

FCC TEST REPORT

(Part 15, Subpart E)

Applicant:	Power Idea Technology (Shenzhen) Co., Ltd.
Address:	4th Floor, A Section, Languang Science&technology Building, No.7 Xinxi RD, Hi-Tech Industrial Park North, Nanshan District, ShenZhen, P.R.C.

Manufacturer or Supplier:	Power Idea Technology (Shenzhen) Co., Ltd.
Address:	4th Floor, A Section, Languang Science&technology Building, No.7 Xinxi RD, Hi-Tech Industrial Park North, Nanshan District, ShenZhen, P.R.C.
Product:	Smart Phone
Brand Name:	RugGear
Model Name:	PSM05G
Marketing name:	RG880i
FCC ID:	ZLE-PSM05G
Date of tests:	Aug. 28, 2024 ~ Sep.27, 2024

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart E, Section 15.407**

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

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
	
Date: Sep.27, 2024	Date: Sep.27, 2024

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-NQN2406210109RF09	Original release	Sep.27, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E		
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT
15.407(b)(9)	AC Power Conducted Emission	Compliance
15.407(b) (1/2/3/4/5)	Radiated Emission & Band Edge Measurement	Compliance
15.407(a/1/2/3)	Maximum conducted output Power	Compliance
15.407(a/1/2/3)	Peak Power Spectral Density	Compliance
15.407(a)(2)(12)	26 dB Bandwidth	Compliance
15.407(e)	6 dB Bandwidth	Compliance
15.203	Antenna Requirement	Compliance

NOTE:

1. Except the data of RSE and Band Edge Measurement, other data please refer to the appendix.
2. For 802.11n HT20/ ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing is assessed only 802.11n HT20/ HT40 by referring to their higher conducted power.

***Test Lab Information Reference**

Lab A:

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

Lab Address:

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

Accredited Test Lab Cert 6613.01

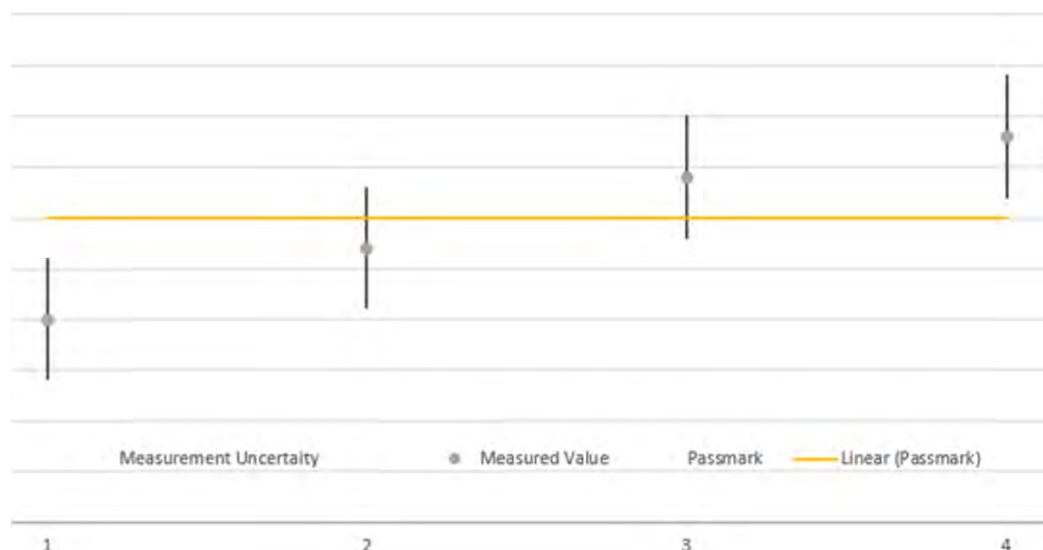
The FCC Site Registration No. is 434559; The Designation No. is CN1325.

1.1 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
AC Power Conducted emissions	±2.70dB
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions (30MHz~1GHz)	±4.98dB
Radiated emissions (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Power Spectral Density	±0.85 dB

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



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Smart Phone
BRAND NAME*	RugGear
MODEL NAME*	PSM05G
MARKETING NAME*	RG880i
NOMINAL VOLTAGE*	5.0Vdc/ 9.0Vdc/ 12.0Vdc(Adapter) 3.85Vdc (Battery)
MODULATION	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz) 2 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz) 2 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n, 802.11ac (20MHz) 3 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz)
AVERAGE POWER	29.58 mW for 5180 ~ 5240MHz 34.75 mW for 5260 ~ 5320MHz 30.62 mW for 5745 ~ 5825MHz
ANTENNA TYPE*	PIFA Antenna
ANTENNA GAIN*	0.8dBi for 5180 ~ 5240MHz 0.8dBi for 5260 ~ 5320MHz 0.8dBi for 5745 ~ 5825MHz
HW VERSION*	V02
SW VERSION*	RG880i_EAA_00.00_1
I/O PORTS*	Refer to user's manual
CABLE SUPPLIED*	USB cable: non-shielded cable, with w/o ferrite core, 1.0 meter

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. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11n/802.11ac (20MHz)	1TX/1RX
802.11n/802.11ac (40MHz)	1TX/1RX
802.11ac (80MHz)	1TX/1RX

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in the test report.
5. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

6. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
CPU	QUALCOMM	N/A	SM6225	N/A
eMMC 1 (=ROM 1)	SAMSUNG	N/A	KM2L9001CM-B518	N/A
eMMC 2 (=ROM 2)	Hynix	N/A	H9QT0GECN6X145R	N/A
RAM 1	N/A	N/A	N/A	N/A
RAM 2	N/A	N/A	N/A	N/A
BT/WLAN Module	N/A	N/A	N/A	N/A
NFC chipset	NXP	N/A	N/A	N/A
Battery	N/A	N/A	BL450AGP	Power Rating: 4.4V 4500mAh
Adapter	N/A	Huizhou Juwei Electronics Co.,Ltd	FG18AQC3.0UU	I/P: 100-240Vac, 50/60Hz, 0.5A, O/P:5.0V 3.0A or 9.0V 2.0A or 12.0V 1.5A
USB Cable	N/A	N/A	N/A	N/A

2.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n, 802.11ac (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210 MHz		

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n, 802.11ac (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290 MHz		

FOR 5745 ~ 5825MHz

5 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n, 802.11ac (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
142	5710 MHz	159	5795 MHz
151	5755 MHz		

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
155	5775 MHz

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	-	Powered by Adapter with wifi(5G) link
B	-	-	-	√	Powered by Battery with wifi(5G) link
C	-	-	-	-	Powered by USB with wifi(5G) link

Where

RE $\geq$ 1G: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

NOTE: “-” means no effect

RADIATED EMISSION TEST (BELOW 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ The following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11n (40MHz)	5745-5825	151 to 159	151	OFDM	MCS0



RADIATED EMISSION TEST (ABOVE 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ The following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
A	802.11n/ac (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
A	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
A	802.11n/ac (20MHz)		149 to 165	149, 157, 165	OFDM	MCS0
A	802.11n/ac (40MHz)		151 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		155	155	OFDM	MCS0

POWER LINE CONDUCTED EMISSION TEST:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ The following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11n (40MHz)	5745-5825	151 to 159	151	OFDM	MCS0

BANDEGE MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ The following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
A	802.11n/ac (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
A	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
A	802.11n/ac (20MHz)		149 to 165	149, 157, 165	OFDM	MCS0
A	802.11n/ac (40MHz)		151 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		155	155	OFDM	MCS0

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ The following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATIO N	DATA RATE (Mbps)
B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
B	802.11n/ac (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
B	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
B	802.11ac (80MHz)		42	42	OFDM	MCS0
B	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
B	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
B	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
B	802.11ac (80MHz)		58	58	OFDM	MCS0
B	802.11a	5745-5825	149 to 165	149, 157,165	OFDM	6.0
B	802.11n/ac (20MHz)		149 to 165	149, 157,165	OFDM	MCS0
B	802.11n/ac (40MHz)		151 to 159	151, 159	OFDM	MCS0
B	802.11ac (80MHz)		155	155	OFDM	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
RE≥1G	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
PLC	25deg. C, 52%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
APCM	25deg. C, 60%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu

2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix A Of this test report.

WORST-CASE DATA:

Measured Duty Cycle		
Mode		Duty Cycle [%]
		ANT0
5GHZ	11a	98.39
	11n20	98.27
	11n40	97.97
	11ac20	96.35
	11ac40	96.36
	11ac80	92.80

Note:

Duty cycle of test signal is < 98%, duty factor shall be considered.

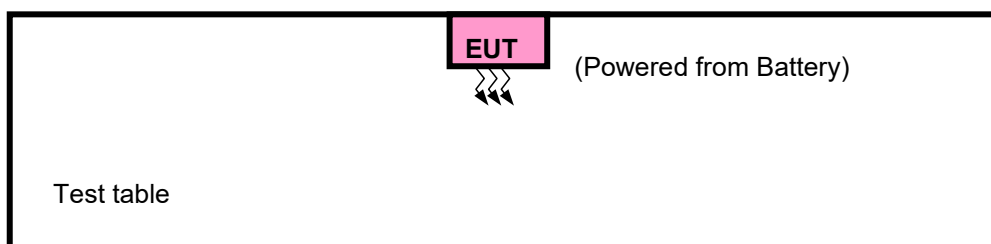
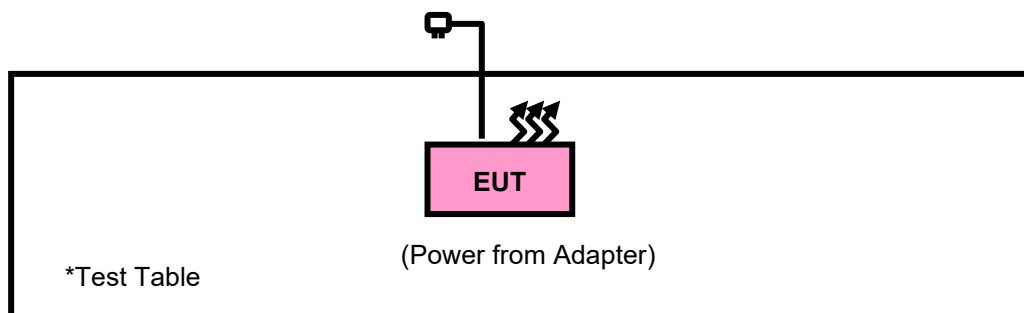
2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	N/A	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Shielded, Detachable 1.0m;

2.1.1 CONFIGURATION OF SYSTEM UNDER TEST



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

ANSI C63.10-2020

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (Certification). The test report has been issued separately.

3 TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.1.2 LIMITS OF UNWANTED EMISSION

RESTRICTED BANDS	APPLICABLE TO	LIMIT	
	789033 D02 General UNII Test Procedures New Rules v02r01	FIELD STRENGTH AT 3m (dBµV/m)	
		PK : 74	AV : 54
OUT OF THE RESTRICTED BANDS	APPLICABLE TO	EIRP LIMIT (dBm/MHz)	EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)
	15.407(b)(1)	PK : -27	PK : 68.2
	15.407(b)(2)		
	15.407(b)(3)		
	15.407(b)(4)	See note 2 (FCC 16-24)	

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \quad \mu\text{V/m, where P is the eirp (Watts).}$$

2. All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.29,24	Aug.28,26
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
Signal Generator	R&S	SMB100A	182185	Mar.29,24	Mar.28,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Dec.26,23	Dec.25,25
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.21,24	Aug.20,26
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Jul.15,24	Jul.14,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.21,24	Aug.20,26
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
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
DC Source	HYELEC	HY3010B	551016	Aug.30,24	Aug.29,26
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
Hygrothermograph	DELI	20210528	SZ014	Sep.05,24	Sep.04,26
6DB attenuator	Tonscend Technology Co., Ltd	N/A	23062787	N/A	N/A
PC	LENOVO	E14	HRSW0024	N/A	N/A

**Test Report No.: PSU-NQN2406210109RF09**

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.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25

NOTE: 1. The calibration interval of the above test instruments is 12 /24/ 36 months, and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in the 3m Chamber.

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

3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3-meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height varies 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.
- d. 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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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.

NOTE:

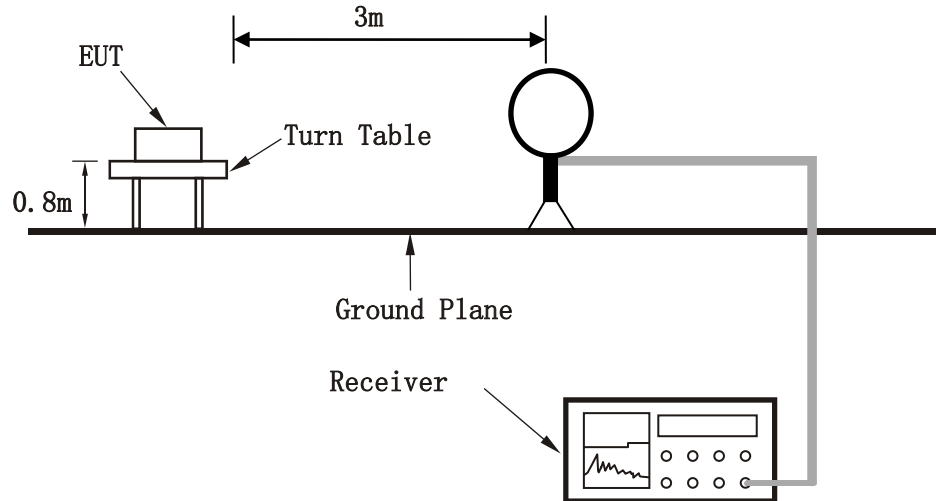
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated, and the worst-case emissions are reported.

3.1.5 DEVIATION FROM TEST STANDARD

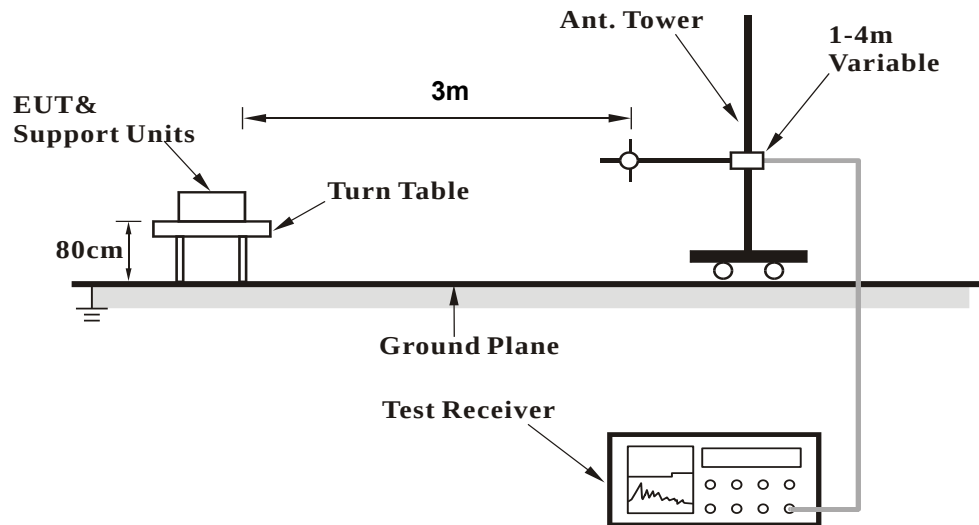
No deviation.

3.1.6 TEST SETUP

<Frequency Range 9KHz~30MHz >

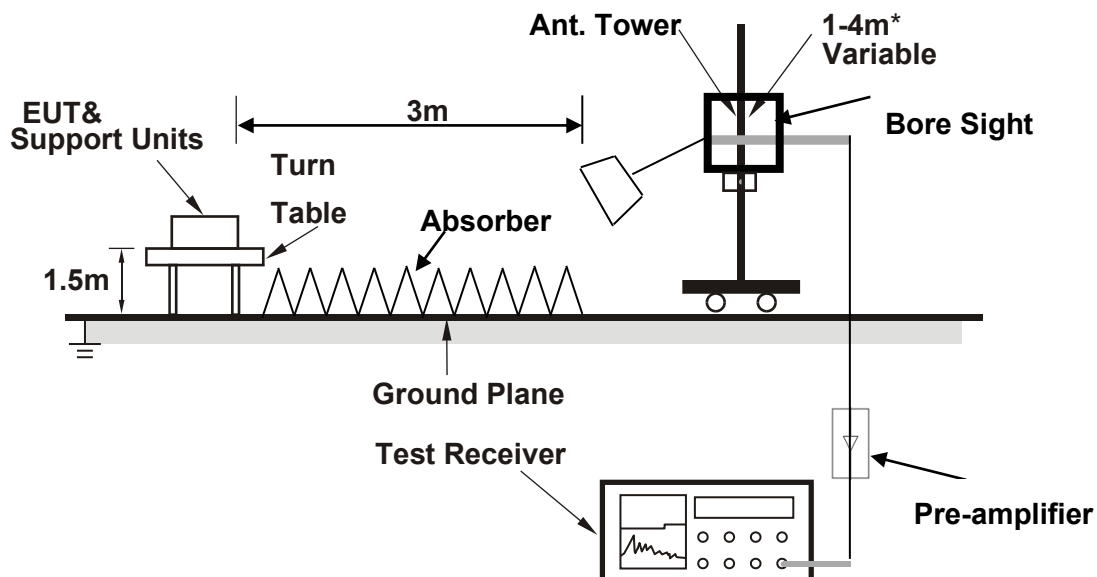


< Frequency Range 30MHz~1GHz >





<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).

