



Test Report No.: W7L-P23030025RF03



FCC TEST REPORT

(Part 15, Subpart E)

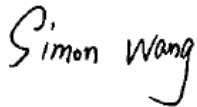
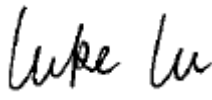
Applicant:	Thundercomm Technology Co., Ltd
Address:	No. 107, Middle Datagu Road, Xiantao Street, Yubei District, Chongqing, China, 401122

Manufacturer or Supplier:	Thundercomm Technology Co., Ltd
Address:	No. 107, Middle Datagu Road, Xiantao Street, Yubei District, Chongqing, China, 401122
Product:	TurboX CM2290-NA
Brand Name:	TURBOX
Model Name:	TurboX CM2290-NA
FCC ID:	2AOHHCM2290NA
Date of tests:	Apr. 07, 2023 ~ Apr. 26, 2023

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
	
Date: Apr. 26, 2023	Date: Apr. 26, 2023

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23030025RF03	Original release	Apr. 26, 2023



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)(6)	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(i)	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	TurboX CM2290-NA
BRAND NAME	TURBOX
MODEL NAME	TurboX CM2290-NA
NOMINAL VOLTAGE	EUT 4.0V
MODULATION	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz) 2 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz) 2 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz) 5500 ~ 5720MHz: 12 for 802.11a, 802.11n, 802.11ac(20MHz) 6 for 802.11n, 802.11ac (40MHz) 3 for 802.11ac (80MHz) 5745 ~ 5825MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz) 2 for 802.11n, 802.11ac (40MHz) 1 for 802.11ac (80MHz)
AVERAGE POWER	21.23 mW for 5180 ~ 5240MHz 19.91 mW for 5260 ~ 5320MHz 21.09 mW for 5500 ~ 5720MHz 19.54 mW for 5745 ~ 5825MHz
ANTENNA TYPE	Flex Antenna
ANTENNA GAIN	4dBi for 5180 ~ 5240MHz 4dBi for 5260 ~ 5320MHz 4dBi for 5500 ~ 5720MHz 4dBi for 5745 ~ 5825MHz
HW VERSION	V06
SW VERSION	FlatBuild_Turbox-CM2290_cm2290_la1.0.1.v.userdebug.20230 301.1952
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 test report.



2.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210 MHz		

FOR 5260 ~ 5320MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290 MHz		



FOR 5500 ~ 5720MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620MHz
104	5520 MHz	128	5640MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530 MHz	138	5690 MHz
122	5610 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).
- 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	5745-5825	144 to 165	149	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).
- 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, 48	OFDM	6.0
A	802.11n/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11n/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11n/ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144,149, 157,165	OFDM	6.0
A	802.11n/ac (20MHz)		144 to 165	144,149, 157,165	OFDM	MCS0
A	802.11n/ac (40MHz)		142 to 159	142,151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138 to 155	138,155	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).
- 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	5745-5825	144 to 165	149	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).
- 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, 48	OFDM	6.0
A	802.11n/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11n/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11n/ac/ (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144, 149, 157,165	OFDM	6.0
A	802.11n/ac (20MHz)		144 to 165	144, 149, 157,165	OFDM	MCS0
A	802.11n/ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	138, 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).
- 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, 48	OFDM	6.0
A	802.11n/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11n/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11n/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11n/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11n/ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144, 149, 157,165	OFDM	6.0
A	802.11n/ac (20MHz)		144 to 165	144, 149, 157,165	OFDM	MCS0
A	802.11n/ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	138, 155	OFDM	MCS0



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Test Report No.: W7L-P23030025RF03

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 70%RH	EUT 4.0V	Jace Hu
RE≥1G	23deg. C, 70%RH	EUT 4.0V	Jace Hu
PLC	25deg. C, 52%RH	EUT 4.0V	James Fu
APCM	25deg. C, 60%RH	EUT 4.0V	James Fu



2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix A Of this test report.

WORST-CASE DATA:

Measured Duty Cycle		
Mode		Duty Cycle [%]
		ANT1
5GHZ	11a	98.54
	11n20	98.28
	11n40	96.55
	11ac20	98.28
	11ac40	96.55
	11ac80	93.33

Note:

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

2.4 DESCRIPTION OF SUPPORT UNITS

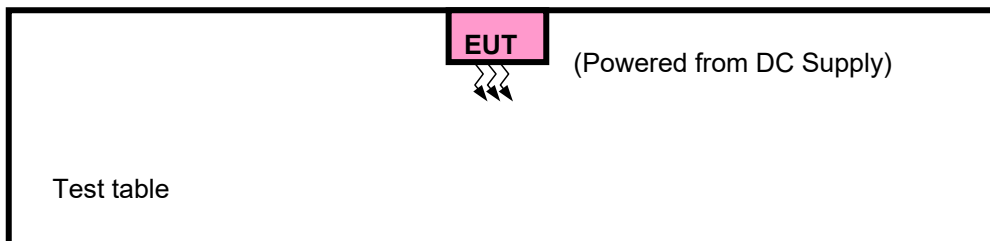
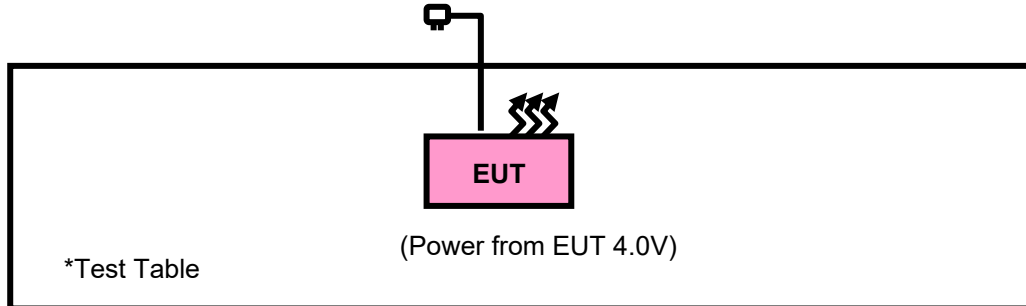
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	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 a 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 C63.10-2013

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

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



3 TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTE:

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

3.1.2 LIMITS OF UNWANTED EMISSION

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



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

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

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

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19,20	May. 18,23
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 05,23	Mar. 04,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Mar. 05,23	Mar. 04,24
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.04, 22	Sep.03, 23
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. 12,22	May. 11,23
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 20,23	Feb. 19,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb. 16,24
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 12,22	Aug. 11,23
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,22	Sep.02,23

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 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 is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

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

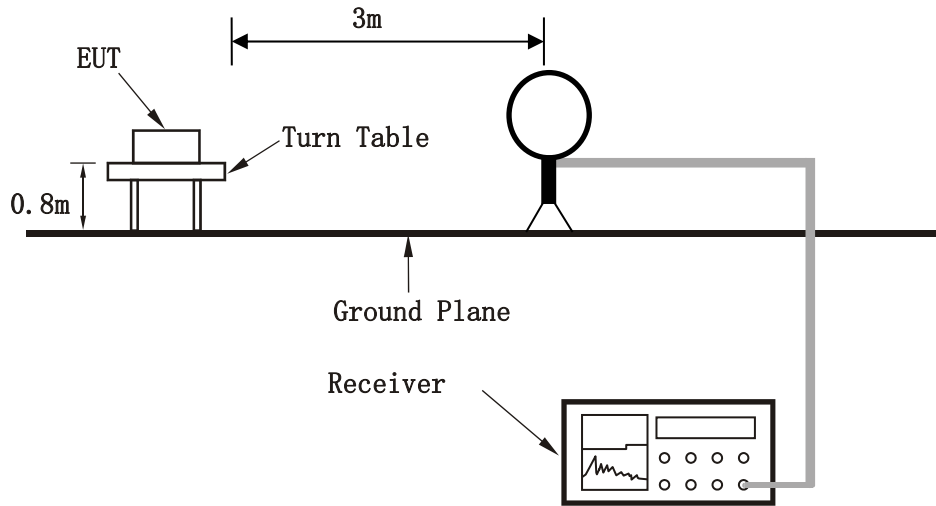
3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

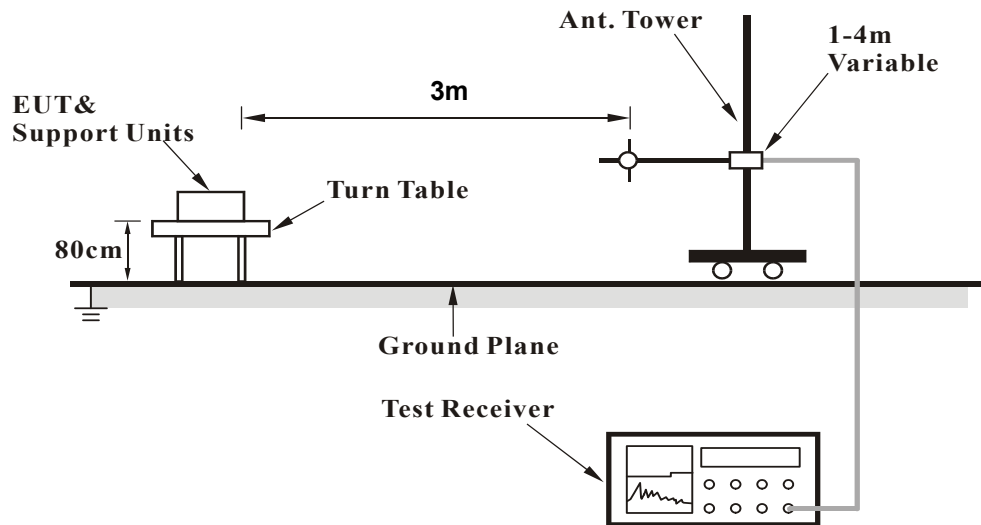


3.1.6 TEST SETUP

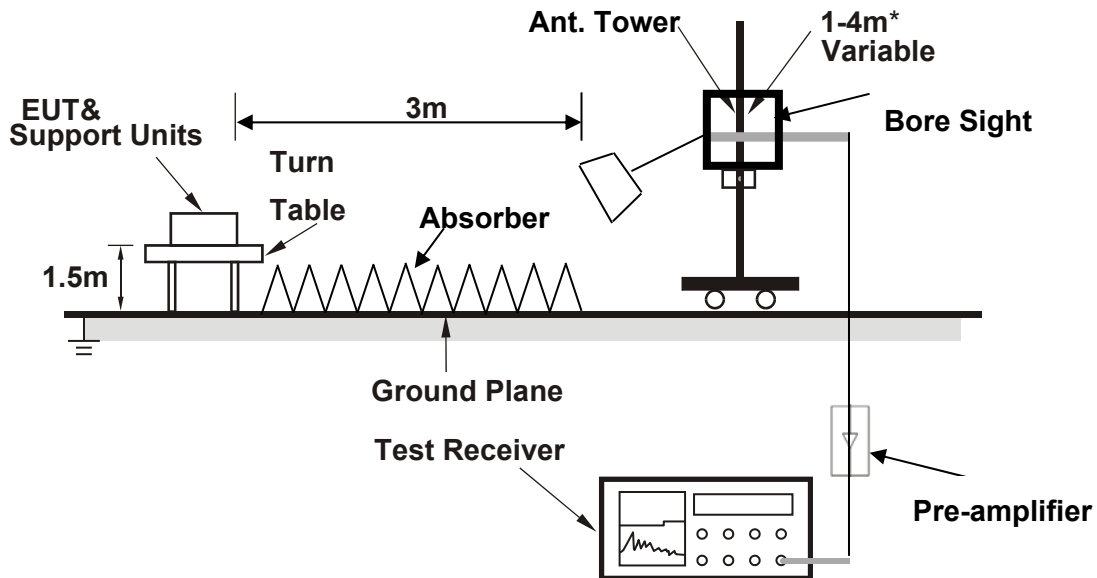
<Frequency Range 9KHz~30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.1.7 EUT OPERATING CONDITION

- Set the EUT under full load condition and placed them on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.



3.1.8 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

30 MHz – 1GHz data:

Band 4

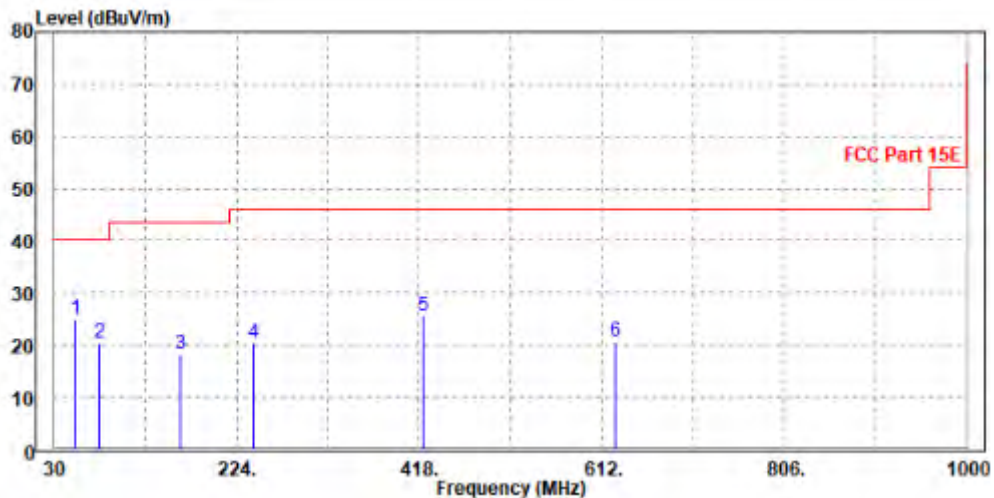
802.11a:

CHANNEL	TX Channel 149	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
52.31	24.83	51.44	40	-15.17	9.97	0.41	36.99	163	273	QP
77.53	20.28	49.07	40	-19.72	7.7	0.49	36.98	173	45	QP
164.83	18.29	43.07	43.5	-25.21	11.02	0.68	36.48	161	34	QP
241.46	20.37	42.71	46	-25.63	13.12	0.82	36.28	159	313	QP
422.85	25.43	44.16	46	-20.57	16.63	1.11	36.47	177	2	QP
625.58	20.77	36.13	46	-25.23	20.19	1.39	36.94	177	78	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.





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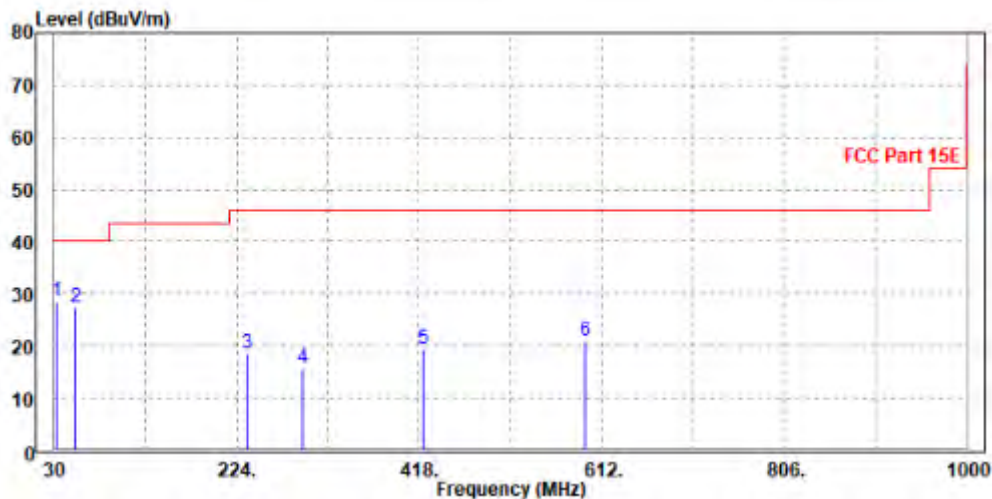
Test Report No.: W7L-P23030025RF03

CHANNEL	Channel 149	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
31.94	28.66	46.44	40	-11.34	19.33	0.32	37.43	183	302	QP
53.28	27.38	54.6	40	-12.62	9.34	0.42	36.98	178	90	QP
234.67	18.63	41.85	46	-27.37	12.26	0.8	36.28	106	329	QP
294.81	15.83	37.34	46	-30.17	13.85	0.9	36.26	192	312	QP
422.85	19.35	38.11	46	-26.65	16.6	1.11	36.47	102	43	QP
594.54	20.86	36.86	46	-25.14	19.49	1.35	36.84	180	221	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)
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	54.14	55.21	74	-19.86	34.52	9.92	45.51	200	180	Peak
5150	48.62	49.69	54	-5.38	34.52	9.92	45.51	200	180	Average
5180	101.1	102.16	/	/	34.54	9.91	45.51	200	180	Peak
5180	94.81	95.87	/	/	34.54	9.91	45.51	200	180	Average
5350	54.9	55.88	74	-19.1	34.68	9.85	45.51	200	180	Peak
5350	47.69	48.67	54	-6.31	34.68	9.85	45.51	200	180	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	54.62	55.61	74	-19.38	34.6	9.92	45.51	200	35	Peak
5150	48.86	49.85	54	-5.14	34.6	9.92	45.51	200	35	Average
5180	97.02	98.02	/	/	34.6	9.91	45.51	200	35	Peak
5180	91.15	92.15	/	/	34.6	9.91	45.51	200	35	Average
5350	53.21	54.27	74	-20.79	34.6	9.85	45.51	200	35	Peak
5350	47.78	48.84	54	-6.22	34.6	9.85	45.51	200	35	Average

REMARKS:

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



CHANNEL	TX Channel 40	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	54.63	55.7	74	-19.37	34.52	9.92	45.51	200	170	Peak
5150	48.41	49.48	54	-5.59	34.52	9.92	45.51	200	170	Average
5200	101.61	102.66	/	/	34.56	9.9	45.51	200	170	Peak
5200	94.57	95.62	/	/	34.56	9.9	45.51	200	170	Average
5350	54.3	55.28	74	-19.7	34.68	9.85	45.51	200	170	Peak
5350	48.11	49.09	54	-5.89	34.68	9.85	45.51	200	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
5150	53.48	54.47	74	-20.52	34.6	9.92	45.51	197	35	Peak
5150	48.71	49.7	54	-5.29	34.6	9.92	45.51	197	35	Average
5200	97.53	98.54	/	/	34.6	9.9	45.51	197	35	Peak
5200	90.47	91.48	/	/	34.6	9.9	45.51	197	35	Average
5350	53.36	54.42	74	-20.64	34.6	9.85	45.51	197	35	Peak
5350	48.12	49.18	54	-5.88	34.6	9.85	45.51	197	35	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	53.41	54.48	74	-20.59	34.52	9.92	45.51	200	170	Peak
5150	47.75	48.82	54	-6.25	34.52	9.92	45.51	200	170	Average
5240	101.1	102.13	/	/	34.59	9.89	45.51	200	170	Peak
5240	94.83	95.86	/	/	34.59	9.89	45.51	200	170	Average
5350	53.81	54.79	74	-20.19	34.68	9.85	45.51	200	170	Peak
5350	47.96	48.94	54	-6.04	34.68	9.85	45.51	200	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
5150	53.56	54.55	74	-20.44	34.6	9.92	45.51	190	35	Peak
5150	48.42	49.41	54	-5.58	34.6	9.92	45.51	190	35	Average
5240	96.4	97.42	/	/	34.6	9.89	45.51	190	35	Peak
5240	90.15	91.17	/	/	34.6	9.89	45.51	190	35	Average
5350	54.32	55.38	74	-19.68	34.6	9.85	45.51	190	35	Peak
5350	47.87	48.93	54	-6.13	34.6	9.85	45.51	190	35	Average

REMARKS:

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



802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.25	54.32	74	-20.75	34.52	9.92	45.51	200	170	Peak
5150	48.77	49.84	54	-5.23	34.52	9.92	45.51	200	170	Average
5180	100.8	101.86	/	/	34.54	9.91	45.51	200	170	Peak
5180	93.79	94.85	/	/	34.54	9.91	45.51	200	170	Average
5350	54.02	55	74	-19.98	34.68	9.85	45.51	200	170	Peak
5350	48.07	49.05	54	-5.93	34.68	9.85	45.51	200	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
5150	54.56	55.55	74	-19.44	34.6	9.92	45.51	190	35	Peak
5150	49.08	50.07	54	-4.92	34.6	9.92	45.51	190	35	Average
5180	95.95	96.95	/	/	34.6	9.91	45.51	190	35	Peak
5180	88.72	89.72	/	/	34.6	9.91	45.51	190	35	Average
5350	54.65	55.71	74	-19.35	34.6	9.85	45.51	190	35	Peak
5350	47.74	48.8	54	-6.26	34.6	9.85	45.51	190	35	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)
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	53.53	54.6	74	-20.47	34.52	9.92	45.51	200	170	Peak
5150	48.45	49.52	54	-5.55	34.52	9.92	45.51	200	170	Average
5200	100.57	101.62	/	/	34.56	9.9	45.51	200	170	Peak
5200	93.11	94.16	/	/	34.56	9.9	45.51	200	170	Average
5350	53.99	54.97	74	-20.01	34.68	9.85	45.51	200	170	Peak
5350	48.68	49.66	54	-5.32	34.68	9.85	45.51	200	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
5150	53.69	54.68	74	-20.31	34.6	9.92	45.51	180	35	Peak
5150	48.74	49.73	54	-5.26	34.6	9.92	45.51	180	35	Average
5200	96.16	97.17	/	/	34.6	9.9	45.51	180	35	Peak
5200	88.58	89.59	/	/	34.6	9.9	45.51	180	35	Average
5350	54.48	55.54	74	-19.52	34.6	9.85	45.51	180	35	Peak
5350	47.82	48.88	54	-6.18	34.6	9.85	45.51	180	35	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 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	53.22	54.29	74	-20.78	34.52	9.92	45.51	200	170	Peak
5150	48.6	49.67	54	-5.4	34.52	9.92	45.51	200	170	Average
5240	100.55	101.58	/	/	34.59	9.89	45.51	200	170	Peak
5240	93.35	94.38	/	/	34.59	9.89	45.51	200	170	Average
5350	54.06	55.04	74	-19.94	34.68	9.85	45.51	200	170	Peak
5350	48.3	49.28	54	-5.7	34.68	9.85	45.51	200	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
5150	55.48	56.47	74	-18.52	34.6	9.92	45.51	190	35	Peak
5150	47.74	48.73	54	-6.26	34.6	9.92	45.51	190	35	Average
5240	96.16	97.18	/	/	34.6	9.89	45.51	190	35	Peak
5240	88.41	89.43	/	/	34.6	9.89	45.51	190	35	Average
5350	53.34	54.4	74	-20.66	34.6	9.85	45.51	190	35	Peak
5350	47.86	48.92	54	-6.14	34.6	9.85	45.51	190	35	Average

REMARKS:

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



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.03	54.1	74	-20.97	34.52	9.92	45.51	200	170	Peak
5150	49.23	50.3	54	-4.77	34.52	9.92	45.51	200	170	Average
5190	97.89	98.94	/	/	34.55	9.91	45.51	200	170	Peak
5190	91.12	92.17	/	/	34.55	9.91	45.51	200	170	Average
5350	53.3	54.28	74	-20.7	34.68	9.85	45.51	200	170	Peak
5350	48.05	49.03	54	-5.95	34.68	9.85	45.51	200	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
5150	53.88	54.87	74	-20.12	34.6	9.92	45.51	190	35	Peak
5150	48.75	49.74	54	-5.25	34.6	9.92	45.51	190	35	Average
5190	92.31	93.31	/	/	34.6	9.91	45.51	190	35	Peak
5190	86.17	87.17	/	/	34.6	9.91	45.51	190	35	Average
5350	53.65	54.71	74	-20.35	34.6	9.85	45.51	190	35	Peak
5350	47.89	48.95	54	-6.11	34.6	9.85	45.51	190	35	Average

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.27	54.34	74	-20.73	34.52	9.92	45.51	200	170	Peak
5150	48.3	49.37	54	-5.7	34.52	9.92	45.51	200	170	Average
5230	96.72	97.76	/	/	34.58	9.89	45.51	200	170	Peak
5230	90.5	91.54	/	/	34.58	9.89	45.51	200	170	Average
5350	53.27	54.25	74	-20.73	34.68	9.85	45.51	200	170	Peak
5350	47.8	48.78	54	-6.2	34.68	9.85	45.51	200	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
5150	54.48	55.47	74	-19.52	34.6	9.92	45.51	190	35	Peak
5150	48.61	49.6	54	-5.39	34.6	9.92	45.51	190	35	Average
5230	92.17	93.19	/	/	34.6	9.89	45.51	190	35	Peak
5230	85.98	87	/	/	34.6	9.89	45.51	190	35	Average
5350	53.61	54.67	74	-20.39	34.6	9.85	45.51	190	35	Peak
5350	48.04	49.1	54	-5.96	34.6	9.85	45.51	190	35	Average

REMARKS:

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



802.11ac (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.44	54.51	74	-20.56	34.52	9.92	45.51	200	170	Peak
5150	49.37	50.44	54	-4.63	34.52	9.92	45.51	200	170	Average
5180	98.31	99.37	/	/	34.54	9.91	45.51	200	170	Peak
5180	91	92.06	/	/	34.54	9.91	45.51	200	170	Average
5350	53.43	54.41	74	-20.57	34.68	9.85	45.51	200	170	Peak
5350	47.74	48.72	54	-6.26	34.68	9.85	45.51	200	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
5150	53.78	54.77	74	-20.22	34.6	9.92	45.51	200	35	Peak
5150	48.51	49.5	54	-5.49	34.6	9.92	45.51	200	35	Average
5180	95.26	96.26	/	/	34.6	9.91	45.51	200	35	Peak
5180	87.5	88.5	/	/	34.6	9.91	45.51	200	35	Average
5350	53.51	54.57	74	-20.49	34.6	9.85	45.51	200	35	Peak
5350	47.75	48.81	54	-6.25	34.6	9.85	45.51	200	35	Average

