FCC Test Report
(Class II Permissive Change)

Product Name	Intel Wireless-AC 9260
Model No.	9260NGW
FCC ID	2ANDV-VS100VS500

Applicant	Carl Zeiss Vision GmbH
Address	Turnstraße 27, 73430 Aalen, Germany

Date of Receipt	Jun. 27, 2022
Issued Date	Sep. 22, 2022
Report No.	2260854R-RFUSBT2V01-A
Report Version	V1.0

Testing Laboratory
3023

Test Report

Issued Date: Sep. 22, 2022
Report No.: 2260854R-RFUSBT2V01-A

Product Name	Intel Wireless-AC 9260
Applicant	Carl Zeiss Vision GmbH
Address	Turnstraße 27, 73430 Aalen, Germany
Manufacturer	Intel Mobile Communications
Model No.	9260NGW
FCC ID	2ANDV-VS100VS500
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	DC 3.3V (Power By Test Fixture)
Trade Name	Intel
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By : Ida Tung

(Project Specialist / Ida Tung)

Tested By : Ivan Chuang

(Senior Engineer / Ivan Chuang)

Approved By : Jack Hsu

(Senior Engineer / Jack Hsu)

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Revision History

Report No.	Version	Description	Issued Date
2260854R-RFUSBT2V01-A	V1.0	Initial issue of report.	Sep. 22, 2022

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intel Wireless-AC 9260
Trade Name	Intel
Model No.	9260NGW
FCC ID	2ANDV-VS100VS500
Frequency Range	2402-2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	Dipole Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	DELOCK	89454	Dipole	3.0dBi for 2.4GHz

Note: The antenna of EUT conforms to FCC 15.203.

Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

Note:

1. The EUT is an Intel Wireless-AC 9260 with a built-in 802.11 a/b/g/n/ac Wireless LAN + BDR/EDR 2.1 + BLE 4.2 transceiver, this report for Bluetooth BDR/EDR 2.1.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. This is to request a Class II permissive change.
   The major change filed under this application is:
   Change #1: Addition of new dipole type antenna is different from originally antenna type.
   Manufacturer: DELOCK, Part no.: 89454.
   Change #2: Reduce the Output Power. (Only reduce Wi-Fi Output Power, Bluetooth Output Power haven't changes).

Test Mode	Mode 1: Transmit - 1Mbps Mode 2: Transmit - 2Mbps Mode 3: Transmit - 3Mbps

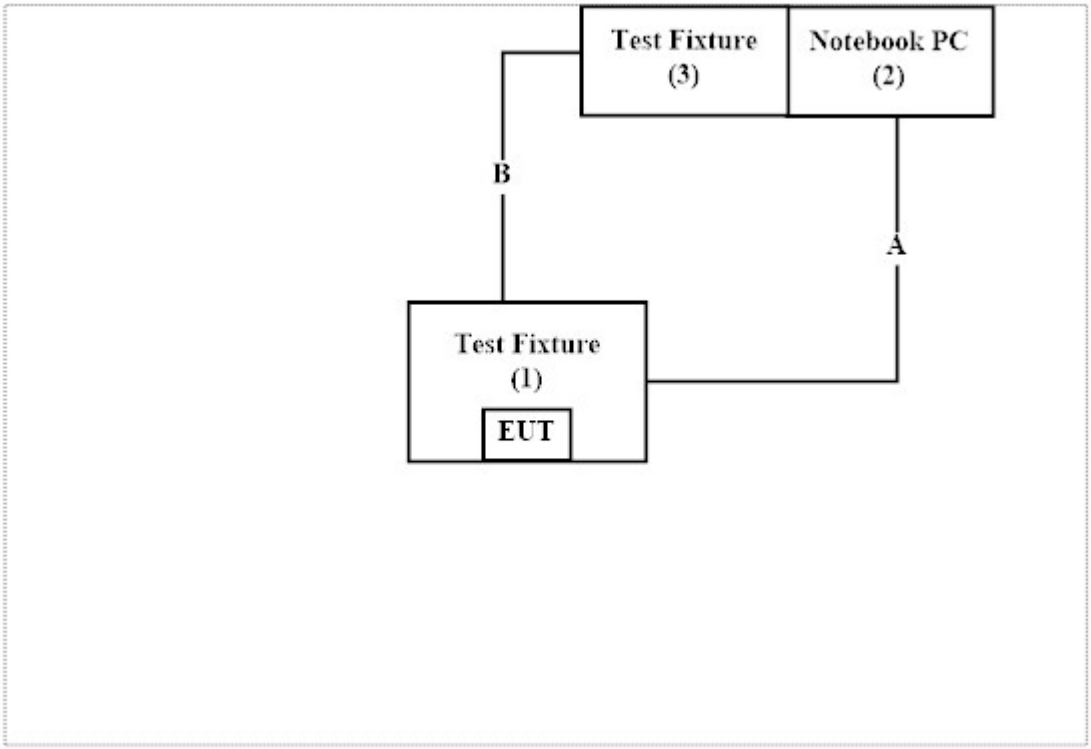
1.2. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Test Fixture	Intel	N/A	N/A	N/A
2	Notebook PC	DELL	P25G	N/A	N/A
3	Test Fixture	Intel	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	USB Cable	Non-shielded, 1.0m
B	Signal Cable	Non-shielded, 1.0m

1.3. Configuration of Tested System



1.4. EUT Exercise Software

1. Setup the EUT as shown in Section 1.3.
2. Execute software “DRTU Version 12.1947.0-10428” on the Notebook PC.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.5. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Radiated Emission	Temperature (°C)	10~40 °C	24.5 °C
	Humidity (%RH)	10~90 %	56.0 %
Conductive	Temperature (°C)	10~40 °C	22.0 °C
	Humidity (%RH)	10~90 %	55.0 %

USA : FCC Registration Number: TW0033

Canada : CAB Identifier Number: TW3023 / Company Number: 26930

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location : No. 26, Huaya 1st Rd., Guishan Dist.,Taoyuan City 333411, Taiwan, R.O.C.
Phone number : +886-3-275-7255
Fax number : +886-3-327-8031
Email address : info.tw@dekra.com
Website : http://www.dekra.com.tw

1.6. List of Test Equipment

For Conducted measurements /HY-SR02

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due. Date
X	Spectrum Analyzer	R&S	FSV30	103466	2021.12.27	2022.12.26
X	Peak Power Analyzer	KEYSIGHT	8900B	MY51000539	2022.05.27	2023.05.26
X	Power Sensor	KEYSIGHT	N1923A	MY59240002	2022.05.19	2023.05.18
X	Power Sensor	KEYSIGHT	N1923A	MY59240003	2022.05.19	2023.05.18

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : RF Conducted Test Tools R3 V3.0.1.19