3.1.7 EUT OPERATING CONDITION

- Set the EUT under full load condition and placed it 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.



3.1.8 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.

BAND EDGE MEASUREMENT

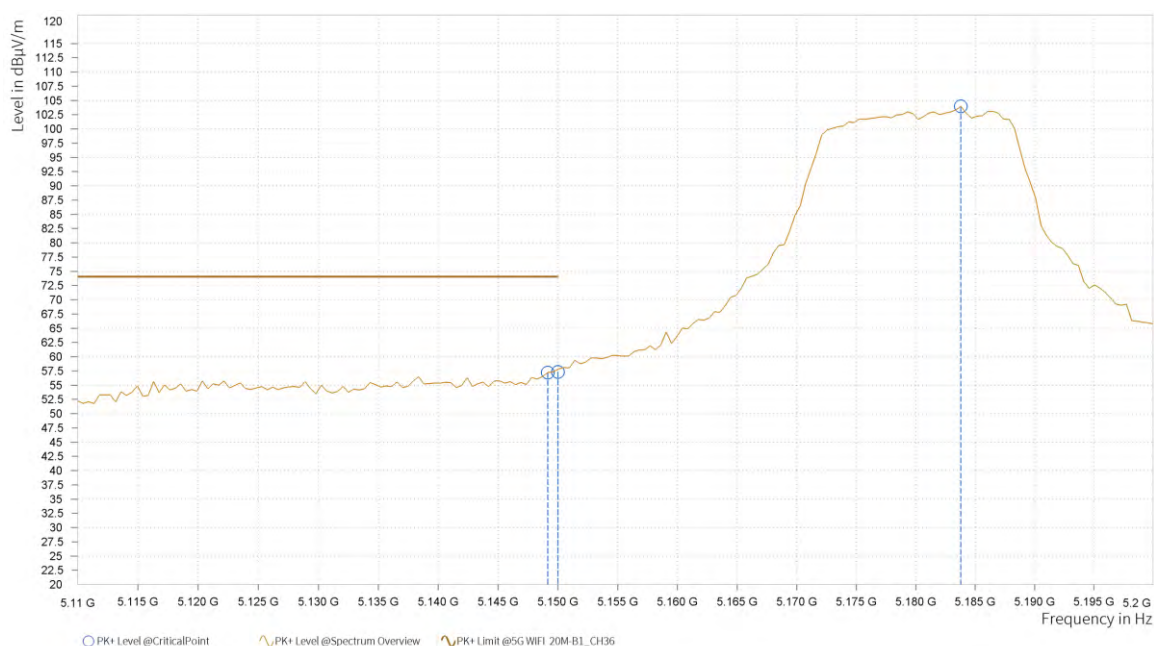
Band 1

802.11a

CHANNEL	TX Channel 36	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.150	57.23	74.0	16.77	13.94	H	5.1	1.0
1	5,150.000	57.33	74.0	16.67	13.95	H	355.0	1.0
1	5,183.800	103.97			14.21	H	5.1	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

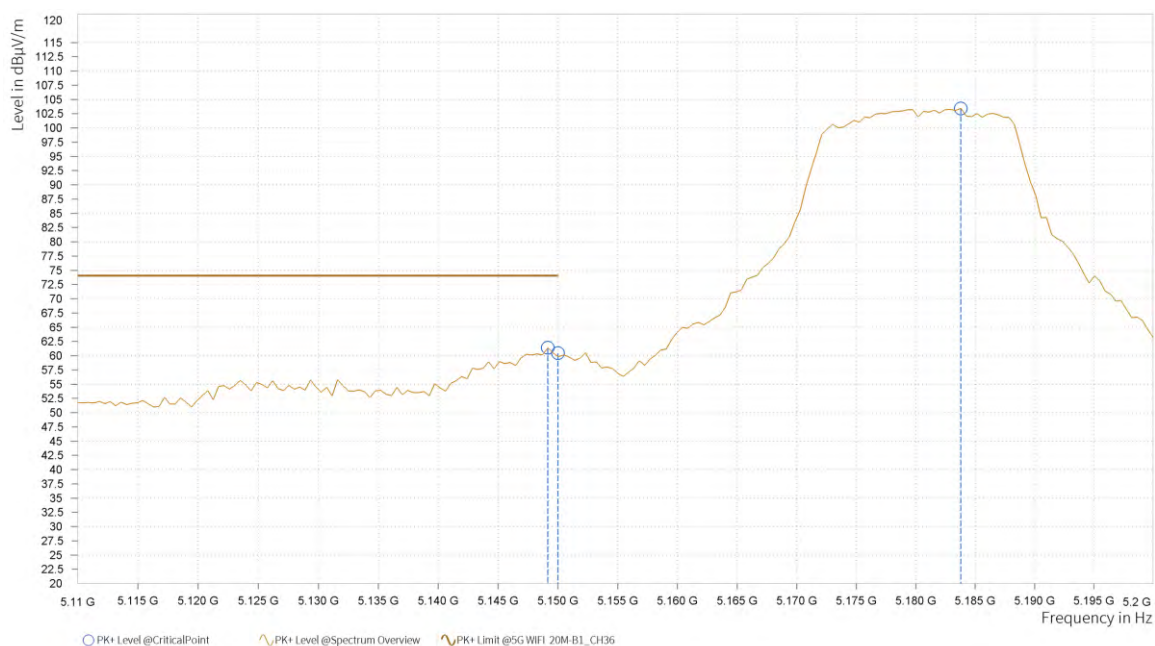
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.600	38.84	54.0	15.16	13.95	H	359.1	1.0
1	5,150.000	38.84	54.0	15.16	13.95	H	359.1	1.0
1	5,181.100	91.15			14.19	H	359.1	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.150	61.37	74.0	12.63	13.94	V	5.1	1.0
1	5,150.000	60.44	74.0	13.56	13.95	V	5.1	1.0
1	5,183.800	103.42			14.21	V	325.8	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.150	39.0	54.0	15.0	13.94	V	359	1.0
1	5,150.000	39.07	54.0	14.93	13.95	V	359	1.0
1	5,181.100	91.17			14.19	V	359	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5180MHz: Fundamental frequency.



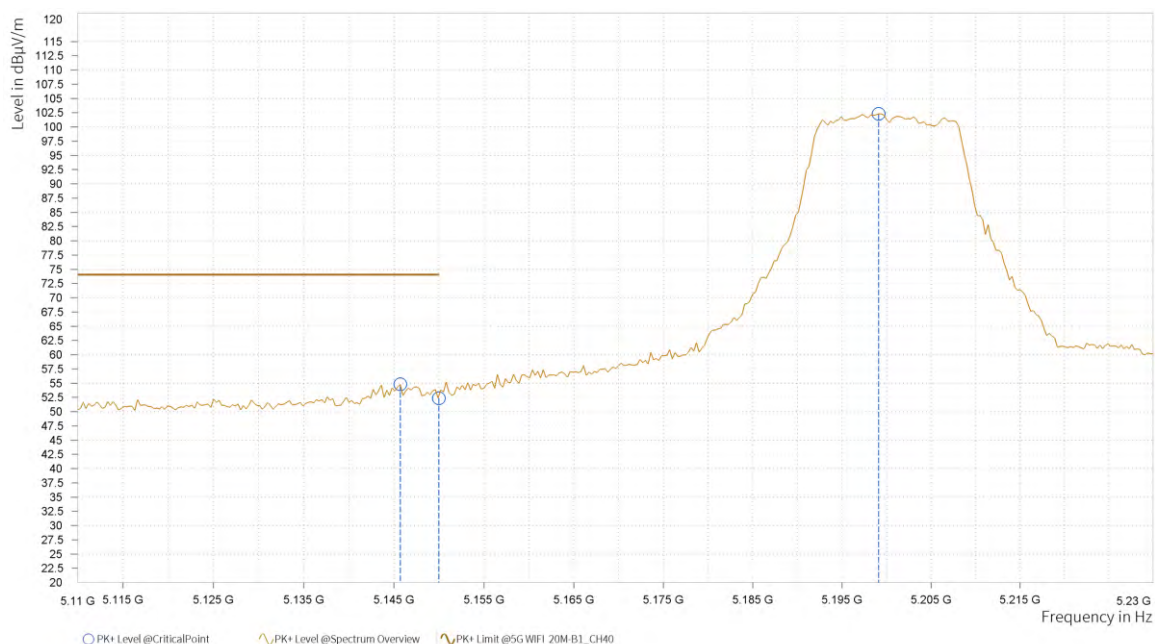
BUREAU
VERITAS

Test Report No.: PSU-NQN2406210109RF09

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

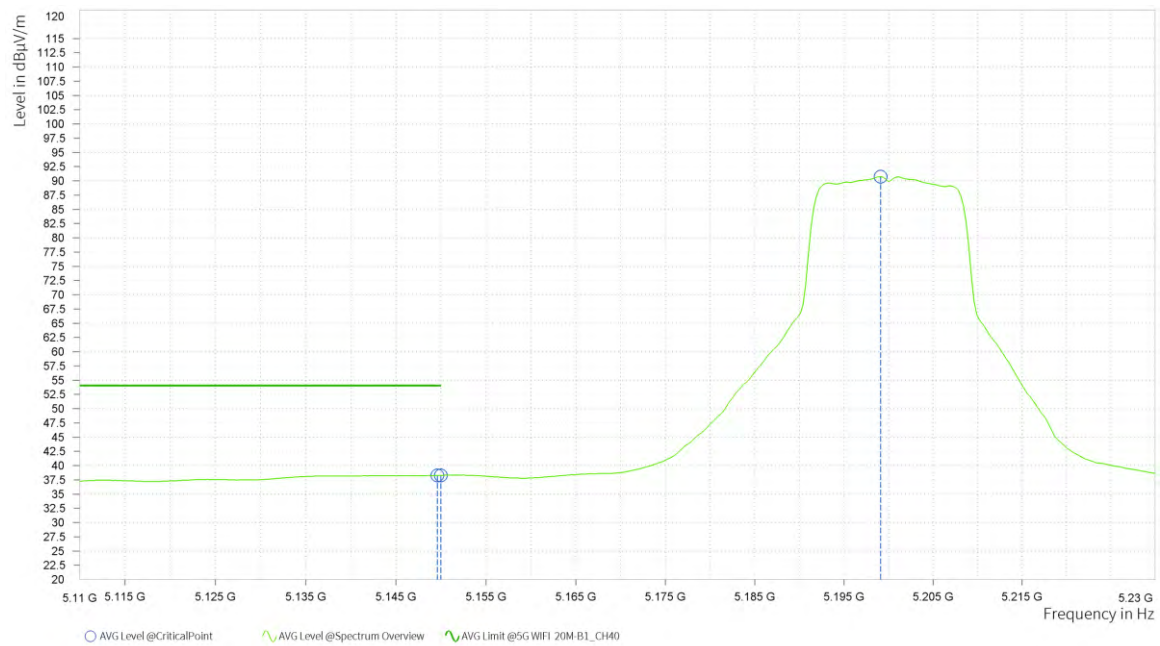
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,145.700	54.78	74.0	19.22	13.92	H	1.0	2.0
2	5,150.000	52.36	74.0	21.64	13.95	H	1.0	2.0
2	5,199.100	102.26			14.3	H	359.1	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

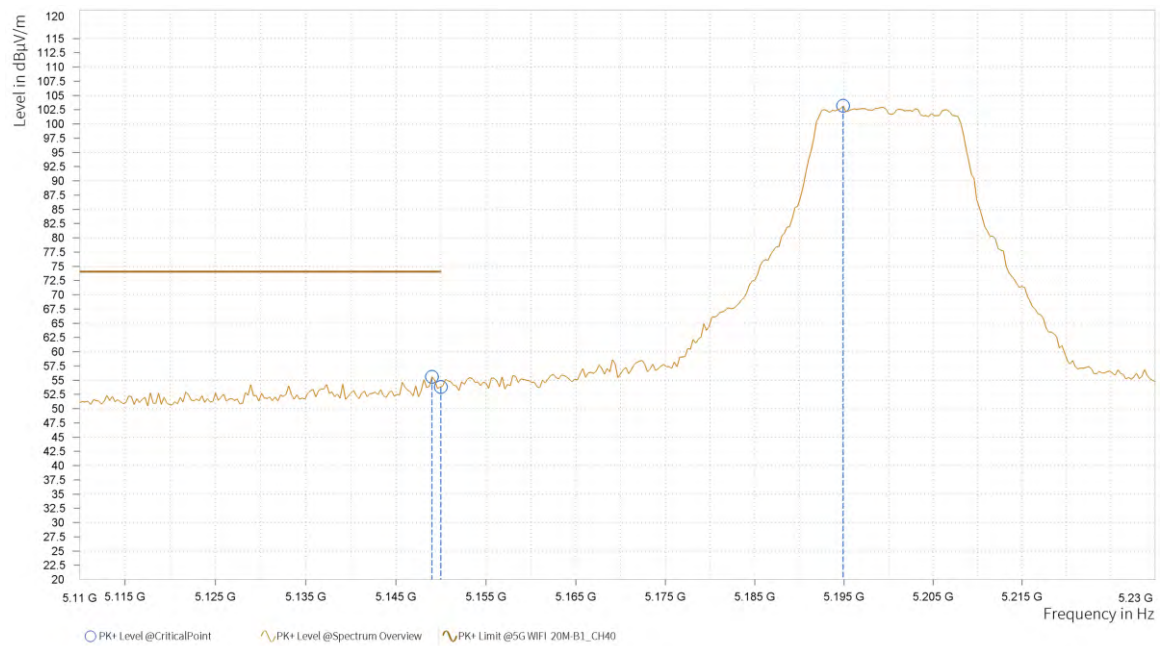
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.600	38.27	54.0	15.73	13.95	H	359.1	1.0
2	5,150.000	38.25	54.0	15.75	13.95	H	359.1	1.0
2	5,199.100	90.75			14.3	H	5.1	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

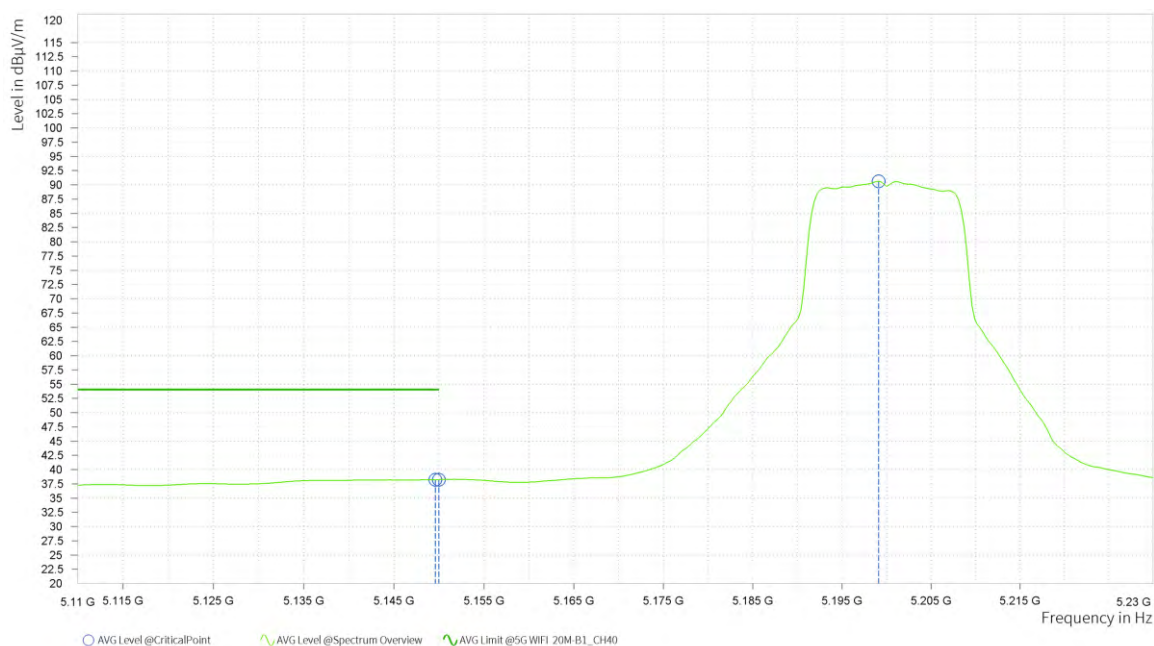
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.000	55.61	74.0	18.39	13.94	V	5.2	1.0
2	5,150.000	53.79	74.0	20.21	13.95	V	5.2	1.0
2	5,194.900	103.18			14.29	V	109.5	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.600	38.21	54.0	15.79	13.95	V	359	1.0
2	5,150.000	38.23	54.0	15.77	13.95	V	359	1.0
2	5,199.100	90.63			14.3	V	359	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5200MHz: Fundamental frequency.



