



# **TEST REPORT**

Applicant:	Cohda Wireless Pty Ltd.
Address:	27 Greenhill Road Wayville SA 5034 Australia

Manufacturer or Supplier:	Cohda Wireless Pty Ltd.		
Address:	27 Greenhill Road Wayville SA 5034 Australia		
Product:	On board (Transceiver) unit for A	utomotive.	
Brand Name:	Cohda Wireless		
Model Name:	МК6 ОВU		
Series Model:	MK6 OBU		
FCC ID:	2AEGPMK6OBU		
Date of tests:	Jul. 03, 2023 ~ Nov. 03, 2023		
The submitted san following standards		peen tested for according to the requirements of the	
	Subpart E, Section 15.407 🛛 A	NSI C63.10-2013 NSI/TIA/EIA-603 ISI C63.26-2015	
CONCLUSION: The submitted sample was found to <u>COMPLY</u> with the test requirement			
Prepared by Chao WuApproved by Peibo SunEngineer / Mobile DepartmentManager / Mobile Department			
C	Chao Wu Simpeibo		

Date: Nov. 03, 2023

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Date: Nov. 03, 2023

TThis report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at I I his 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/tems-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/tems-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.

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

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



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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSZ-NQN2307030110RF11	Original release	Nov. 03, 2023



# **1 GENERAL INFORMATION**

# **1.1 GENERAL DESCRIPTION OF EUT**

PRODUCT*	On board (Transceiver) unit for Automotive.		
BRAND NAME*	Cohda Wireless		
MODEL NAME*	MK6 OBU		
NOMINAL VOLTAGE*	EUT 12Vdc		
	BT_LE	GFSK	
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK	
	WLAN	DSSS, OFDM	
	GPS/GALILEO/GL ONASS/BDS	BPSK	
MODULATION TYPE*	GSM/GPRS/EDGE	GMSK, 8PSK	
	WCDMA	HSDPA/HSUPA/ HSUPA+/DC-HSDPA	
	LTE	QPSK/16QAM/64QAM	
	5G NR	DFT-s-OFMA(Pi/2BPSK,QPSK,16QAM,64QAM,256QA M); CP-OFMA(QPSK,16QAM,64QAM,256QAM);	
	DSRC	BPSK,QPSK,16QAM,64QAM	
	Bluetooth/BT_LE	2402MHz ~ 2480MHz	
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20/40) 5180 ~ 5240MHz, 5260~5320 MHz, 5500~5720 MHz , 5745 ~ 5825 MHz for 11a/ n(HT20)/ n(HT40) / ac(VHT20)/ ac(VHT40) / ac(VHT80)	
	GPS/GALILEO/GL ONASS/BDS	1559MHz ~ 1610MHz	
	GSM/GPRS/EDGE	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)   706.5MHz ~ 713.5MHz (FOR LTE Band17)   1850.7MHz ~ 1914.3 MHz (FOR LTE Band25)   DL:717MHz ~ 728MHz (FOR LTE Band29)	

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	5G NR	DL:2307.5MHz ~ 2312.5MHz (FOR LTE Band30) 2498.5MHz~ 2687.5MHz (FOR LTE Band41) 1710.7MHz ~ 1779.3MHz (FOR LTE Band66) 665.5MHz ~ 695.5MHz (FOR LTE Band71) SA/NSA: N2 (1852.5MHz ~ 1907.5MHz) N5 (826.5MHz ~ 846.5MHz) N5 (826.5MHz ~ 1912.5MHz) N66 (1712.5 ~ 1777.5MHz) N71 (665.5 ~ 695.5MHz) n77(Part27Q)(3460.02MHz ~ 3540MHz) n77(Part27Q)(3460.02MHz ~ 3540MHz) n78(Part 27Q) (3460.02MHz ~ 3540MHz) n78(Part 27Q) (3460.02MHz ~ 3540MHz) n78(Part 27Q) (3460.02MHz ~ 3540MHz) NSA: DC_2A-n77A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_2A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_2A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_5A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_5A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_5A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_5A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_5A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_7A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_7A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_12A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_12A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_12A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_12A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_12A-n78A(Part 27Q) (3710.01MHz ~ 3789.99MHz) DC_12A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_12A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz)	
		DC_12A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_12A-n78A(Part 27O) (3710.01MHz ~ 3789.99MHz) DC_66A-n78A(Part 27Q) (3460.02MHz ~ 3540MHz) DC_66A-n78A(Part 27O) (3710.01MHz ~ 3789.99MHz)	
HIGHEST	DSRC	5895 MHz – 5925 MHz	
FREQUENCY	5925MHz		
HW VERSION*	Rev 1.0		
SW VERSION*	19.Release.134186		
I/O PORTS*	Refer to user's manual		
CABLE SUPPLIED*	USB cable: non-shielded cable, with w/o ferrite core, 1 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.