For Radiated measurements /HY-CB03

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due. Date
	Loop Antenna	AMETEK	HLA6121	56736	2022.05.14	2023.05.13
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-675	2021.08.11	2023.08.10
X	Horn Antenna	RF SPIN	DRH18-E	210508A18ES	2022.06.08	2023.06.07
	Horn Antenna	Com-Power	AH-840	101100	2021.10.04	2022.10.03
X	Pre-Amplifier	SGH	SGH0301-9	20211007-10	2022.02.22	2023.02.21
X	Pre-Amplifier	SGH	PRAMP118	20200201	2021.10.07	2022.10.06
X	Pre-Amplifier	EMCI	EMC05820SE	980309	2021.09.27	2022.09.26
	Pre-Amplifier	EMCI	EMC184045SE	980369	2022.05.12	2023.05.11
	Coaxial Cable	EMCI	EMC102-KM-KM-600	1160314		
	Coaxial Cable	EMCI	EMC102-KM-KM-7000	170242		
X	Filter	MICRO TRONICS	BRM50702	G251	2021.09.16	2022.09.15
	Filter	MICRO TRONICS	BRM50716	G188	2021.09.16	2022.09.15
X	EMI Test Receiver	R&S	ESR	102793	2021.12.15	2022.12.14
X	Spectrum Analyzer	R&S	FSV3044	101113	2022.01.25	2023.02.24
X	Coaxial Cable	SGH	SGH18	2021005-1	2022.03.18	2023.03.17
	Coaxial Cable	SGH	SGH18	202108-4		
	Coaxial Cable	SGH	SGH18	GD20110223-1		
	Coaxial Cable	SGH	HA800	GD20110222-3		

Note:
1. Bi-Log Antenna is calibrated every two years, the other equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : E3 210616 dekra V9

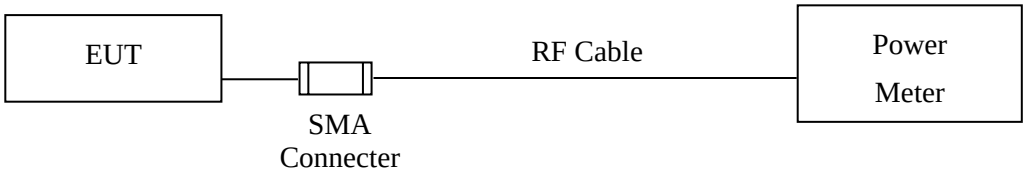
1.7. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	**Uncertainty**	
Peak Power Output	±0.89 dB	
Radiated Emission	Under 1GHz ±4.05 dB	Above 1GHz ±3.73 dB
Band Edge	Under 1GHz ±4.05 dB	Above 1GHz ±3.73 dB
Duty Cycle	±2.31 ms	

2. Peak Power Output

2.1. Test Setup



2.2. Limit

The maximum peak power shall be less 1Watt.

2.3. Test Procedure

Tested according to FHSS test procedure of KDB 558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements.

2.4. Test Result of Peak Power Output

Product : Intel Wireless-AC 9260
Test Item : Peak Power Output
Test Mode : Mode 1: Transmit - 1Mbps
Test Date : 2022/08/09

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402	10.03	1 Watt= 30 dBm	Pass
Channel 39	2441	10.70	1 Watt= 30 dBm	Pass
Channel 78	2480	11.49	1 Watt= 30 dBm	Pass

Product : Intel Wireless-AC 9260
Test Item : Peak Power Output
Test Mode : Mode 2: Transmit - 2Mbps
Test Date : 2022/08/09

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402	10.15	1 Watt= 30 dBm	Pass
Channel 39	2441	10.31	1 Watt= 30 dBm	Pass
Channel 78	2480	10.83	1 Watt= 30 dBm	Pass

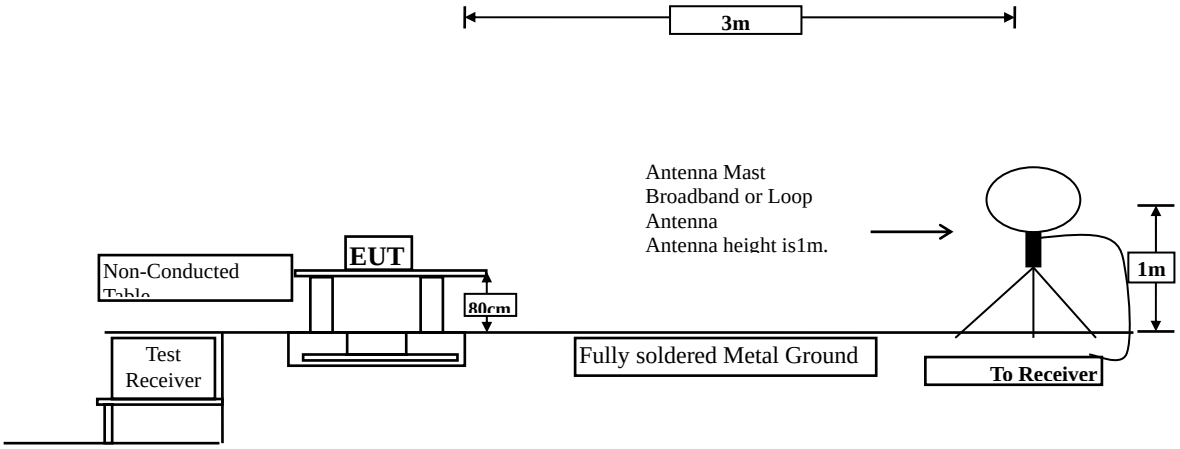
Product : Intel Wireless-AC 9260
Test Item : Peak Power Output
Test Mode : Mode 3: Transmit - 3Mbps
Test Date : 2022/08/09

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402	10.20	1 Watt= 30 dBm	Pass
Channel 39	2441	10.45	1 Watt= 30 dBm	Pass
Channel 78	2480	10.97	1 Watt= 30 dBm	Pass