REMARKS:

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



CHANNEL	TX Channel 40	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	53.58	54.65	74	-20.42	34.52	9.92	45.51	200	170	Peak
5150	48.54	49.61	54	-5.46	34.52	9.92	45.51	200	170	Average
5200	98.73	99.78	/	/	34.56	9.9	45.51	200	170	Peak
5200	90.97	92.02	/	/	34.56	9.9	45.51	200	170	Average
5350	54.77	55.75	74	-19.23	34.68	9.85	45.51	200	170	Peak
5350	48.04	49.02	54	-5.96	34.68	9.85	45.51	200	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
5150	53.95	54.94	74	-20.05	34.6	9.92	45.51	190	35	Peak
5150	48.2	49.19	54	-5.8	34.6	9.92	45.51	190	35	Average
5200	94.18	95.19	/	/	34.6	9.9	45.51	190	35	Peak
5200	86.36	87.37	/	/	34.6	9.9	45.51	190	35	Average
5350	53.37	54.43	74	-20.63	34.6	9.85	45.51	190	35	Peak
5350	47.61	48.67	54	-6.39	34.6	9.85	45.51	190	35	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 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	53.59	54.66	74	-20.41	34.52	9.92	45.51	200	170	Peak
5150	48.15	49.22	54	-5.85	34.52	9.92	45.51	200	170	Average
5240	98.67	99.7	/	/	34.59	9.89	45.51	200	170	Peak
5240	91.44	92.47	/	/	34.59	9.89	45.51	200	170	Average
5350	54.07	55.05	74	-19.93	34.68	9.85	45.51	200	170	Peak
5350	48.03	49.01	54	-5.97	34.68	9.85	45.51	200	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
5150	54.45	55.44	74	-19.55	34.6	9.92	45.51	190	35	Peak
5150	47.63	48.62	54	-6.37	34.6	9.92	45.51	190	35	Average
5240	94.39	95.41	/	/	34.6	9.89	45.51	190	35	Peak
5240	86.9	87.92	/	/	34.6	9.89	45.51	190	35	Average
5350	54.94	56	74	-19.06	34.6	9.85	45.51	190	35	Peak
5350	48	49.06	54	-6	34.6	9.85	45.51	190	35	Average

REMARKS:

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



802.11ac (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	54.03	55.1	74	-19.97	34.52	9.92	45.51	200	170	Peak
5150	49.03	50.1	54	-4.97	34.52	9.92	45.51	200	170	Average
5190	93.15	94.2	/	/	34.55	9.91	45.51	200	170	Peak
5190	87.61	88.66	/	/	34.55	9.91	45.51	200	170	Average
5350	53.68	54.66	74	-20.32	34.68	9.85	45.51	200	170	Peak
5350	48.37	49.35	54	-5.63	34.68	9.85	45.51	200	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
5150	54.82	55.81	74	-19.18	34.6	9.92	45.51	190	35	Peak
5150	48.73	49.72	54	-5.27	34.6	9.92	45.51	190	35	Average
5190	88.85	89.85	/	/	34.6	9.91	45.51	190	35	Peak
5190	82.36	83.36	/	/	34.6	9.91	45.51	190	35	Average
5350	53.83	54.89	74	-20.17	34.6	9.85	45.51	190	35	Peak
5350	47.98	49.04	54	-6.02	34.6	9.85	45.51	190	35	Average

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.38	54.45	74	-20.62	34.52	9.92	45.51	200	170	Peak
5150	48.28	49.35	54	-5.72	34.52	9.92	45.51	200	170	Average
5230	93.03	94.07	/	/	34.58	9.89	45.51	200	170	Peak
5230	86.43	87.47	/	/	34.58	9.89	45.51	200	170	Average
5350	54.02	55	74	-19.98	34.68	9.85	45.51	200	170	Peak
5350	48.1	49.08	54	-5.9	34.68	9.85	45.51	200	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
5150	53.16	54.15	74	-20.84	34.6	9.92	45.51	190	35	Peak
5150	48.65	49.64	54	-5.35	34.6	9.92	45.51	190	35	Average
5230	88.38	89.4	/	/	34.6	9.89	45.51	190	35	Peak
5230	81.89	82.91	/	/	34.6	9.89	45.51	190	35	Average
5350	53.61	54.67	74	-20.39	34.6	9.85	45.51	190	35	Peak
5350	48.13	49.19	54	-5.87	34.6	9.85	45.51	190	35	Average

REMARKS:

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



802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
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	53.47	54.54	74	-20.53	34.52	9.92	45.51	200	170	Peak
5150	49.9	50.97	54	-4.1	34.52	9.92	45.51	200	170	Average
5210	92.89	93.93	/	/	34.57	9.9	45.51	200	170	Peak
5210	86.55	87.59	/	/	34.57	9.9	45.51	200	170	Average
5350	53.53	54.51	74	-20.47	34.68	9.85	45.51	200	170	Peak
5350	48.33	49.31	54	-5.67	34.68	9.85	45.51	200	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
5150	53.13	54.12	74	-20.87	34.6	9.92	45.51	190	35	Peak
5150	49.75	50.74	54	-4.25	34.6	9.92	45.51	190	35	Average
5210	87.02	88.03	/	/	34.6	9.9	45.51	190	35	Peak
5210	80.58	81.59	/	/	34.6	9.9	45.51	190	35	Average
5350	53.8	54.86	74	-20.2	34.6	9.85	45.51	190	35	Peak
5350	47.99	49.05	54	-6.01	34.6	9.85	45.51	190	35	Average

REMARKS:

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



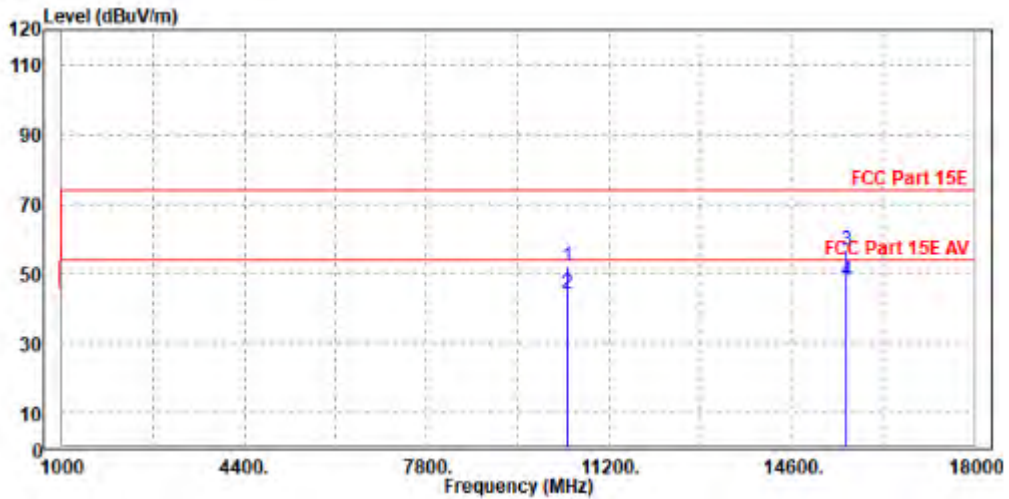
802.11ac (80MHz)

Worst case harmonic:

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

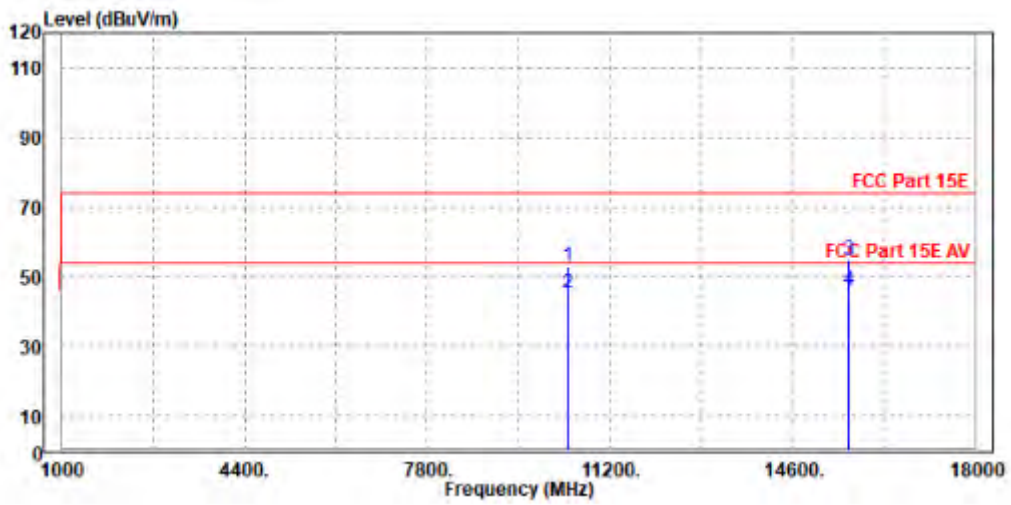
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10418.000	52.14	45.24	74.00	-21.86	6.90	Peak	Horizontal
2	10418.000	44.47	37.57	54.00	-9.53	6.90	Average	Horizontal
3	PK15630.000	56.77	43.67	74.00	-17.23	13.10	Peak	Horizontal
4	PP15630.000	47.97	34.87	54.00	-6.03	13.10	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	53.00	44.88	74.00	-21.00	8.12	Peak	Vertical
2	10420.000	44.99	36.87	54.00	-9.01	8.12	Average	Vertical
3	PK15637.000	54.66	42.62	74.00	-19.34	12.04	Peak	Vertical
4	PP15637.000	46.22	34.18	54.00	-7.78	12.04	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 2
802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

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	54.82	55.89	74	-19.18	34.52	9.92	45.51	200	170	Peak
5150	48.75	49.82	54	-5.25	34.52	9.92	45.51	200	170	Average
5260	101.55	102.57	/	/	34.61	9.88	45.51	200	170	Peak
5260	95.12	96.14	/	/	34.61	9.88	45.51	200	170	Average
5350	53.2	54.18	74	-20.8	34.68	9.85	45.51	200	170	Peak
5350	47.53	48.51	54	-6.47	34.68	9.85	45.51	200	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
5150	54.69	55.68	74	-19.31	34.6	9.92	45.51	200	47	Peak
5150	48.22	49.21	54	-5.78	34.6	9.92	45.51	200	47	Average
5260	97.43	98.46	/	/	34.6	9.88	45.51	200	47	Peak
5260	90.99	92.02	/	/	34.6	9.88	45.51	200	47	Average
5350	53	54.06	74	-21	34.6	9.85	45.51	200	47	Peak
5350	47.34	48.4	54	-6.66	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 60	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	53.43	54.5	74	-20.57	34.52	9.92	45.51	200	170	Peak
5150	47.88	48.95	54	-6.12	34.52	9.92	45.51	200	170	Average
5300	102.3	103.3	/	/	34.64	9.87	45.51	200	170	Peak
5300	95.68	96.68	/	/	34.64	9.87	45.51	200	170	Average
5350	53.69	54.67	74	-20.31	34.68	9.85	45.51	200	170	Peak
5350	48.04	49.02	54	-5.96	34.68	9.85	45.51	200	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
5150	56.06	57.05	74	-17.94	34.6	9.92	45.51	200	47	Peak
5150	48.5	49.49	54	-5.5	34.6	9.92	45.51	200	47	Average
5300	97.12	98.16	/	/	34.6	9.87	45.51	200	47	Peak
5300	91.03	92.07	/	/	34.6	9.87	45.51	200	47	Average
5350	53.75	54.81	74	-20.25	34.6	9.85	45.51	200	47	Peak
5350	47.45	48.51	54	-6.55	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 64	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	53.81	54.88	74	-20.19	34.52	9.92	45.51	200	170	Peak
5150	47.65	48.72	54	-6.35	34.52	9.92	45.51	200	170	Average
5320	102.19	103.18	/	/	34.66	9.86	45.51	200	170	Peak
5320	95.88	96.87	/	/	34.66	9.86	45.51	200	170	Average
5350	54	54.98	74	-20	34.68	9.85	45.51	200	170	Peak
5350	48.99	49.97	54	-5.01	34.68	9.85	45.51	200	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
5150	53.94	54.93	74	-20.06	34.6	9.92	45.51	200	47	Peak
5150	48.09	49.08	54	-5.91	34.6	9.92	45.51	200	47	Average
5320	96.09	97.14	/	/	34.6	9.86	45.51	200	47	Peak
5320	90.1	91.15	/	/	34.6	9.86	45.51	200	47	Average
5350	53.56	54.62	74	-20.44	34.6	9.85	45.51	200	47	Peak
5350	48.25	49.31	54	-5.75	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5320MHz: Fundamental frequency.



802.11n (20MHz)

CHANNEL	TX Channel 52	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	53.69	54.76	74	-20.31	34.52	9.92	45.51	200	170	Peak
5150	47.86	48.93	54	-6.14	34.52	9.92	45.51	200	170	Average
5260	101.42	102.44	/	/	34.61	9.88	45.51	200	170	Peak
5260	94.01	95.03	/	/	34.61	9.88	45.51	200	170	Average
5350	54.87	55.85	74	-19.13	34.68	9.85	45.51	200	170	Peak
5350	47.93	48.91	54	-6.07	34.68	9.85	45.51	200	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
5150	54.11	55.1	74	-19.89	34.6	9.92	45.51	200	47	Peak
5150	48.53	49.52	54	-5.47	34.6	9.92	45.51	200	47	Average
5260	97.3	98.33	/	/	34.6	9.88	45.51	200	47	Peak
5260	90.33	91.36	/	/	34.6	9.88	45.51	200	47	Average
5350	55.49	56.55	74	-18.51	34.6	9.85	45.51	200	47	Peak
5350	47.53	48.59	54	-6.47	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 60	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	54.41	55.48	74	-19.59	34.52	9.92	45.51	200	170	Peak
5150	48.2	49.27	54	-5.8	34.52	9.92	45.51	200	170	Average
5300	102.42	103.42	/	/	34.64	9.87	45.51	200	170	Peak
5300	95.11	96.11	/	/	34.64	9.87	45.51	200	170	Average
5350	53.75	54.73	74	-20.25	34.68	9.85	45.51	200	170	Peak
5350	48	48.98	54	-6	34.68	9.85	45.51	200	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
5150	55.43	56.42	74	-18.57	34.6	9.92	45.51	200	47	Peak
5150	48.75	49.74	54	-5.25	34.6	9.92	45.51	200	47	Average
5300	97.44	98.48	/	/	34.6	9.87	45.51	200	47	Peak
5300	90.45	91.49	/	/	34.6	9.87	45.51	200	47	Average
5350	54.36	55.42	74	-19.64	34.6	9.85	45.51	200	47	Peak
5350	47.98	49.04	54	-6.02	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 64	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	54.41	55.48	74	-19.59	34.52	9.92	45.51	200	170	Peak
5150	48	49.07	54	-6	34.52	9.92	45.51	200	170	Average
5320	102.97	103.96	/	/	34.66	9.86	45.51	200	170	Peak
5320	94.91	95.9	/	/	34.66	9.86	45.51	200	170	Average
5350	55.29	56.27	74	-18.71	34.68	9.85	45.51	200	170	Peak
5350	48.75	49.73	54	-5.25	34.68	9.85	45.51	200	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
5150	54.55	55.54	74	-19.45	34.6	9.92	45.51	200	47	Peak
5150	48.4	49.39	54	-5.6	34.6	9.92	45.51	200	47	Average
5320	96.3	97.35	/	/	34.6	9.86	45.51	200	47	Peak
5320	89.33	90.38	/	/	34.6	9.86	45.51	200	47	Average
5350	53.34	54.4	74	-20.66	34.6	9.85	45.51	200	47	Peak
5350	48.39	49.45	54	-5.61	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5320MHz: Fundamental frequency.



802.11n (40MHz)

CHANNEL	TX Channel 54	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	53.79	54.86	74	-20.21	34.52	9.92	45.51	200	170	Peak
5150	48.43	49.5	54	-5.57	34.52	9.92	45.51	200	170	Average
5270	96.65	97.66	/	/	34.62	9.88	45.51	200	170	Peak
5270	91.21	92.22	/	/	34.62	9.88	45.51	200	170	Average
5350	53.69	54.67	74	-20.31	34.68	9.85	45.51	200	170	Peak
5350	48.13	49.11	54	-5.87	34.68	9.85	45.51	200	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
5150	53.9	54.89	74	-20.1	34.6	9.92	45.51	200	47	Peak
5150	48.42	49.41	54	-5.58	34.6	9.92	45.51	200	47	Average
5270	92.17	93.2	/	/	34.6	9.88	45.51	200	47	Peak
5270	86.07	87.1	/	/	34.6	9.88	45.51	200	47	Average
5350	53.88	54.94	74	-20.12	34.6	9.85	45.51	200	47	Peak
5350	48.24	49.3	54	-5.76	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5270MHz: Fundamental frequency.



CHANNEL	TX Channel 62	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	53.41	54.48	74	-20.59	34.52	9.92	45.51	200	170	Peak
5150	48.66	49.73	54	-5.34	34.52	9.92	45.51	200	170	Average
5310	97.29	98.29	/	/	34.65	9.86	45.51	200	170	Peak
5310	92.1	93.1	/	/	34.65	9.86	45.51	200	170	Average
5350	56.59	57.57	74	-17.41	34.68	9.85	45.51	200	170	Peak
5350	50.65	51.63	54	-3.35	34.68	9.85	45.51	200	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
5150	54.6	55.59	74	-19.4	34.6	9.92	45.51	200	47	Peak
5150	48.37	49.36	54	-5.63	34.6	9.92	45.51	200	47	Average
5310	92.09	93.14	/	/	34.6	9.86	45.51	200	47	Peak
5310	86.41	87.46	/	/	34.6	9.86	45.51	200	47	Average
5350	53.91	54.97	74	-20.09	34.6	9.85	45.51	200	47	Peak
5350	49.03	50.09	54	-4.97	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5310MHz: Fundamental frequency.



802.11ac (20MHz)

CHANNEL	TX Channel 52	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	53.67	54.74	74	-20.33	34.52	9.92	45.51	200	170	Peak
5150	47.74	48.81	54	-6.26	34.52	9.92	45.51	200	170	Average
5260	99.11	100.13	/	/	34.61	9.88	45.51	200	170	Peak
5260	91.96	92.98	/	/	34.61	9.88	45.51	200	170	Average
5350	54.51	55.49	74	-19.49	34.68	9.85	45.51	200	170	Peak
5350	48.06	49.04	54	-5.94	34.68	9.85	45.51	200	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
5150	53.82	54.81	74	-20.18	34.6	9.92	45.51	200	47	Peak
5150	48.24	49.23	54	-5.76	34.6	9.92	45.51	200	47	Average
5260	94.44	95.47	/	/	34.6	9.88	45.51	200	47	Peak
5260	87.52	88.55	/	/	34.6	9.88	45.51	200	47	Average
5350	54.55	55.61	74	-19.45	34.6	9.85	45.51	200	47	Peak
5350	47.34	48.4	54	-6.66	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 60	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	53.4	54.47	74	-20.6	34.52	9.92	45.51	200	170	Peak
5150	47.75	48.82	54	-6.25	34.52	9.92	45.51	200	170	Average
5300	100.65	101.65	/	/	34.64	9.87	45.51	200	170	Peak
5300	92.97	93.97	/	/	34.64	9.87	45.51	200	170	Average
5350	53.54	54.52	74	-20.46	34.68	9.85	45.51	200	170	Peak
5350	47.91	48.89	54	-6.09	34.68	9.85	45.51	200	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
5150	53.16	54.15	74	-20.84	34.6	9.92	45.51	200	47	Peak
5150	47.79	48.78	54	-6.21	34.6	9.92	45.51	200	47	Average
5300	94.94	95.98	/	/	34.6	9.87	45.51	200	47	Peak
5300	87.82	88.86	/	/	34.6	9.87	45.51	200	47	Average
5350	53.83	54.89	74	-20.17	34.6	9.85	45.51	200	47	Peak
5350	48.33	49.39	54	-5.67	34.6	9.85	45.51	200	47	Average

REMARKS:

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



CHANNEL	TX Channel 64	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	54.3	55.37	74	-19.7	34.52	9.92	45.51	200	170	Peak
5150	48.03	49.1	54	-5.97	34.52	9.92	45.51	200	170	Average
5320	100.51	101.5	/	/	34.66	9.86	45.51	200	170	Peak
5320	92.9	93.89	/	/	34.66	9.86	45.51	200	170	Average
5350	53.92	54.9	74	-20.08	34.68	9.85	45.51	200	170	Peak
5350	48.34	49.32	54	-5.66	34.68	9.85	45.51	200	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
5150	53.89	54.88	74	-20.11	34.6	9.92	45.51	200	47	Peak
5150	48.1	49.09	54	-5.9	34.6	9.92	45.51	200	47	Average
5320	94.27	95.32	/	/	34.6	9.86	45.51	200	47	Peak
5320	87.25	88.3	/	/	34.6	9.86	45.51	200	47	Average
5350	54.8	55.86	74	-19.2	34.6	9.85	45.51	200	47	Peak
5350	47.51	48.57	54	-6.49	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5320MHz: Fundamental frequency.



802.11ac (40MHz)

CHANNEL	TX Channel 54	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	53.67	54.74	74	-20.33	34.52	9.92	45.51	200	170	Peak
5150	48.03	49.1	54	-5.97	34.52	9.92	45.51	200	170	Average
5270	93.29	94.3	/	/	34.62	9.88	45.51	200	170	Peak
5270	87.19	88.2	/	/	34.62	9.88	45.51	200	170	Average
5350	54.26	55.24	74	-19.74	34.68	9.85	45.51	200	170	Peak
5350	48.92	49.9	54	-5.08	34.68	9.85	45.51	200	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
5150	53.84	54.83	74	-20.16	34.6	9.92	45.51	200	47	Peak
5150	48.37	49.36	54	-5.63	34.6	9.92	45.51	200	47	Average
5270	87.41	88.44	/	/	34.6	9.88	45.51	200	47	Peak
5270	81.78	82.81	/	/	34.6	9.88	45.51	200	47	Average
5350	53.64	54.7	74	-20.36	34.6	9.85	45.51	200	47	Peak
5350	48.11	49.17	54	-5.89	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5270MHz: Fundamental frequency.



CHANNEL	TX Channel 62	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	53.82	54.89	74	-20.18	34.52	9.92	45.51	200	170	Peak
5150	47.7	48.77	54	-6.3	34.52	9.92	45.51	200	170	Average
5290	92.78	93.79	/	/	34.63	9.87	45.51	200	170	Peak
5290	87.15	88.16	/	/	34.63	9.87	45.51	200	170	Average
5350	56.02	57	74	-17.98	34.68	9.85	45.51	200	170	Peak
5350	50.84	51.82	54	-3.16	34.68	9.85	45.51	200	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
5150	53.61	54.6	74	-20.39	34.6	9.92	45.51	200	47	Peak
5150	48.96	49.95	54	-5.04	34.6	9.92	45.51	200	47	Average
5310	89.65	90.7	/	/	34.6	9.86	45.51	200	47	Peak
5310	84.01	85.06	/	/	34.6	9.86	45.51	200	47	Average
5350	53.21	54.27	74	-20.79	34.6	9.85	45.51	200	47	Peak
5350	48.08	49.14	54	-5.92	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5310MHz: Fundamental frequency.



802.11ac (80MHz)

CHANNEL	TX Channel 58	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	53.82	54.89	74	-20.18	34.52	9.92	45.51	200	170	Peak
5150	47.7	48.77	54	-6.3	34.52	9.92	45.51	200	170	Average
5290	92.78	93.79	/	/	34.63	9.87	45.51	200	170	Peak
5290	87.15	88.16	/	/	34.63	9.87	45.51	200	170	Average
5350	56.02	57	74	-17.98	34.68	9.85	45.51	200	170	Peak
5350	50.84	51.82	54	-3.16	34.68	9.85	45.51	200	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
5150	53.51	54.5	74	-20.49	34.6	9.92	45.51	200	47	Peak
5150	48.92	49.91	54	-5.08	34.6	9.92	45.51	200	47	Average
5290	88.22	89.26	/	/	34.6	9.87	45.51	200	47	Peak
5290	82.57	83.61	/	/	34.6	9.87	45.51	200	47	Average
5350	53.57	54.63	74	-20.43	34.6	9.85	45.51	200	47	Peak
5350	49.65	50.71	54	-4.35	34.6	9.85	45.51	200	47	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5290MHz: Fundamental frequency.



