 BWCTARV11X64G	Biwin
		128GB EMMC	FEMDNN128G-A3A56 BWCTAKJ21X128G	Longsys	FEMDNN128G-A3A56 BWCTAKJ21X128G	Biwin
1	РСВА	3GB LPDD R	FLXC4003G-50 BWMEXX32H2A-24Gb- X	Longsys	FLXC4003G-50 BWMEXX32H2A-24Gb- X	Biwin
		4GB LPDD R	FLXC2004G-30 BWMZCX32H2A-32G- X	Longsys	FLXC2004G-30 BWMZCX32H2A-32G- X	Biwin
	РСВ	1	KINGSHIN E	1	wuzhu	
2	LCM	LCD	6.517 HKC, 360min,400typ, 2.5D	TCL	6.517 HKC, 360min,400typ, 2.5D	Lia
3	Front camera	Camer a	8M FF COM	Lianhe	8M FF COM	Shijia
4	Macro CAM	Camer a	2M FF	Shijia	2M FF	Lianhe
5	Acousti c	Speak er	1712 1W	Dong Sheng	1712 1W	Xin Rongda

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	Vibrato r Receiv er		1027 FPC	Chao Yin	1027 FPC	Kai Long
			0809	Dong Sheng	0809	Xin Rongda
		Glass rear cover	Glass, monochrome printing or film	Kaimao	Glass, monochrome printing or film	Longqin gxiangru i
		FPC	1	Lante	1	Kaihong xin
6	Battery		5000MAH	Gaoyuan	5000MAH	Fenghua
7	Data cable		2A typeC	Yuwei	2A typeC	Juwei

### 5. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
LCD Panel 1	нкс	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

 This report refers to the data of W7L-P23010015RF01(model:TA-1558), the difference of TA-1558 and TA-1542 is TA-1542 change model name, TA-1558 is dual card, TA-1542 is single card, and functions are realized through softwareIn. The test data of this report is copied from the report W7L-P23010015RF01(model:TA-1558).



## 2 SUMMARY OF TEST RESULTS

## 2.1 TEST RESULTS

TEST TYPE	Result	Test lab*
Radiated Emissions	Pass	А

## \*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 MEASREMENT 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	ток	9m*6m*6m	HRSW-SZ-EMC- 01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	ток	9m*6m*6m	HRSW-SZ-EMC- 02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESW44	101973	Feb.25,22	Feb.24,24
Bilog Antenna	SCHWARZBEC K	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
WIDEBANDRADIO 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(CA BLE)	R&S	HF290-NMNM- 7.00M	N/A	N/A	N/A
TMC-AMI18843A(CA BLE)	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 fellowing 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 22, Subpart H	For WWAN
3	FCC PART 24, Subpart E	For WWAN
4	FCC Part 27	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 B2 Link + 2.4G WIFI_11B_TX_CH6					
3	LTE B13 Link + BT2.0_GFSK_TX_CH0					

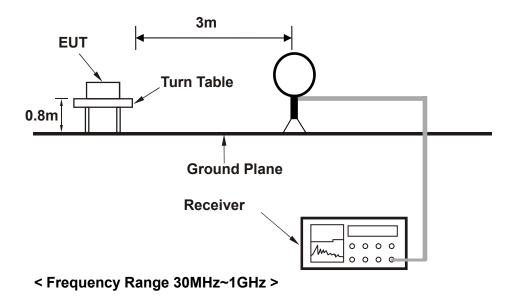
**Note:** 1. Test equipment and site refer to Referenced Standards report

2. For higher frequency, the emission is 20dB below the limit was not record



## 2.6 TEST DATA

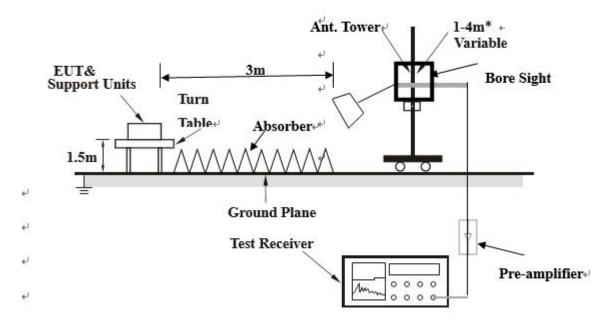
<Frequency Range 9KHz~30MHz >



Ant. Tower Support Units Turn Table Ground Plane Test Receiver



## <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

- a. Set the EUT under full load condition and placed them on a testing table.
- b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- c. 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:** 