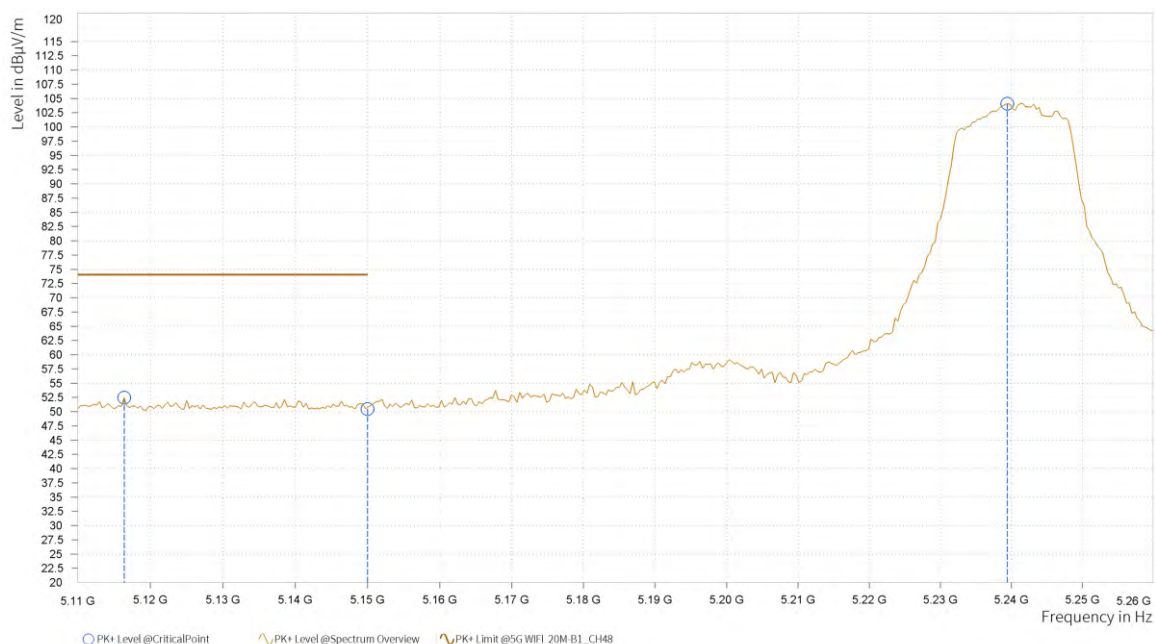
BUREAU
VERITAS

Test Report No.: PSU-NQN2406210109RF09

CHANNEL	TX Channel 48	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,116.375	52.49	74.0	21.51	13.76	H	44.9	1.0
3	5,150.000	50.45	74.0	23.55	13.95	H	241.0	1.0
3	5,239.380	104.09			14.19	H	5.0	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,137.375	37.35	54.0	16.65	13.88	H	5.1	1.0
3	5,150.000	37.17	54.0	16.83	13.95	H	5.1	1.0
3	5,239.375	89.18			14.19	H	359.1	1.0



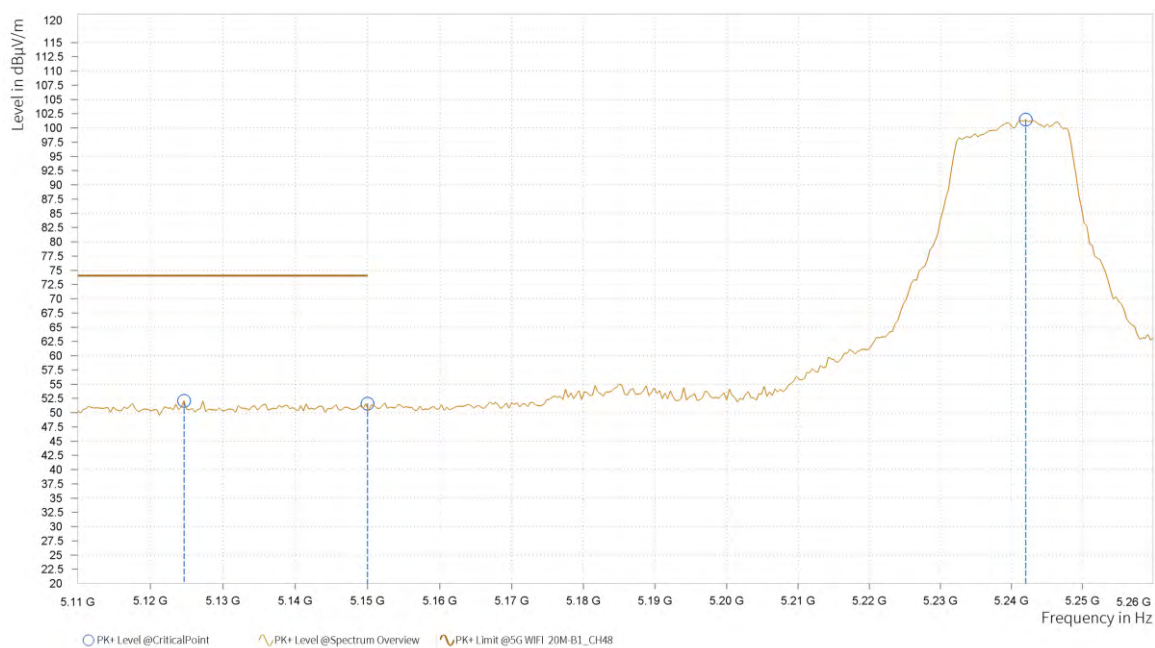


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VERITAS

Test Report No.: PSU-NQN2406210109RF09

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,124.625	52.08	74.0	21.92	13.8	V	169.4	2.0
3	5,150.000	51.56	74.0	22.44	13.95	V	359.1	1.0
3	5,242.000	101.44			14.18	V	5.1	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,145.250	37.32	54.0	16.68	13.92	V	5.1	1.0
3	5,150.000	37.05	54.0	16.95	13.95	V	5.1	1.0
3	5,239.000	90.06			14.19	V	359.1	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5240MHz: Fundamental frequency.

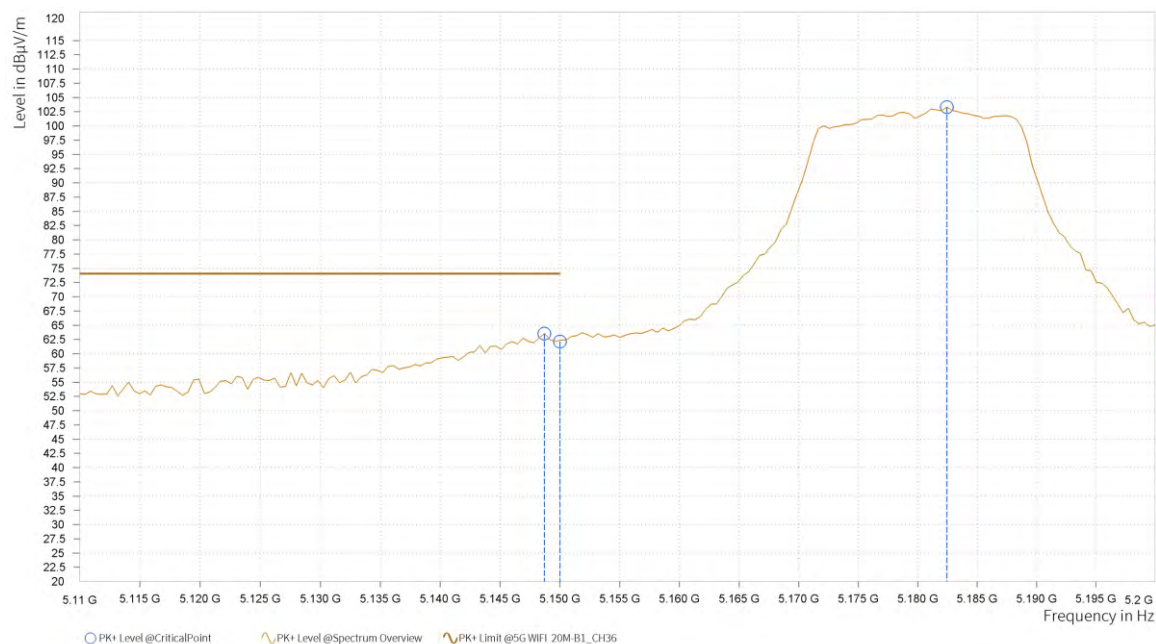


802.11n (20MHz)

CHANNEL	TX Channel 36	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,148.700	63.55	74.0	10.45	13.94	H	105.9	2.0
1	5,150.000	62.14	74.0	11.86	13.95	H	5.2	1.0
1	5,182.450	103.3			14.2	H	248.2	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

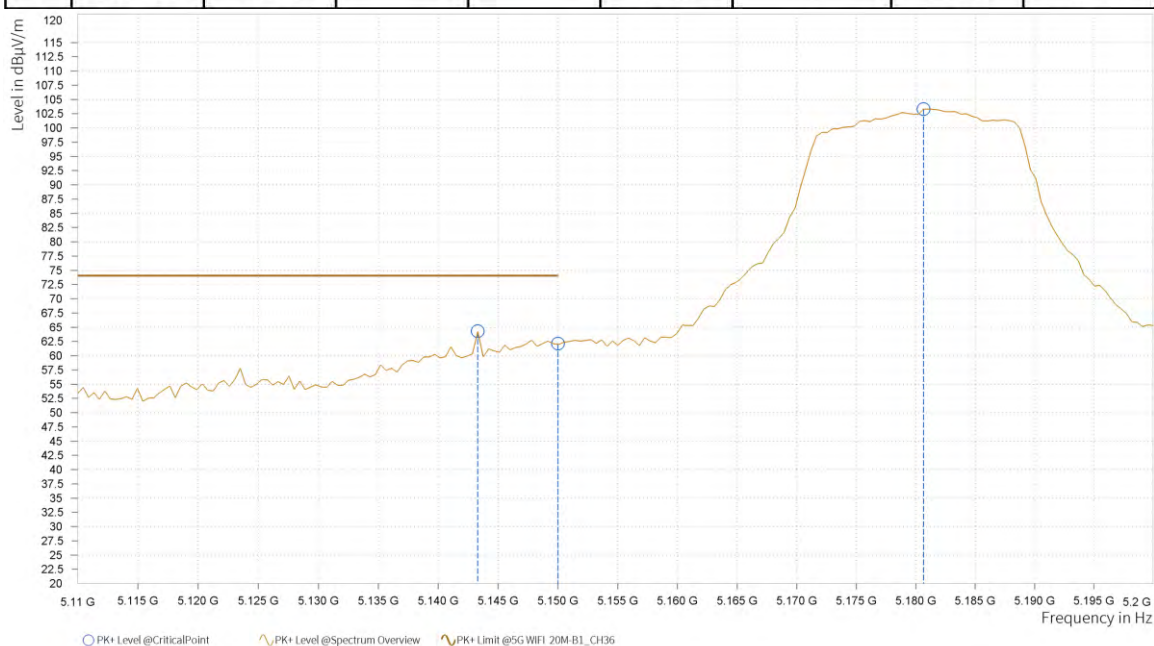
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.600	40.45	54.0	13.55	13.95	H	5.2	1.0
1	5,150.000	40.45	54.0	13.55	13.95	H	5.2	1.0
1	5,181.550	90.51			14.19	H	213.4	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,143.300	64.29	74.0	9.71	13.91	V	359.0	2.0
1	5,150.000	62.11	74.0	11.89	13.95	V	5.2	1.0
1	5,180.650	103.3			14.18	V	275.6	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,134.750	39.39	54.0	14.61	13.86	V	4.6	1.0
1	5,150.000	38.69	54.0	15.31	13.95	V	260.2	2.0
1	5,183.350	90.39			14.2	V	211.1	2.0



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
2. 5180MHz: Fundamental frequency.



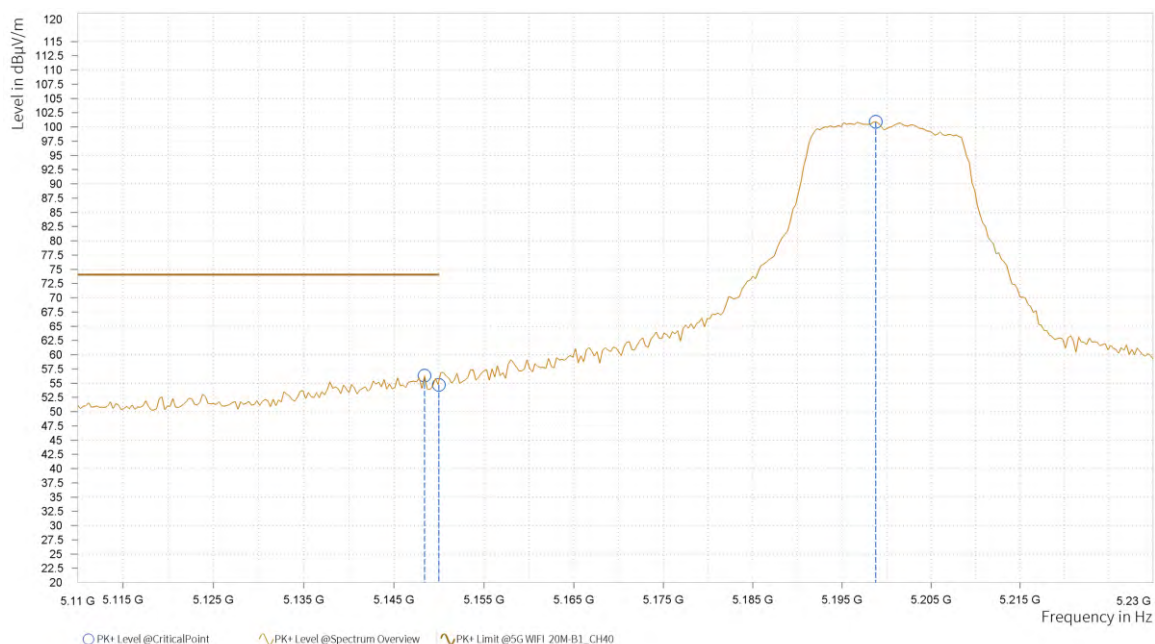
BUREAU
VERITAS

Test Report No.: PSU-NQN2406210109RF09

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,148.400	56.32	74.0	17.68	13.94	H	104.8	2.0
2	5,150.000	54.72	74.0	19.28	13.95	H	104.8	2.0
2	5,198.800	100.9			14.3	H	209.9	2.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