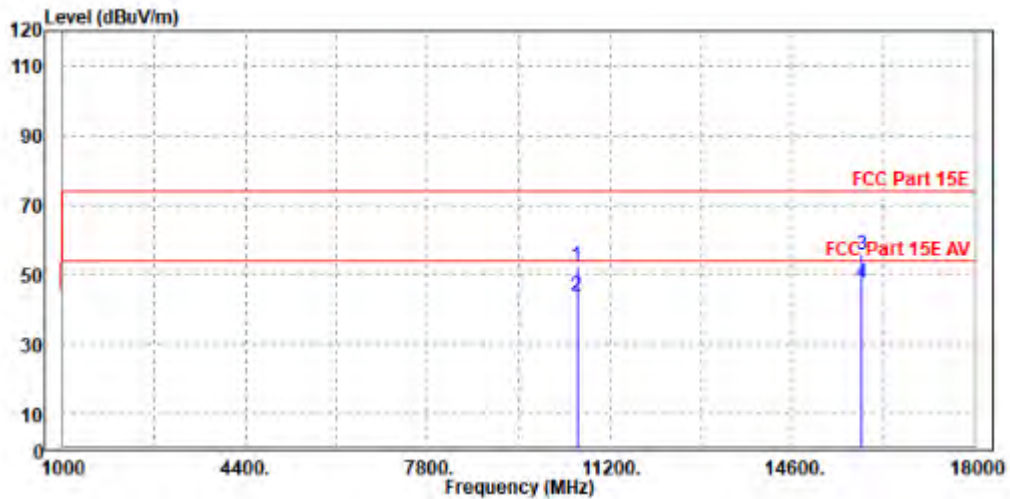
802.11ac (80MHz)

Worst case harmonic:

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

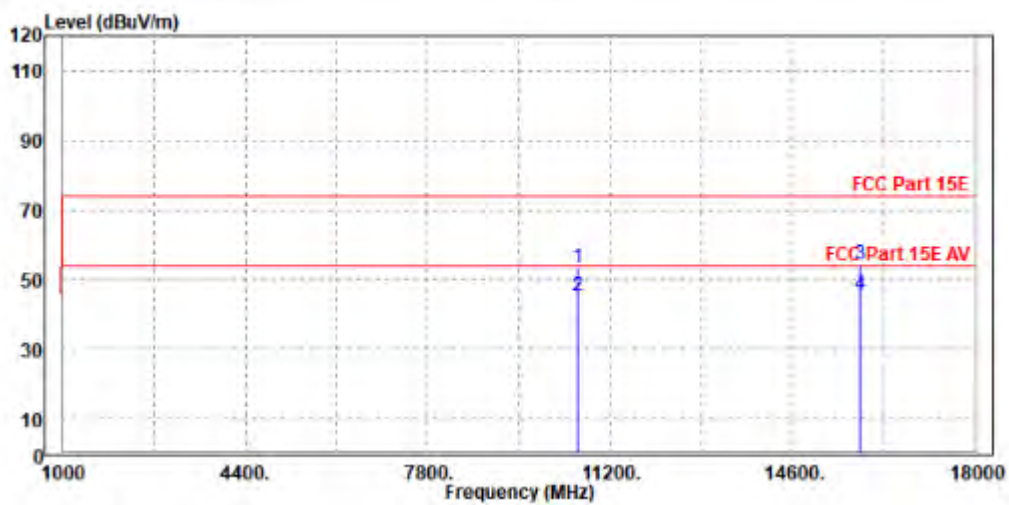
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10580.000	52.37	45.43	74.00	-21.63	6.94	Peak	Horizontal
2	10580.000	43.62	36.68	54.00	-10.38	6.94	Average	Horizontal
3	PK15875.000	55.53	41.47	74.00	-18.47	14.06	Peak	Horizontal
4	PP15875.000	47.44	33.38	54.00	-6.56	14.06	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	10588.000	53.50	45.34	74.00	-20.50	8.16	Peak	Vertical
2	10588.000	45.09	36.93	54.00	-8.91	8.16	Average	Vertical
3	PK15870.000	54.11	41.48	74.00	-19.89	12.63	Peak	Vertical
4	PP15870.000	45.48	32.85	54.00	-8.52	12.63	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5290MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.



Band 3

802.11a

CHANNEL	TX Channel 100	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
5460	56.11	57.04	74	-17.89	34.77	9.81	45.51	200	175	Peak
5460	48.78	49.71	54	-5.22	34.77	9.81	45.51	200	175	Average
5470	55.72	56.64	68.2	-12.48	34.78	9.81	45.51	200	175	Peak
5500	102.67	103.57	/	/	34.8	9.8	45.5	200	175	Peak
5500	96.44	97.34	/	/	34.8	9.8	45.5	200	175	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
5460	52.88	53.98	74	-21.12	34.6	9.81	45.51	200	45	Peak
5460	48.75	49.85	54	-5.25	34.6	9.81	45.51	200	45	Average
5470	54.56	55.66	68.2	-13.64	34.6	9.81	45.51	200	45	Peak
5500	97	98.1	/	/	34.6	9.8	45.5	200	45	Peak
5500	91.03	92.13	/	/	34.6	9.8	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5500MHz: Fundamental frequency.



CHANNEL	TX Channel 116	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
5460	53.44	54.37	74	-20.56	34.77	9.81	45.51	200	175	Peak
5460	48.66	49.59	54	-5.34	34.77	9.81	45.51	200	175	Average
5470	55.34	56.26	68.2	-12.86	34.78	9.81	45.51	200	175	Peak
5580	102.6	103.37	/	/	34.9	9.83	45.5	200	175	Peak
5580	96.82	97.59	/	/	34.9	9.83	45.5	200	175	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
5460	53.42	54.52	74	-20.58	34.6	9.81	45.51	200	45	Peak
5460	47.41	48.51	54	-6.59	34.6	9.81	45.51	200	45	Average
5470	54.32	55.42	68.2	-13.88	34.6	9.81	45.51	200	45	Peak
5580	97.09	98.06	/	/	34.7	9.83	45.5	200	45	Peak
5580	91.2	92.17	/	/	34.7	9.83	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5580MHz: Fundamental frequency.



CHANNEL	TX Channel 140	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
5700	100.72	101.31	/	/	35.04	9.87	45.5	200	175	Peak
5700	95.43	96.02	/	/	35.04	9.87	45.5	200	175	Average
5725	55.61	56.16	68.2	-12.59	35.07	9.88	45.5	200	175	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
5700	96.4	97.19	/	/	34.84	9.87	45.5	200	45	Peak
5700	90.25	91.04	/	/	34.84	9.87	45.5	200	45	Average
5725	54.6	55.35	68.2	-13.6	34.87	9.88	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5700MHz: Fundamental frequency.



CHANNEL	TX Channel 144	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
5470	52.35	53.27	68.2	-15.85	34.78	9.81	45.51	200	175	Peak
5720	101.57	102.14	/	/	35.06	9.87	45.5	200	175	Peak
5720	95.18	95.75	/	/	35.06	9.87	45.5	200	175	Average
5850	55.09	55.45	68.2	-13.11	35.22	9.92	45.5	200	175	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
5470	54.63	55.73	68.2	-13.57	34.6	9.81	45.51	200	45	Peak
5720	97.02	97.79	/	/	34.86	9.87	45.5	200	45	Peak
5720	89.44	90.21	/	/	34.86	9.87	45.5	200	45	Average
5850	54.81	55.37	68.2	-13.39	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5720MHz: Fundamental frequency.



802.11n (20MHz)

CHANNEL	TX Channel 100	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
5460	54.28	55.21	74	-19.72	34.77	9.81	45.51	200	175	Peak
5460	48.19	49.12	54	-5.81	34.77	9.81	45.51	200	175	Average
5470	55.97	56.89	68.2	-12.23	34.78	9.81	45.51	200	175	Peak
5500	102.56	103.46	/	/	34.8	9.8	45.5	200	175	Peak
5500	94.79	95.69	/	/	34.8	9.8	45.5	200	175	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
5460	53.49	54.59	74	-20.51	34.6	9.81	45.51	200	45	Peak
5460	48.02	49.12	54	-5.98	34.6	9.81	45.51	200	45	Average
5470	55.61	56.71	68.2	-12.59	34.6	9.81	45.51	200	45	Peak
5500	97.69	98.79	/	/	34.6	9.8	45.5	200	45	Peak
5500	89.3	90.4	/	/	34.6	9.8	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5500MHz: Fundamental frequency.



CHANNEL	TX Channel 116	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
5460	55.37	56.3	74	-18.63	34.77	9.81	45.51	200	175	Peak
5460	47.92	48.85	54	-6.08	34.77	9.81	45.51	200	175	Average
5470	54.3	55.22	68.2	-13.9	34.78	9.81	45.51	200	175	Peak
5580	102.62	103.39	/	/	34.9	9.83	45.5	200	175	Peak
5580	95.44	96.21	/	/	34.9	9.83	45.5	200	175	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
5460	54.66	55.76	74	-19.34	34.6	9.81	45.51	200	45	Peak
5460	47.6	48.7	54	-6.4	34.6	9.81	45.51	200	45	Average
5470	54.59	55.69	68.2	-13.61	34.6	9.81	45.51	200	45	Peak
5580	96.91	97.88	/	/	34.7	9.83	45.5	200	45	Peak
5580	89.64	90.61	/	/	34.7	9.83	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5580MHz: Fundamental frequency.



CHANNEL	TX Channel 140	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
5700	100.15	100.74	/	/	35.04	9.87	45.5	200	175	Peak
5700	93.46	94.05	/	/	35.04	9.87	45.5	200	175	Average
5725	56.24	56.79	68.2	-11.96	35.07	9.88	45.5	200	175	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
5700	95.86	96.65	/	/	34.84	9.87	45.5	200	45	Peak
5700	88.47	89.26	/	/	34.84	9.87	45.5	200	45	Average
5725	54.86	55.61	68.2	-13.34	34.87	9.88	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5700MHz: Fundamental frequency.



CHANNEL	TX Channel 144	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
5470	51.97	52.89	68.2	-16.23	34.78	9.81	45.51	200	175	Peak
5720	101.63	102.2	/	/	35.06	9.87	45.5	200	175	Peak
5720	93.54	94.11	/	/	35.06	9.87	45.5	200	175	Average
5850	53.58	53.94	68.2	-14.62	35.22	9.92	45.5	200	175	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
5470	52.66	53.76	68.2	-15.54	34.6	9.81	45.51	200	45	Peak
5720	95.34	96.11	/	/	34.86	9.87	45.5	200	45	Peak
5720	88.27	89.04	/	/	34.86	9.87	45.5	200	45	Average
5850	55.76	56.32	68.2	-12.44	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5720MHz: Fundamental frequency.



802.11n (40MHz)

CHANNEL	TX Channel 102	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
5460	53.86	54.79	74	-20.14	34.77	9.81	45.51	200	175	Peak
5460	48.46	49.39	54	-5.54	34.77	9.81	45.51	200	175	Average
5470	55.71	56.63	68.2	-12.49	34.78	9.81	45.51	200	175	Peak
5510	97.02	97.91	/	/	34.81	9.8	45.5	200	175	Peak
5510	92.63	93.52	/	/	34.81	9.8	45.5	200	175	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
5460	53.65	54.75	74	-20.35	34.6	9.81	45.51	200	45	Peak
5460	48.13	49.23	54	-5.87	34.6	9.81	45.51	200	45	Average
5470	54.69	55.79	68.2	-13.51	34.6	9.81	45.51	200	45	Peak
5510	93.11	94.2	/	/	34.61	9.8	45.5	200	45	Peak
5510	87.48	88.57	/	/	34.61	9.8	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5510MHz: Fundamental frequency.



CHANNEL	TX Channel 110	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
5460	51.55	52.48	74	-22.45	34.77	9.81	45.51	200	175	Peak
5460	47.46	48.39	54	-6.54	34.77	9.81	45.51	200	175	Average
5470	53.85	54.77	68.2	-14.35	34.78	9.81	45.51	200	175	Peak
5550	97.74	98.56	/	/	34.86	9.82	45.5	200	175	Peak
5550	92.47	93.29	/	/	34.86	9.82	45.5	200	175	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
5460	54.45	55.55	74	-19.55	34.6	9.81	45.51	200	45	Peak
5460	48.15	49.25	54	-5.85	34.6	9.81	45.51	200	45	Average
5470	55.08	56.18	68.2	-13.12	34.6	9.81	45.51	200	45	Peak
5550	94.65	95.67	/	/	34.66	9.82	45.5	200	45	Peak
5550	88.72	89.74	/	/	34.66	9.82	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5500MHz: Fundamental frequency.



CHANNEL	TX Channel 134	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
5670	96.81	97.45	/	/	35	9.86	45.5	200	175	Peak
5670	92.82	93.46	/	/	35	9.86	45.5	200	175	Average
5725	55.79	56.71	68.2	-12.41	34.78	9.81	45.51	200	175	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
5670	92.81	93.65	/	/	34.8	9.86	45.5	200	45	Peak
5670	86.58	87.42	/	/	34.8	9.86	45.5	200	45	Average
5725	55.06	55.81	68.2	-13.14	34.87	9.88	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5670MHz: Fundamental frequency.



CHANNEL	TX Channel 142	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
5470	53.26	54.18	68.2	-14.94	34.78	9.81	45.51	200	175	Peak
5710	98.18	98.76	/	/	35.05	9.87	45.5	200	175	Peak
5710	93.46	94.04	/	/	35.05	9.87	45.5	200	175	Average
5850	55.33	55.69	68.2	-12.87	35.22	9.92	45.5	200	175	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
5470	52.74	53.84	68.2	-15.46	34.6	9.81	45.51	200	45	Peak
5710	93.57	94.35	/	/	34.85	9.87	45.5	200	45	Peak
5710	87.69	88.47	/	/	34.85	9.87	45.5	200	45	Average
5850	55.62	56.18	68.2	-12.58	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5710MHz: Fundamental frequency.



802.11ac (20MHz)

CHANNEL	TX Channel 100	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
5460	52.56	53.49	74	-21.44	34.77	9.81	45.51	200	45	Peak
5460	47.68	48.61	54	-6.32	34.77	9.81	45.51	200	45	Average
5470	52.73	53.65	68.2	-15.47	34.78	9.81	45.51	200	45	Peak
5500	99.75	100.65	/	/	34.8	9.8	45.5	200	45	Peak
5500	94.06	94.96	/	/	34.8	9.8	45.5	200	45	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
5460	53.49	54.59	74	-20.51	34.6	9.81	45.51	200	45	Peak
5460	47.97	49.07	54	-6.03	34.6	9.81	45.51	200	45	Average
5470	54.93	56.03	68.2	-13.27	34.6	9.81	45.51	200	45	Peak
5500	93.85	94.95	/	/	34.6	9.8	45.5	200	45	Peak
5500	87.18	88.28	/	/	34.6	9.8	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5500MHz: Fundamental frequency.



CHANNEL	TX Channel 116	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
5460	53.27	54.2	74	-20.73	34.77	9.81	45.51	200	175	Peak
5460	47.6	48.53	54	-6.4	34.77	9.81	45.51	200	175	Average
5470	55.38	56.3	68.2	-12.82	34.78	9.81	45.51	200	175	Peak
5580	100.29	101.06	/	/	34.9	9.83	45.5	200	175	Peak
5580	93.17	93.94	/	/	34.9	9.83	45.5	200	175	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
5460	52.31	53.41	74	-21.69	34.6	9.81	45.51	200	45	Peak
5460	46.39	47.49	54	-7.61	34.6	9.81	45.51	200	45	Average
5470	52.44	53.54	68.2	-15.76	34.6	9.81	45.51	200	45	Peak
5580	93.28	94.25	/	/	34.7	9.83	45.5	200	45	Peak
5580	87.21	88.18	/	/	34.7	9.83	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5580MHz: Fundamental frequency.



CHANNEL	TX Channel 140	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
5700	101.76	102.35	/	/	35.04	9.87	45.5	200	175	Peak
5700	93.92	94.51	/	/	35.04	9.87	45.5	200	175	Average
5725	56.62	57.17	68.2	-11.58	35.07	9.88	45.5	200	175	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
5700	95.07	95.86	/	/	34.84	9.87	45.5	200	45	Peak
5700	88.36	89.15	/	/	34.84	9.87	45.5	200	45	Average
5725	55.37	56.12	68.2	-12.83	34.87	9.88	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5700MHz: Fundamental frequency.



CHANNEL	TX Channel 144	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
5470	53.13	54.05	68.2	-15.07	34.78	9.81	45.51	200	175	Peak
5720	100.89	101.46	/	/	35.06	9.87	45.5	200	175	Peak
5720	94.16	94.73	/	/	35.06	9.87	45.5	200	175	Average
5850	54.83	55.19	68.2	-13.37	35.22	9.92	45.5	200	175	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
5470	53.18	54.28	68.2	-15.02	34.6	9.81	45.51	200	45	Peak
5720	95.57	96.34	/	/	34.86	9.87	45.5	200	45	Peak
5720	88.6	89.37	/	/	34.86	9.87	45.5	200	45	Average
5850	53.08	53.64	68.2	-15.12	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5720MHz: Fundamental frequency.



802.11ac (40MHz)

CHANNEL	TX Channel 102	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
5460	53.85	54.78	74	-20.15	34.77	9.81	45.51	200	175	Peak
5460	47.87	48.8	54	-6.13	34.77	9.81	45.51	200	175	Average
5470	54.8	55.72	68.2	-13.4	34.78	9.81	45.51	200	175	Peak
5510	95.39	96.28	/	/	34.81	9.8	45.5	200	175	Peak
5510	90.83	91.72	/	/	34.81	9.8	45.5	200	175	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
5460	52.36	53.46	74	-21.64	34.6	9.81	45.51	200	175	Peak
5460	47.16	48.26	54	-6.84	34.6	9.81	45.51	200	175	Average
5470	52.6	53.7	68.2	-15.6	34.6	9.81	45.51	200	175	Peak
5510	92.36	93.45	/	/	34.61	9.8	45.5	200	175	Peak
5510	85.43	86.52	/	/	34.61	9.8	45.5	200	175	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5510MHz: Fundamental frequency.



CHANNEL	TX Channel 110	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
5460	52.54	53.47	74	-21.46	34.77	9.81	45.51	200	175	Peak
5460	47.66	48.59	54	-6.34	34.77	9.81	45.51	200	175	Average
5470	52.94	53.86	68.2	-15.26	34.78	9.81	45.51	200	175	Peak
5550	95.02	95.84	/	/	34.86	9.82	45.5	200	175	Peak
5550	90.36	91.18	/	/	34.86	9.82	45.5	200	175	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
5460	53.38	54.48	74	-20.62	34.6	9.81	45.51	200	45	Peak
5460	47.21	48.31	54	-6.79	34.6	9.81	45.51	200	45	Average
5470	52.87	53.97	68.2	-15.33	34.6	9.81	45.51	200	45	Peak
5550	91.51	92.53	/	/	34.66	9.82	45.5	200	45	Peak
5550	86.48	87.5	/	/	34.66	9.82	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5500MHz: Fundamental frequency.



CHANNEL	TX Channel 134	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
5670	95.19	95.83	/	/	35	9.86	45.5	200	175	Peak
5670	90.43	91.07	/	/	35	9.86	45.5	200	175	Average
5725	55.8	56.35	68.2	-12.4	35.07	9.88	45.5	200	175	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
5670	92.65	93.49	/	/	34.8	9.86	45.5	200	45	Peak
5670	85.72	86.56	/	/	34.8	9.86	45.5	200	45	Average
5725	55.08	55.83	68.2	-13.12	34.87	9.88	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5670MHz: Fundamental frequency.



CHANNEL	TX Channel 142	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
5470	53.19	54.11	68.2	-15.01	34.78	9.81	45.51	200	175	Peak
5710	95.69	96.27	/	/	35.05	9.87	45.5	200	175	Peak
5710	90.92	91.5	/	/	35.05	9.87	45.5	200	175	Average
5850	53.28	53.64	68.2	-14.92	35.22	9.92	45.5	200	175	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
5470	52.54	53.64	68.2	-15.66	34.6	9.81	45.51	200	45	Peak
5710	91.83	92.61	/	/	34.85	9.87	45.5	200	45	Peak
5710	85.51	86.29	/	/	34.85	9.87	45.5	200	45	Average
5850	53.71	54.27	68.2	-14.49	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5710MHz: Fundamental frequency.



802.11ac (80MHz)

CHANNEL	TX Channel 106	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
5460	54.12	55.05	74	-19.88	34.77	9.81	45.51	200	175	Peak
5460	49.65	50.58	54	-4.35	34.77	9.81	45.51	200	175	Average
5470	53.34	54.26	68.2	-14.86	34.78	9.81	45.51	200	175	Peak
5530	91.95	92.8	/	/	34.84	9.81	45.5	200	175	Peak
5530	88	88.85	/	/	34.84	9.81	45.5	200	175	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
5460	52.75	53.85	74	-21.25	34.6	9.81	45.51	200	45	Peak
5460	47.48	48.58	54	-6.52	34.6	9.81	45.51	200	45	Average
5470	53.09	54.19	68.2	-15.11	34.6	9.81	45.51	200	45	Peak
5530	87.99	89.04	/	/	34.64	9.81	45.5	200	45	Peak
5530	82.11	83.16	/	/	34.64	9.81	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5530MHz: Fundamental frequency.



CHANNEL	TX Channel 122	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
5460	52.84	53.77	74	-21.16	34.77	9.81	45.51	200	175	Peak
5460	47.6	48.53	54	-6.4	34.77	9.81	45.51	200	175	Average
5470	53.64	54.56	68.2	-14.56	34.78	9.81	45.51	200	175	Peak
5610	91.81	92.54	/	/	34.93	9.84	45.5	200	175	Peak
5610	85.62	86.35	/	/	34.93	9.84	45.5	200	175	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
5460	52.55	53.65	74	-21.45	34.6	9.81	45.51	200	45	Peak
5460	47.2	48.3	54	-6.8	34.6	9.81	45.51	200	45	Average
5470	54.54	55.64	68.2	-13.66	34.6	9.81	45.51	200	45	Peak
5610	86.56	87.49	/	/	34.73	9.84	45.5	200	45	Peak
5610	82.08	83.01	/	/	34.73	9.84	45.5	200	45	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5610MHz: Fundamental frequency.



CHANNEL	TX Channel 138	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
5470	51.84	52.76	68.2	-16.36	34.78	9.81	45.51	200	175	Peak
5690	90.63	91.24	/	/	35.03	9.86	45.5	200	175	Peak
5690	86.79	87.4	/	/	35.03	9.86	45.5	200	175	Average
5850	54.63	54.99	68.2	-13.57	35.22	9.92	45.5	200	175	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
5470	52.54	53.64	68.2	-15.66	34.6	9.81	45.51	200	45	Peak
5690	87.84	88.65	/	/	34.83	9.86	45.5	200	45	Peak
5690	82.43	83.24	/	/	34.83	9.86	45.5	200	45	Average
5850	53.19	53.75	68.2	-15.01	35.02	9.92	45.5	200	45	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5690MHz: Fundamental frequency.