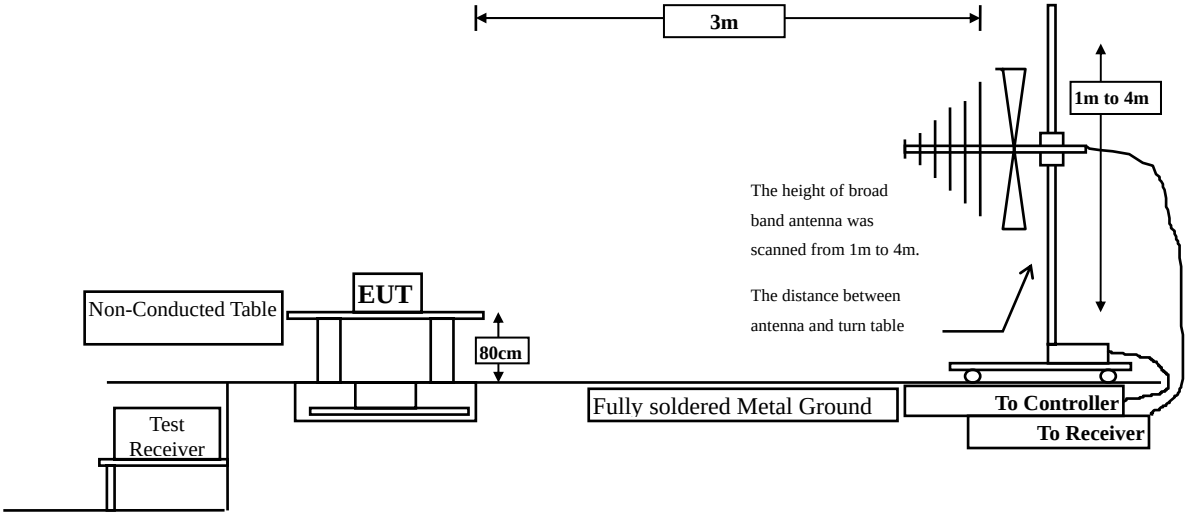
3. Radiated Emission

3.1. Test Setup

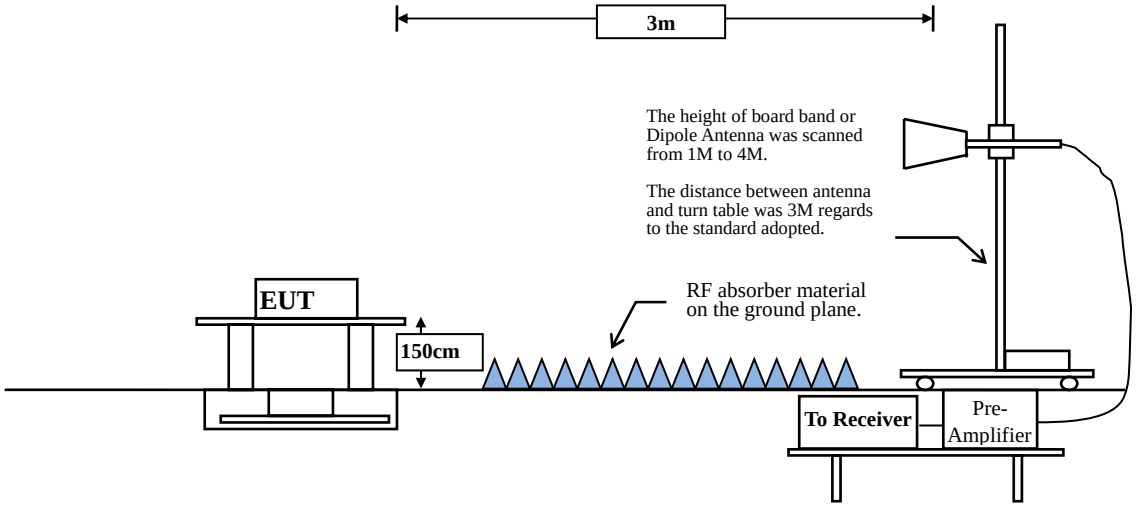
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



3.2. Limits

➢ **General Radiated Emission Limits**

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

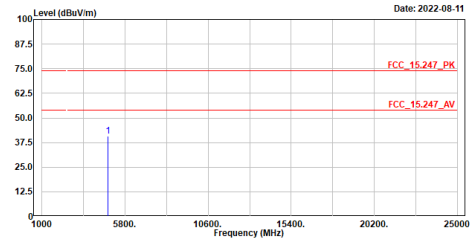
The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

3.4. Test Result of Radiated Emission

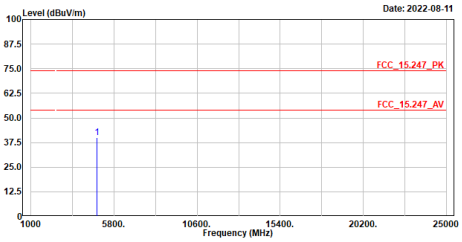
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt1M_2402MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4804.000	40.59	74.00	-33.41	52.92	-12.33	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

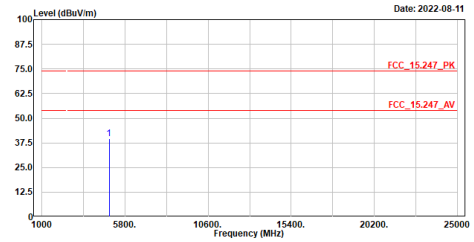
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt1M_2402MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4804.000	40.03	74.00	-33.97	52.36	-12.33	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

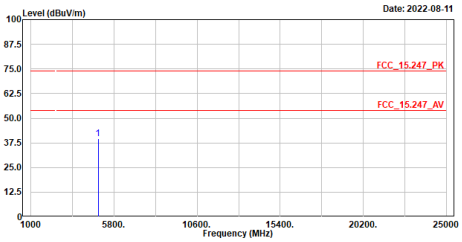
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt1M_2441MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4882.000	39.70	74.00	-34.30	51.72	-12.02	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

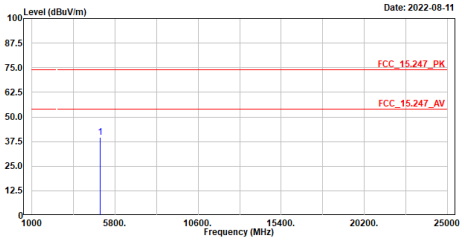
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt1M_2441MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4882.000	39.77	74.00	-34.23	51.79	-12.02	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

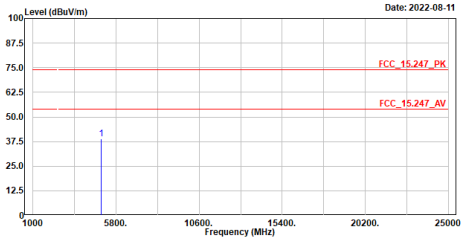
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt1M_2480MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4960.000	39.81	74.00	-34.19	51.40	-11.59	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

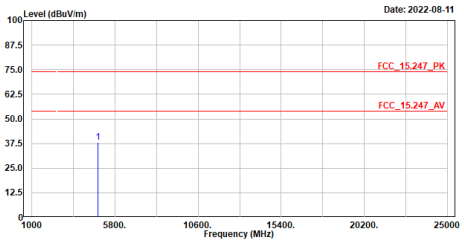
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt1M_2480MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4960.000	38.80	74.00	-35.20	50.39	-11.59	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

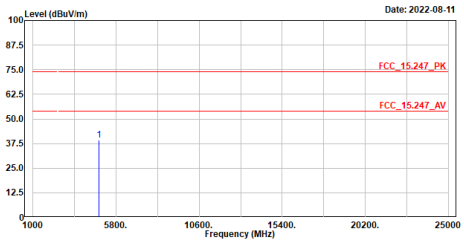
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt3M_2402MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4804.000	38.30	74.00	-35.70	50.63	-12.33	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

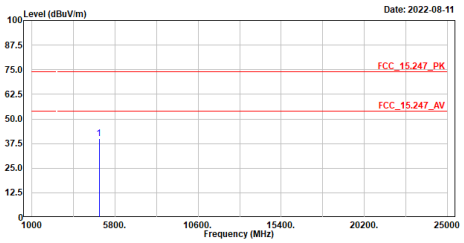
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt3M_2402MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4804.000	39.13	74.00	-34.87	51.46	-12.33	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