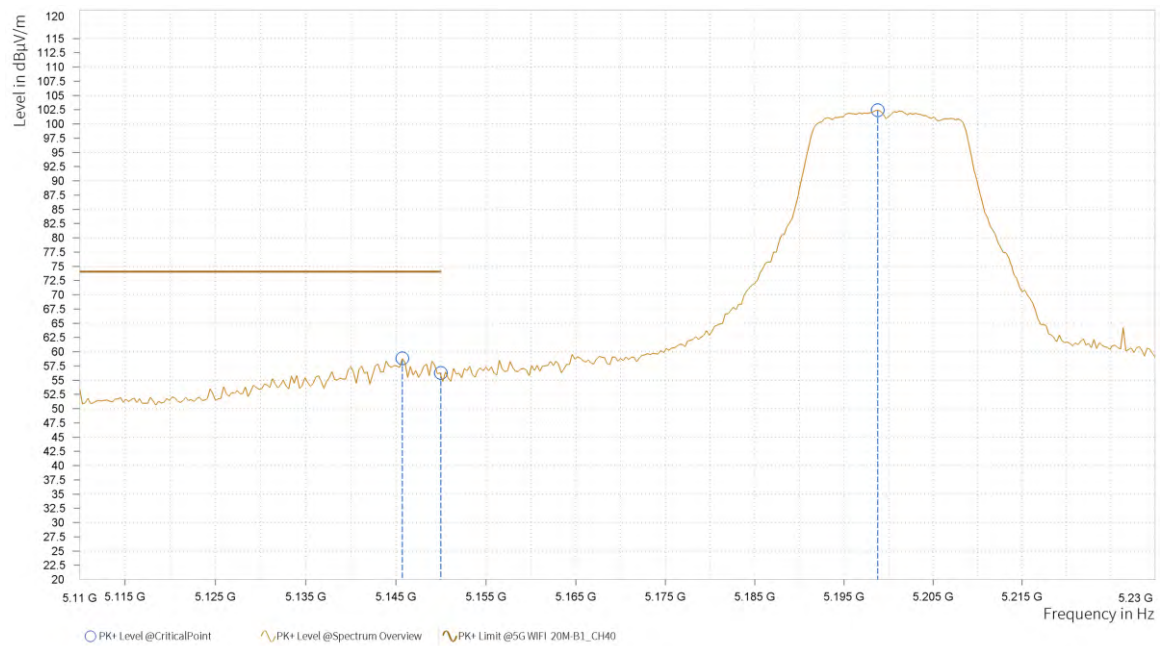
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.600	40.32	54.0	13.68	13.95	H	102.4	2.0
2	5,150.000	40.3	54.0	13.7	13.95	H	102.4	2.0
2	5,198.800	89.95			14.3	H	207.5	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,145.700	58.8	74.0	15.2	13.92	V	97.7	2.0
2	5,150.000	56.28	74.0	17.72	13.95	V	97.7	2.0
2	5,198.800	102.4			14.3	V	208.6	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.600	40.01	54.0	13.99	13.95	V	7.4	1.0
2	5,150.000	40.01	54.0	13.99	13.95	V	7.4	1.0
2	5,203.000	91.07			14.29	V	201.5	1.0



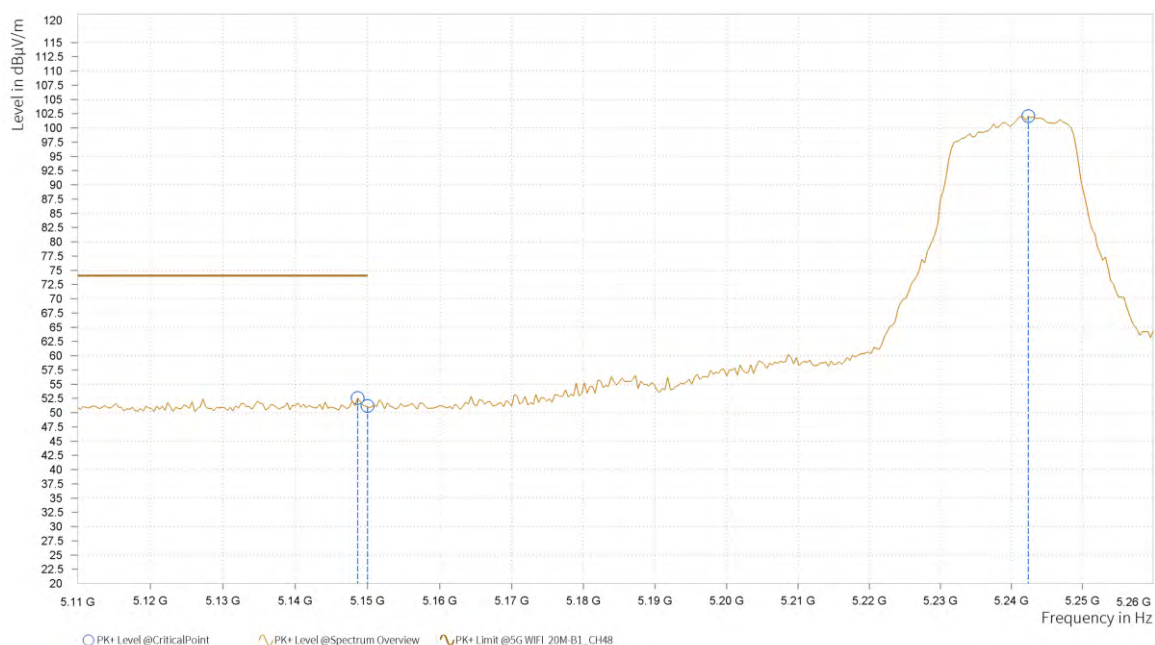
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5200MHz: Fundamental frequency.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

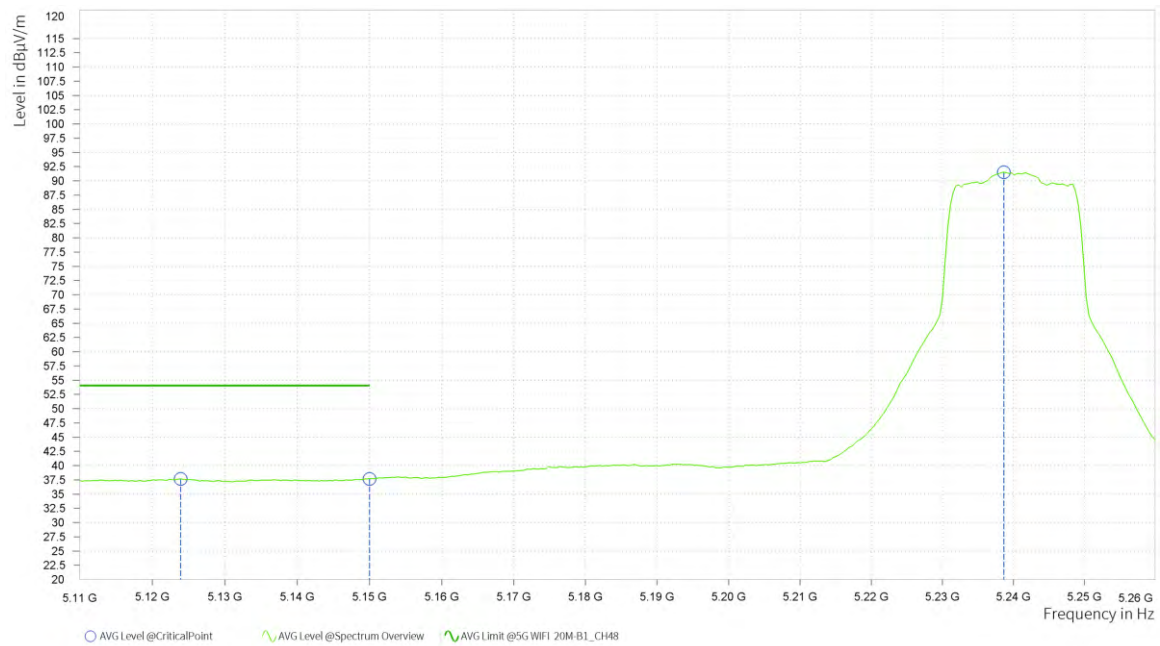
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,148.625	52.58	74.0	21.42	13.94	H	266.1	1.0
3	5,150.000	51.15	74.0	22.85	13.95	H	353.8	1.0
3	5,242.380	102.07			14.18	H	5.1	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

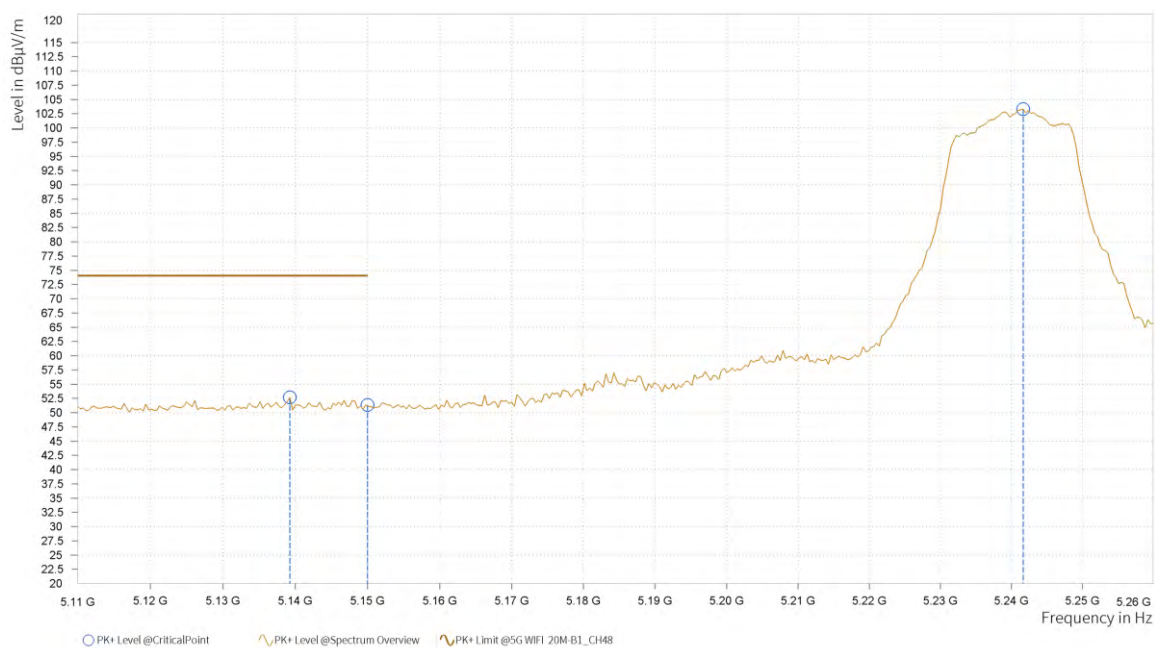
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,123.875	37.66	54.0	16.34	13.8	H	45.0	1.0
3	5,150.000	37.68	54.0	16.32	13.95	H	95.2	1.0
3	5,238.625	91.51			14.19	H	5.1	1.0





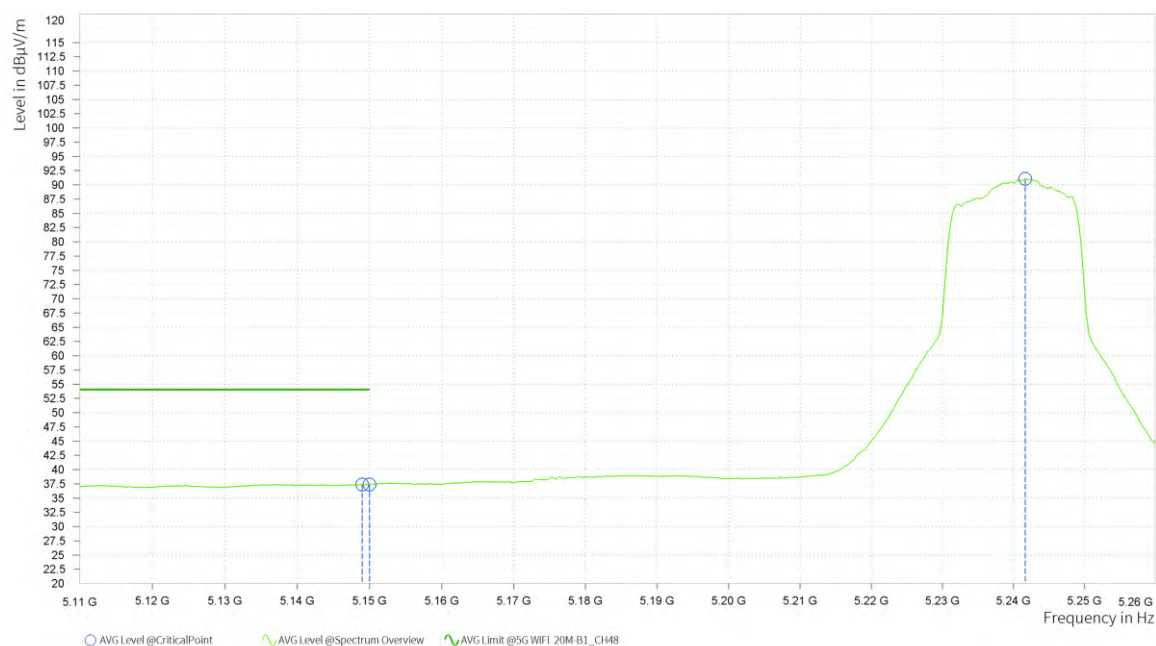
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,139.250	52.67	74.0	21.33	13.89	V	314.0	2.0
3	5,150.000	51.34	74.0	22.66	13.95	V	0.9	2.0
3	5,241.630	103.3			14.18	V	4.5	1.0



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,149.000	37.37	54.0	16.63	13.94	V	233.8	1.0
3	5,150.000	37.39	54.0	16.61	13.95	V	359.1	1.0
3	5,241.625	91.07			14.18	V	5.1	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5240MHz: Fundamental frequency.



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VERITAS

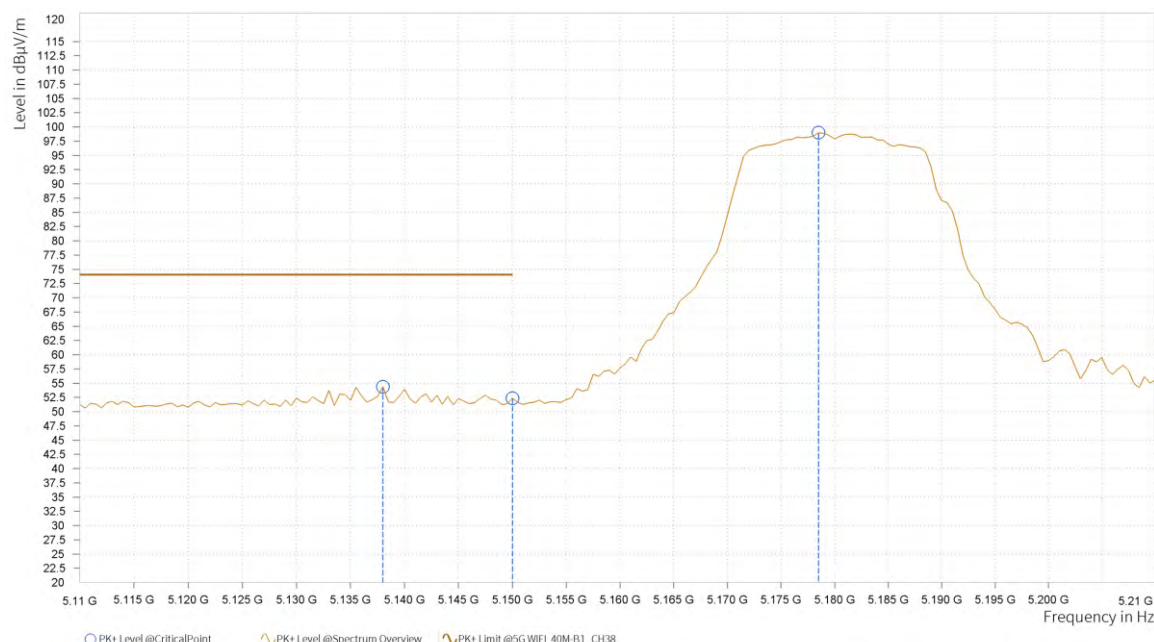
Test Report No.: PSU-NQN2406210109RF09

802.11n (40MHz)

CHANNEL	TX Channel 38	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,138.000	54.37	74.0	19.63	13.88	H	183.6	2.0
1	5,150.000	52.36	74.0	21.64	13.95	H	51.6	1.0
1	5,178.500	98.97			14.17	H	136.4	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