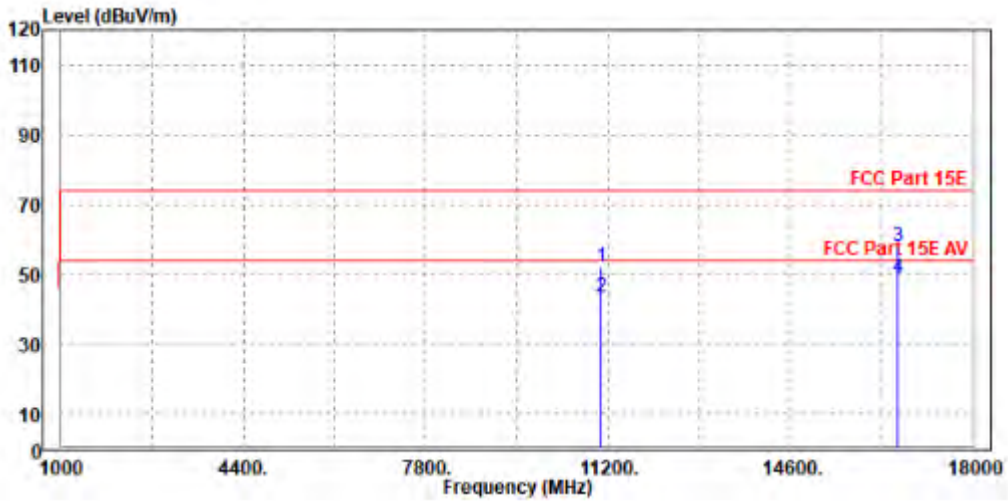
802.11ac (80MHz)

Worst case harmonic:

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

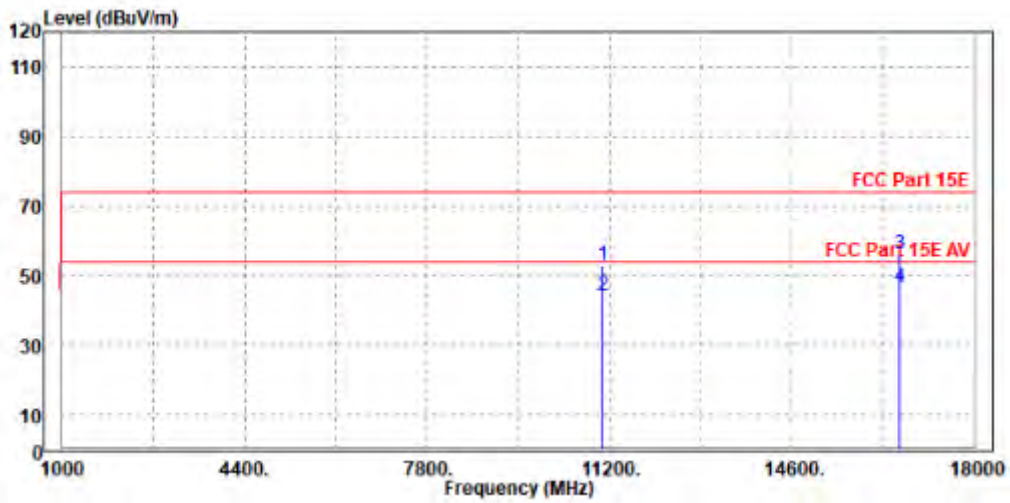
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11064.000	52.21	45.06	74.00	-21.79	7.15	Peak	Horizontal
2	11064.000	43.37	36.22	54.00	-10.63	7.15	Average	Horizontal
3	PK16590.000	57.84	41.81	74.00	-16.16	16.03	Peak	Horizontal
4	PP16590.000	48.86	32.83	54.00	-5.14	16.03	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	11060.000	53.03	45.48	74.00	-20.97	7.55	Peak	Vertical
2	11060.000	44.37	36.82	54.00	-9.63	7.55	Average	Vertical
3	PK16589.000	56.03	41.89	74.00	-17.97	14.14	Peak	Vertical
4	PP16589.000	46.51	32.37	54.00	-7.49	14.14	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5530MHz: 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)
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
5745	102.32	102.85	/	/	35.09	9.88	45.5	200	175	Peak
5745	95.06	95.59	/	/	35.09	9.88	45.5	200	175	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	95.54	96.27	/	/	34.89	9.88	45.5	200	45	Peak
5745	89.44	90.17	/	/	34.89	9.88	45.5	200	45	Average

REMARKS:

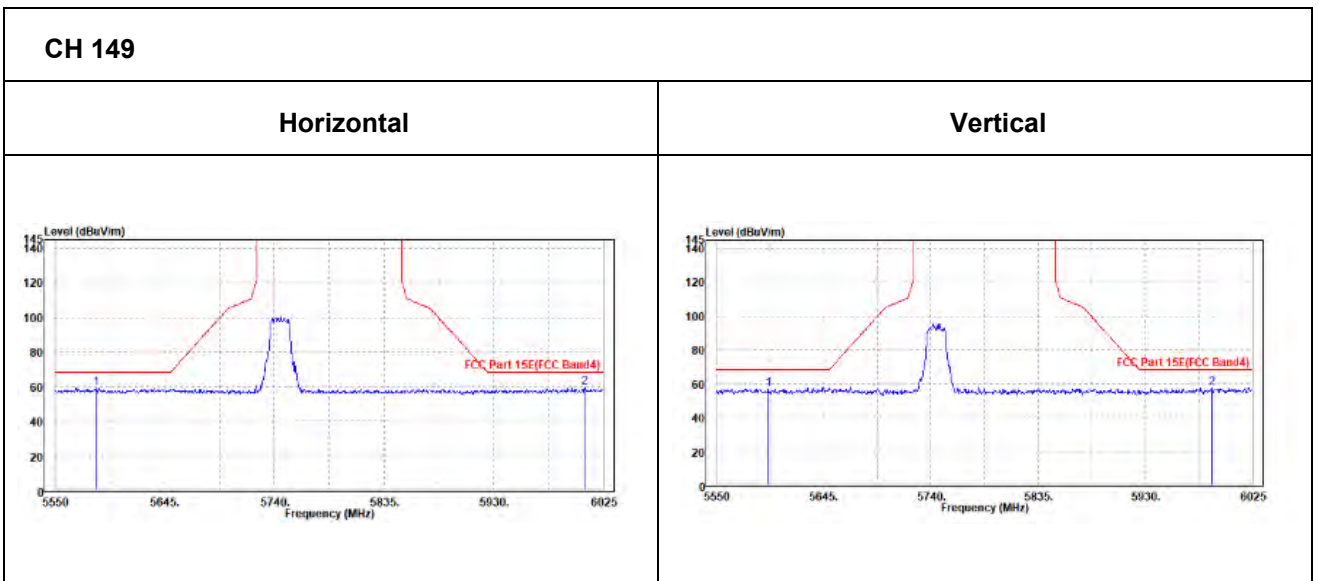
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



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
5585.15	59.11	59.88	68.2	-9.09	34.9	9.83	45.5	200	360	Peak
6008.85	59.51	59.63	68.2	-8.69	35.4	9.98	45.5	200	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
5596.075	57.01	57.96	68.2	-11.19	34.72	9.83	45.5	200	0	Peak
5988.9	57.26	57.6	68.2	-10.94	35.19	9.97	45.5	200	0	Peak





CHANNEL	TX Channel 157	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
5785	102.21	102.67	/	/	35.14	9.9	45.5	200	175	Peak
5785	94.97	95.43	/	/	35.14	9.9	45.5	200	175	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	95.53	96.19	/	/	34.94	9.9	45.5	200	45	Peak
5785	88.44	89.1	/	/	34.94	9.9	45.5	200	45	Average

REMARKS:

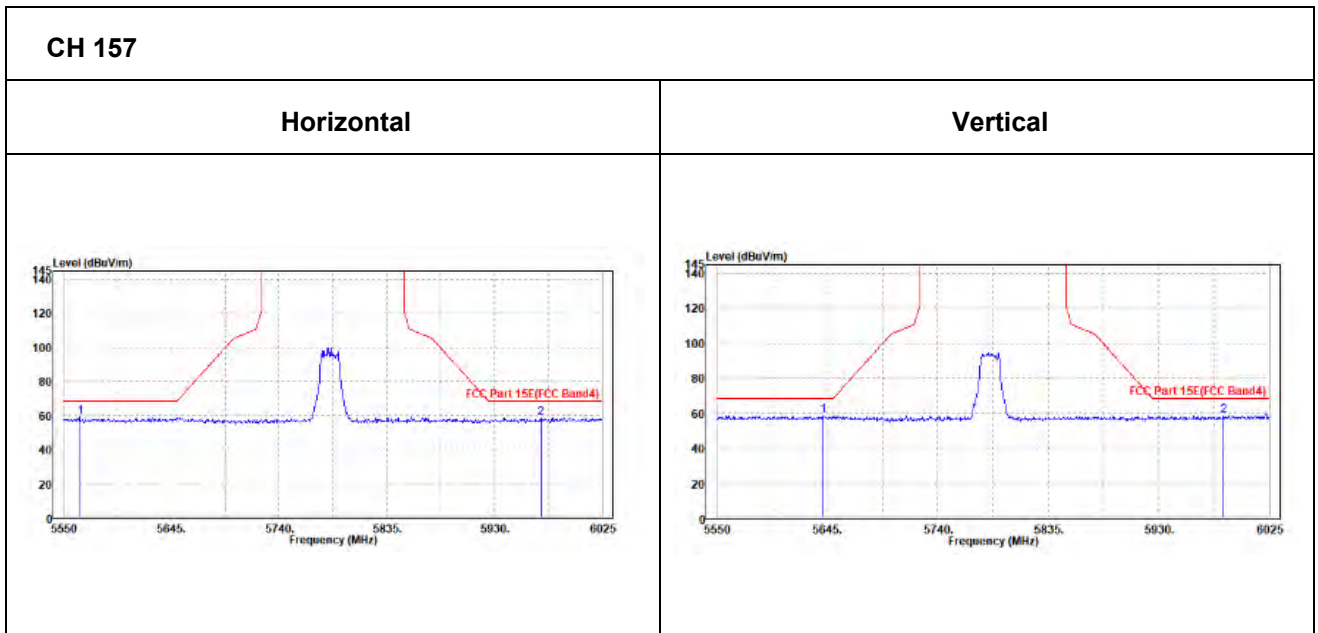
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



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
5564.25	59.16	59.96	68.2	-9.04	34.88	9.82	45.5	200	0	Peak
5971.325	58.69	58.86	68.2	-9.51	35.37	9.96	45.5	200	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
5641.2	58.19	59.07	68.2	-10.01	34.77	9.85	45.5	200	360	Peak
5986.05	58.69	59.04	68.2	-9.51	35.18	9.97	45.5	200	360	Peak





CHANNEL	TX Channel 165	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
5825	101.16	101.56	/	/	35.19	9.91	45.5	200	175	Peak
5825	94.5	94.9	/	/	35.19	9.91	45.5	200	175	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	94.41	95.01	/	/	34.99	9.91	45.5	200	45	Peak
5825	88.57	89.17	/	/	34.99	9.91	45.5	200	45	Average

REMARKS:

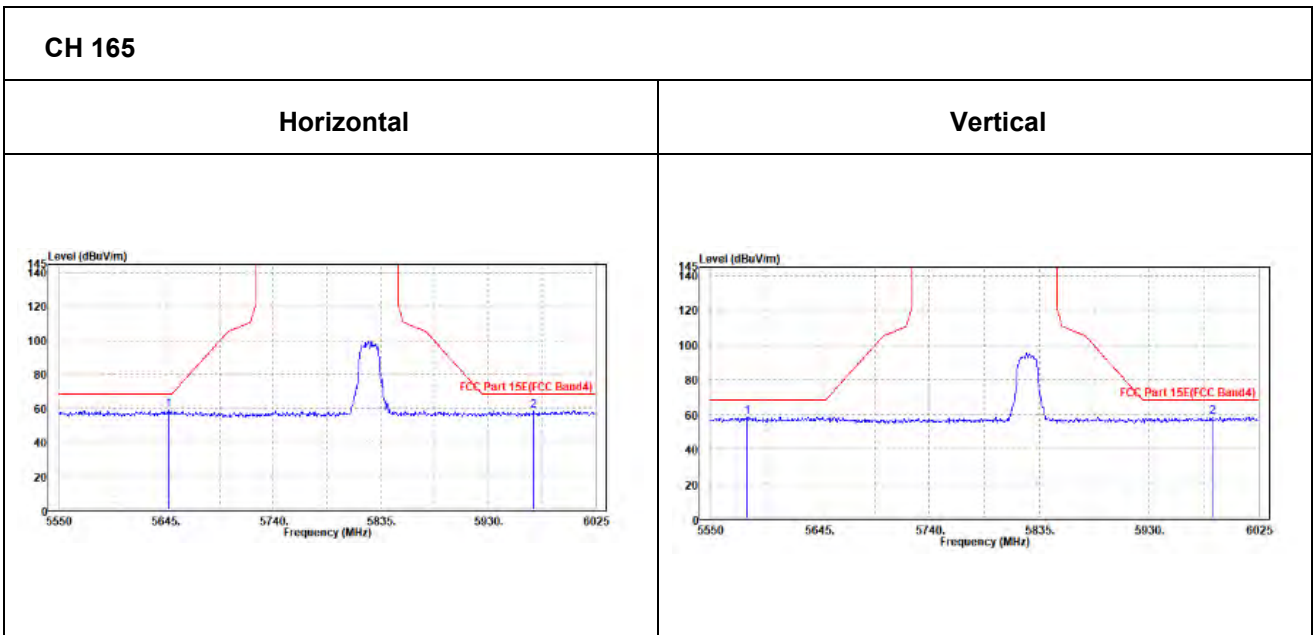
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



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
5647.375	59.01	59.68	68.2	-9.19	34.98	9.85	45.5	200	360	Peak
5970.375	58.18	58.36	68.2	-10.02	35.36	9.96	45.5	200	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
5581.825	58.44	59.41	68.2	-9.76	34.7	9.83	45.5	200	0	Peak
5984.625	58.29	58.65	68.2	-9.91	35.18	9.96	45.5	200	0	Peak





802.11n (20MHz)

CHANNEL	TX Channel 149	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
5745	103.16	103.69	/	/	35.09	9.88	45.5	200	175	Peak
5745	94.45	94.98	/	/	35.09	9.88	45.5	200	175	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	96.84	97.57	/	/	34.89	9.88	45.5	200	45	Peak
5745	88.74	89.47	/	/	34.89	9.88	45.5	200	45	Average

REMARKS:

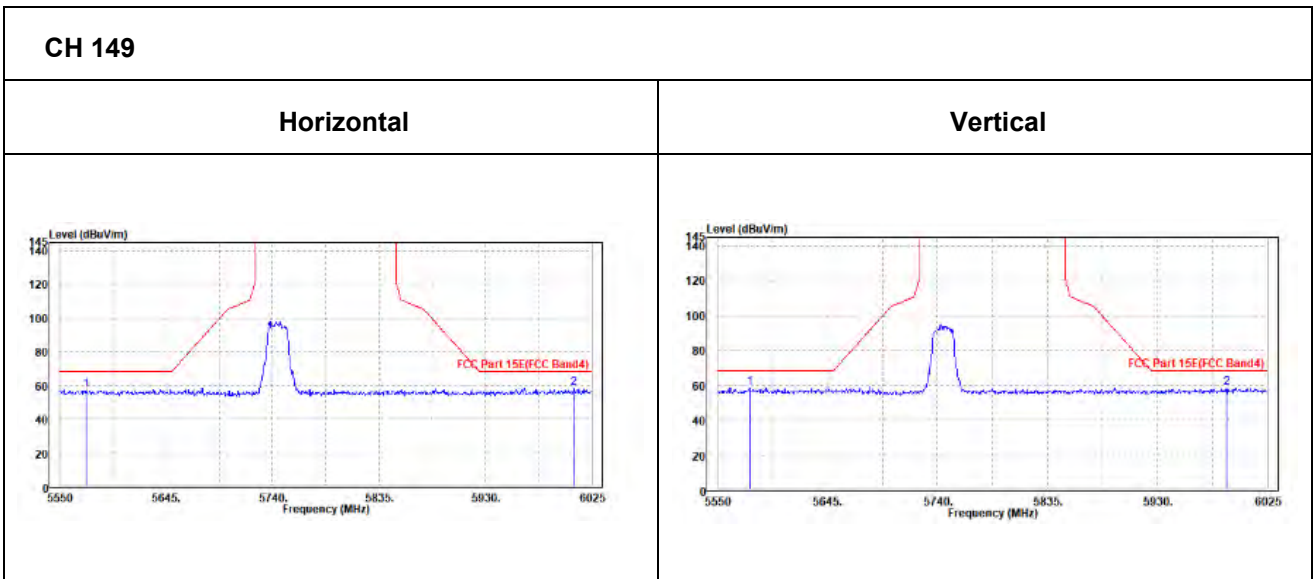
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



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
5573.75	57.45	58.23	68.2	-10.75	34.89	9.83	45.5	200	0	Peak
6009.325	58.39	58.51	68.2	-9.81	35.4	9.98	45.5	200	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
5577.55	58.47	59.45	68.2	-9.73	34.69	9.83	45.5	200	360	Peak
5989.85	58.54	58.88	68.2	-9.66	35.19	9.97	45.5	200	360	Peak





CHANNEL	TX Channel 157	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
5785	100.88	101.34	/	/	35.14	9.9	45.5	200	175	Peak
5785	93.99	94.45	/	/	35.14	9.9	45.5	200	175	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	97.14	97.8	/	/	34.94	9.9	45.5	200	40	Peak
5785	89.78	90.44	/	/	34.94	9.9	45.5	200	40	Average

REMARKS:

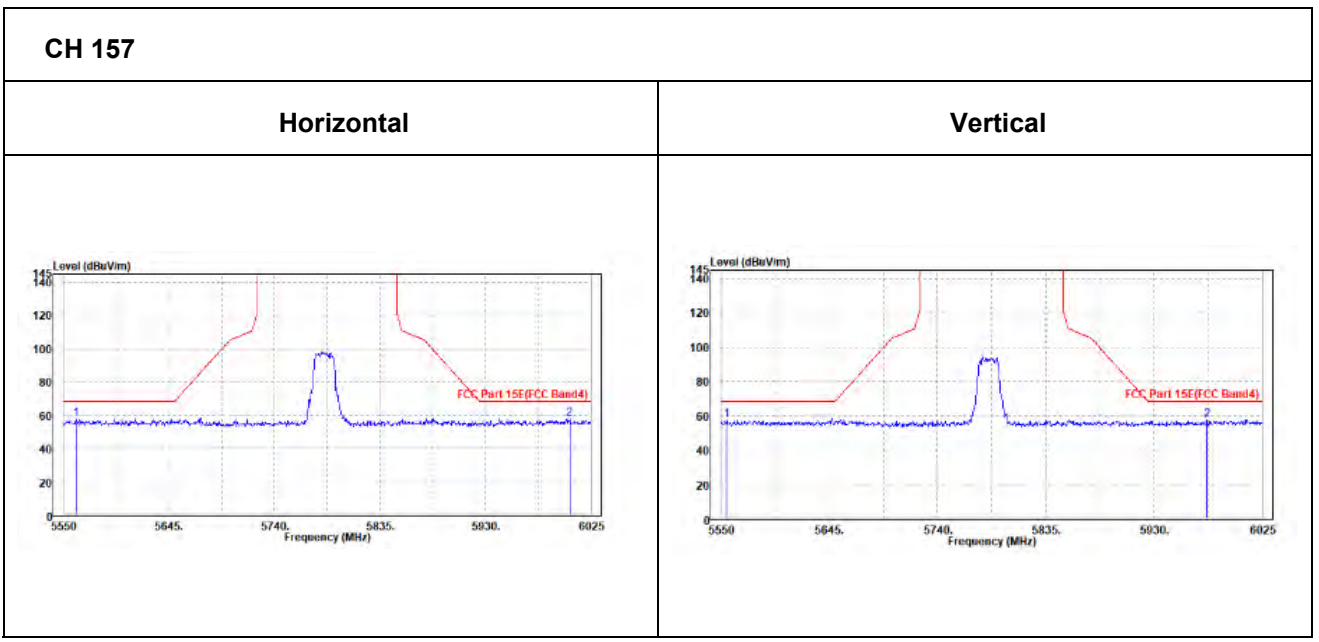
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



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
5560.925	58.07	58.88	68.2	-10.13	34.87	9.82	45.5	200	360	Peak
6006	57.74	57.87	68.2	-10.46	35.4	9.97	45.5	200	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
5554.75	57.4	58.41	68.2	-10.8	34.67	9.82	45.5	200	0	Peak
5976.55	57.38	57.75	68.2	-10.82	35.17	9.96	45.5	200	0	Peak





CHANNEL	TX Channel 165	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
5825	100.89	101.29	/	/	35.19	9.91	45.5	200	175	Peak
5825	93.3	93.7	/	/	35.19	9.91	45.5	200	175	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	96.09	96.69	/	/	34.99	9.91	45.5	200	40	Peak
5825	88.86	89.46	/	/	34.99	9.91	45.5	200	40	Average

REMARKS:

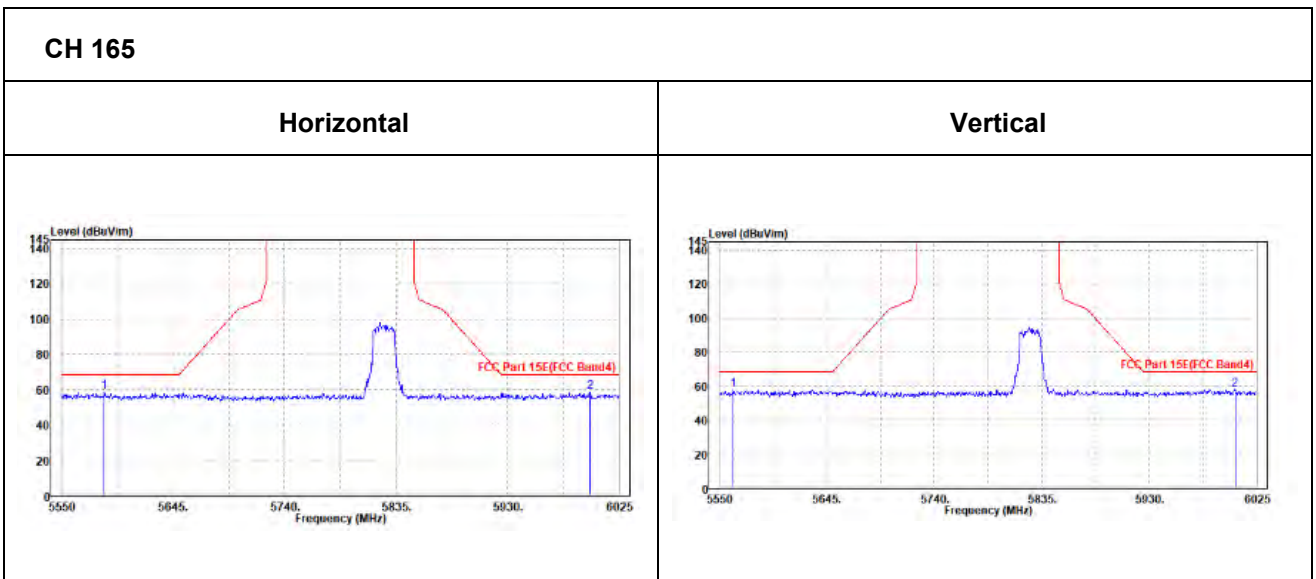
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



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
5586.1	58.51	59.28	68.2	-9.69	34.9	9.83	45.5	200	0	Peak
6000.3	58.61	58.74	68.2	-9.59	35.4	9.97	45.5	200	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
5562.35	57.86	58.87	68.2	-10.34	34.67	9.82	45.5	200	360	Peak
6006	57.7	58.02	68.2	-10.5	35.21	9.97	45.5	200	360	Peak





802.11n (40MHz)

CHANNEL	TX Channel 151	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
5755	95.67	96.17	/	/	35.11	9.89	45.5	200	175	Peak
5755	90.97	91.47	/	/	35.11	9.89	45.5	200	175	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	93.02	93.72	/	/	34.91	9.89	45.5	200	40	Peak
5755	87.91	88.61	/	/	34.91	9.89	45.5	200	40	Average

REMARKS:

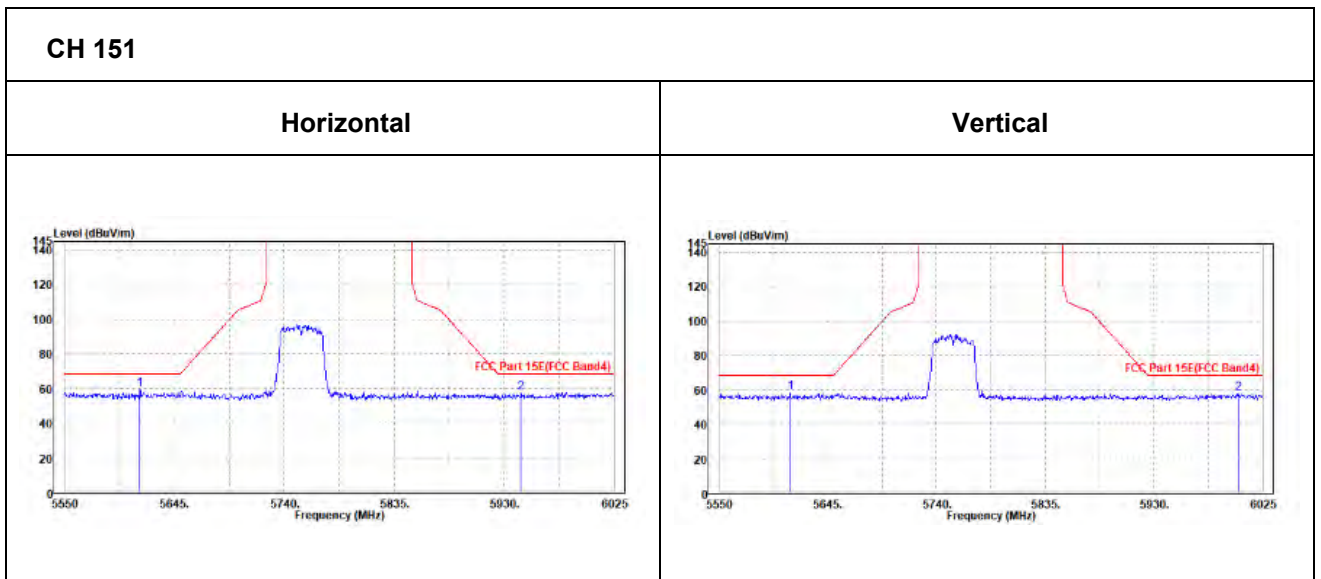
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5755MHz: Fundamental frequency.



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
5615.075	59.32	60.04	68.2	-8.88	34.94	9.84	45.5	200	360	Peak
5944.725	57.49	57.71	68.2	-10.71	35.33	9.95	45.5	200	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	58.28	59.21	68.2	-9.92	34.73	9.84	45.5	200	0	Peak
6003.625	58.08	58.41	68.2	-10.12	35.2	9.97	45.5	200	0	Peak





CHANNEL	TX Channel 159	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
5795	96.77	97.22	/	/	35.15	9.9	45.5	200	175	Peak
5795	90.88	91.33	/	/	35.15	9.9	45.5	200	175	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	92.7	93.35	/	/	34.95	9.9	45.5	200	40	Peak
5795	87.07	87.72	/	/	34.95	9.9	45.5	200	40	Average

REMARKS:

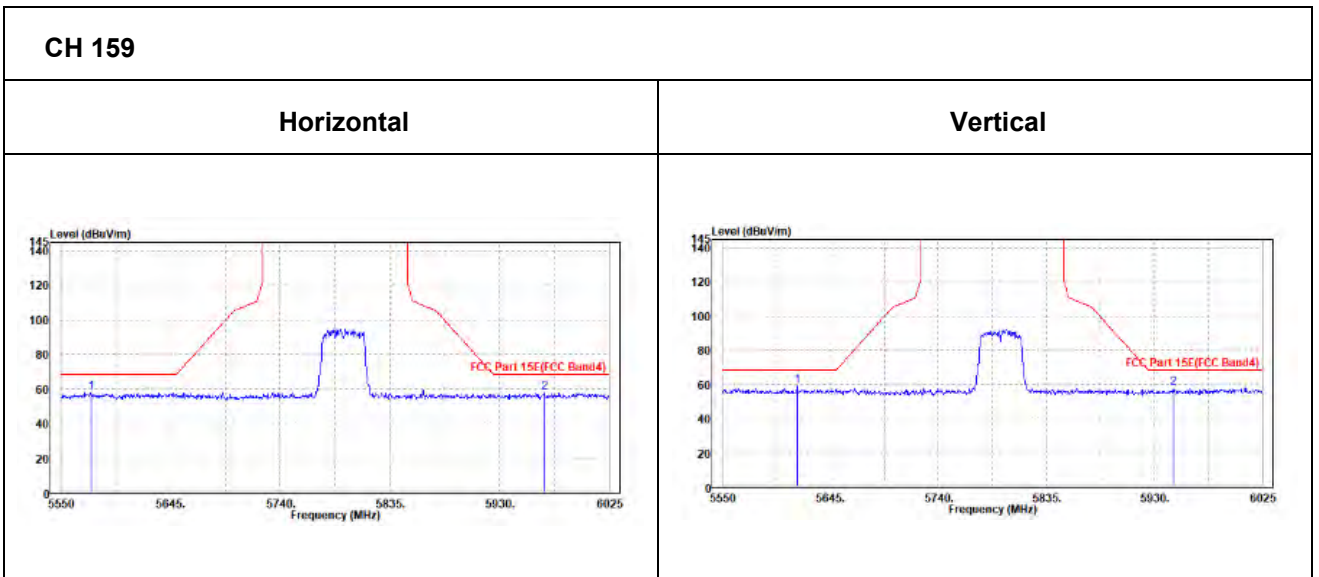
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5795MHz: Fundamental frequency.



