FCC TEST REPORT

(Part 15, Subpart E)

Applicant:	Continental Automotive Technologies GmbH
Address:	Siemensstrasse 12, 93055 Regensburg, Germany

Manufacturer or Supplier:	Continental Automotive Technologies GmbH
Address:	Siemensstrasse 12, 93055 Regensburg, Germany
Product:	T26 SBR T26SBRNB84G
Brand Name:	Continental
Model Name:	T26SBRNB84G
FCC ID:	KR5-T26SBRNB84G
Date of tests:	May. 11, 2024 ~ Jun. 13, 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 Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Wang Date: Jun. 13, 2024	Luke Lu Date: Jun. 13, 2024

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

TABLE OF CONTENTS

RELEASE CONTROL RECORD 4

1 SUMMARY OF TEST RESULTS 5
1.1 MEASUREMENT UNCERTAINTY 6
2 GENERAL INFORMATION 7
2.1 GENERAL DESCRIPTION OF EUT 7
2.2 DESCRIPTION OF TEST MODES 9
2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL 10
2.3 DUTY CYCLE OF TEST SIGNAL 15
2.4 DESCRIPTION OF SUPPORT UNITS 16
2.4.1 CONFIGURATION OF SYSTEM UNDER TEST 17
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS 18

3 TEST TYPES AND RESULTS 19

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT 19
3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT 19
3.1.2 LIMITS OF UNWANTED EMISSION 19
3.1.3 TEST INSTRUMENTS 20
3.1.4 TEST PROCEDURES 21
3.1.5 DEVIATION FROM TEST STANDARD 21
3.1.6 TEST SETUP 22
3.1.7 EUT OPERATING CONDITION 23
3.1.8 TEST RESULTS 24
3.2 CONDUCTED EMISSION MEASUREMENT 72
3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT 72
3.2.2 TEST INSTRUMENTS 72
3.2.3 TEST PROCEDURES 72
3.2.4 DEVIATION FROM TEST STANDARD 73
3.2.5 TEST SETUP 73
3.2.6 EUT OPERATING CONDITIONS 73
3.2.7 TEST RESULTS 74
3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT 76
3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT 76
3.3.2 TEST SETUP 77
3.3.3 TEST INSTRUMENTS 77

3.3.4 TEST PROCEDURE 78
3.3.5 DEVIATION FROM TEST STANDARD 79
3.3.6 EUT OPERATING CONDITIONS 79
3.3.7 TEST RESULTS 79
3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT 80
3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT 80
3.4.2 TEST SETUP 80
3.4.3 TEST INSTRUMENTS 80
3.4.4 TEST PROCEDURES 81
3.4.5 DEVIATION FROM TEST STANDARD 81
3.4.6 EUT OPERATING CONDITIONS 81
3.4.7 TEST RESULTS 82
3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION 83
3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION 83
3.5.2 TEST INSTRUMENTS 83
3.5.3 TEST RESULT 83
3.6 ANTENNA REQUIREMENTS 84
3.6.1 STANDARD APPLICABLE 84
3.6.2 ANTENNA CONNECTED CONSTRUCTION 84
3.6.3 ANTENNA GAIN 84

4 PHOTOGRAPHS OF THE TEST CONFIGURATION 86

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB87

6 APPENDIX: RLAN 88

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-240423W001RF05	Original release	Jun. 13, 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.

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.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	T26 SBR T26SBRNB84G
BRAND NAME	Continental
MODEL NAME	T26SBRNB84G
NOMINAL VOLTAGE	DC12V
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, 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) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n, 802.11ac (20MHz) 3 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz)
MAX. OUTPUT POWER	8.38 mW for 5180 ~ 5240MHz 20.61 mW for 5745 ~ 5825MHz
ANTENNA TYPE	Stamped Antenna
ANTENNA GAIN	5.11dBi for 5180 ~ 5240MHz 6.22dBi for 5745 ~ 5825MHz
HW VERSION	P2
SW VERSION	SBR-IMX8-4G-1.4.0.23.51.1.00-DEVEL-SL
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. 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

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in the test report.
4. 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.

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 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≥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≥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	802.11ac (80MHz)	5180-5240	42	42	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	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	802.11ac (80MHz)	5180-5240	42	42	OFDM	MCS0

BANDEDGE 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	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	MODULATION	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	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 12V	Jace Hu
RE≥1G	23deg. C, 70%RH	DC 12V	Jace Hu
PLC	25deg. C, 52%RH	DC 12V	James Fu
APCM	25deg. C, 60%RH	DC 12V	James Fu

2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix Of this test report

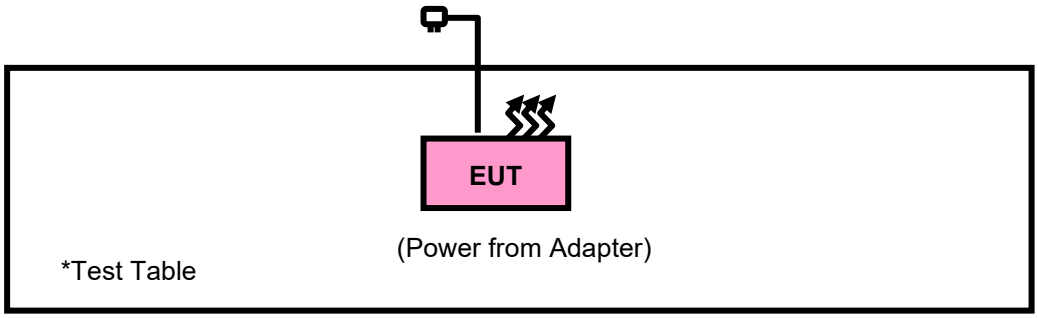
2.4 DESCRIPTION OF SUPPORT UNITS

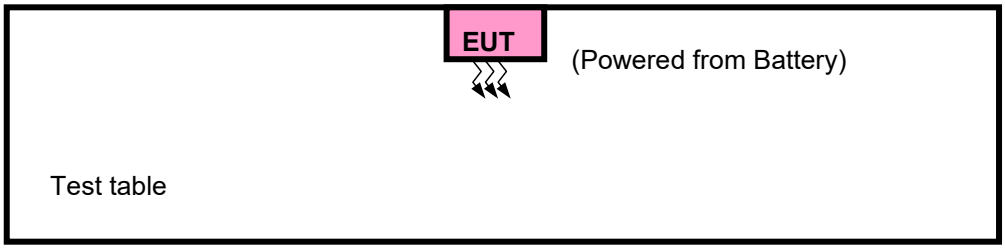
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Desktop	Lenovo	M73 SFF	PC04GRQV	N/A
2	Desktop	Lenovo	M73 SFF	PC06CS27	N/A
3	Laptop	Lenovo	ThinkpadL440	R90FTFKN	N/A
4	DC source	Kikusui/JP	PMX18-5A	0000001	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 1.5m
2	AC Line: Unshielded, Detachable 1.5m
3	AC Line: Unshielded, Detachable 1.5m
4	DC Line: Unshielded, Detachable 1.0m

2.4.1 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

	APPLICABLE TO	LIMIT	
RESTRICTED BANDS	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:

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

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.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,24	Feb. 17,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,24	Feb. 17,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.04, 23	Sep.03, 24
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120-3	3.2.06	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	N/A	May. 05,24	May. 04,25
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,24	Mar. 27,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 05,24	May. 04,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,24	May.09,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,24	Feb. 16,25
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 12,23	Aug. 11,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,24	Feb. 13,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,24	Feb. 13,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,23	Sep.02,24

NOTE: 1. The calibration interval of the above test instruments is 12 months or 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 525120; The Designation No. is CN1171.

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:

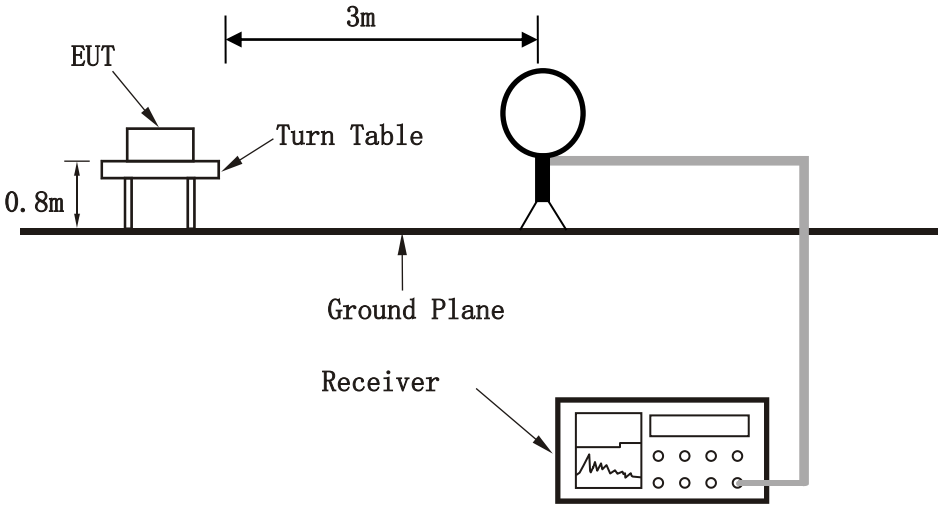
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency 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/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 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

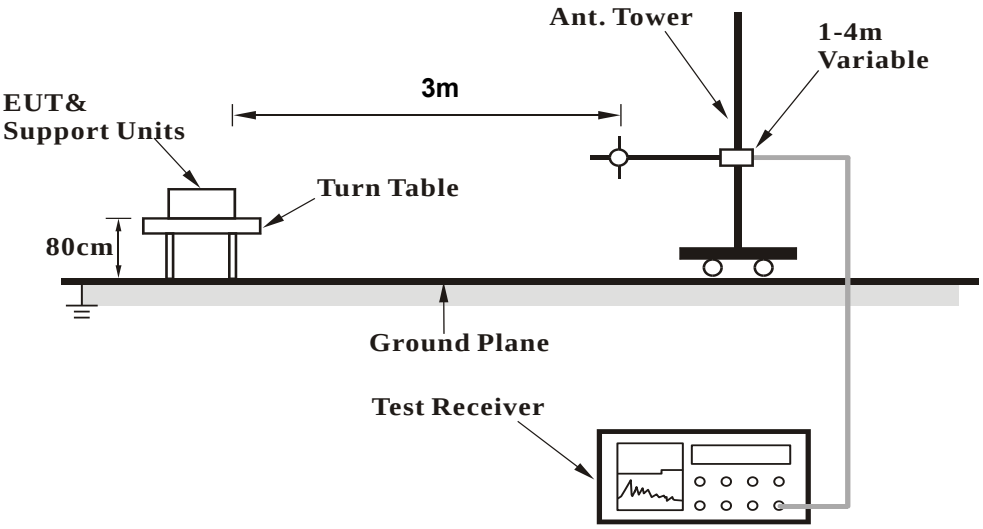
No deviation.

3.1.6 TEST SETUP

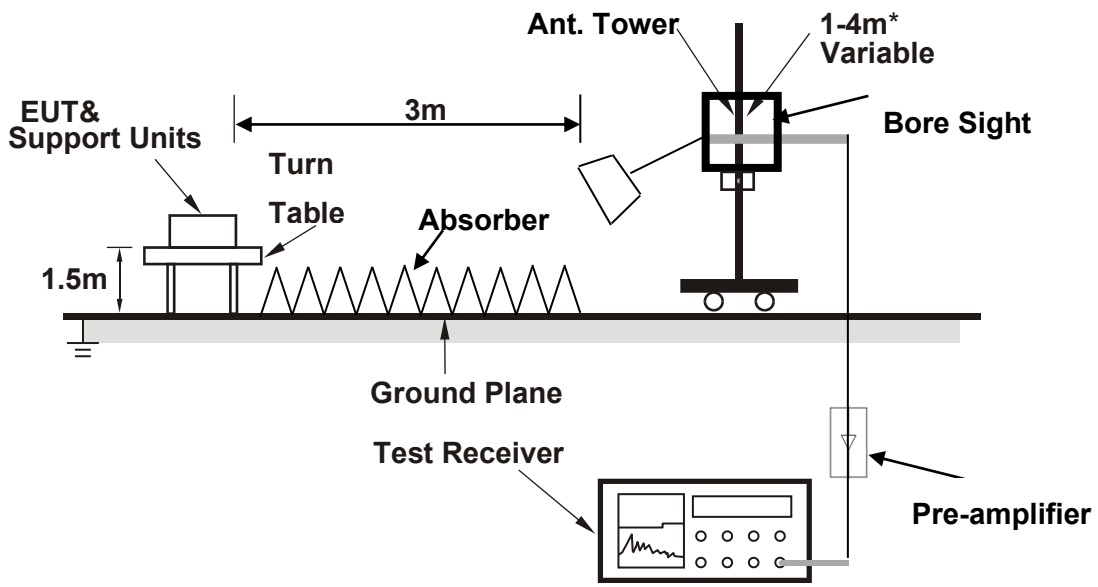
<Frequency Range 9KHz~30MHz >



< 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

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

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.

30 MHz – 1GHz data:

Band 1

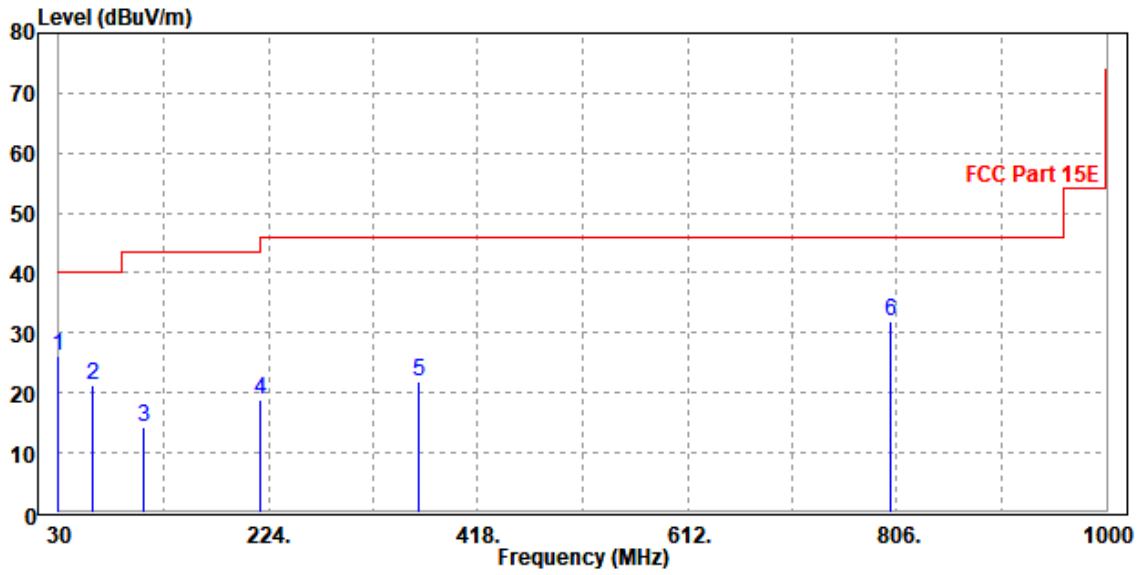
802.11ac (80MHz):

CHANNEL	TX Channel 42	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30.000	26.22	37.06	40.00	-13.78	20.40	6.13	37.37	100	360	QP
61.040	21.25	44.87	40.00	-18.75	7.36	6.31	37.29	100	360	QP
108.570	14.44	36.52	43.50	-29.06	8.34	6.57	36.99	100	360	QP
216.240	18.78	36.84	46.00	-27.22	11.51	7.05	36.62	100	360	QP
362.710	22.04	35.45	46.00	-23.96	15.87	7.47	36.75	100	360	QP
800.180	32.01	37.35	46.00	-13.99	23.70	8.60	37.64	100	360	QP

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 = Emission level – Limit value.

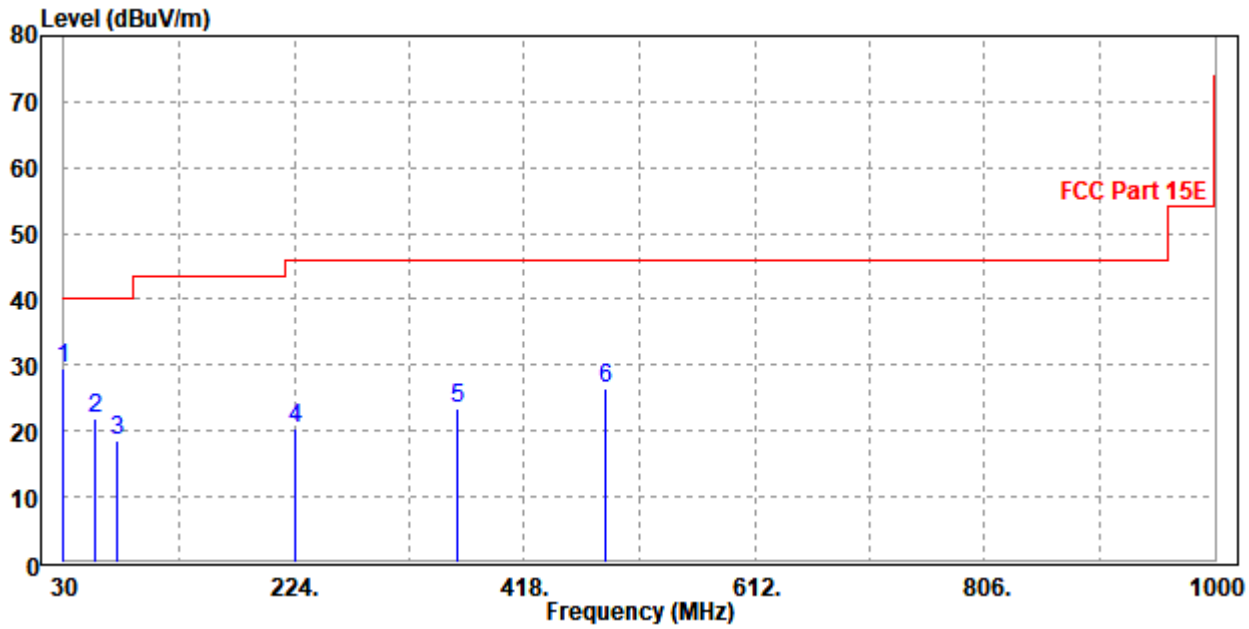


CHANNEL	Channel 42	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30.000	29.54	39.98	40.00	-10.46	20.80	6.13	37.37	100	0	QP
56.190	21.92	45.05	40.00	-18.08	7.93	6.30	37.36	100	0	QP
74.620	18.42	41.49	40.00	-21.58	7.58	6.41	37.06	100	0	QP
224.970	20.37	36.57	46.00	-25.63	13.35	7.07	36.62	100	0	QP
361.740	23.29	36.12	46.00	-22.71	16.45	7.47	36.75	100	0	QP
486.870	26.32	36.21	46.00	-19.68	19.25	7.90	37.04	100	0	QP

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 = Emission level – Limit value.