#### List of Accessory:

ACCESSORIES	MANUFACTURER	ANTENNA TYPE	MODEL
2x Antenna for LTE/2G/3G/CDMA	Taoglas	Monopole Antenna	TG.66.0723
1x Antenna for WLAN/BT	Taoglas	Monopole Antenna	GW.05.0E23
1x Antenna for WLAN	Taoglas	Monopole Antenna	GW.05.0E23
2x Antenna for C-V2X	MobileMark	DOM Antenna	MGWG-303
2x Antenna for DSRC	MobileMark	DOM Antenna	MGWG-303
1x Antenna for GNSS	MobileMark	DOM Antenna	MGWG-303



# 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 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	W13.02	N/A	Oct.27,23	Apr.26,23
CABLE	R&S	W12.14	N/A	Apr.28,23	Oct.27,23
CABLE	R&S	W12.14	N/A	Oct.27,23	Apr.26,23

**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 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

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	GSM1900_LINK+BT2.0_GFSK_TX_CH0		
2	WCDMA_B2_LINK+2.4G_WIFI_11G_TX_CH6		
3	LTE_B12_LINK+5G_WIFI_11N20_TX_CH144		
4	NR_N78_LINK+5G_WIFI_11N20_TX_CH149		
5	2.4G_WIFI_11G_TX_CH6+5G_WIFI_11N20_TX_CH144		

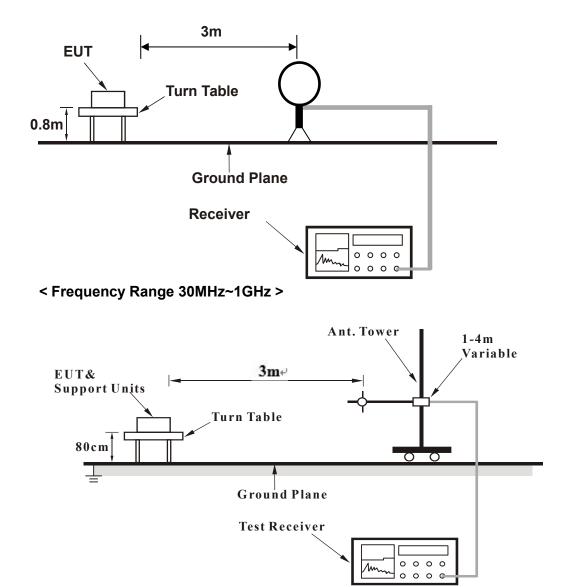
Note: 1. Test equipment and site refer to Referenced Standards report

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



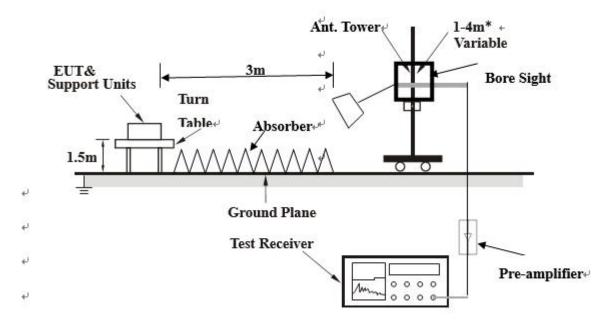
# 2.6 TEST DATA

<Frequency Range 9KHz~30MHz >





## <Frequency Range 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.



## GSM1900\_LINK+BT2.0\_GFSK\_TX\_CH0:

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

#### 30MHz – 1GHz data:

CHANNEL	GSM1900_LINK+BT2.0_G FSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE			