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
5575.65	58.13	58.91	68.2	-10.07	34.89	9.83	45.5	200	0	Peak
5968.95	58.13	58.31	68.2	-10.07	35.36	9.96	45.5	200	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
5615.55	58.99	59.91	68.2	-9.21	34.74	9.84	45.5	200	360	Peak
5946.625	57.87	58.28	68.2	-10.33	35.14	9.95	45.5	200	360	Peak





802.11ac (20MHz)

CHANNEL	TX Channel 149	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
5745	98.28	98.81	/	/	35.09	9.88	45.5	200	175	Peak
5745	91.73	92.26	/	/	35.09	9.88	45.5	200	175	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	94.8	95.53	/	/	34.89	9.88	45.5	200	40	Peak
5745	87.28	88.01	/	/	34.89	9.88	45.5	200	40	Average

REMARKS:

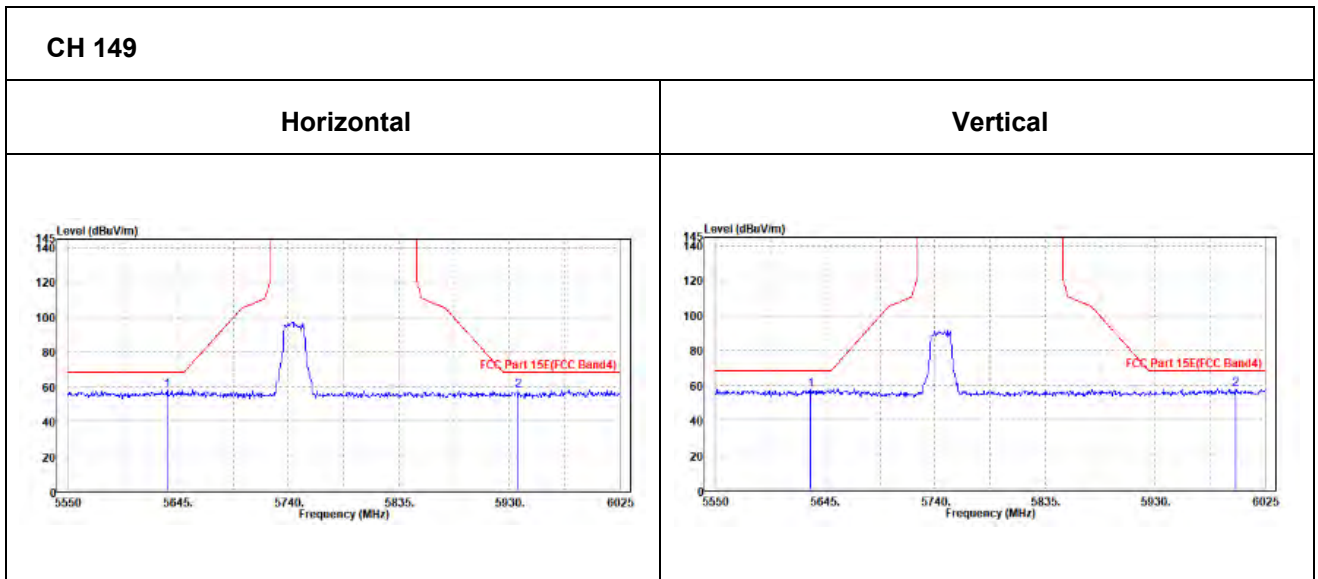
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.



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
5635.5	57.82	58.51	68.2	-10.38	34.96	9.85	45.5	200	360	Peak
5937.6	57.85	58.07	68.2	-10.35	35.33	9.95	45.5	200	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
5632.175	57.4	58.3	68.2	-10.8	34.76	9.84	45.5	200	0	Peak
5999.825	58.06	58.39	68.2	-10.14	35.2	9.97	45.5	200	0	Peak





CHANNEL	TX Channel 157	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
5785	98.97	99.43	/	/	35.14	9.9	45.5	200	175	Peak
5785	92.2	92.66	/	/	35.14	9.9	45.5	200	175	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	94.19	94.85	/	/	34.94	9.9	45.5	200	40	Peak
5785	87.75	88.41	/	/	34.94	9.9	45.5	200	40	Average

REMARKS:

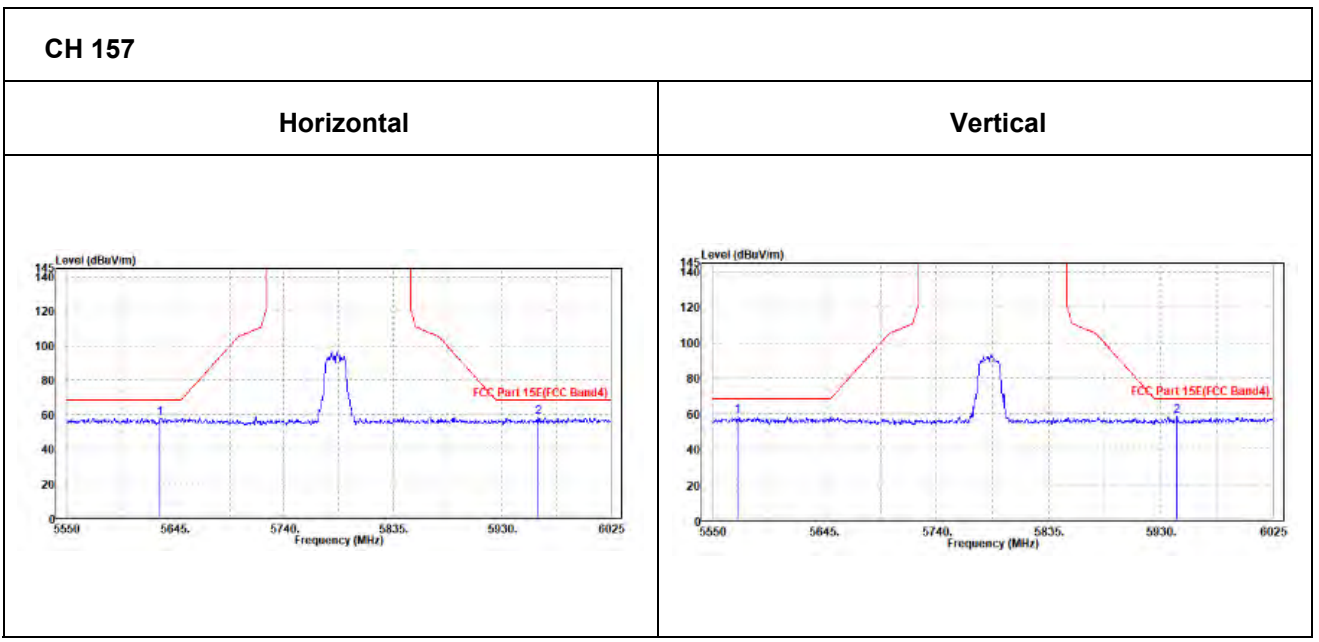
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



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
5631.225	57.7	58.4	68.2	-10.5	34.96	9.84	45.5	200	0	Peak
5961.825	58.22	58.41	68.2	-9.98	35.35	9.96	45.5	200	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
5570.9	58.18	59.17	68.2	-10.02	34.69	9.82	45.5	200	360	Peak
5943.775	58.35	58.77	68.2	-9.85	35.13	9.95	45.5	200	360	Peak





CHANNEL	TX Channel 165	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
5825	98.5	98.9	/	/	35.19	9.91	45.5	200	175	Peak
5825	91.23	91.63	/	/	35.19	9.91	45.5	200	175	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	93.55	94.15	/	/	34.99	9.91	45.5	200	40	Peak
5825	86.38	86.98	/	/	34.99	9.91	45.5	200	40	Average

REMARKS:

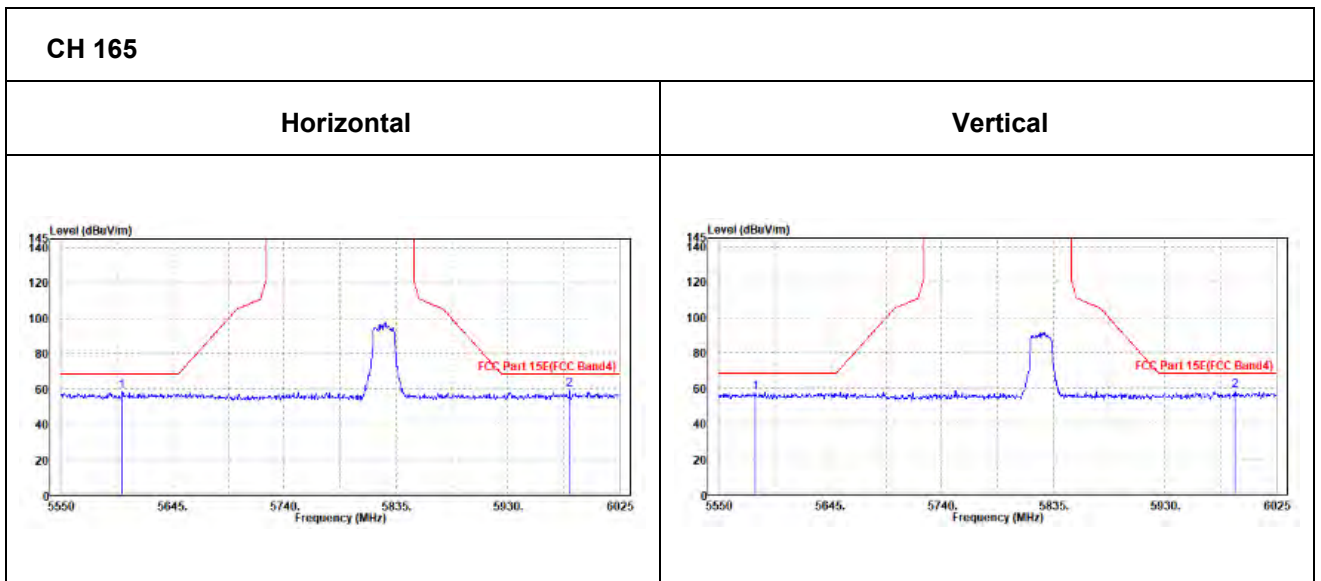
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



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
5601.775	58.62	59.37	68.2	-9.58	34.92	9.83	45.5	200	360	Peak
5982.725	59.4	59.56	68.2	-8.8	35.38	9.96	45.5	200	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
5581.35	57.18	58.15	68.2	-11.02	34.7	9.83	45.5	200	0	Peak
5989.85	58.6	58.94	68.2	-9.6	35.19	9.97	45.5	200	0	Peak





802.11ac (40MHz)

CHANNEL	TX Channel 151	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
5755	93.94	94.44	/	/	35.11	9.89	45.5	200	175	Peak
5755	89.47	89.97	/	/	35.11	9.89	45.5	200	175	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	91.31	92.01	/	/	34.91	9.89	45.5	200	40	Peak
5755	86.09	86.79	/	/	34.91	9.89	45.5	200	40	Average

REMARKS:

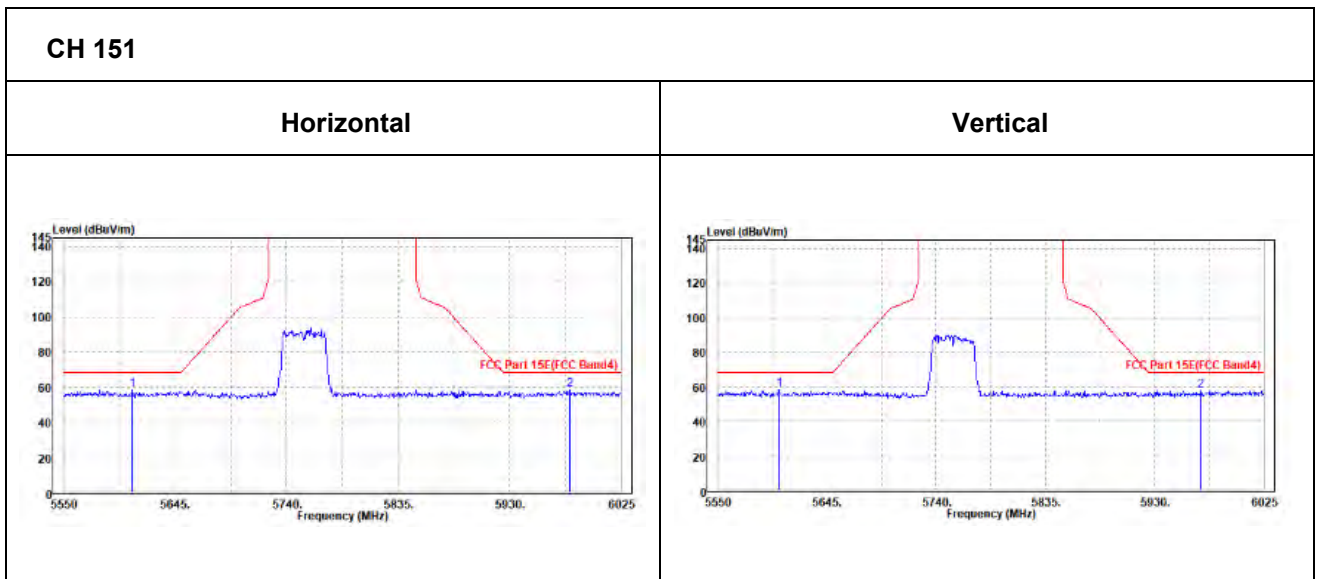
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5755MHz: Fundamental frequency.



OBE 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
5607.95	58.67	59.4	68.2	-9.53	34.93	9.84	45.5	200	0	Peak
5981.775	58.46	58.62	68.2	-9.74	35.38	9.96	45.5	200	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
5603.2	58.5	59.44	68.2	-9.7	34.72	9.84	45.5	200	360	Peak
5970.375	57.9	58.28	68.2	-10.3	35.16	9.96	45.5	200	360	Peak





CHANNEL	TX Channel 159	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
5795	93.28	93.73	/	/	35.15	9.9	45.5	200	175	Peak
5795	88.58	89.03	/	/	35.15	9.9	45.5	200	175	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	90.16	90.81	/	/	34.95	9.9	45.5	200	40	Peak
5795	84.66	85.31	/	/	34.95	9.9	45.5	200	40	Average

REMARKS:

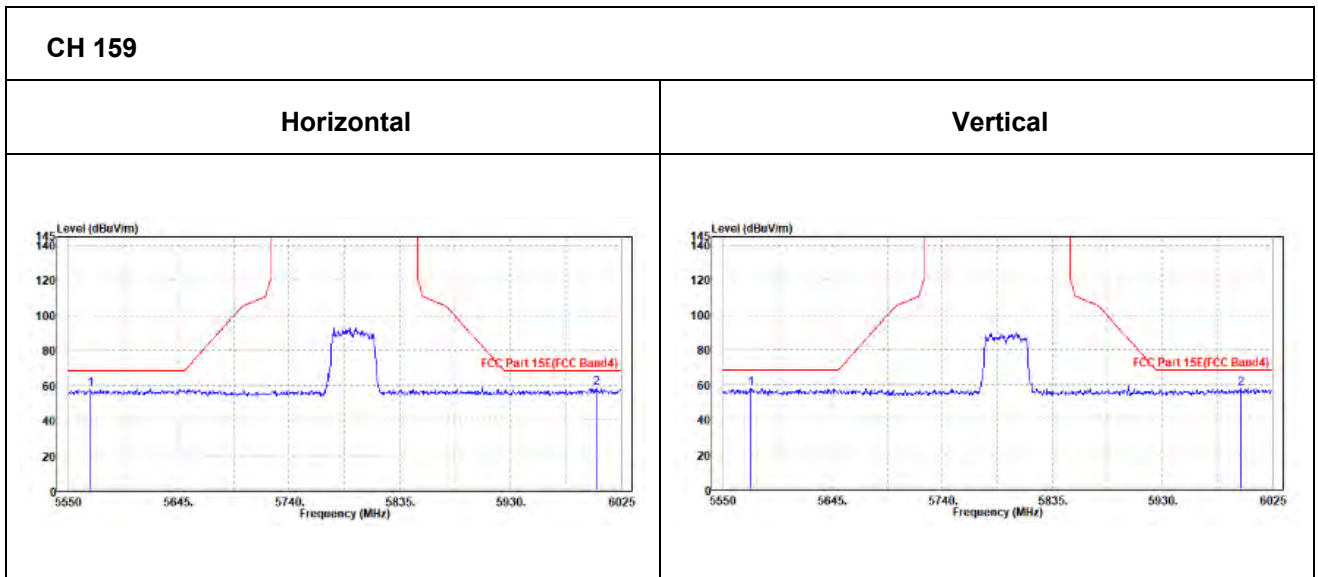
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5795MHz: Fundamental frequency.



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
5569.475	58.06	58.86	68.2	-10.14	34.88	9.82	45.5	200	360	Peak
6003.625	58.31	58.44	68.2	-9.89	35.4	9.97	45.5	200	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
5574.7	57.73	58.71	68.2	-10.47	34.69	9.83	45.5	200	0	Peak
5997.925	58.12	58.45	68.2	-10.08	35.2	9.97	45.5	200	0	Peak





802.11ac (80MHz)

CHANNEL	TX Channel 155	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
5775	90.31	90.79	/	/	35.13	9.89	45.5	200	175	Peak
5775	86.3	86.78	/	/	35.13	9.89	45.5	200	175	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	86.82	87.5	/	/	34.93	9.89	45.5	200	40	Peak
5775	81.91	82.59	/	/	34.93	9.89	45.5	200	40	Average

REMARKS:

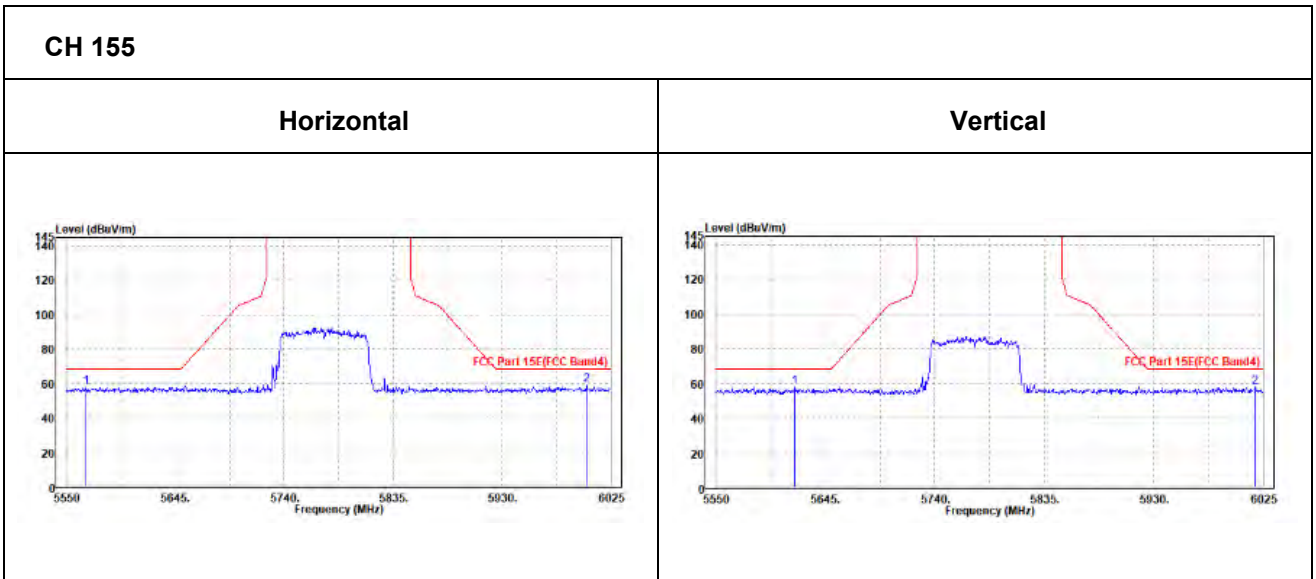
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5775MHz: Fundamental frequency.



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	
5567.1	57.8	58.6	68.2	-10.4	34.88	9.82	45.5	200	360	Peak	
6004.1	58.76	58.89	68.2	-9.44	35.4	9.97	45.5	200	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	
5618.4	58.01	58.93	68.2	-10.19	34.74	9.84	45.5	200	0	Peak	
6018.35	57.84	58.13	68.2	-10.36	35.22	9.98	45.49	200	0	Peak	





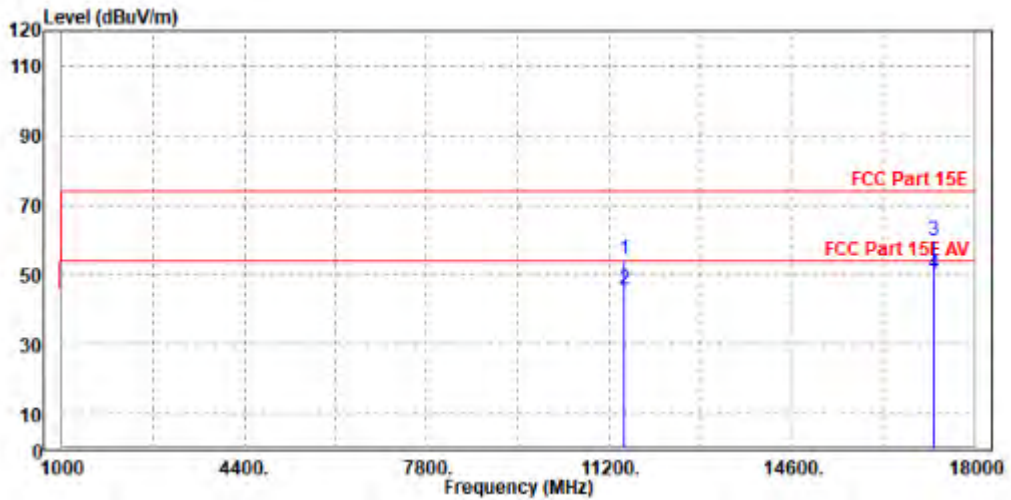
802.11a

Worst case harmonic:

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

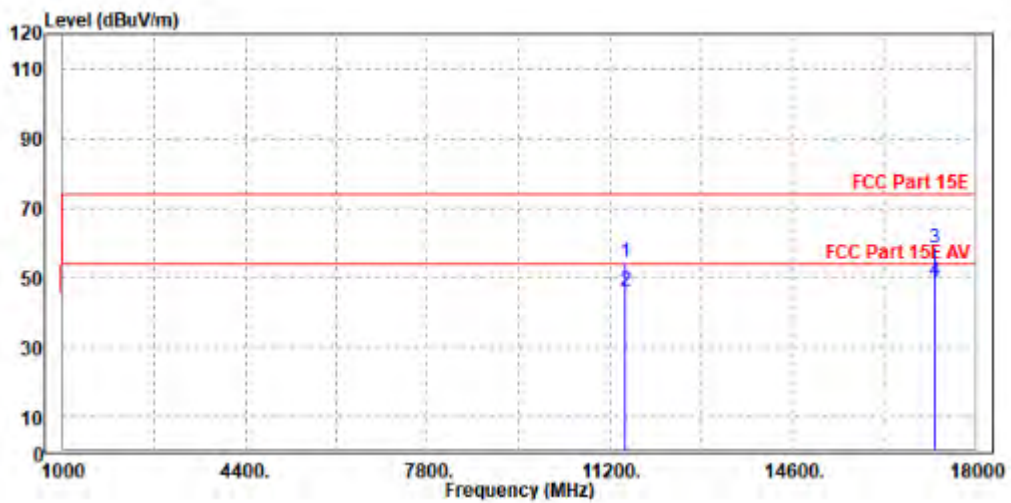
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11490.000	54.48	45.46	74.00	-19.52	9.02	Peak	Horizontal
2	11490.000	45.77	36.75	54.00	-8.23	9.02	Average	Horizontal
3	PK17235.000	59.59	41.37	74.00	-14.41	18.22	Peak	Horizontal
4	PP17235.000	50.26	32.04	54.00	-3.74	18.22	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	11489.000	54.25	44.64	74.00	-19.75	9.61	Peak	Vertical
2	11489.000	45.93	36.32	54.00	-8.07	9.61	Average	Vertical
3	PK17235.000	58.49	41.69	74.00	-15.51	16.80	Peak	Vertical
4	PP17235.000	49.00	32.20	54.00	-5.00	16.80	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5745MHz: 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. 14,23	Feb. 13,24
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 03,23	Mar. 02,24

NOTE:

1. The test was performed in 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) was not recorded.

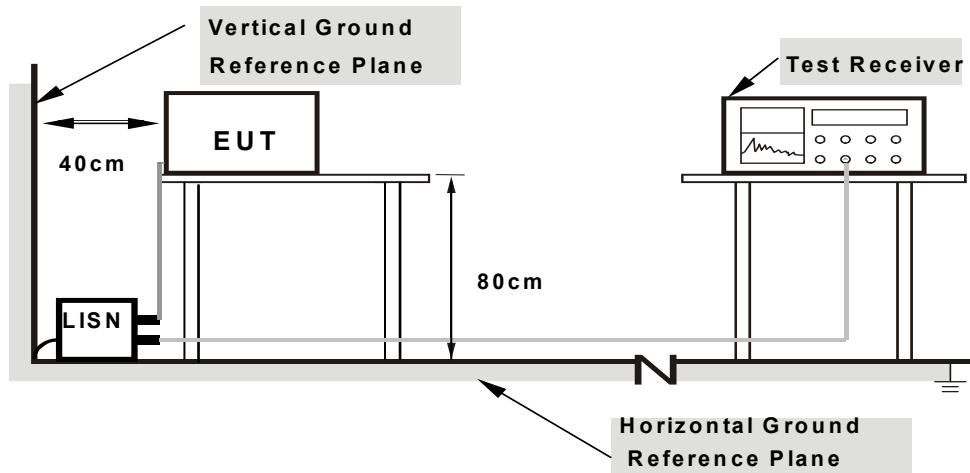
NOTE: All modes of operation were investigated and the worst-case emissions are reported.