ABOVE 1GHz WORST-CASE DATA:

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

Band 1

802.11a

CHANNEL	TX Channel 36	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.05	55.27	74.00	-19.95	34.20	11.17	46.59	100	50	Peak
5150	46.57	47.79	54.00	-7.43	34.20	11.17	46.59	100	50	Average
5180	98.54	99.67	/	/	34.26	11.20	46.59	100	50	Peak
5180	89.91	91.04	/	/	34.26	11.20	46.59	100	50	Average
5350	51.79	52.64	74.00	-22.21	34.30	11.39	46.54	100	50	Peak
5350	44.83	45.68	54.00	-9.17	34.30	11.39	46.54	100	50	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.64	58.06	74.00	-17.36	34.00	11.17	46.59	100	100	Peak
5150	47.66	49.08	54.00	-6.34	34.00	11.17	46.59	100	100	Average
5180	104.12	105.57	/	/	33.94	11.20	46.59	100	100	Peak
5180	95.39	96.84	/	/	33.94	11.20	46.59	100	100	Average
5350	52.77	53.12	74.00	-21.23	34.80	11.39	46.54	100	100	Peak
5350	45.88	46.23	54.00	-8.12	34.80	11.39	46.54	100	100	Average

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.64	54.86	74.00	-20.36	34.20	11.17	46.59	100	50	Peak
5150	45.34	46.56	54.00	-8.66	34.20	11.17	46.59	100	50	Average
5200	97.12	98.18	/	/	34.30	11.22	46.58	100	50	Peak
5200	89.28	90.34	/	/	34.30	11.22	46.58	100	50	Average
5350	52.27	53.12	74.00	-21.73	34.30	11.39	46.54	100	50	Peak
5350	45.31	46.16	54.00	-8.69	34.30	11.39	46.54	100	50	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.20	54.62	74.00	-20.80	34.00	11.17	46.59	100	100	Peak
5150	45.43	46.85	54.00	-8.57	34.00	11.17	46.59	100	100	Average
5200	102.82	104.28	/	/	33.90	11.22	46.58	100	100	Peak
5200	94.80	96.26	/	/	33.90	11.22	46.58	100	100	Average
5350	53.56	53.91	74.00	-20.44	34.80	11.39	46.54	100	100	Peak
5350	45.88	46.23	54.00	-8.12	34.80	11.39	46.54	100	100	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.85	54.07	74.00	-21.15	34.20	11.17	46.59	100	50	Peak
5150	45.01	46.23	54.00	-8.99	34.20	11.17	46.59	100	50	Average
5240	98.80	99.64	/	/	34.46	11.27	46.57	100	50	Peak
5240	89.40	90.24	/	/	34.46	11.27	46.57	100	50	Average
5350	53.09	53.94	74.00	-20.91	34.30	11.39	46.54	100	50	Peak
5350	45.65	46.50	54.00	-8.35	34.30	11.39	46.54	100	50	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	51.76	53.18	74.00	-22.24	34.00	11.17	46.59	100	100	Peak
5150	45.11	46.53	54.00	-8.89	34.00	11.17	46.59	100	100	Average
5240	101.80	103.12	/	/	33.98	11.27	46.57	100	100	Peak
5240	95.43	96.75	/	/	33.98	11.27	46.57	100	100	Average
5350	53.10	53.45	74.00	-20.90	34.80	11.39	46.54	100	100	Peak
5350	46.60	46.95	54.00	-7.40	34.80	11.39	46.54	100	100	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11n (20MHz)

CHANNEL	TX Channel 36	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.71	56.93	74.00	-18.29	34.20	11.17	46.59	100	50	Peak
5150	46.23	47.45	54.00	-7.77	34.20	11.17	46.59	100	50	Average
5180	98.60	99.73	/	/	34.26	11.20	46.59	100	50	Peak
5180	89.20	90.33	/	/	34.26	11.20	46.59	100	50	Average
5350	52.80	53.65	74.00	-21.20	34.30	11.39	46.54	100	50	Peak
5350	45.41	46.26	54.00	-8.59	34.30	11.39	46.54	100	50	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.23	54.65	74.00	-20.77	34.00	11.17	46.59	100	100	Peak
5150	46.97	48.39	54.00	-7.03	34.00	11.17	46.59	100	100	Average
5180	103.09	104.54	/	/	33.94	11.20	46.59	100	100	Peak
5180	94.36	95.81	/	/	33.94	11.20	46.59	100	100	Average
5350	53.62	53.97	74.00	-20.38	34.80	11.39	46.54	100	100	Peak
5350	45.79	46.14	54.00	-8.21	34.80	11.39	46.54	100	100	Average

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.23	56.45	74.00	-18.77	34.20	11.17	46.59	100	10	Peak
5150	45.29	46.51	54.00	-8.71	34.20	11.17	46.59	100	10	Average
5200	97.83	98.89	/	/	34.30	11.22	46.58	100	10	Peak
5200	89.37	90.43	/	/	34.30	11.22	46.58	100	10	Average
5350	53.31	54.16	74.00	-20.69	34.30	11.39	46.54	100	10	Peak
5350	45.61	46.46	54.00	-8.39	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	51.44	52.86	74.00	-22.56	34.00	11.17	46.59	100	15	Peak
5150	45.49	46.91	54.00	-8.51	34.00	11.17	46.59	100	15	Average
5200	103.62	105.08	/	/	33.90	11.22	46.58	100	15	Peak
5200	94.75	96.21	/	/	33.90	11.22	46.58	100	15	Average
5350	52.82	53.17	74.00	-21.18	34.80	11.39	46.54	100	15	Peak
5350	46.17	46.52	54.00	-7.83	34.80	11.39	46.54	100	15	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 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										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.63	53.85	74.00	-21.37	34.20	11.17	46.59	100	10	Peak
5150	45.54	46.76	54.00	-8.46	34.20	11.17	46.59	100	10	Average
5240	97.88	98.72	/	/	34.46	11.27	46.57	100	10	Peak
5240	88.81	89.65	/	/	34.46	11.27	46.57	100	10	Average
5350	54.03	54.88	74.00	-19.97	34.30	11.39	46.54	100	10	Peak
5350	45.54	46.39	54.00	-8.46	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.40	53.82	74.00	-21.60	34.00	11.17	46.59	100	12	Peak
5150	45.46	46.88	54.00	-8.54	34.00	11.17	46.59	100	12	Average
5240	104.57	105.89	/	/	33.98	11.27	46.57	100	12	Peak
5240	96.19	97.51	/	/	33.98	11.27	46.57	100	12	Average
5350	55.54	55.89	74.00	-18.46	34.80	11.39	46.54	100	12	Peak
5350	46.00	46.35	54.00	-8.00	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11n (40MHz)

CHANNEL	TX Channel 38	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	51.06	52.28	74.00	-22.94	34.20	11.17	46.59	100	10	Peak
5150	46.32	47.54	54.00	-7.68	34.20	11.17	46.59	100	10	Average
5190	89.23	90.32	/	/	34.28	11.21	46.58	100	10	Peak
5190	82.43	83.52	/	/	34.28	11.21	46.58	100	10	Average
5350	52.36	53.21	74.00	-21.64	34.30	11.39	46.54	100	10	Peak
5350	45.30	46.15	54.00	-8.70	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.96	58.38	74.00	-17.04	34.00	11.17	46.59	100	12	Peak
5150	50.71	52.13	54.00	-3.29	34.00	11.17	46.59	100	12	Average
5190	96.84	98.29	/	/	33.92	11.21	46.58	100	12	Peak
5190	89.39	90.84	/	/	33.92	11.21	46.58	100	12	Average
5350	53.21	53.56	74.00	-20.79	34.80	11.39	46.54	100	12	Peak
5350	46.50	46.85	54.00	-7.50	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.45	53.67	74.00	-21.55	34.20	11.17	46.59	100	10	Peak
5150	45.30	46.52	54.00	-8.70	34.20	11.17	46.59	100	10	Average
5230	92.76	93.65	/	/	34.42	11.26	46.57	100	10	Peak
5230	85.07	85.96	/	/	34.42	11.26	46.57	100	10	Average
5350	51.69	52.54	74.00	-22.31	34.30	11.39	46.54	100	10	Peak
5350	45.43	46.65	54.00	-8.57	34.20	11.17	46.59	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.09	53.51	74.00	-21.91	34.00	11.17	46.59	100	12	Peak
5150	44.74	46.16	54.00	-9.26	34.00	11.17	46.59	100	12	Average
5230	100.51	101.86	/	/	33.96	11.26	46.57	100	12	Peak
5230	92.30	93.65	/	/	33.96	11.26	46.57	100	12	Average
5350	52.82	53.17	74.00	-21.18	34.80	11.39	46.54	100	12	Peak
5350	45.98	46.33	54.00	-8.02	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.

802.11ac (20MHz)

CHANNEL	TX Channel 36	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.34	54.56	74.00	-20.66	34.20	11.17	46.59	100	10	Peak
5150	45.80	47.02	54.00	-8.20	34.20	11.17	46.59	100	10	Average
5180	99.15	100.28	/	/	34.26	11.20	46.59	100	10	Peak
5180	90.53	91.66	/	/	34.26	11.20	46.59	100	10	Average
5350	52.60	53.45	74.00	-21.40	34.30	11.39	46.54	100	10	Peak
5350	45.51	46.36	54.00	-8.49	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.26	57.68	74.00	-17.74	34.00	11.17	46.59	100	12	Peak
5150	48.92	50.34	54.00	-5.08	34.00	11.17	46.59	100	12	Average
5180	106.64	108.09	/	/	33.94	11.20	46.59	100	12	Peak
5180	96.91	98.36	/	/	33.94	11.20	46.59	100	12	Average
5350	53.59	53.94	74.00	-20.41	34.80	11.39	46.54	100	12	Peak
5350	45.92	46.27	54.00	-8.08	34.80	11.39	46.54	100	12	Average

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.06	53.28	74.00	-21.94	34.20	11.17	46.59	100	10	Peak
5150	45.56	46.78	54.00	-8.44	34.20	11.17	46.59	100	10	Average
5200	97.89	98.95	/	/	34.30	11.22	46.58	100	10	Peak
5200	89.42	90.48	/	/	34.30	11.22	46.58	100	10	Average
5350	52.64	53.49	74.00	-21.36	34.30	11.39	46.54	100	10	Peak
5350	45.42	46.27	54.00	-8.58	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.04	53.46	74.00	-21.96	34.00	11.17	46.59	100	12	Peak
5150	45.15	46.57	54.00	-8.85	34.00	11.17	46.59	100	12	Average
5200	104.84	106.30	/	/	33.90	11.22	46.58	100	12	Peak
5200	95.70	97.16	/	/	33.90	11.22	46.58	100	12	Average
5350	53.29	53.64	74.00	-20.71	34.80	11.39	46.54	100	12	Peak
5350	46.50	46.85	54.00	-7.50	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 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										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.91	54.13	74.00	-21.09	34.20	11.17	46.59	100	10	Peak
5150	45.36	46.58	54.00	-8.64	34.20	11.17	46.59	100	10	Average
5240	98.74	99.58	/	/	34.46	11.27	46.57	100	10	Peak
5240	90.55	91.39	/	/	34.46	11.27	46.57	100	10	Average
5350	52.83	53.68	74.00	-21.17	34.30	11.39	46.54	100	10	Peak
5350	46.07	46.92	54.00	-7.93	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.23	53.65	74.00	-21.77	34.00	11.17	46.59	100	12	Peak
5150	45.07	46.49	54.00	-8.93	34.00	11.17	46.59	100	12	Average
5240	105.63	106.95	/	/	33.98	11.27	46.57	100	12	Peak
5240	96.54	97.86	/	/	33.98	11.27	46.57	100	12	Average
5350	55.30	55.65	74.00	-18.70	34.80	11.39	46.54	100	12	Peak
5350	48.36	48.71	54.00	-5.64	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11ac (40MHz)

CHANNEL	TX Channel 38	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.09	53.31	74.00	-21.91	34.20	11.17	46.59	100	10	Peak
5150	46.74	47.96	54.00	-7.26	34.20	11.17	46.59	100	10	Average
5190	89.99	91.08	/	/	34.28	11.21	46.58	100	10	Peak
5190	83.87	84.96	/	/	34.28	11.21	46.58	100	10	Average
5350	50.34	51.19	74.00	-23.66	34.30	11.39	46.54	100	10	Peak
5350	45.00	45.85	54.00	-9.00	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	59.61	61.03	74.00	-14.39	34.00	11.17	46.59	100	12	Peak
5150	50.83	52.25	54.00	-3.17	34.00	11.17	46.59	100	12	Average
5190	98.02	99.47	/	/	33.92	11.21	46.58	100	12	Peak
5190	90.11	91.56	/	/	33.92	11.21	46.58	100	12	Average
5350	53.30	53.65	74.00	-20.70	34.80	11.39	46.54	100	12	Peak
5350	46.00	46.35	54.00	-8.00	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	51.55	52.77	74.00	-22.45	34.20	11.17	46.59	100	10	Peak
5150	44.81	46.03	54.00	-9.19	34.20	11.17	46.59	100	10	Average
5230	93.16	94.05	/	/	34.42	11.26	46.57	100	10	Peak
5230	85.76	86.65	/	/	34.42	11.26	46.57	100	10	Average
5350	51.68	52.53	74.00	-22.32	34.30	11.39	46.54	100	10	Peak
5350	45.58	46.43	54.00	-8.42	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.19	53.61	74.00	-21.81	34.00	11.17	46.59	100	12	Peak
5150	44.81	46.23	54.00	-9.19	34.00	11.17	46.59	100	12	Average
5230	101.01	102.36	/	/	33.96	11.26	46.57	100	12	Peak
5230	93.91	95.26	/	/	33.96	11.26	46.57	100	12	Average
5350	53.92	54.27	74.00	-20.08	34.80	11.39	46.54	100	12	Peak
5350	46.68	47.03	54.00	-7.32	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.

802.11ac (80MHz)

CHANNEL	TX Channel 42	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.51	53.73	74.00	-21.49	34.20	11.17	46.59	100	10	Peak
5150	46.07	47.29	54.00	-7.93	34.20	11.17	46.59	100	10	Average
5210	87.65	88.65	/	/	34.34	11.24	46.58	100	10	Peak
5210	79.10	80.10	/	/	34.34	11.24	46.58	100	10	Average
5350	52.79	53.64	74.00	-21.21	34.30	11.39	46.54	100	10	Peak
5350	45.46	46.31	54.00	-8.54	34.30	11.39	46.54	100	10	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.23	58.65	74.00	-16.77	34.00	11.17	46.59	100	12	Peak
5150	50.88	52.30	54.00	-3.12	34.00	11.17	46.59	100	12	Average
5210	92.67	94.09	/	/	33.92	11.24	46.58	100	12	Peak
5210	83.23	84.65	/	/	33.92	11.24	46.58	100	12	Average
5350	53.29	53.64	74.00	-20.71	34.80	11.39	46.54	100	12	Peak
5350	45.54	45.89	54.00	-8.46	34.80	11.39	46.54	100	12	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5210MHz: Fundamental frequency.

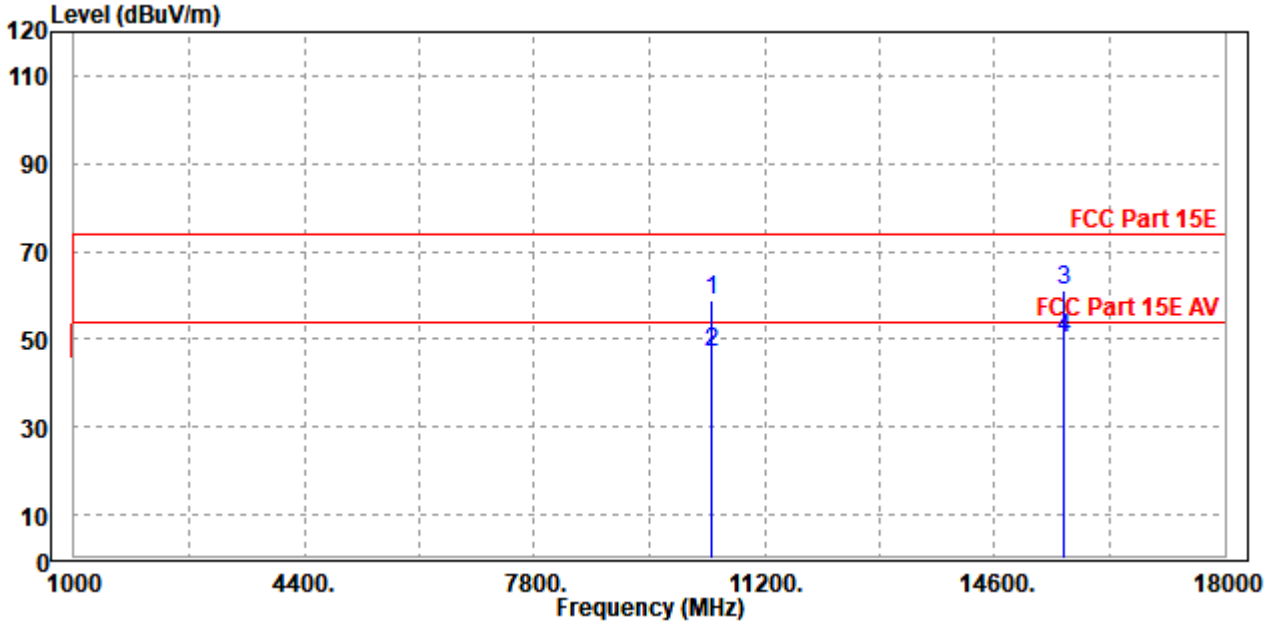
802.11ac (80MHz)

Worst case harmonic:

CHANNEL	TX Channel 42	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

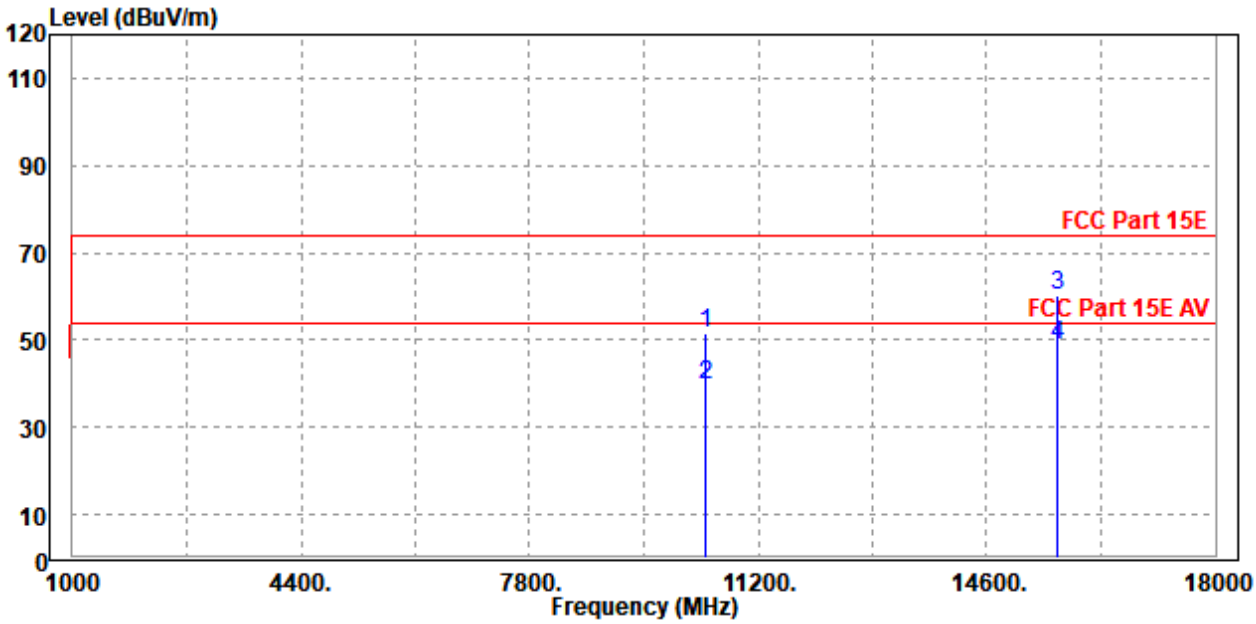
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10418.000	58.90	51.57	74.00	-15.10	7.33	Peak	Horizontal
2	10418.000	46.89	39.56	54.00	-7.11	7.33	Average	Horizontal
3	PK15630.000	61.05	41.14	74.00	-12.95	19.91	Peak	Horizontal
4	PP15630.000	50.09	30.18	54.00	-3.91	19.91	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10420.000	51.69	44.72	74.00	-22.31	6.97	Peak	Vertical
2	10420.000	39.74	32.77	54.00	-14.26	6.97	Average	Vertical
3	PK15637.000	60.01	40.45	74.00	-13.99	19.56	Peak	Vertical
4	PP15637.000	48.68	29.12	54.00	-5.32	19.56	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5210MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

Band 4:

802.11a

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	100.36	100.64	/	/	34.51	11.65	46.44	100	170	Peak
5745	91.55	91.83	/	/	34.51	11.65	46.44	100	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	105.05	105.45	/	/	34.39	11.65	46.44	100	15	Peak
5745	96.68	97.08	/	/	34.39	11.65	46.44	100	15	Average

REMARKS:

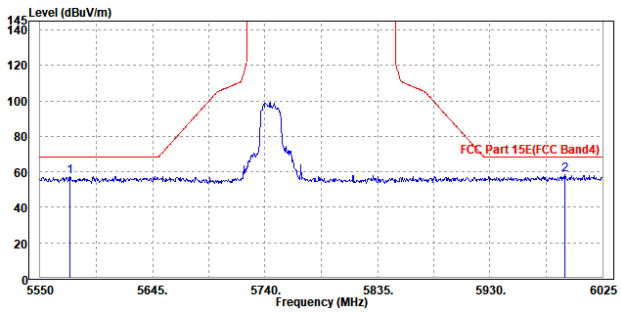
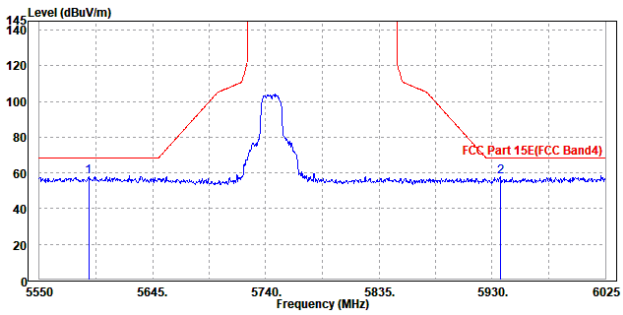
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5575.175	57.29	57.89	68.2	-10.91	34.3	11.59	46.49	100	0	Peak
5993.175	58.21	57.74	68.2	-9.99	35.1	11.75	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5591.325	58.16	58.02	68.2	-10.04	35.03	11.59	46.48	100	360	Peak
5936.65	57.93	57.67	68.2	-10.27	34.93	11.73	46.4	100	360	Peak

CH 149

Horizontal	Vertical
	

CHANNEL	TX Channel 157	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5785	101.17	101.29	/	/	34.64	11.67	46.43	100	170	Peak
5785	92.74	92.86	/	/	34.64	11.67	46.43	100	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5785	106.11	106.12	/	/	34.75	11.67	46.43	100	15	Peak
5785	97.24	97.25	/	/	34.75	11.67	46.43	100	15	Average

REMARKS:

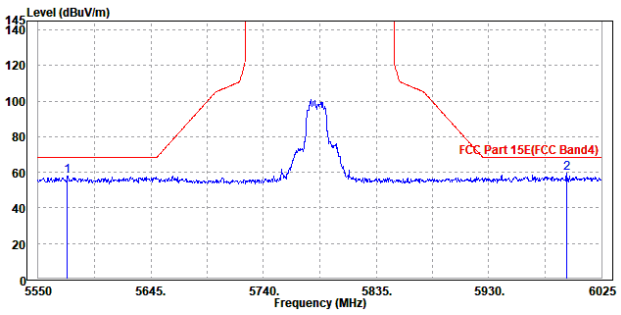
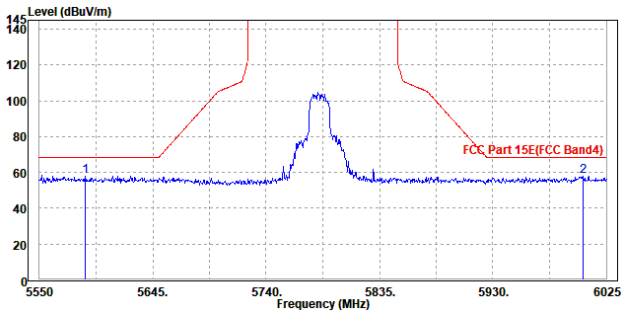
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5574.7	57.85	58.45	68.2	-10.35	34.3	11.59	46.49	100	360	Peak
5995.55	59.77	59.3	68.2	-8.43	35.1	11.75	46.38	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5588.475	57.89	57.77	68.2	-10.31	35.01	11.59	46.48	100	0	Peak
6005.525	57.86	57.44	68.2	-10.34	35.04	11.76	46.38	100	0	Peak

CH 157

Horizontal	Vertical
	

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	101.81	101.75	/	/	34.8	11.68	46.42	100	170	Peak
5825	93.8	93.74	/	/	34.8	11.68	46.42	100	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	106.51	106.15	/	/	35.1	11.68	46.42	100	15	Peak
5825	97.33	96.97	/	/	35.1	11.68	46.42	100	15	Average

REMARKS:

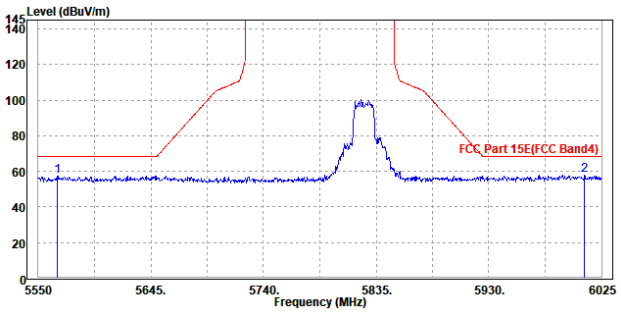
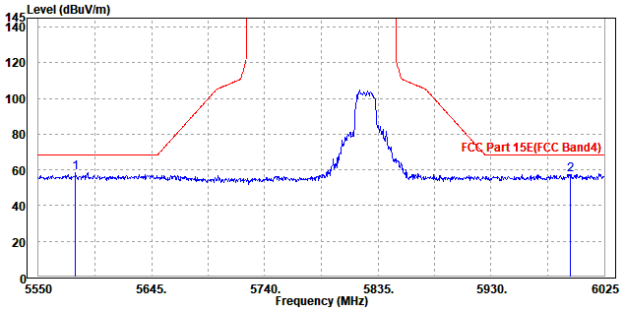
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5566.15	57.22	57.82	68.2	-10.98	34.3	11.59	46.49	100	0	Peak
6010.75	58.04	57.53	68.2	-10.16	35.12	11.77	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5581.35	58.69	58.63	68.2	-9.51	34.95	11.59	46.48	100	360	Peak
5996.5	57.4	57.04	68.2	-10.8	34.99	11.75	46.38	100	360	Peak

CH 165

Horizontal	Vertical
	

802.11n (20MHz)

CHANNEL	TX Channel 149	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	99.3	99.58	/	/	34.51	11.65	46.44	100	170	Peak
5745	92.26	92.54	/	/	34.51	11.65	46.44	100	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	103.96	104.36	/	/	34.39	11.65	46.44	100	15	Peak
5745	95.95	96.35	/	/	34.39	11.65	46.44	100	15	Average

REMARKS:

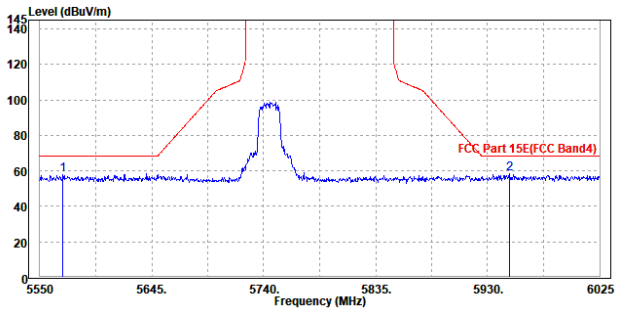
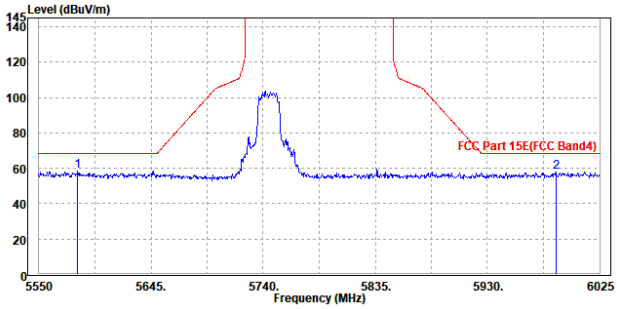
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5569.475	57.92	58.52	68.2	-10.28	34.3	11.59	46.49	100	360	Peak
5948.525	58.17	57.73	68.2	-10.03	35.1	11.73	46.39	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5582.775	58.31	58.24	68.2	-9.89	34.96	11.59	46.48	100	0	Peak
5987.95	57.96	57.61	68.2	-10.24	34.98	11.75	46.38	100	0	Peak

CH 149

Horizontal	Vertical
	

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	101.34	101.46	/	/	34.64	11.67	46.43	100	170	Peak
5785	94.13	94.25	/	/	34.64	11.67	46.43	100	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	104.24	104.25	/	/	34.75	11.67	46.43	100	15	Peak
5785	96.43	96.44	/	/	34.75	11.67	46.43	100	15	Average

REMARKS:

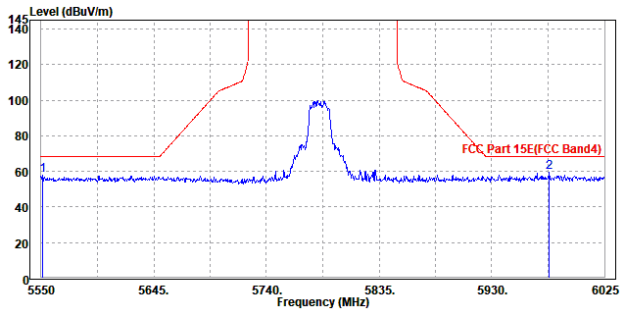
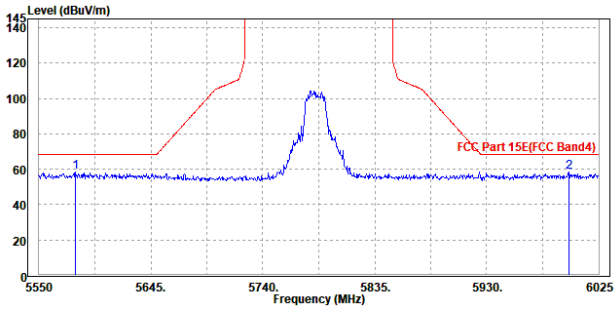
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5550.95	57.86	58.47	68.2	-10.34	34.3	11.58	46.49	100	0	Peak
5978.45	59.3	58.85	68.2	-8.9	35.1	11.74	46.39	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5580.875	58.33	58.27	68.2	-9.87	34.95	11.59	46.48	100	360	Peak
5999.825	58.57	58.2	68.2	-9.63	35	11.75	46.38	100	360	Peak

CH 157

Horizontal	Vertical
	

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	101.18	101.12	/	/	34.8	11.68	46.42	100	15	Peak
5825	92.71	92.65	/	/	34.8	11.68	46.42	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	104.62	104.26	/	/	35.1	11.68	46.42	100	170	Peak
5825	96.92	96.56	/	/	35.1	11.68	46.42	100	170	Average

REMARKS:

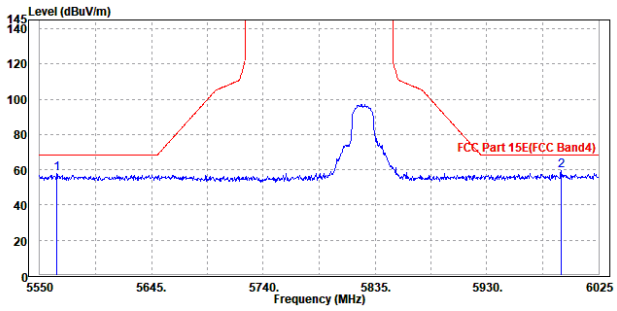
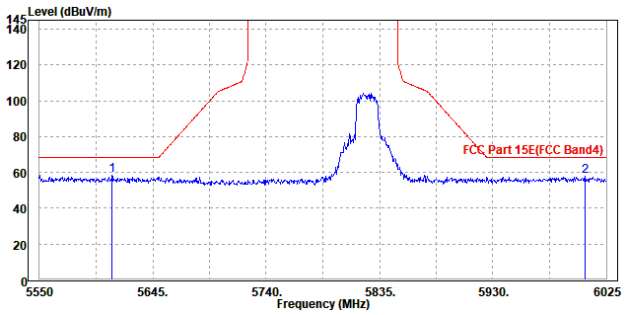
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHz)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5564.725	57.68	58.29	68.2	-10.52	34.3	11.58	46.49	100	0	Peak
5993.175	59.41	58.94	68.2	-8.79	35.1	11.75	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5610.8	58.19	58.1	68.2	-10.01	34.97	11.6	46.48	100	360	Peak
6006.95	57.76	57.32	68.2	-10.44	35.06	11.76	46.38	100	360	Peak

CH 165

Horizontal	Vertical
	

802.11n (40MHz)

CHANNEL	TX Channel 151	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	95.1	95.36	/	/	34.52	11.66	46.44	100	15	Peak
5755	89.39	89.65	/	/	34.52	11.66	46.44	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	99.68	100.01	/	/	34.45	11.66	46.44	100	20	Peak
5755	93.93	94.26	/	/	34.45	11.66	46.44	100	20	Average

REMARKS:

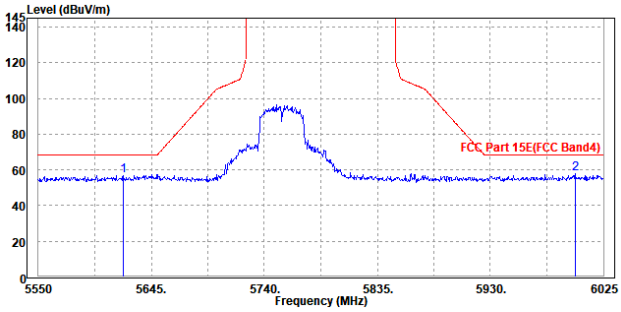
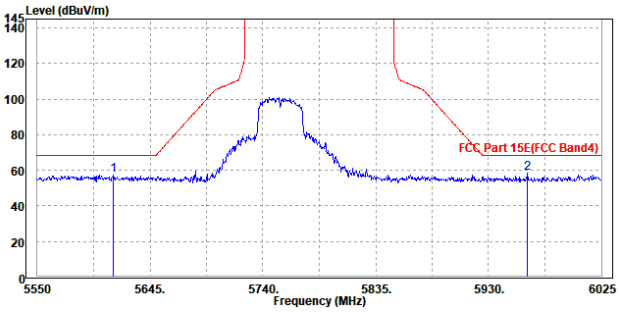
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

OOBE DATA

802.11n (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5621.25	56.88	57.31	68.2	-11.32	34.43	11.61	46.47	100	0	Peak
6001.25	58.12	57.65	68.2	-10.08	35.1	11.75	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5614.125	57.56	57.51	68.2	-10.64	34.93	11.6	46.48	100	360	Peak
5962.775	58.3	58.02	68.2	-9.9	34.93	11.74	46.39	100	360	Peak

CH 151

Horizontal	Vertical
	

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	95.49	95.57	/	/	34.68	11.67	46.43	100	15	Peak
5795	89.49	89.57	/	/	34.68	11.67	46.43	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	100.39	100.3	/	/	34.85	11.67	46.43	100	20	Peak
5795	94.36	94.27	/	/	34.85	11.67	46.43	100	20	Average

REMARKS:

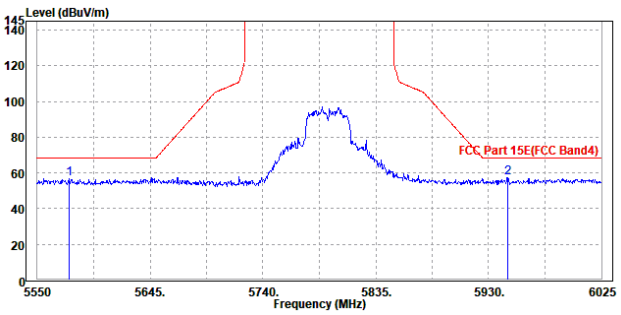
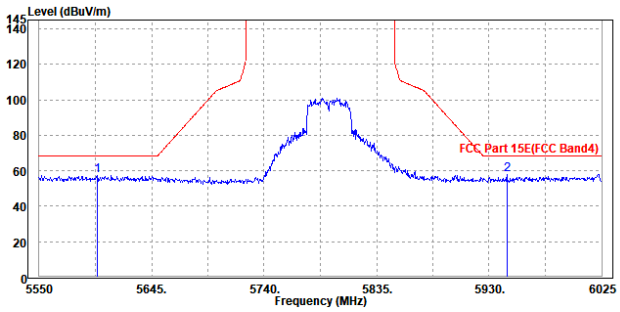
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

OOBE DATA

802.11n (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5576.6	56.61	57.21	68.2	-11.59	34.3	11.59	46.49	100	360	Peak
5946.15	57.17	56.74	68.2	-11.03	35.09	11.73	46.39	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5598.925	57.44	57.23	68.2	-10.76	35.09	11.6	46.48	100	0	Peak
5945.2	57.63	57.38	68.2	-10.57	34.91	11.73	46.39	100	0	Peak

CH 159

Horizontal	Vertical
	

802.11ac (20MHz)

CHANNEL	TX Channel 149	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	100.15	100.43	/	/	34.51	11.65	46.44	100	15	Peak
5745	90.54	90.82	/	/	34.51	11.65	46.44	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	104.26	104.66	/	/	34.39	11.65	46.44	100	15	Peak
5745	95.66	96.06	/	/	34.39	11.65	46.44	100	15	Average

REMARKS:

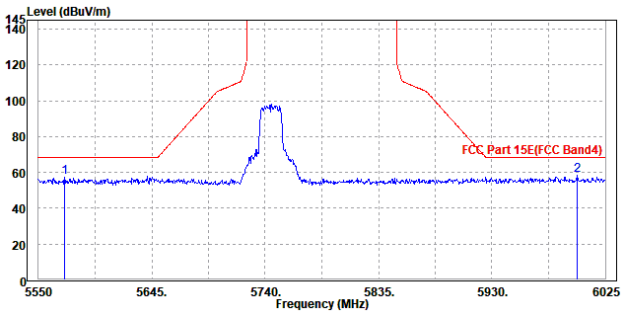
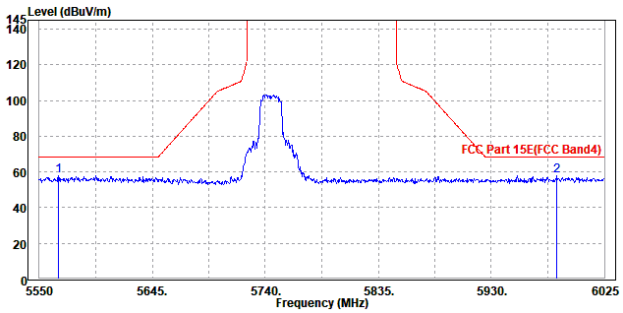
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5571.85	57.09	57.69	68.2	-11.11	34.3	11.59	46.49	100	0	Peak
6001.725	58.42	57.95	68.2	-9.78	35.1	11.75	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5566.15	57.7	57.77	68.2	-10.5	34.83	11.59	46.49	100	360	Peak
5985.1	57.81	57.48	68.2	-10.39	34.97	11.74	46.38	100	360	Peak

CH 149

Horizontal	Vertical
	

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	100.58	100.7	/	/	34.64	11.67	46.43	100	15	Peak
5785	92.04	92.16	/	/	34.64	11.67	46.43	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	106.01	106.02	/	/	34.75	11.67	46.43	100	15	Peak
5785	96.98	96.99	/	/	34.75	11.67	46.43	100	15	Average

REMARKS:

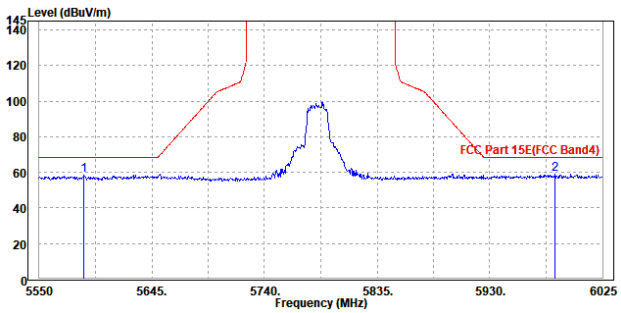
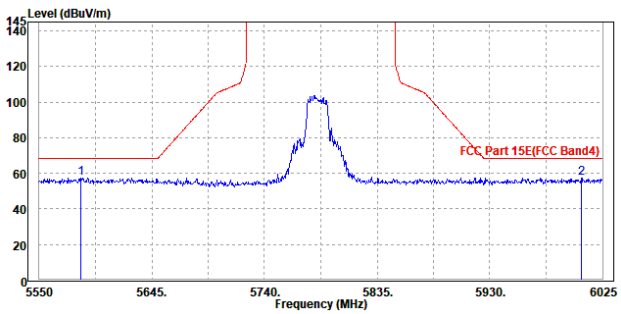
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5588	58.43	59.02	68.2	-9.77	34.3	11.59	46.48	100	0	Peak
5984.625	58.74	58.28	68.2	-9.46	35.1	11.74	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5585.15	57.39	57.3	68.2	-10.81	34.98	11.59	46.48	100	360	Peak
6006.95	57.58	57.14	68.2	-10.62	35.06	11.76	46.38	100	360	Peak

CH 157

Horizontal	Vertical
	

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	100.74	100.68	/	/	34.8	11.68	46.42	100	15	Peak
5825	92.3	92.24	/	/	34.8	11.68	46.42	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	105.03	105.04	/	/	34.75	11.67	46.43	100	15	Peak
5785	96.94	96.95	/	/	34.75	11.67	46.43	100	15	Average

REMARKS:

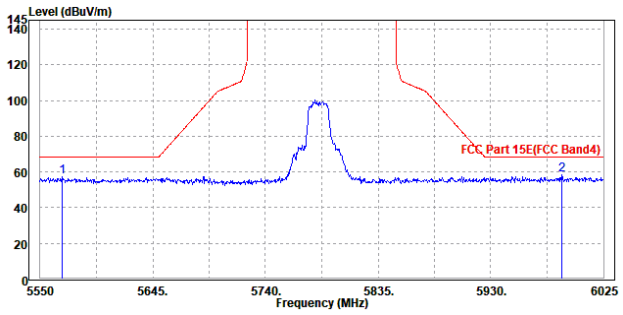
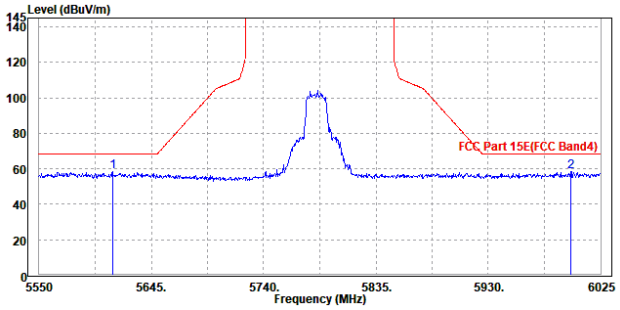
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5568.525	57.2	57.8	68.2	-11	34.3	11.59	46.49	100	360	Peak
5989.85	58.28	57.81	68.2	-9.92	35.1	11.75	46.38	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5612.225	58.6	58.53	68.2	-9.6	34.95	11.6	46.48	100	0	Peak
5999.825	58.25	57.88	68.2	-9.95	35	11.75	46.38	100	0	Peak

CH 165

Horizontal	Vertical
	

802.11ac (40MHz)