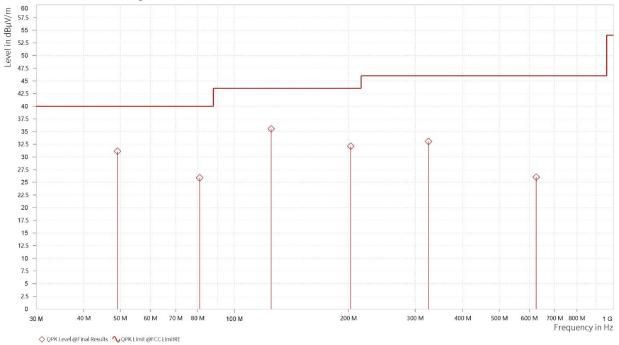
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	
1	49.109	31.09	40.00	8.91	-7.42	Н	99.8	2	120.000	
1	80.974	25.88	40.00	14.12	-13.38	Н	232.6	2	120.000	
1	125.012	35.54	43.50	7.96	-11.82	Н	354.9	2	120.000	
1	202.563	32.10	43.50	11.40	-8.53	H	127.4	1	120.000	
1	325.026	33.07	46.00	12.93	-4.72	Η	5.1	1	120.000	
1	624.998	26.03	46.00	19.97	-1.55	Н	5.1	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.



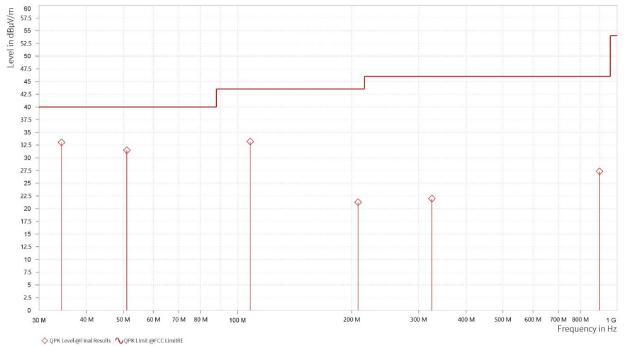


CHANNEL	GSM1900_LINK+BT2.0_G FSK_TX_CH0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

		ANTEN	NA POLAR	ITY & TE	ST DISTAN	CE: VERTICA	AL 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	34.365	33.00	40.00	7.00	-10.04	V	127.3	1	120.000
1	51.098	31.49	40.00	8.51	-7.53	V	358.2	1	120.000
1	107.940	33.18	43.50	10.32	- <mark>9</mark> .17	V	232.6	2	120.000
1	207.753	21.27	43.50	22.23	-8.70	V	232.6	2	120.000
1	324.977	21.95	46.00	24.05	-4.72	V	127.3	1	120.000
1	898.538	27.31	46.00	18.69	2.89	V	232.6	2	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	GSM1900_LINK+BT2.0_G FSK_TX_CH0	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 Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	3,759.500	50.97	74.00	23.03	38.58	54.00	15.42	15.04	H	359	2
3	4,873.500	51.63	74.00	22.37	39.60	54.00	14.40	15.19	Н	132.1	2
3	5,640.000	<mark>51.83</mark>	74.00	22.17	40.07	54.00	13.93	16.46	Н	0.9	2
4	7,311.500	57.40	74.00	16.60	44.88	54.00	9.12	22.80	H	347.3	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]
3	3,760.000	49.75	74.00	24.25	38.43	54.00	15.57	15.05	V	236.2	1
3	4,873.500	51.07	74.00	22.93	39.83	54.00	14.17	15.19	V	359	2
3	5,639.500	51.81	74.00	22.19	39.97	54.00	14.03	16.46	V	359	1
4	7,311.500	56.18	74.00	17.82	44.90	54.00	9.10	22.80	V	17.8	2