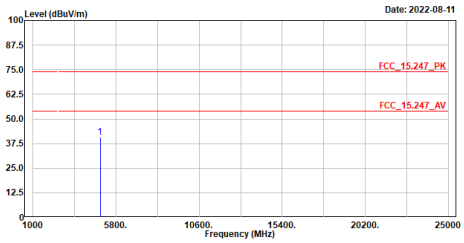
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt3M_2441MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4882.000	39.82	74.00	-34.18	51.84	-12.02	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

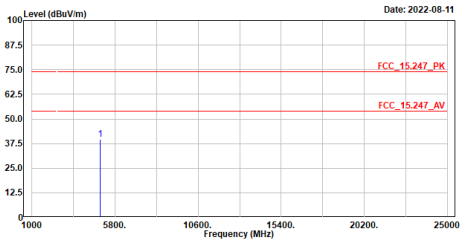
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt3M_2441MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4882.000	40.68	74.00	-33.32	52.70	-12.02	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

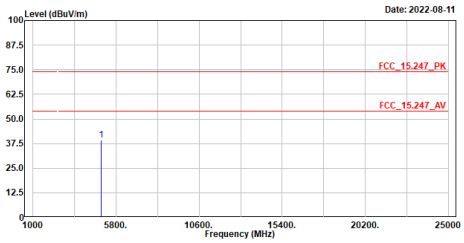
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt3M_2480MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4960.000	39.74	74.00	-34.26	51.33	-11.59	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

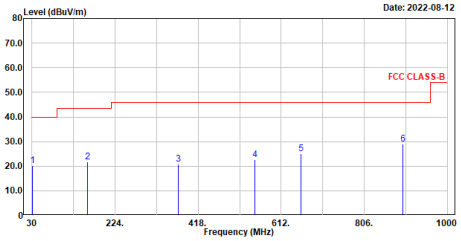
Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt3M_2480MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4960.000	39.14	74.00	-34.86	50.73	-11.59	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

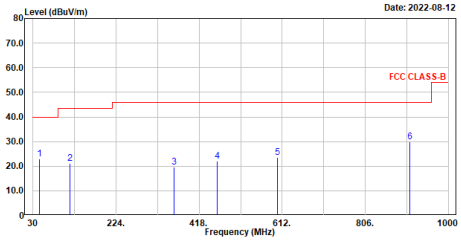
Site :HY-CB03
Condition :3m ,HORIZONTAL
Mode :TX_bt3M_2441MHz
Test BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	31.940	20.19	40.00	-19.81	45.69	-25.50	QP
2	159.980	21.74	43.50	-21.76	45.93	-24.19	QP
3	371.440	20.73	46.00	-25.27	42.65	-21.92	QP
4	550.890	22.56	46.00	-23.44	40.53	-17.97	QP
5	657.590	24.93	46.00	-21.07	40.49	-15.56	QP
6	896.210	29.08	46.00	-16.92	41.60	-12.52	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m ,VERTICAL
Mode :TX_bt3M_2441MHz
Test BY :Ashton Chiu



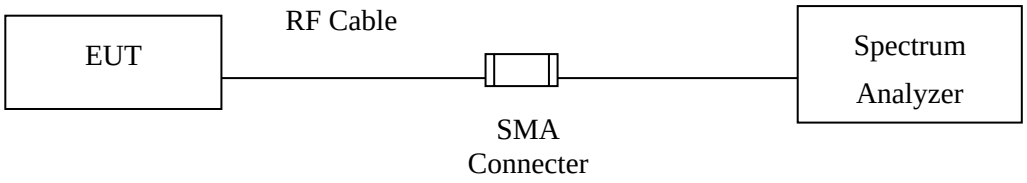
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	45.520	22.85	40.00	-17.15	46.92	-24.07	QP
2	116.330	21.07	43.50	-22.43	48.06	-26.99	QP
3	358.830	19.60	46.00	-26.40	41.86	-22.26	QP
4	459.710	22.01	46.00	-23.99	41.57	-19.56	QP
5	600.360	23.67	46.00	-22.33	39.95	-16.28	QP
6	910.760	29.87	46.00	-16.13	42.06	-12.19	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

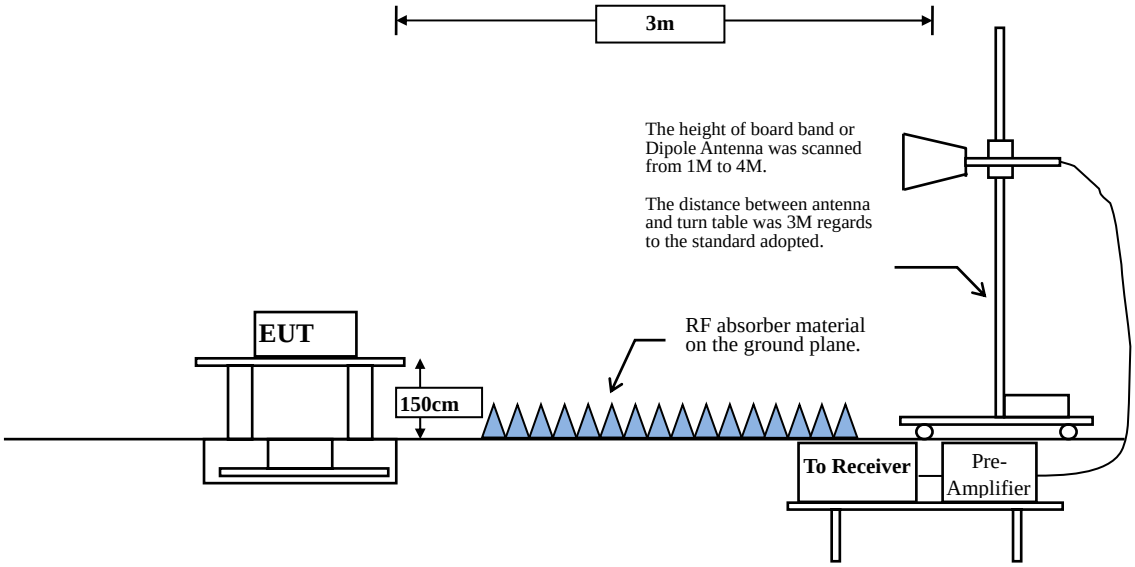
4. Band Edge

4.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:



4.2. Limit

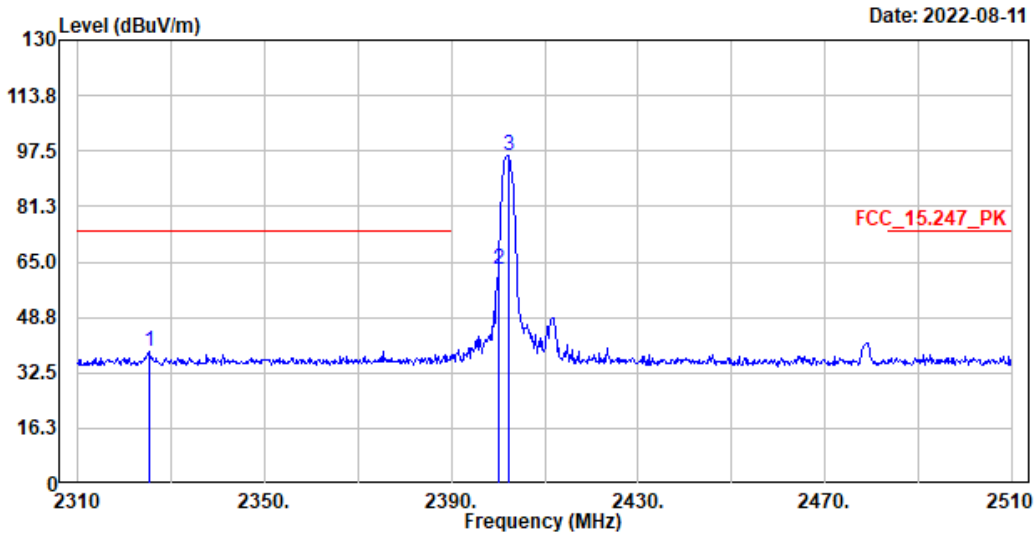
According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.
The bandwidth setting below 1GHz and above 1GHz on the field strength meter is 120 kHz and 1MHz, respectively.

4.4. Test Result of Band Edge

```
Site       :HY-CB03
Condition  :3m    ,Horizontal
Mode       :TX_bt1M_2402MHz
Test BY    :Jing Chang
```



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2325.200	38.76	74.00	-35.24	32.12	6.64	Peak
2	2400.000	62.57	------	------	55.96	6.61	Peak
3	2402.200	96.03	------	------	89.42	6.61	Peak

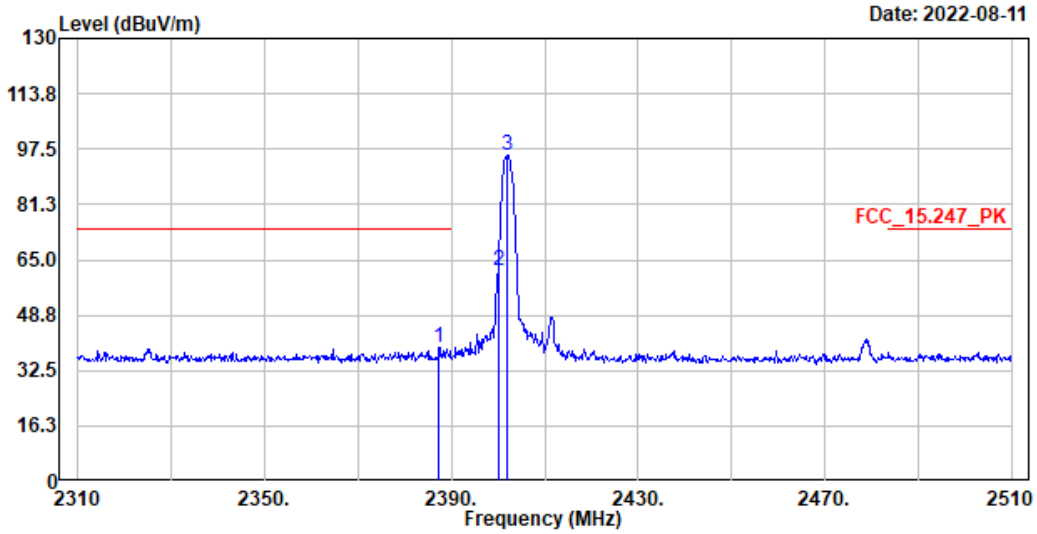
```
Note:
1. Level = Read Level + Factor
2. Factor = Antenna  Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
```

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
00 (Average)	2325.2	38.76	-24.776	13.984	-40.016	54.000	Pass
00 (Average)	2400	62.57	-24.776	37.794	--	--	Pass
00 (Average)	2402.2	96.03	-24.776	71.254	--	--	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_bt1M_2402MHz
Test BY :Jing Chang



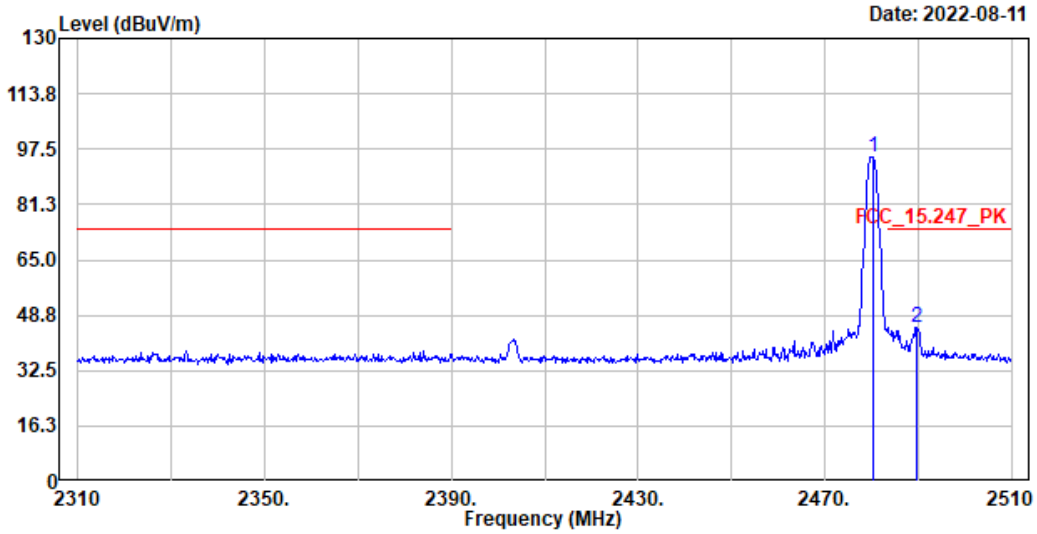
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2387.400	39.41	74.00	-34.59	32.79	6.62	Peak
2	2400.000	61.61	------	------	55.00	6.61	Peak
3	2402.000	95.53	------	------	88.92	6.61	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
00 (Average)	2387.4	39.41	-24.776	14.634	-39.366	54.000	Pass
00 (Average)	2400	61.61	-24.776	36.834	--	--	Pass
00 (Average)	2402	95.53	-24.776	70.754	--	--	Pass

Note:
1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

```
Site       :HY-CB03
Condition  :3m    ,Horizontal
Mode       :TX_bt1M_2480MHz
Test BY    :Jing Chang
```



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2480.200	95.01	------	------	88.38	6.63	Peak
2	2489.600	45.17	74.00	-28.83	38.52	6.65	Peak