CHANNEL	TX Channel 151	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	95.33	95.59	/	/	34.52	11.66	46.44	100	15	Peak
5755	88.61	88.87	/	/	34.52	11.66	46.44	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	99.64	99.97	/	/	34.45	11.66	46.44	100	15	Peak
5755	93.65	93.98	/	/	34.45	11.66	46.44	100	15	Average

REMARKS:

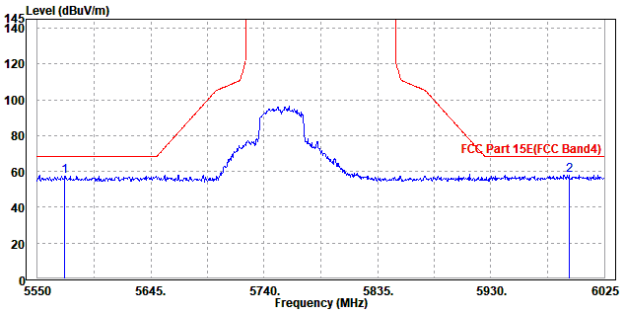
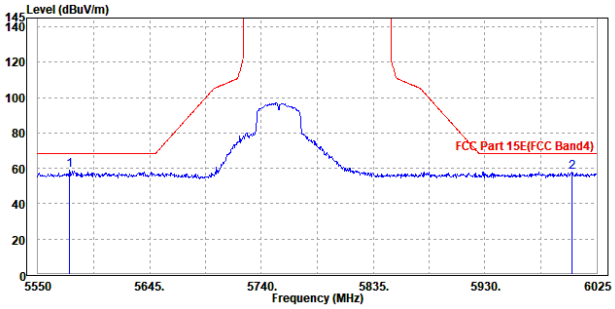
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

OOBE DATA

802.11ac (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5572.8	57.6	58.2	68.2	-10.6	34.3	11.59	46.49	100	360	Peak
5995.55	57.99	57.52	68.2	-10.21	35.1	11.75	46.38	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5619.825	57.37	58.29	68.2	-10.83	34.74	9.84	45.5	100	0	Peak
5940.925	57.66	58.08	68.2	-10.54	35.13	9.95	45.5	100	0	Peak

CH 151

Horizontal	Vertical
	

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	95.94	96.02	/	/	34.68	11.67	46.43	100	15	Peak
5795	89.55	89.63	/	/	34.68	11.67	46.43	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	100.65	100.56	/	/	34.85	11.67	46.43	100	15	Peak
5795	94.34	94.25	/	/	34.85	11.67	46.43	100	15	Average

REMARKS:

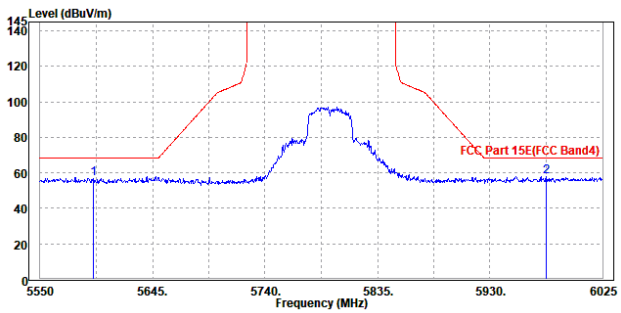
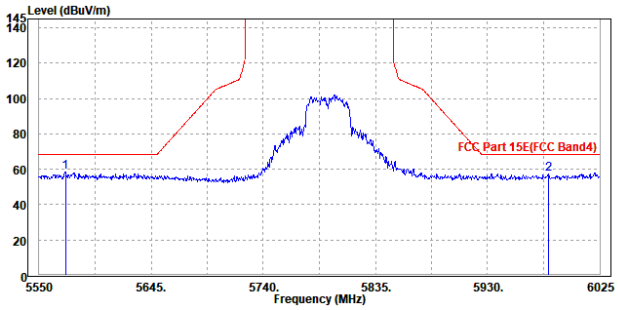
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

OOBE DATA

802.11ac (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5595.125	56.9	57.48	68.2	-11.3	34.3	11.6	46.48	100	360	Peak
5977.5	58.06	57.61	68.2	-10.14	35.1	11.74	46.39	100	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5572.325	58.52	58.54	68.2	-9.68	34.88	11.59	46.49	100	0	Peak
5981.3	57.6	57.28	68.2	-10.6	34.96	11.74	46.38	100	0	Peak

CH 159

Horizontal	Vertical
	

802.11ac (80MHz)

CHANNEL	TX Channel 155	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5775	92.04	92.22	/	/	34.6	11.66	46.44	100	15	Peak
5775	85.48	85.66	/	/	34.6	11.66	46.44	100	15	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5775	97.53	97.66	/	/	34.65	11.66	46.44	100	15	Peak
5775	92.91	93.04	/	/	34.65	11.66	46.44	100	15	Average

REMARKS:

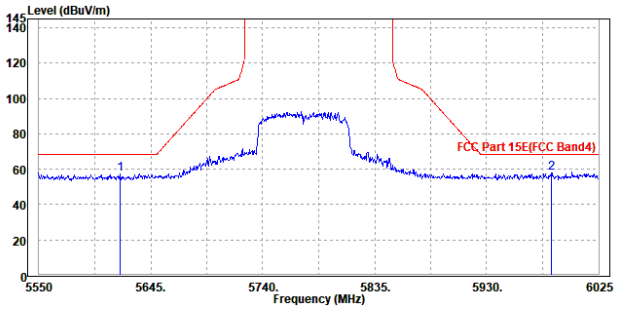
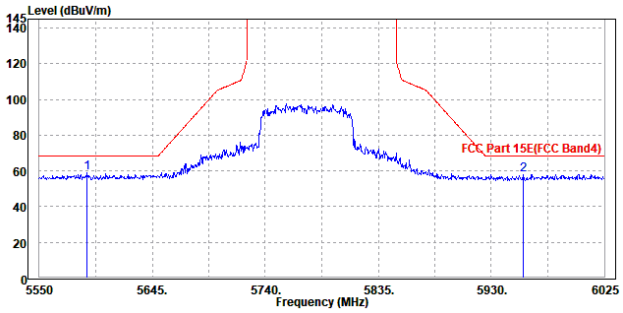
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5775MHz: Fundamental frequency.

OOBE DATA

802.11ac (80MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5619.35	57.44	57.89	68.2	-10.76	34.42	11.61	46.48	100	0	Peak
5985.1	58.14	57.68	68.2	-10.06	35.1	11.74	46.38	100	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5590.375	58.94	58.81	68.2	-9.26	35.02	11.59	46.48	100	360	Peak
5956.6	57.99	57.74	68.2	-10.21	34.91	11.73	46.39	100	360	Peak

CH 155

Horizontal	Vertical
	

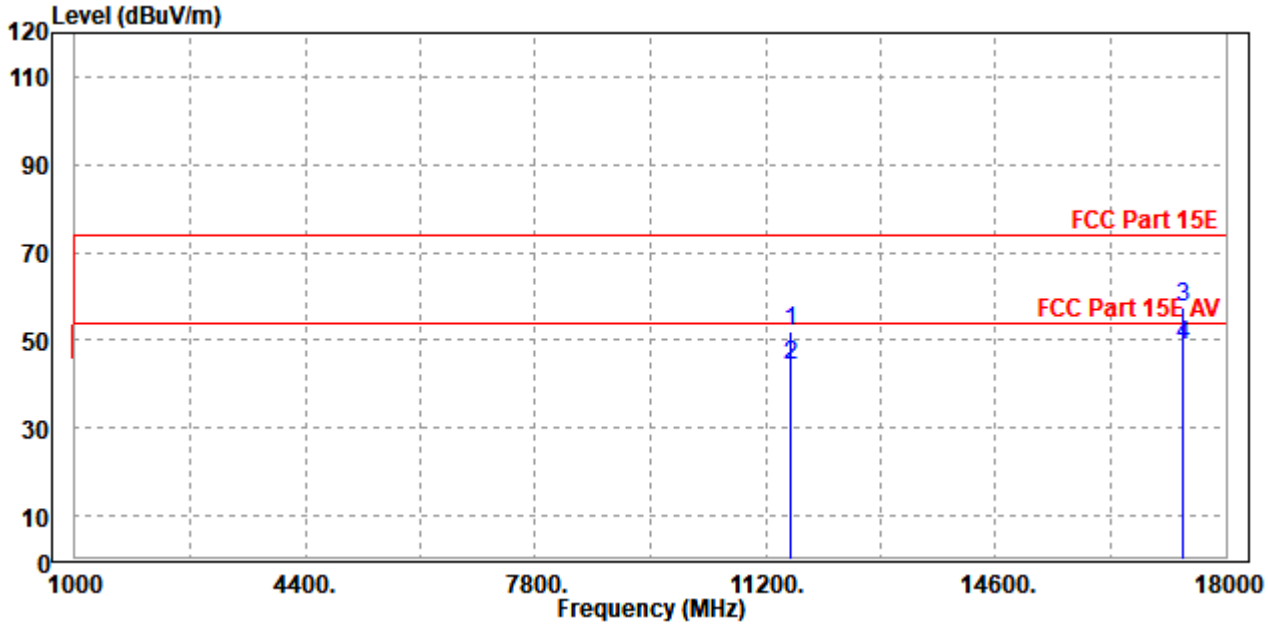
802.11a

Worst case harmonic:

CHANNEL	TX Channel 157	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

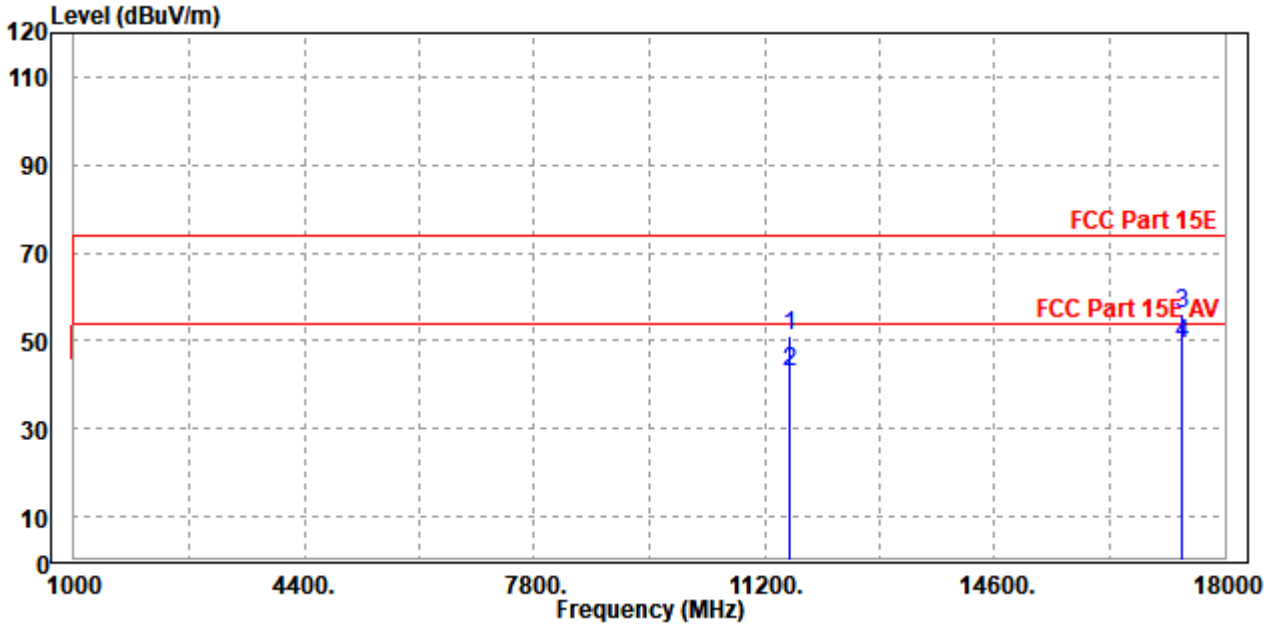
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11570.000	52.04	43.90	74.00	-21.96	8.14	Peak	Horizontal
2	11570.000	44.06	35.92	54.00	-9.94	8.14	Average	Horizontal
3	PK17354.000	57.60	40.79	74.00	-16.40	16.81	Peak	Horizontal
4	PP17354.000	48.99	32.18	54.00	-5.01	16.81	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11574.000	51.24	43.63	74.00	-22.76	7.61	Peak	Vertical
2	11574.000	42.89	35.28	54.00	-11.11	7.61	Average	Vertical
3	PK17355.000	56.16	40.13	74.00	-17.84	16.03	Peak	Vertical
4	PP17355.000	49.06	33.03	54.00	-4.94	16.03	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 14,24	Feb. 13,25
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 10,24	Mar. 09,25

NOTE:
1. The test was performed in the CE shielded room.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA, and NIM/CHINA.

3.2.3 TEST PROCEDURES

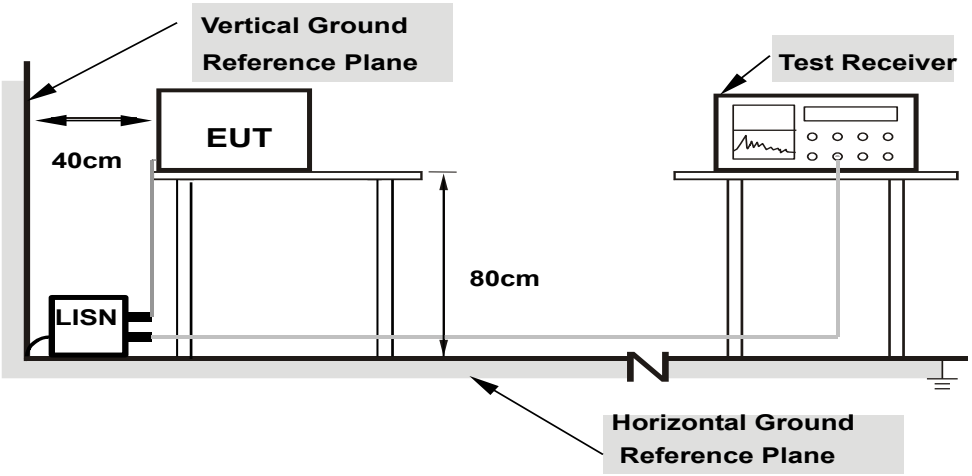
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

NOTE: All modes of operation were investigated, and the worst-case emissions are reported.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.2.7 TEST RESULTS

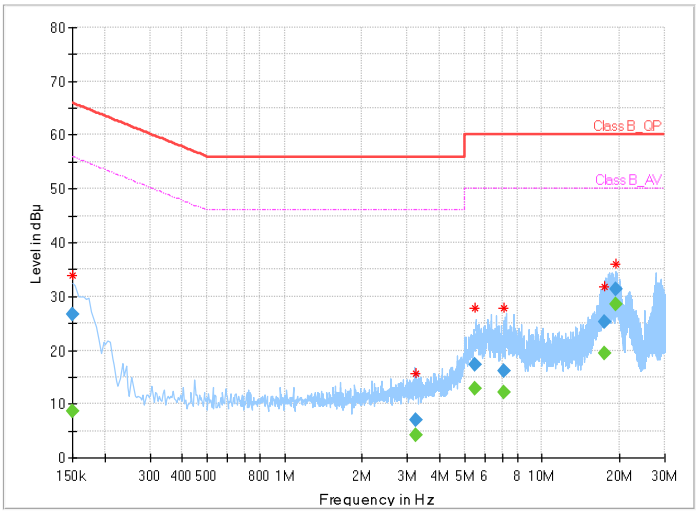
CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	8.75	56.00	47.25	L1	ON	9.8
0.150000	26.67	---	66.00	39.33	L1	ON	9.8
3.248000	---	4.20	46.00	41.80	L1	ON	9.8
3.248000	6.91	---	56.00	49.09	L1	ON	9.8
5.480000	---	12.77	50.00	37.23	L1	ON	9.8
5.480000	17.38	---	60.00	42.62	L1	ON	9.8
7.148000	---	12.24	50.00	37.76	L1	ON	10.2
7.148000	16.13	---	60.00	43.87	L1	ON	10.2
17.532000	---	19.49	50.00	30.51	L1	ON	11.1
17.532000	25.36	---	60.00	34.64	L1	ON	11.1
19.388000	---	28.50	50.00	21.50	L1	ON	11.2
19.388000	31.39	---	60.00	28.61	L1	ON	11.2

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value - Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

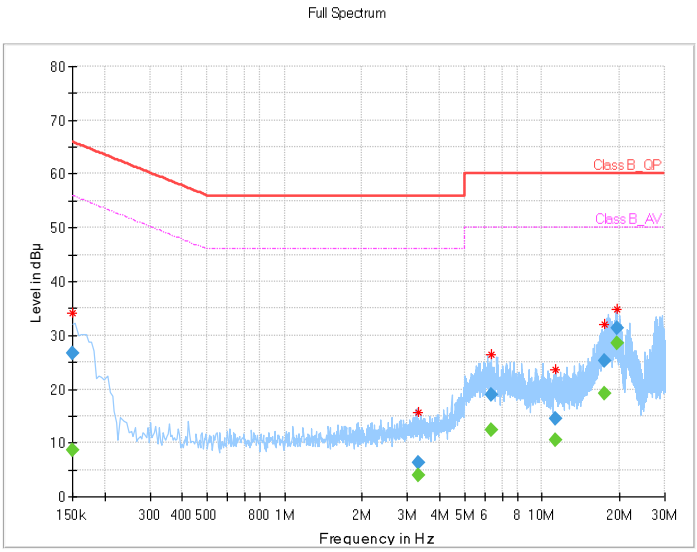
Full Spectrum



Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	8.71	56.00	47.29	N	ON	9.7
0.150000	26.74	---	66.00	39.26	N	ON	9.7
3.308000	---	4.02	46.00	41.98	N	ON	9.8
3.308000	6.24	---	56.00	49.76	N	ON	9.8
6.364000	---	12.45	50.00	37.55	N	ON	10.0
6.364000	18.99	---	60.00	41.01	N	ON	10.0
11.320000	---	10.41	50.00	39.59	N	ON	10.5
11.320000	14.48	---	60.00	45.52	N	ON	10.5
17.578000	---	19.15	50.00	30.85	N	ON	11.2
17.578000	25.18	---	60.00	34.82	N	ON	11.2
19.672000	---	28.58	50.00	21.42	N	ON	11.4
19.672000	31.46	---	60.00	28.54	N	ON	11.4

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value - Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

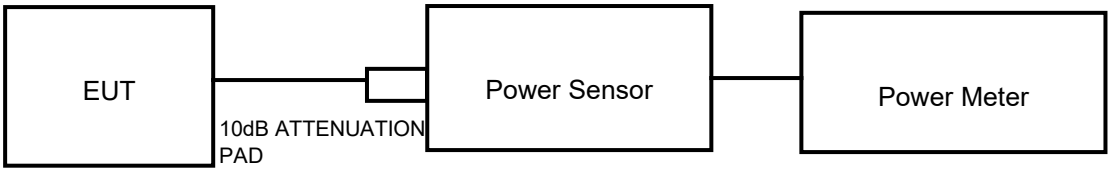
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

NOTE: Where B is the 26dB emission bandwidth in MHz

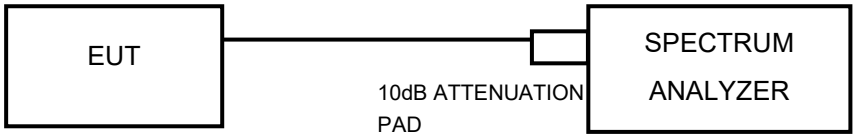
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz), 802.11ac (80MHz) TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 22,24	Feb. 21,25
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 18,24	Feb. 17,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.15,23	May.14,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.14,24	May.13,25
Power Sensor	ANRITSU	MA2411B	1339352	May. 06,24	May. 05,25

NOTE:

1. The calibration interval of the above test instruments is 12 months, and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in the RF Oven room.

3.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

For 802.11a, 802.11 n/ac (20MHz), 802.11 n/ac (40MHz) , 802.11ac (80MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

FOR 6dB BANDWIDTH

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

The software provided by the client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

3.3.7 TEST RESULTS

Please Refer to Appendix Of this test report.

3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Client devices	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.4.2 TEST SETUP

3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information about the above instrument.

3.4.4 TEST PROCEDURES

Using method SA-2(Band1/2/3)

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
7) Record the max value

Using method SA-2 (Band4)

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 KHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log(500kHz/RBW) to the test result. 10 log(500kHz/300KHZ) = 2.22dBm
7) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
8) Record the max value

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.4.7 TEST RESULTS

Please Refer to Appendix Of this test report.

3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information about the above instrument.

3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving。 The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.6 ANTENNA REQUIREMENTS

3.6.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmits power, and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.6.3 ANTENNA GAIN

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit and PSD limit. （单天线用）

Accoring to FCC KDB 662911 D01 Multiple Transmitter Output v02r01（双天线用）
For CDD transmissions,directional gain is calculated as
Directional gain=GANT +Array Gain, where Array Gain is as follows.
For power spectral density (PSD) measurements on all devices,
Array Gain= 10 log(NANT/ Nss) dB;
For power measurements on IEEE 802.11 devices,Array Gain = 0 dB for NANT≤ 4;
The EUT supports Cyclic Delay Diversity (CDD) mode,
For power measurements,the directional GANT is set equal to the antenna having the highest gain as following formulas.