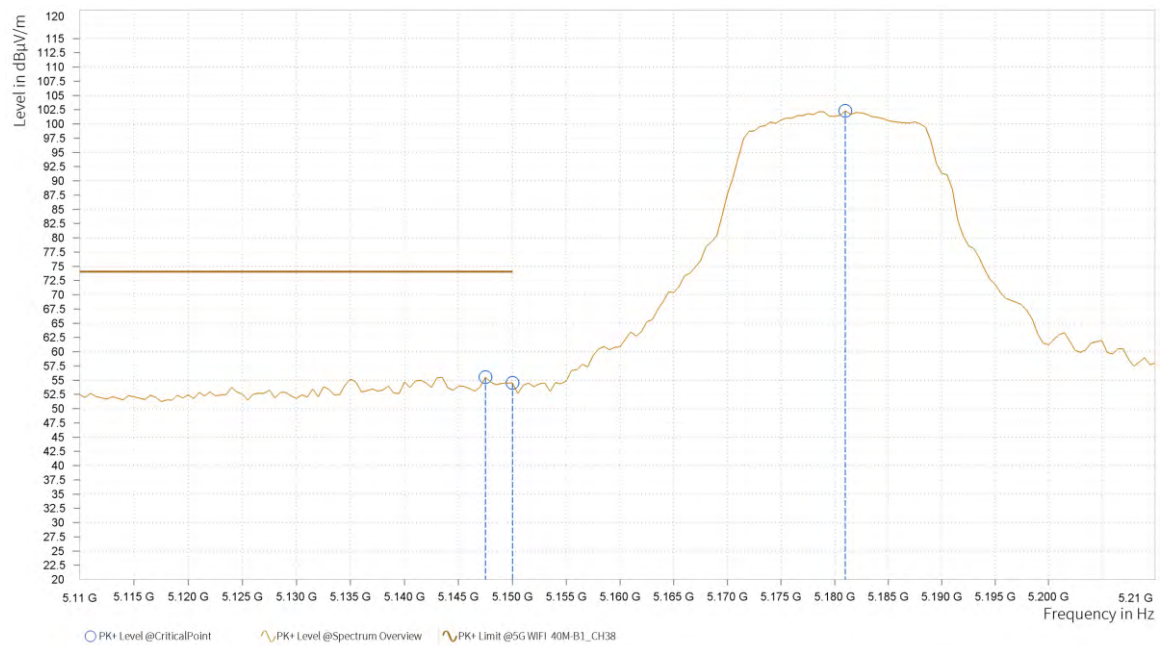
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.500	38.7	54.0	15.3	13.95	H	53.4	1.0
1	5,150.000	38.79	54.0	15.21	13.95	H	53.4	1.0
1	5,181.500	86.78			14.19	H	131.0	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,147.500	55.53	74.0	18.47	13.93	V	95.3	2.0
1	5,150.000	54.53	74.0	19.47	13.95	V	95.3	2.0
1	5,181.000	102.29			14.19	V	154.4	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.500	38.79	54.0	15.21	13.95	V	250.6	1.0
1	5,150.000	38.87	54.0	15.13	13.95	V	250.6	1.0
1	5,182.000	90.06			14.19	V	250.6	1.0



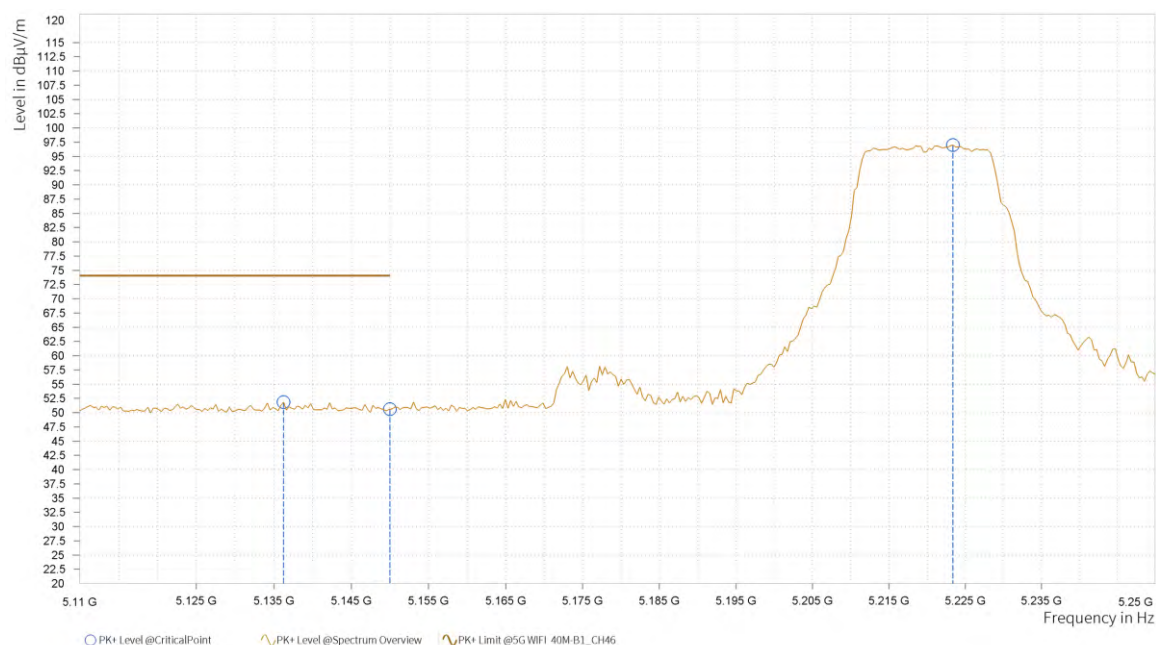
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5190MHz: Fundamental frequency.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

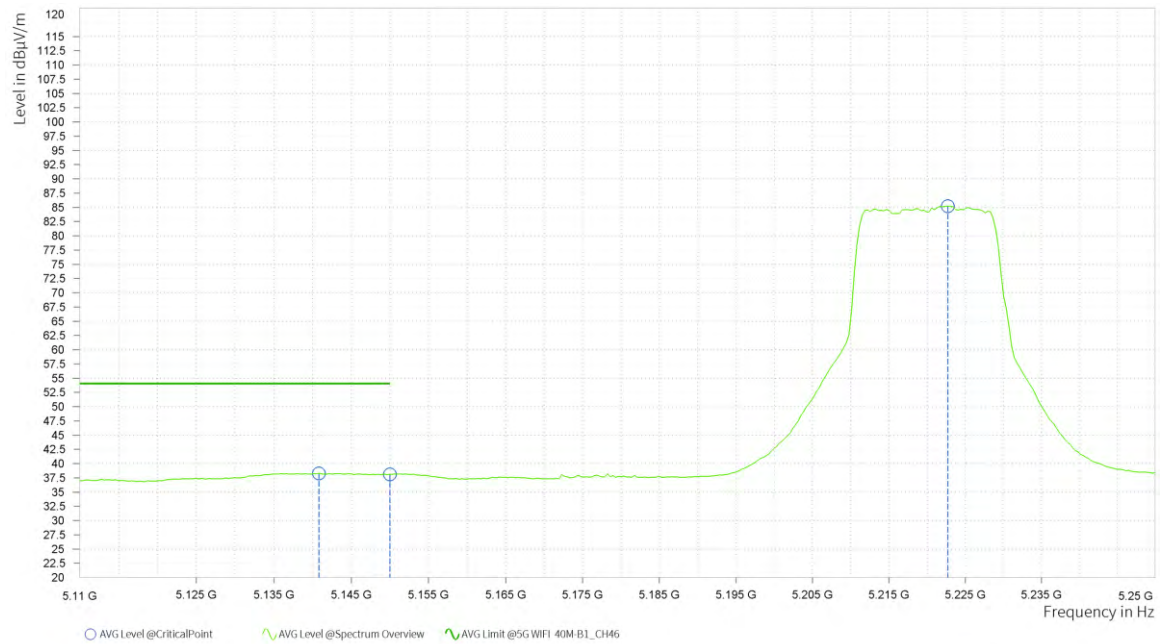
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,136.250	51.87	74.0	22.13	13.87	H	359.1	1.0
2	5,150.000	50.59	74.0	23.41	13.95	H	6.2	1.0
2	5,223.400	96.98			14.23	H	28.4	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

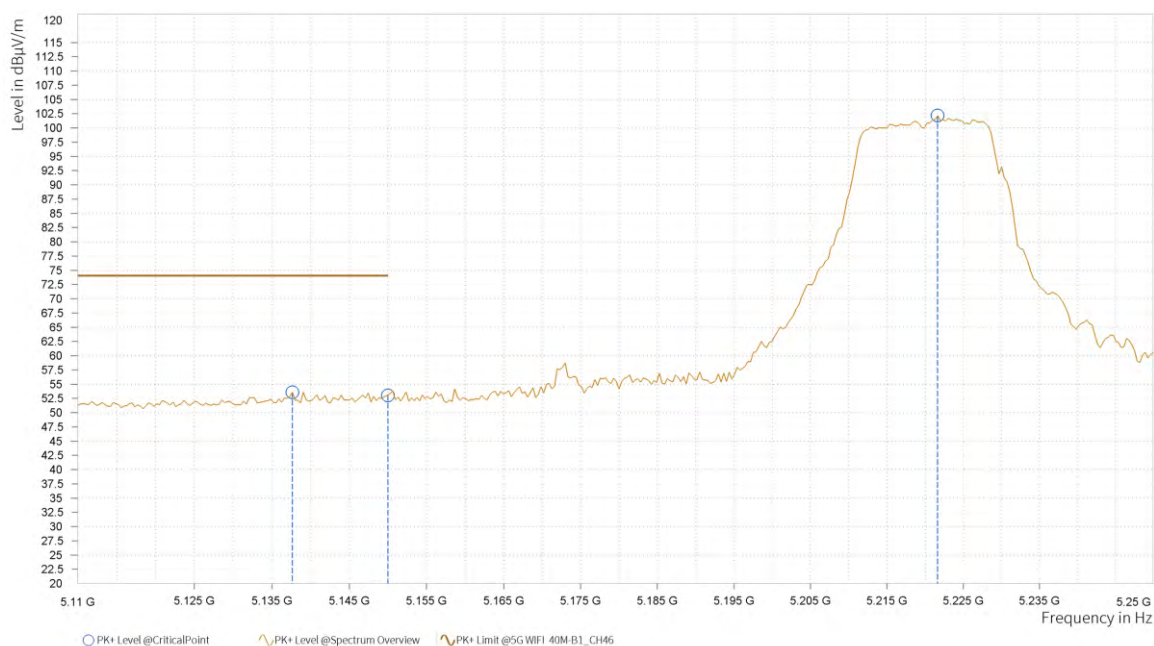
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,140.800	38.27	54.0	15.73	13.9	H	56.3	1.0
2	5,150.000	38.08	54.0	15.92	13.95	H	56.3	1.0
2	5,222.700	85.21			14.23	H	132.2	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,137.650	53.6	74.0	20.4	13.88	V	199.7	2.0
2	5,150.000	53.04	74.0	20.96	13.95	V	359.0	2.0
2	5,221.650	102.15			14.24	V	28.4	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,136.950	38.35	54.0	15.65	13.87	V	271.9	1.0
2	5,150.000	38.01	54.0	15.99	13.95	V	217.6	1.0
2	5,222.700	88.2			14.23	V	27.8	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5230MHz: Fundamental frequency.

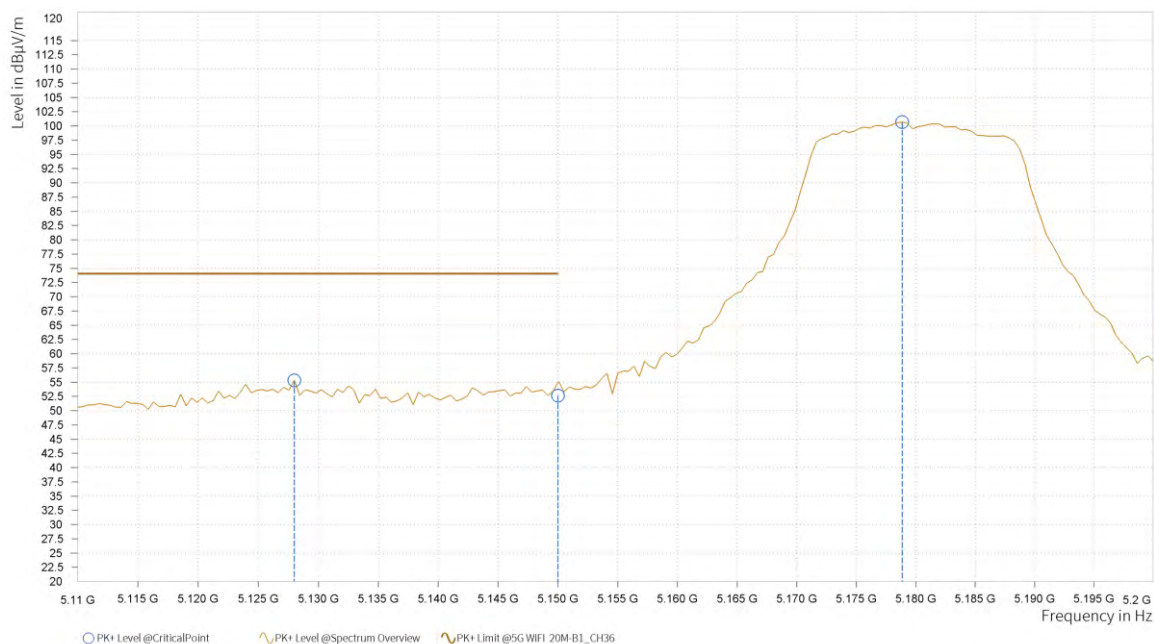


802.11ac (20MHz)

CHANNEL	TX Channel 36	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,128.000	55.33	74.0	18.67	13.82	H	46.0	1.0
1	5,150.000	52.64	74.0	21.36	13.94	H	115.4	2.0
1	5,178.850	100.66			14.17	H	46.0	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

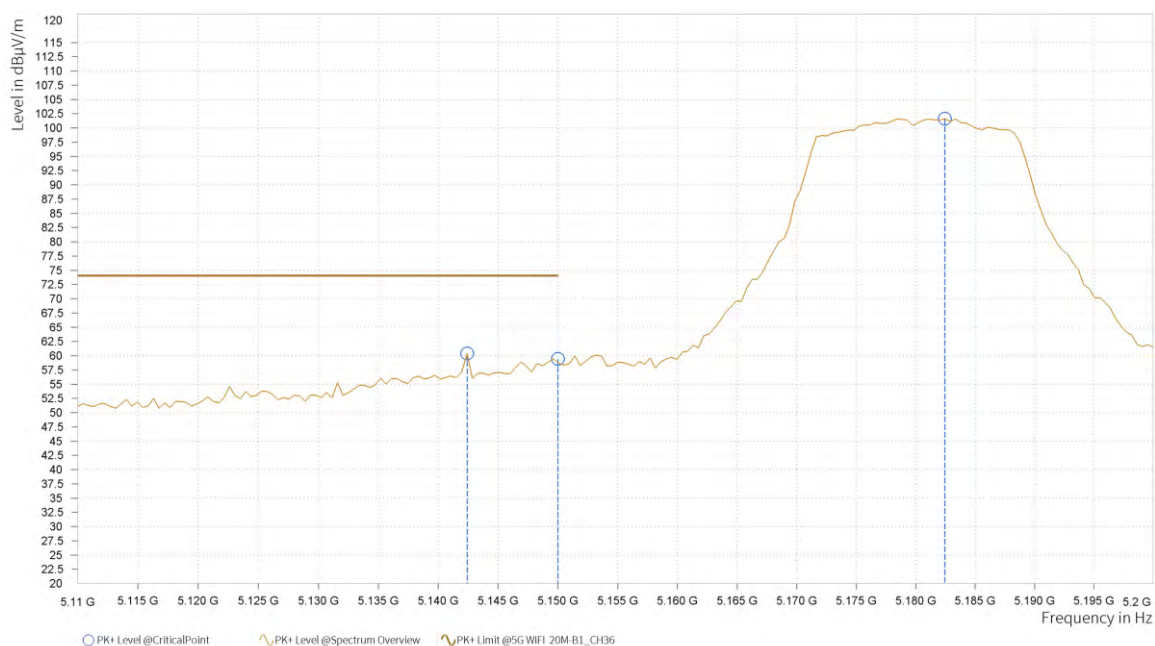
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,133.400	38.31	54.0	15.69	13.85	H	43.7	1.0
1	5,150.000	37.29	54.0	16.71	13.95	H	113.0	2.0
1	5,181.550	88.63			14.19	H	43.7	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,142.400	60.39	74.0	13.61	13.91	V	1.0	1.0
1	5,150.000	59.43	74.0	14.57	13.95	V	5.8	1.0
1	5,182.450	101.62			14.2	V	5.8	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,142.850	38.05	54.0	15.95	13.91	V	1.0	2.0
1	5,150.000	37.87	54.0	16.13	13.95	V	1.0	2.0
1	5,178.850	89.84			14.17	V	211.1	2.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5180MHz: Fundamental frequency.