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

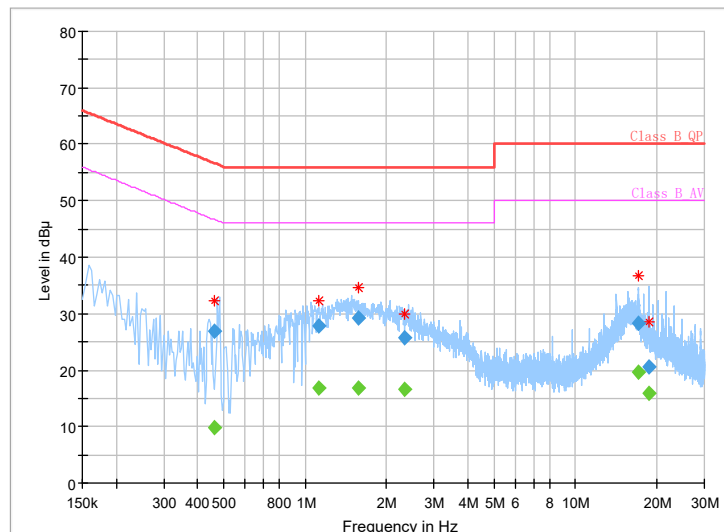
CONDUCTED WORST-CASE DATA:

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)
0.464000	---	9.84	46.62	36.78	L1	ON	9.7
0.464000	26.94	---	56.62	29.68	L1	ON	9.7
1.124000	---	16.91	46.00	29.09	L1	ON	9.7
1.124000	27.93	---	56.00	28.07	L1	ON	9.7
1.568000	---	16.91	46.00	29.09	L1	ON	9.7
1.568000	29.27	---	56.00	26.73	L1	ON	9.7
2.340000	---	16.57	46.00	29.43	L1	ON	9.7
2.340000	25.64	---	56.00	30.36	L1	ON	9.7
17.180000	---	19.72	50.00	30.28	L1	ON	9.8
17.180000	28.32	---	60.00	31.68	L1	ON	9.8
18.676000	---	15.93	50.00	34.07	L1	ON	9.8
18.676000	20.70	---	60.00	39.30	L1	ON	9.8

- 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



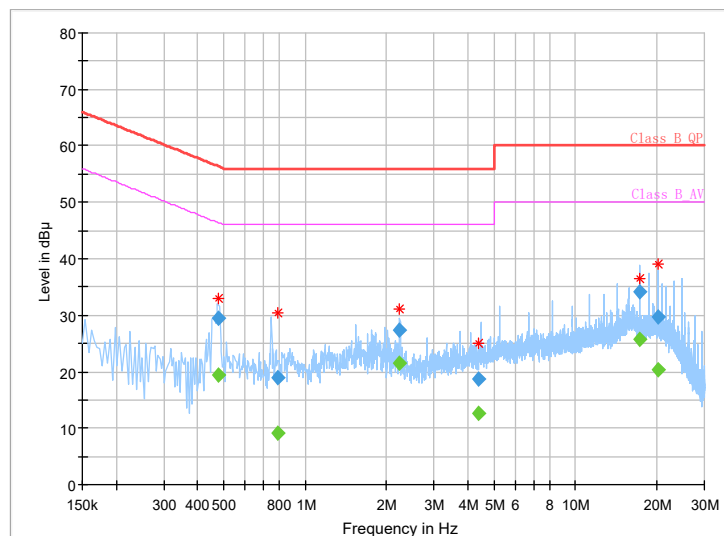


Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.480000	---	19.34	46.34	27.00	N	ON	9.7
0.480000	29.38	---	56.34	26.96	N	ON	9.7
0.794000	---	9.03	46.00	36.97	N	ON	9.7
0.794000	18.99	---	56.00	37.01	N	ON	9.7
2.244000	---	21.51	46.00	24.49	N	ON	9.8
2.244000	27.26	---	56.00	28.74	N	ON	9.8
4.384000	---	12.59	46.00	33.41	N	ON	9.8
4.384000	18.73	---	56.00	37.27	N	ON	9.8
17.208000	---	25.70	50.00	24.30	N	ON	9.9
17.208000	34.04	---	60.00	25.96	N	ON	9.9
20.208000	---	20.29	50.00	29.71	N	ON	9.9
20.208000	29.69	---	60.00	30.31	N	ON	9.9

- 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





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 \leq 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)

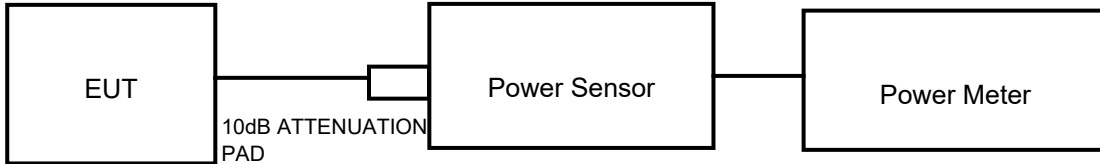
NOTE: Where B is the 26dB emission bandwidth in MHz.



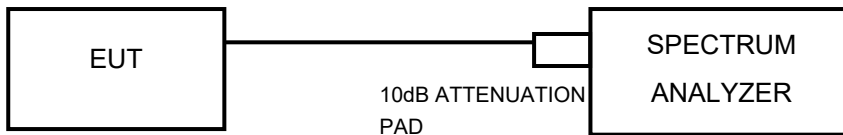
3.3.2 TEST SETUP

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. 14,23	Feb. 13,24
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 17,23	Feb. 16,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.14,22	May.13,23
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 14,23	Feb. 13,24

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 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 $\geq 3 \cdot$ 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.



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3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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



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3.3.7 TEST RESULTS

Please Refer to Appendix Of this test report.

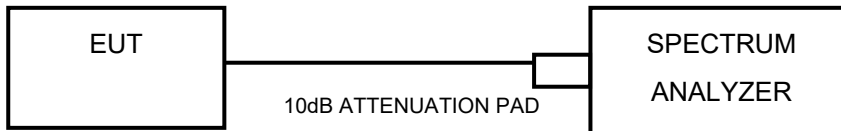


3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

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 of 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 \geq 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 \geq 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 $10 \log(500\text{kHz}/\text{RBW})$ to the test result. $10 \log(500\text{kHz}/300\text{KHZ}) = 2.22\text{dBm}$
- 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.



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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 signalling 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 of 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



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4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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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	23.960	5168.400	5192.360	---	---
		5200	23.480	5188.720	5212.200	---	---
		5240	23.680	5228.040	5251.720	---	---
		5260	23.000	5248.440	5271.440	---	---
		5300	23.400	5288.800	5312.200	---	---
		5320	22.960	5308.800	5331.760	---	---
		5500	22.200	5488.880	5511.080	---	---
		5580	21.760	5568.920	5590.680	---	---
		5700	22.600	5688.760	5711.360	---	---
		5720	22.400	5708.760	5731.160	---	---
		5720_UNII-2C	16.24	5708.760	5725	---	---
		5720_UNII-3	6.16	5725	5731.160	---	---
		5745	21.880	5733.800	5755.680	---	---
		5785	21.920	5774.040	5795.960	---	---
		5825	22.920	5813.920	5836.840	---	---
11N20SISO	Ant1	5180	22.800	5168.680	5191.480	---	---
		5200	23.760	5188.000	5211.760	---	---
		5240	23.040	5228.640	5251.680	---	---
		5260	22.720	5248.680	5271.400	---	---
		5300	23.840	5288.280	5312.120	---	---
		5320	21.720	5309.160	5330.880	---	---
		5500	23.040	5488.640	5511.680	---	---
		5580	22.760	5568.560	5591.320	---	---
		5700	21.920	5688.920	5710.840	---	---
		5720	22.560	5708.480	5731.040	---	---
		5720_UNII-2C	16.52	5708.480	5725	---	---
		5720_UNII-3	6.04	5725	5731.040	---	---
		5745	23.680	5733.160	5756.840	---	---
		5785	22.800	5773.440	5796.240	---	---



11N20SISO	Ant1	5825	21.920	5814.000	5835.920	---	---
11N40SISO	Ant1	5190	42.320	5169.280	5211.600	---	---
		5230	40.960	5209.760	5250.720	---	---
		5270	41.360	5249.120	5290.480	---	---
		5310	41.280	5289.200	5330.480	---	---
		5510	41.120	5489.520	5530.640	---	---
		5550	41.680	5529.040	5570.720	---	---
		5670	41.520	5649.200	5690.720	---	---
		5710	41.760	5688.880	5730.640	---	---
		5710_UNII-2C	36.12	5688.880	5725	---	---
		5710_UNII-3	5.64	5725	5730.640	---	---
		5755	40.960	5734.200	5775.160	---	---
		5795	42.640	5773.720	5816.360	---	---
11AC20SISO	Ant1	5180	23.440	5167.920	5191.360	---	---
		5200	22.840	5188.760	5211.600	---	---
		5240	23.880	5228.160	5252.040	---	---
		5260	24.080	5247.960	5272.040	---	---
		5300	22.160	5289.080	5311.240	---	---
		5320	22.680	5308.840	5331.520	---	---
		5500	23.560	5488.520	5512.080	---	---
		5580	22.760	5568.800	5591.560	---	---
		5700	22.880	5688.280	5711.160	---	---
		5720	22.440	5708.800	5731.240	---	---
		5720_UNII-2C	16.2	5708.800	5725	---	---
		5720_UNII-3	6.24	5725	5731.240	---	---
		5745	22.920	5733.480	5756.400	---	---
		5785	23.120	5773.200	5796.320	---	---
		5825	23.320	5813.000	5836.320	---	---
11AC40SISO	Ant1	5190	40.880	5169.840	5210.720	---	---
		5230	40.640	5209.760	5250.400	---	---
		5270	41.440	5249.280	5290.720	---	---
		5310	42.640	5288.640	5331.280	---	---
		5510	42.960	5488.640	5531.600	---	---
		5550	41.600	5529.440	5571.040	---	---



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11AC40SISO	Ant1	5670	42.480	5648.880	5691.360	---	---
		5710	41.600	5689.120	5730.720	---	---
		5710_UNII-2C	35.88	5689.120	5725	---	---
		5710_UNII-3	5.72	5725	5730.720	---	---
		5755	41.840	5733.800	5775.640	---	---
		5795	41.120	5774.200	5815.320	---	---
11AC80SISO	Ant1	5210	82.720	5169.200	5251.920	---	---
		5290	82.240	5249.360	5331.600	---	---
		5530	81.760	5488.880	5570.640	---	---
		5610	82.080	5568.880	5650.960	---	---
		5690	92.320	5641.360	5733.680	---	---
		5690_UNII-2C	83.64	5641.360	5725	---	---
		5690_UNII-3	8.68	5725	5733.680	---	---
		5775	90.400	5728.440	5818.840	---	---

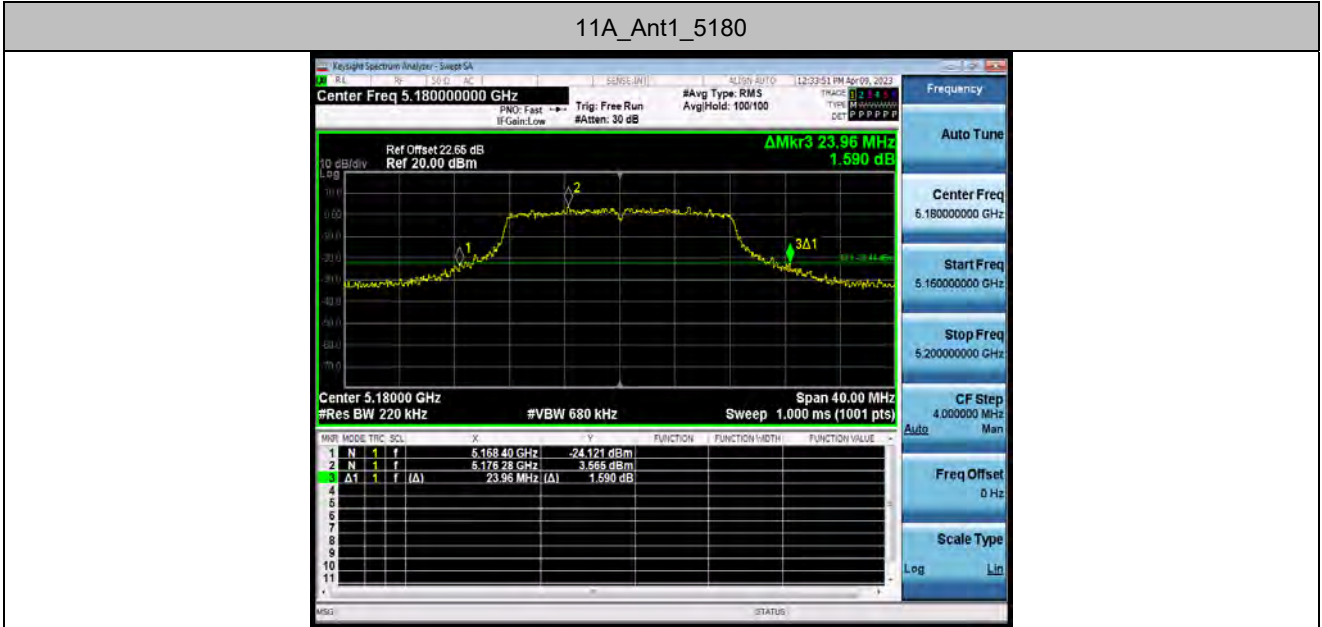


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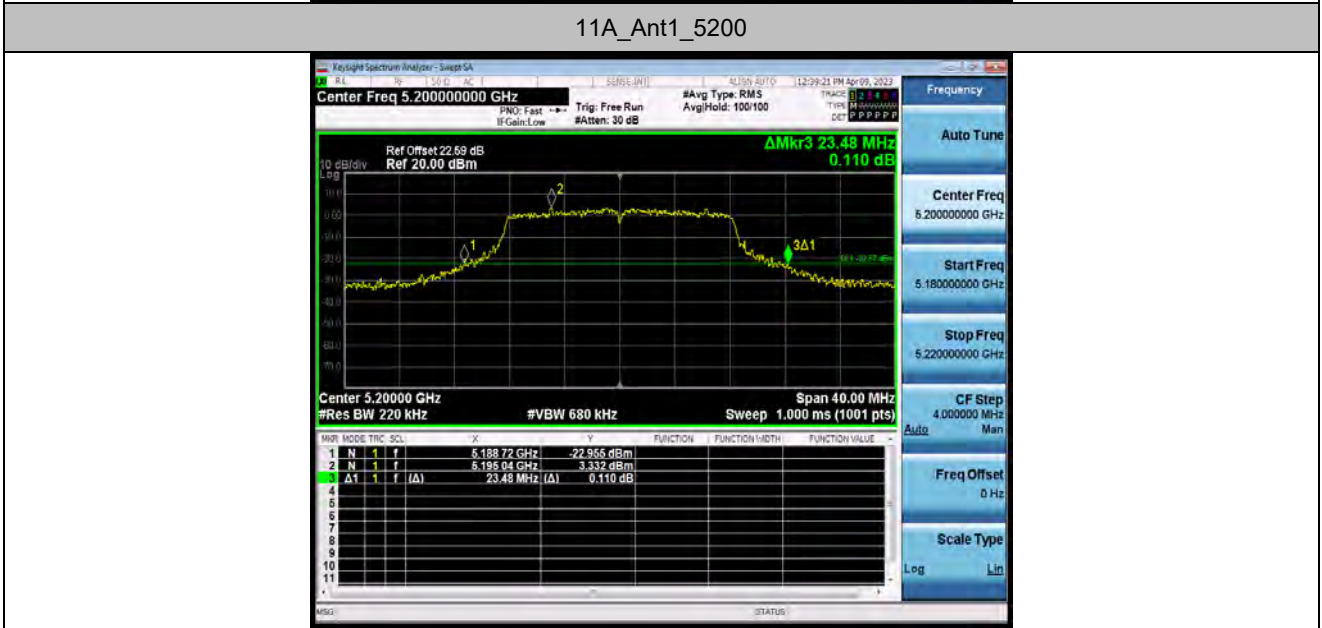
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TEST GRAPHS

11A_Ant1_5180



11A_Ant1_5200



11A_Ant1_5240



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Test Report No.: W7L-P23030025RF03



11A_Ant1_5260



11A_Ant1_5300



BUREAU VERITAS

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11A_Ant1_5320



11A_Ant1_5500



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11A_Ant1_5580



11A_Ant1_5700



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11A_Ant1_5720



11A_Ant1_5745



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5785



11A_Ant1_5825

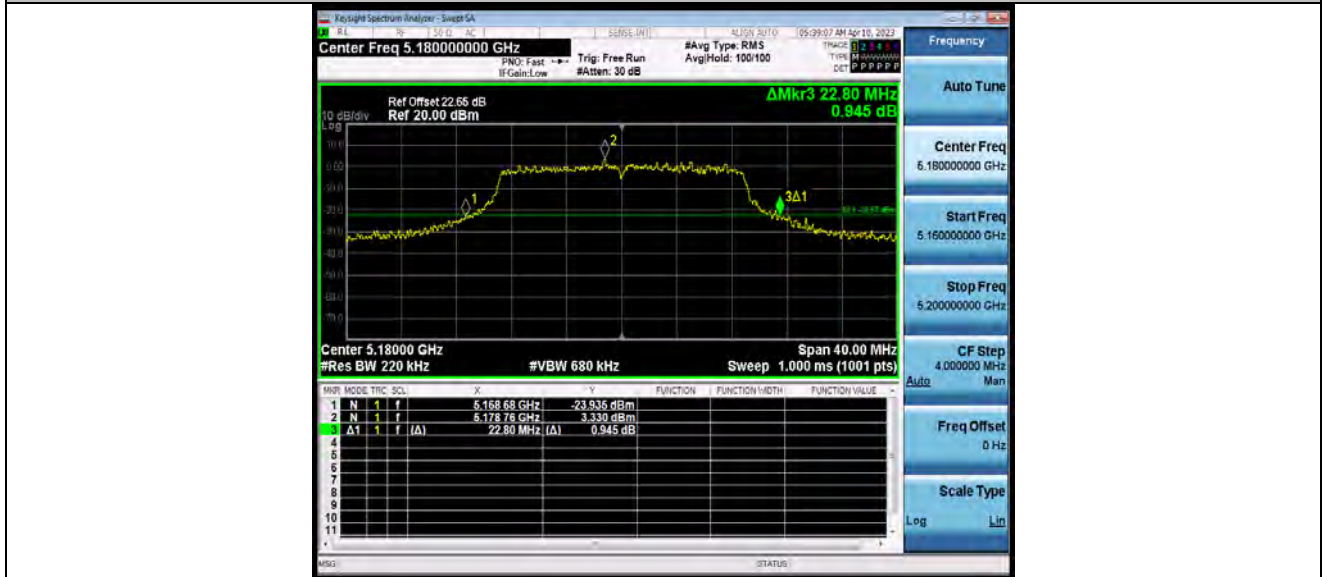


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Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5240



11N20SISO_Ant1_5260



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5300



11N20SISO_Ant1_5320

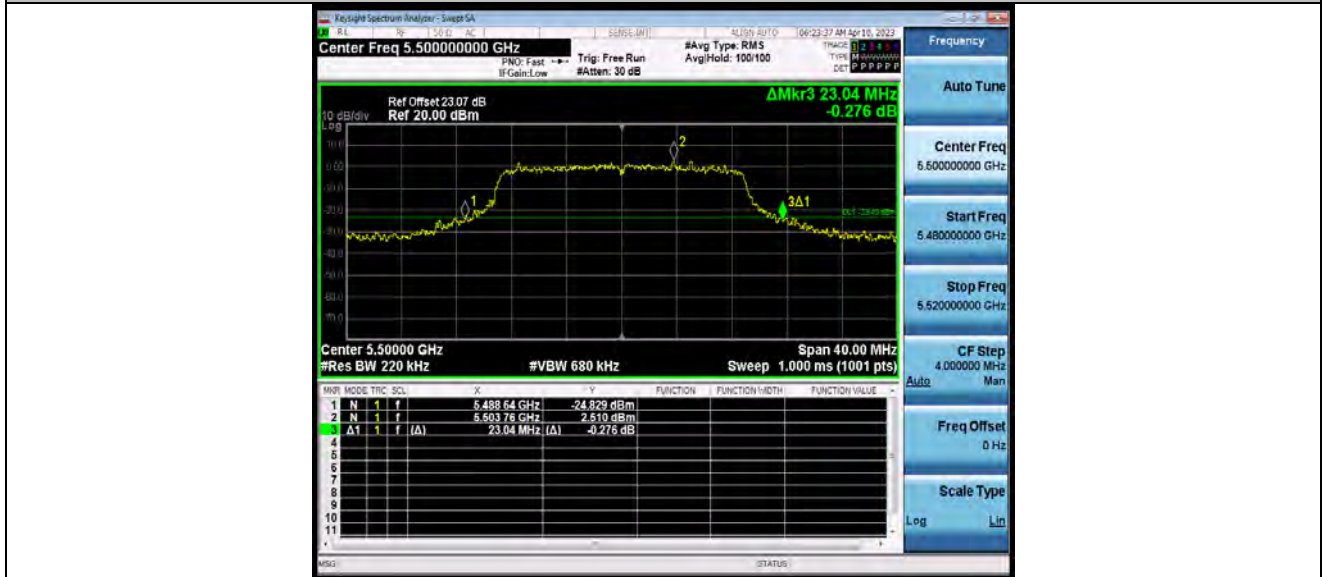


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Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5500



11N20SISO_Ant1_5580



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5700



11N20SISO_Ant1_5720



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5825

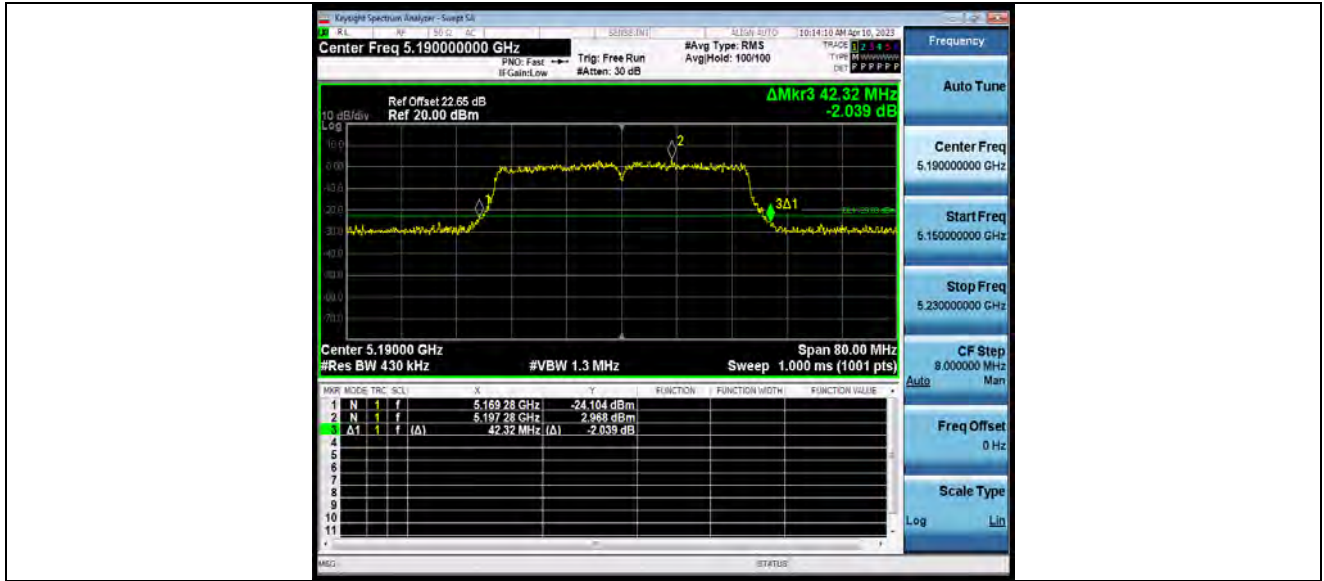


11N40SISO_Ant1_5190



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5230



11N40SISO_Ant1_5270



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5310



11N40SISO_Ant1_5510



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5550



11N40SISO_Ant1_5670



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5710



11N40SISO_Ant1_5755

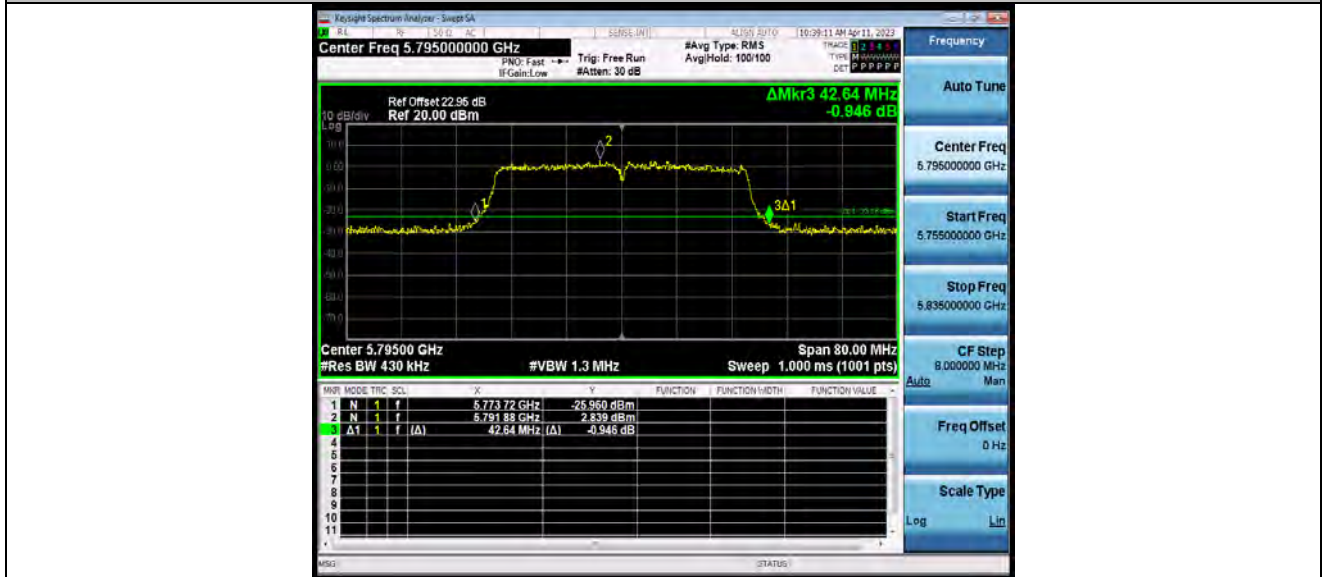


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Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5795