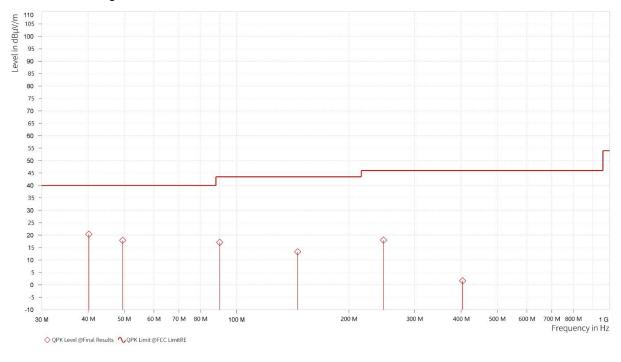
#### 30 MHz – 1GHz data:

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]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]				
1	40.137	20.38	40.00	19.62	-18.32	Н	<mark>162.1</mark>	2	120.000				
1	49.497	17.91	40.00	22.09	-17.69	Н	162.1	2	120.000				
1	90.092	17.11	43.50	26.39	-23.89	Н	261.5	2	120.000				
1	145.721	13.30	43.50	30.20	-26.68	H	261.5	2	120.000				
1	247.668	18.00	46.00	28.00	-22.93	Н	359.1	1	120.000				
1	403.887	1.61	46.00	44.39	-19.74	Н	5	1	120.000				

### **REMARKS**:

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



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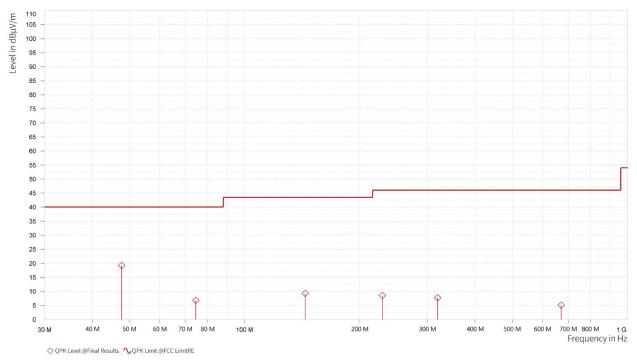


CHANNEL	GSM850 Link+BT2.0_GFSK_TX_CH 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

		ANTEN		RITY & T	EST DISTAN	NCE: VERTIC	AL AT 3 N		
Rg	Frequency [MHz]	and the second second	QPK Limit [dBµV/m]	Margin	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	47.751	19.21	40.00	20.79	-17.23	V	162.1	2	120.000
1	74.523	6.84	40.00	33.16	-25.20	V	355.5	2	120.000
1	143.975	9.29	43.50	34.21	-26.84	V	5	1	120.000
1	228.996	8.52	46.00	37.48	-23.25	V	289.3	1	120.000
1	319.448	7.71	46.00	38.29	-21.69	V	5	1	120.000
1	671.461	5.08	<mark>46.00</mark>	40.92	-15.50	V	359	2	120.000

**REMARKS**:

1. 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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		, worage (, w)

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]		PK+ Limit [dBµV/m]	Margin		AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
2	1,648.167	46.04	74.00	27.96	38.15	54.00	15.85	4.38	Η	359	2	1,000.000
3	2,472.848	44.30	74.00	29.70	36.15	54.00	17.85	11.45	Н	359	2	1,000.000
4	4,805.000	45.58	74.00	28.42	34.55	54.00	19.45	16.74	Η	153.6	2	1,000.000
5	7,206.950	51.22	74.00	22.78	40.24	54.00	13.76	24.09	Η	1	2	1,000.000

### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	and the second second	PK+ Limit [dBµV/m]	Margin		AVG Limit [dBµV/m]	Margin	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
2	1,648.900	42.36	74.00	31.64	32.70	54.00	21.30	4.39	V	1	1	1,000.000
3	2,472.364	44.36	74.00	29.64	38.61	54.00	15.39	11.46	V	121.5	1	1,000.000
4	4,802.500	45.46	74.00	28.54	34.25	54.00	19.75	16.74	V	359	2	1,000.000
5	7,205.675	51.58	74.00	22.42	40.47	54.00	13.53	24.08	V	1	2	1,000.000

**REMARKS**:

1. 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 B2 Link + 2.4G WIFI\_11B\_TX\_CH6:

### **BELOW 1GHz WORST-CASE DATA:**

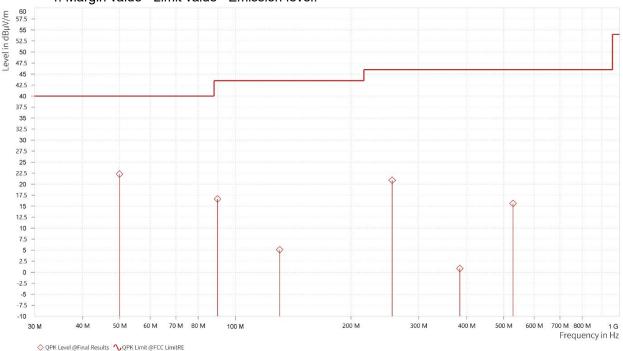
30MHz – 1GHz data:

CHANNEL	WCDMA B2 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		· · ·

		ANTENN	A POLARIT	Y & TES		E: HORIZON1	AL AT 3	М	
Rg	Frequency [MHz]		QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	49.885	22.30	40.00	17.70	-17.84	Н	1 <mark>6</mark> 2.1	2	120.000
1	89.849	16.64	43.50	26.86	-23.94	Н	261.5	2	120.000
1	130.395	5.11	43.50	38.39	-25.40	Н	64.4	2	120.000
1	256.107	20.87	46.00	25.13	-22.60	Н	359.1	1	120.000
1	384.293	0.83	46.00	45.17	-20.14	Н	355	2	120.000
1	<mark>528.677</mark>	15.62	46.00	30.38	-17.80	Н	5	1	120.000

**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.



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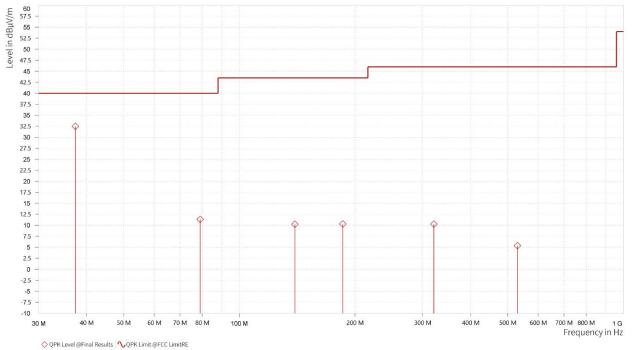


CHANNEL	WCDMA B2 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		· · ·

		ANTEN	NA POLAR	ITY & TE	ST DISTAN	CE: VERTICA	L AT 3 M		
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	37.421	32.49	40.00	7.51	-19.38	V	359.1	1	120.000
1	79.082	11.36	40.00	28.64	-24.74	V	162.1	2	120.000
1	139.5 <mark>1</mark> 3	10.24	43.50	33.26	-26.15	V	197	1	120.000
1	<mark>185.928</mark>	10.30	43.50	33.20	<mark>-24.4</mark> 6	V	294.7	1	120.000
1	320.903	10.27	46.00	35.73	-21.88	V	4.4	1	120.000
1	529.987	5.37	46.00	40.63	-17.71	V	197	1	120.000

### **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 B2 Link + 2.4G WIFI_11B_TX_CH6	DETECTOR FUNCTION	Peak (PK)	
FREQUENCY RANGE	1GHz ~ 18GHz	DETECTORY UNCTION		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M												
Rg	Frequency [MHz]		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]	Meas. BW [kHz]	
4	3,816.500	46.17	74.00	27.83	35.69	54.00	18.31	14.46	Н	122.6	2	1,000.000	
4	4,874.000	45.82	74.00	28.18	34.74	54.00	19.26	16.95	H	198	1	1,000.000	
4	5,722.000	47.04	74.00	26.96	35.69	54.00	18.31	19.70	Н	359	2	1,000.000	
5	7,311.925	51.60	74.00	22.40	40.70	54.00	13.30	24.02	Н	272.2	1	1,000.000	

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M													
Rg	Frequency [MHz]		PK+ Limit [dBµV/m]	Margin	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]		
4	3,816.000	44.15	74.00	29.85	33.31	54.00	20.69	14.45	V	359	2	1,000.000		
4	4,875.000	45.33	74.00	28.67	34.28	54.00	19.72	16.96	V	0.9	2	1,000.000		
4	5,720.500	46.71	74.00	27.29	35.83	54.00	18.17	19.69	V	359	2	1,000.000		
5	7,314.475	52.66	74.00	21.34	40.54	54.00	13.46	24.01	V	359	1	1,000.000		