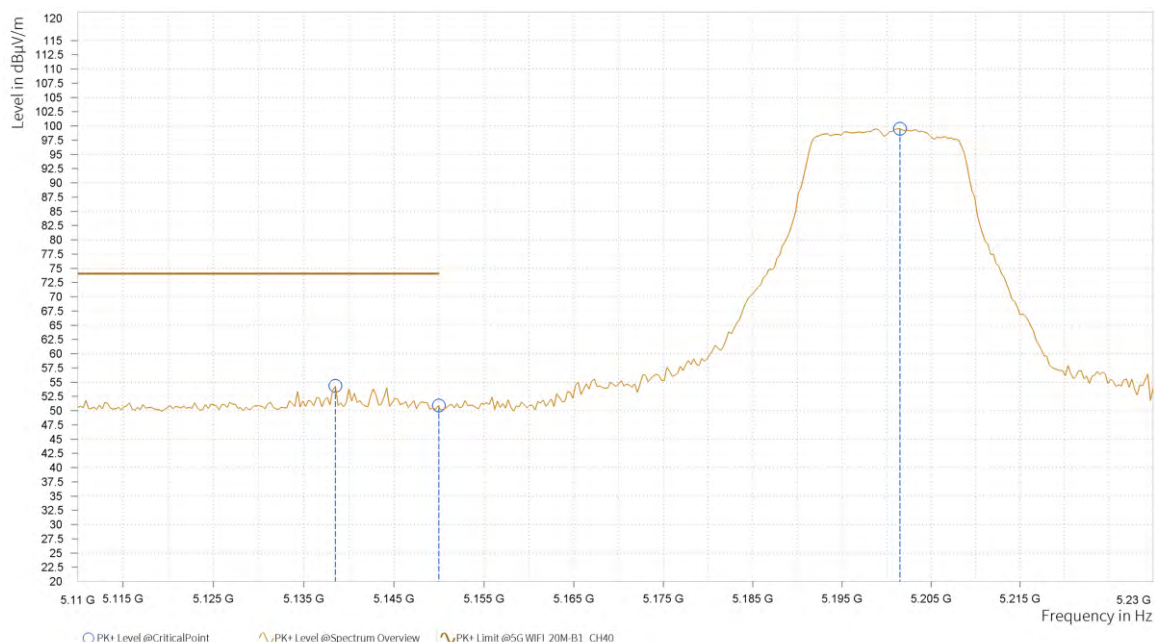
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Test Report No.: PSU-NQN2406210109RF09

CHANNEL	TX Channel 40	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,138.500	54.34	74.0	19.66	13.88	H	45.0	1.0
2	5,150.000	50.89	74.0	23.11	13.95	H	263.7	2.0
2	5,201.500	99.49			14.3	H	45.0	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,138.200	38.1	54.0	15.9	13.88	H	45	1.0
2	5,150.000	37.3	54.0	16.7	13.95	H	45	1.0
2	5,198.500	87.7			14.3	H	45	1.0



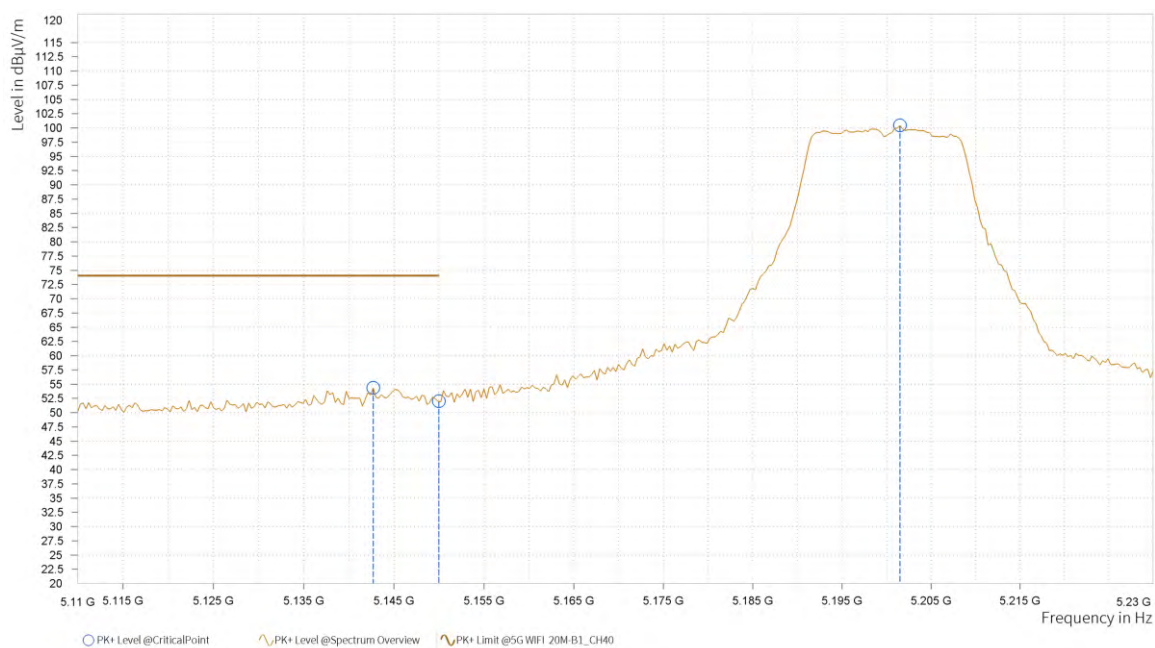


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Test Report No.: PSU-NQN2406210109RF09

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,142.700	54.34	74.0	19.66	13.91	V	359.0	2.0
2	5,150.000	51.98	74.0	22.02	13.95	V	19.6	2.0
2	5,201.500	100.43			14.3	V	207.5	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,142.700	37.87	54.0	16.13	13.91	V	147.8	2.0
2	5,150.000	37.78	54.0	16.22	13.95	V	82.1	2.0
2	5,198.500	87.94			14.3	V	359.1	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5200MHz: Fundamental frequency.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

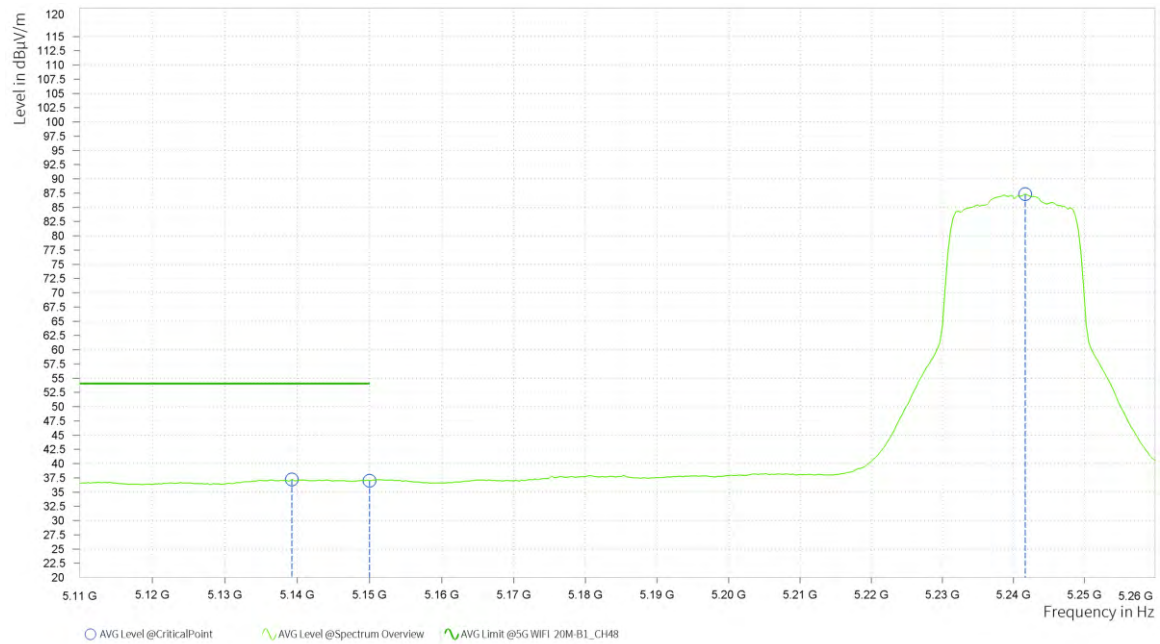
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,146.375	52.02	74.0	21.98	13.93	H	297.2	1.0
3	5,150.000	49.96	74.0	24.04	13.94	H	359.2	1.0
3	5,238.625	98.82			14.19	H	46.1	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

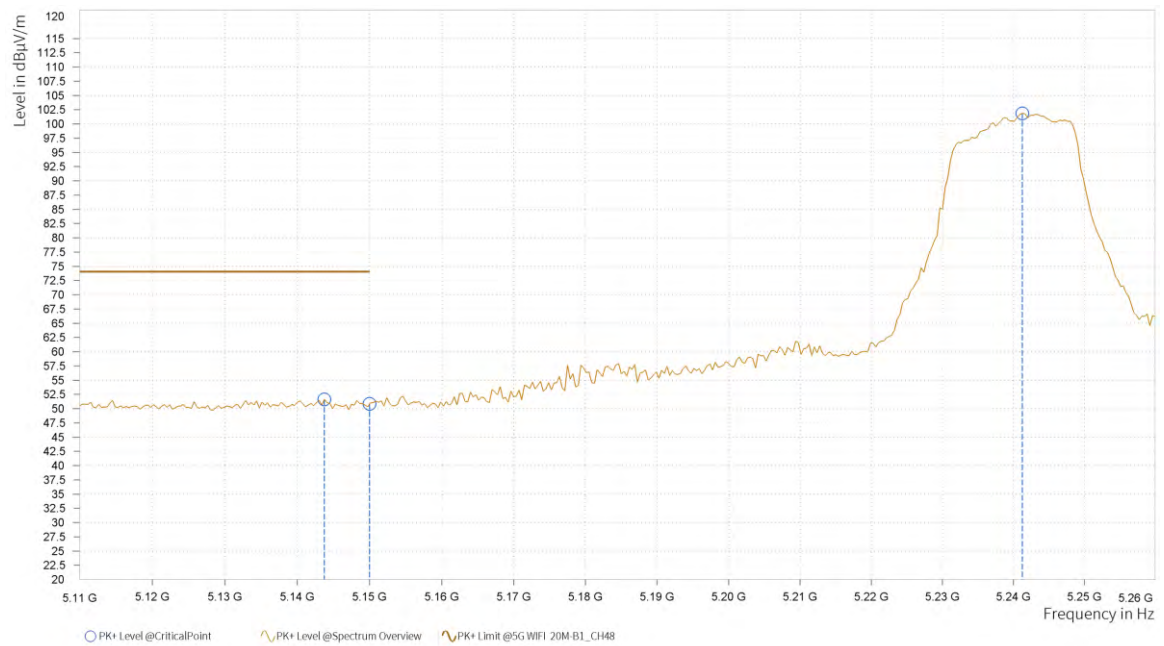
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,139.250	37.22	54.0	16.78	13.89	H	45	1.0
3	5,150.000	37.01	54.0	16.99	13.94	H	45	1.0
3	5,241.625	87.34			14.18	H	45	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,143.750	51.64	74.0	22.36	13.91	V	359.1	1.0
3	5,150.000	50.85	74.0	23.15	13.95	V	0.9	2.0
3	5,241.250	101.87			14.18	V	106.0	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,123.125	37.04	54.0	16.96	13.8	V	5.1	1.0
3	5,150.000	37.04	54.0	16.96	13.95	V	327.1	1.0
3	5,241.625	89.67			14.18	V	5.1	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5240MHz: Fundamental frequency.



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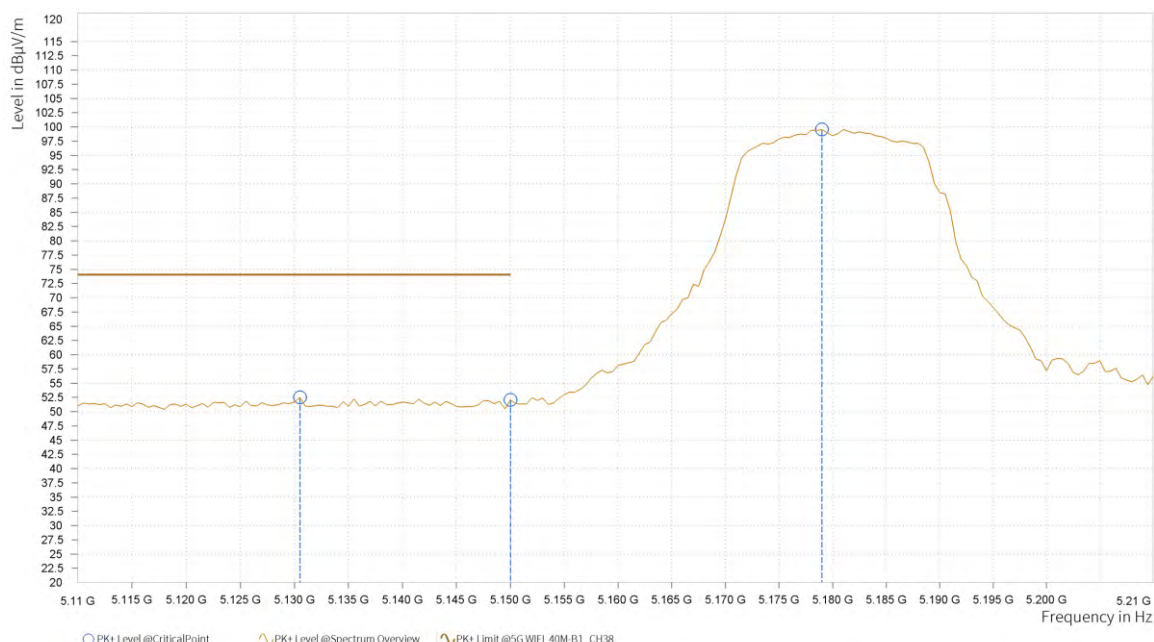
Test Report No.: PSU-NQN2406210109RF09

802.11ac (40MHz)

CHANNEL	TX Channel 38	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,130.500	52.49	74.0	21.51	13.84	H	56.4	1.0
1	5,150.000	52.08	74.0	21.92	13.95	H	92.2	2.0
1	5,179.000	99.53			14.17	H	135.8	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,135.000	37.93	54.0	16.07	13.86	H	56.4	1.0
1	5,150.000	37.59	54.0	16.41	13.95	H	134.6	1.0
1	5,181.500	87.42			14.19	H	134.6	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

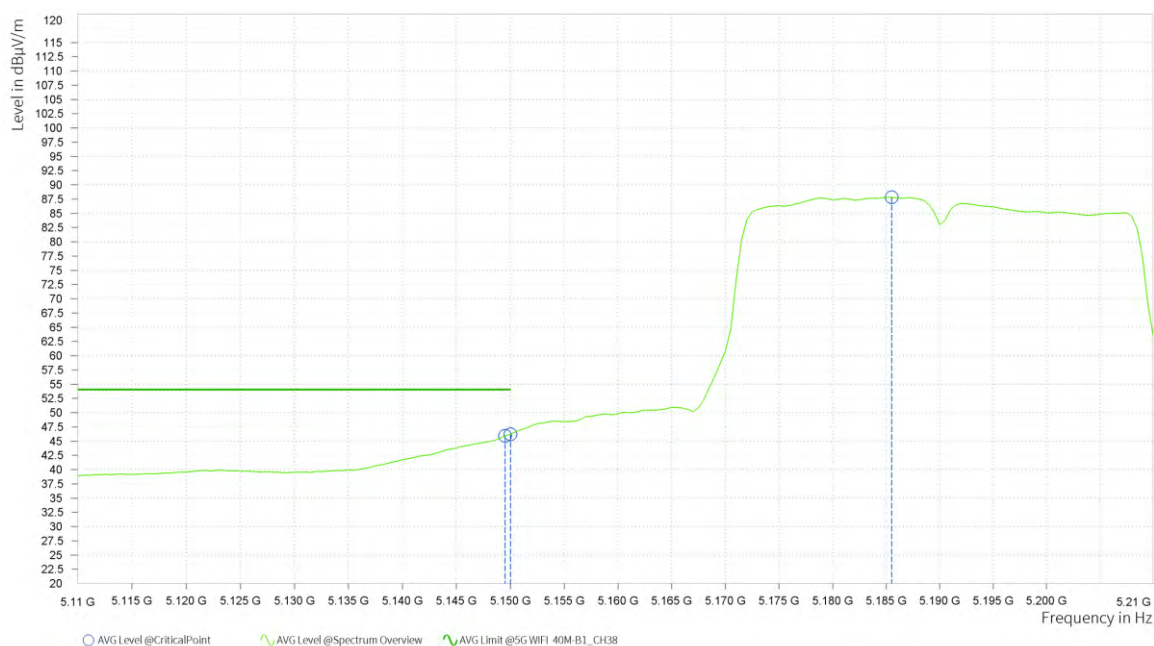
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,126.000	61.31	74.0	12.69	13.81	V	358.0	1.0
1	5,150.000	61.39	74.0	12.61	13.95	V	27.8	1.0
1	5,187.000	100.45			14.23	V	131.0	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	5,149.500	45.95	54.0	8.05	13.95	V	212.3	1.0
1	5,150.000	46.21	54.0	7.79	13.95	V	212.3	1.0
1	5,185.500	87.81			14.22	V	212.3	1.0