11AC20SISO_Ant1_5180



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5260



11AC20SISO_Ant1_5300



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5320



11AC20SISO_Ant1_5500

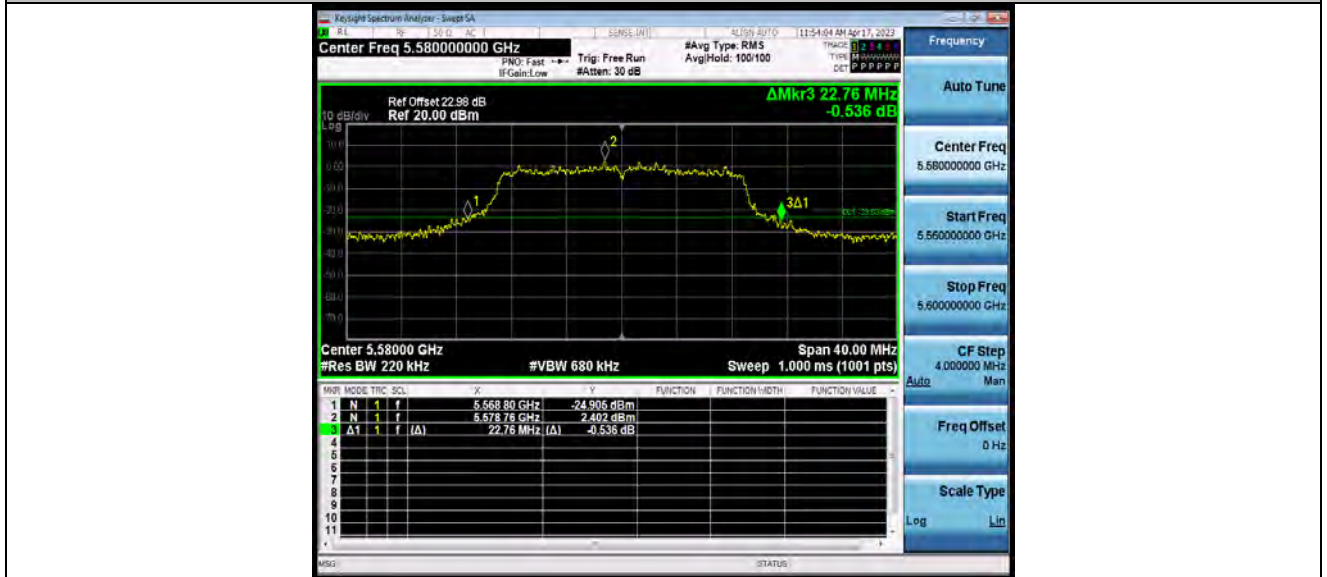


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20ISO_Ant1_5580



11AC20ISO_Ant1_5700



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5720



11AC20SISO_Ant1_5745



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20ISO_Ant1_5785



11AC20ISO_Ant1_5825



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40ISO_Ant1_5190



11AC40ISO_Ant1_5230



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5270



11AC40SISO_Ant1_5310

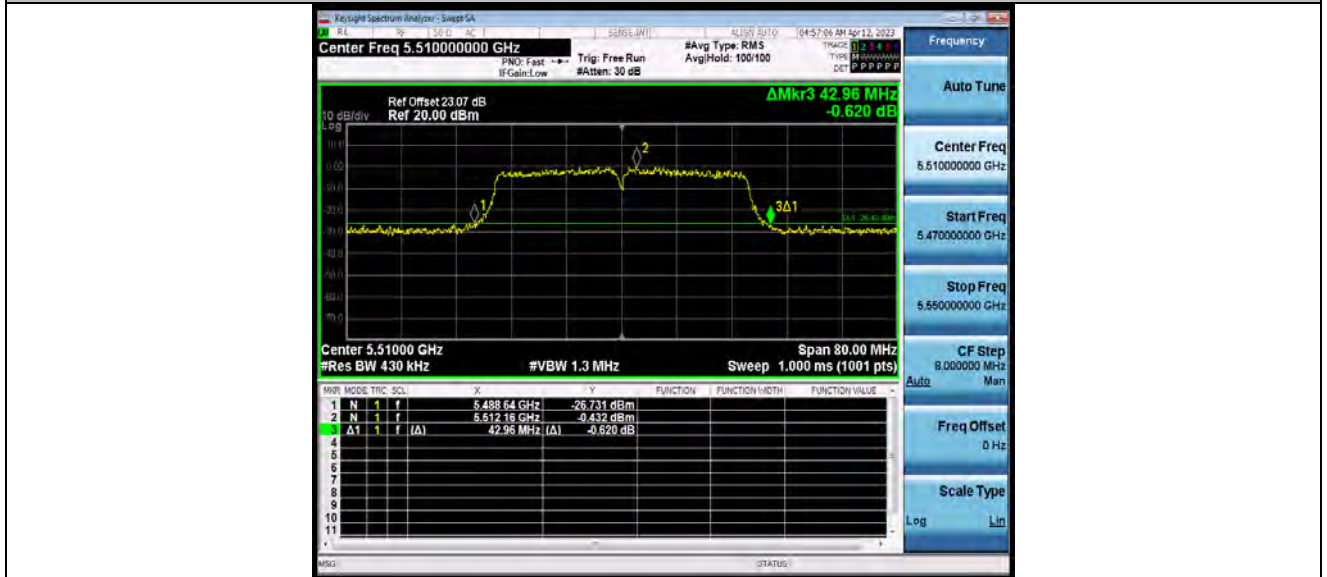


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5510



11AC40SISO_Ant1_5550

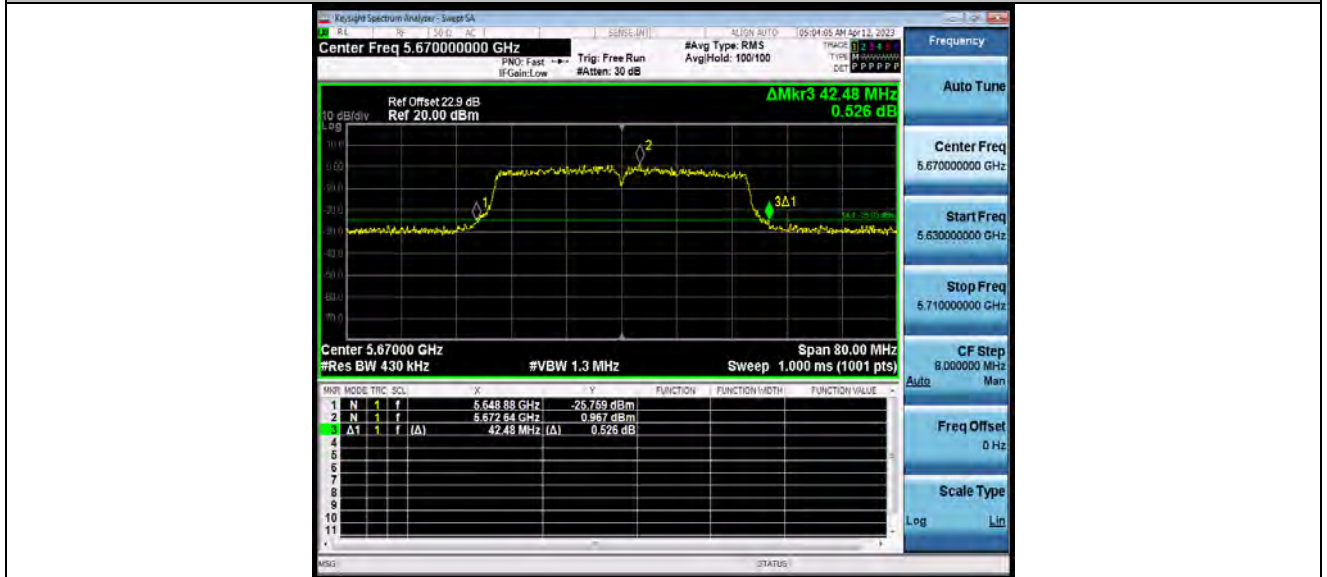


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5670

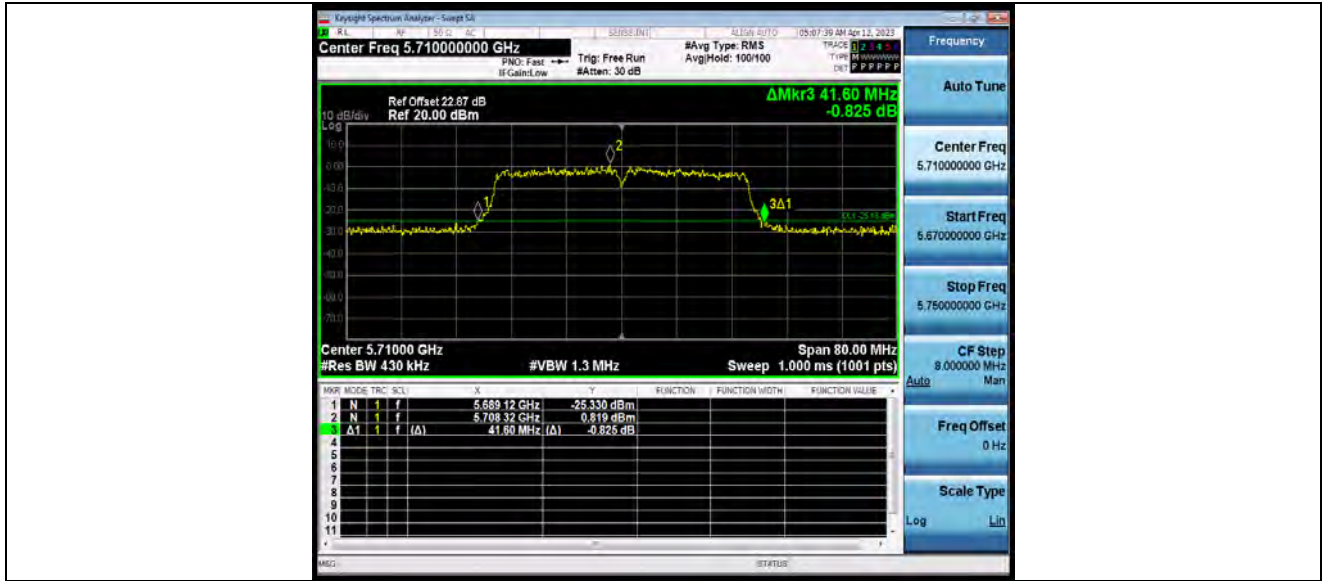


11AC40SISO_Ant1_5710

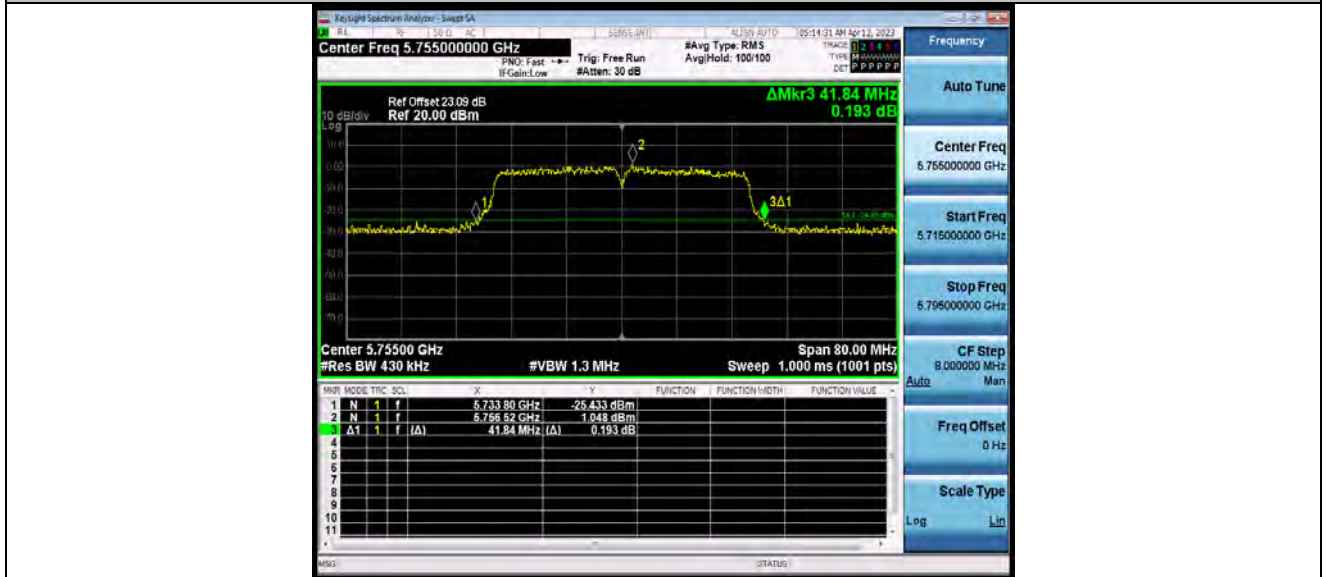


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5290



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5530



11AC80SISO_Ant1_5610



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5690



11AC80SISO_Ant1_5775



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



OCCUPIED CHANNEL BANDWIDTH

TEST RESULT

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict	
11A	Ant1	5180	17.052	5171.5289	5188.5809	---	---	
		5200	17.011	5191.5575	5208.5685	---	---	
		5240	16.995	5231.5446	5248.5396	---	---	
		5260	17.047	5251.5218	5268.5688	---	---	
		5300	17.036	5291.5187	5308.5547	---	---	
		5320	17.008	5311.5298	5328.5378	---	---	
		5500	16.984	5491.5175	5508.5015	---	---	
		5580	16.980	5571.4846	5588.4646	---	---	
		5700	17.027	5691.4880	5708.5150	---	---	
		5720	17.019	5711.5025	5728.5215	---	---	
		5720_UNII-2C	13.498	5711.5025	5725	5728.5215	---	---
		5720_UNII-3	3.521	5725	5728.5215	---	---	
		5745	17.024	5736.4876	5753.5116	---	---	
		5785	17.038	5776.4538	5793.4918	---	---	
5825	17.037	5816.4907	5833.5277	---	---			
11N20SISO	Ant1	5180	18.190	5170.9434	5189.1334	---	---	
		5200	18.158	5190.9558	5209.1138	---	---	
		5240	18.108	5231.0144	5249.1224	---	---	



11N20SISO	Ant1	5260	18.172	5250.9574	5269.1294	---	---
		5300	18.114	5290.9583	5309.0723	---	---
		5320	18.179	5310.9447	5329.1237	---	---
		5500	18.125	5490.9540	5509.0790	---	---
		5580	18.134	5570.9200	5589.0540	---	---
		5700	18.065	5690.9641	5709.0291	---	---
		5720	18.133	5710.9538	5729.0868	---	---
		5720_UNII-2C	14.046	5710.9538	5725	---	---
		5720_UNII-3	4.087	5725	5729.0868	---	---
		5745	18.105	5735.9509	5754.0559	---	---
		5785	18.069	5775.9547	5794.0237	---	---
		5825	18.045	5815.9647	5834.0097	---	---
11N40SISO	Ant1	5190	36.696	5171.7228	5208.4188	---	---
		5230	36.597	5211.8361	5248.4331	---	---
		5270	36.620	5251.7779	5288.3979	---	---
		5310	36.546	5291.8033	5328.3493	---	---
		5510	36.615	5491.6984	5528.3134	---	---
		5550	36.620	5531.6767	5568.2967	---	---
		5670	36.606	5651.6481	5688.2541	---	---
		5710	36.674	5691.6491	5728.3231	---	---
		5710_UNII-2C	33.351	5691.6491	5725	---	---
		5710_UNII-3	3.323	5725	5728.3231	---	---
		5755	36.649	5736.6565	5773.3055	---	---
		5795	36.536	5776.6873	5813.2233	---	---
11AC20SISO	Ant1	5180	18.194	5170.9585	5189.1525	---	---
		5200	18.177	5190.9703	5209.1473	---	---
		5240	18.159	5230.9838	5249.1428	---	---
		5260	18.219	5250.9325	5269.1515	---	---
		5300	18.147	5290.9775	5309.1245	---	---
		5320	18.159	5310.9651	5329.1241	---	---
		5500	18.133	5490.9490	5509.0820	---	---
		5580	18.159	5570.9021	5589.0611	---	---
		5700	18.133	5690.8976	5709.0306	---	---
		5720	18.106	5710.9239	5729.0299	---	---



11AC20SISO	Ant1	5720_UNII-2C	14.076	5710.9239	5725	---	---
		5720_UNII-3	4.03	5725	5729.0299	---	---
		5745	18.180	5735.8861	5754.0661	---	---
		5785	18.153	5775.9006	5794.0536	---	---
		5825	18.145	5815.9437	5834.0887	---	---
11AC40SISO	Ant1	5190	36.839	5171.6609	5208.4999	---	---
		5230	36.867	5211.6632	5248.5302	---	---
		5270	36.850	5251.6539	5288.5039	---	---
		5310	36.683	5291.6939	5328.3769	---	---
		5510	36.641	5491.6812	5528.3222	---	---
		5550	36.722	5531.5777	5568.2997	---	---
		5670	36.704	5651.5928	5688.2968	---	---
		5710	36.752	5691.5812	5728.3332	---	---
		5710_UNII-2C	33.419	5691.5812	5725	---	---
		5710_UNII-3	3.333	5725	5728.3332	---	---
		5755	36.797	5736.5509	5773.3479	---	---
		5795	36.776	5776.5298	5813.3058	---	---
11AC80SISO	Ant1	5210	76.170	5172.2397	5248.4097	---	---
		5290	76.186	5252.0832	5328.2692	---	---
		5530	76.165	5491.8689	5568.0339	---	---
		5610	76.190	5571.6800	5647.8700	---	---
		5690	76.924	5651.3388	5728.2628	---	---
		5690_UNII-2C	73.661	5651.3388	5725	---	---
		5690_UNII-3	3.263	5725	5728.2628	---	---
		5775	76.832	5736.3940	5813.2260	---	---

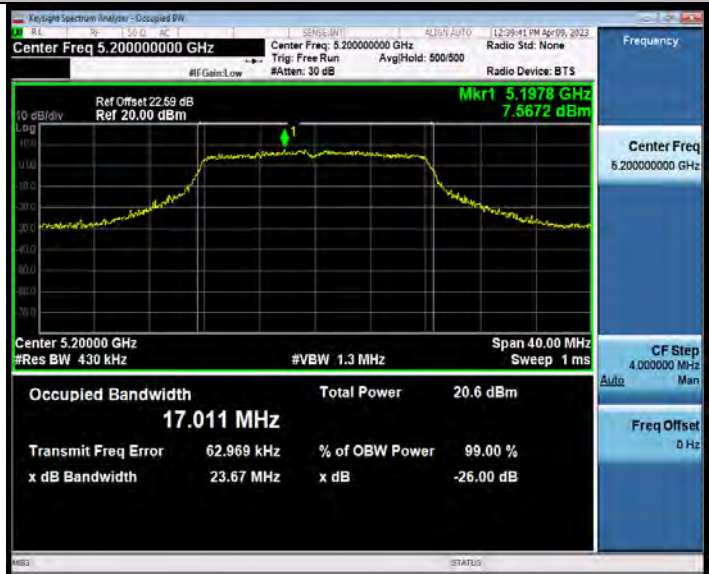


TEST GRAPHS

11A_Ant1_5180



11A_Ant1_5200



11A_Ant1_5240



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5260



11A_Ant1_5300



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5320



11A_Ant1_5500



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5580

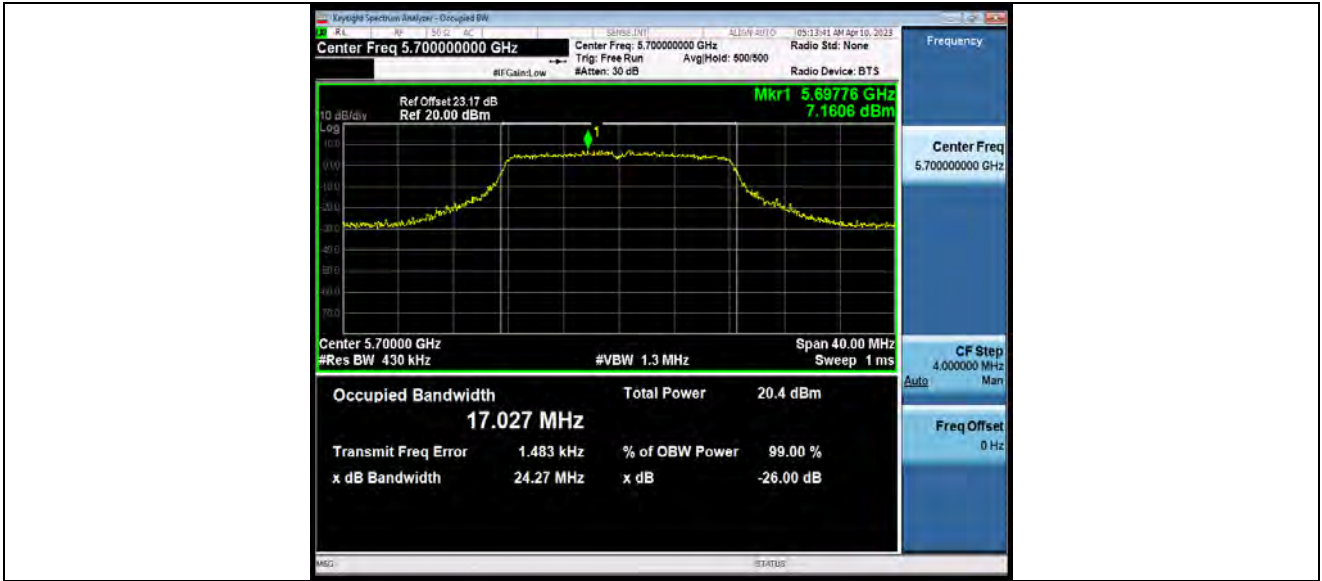


11A_Ant1_5700



BUREAU VERITAS

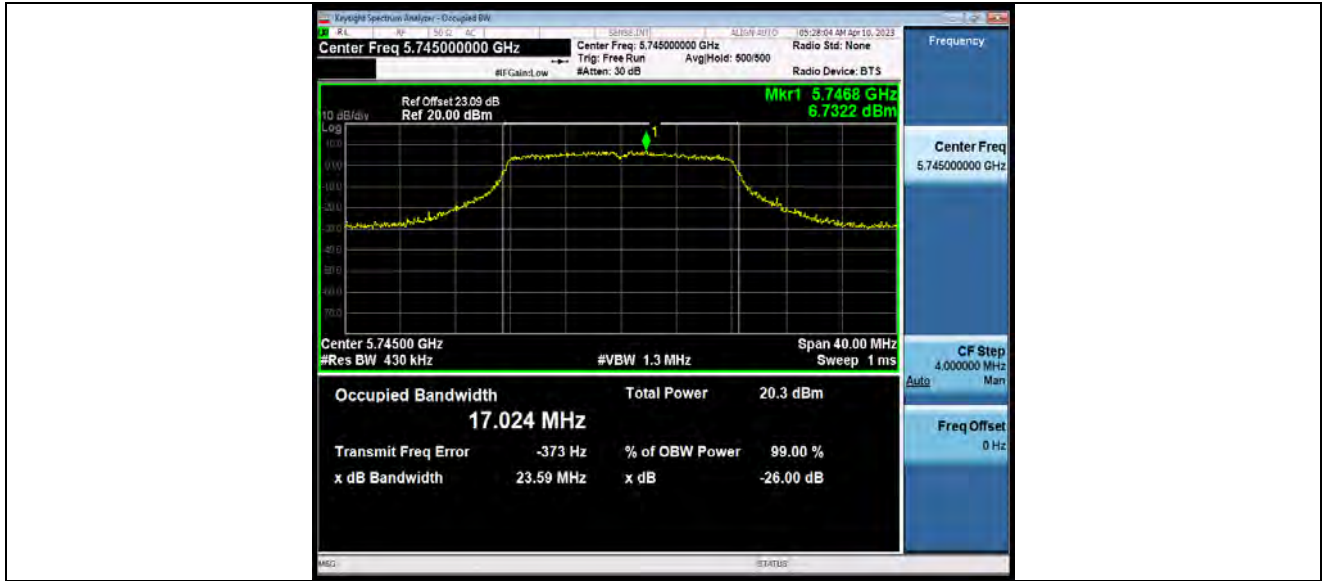
Test Report No.: W7L-P23030025RF03



11A_Ant1_5720



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



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Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