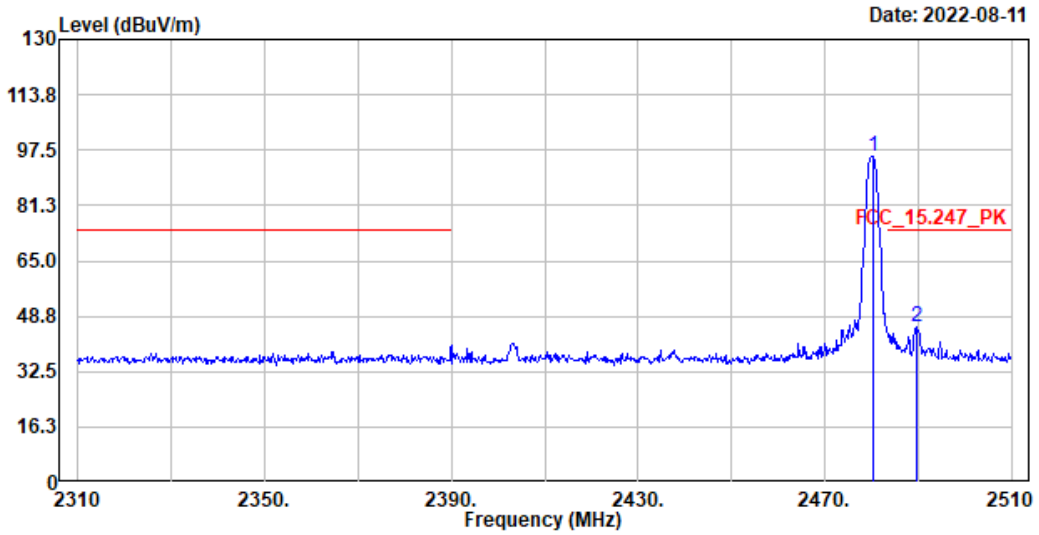
```
Note:
1. Level = Read Level + Factor
2. Factor = Antenna  Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
```

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
78 (Average)	2480.2	95.01	-24.776	70.234	--	--	Pass
78 (Average)	2489.6	45.17	-24.776	20.394	-33.606	54.000	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

```
Site       :HY-CB03
Condition  :3m    ,Vertical
Mode       :TX_bt1M_2480MHz
Test BY    :Jing Chang
```



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2480.200	95.47	------	------	88.84	6.63	Peak
2	2489.600	45.72	74.00	-28.28	39.07	6.65	Peak

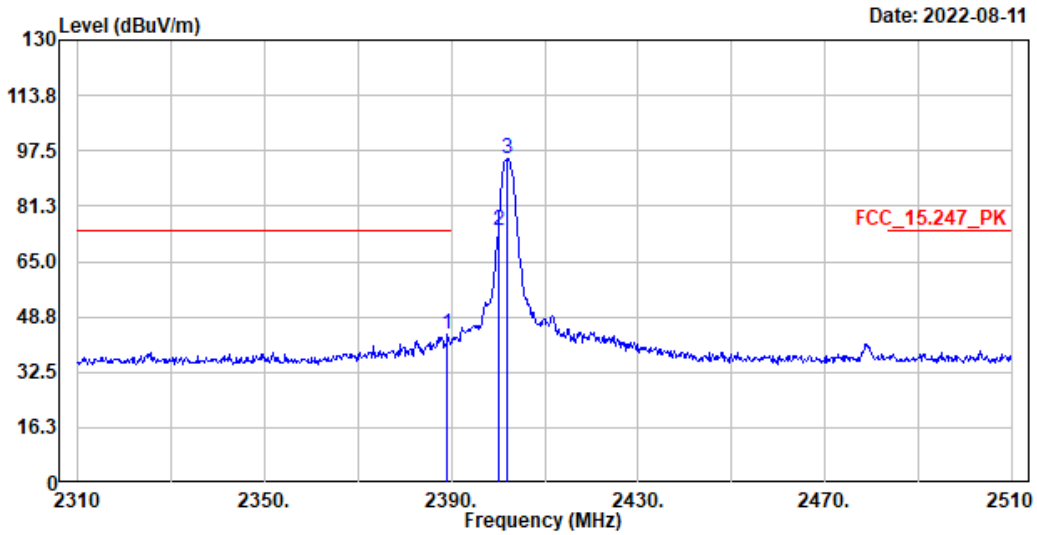
Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
78 (Average)	2480.2	95.47	-24.776	70.694	--	--	Pass
78 (Average)	2489.6	45.72	-24.776	20.944	-33.056	54.000	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_bt3M_2402MHz
Test BY :Jing Chang



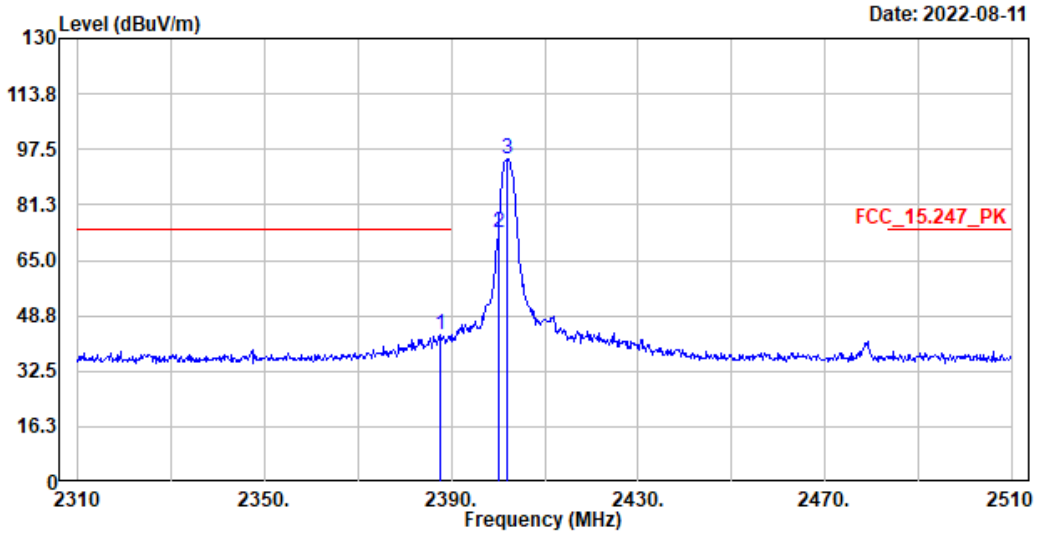
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.200	43.80	74.00	-30.20	37.19	6.61	Peak
2	2400.000	73.85	------	------	67.24	6.61	Peak
3	2402.000	95.31	------	------	88.70	6.61	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
00 (Average)	2389.2	43.8	-24.761	19.039	-34.961	54.000	Pass
00 (Average)	2400	73.85	-24.761	49.089	--	--	Pass
00 (Average)	2402	95.31	-24.761	70.549	--	--	Pass