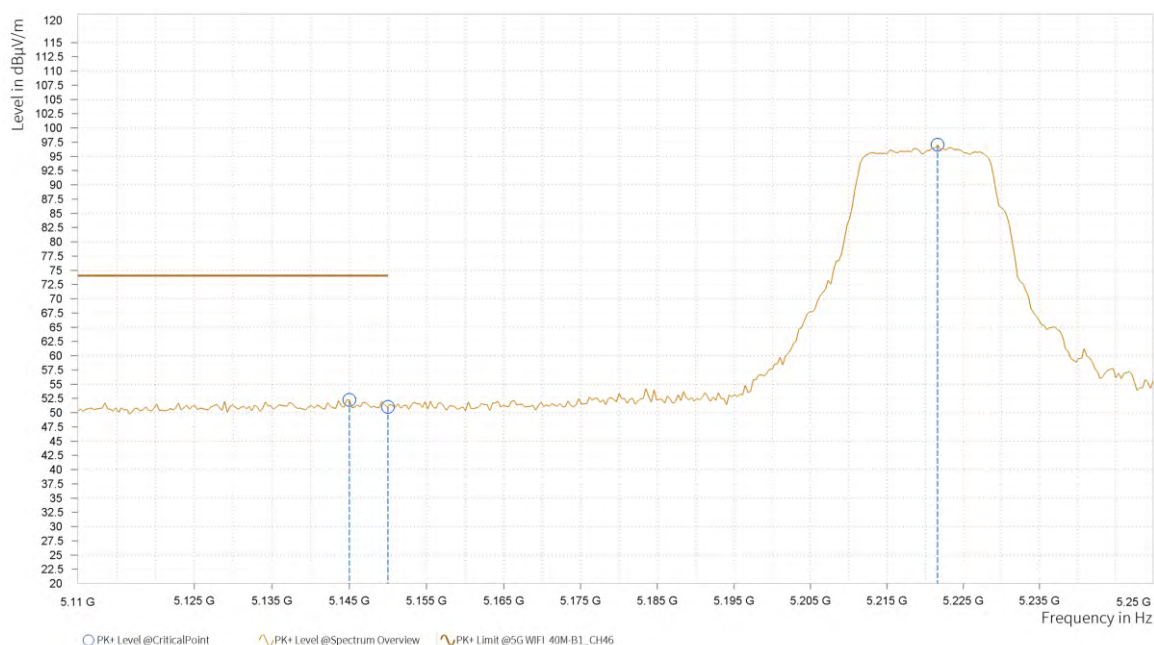
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5190MHz: Fundamental frequency.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

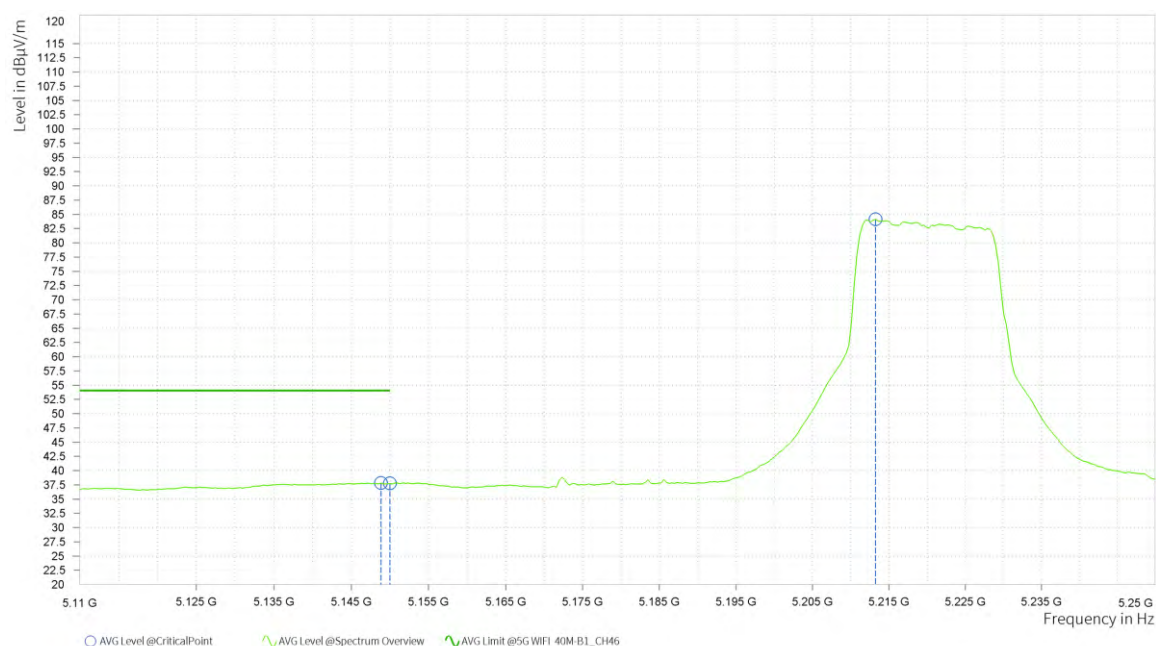
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,145.000	52.23	74.0	21.77	13.92	H	91.6	2.0
2	5,150.000	51.01	74.0	22.99	13.95	H	55.3	1.0
2	5,221.650	97.02			14.24	H	135.3	1.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,148.850	37.8	54.0	16.2	13.94	H	56.4	1.0
2	5,150.000	37.74	54.0	16.26	13.95	H	56.4	1.0
2	5,213.250	84.12			14.26	H	104.2	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

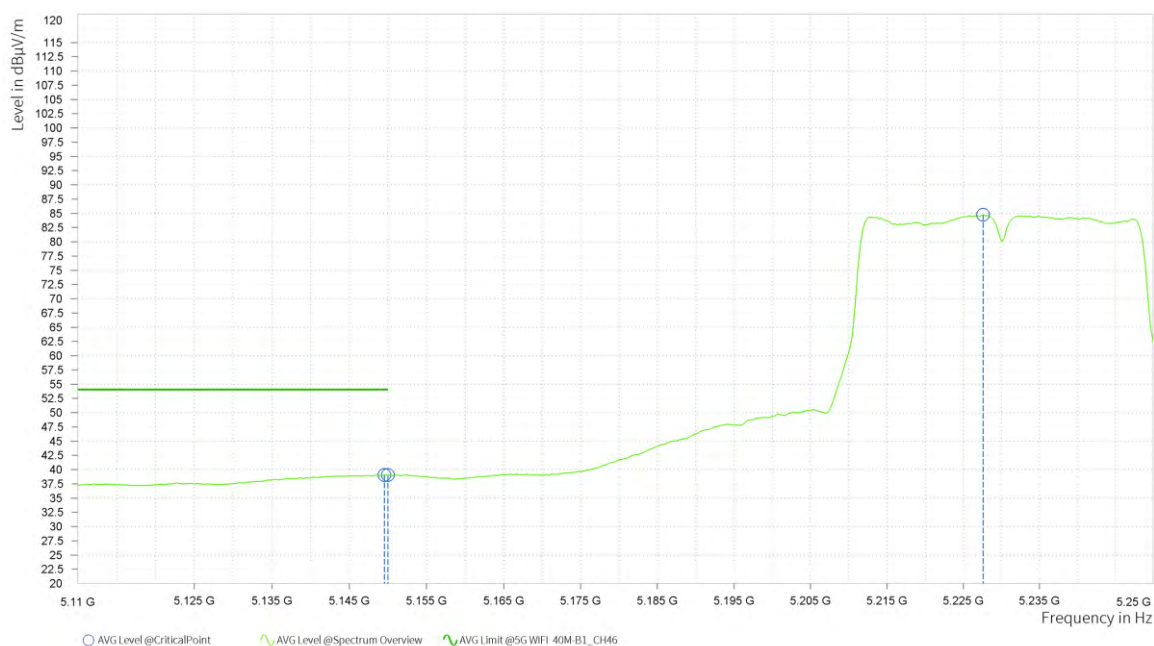
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,143.600	55.27	74.0	18.73	13.91	V	89.8	2.0
2	5,150.000	53.95	74.0	20.05	13.95	V	89.8	2.0
2	5,239.150	99.74			14.19	V	197.8	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	5,149.550	39.06	54.0	14.94	13.95	V	221.3	1.0
2	5,150.000	39.04	54.0	14.96	13.95	V	221.3	1.0
2	5,227.600	84.75			14.22	V	247.0	1.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5230MHz: Fundamental frequency.



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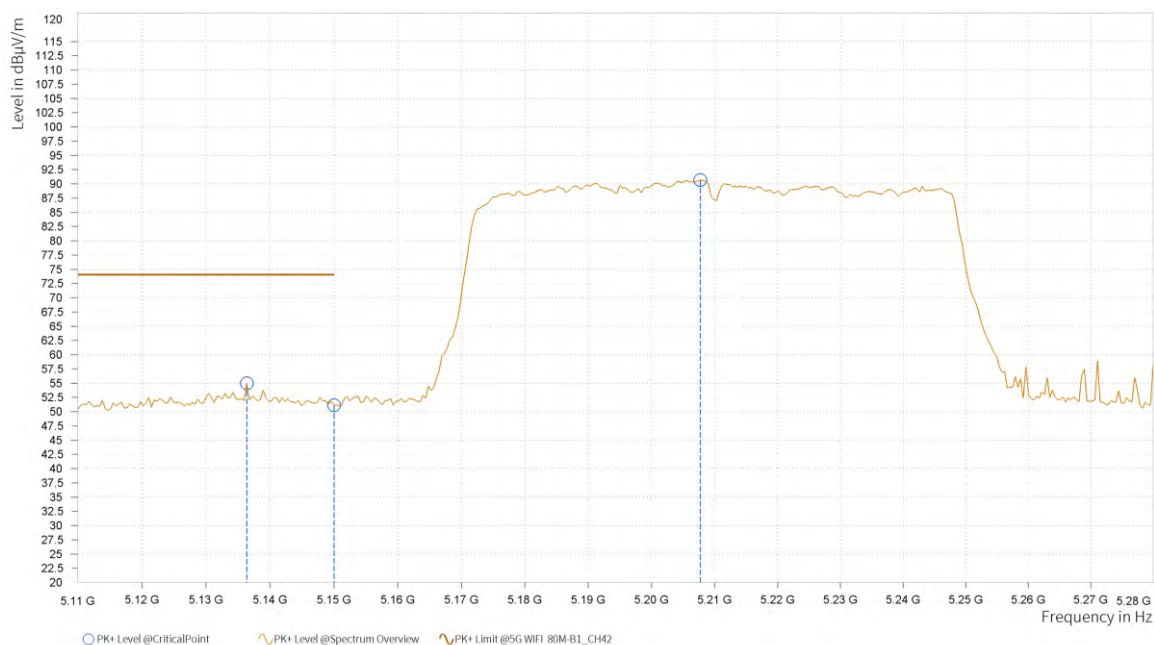
Test Report No.: PSU-NQN2406210109RF09

802.11ac (80MHz)

CHANNEL	TX Channel 42	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]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,136.350	54.99	74.0	19.01	13.87	H	358.9	1.0
10	5,150.000	51.12	74.0	22.88	13.95	H	359.0	1.0
10	5,207.750	90.67			14.28	H	196.7	2.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,138.050	39.59	54.0	14.41	13.88	H	46.2	1.0
10	5,150.000	38.08	54.0	15.92	13.95	H	355.0	2.0
10	5,203.500	77.43			14.29	H	103.6	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,135.500	63.6	74.0	10.4	13.87	V	147.8	1.0
10	5,150.000	56.78	74.0	17.22	13.95	V	147.8	1.0
10	5,191.175	96.68			14.26	V	200.3	1.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,147.825	44.79	54.0	9.21	13.94	V	48.6	1.0
10	5,150.000	44.76	54.0	9.24	13.95	V	48.6	1.0
10	5,208.175	80.91			14.28	V	48.6	1.0



REMARKS:

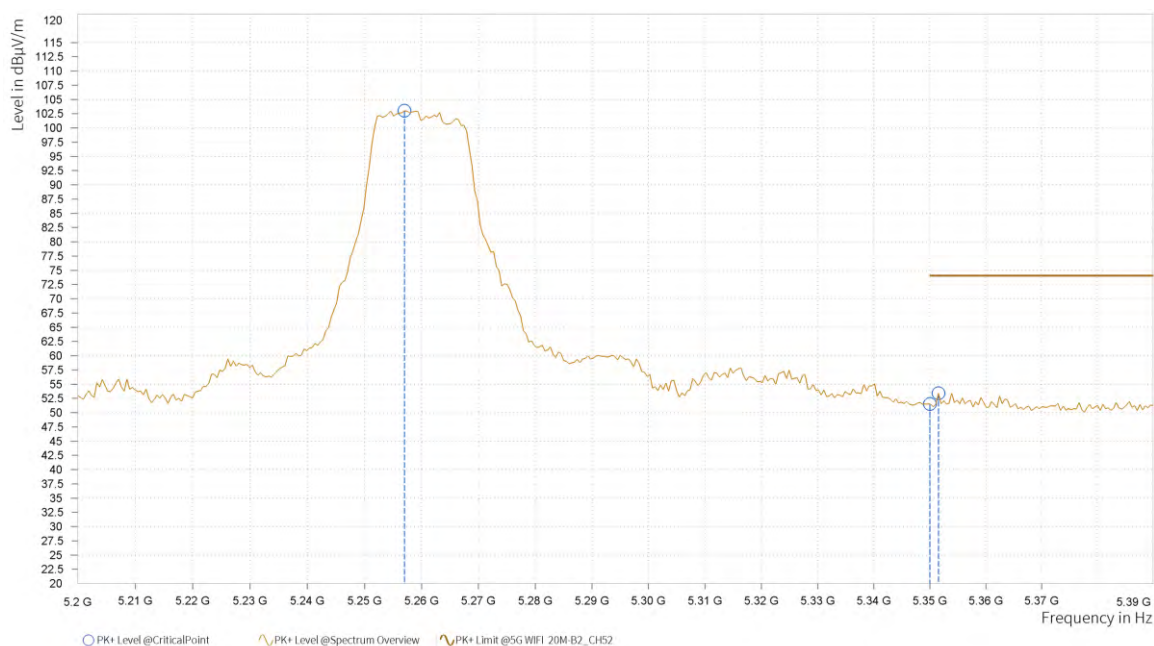
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5210MHz: Fundamental frequency.