Directional Gain = Max.Gain + Array Gain.

For PSD measurements,the directional GANT is calculation is following F)2)f)ii of KDB 662911 D01 v02r01.
The directional gain is calculated as following table.

5GHz Band1/2 3/4	Ant 1 (dBi)	Ant 2 (dBi)	DG For Power (dBi)	DG For PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	-3.00	-1.80	-1.80	0.63	0.00	0.00

NOTE :DG= directional gain, Power Limit Reduction = DG For Power Gain -6dbi<0

PSD Limit Reduction = DG For PSD – 6dBi<0.Therefore, it is not necessary to reduce maximum peak output power and PSD limit.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

6 APPENDIX: RLAN

EMISSION BANDWIDTH

TEST RESULT

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.440	5169.560	5190.000	---	---
11A	Ant1	5200	19.960	5190.120	5210.080	---	---
11A	Ant1	5240	20.000	5230.040	5250.040	---	---
11A	Ant1	5745	21.000	5734.600	5755.600	---	---
11A	Ant1	5785	28.920	5769.880	5798.800	---	---
11A	Ant1	5825	32.520	5809.920	5842.440	---	---
11N20SISO	Ant1	5180	20.600	5169.520	5190.120	---	---
11N20SISO	Ant1	5200	20.680	5189.640	5210.320	---	---
11N20SISO	Ant1	5240	21.120	5229.000	5250.120	---	---
11N20SISO	Ant1	5745	21.880	5734.600	5756.480	---	---
11N20SISO	Ant1	5785	31.080	5768.480	5799.560	---	---
11N20SISO	Ant1	5825	35.480	5807.200	5842.680	---	---
11N40SISO	Ant1	5190	46.720	5166.640	5213.360	---	---
11N40SISO	Ant1	5230	56.880	5201.120	5258.000	---	---
11N40SISO	Ant1	5755	78.000	5715.000	5793.000	---	---
11N40SISO	Ant1	5795	77.120	5755.000	5832.120	---	---
11AC80SISO	Ant1	5210	155.680	5130.000	5285.680	---	---
11AC80SISO	Ant1	5775	148.320	5695.960	5844.280	---	---

TEST GRAPHS

11A-Ant1-5180

11A-Ant1-5200

11A-Ant1-5240

11A-Ant1-5745

11A-Ant1-5785

11A-Ant1-5825

11N20SISO-Ant1-5180

11N20SISO-Ant1-5200

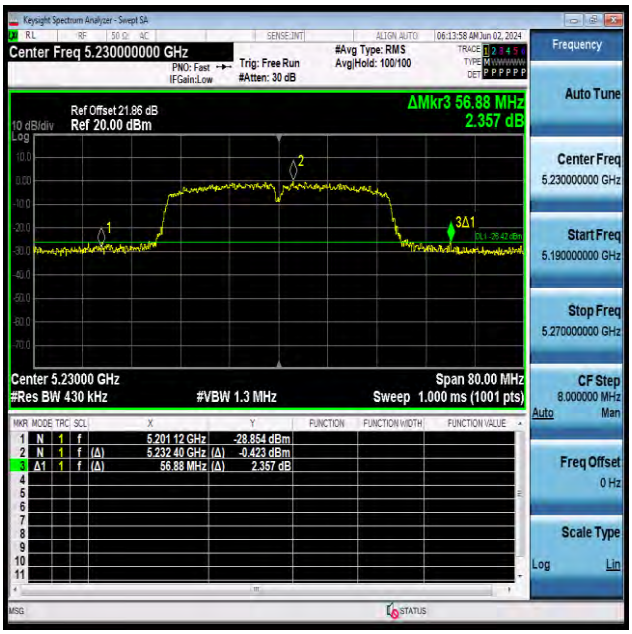
11N20SISO-Ant1-5240

11N20SISO-Ant1-5745

11N20SISO-Ant1-5785

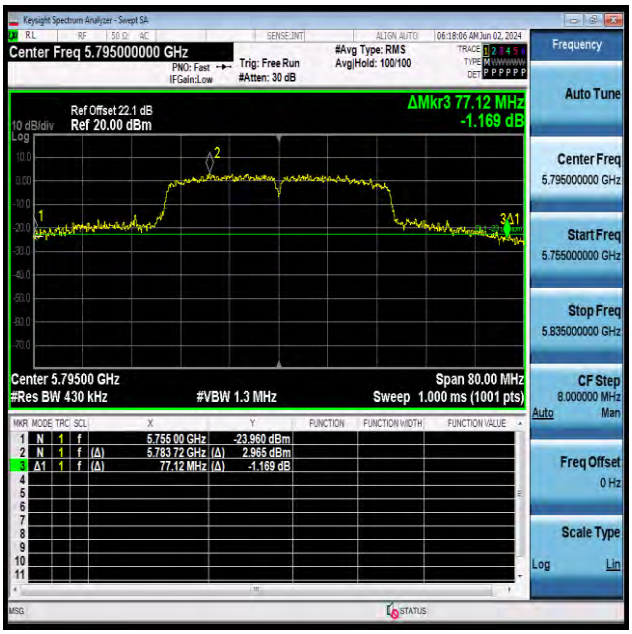
11N20SISO-Ant1-5825

11N40SISO-Ant1-5190

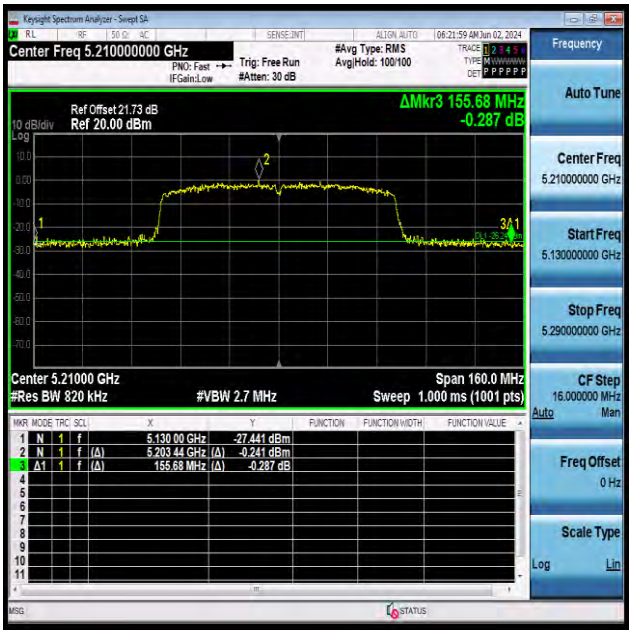


11N40SISO-Ant1-5230

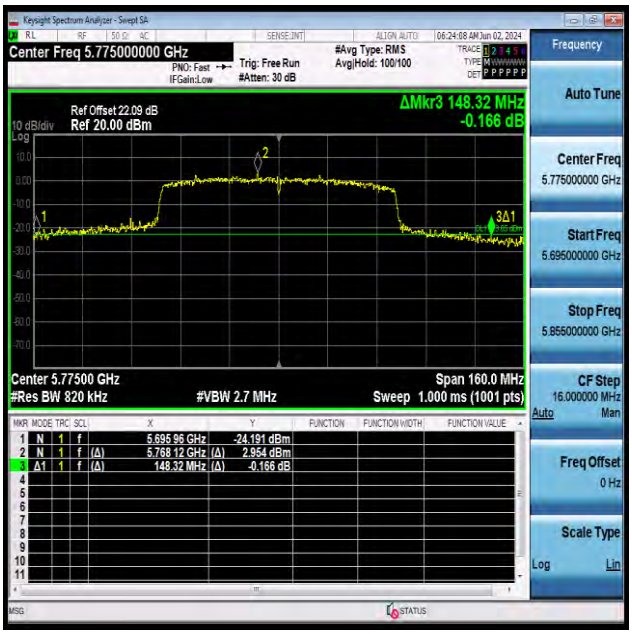
11N40SISO-Ant1-5755



11N40SISO-Ant1-5795



11AC80SISO-Ant1-5210



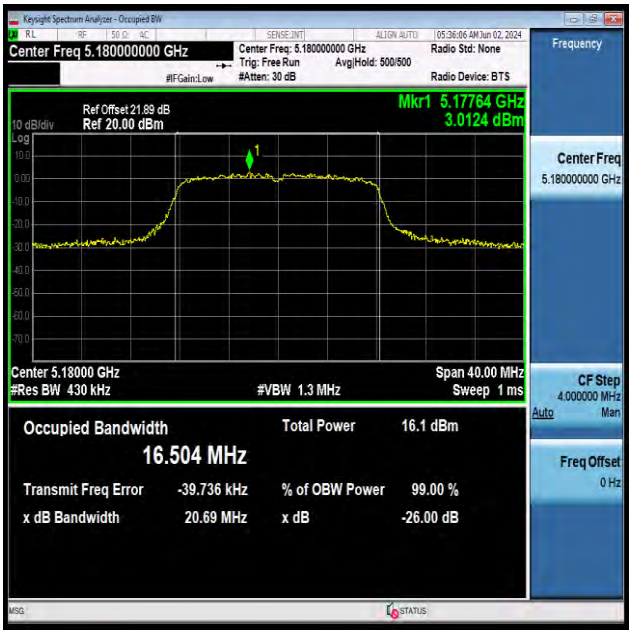
11AC80SISO-Ant1-5775

OCCUPIED CHANNEL BANDWIDTH

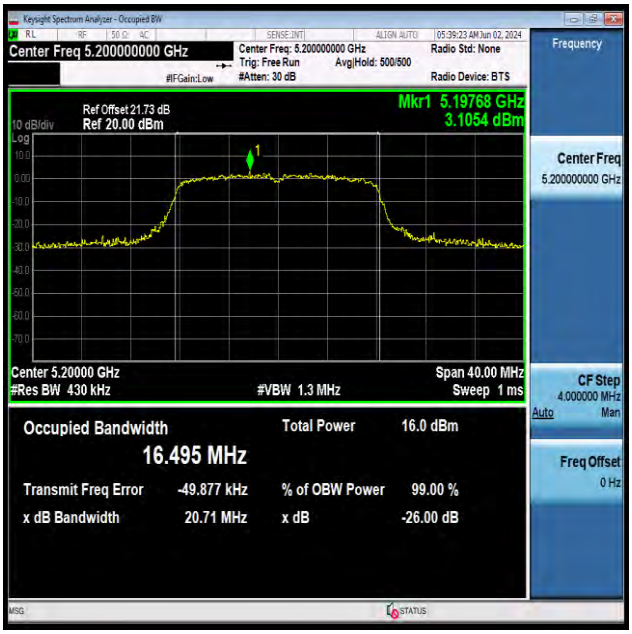
TEST RESULT

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.504	5171.7083	5188.2123	---	---
11A	Ant1	5200	16.495	5191.7026	5208.1976	---	---
11A	Ant1	5240	16.500	5231.7029	5248.2029	---	---
11A	Ant1	5745	16.664	5736.6133	5753.2773	---	---
11A	Ant1	5785	16.930	5776.5513	5793.4813	---	---
11A	Ant1	5825	17.084	5816.5760	5833.6600	---	---
11N20SISO	Ant1	5180	17.584	5171.1652	5188.7492	---	---
11N20SISO	Ant1	5200	17.613	5191.1407	5208.7537	---	---
11N20SISO	Ant1	5240	17.579	5231.1591	5248.7381	---	---
11N20SISO	Ant1	5745	17.722	5736.0731	5753.7951	---	---
11N20SISO	Ant1	5785	17.959	5775.9658	5793.9248	---	---
11N20SISO	Ant1	5825	18.060	5815.9895	5834.0495	---	---
11N40SISO	Ant1	5190	36.302	5171.8355	5208.1375	---	---
11N40SISO	Ant1	5230	36.246	5211.8581	5248.1041	---	---
11N40SISO	Ant1	5755	37.459	5736.1174	5773.5764	---	---
11N40SISO	Ant1	5795	40.065	5774.0394	5814.1044	---	---
11AC80SISO	Ant1	5210	75.965	5171.9744	5247.9394	---	---
11AC80SISO	Ant1	5775	77.761	5735.0973	5812.8583	---	---