#### **REMARKS**:

1. 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 B13 Link + BT2.0\_GFSK\_TX\_CH0:

**BELOW 1GHz WORST-CASE DATA:** 

30MHz – 1GHz data:

ICHANNEI	LTE B13 Link + BT2.0_GFSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

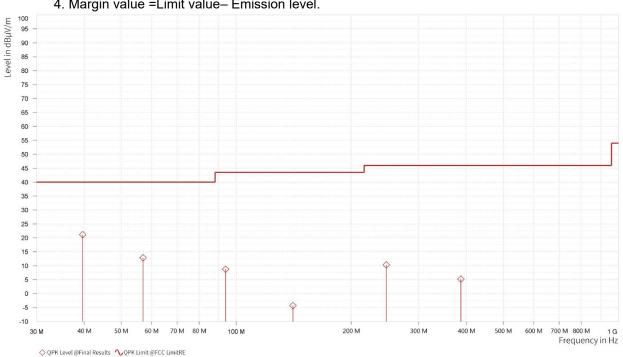
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M													
Rg	Frequency [MHz]		QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]					
1	<b>39.603</b>	21.14	40.00	18.86	-18.59	Н	<mark>1</mark> 63	2	120.000					
1	57.015	12.86	40.00	27.14	-19.59	Н	163	2	120.000					
1	93.778	8.76	43.50	34.74	-22.77	Н	1	2	120.000					
1	140.726	-4.31	43.50	47.81	-26.44	Н	<mark>1</mark> 63	2	120.000					
1	246.844	10.32	46.00	35.68	-22.81	Н	5	1	120.000					
1	387.106	<mark>5.1</mark> 9	46.00	40.81	-19.96	Н	189	1	120.000					

**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.

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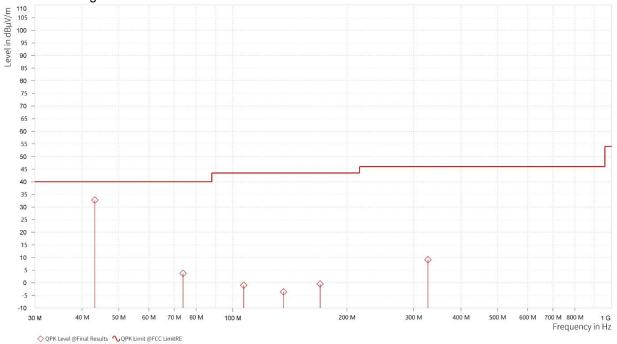


CHANNEL	LTE B13 Link + BT2.0_GFSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

		ANTEN	NA POLAR	ITY & TE	ST DISTAN	CE: VERTICA	L AT 3 M		
Rg	Frequency [MHz]		QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	<mark>43.192</mark>	32.75	40.00	7.25	-17.05	V	98.4	1	120.000
1	73.844	3.77	40.00	36.23	-25.16	V	355	2	120.000
1	106.824	-0.99	43.50	44.49	-22.30	V	202.3	1	120.000
1	136.070	-3.58	43.50	47.08	-25.48	V	309	1	120.000
1	169.971	-0.49	43.50	43.99	-25.17	V	162.1	2	120.000
1	327.596	9.15	46.00	36.85	-21.53	V	5.7	1	120.000

### **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	LTE B13 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+ 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]	Meas. BW [kHz]	
2	1,555.033	38.66	74.00	35.34	30.13	54.00	23.87	4.01	Н	1	1	1,000.000	
3	2,332.485	42.76	74.00	31.24	32.03	54.00	21.97	11.32	Н	238.5	2	1,000.000	
4	4,803.500	45.98	74.00	28.02	34.43	54.00	19.57	16.74	Н	359.1	1	1,000.000	
5	7,204.825	51.20	74.00	22.80	40.37	54.00	13.63	24.07	Н	359.1	1	1,000.000	

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M													
Rg	Frequency [MHz]	the second second devices	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]	Meas. BW [kHz]		
2	1,553.933	38.35	74.00	35.65	26.44	54.00	27.56	4.00	V	1	2	1,000.000		
3	2,330.545	<mark>43.1</mark> 3	74.00	30.87	31.76	54.00	22.24	11.33	V	359	2	1,000.000		
4	4,802.500	46.24	74.00	27.76	34.20	54.00	19.80	16.74	V	60.5	2	1,000.000		
5	7,205.250	51.20	74.00	22.80	40.38	54.00	13.62	24.08	V	359.1	1	1,000.000		

**REMARKS:** 

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

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