Note:
1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

```
Site       :HY-CB03
Condition  :3m    ,Vertical
Mode       :TX_bt3M_2402MHz
Test BY    :Jing Chang
```



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2387.800	43.37	74.00	-30.63	36.76	6.61	Peak
2	2400.000	73.22	------	------	66.61	6.61	Peak
3	2402.000	94.74	------	------	88.13	6.61	Peak

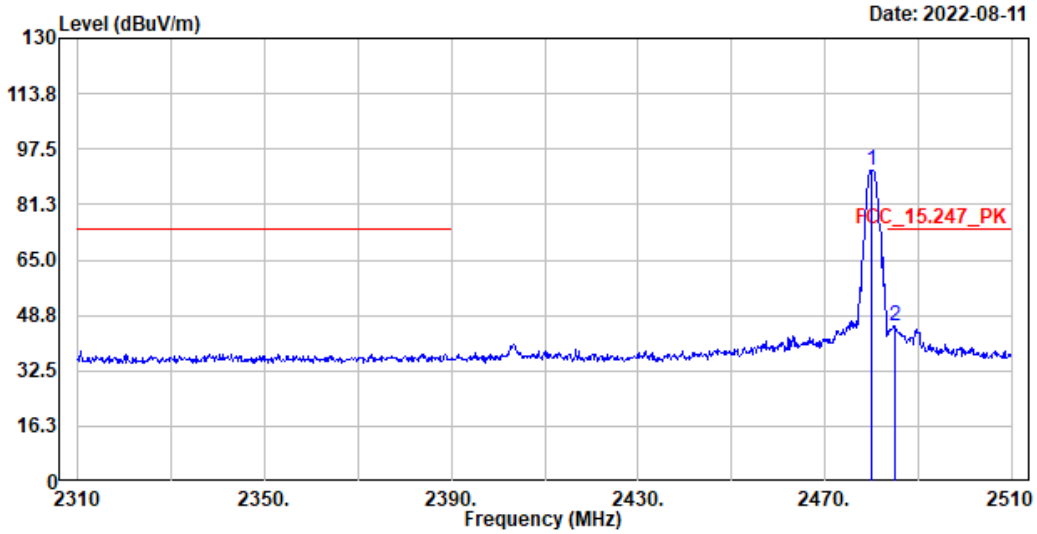
```
Note:
1. Level = Read Level + Factor
2. Factor = Antenna  Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
```

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
00 (Average)	2387.8	43.37	-24.761	18.609	-35.391	54.000	Pass
00 (Average)	2400	73.22	-24.761	48.459	--	--	Pass
00 (Average)	2402	94.74	-24.761	69.979	--	--	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

Site :HY-CB03
Condition :3m ,Horizontal
Mode :TX_bt3M_2480MHz
Test BY :Jing Chang



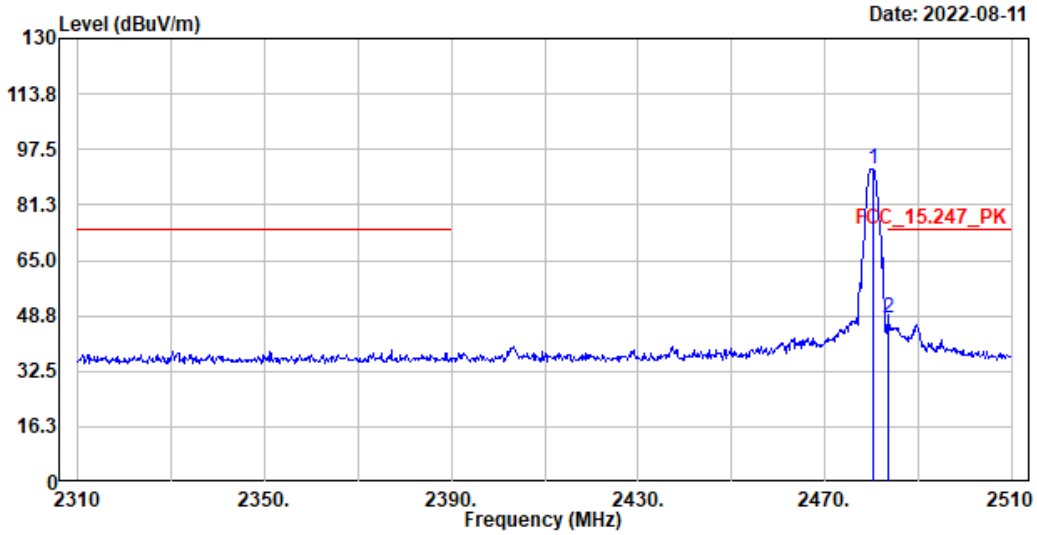
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2480.000	91.46	------	------	84.83	6.63	Peak
2	2485.000	45.85	74.00	-28.15	39.20	6.65	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
78 (Average)	2480	91.46	-24.761	66.699	--	--	Pass
78 (Average)	2485	45.85	-24.761	21.089	-32.911	54.000	Pass

Note:
1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

Site :HY-CB03
Condition :3m ,Vertical
Mode :TX_bt3M_2480MHz
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2480.200	91.96	------	------	85.33	6.63	Peak
2	2483.600	48.12	74.00	-25.88	41.47	6.65	Peak

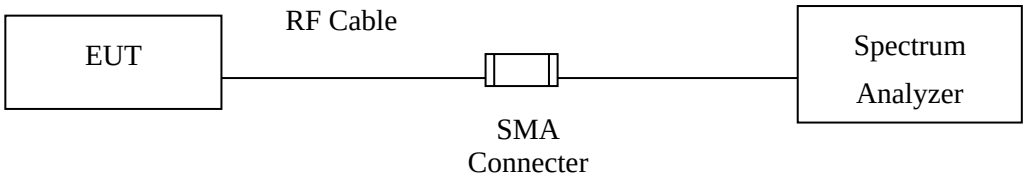
Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Channel No.	Frequency (MHz)	Peak Measurement (dBµV/m)	Duty Cycle Factor (dB)	Average Measurement (dBµV/m)	Margin (dB)	Average Limit (dBµV/m)	Result
78 (Average)	2480.2	91.96	-24.761	67.199	--	--	Pass
78 (Average)	2483.6	48.12	-24.761	23.359	-30.641	54.000	Pass

Note:
1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 5.