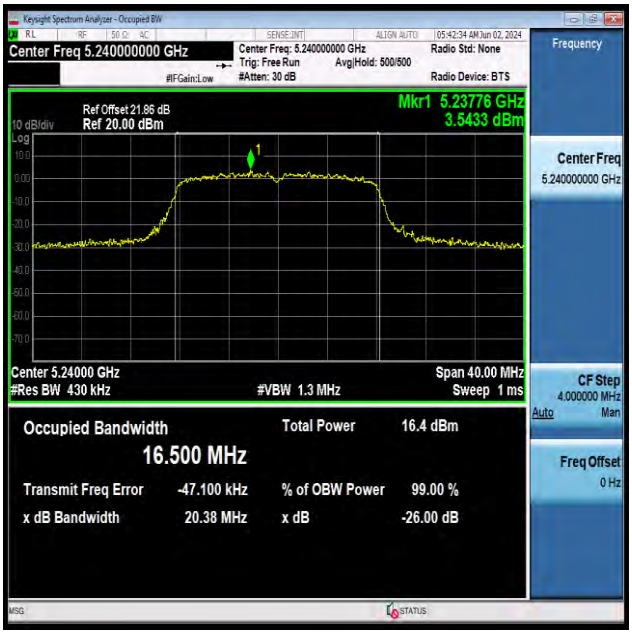
TEST GRAPHS



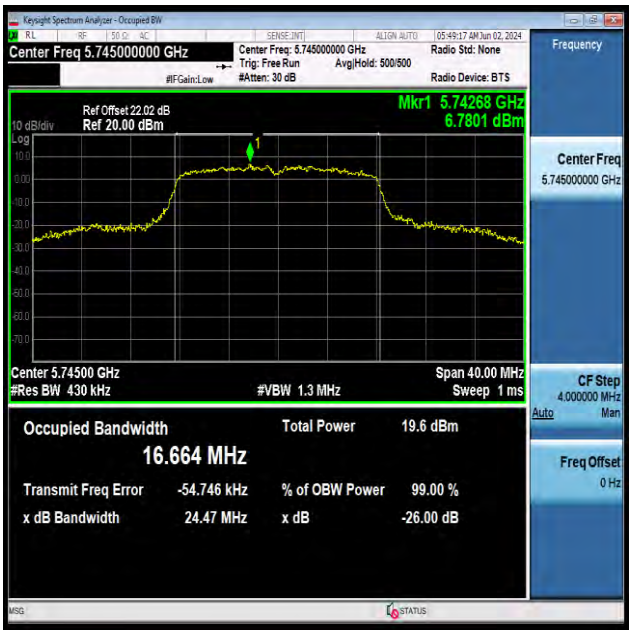
11A-Ant1-5180



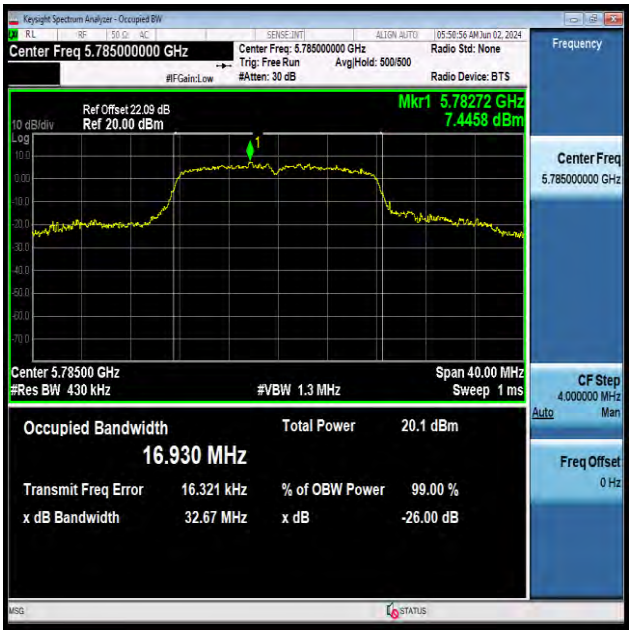
11A-Ant1-5200



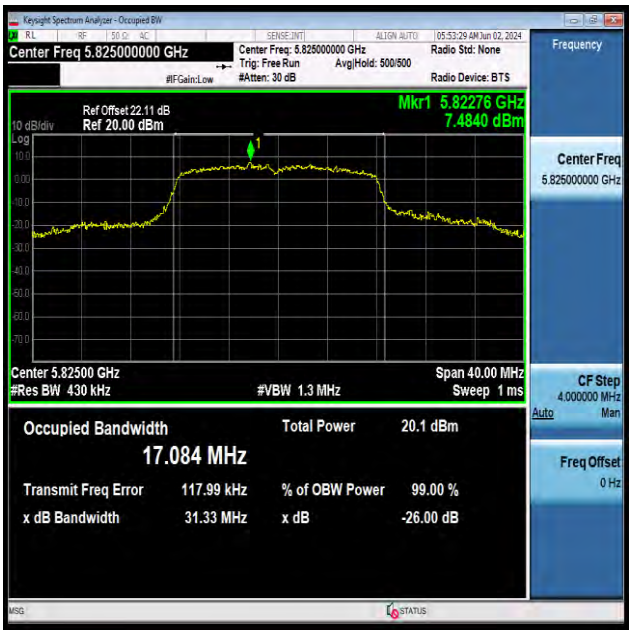
11A-Ant1-5240



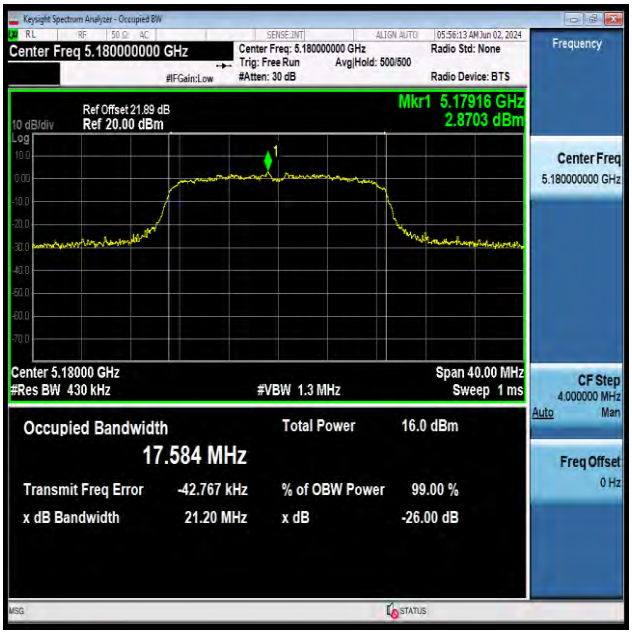
11A-Ant1-5745



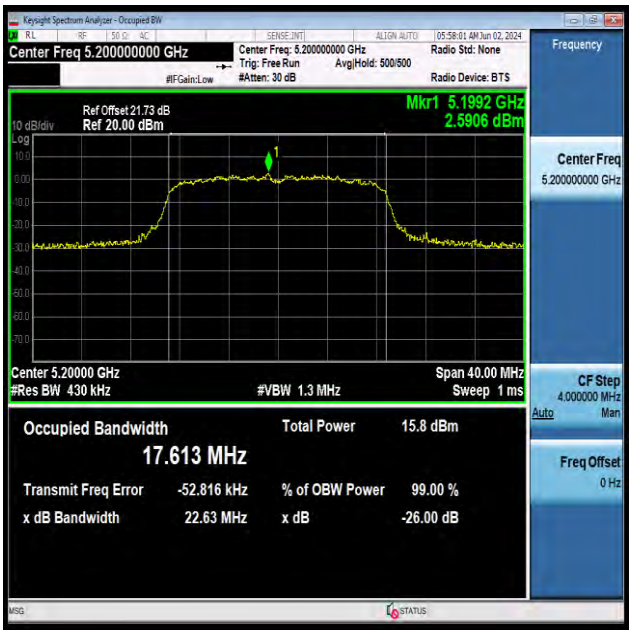
11A-Ant1-5785



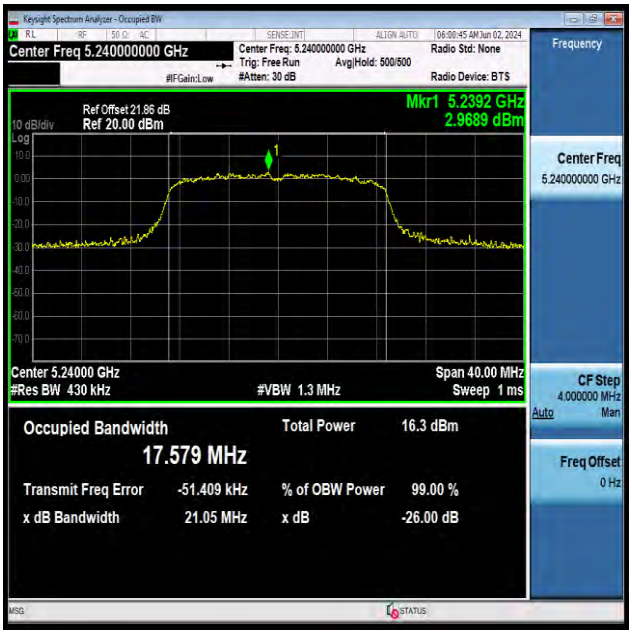
11A-Ant1-5825



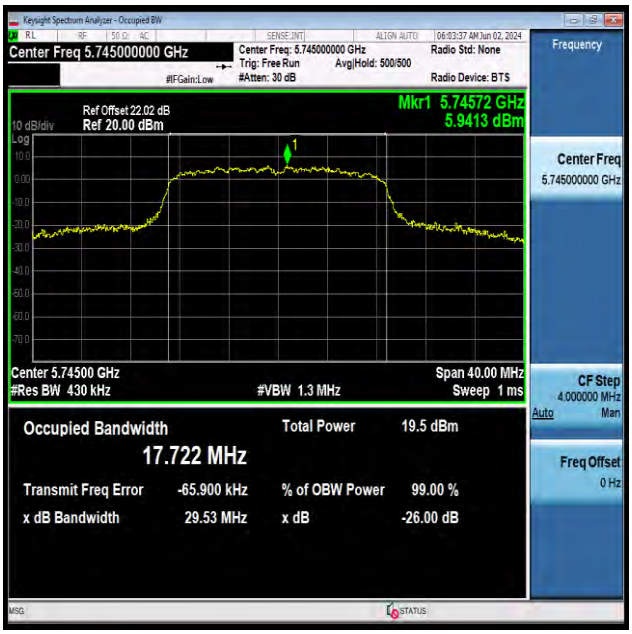
11N20SISO-Ant1-5180



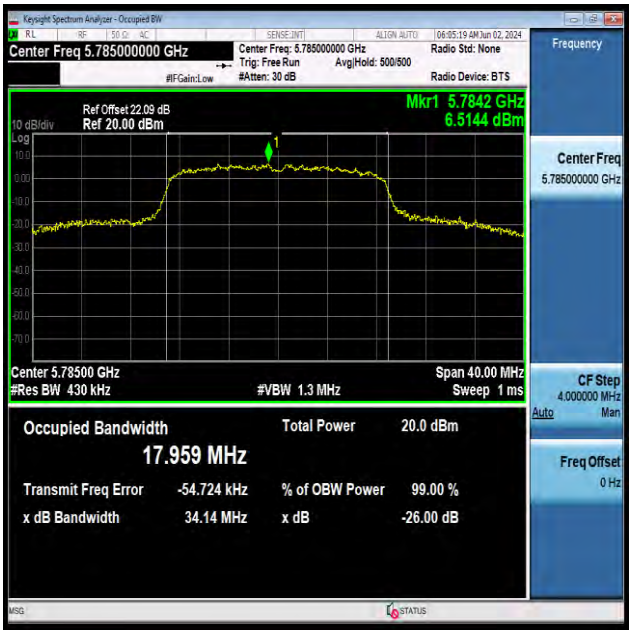
11N20SISO-Ant1-5200



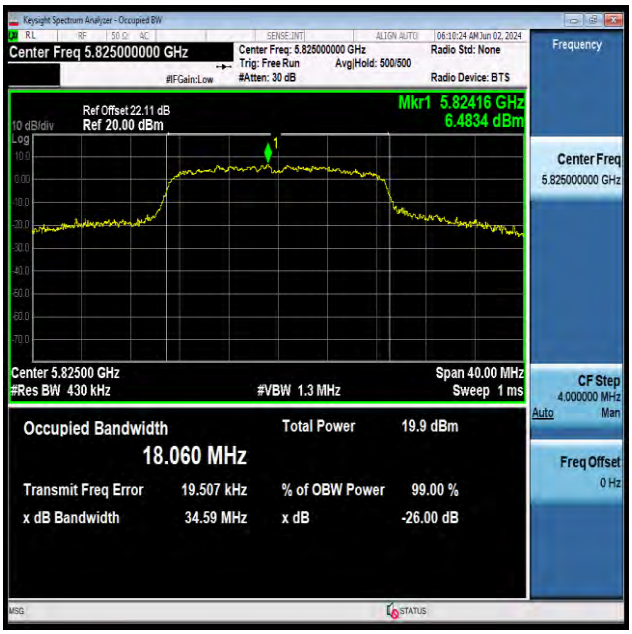
11N20SISO-Ant1-5240



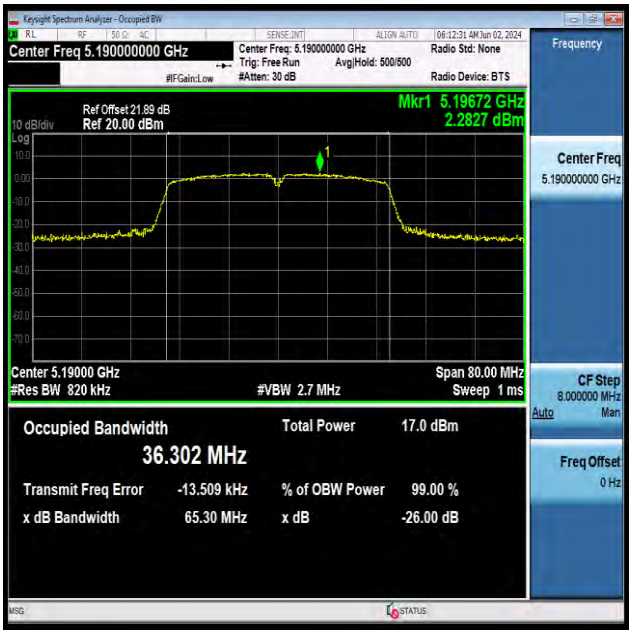
11N20SISO-Ant1-5745



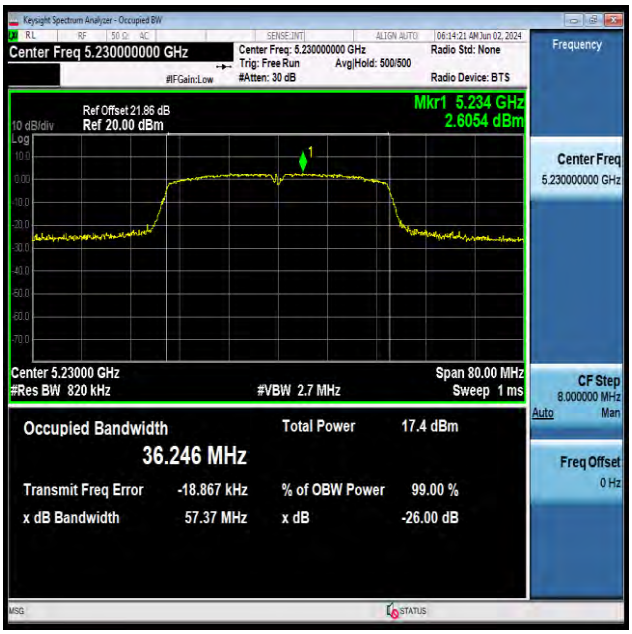
11N20SISO-Ant1-5785



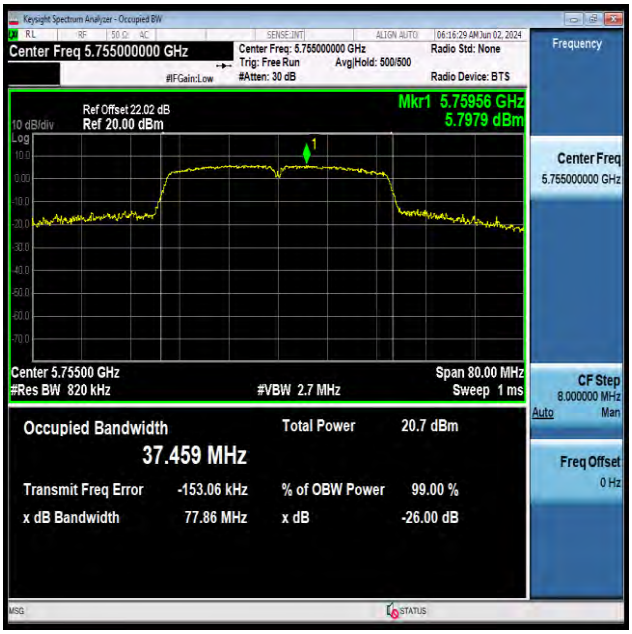
11N20SISO-Ant1-5825



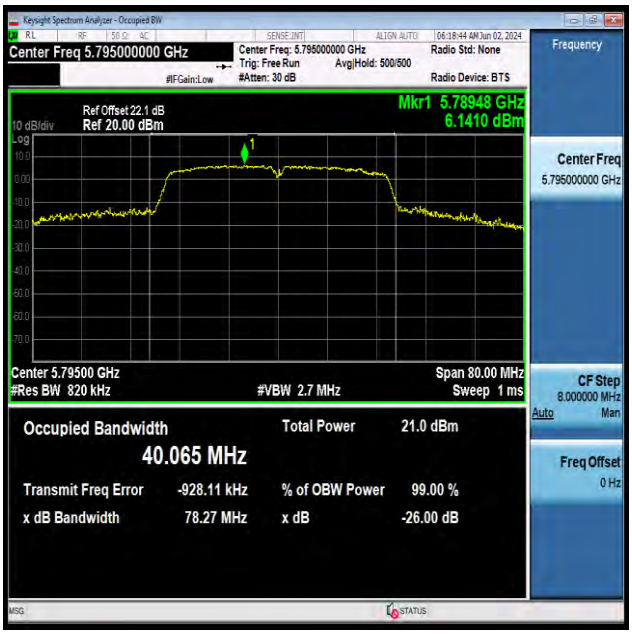
11N40SISO-Ant1-5190



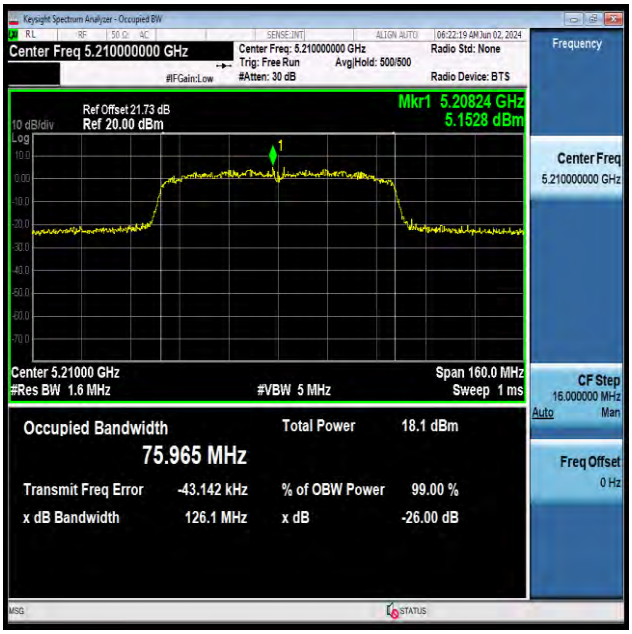
11N40SISO-Ant1-5230



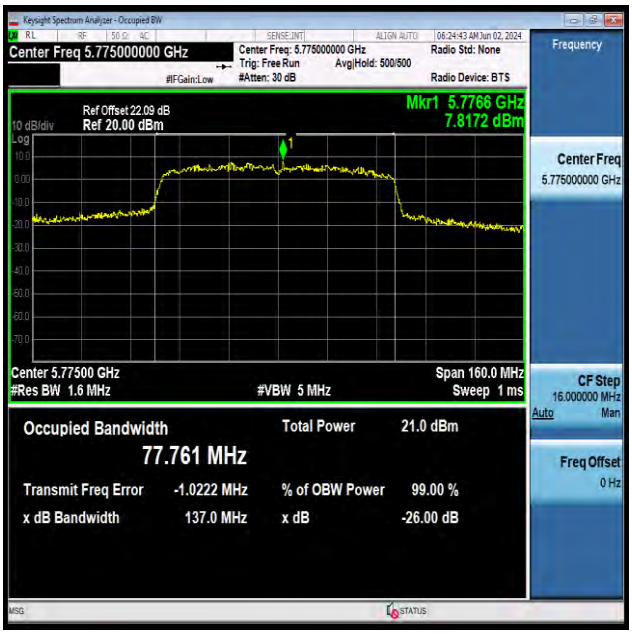
11N40SISO-Ant1-5755



11N40SISO-Ant1-5795



11AC80SISO-Ant1-5210



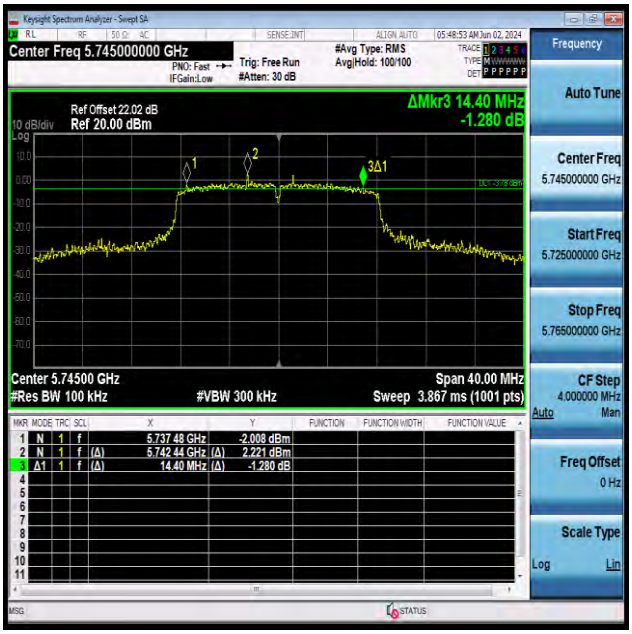
11AC80SISO-Ant1-5775

MIN EMISSION BANDWIDTH

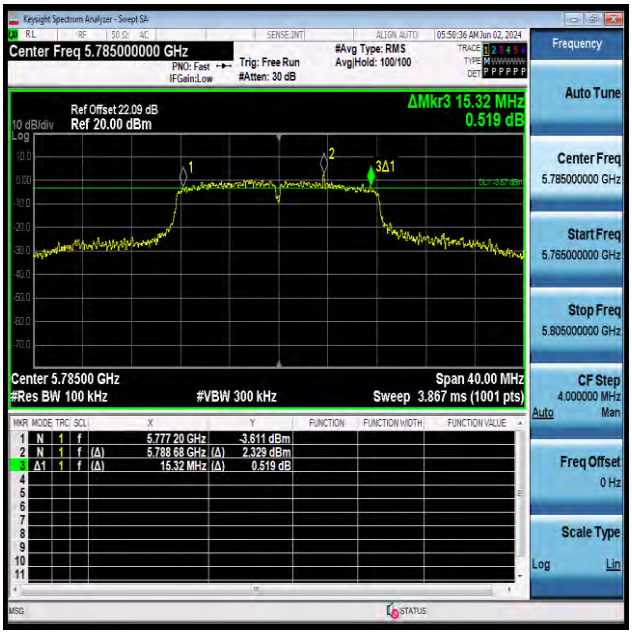
TEST RESULT B4

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	14.400	5737.480	5751.880	0.5	PASS
11A	Ant1	5785	15.320	5777.200	5792.520	0.5	PASS
11A	Ant1	5825	15.040	5817.440	5832.480	0.5	PASS
11N20SISO	Ant1	5745	15.040	5737.400	5752.440	0.5	PASS
11N20SISO	Ant1	5785	15.400	5777.080	5792.480	0.5	PASS
11N20SISO	Ant1	5825	14.720	5817.680	5832.400	0.5	PASS
11N40SISO	Ant1	5755	33.840	5738.600	5772.440	0.5	PASS
11N40SISO	Ant1	5795	35.040	5777.400	5812.440	0.5	PASS
11AC80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS

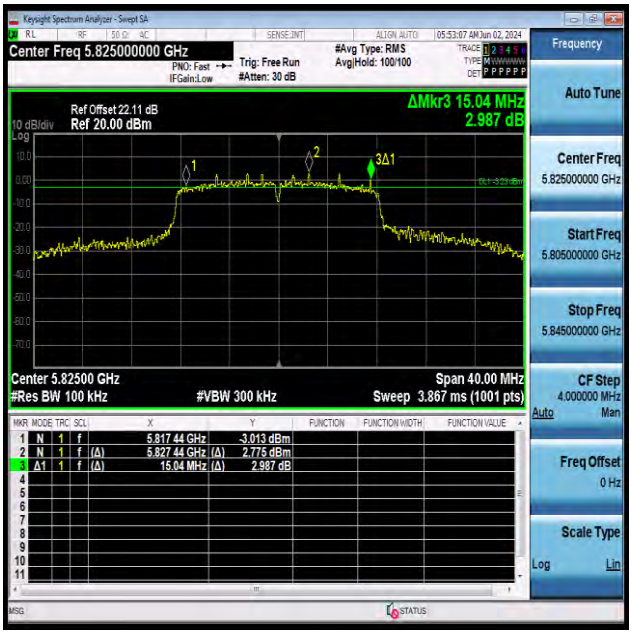
TEST GRAPHS B4



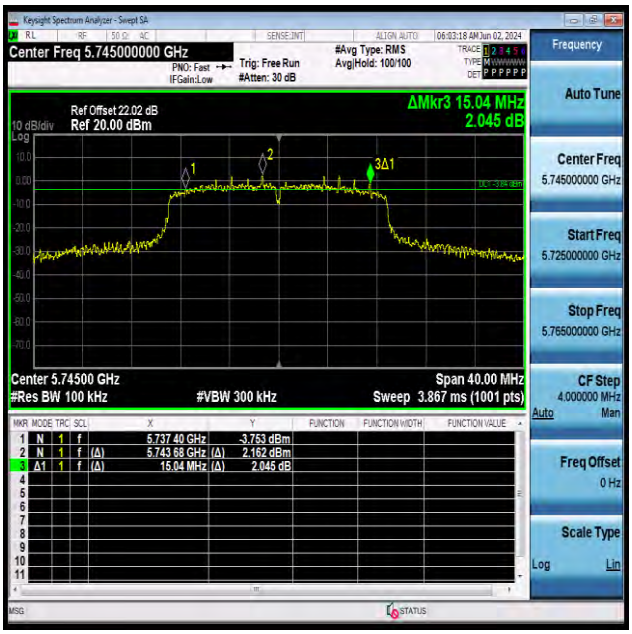
11A-Ant1-5745-PASS



11A-Ant1-5785-PASS

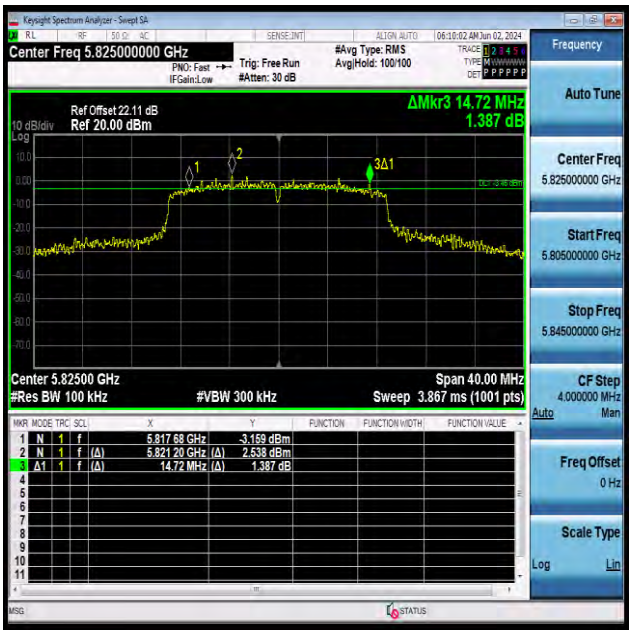


11A-Ant1-5825-PASS



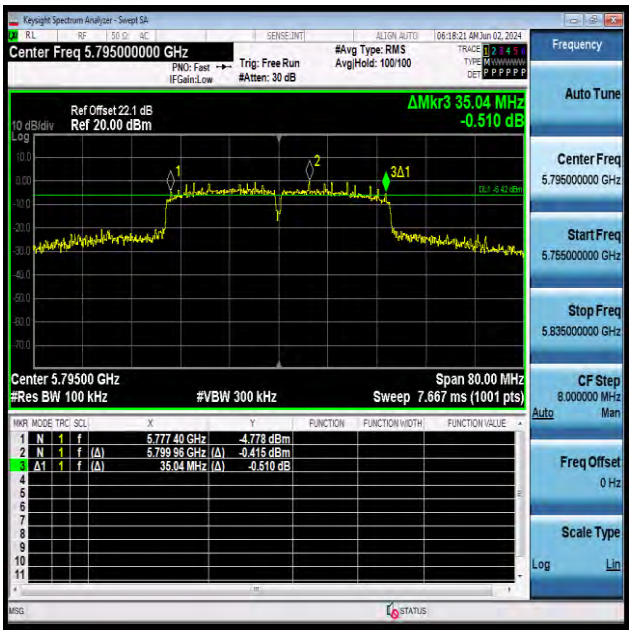
11N20SISO-Ant1-5745-PASS

11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS

11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS

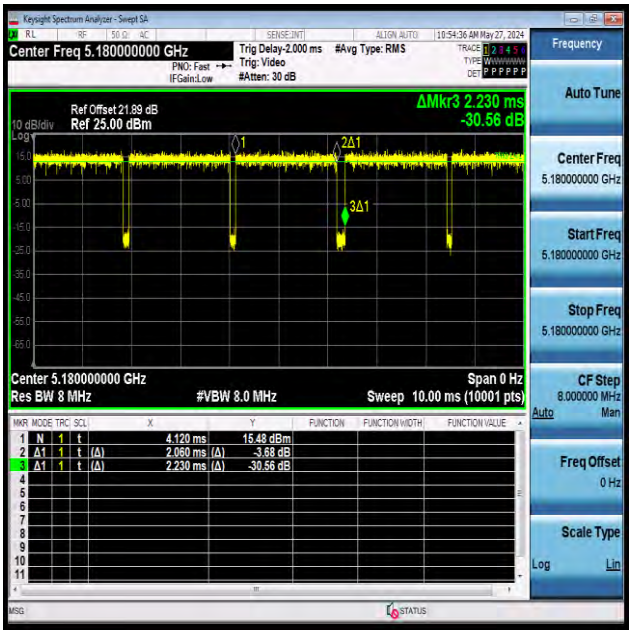
11AC80SISO-Ant1-5775-PASS

DUTY CYCLE

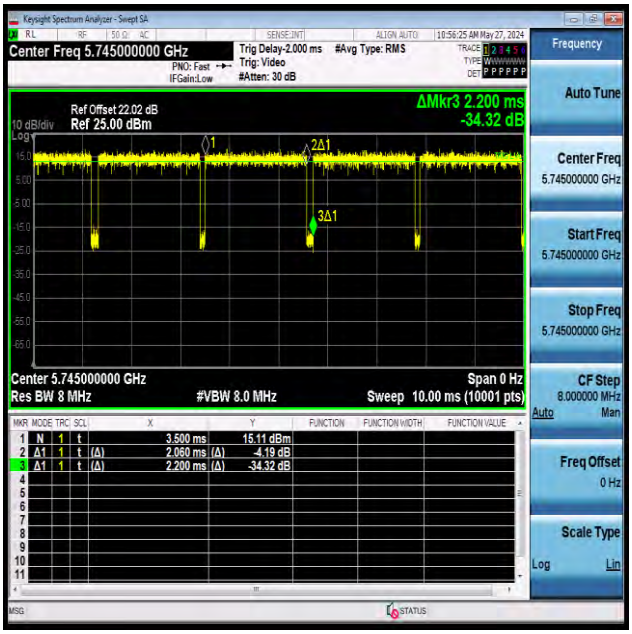
TEST RESULT

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.06	2.23	92.38
11A	Ant1	5745	2.06	2.20	93.64
11A	Ant1	5785	2.07	2.19	94.52
11A	Ant1	5825	2.06	2.18	94.50
11N20SISO	Ant1	5180	1.92	2.08	92.31
11N20SISO	Ant1	5745	1.92	2.09	91.87
11N20SISO	Ant1	5785	1.92	2.07	92.75
11N20SISO	Ant1	5825	1.93	2.07	93.24
11N40SISO	Ant1	5190	0.95	1.12	84.82
11N40SISO	Ant1	5755	0.94	1.12	83.93
11N40SISO	Ant1	5795	0.95	1.12	84.82
11AC80SISO	Ant1	5210	0.46	0.63	73.02
11AC80SISO	Ant1	5775	0.46	0.64	71.88