**REMARKS**:

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



WCDMA\_B2\_LINK+2.4G\_WIFI\_11G\_TX\_CH6:

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

#### 30MHz – 1GHz data:

CHANNEL	WCDMA_B2_LINK+2.4G_ WIFI_11G_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE			· · · ·

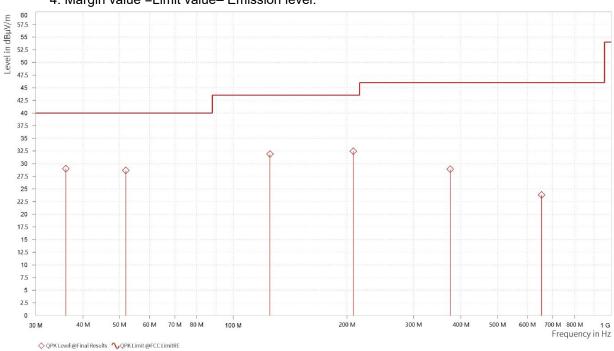
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	
1	36.063	29.01	40.00	10.99	-9.58	Н	359	2	120.000	
1	51.971	28.66	40.00	11.34	-7.54	H	355.4	2	120.000	
1	125.012	31.89	43.50	11.61	-11.82	Н	5.1	1	120.000	
1	207.607	32.45	43.50	11.05	-8.69	Н	359	1	120.000	
1	374.981	28.88	46.00	17.12	-3.68	Н	1	1	120.000	
1	653.613	23.80	46.00	22.20	-1.09	Н	355.4	2	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.

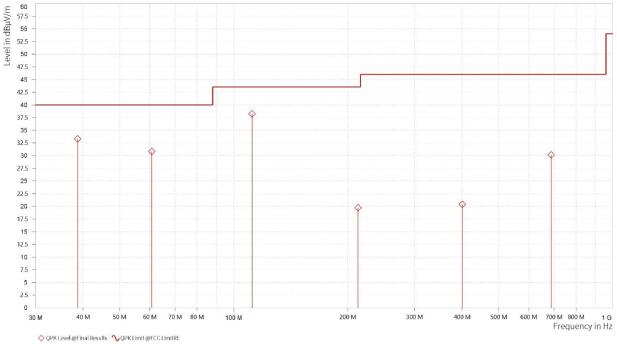


CHANNEL	WCDMA_B2_LINK+2.4 G_WIFI_11G_TX_CH6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL 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	38.730	33.27	40.00	6.73	-8.64	V	128.6	1	120.000		
1	60.749	30.79	40.00	9.21	-9.26	V	101	2	120.000		
1	111.723	38.22	43.50	5.28	-9.55	V	232.6	2	120.000		
1	212.748	19.71	43.50	23.79	-8.64	V	232.6	2	120.000		
1	400.977	20.37	46.00	25.63	-3.38	V	354.8	2	120.000		
1	687.563	30.12	46.00	15.88	-0.64	V	359	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_11G_TX_CH6	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	3,760.000	48.91	74.00	25.09	38.15	54.00	15.85	13.03	Т	326.9	1
2	4,873.500	49.63	74.00	24.37	39.80	54.00	14.20	15.25	Н	90.2	1
2	5,639.500	51.47	74.00	22.53	41.07	54.00	12.93	17.47	Н	326.9	1
2	7,311.500	56.39	74.00	17.61	45.78	54.00	8.22	21.10	Н	326.9	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	3,760.000	48.12	74.00	25.88	38.42	54.00	15.58	13.03	V	90.2	1
2	4,874.000	50.23	74.00	23.77	39.70	54.00	14.30	15.25	V	90.2	1
2	5,640.000	50.90	74.00	23.10	41.34	54.00	12.66	17.47	V	328.1	1
2	7,311.000	55.25	74.00	18.75	45.87	54.00	8.13	21.10	V	90.2	1

**REMARKS**:

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



## LTE\_B12\_LINK+5G\_WIFI\_11N20\_TX\_CH144:

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

#### 30MHz – 1GHz data:

CHANNEL	LTE_B12_LINK+5G_WIFI_ 11N20_TX_CH144	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE			、 <i>,</i>