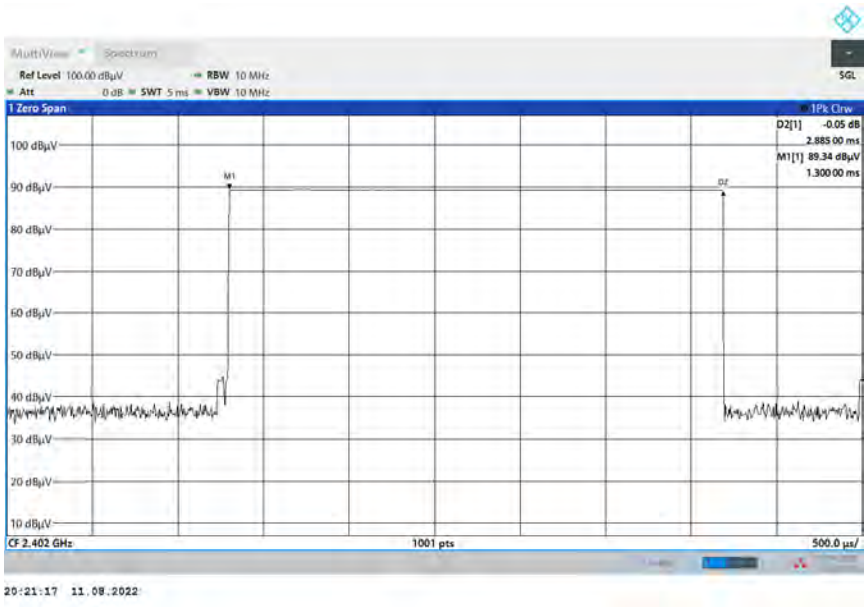
5. Duty Cycle

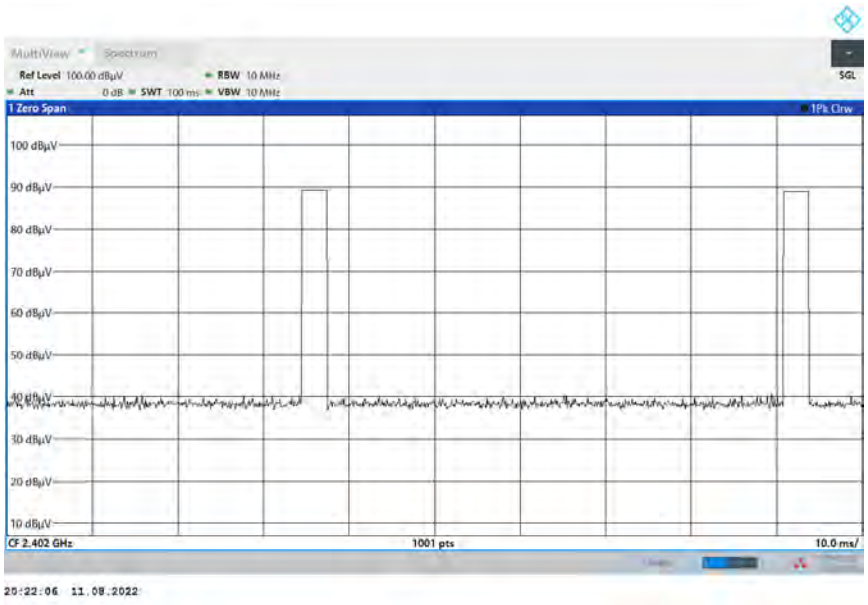
5.1. Test Setup



5.2. Test Result of Duty Cycle

Product : Intel Wireless-AC 9260
Test Item : Duty Cycle Data
Test Mode : Mode 1: Transmit - 1Mbps





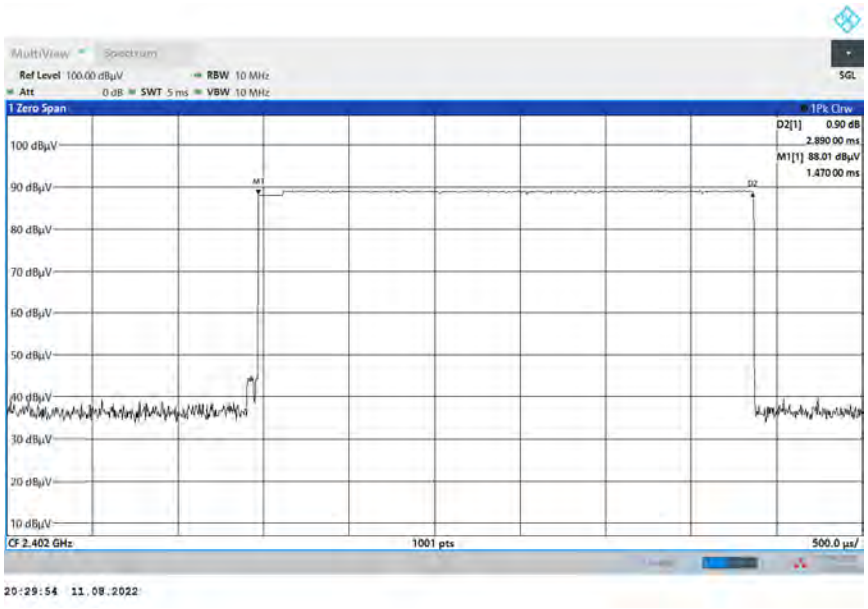
Time on of 100ms= 2.885ms*2= 5.770ms

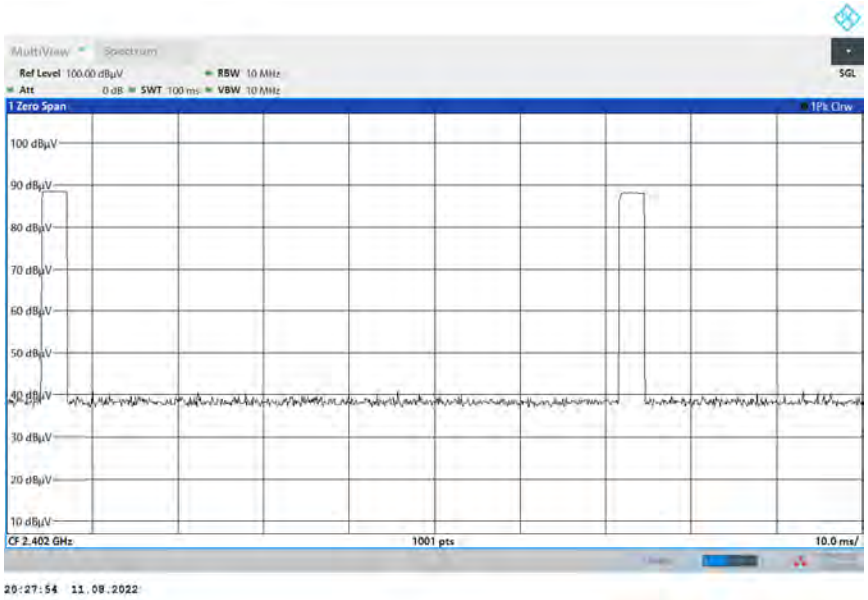
Duty Cycle=5.770ms / 100ms= 0.0577

Duty Cycle correction factor= 20 LOG 0.0577= -24.776 dB

Duty Cycle correction factor	**-24.776**	**dB**

Product : Intel Wireless-AC 9260
Test Item : Duty Cycle Data
Test Mode : Mode 3: Transmit - 3Mbps





Time on of 100ms= 2.89ms*2= 5.780ms

Duty Cycle=5.780ms / 100ms= 0.0578

Duty Cycle correction factor= 20 LOG 0.0578= -24.761 dB

Duty Cycle correction factor	**-24.761**	**dB**