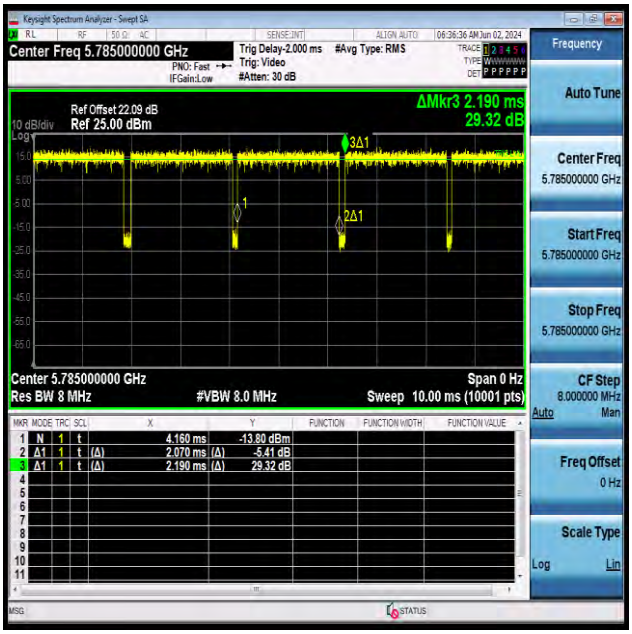
TEST GRAPHS



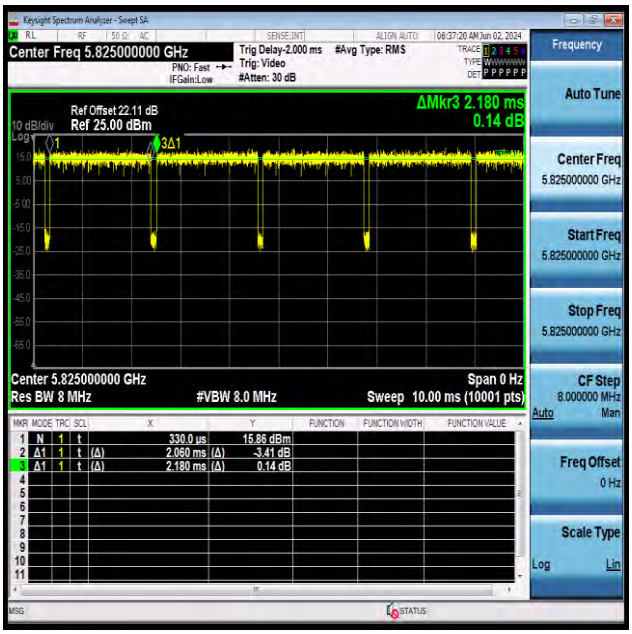
NTNV-11A-Ant1-5180



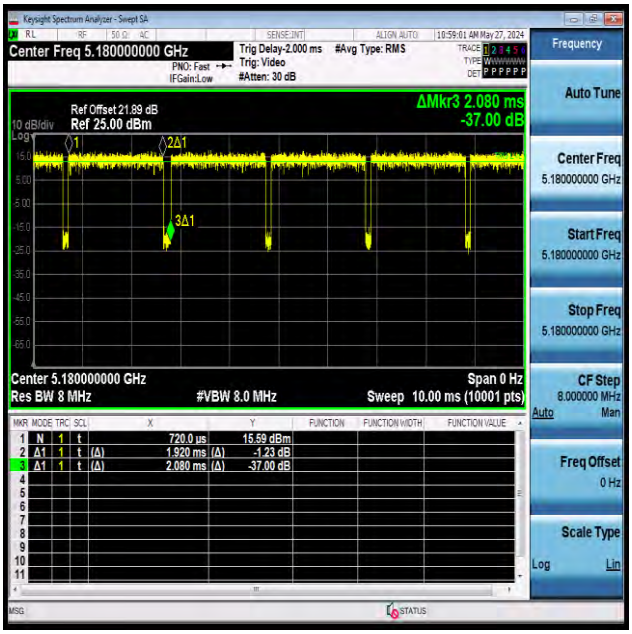
NTNV-11A-Ant1-5745



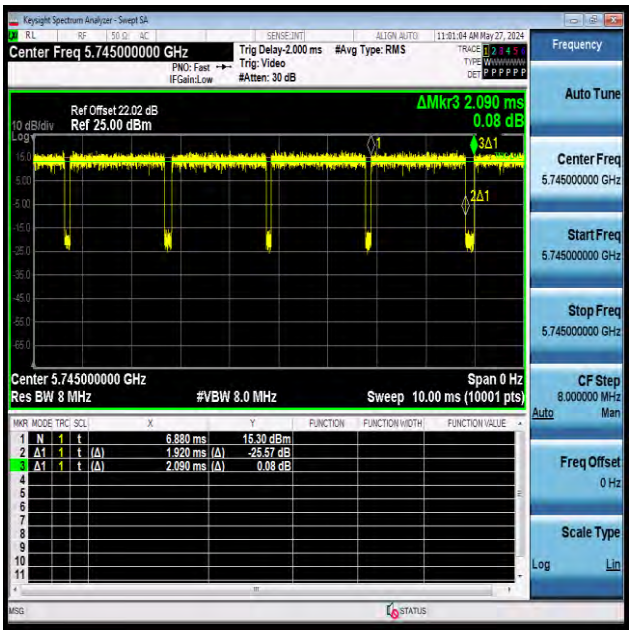
NTNV-11A-Ant1-5785



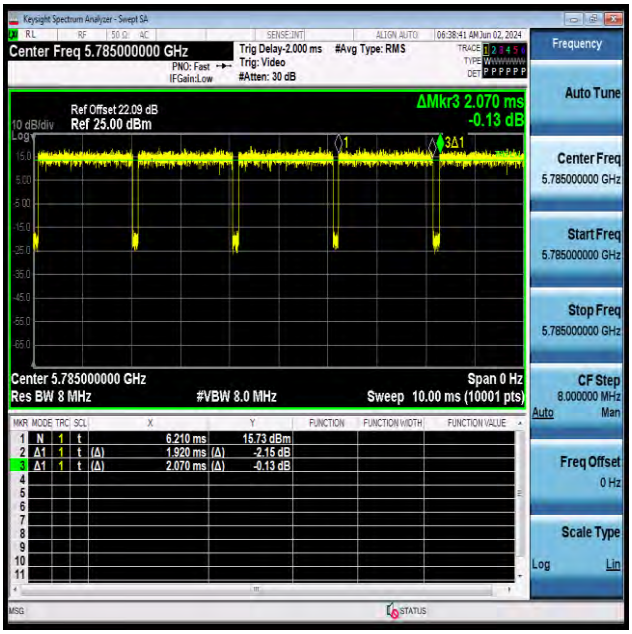
NTNV-11A-Ant1-5825



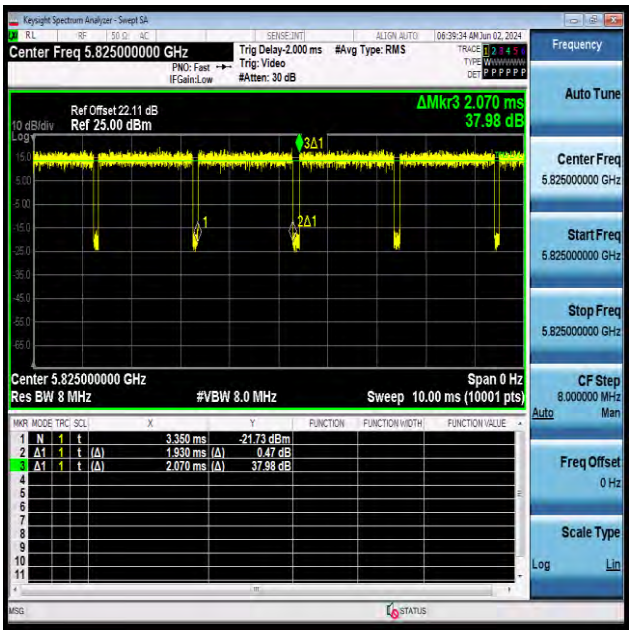
NTNV-11N20SISO-Ant1-5180



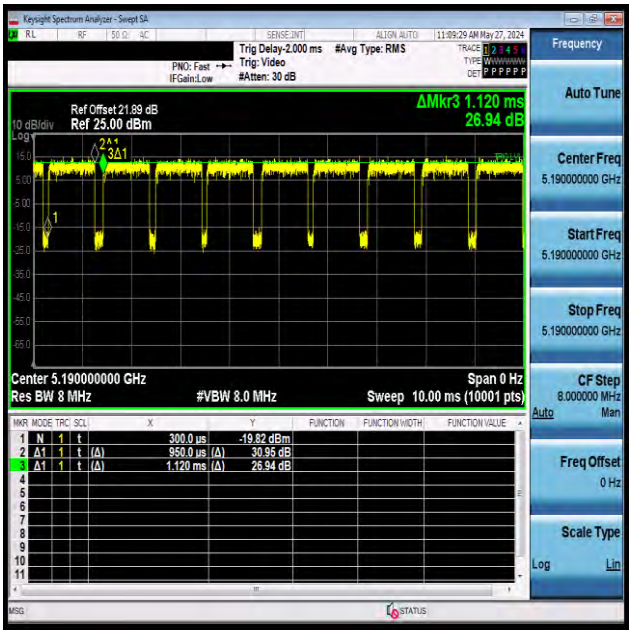
NTNV-11N20SISO-Ant1-5745



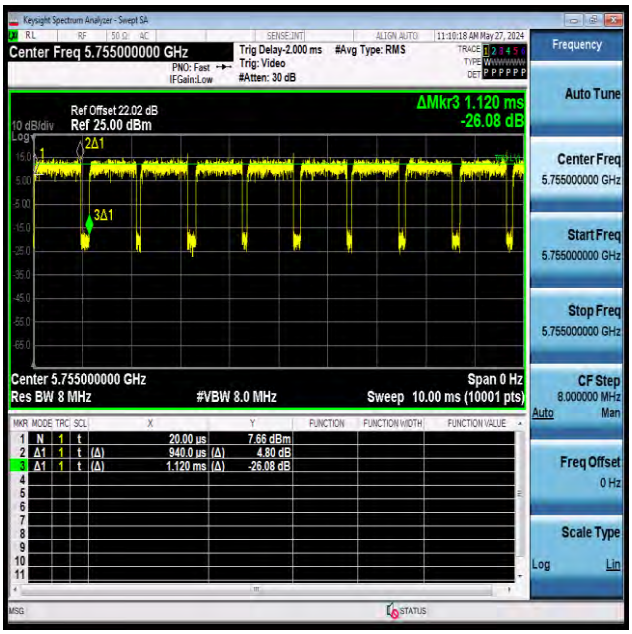
NTNV-11N20SISO-Ant1-5785



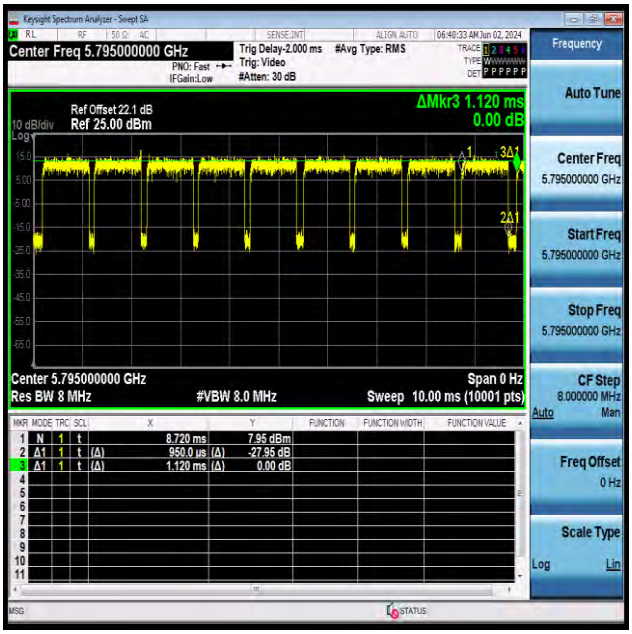
NTNV-11N20SISO-Ant1-5825



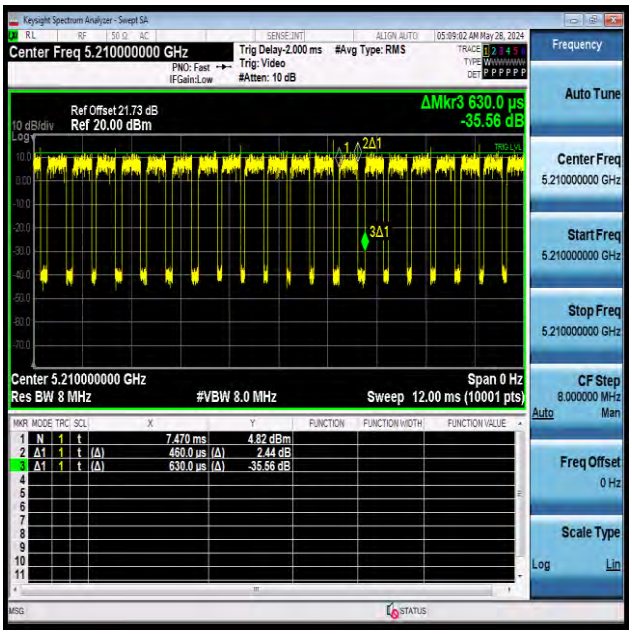
NTNV-11N40SISO-Ant1-5190



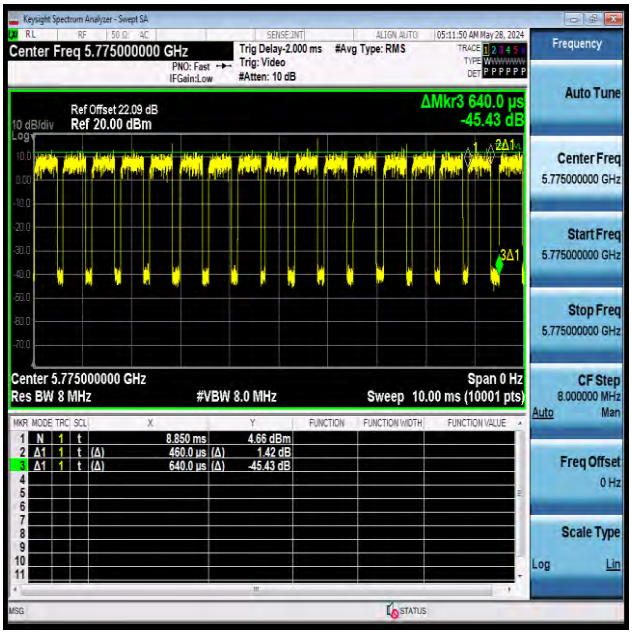
NTNV-11N40SISO-Ant1-5755



NTNV-11N40SISO-Ant1-5795



NTNV-11AC80SISO-Ant1-5210



NTNV-11AC80SISO-Ant1-5775

MAXIMUM CONDUCTED OUTPUT POWER

TEST RESULT

BV Power Table For_U-NII-1										
Test Mode	TX Mod.	Freq. (MHz)	Ant.	Maximum Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	IC Conducted Power Limit (dBm)	EIRP (dBm)	IC EIRP Limit	Verdict	Power Setting
11A	SISO	5180	Ant1	8.34	≤24.00	----	13.45	≤13.94	Pass	8.5
		5200	Ant1	8.36	≤24.00	----	13.47	≤13.93	Pass	8.5
		5240	Ant1	8.43	≤24.00	----	13.54	≤13.93	Pass	8.5
11N20	SISO	5180	Ant1	8.94	≤24.00	----	14.05	≤14.21	Pass	9
		5200	Ant1	8.91	≤24.00	----	14.02	≤14.22	Pass	9
		5240	Ant1	9.00	≤24.00	----	14.11	≤14.21	Pass	9
11N40	SISO	5190	Ant1	9.15	≤24.00	----	14.26	≤14.77	Pass	9
		5230	Ant1	9.23	≤24.00	----	14.34	≤14.77	Pass	9
11AC20	SISO	5180	Ant1	8.91	≤24.00	----	14.02	≤14.21	Pass	9
		5200	Ant1	8.89	≤24.00	----	14.00	≤14.22	Pass	9
		5240	Ant1	8.99	≤24.00	----	14.10	≤14.21	Pass	9
11AC40	SISO	5190	Ant1	9.14	≤24.00	----	14.25	≤14.77	Pass	9
		5230	Ant1	9.19	≤24.00	----	14.30	≤14.77	Pass	9
11AC80	SISO	5210	Ant1	6.91	≤24.00	----	12.02	≤14.77	Pass	7.5
Note:The Maximum Conducted Power with duty cycle factor.										

BV Power Table For_U-NII-3									
Test Mode	TX Mod.	Freq. (MHz)	Ant.	Maximum Conducted Power (dBm)	Conducted Power Limit (dBm)	EIRP (dBm)	IC EIRP Limit	Verdict	Power Setting
11A	SISO	5745	Ant1	12.23	≤29.78	18.45	≤35.78	Pass	12
		5785	Ant1	12.39	≤29.78	18.61	≤35.78	Pass	12
		5825	Ant1	12.51	≤29.78	18.73	≤35.78	Pass	12
11N20	SISO	5745	Ant1	12.34	≤29.78	18.56	≤35.78	Pass	12
		5785	Ant1	12.46	≤29.78	18.68	≤35.78	Pass	12
		5825	Ant1	12.48	≤29.78	18.70	≤35.78	Pass	12
11N40	SISO	5755	Ant1	12.98	≤29.78	19.20	≤35.78	Pass	12
		5795	Ant1	13.14	≤29.78	19.36	≤35.78	Pass	12
11AC20	SISO	5745	Ant1	12.32	≤29.78	18.54	≤35.78	Pass	12
		5785	Ant1	12.41	≤29.78	18.63	≤35.78	Pass	12
		5825	Ant1	12.47	≤29.78	18.69	≤35.78	Pass	12
11AC40	SISO	5755	Ant1	12.89	≤29.78	19.11	≤35.78	Pass	12
		5795	Ant1	13.13	≤29.78	19.35	≤35.78	Pass	12
11AC80	SISO	5775	Ant1	12.40	≤29.78	18.62	≤35.78	Pass	11.5
Note:The Maximum Conducted Power with duty cycle factor.									