**Band 2:
802.11a**

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

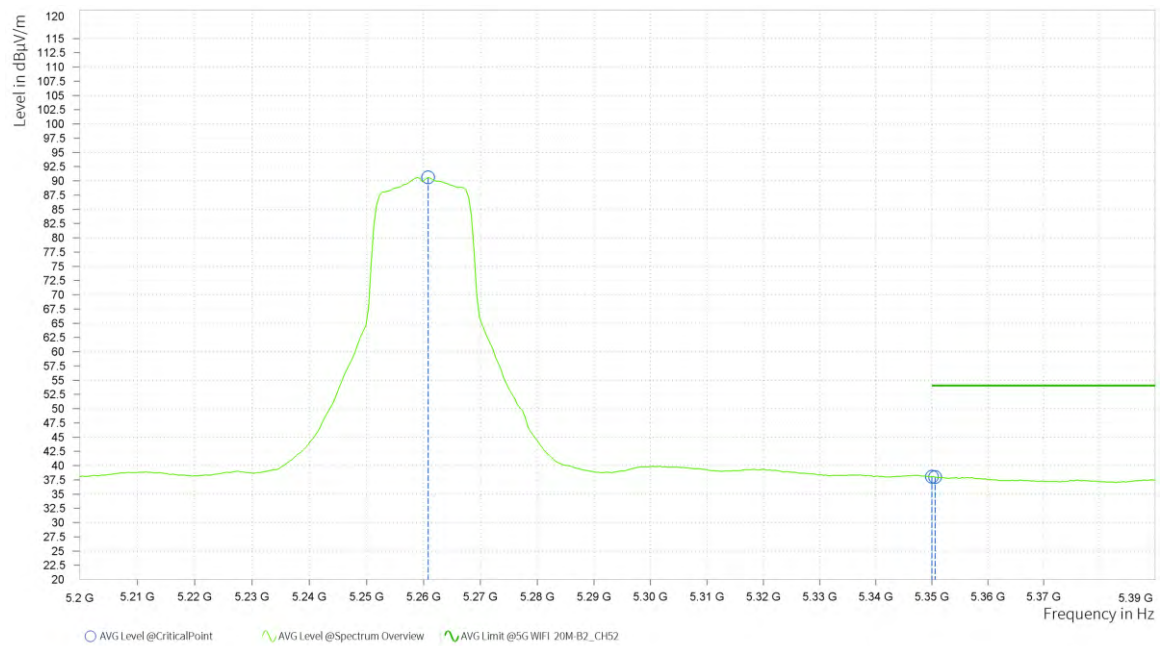
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,257.000	103.0			14.15	H	48.5	1.0
4	5,350.000	51.5	74.0	22.5	14.27	H	165.7	2.0
4	5,351.525	53.41	74.0	20.59	14.28	H	114.2	2.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

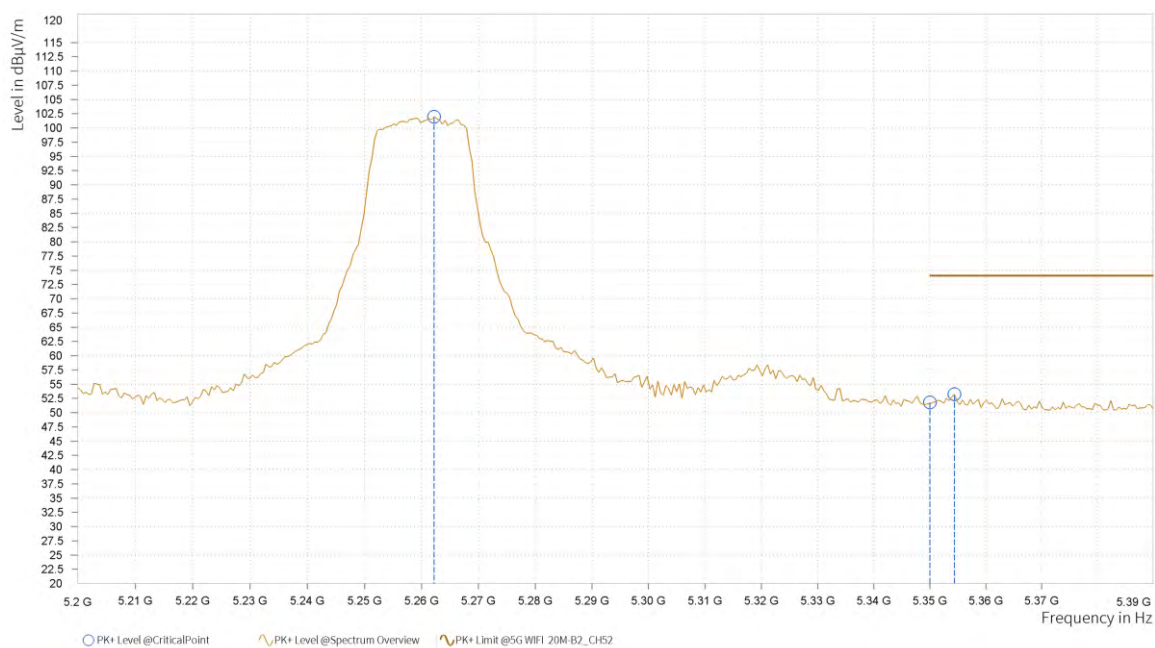
Rg	Frequency [MHz]	AVG Level [dB μ V/m]	AVG Limit [dB μ V/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,260.800	90.59			14.14	H	5.1	1.0
4	5,350.000	38.06	54.0	15.94	14.27	H	248.2	2.0
4	5,350.575	37.99	54.0	16.01	14.27	H	248.2	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

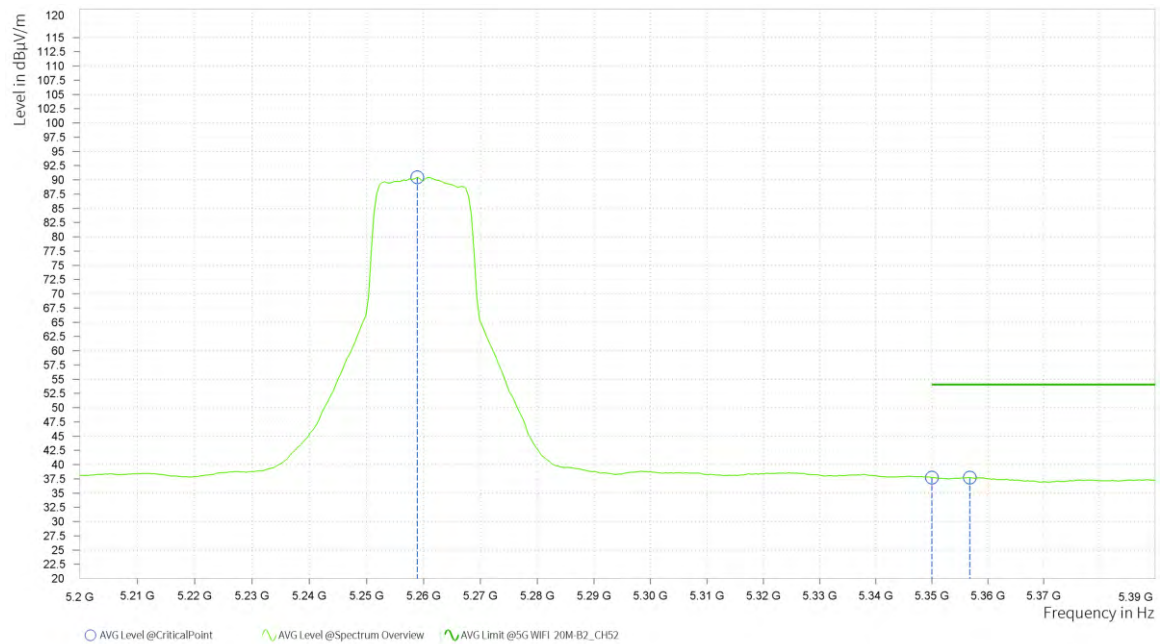
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,262.225	101.96			14.14	V	67.6	2.0
4	5,350.000	51.81	74.0	22.19	14.27	V	0.9	2.0
4	5,354.375	53.22	74.0	20.78	14.28	V	117.8	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,258.900	90.46			14.15	V	218.3	2.0
4	5,350.000	37.71	54.0	16.29	14.27	V	218.3	2.0
4	5,356.750	37.7	54.0	16.3	14.28	V	218.3	2.0



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
2. 5260MHz: Fundamental frequency.



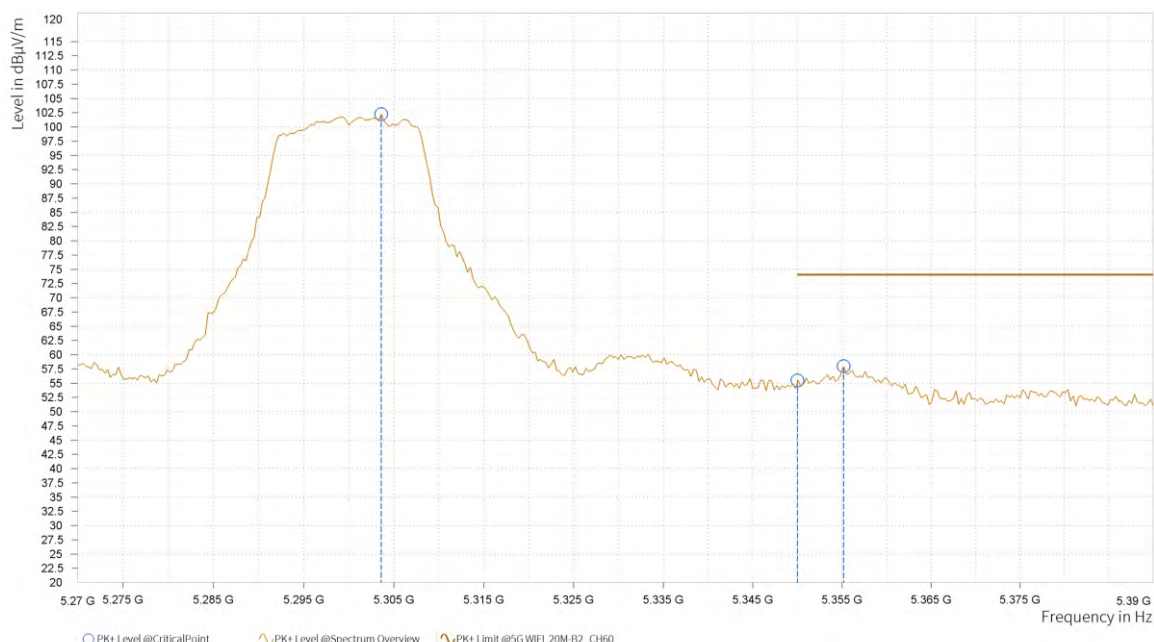
BUREAU
VERITAS

Test Report No.: PSU-NQN2406210109RF09

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

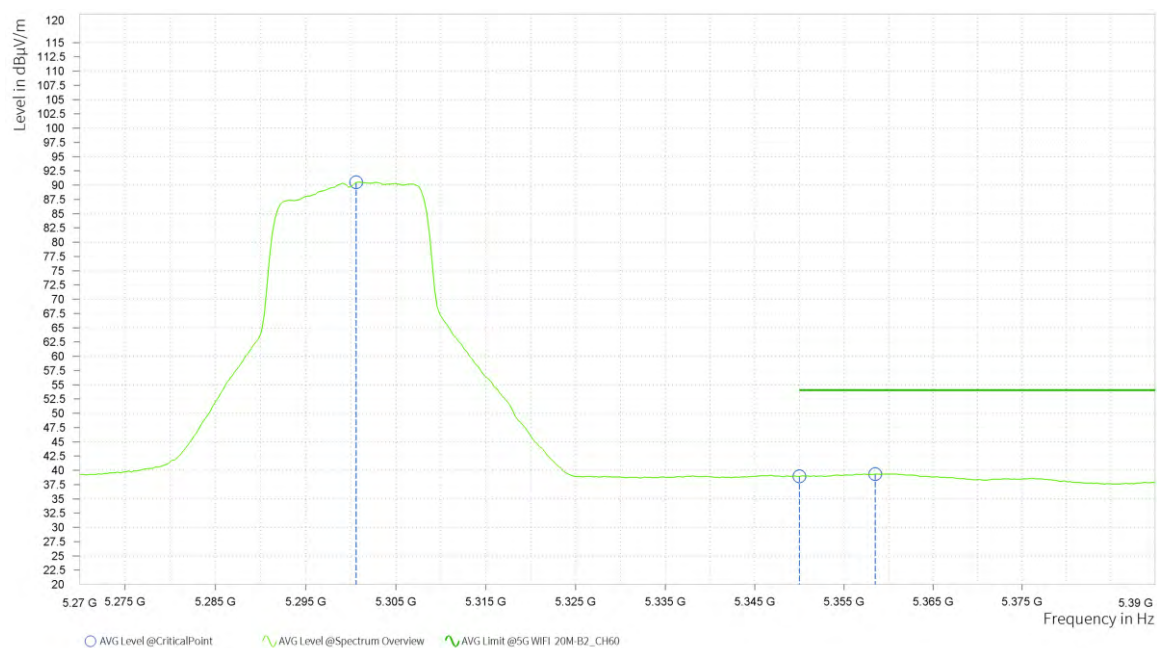
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,303.600	102.25			14.12	H	217.1	2.0
5	5,350.000	55.49	74.0	18.51	14.27	H	43.7	1.0
5	5,355.200	57.97	74.0	16.03	14.28	H	264.9	2.0





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

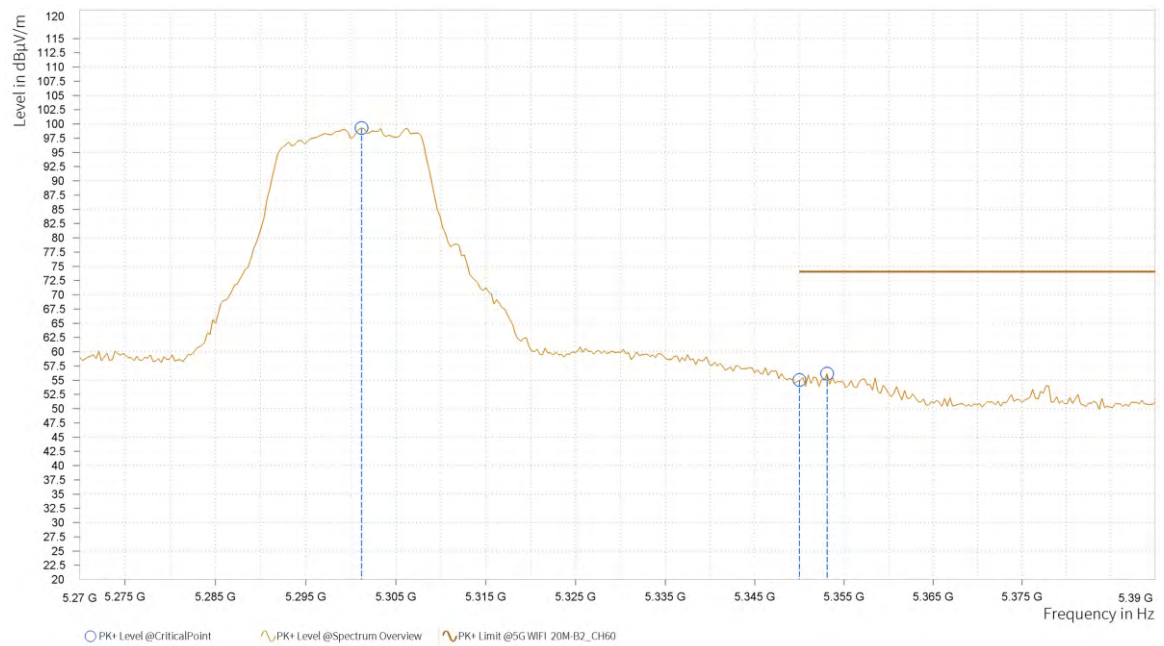
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,300.600	90.49			14.11	H	215.9	2.0
5	5,350.000	38.96	54.0	15.04	14.27	H	116.7	2.0
5	5,358.500	39.35	54.0	14.65	14.28	H	116.7	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

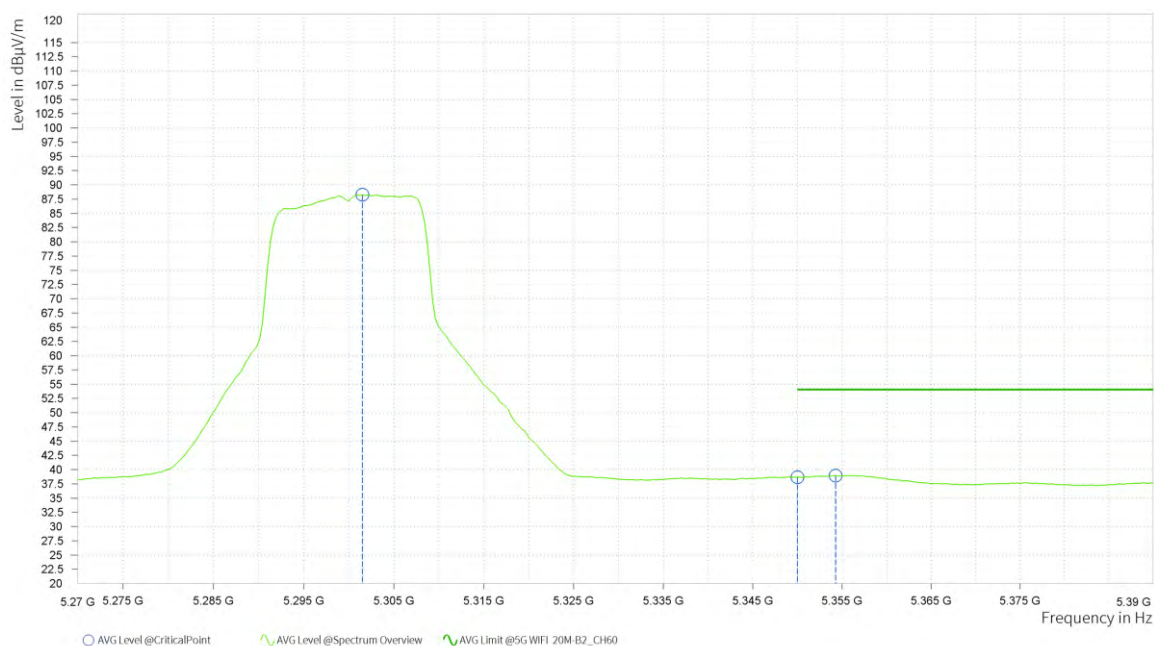
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,301.200	99.29			14.12	V	340.4	1.0
5	5,350.000	55.0	74.0	19.0	14.27	V	316.4	2.0
5	5,353.100	56.15	74.0	17.85	14.28	V	217.1	2.0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,301.500	88.25			14.12	V	264.9	2.0
5	5,350.000	38.68	54.0	15.32	14.27	V	264.9	2.0
5	5,354.300	38.96	54.0	15.04	14.28	V	264.9	2.0



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value- Emission level.
- 5300MHz: Fundamental frequency.