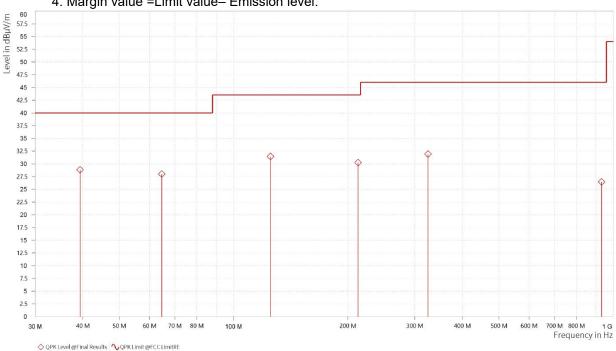
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	
1	39.409	28.84	40.00	11.16	-8.54	H	1	2	120.000	
1	64.678	27.98	40.00	12.02	-9.67	Н	1	2	120.000	
1	124.963	31.44	43.50	12.06	-11.81	H	359	2	120.000	
1	212.700	30.24	43.50	13.26	-8.65	Н	359.1	1	120.000	
1	325.026	31.90	46.00	14.10	-4.72	H	1	1	120.000	
1	931.664	26.46	46.00	19.54	3.08	Н	359.1	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.

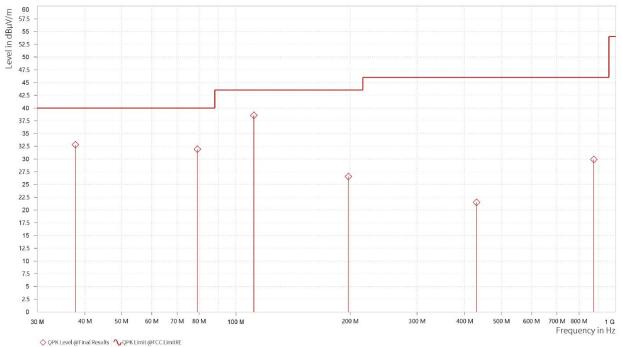


CHANNEL	LTE_B12_LINK+5G_WI FI_11N20_TX_CH144	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL 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	37.809	32.77	40.00	7.23	-8.84	V	<mark>14</mark> 9	1	120.000	
1	79.179	31.89	40.00	8.11	-13.53	V	149	1	120.000	
1	111.432	38.55	43.50	4.95	-9.51	V	232.6	2	120.000	
1	197.616	26.56	43.50	16.94	-8.62	V	232.6	2	120.000	
1	430.125	21.49	46.00	24.51	-3.47	V	359	2	120.000	
1	874.967	29.91	46.00	16.09	2.55	V	0.9	2	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_B12_LINK+5G_WIFI_ 11N20_TX_CH144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
Rg	Frequency [MHz]	Concerning and the second second second second	PK+ Limit [dBµV/m]	Margin	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	1,406.000	49.18	74.00	24.82	41.65	54.00	12.35	3.84	Н	1	1
1	2,109.200	43.20	74.00	30.80	32.85	54.00	21.15	8.82	н	5.2	1
4	11,439.500	51.21	74.00	22.79	37.71	54.00	16.29	11.84	Н	1	2
4	17,160.500	56.98	74.00	17.02	44.74	54.00	9.26	21.43	H	1	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]	and the second second second	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	1,406.000	54.75	74.00	19.25	47.15	54.00	6.85	3.84	V	5.2	2
1	2,109.200	44.32	74.00	29.68	32.97	54.00	21.03	8.82	V	359.1	2
4	11,441.000	48.38	74.00	25.62	36.53	54.00	17.47	11.84	V	359.1	2
4	17,159.500	52.69	74.00	21.31	41.60	54.00	12.40	21.43	V	1	2

**REMARKS**:

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



NR\_N78\_LINK+5G\_WIFI\_11N20\_TX\_CH149:

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

#### 30MHz – 1GHz data:

CHANNEL	NR_N78_LINK+5G_WIFI_ 11N20_TX_CH149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		、 <i>,</i>

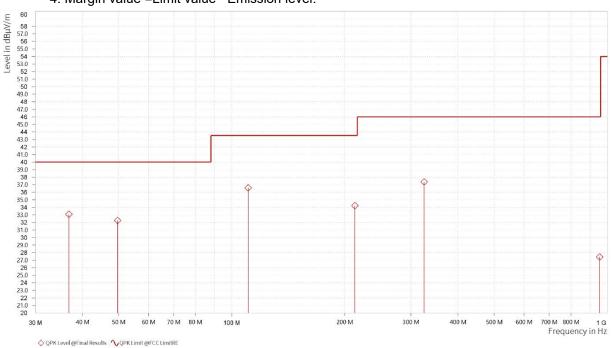
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	
1	36.839	33.08	40.00	6.92	-9.22	Н	98.6	2	120.000	
1	49.643	32.24	40.00	7.76	-7.49	Н	231.4	2	120.000	
1	110.559	36.59	43.50	6.91	-9.37	Н	98.6	2	120.000	
1	212.748	34.21	43.50	9.29	-8.64	Н	127.4	1	120.000	
1	325.026	37.37	46.00	8.63	-4.72	H	98.6	2	120.000	
1	953.149	27.42	46.00	18.58	3.35	Н	1.9	2	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.

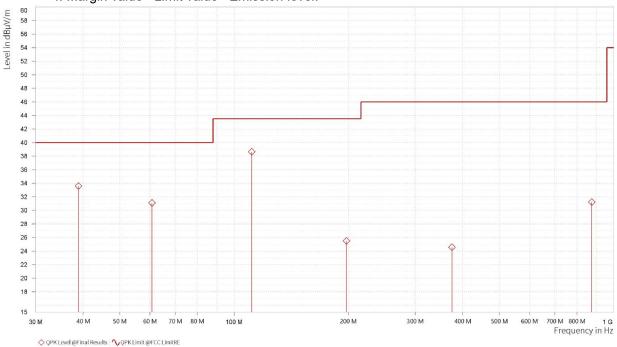


CHANNEL	NR_N78_LINK+5G_WI FI_11N20_TX_CH149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

		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	38.924	33.59	40.00	6.41	-8.61	V	128.6	1	120.000
1	60.798	31.08	40.00	8.92	-9.26	V	99.8	2	120.000
1	111.286	38.62	43.50	4.88	-9.49	V	231.3	2	120.000
1	197.568	25.49	43.50	18.01	-8.63	V	231.3	2	120.000
1	374.981	24.55	46.00	21.45	-3.68	V	260	1	120.000
1	875.016	31.23	46.00	14.77	2.55	V	1.8	2	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	NR_N78_LINK+5G_WIFI_ 11N20_TX_CH149	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]				
3	6,899.675	53.97	74.00	20.03	42.71	54.00	11.29	21.43	Н	359.1	1				
4	10,350.000	44.92	74.00	29.08	34.31	54.00	19.69	11.06	Н	358.7	2				
4	11,490.000	46.91	74.00	27.09	37.01	54.00	16.99	11.99	Н	359.1	1				
4	17,235.000	55.56	74.00	18.44	44.34	54.00	9.66	21.66	Н	1	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]				
3	6,900.100	54.34	74.00	19.66	42.63	54.00	11.37	21.44	V	359.1	1				
4	10,350.000	44.62	74.00	29.38	34.10	54.00	19.90	11.06	V	1	1				
4	11,489.500	47.17	74.00	26.83	35.58	54.00	18.42	11.99	V	359.1	2				
4	17,235.000	50.79	74.00	23.21	40.74	54.00	13.26	21.66	V	359.1	2				

**REMARKS**:

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



2.4G\_WIFI\_11G\_TX\_CH6+5G\_WIFI\_11N20\_TX\_CH144:

### BELOW 1GHz WORST-CASE DATA:

#### 30MHz – 1GHz data:

CHANNEL	2.4G_WIFI_11G_TX_CH6+ 5G_WIFI_11N20_TX_CH1 44	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