Note：The Duty Cycle Factor is compensated in the graph.

TRANSMIT POWER CONTROL:

BV Power Table For_U-NII-1										
Test Mode	TX Mod.	Freq. (MHz)	Ant.	Maximum Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	IC Conducted Power Limit (dBm)	EIRP (dBm)	IC EIRP Limit	Verdict	Power Setting
11A	SISO	5180	Ant1	5.34	≤24.00	----	10.45	≤10.94	Pass	AUTO
		5200	Ant1	5.35	≤24.00	----	10.46	≤10.93	Pass	AUTO
		5240	Ant1	5.39	≤24.00	----	10.50	≤10.93	Pass	AUTO
11N20	SISO	5180	Ant1	5.89	≤24.00	----	11.00	≤11.21	Pass	AUTO
		5200	Ant1	5.86	≤24.00	----	10.97	≤11.22	Pass	AUTO
		5240	Ant1	5.90	≤24.00	----	11.01	≤11.21	Pass	AUTO
11N40	SISO	5190	Ant1	6.12	≤24.00	----	11.23	≤11.77	Pass	AUTO
		5230	Ant1	6.19	≤24.00	----	11.30	≤11.77	Pass	AUTO
11AC20	SISO	5180	Ant1	5.86	≤24.00	----	10.97	≤11.21	Pass	AUTO
		5200	Ant1	5.84	≤24.00	----	10.95	≤11.22	Pass	AUTO
		5240	Ant1	5.94	≤24.00	----	11.05	≤11.21	Pass	AUTO
11AC40	SISO	5190	Ant1	6.11	≤24.00	----	11.22	≤11.77	Pass	AUTO
		5230	Ant1	6.16	≤24.00	----	11.27	≤11.77	Pass	AUTO
11AC80	SISO	5210	Ant1	3.89	≤24.00	----	9.00	≤11.77	Pass	AUTO
Note:The Maximum Conducted Power with duty cycle factor.										

MAXIMUM POWER SPECTRAL DENSITY

TEST RESULT

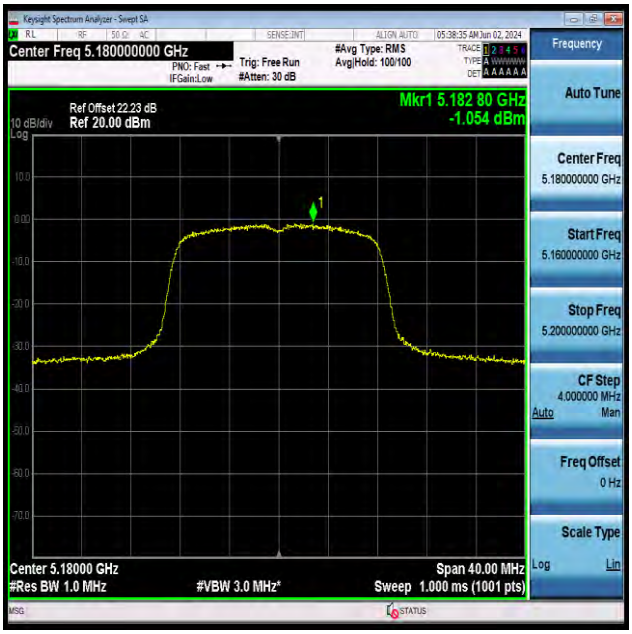
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	EIRP PSD [dBm/MHz]	EIRP PSD Limit [dBm/MHz]	Verdict
11A	Ant1	5180	-1.05	≤11.00	4.06	≤10.00	PASS
11A	Ant1	5200	-1.61	≤11.00	3.50	≤10.00	PASS
11A	Ant1	5240	-0.95	≤11.00	4.16	≤10.00	PASS
11A	Ant1	5745	-0.70	≤30.00	4.41	----	PASS
11A	Ant1	5785	-0.76	≤30.00	4.35	----	PASS
11A	Ant1	5825	-0.21	≤30.00	4.90	----	PASS
11N20SISO	Ant1	5180	-1.44	≤11.00	3.67	≤10.00	PASS
11N20SISO	Ant1	5200	-1.97	≤11.00	3.14	≤10.00	PASS
11N20SISO	Ant1	5240	-1.34	≤11.00	3.77	≤10.00	PASS
11N20SISO	Ant1	5745	-1.02	≤30.00	4.09	----	PASS
11N20SISO	Ant1	5785	-0.58	≤30.00	4.53	----	PASS
11N20SISO	Ant1	5825	-0.23	≤30.00	4.88	----	PASS
11N40SISO	Ant1	5190	-3.91	≤11.00	1.20	≤10.00	PASS
11N40SISO	Ant1	5230	-4.02	≤11.00	1.09	≤10.00	PASS
11N40SISO	Ant1	5755	-3.88	≤30.00	1.23	----	PASS
11N40SISO	Ant1	5795	-2.99	≤30.00	2.12	----	PASS
11AC80SISO	Ant1	5210	-7.29	≤11.00	-2.18	≤10.00	PASS
11AC80SISO	Ant1	5775	-6.80	≤30.00	-1.69	----	PASS

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

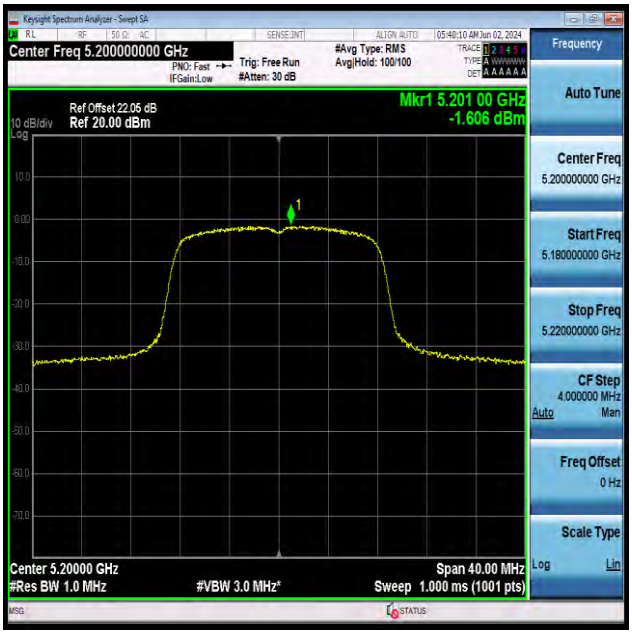
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

3.EIRP PSD = Result + Gain.

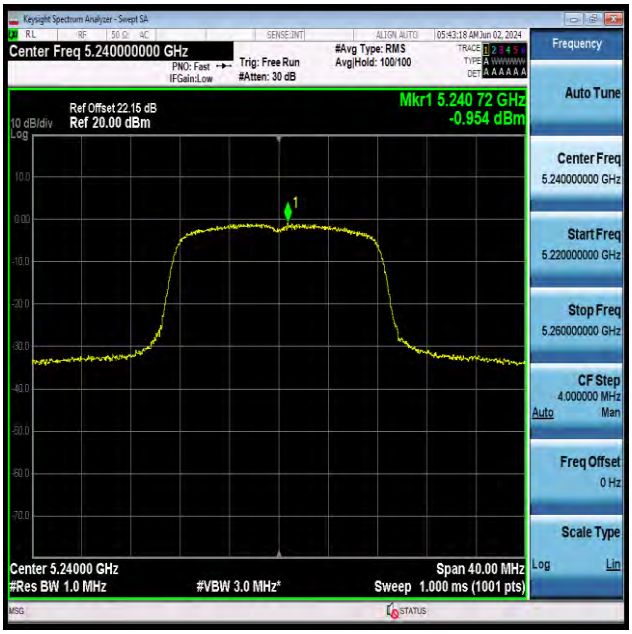
TEST GRAPHS



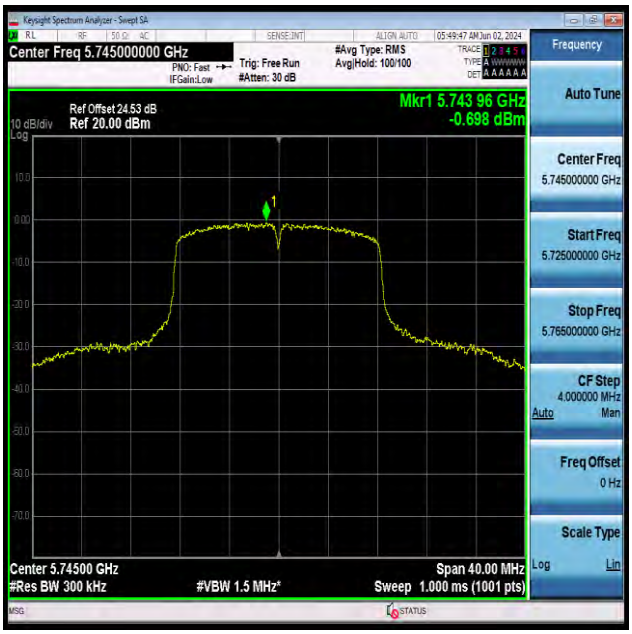
11A-Ant1-5180-PASS



11A-Ant1-5200-PASS



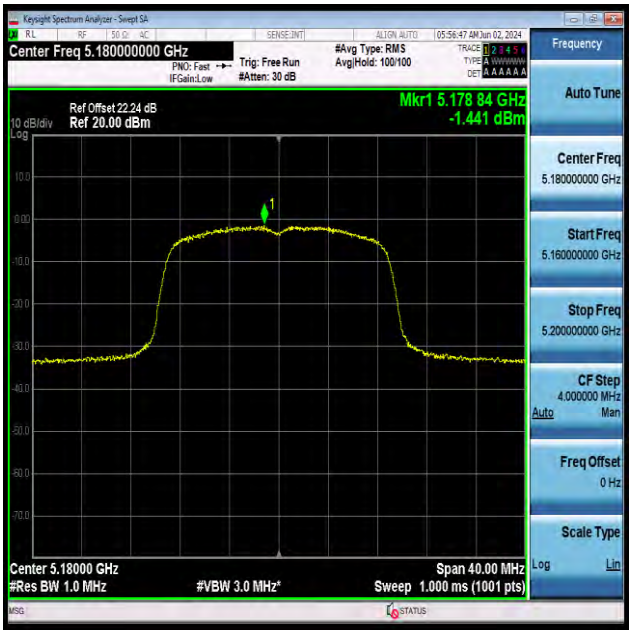
11A-Ant1-5240-PASS



11A-Ant1-5745-PASS

11A-Ant1-5785-PASS

11A-Ant1-5825-PASS



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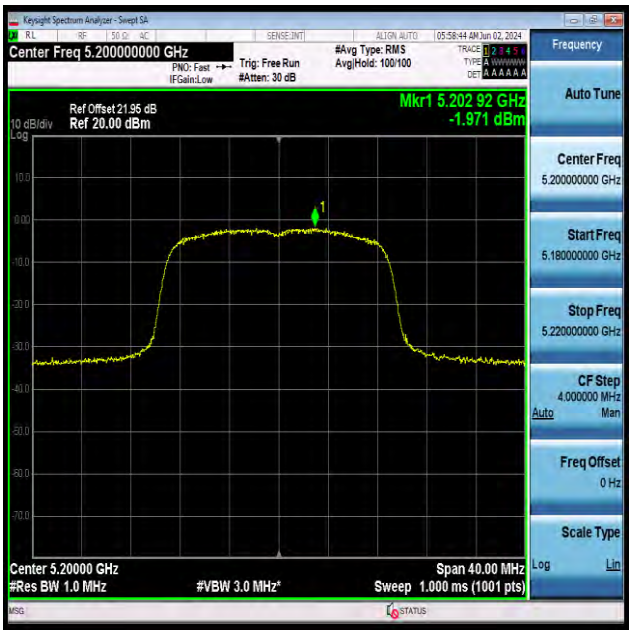
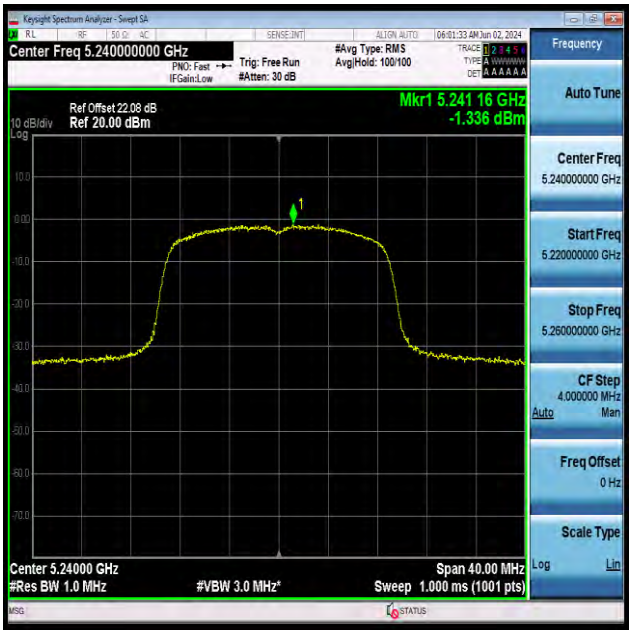


11N20SISO-Ant1-5200-PASS



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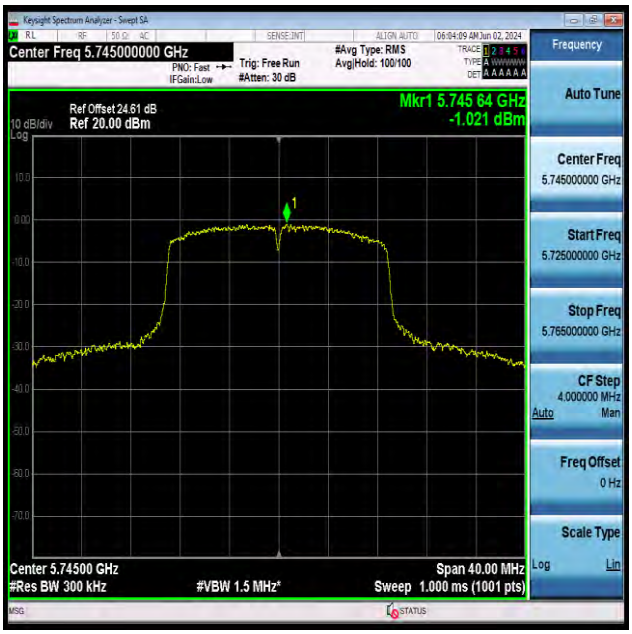
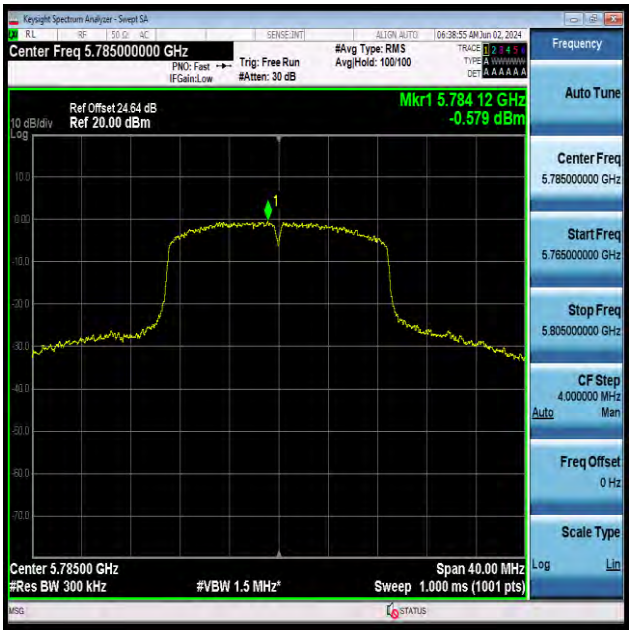
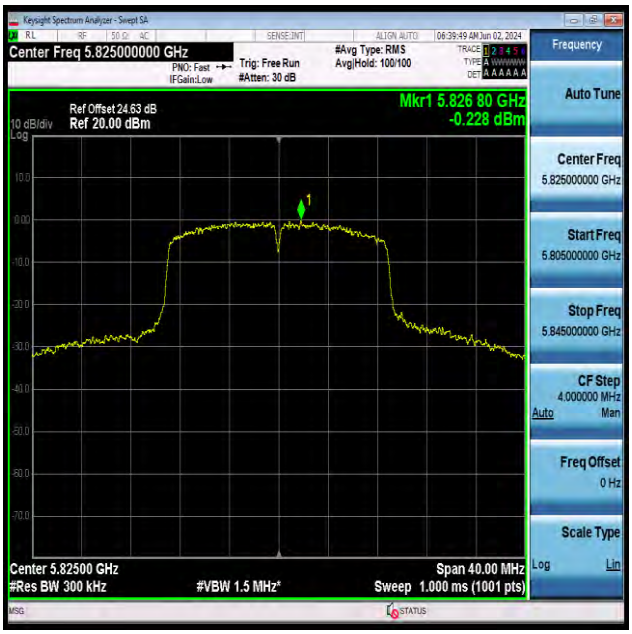


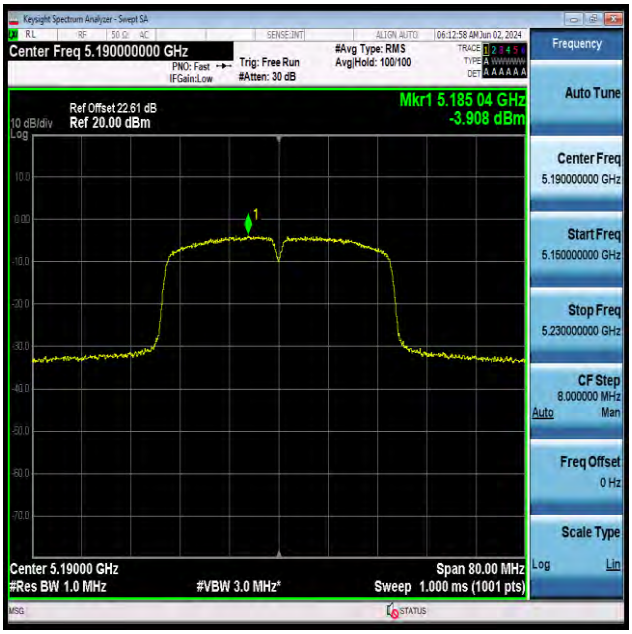
11N20SISO-Ant1-5745-PASS



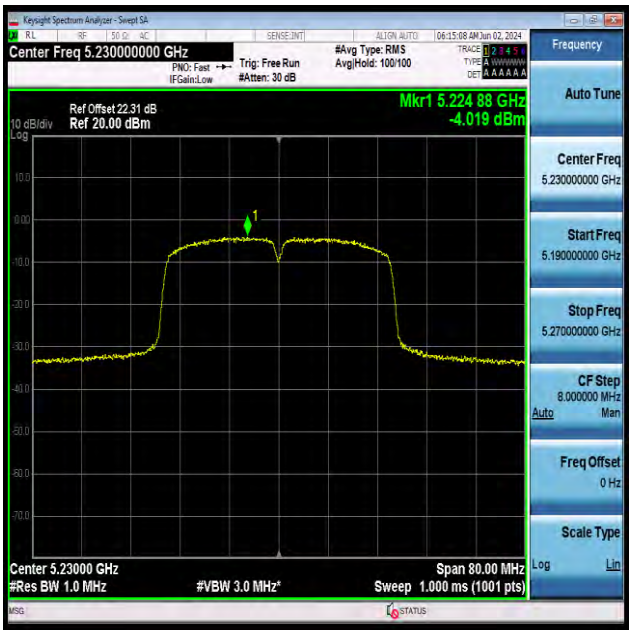
11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS



11N40SISO-Ant1-5190-PASS



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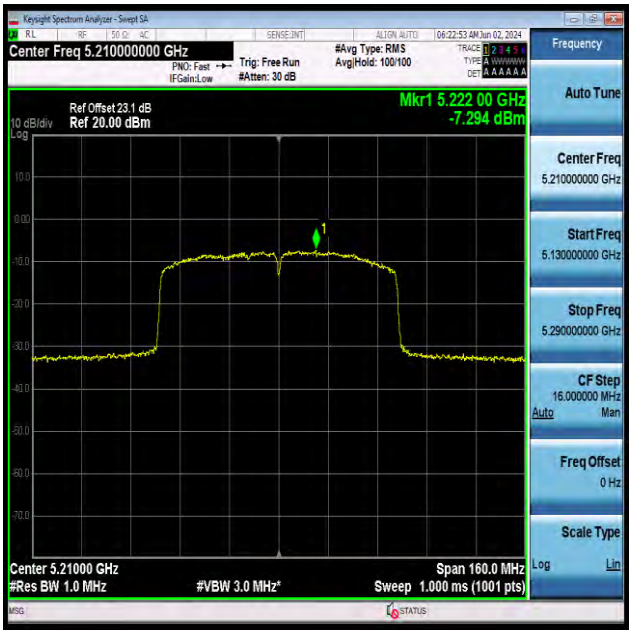
11N40SISO-Ant1-5755-PASS

11N40SISO-Ant1-5795-PASS



11AC80SISO-Ant1-5210-PASS

11AC80SISO-Ant1-5775-PASS

--END--