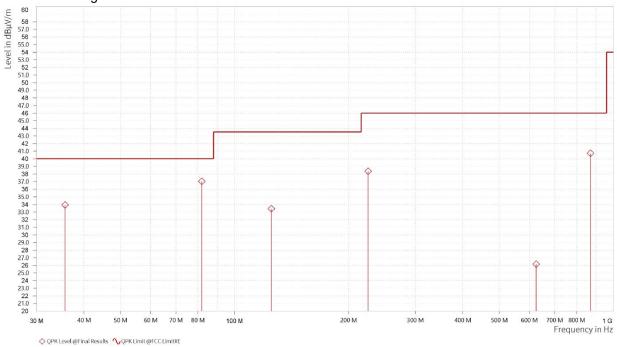
	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M														
Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Limit [dBµV/m] QPK Correction [dB] Polarization [deg] Azimuth	Antenna Height [m]	Meas. BW [kHz]									
1	35.675	33.92	40.00	6.08	-9.70	H	98.6	2	120.000						
1	81.895	37.02	40.00	2.98	-13.25	H	354.9	2	120.000						
1	124.963	33.42	43.50	10.08	-11.81	Н	261.3	1	120.000						
1	225.019	38.35	46.00	7.65	-7.99	Н	261.3	1	120.000						
1	624.998	26.14	46.00	19.86	-1.55	Н	5.2	1	120.000						
1	870.117	40.71	46.00	5.29	2.50	Н	1	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.

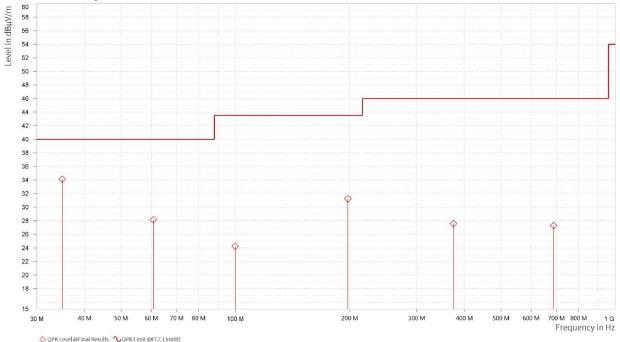


CHANNEL	2.4G_WIFI_11G_TX_C H6+5G_WIFI_11N20_T X_CH144	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

		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	34.996	34.11	40.00	5.89	-9.89	V	126.2	1	120.000
1	60.798	28.13	40.00	11.87	-9.26	V	0.9	2	120.000
1	99.840	24.23	43.50	19.27	-9.36	V	231.3	2	120.000
1	197.422	31.21	43.50	12.29	-8.64	V	359	2	120.000
1	374.981	27.56	46.00	18.44	-3.68	V	5.2	1	120.000
1	687.612	27.26	46.00	18.74	-0.64	V	258.9	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	2.4G_WIFI_11G_TX_CH6+ 5G_WIFI_11N20_TX_CH1 44	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]				
2	4,784.000	50.38	74.00	23.62	38.92	54.00	15.08	15.63	Н	359	2				
3	7,205.675	56.52	74.00	17.48	45.15	54.00	8.85	24.37	Н	1	2				
4	11,440.500	47.51	74.00	26.49	37.14	54.00	16.86	11.84	Н	1	2				
4	17,159.500	56.31	74.00	17.69	44.95	54.00	9.05	21.43	Н	1	2				

		AN	TENNA P	OLARI	TY & TES	ST DISTA	NCE: \	/ERTICAL	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]
2	4,804.000	49.97	74.00	24.03	38.95	54.00	15.05	15.91	V	1	2
3	7,205.675	57.52	74.00	16.48	45.27	54.00	8.73	24.37	V	1	2
4	11,439.000	49.92	74.00	24.08	36.18	54.00	17.82	11.83	V	1	1
4	17,159.500	53.55	74.00	20.45	43.42	54.00	10.58	21.43	V	1	1

**REMARKS**:

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

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