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VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5240



11N20SISO_Ant1_5260



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Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5300



11N20SISO_Ant1_5320



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5500



11N20SISO_Ant1_5580



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5700

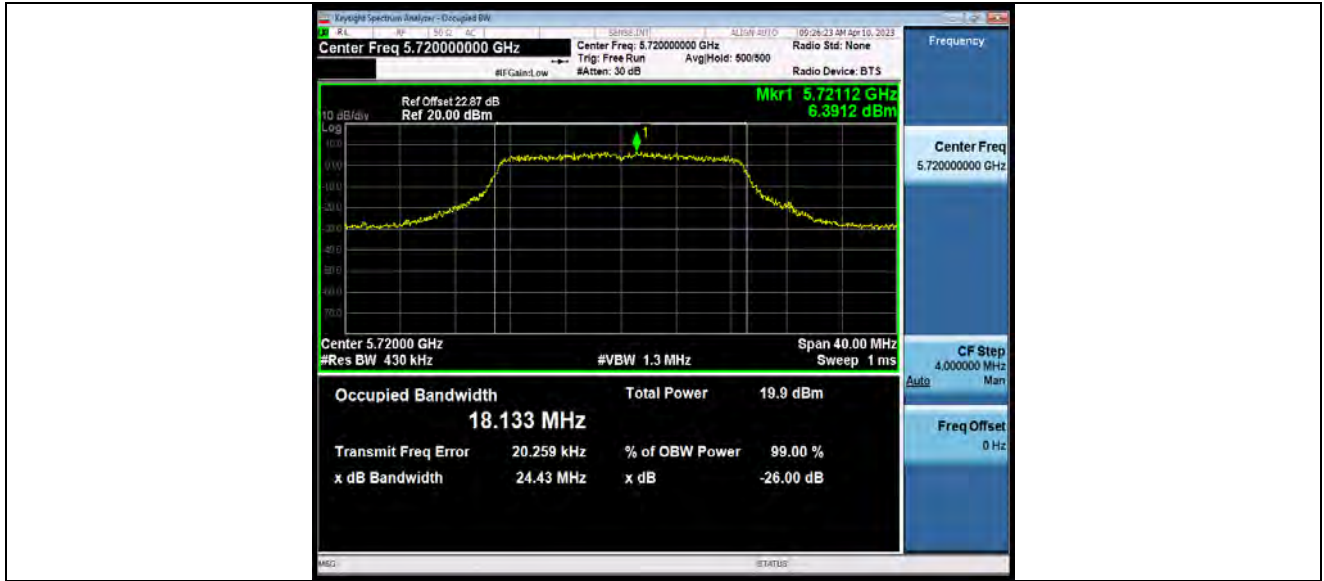


11N20SISO_Ant1_5720



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5825

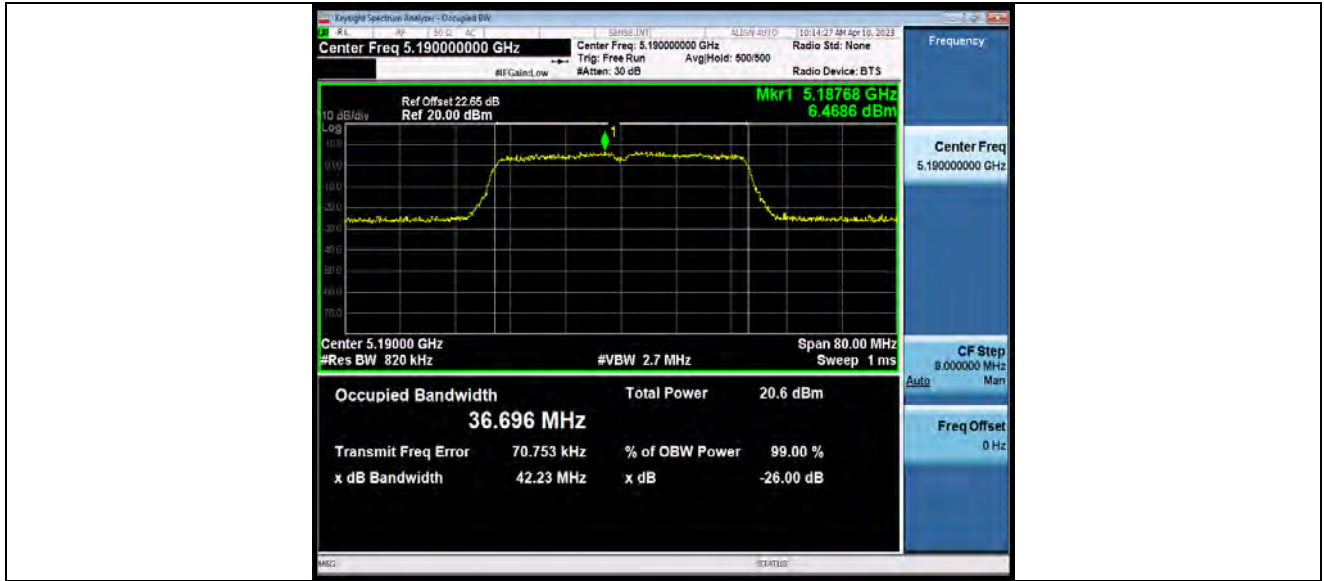


11N40SISO_Ant1_5190



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5230

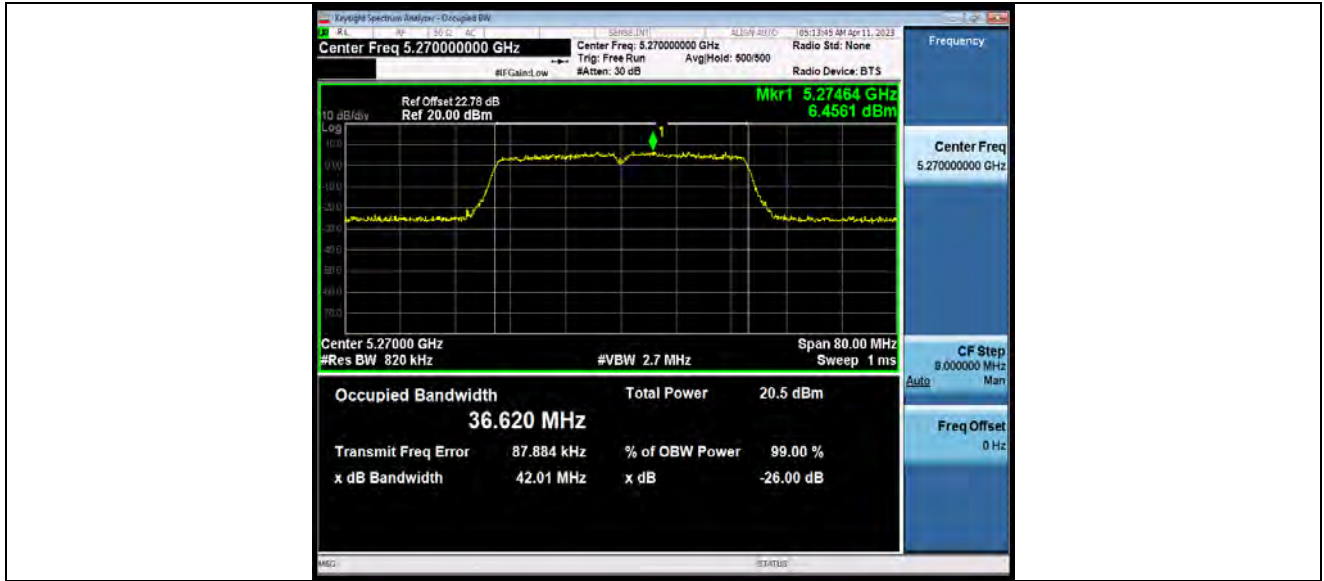


11N40SISO_Ant1_5270



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5310



11N40SISO_Ant1_5510



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5550



11N40SISO_Ant1_5670



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5710

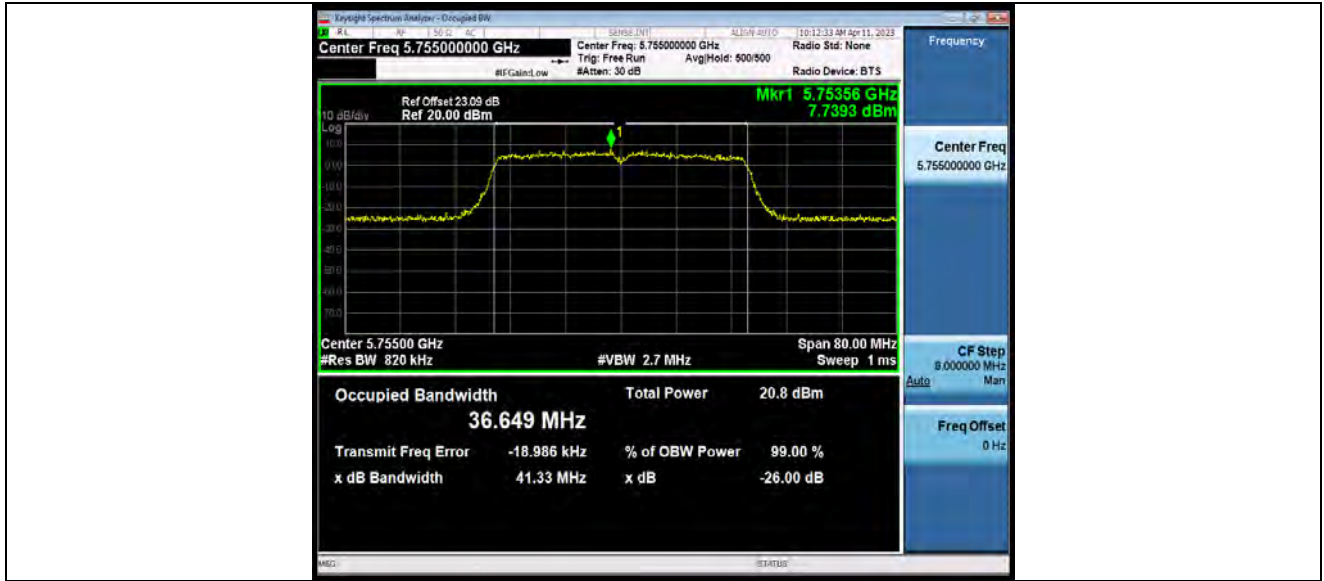


11N40SISO_Ant1_5755



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5795



11A20SISO_Ant1_5180



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5260



11AC20SISO_Ant1_5300



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5320



11AC20SISO_Ant1_5500



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5580

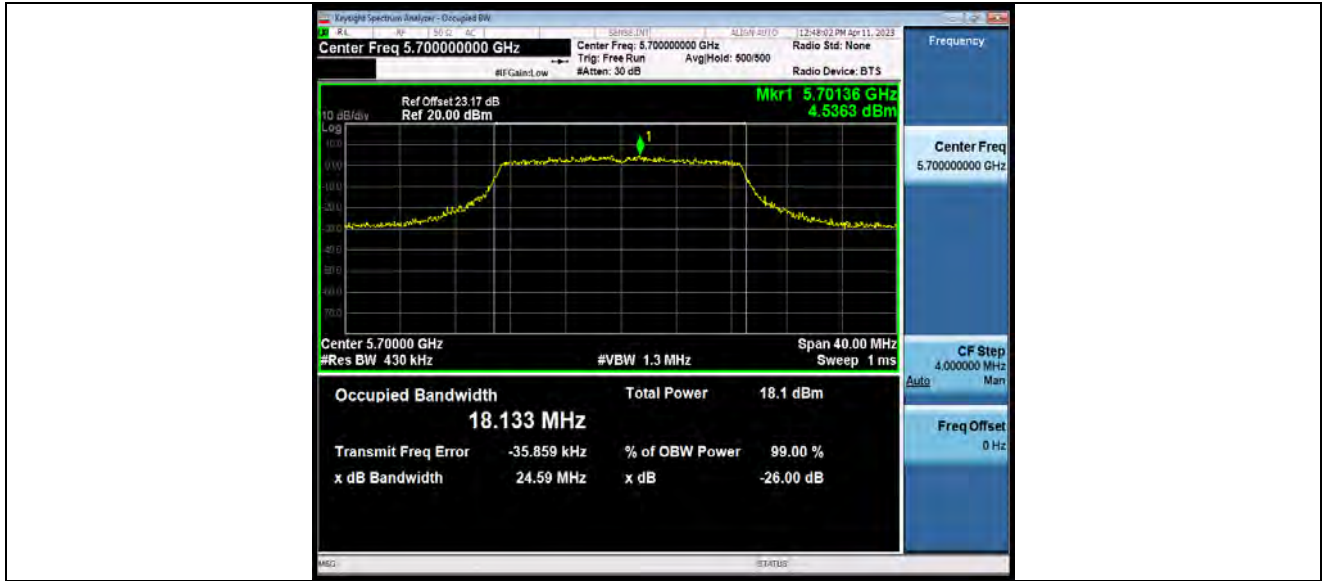


11AC20SISO_Ant1_5700



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Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5720



11AC20SISO_Ant1_5745



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

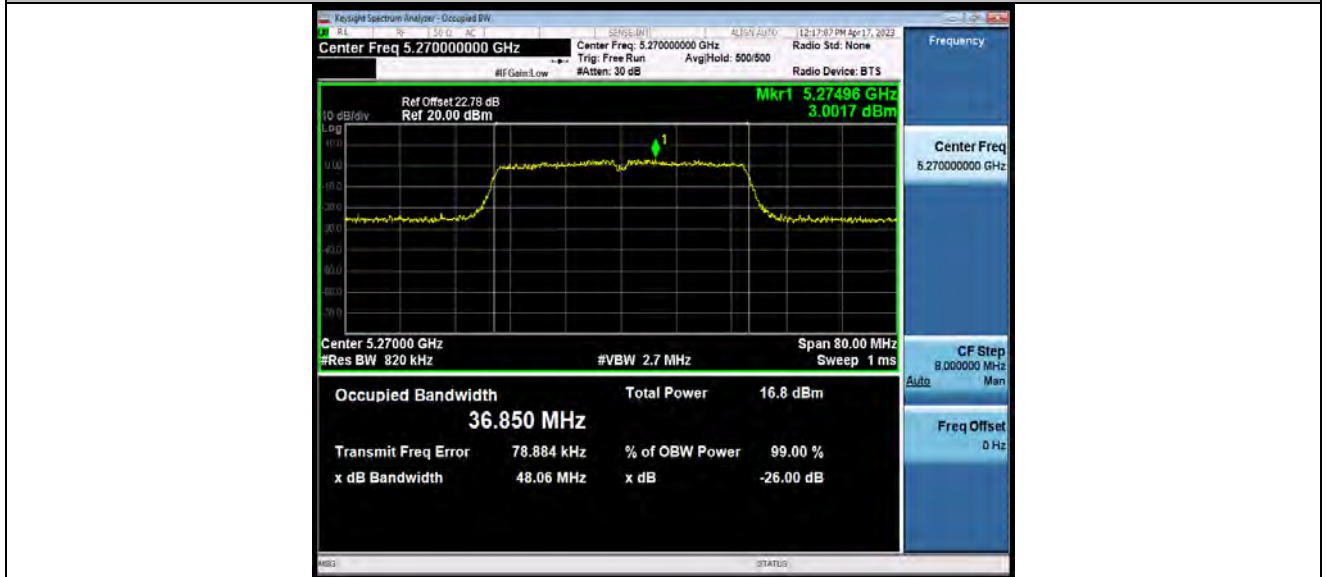


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5270

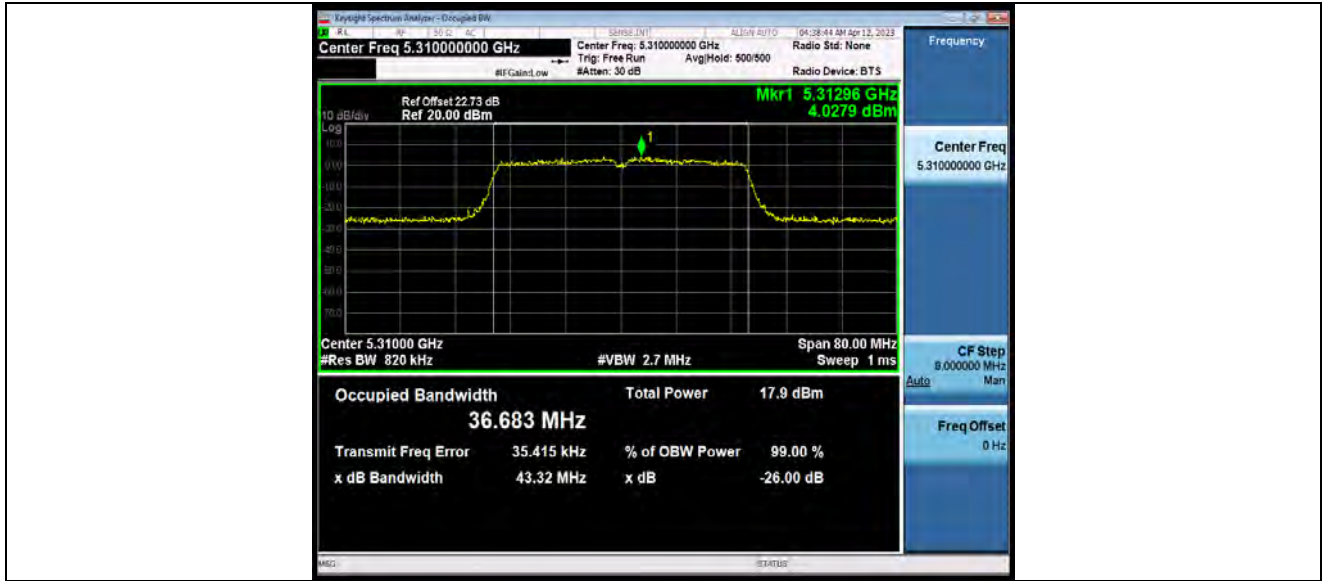


11AC40SISO_Ant1_5310



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5510

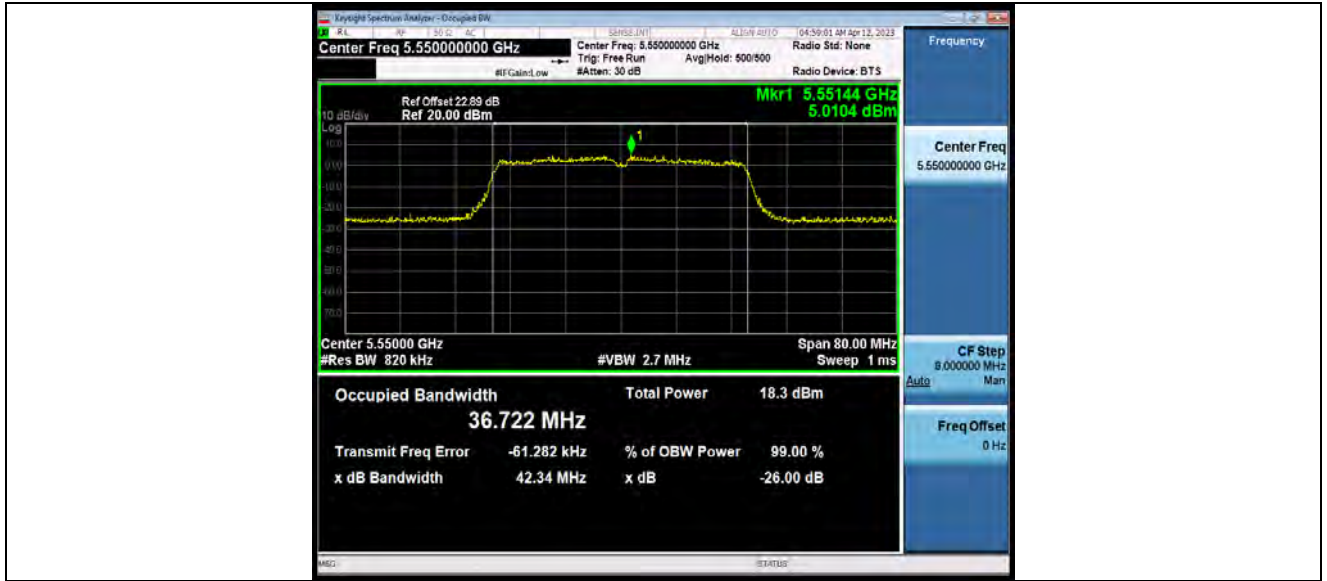


11AC40SISO_Ant1_5550



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5670



11AC40SISO_Ant1_5710

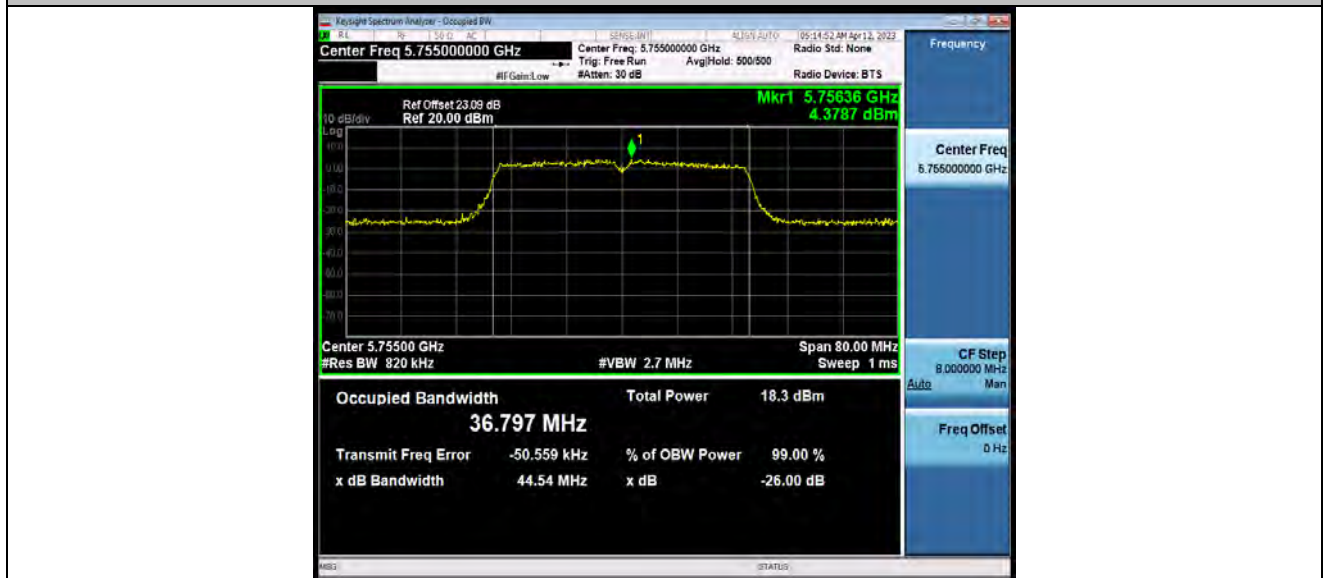


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40SISO_Ant1_5755

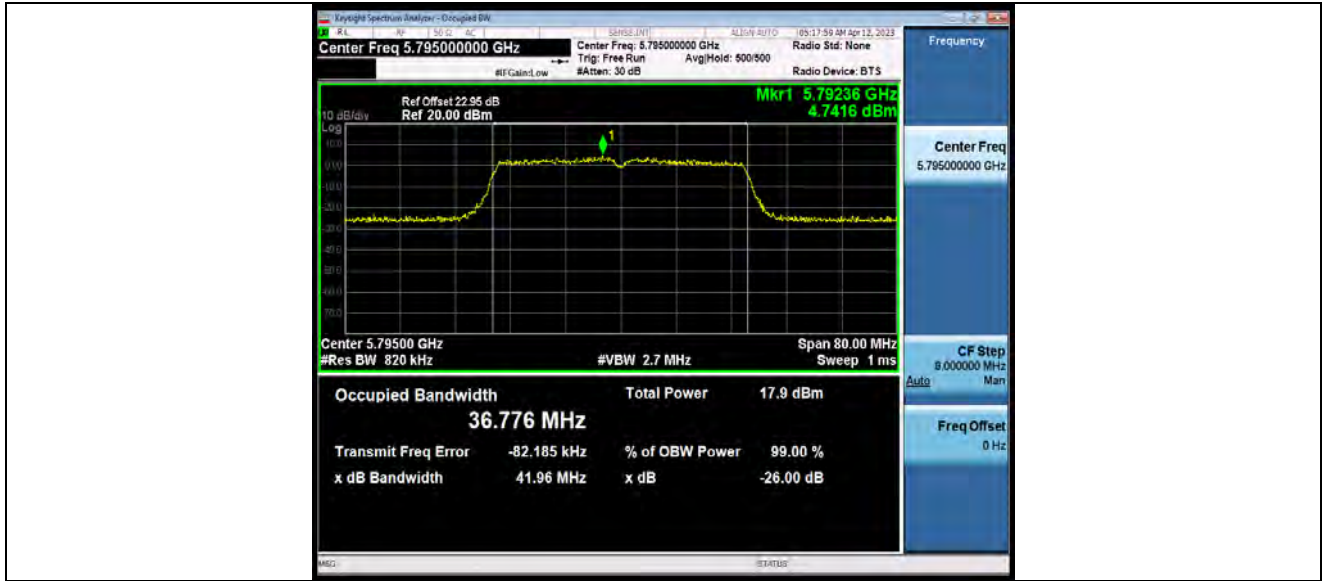


11AC40SISO_Ant1_5795

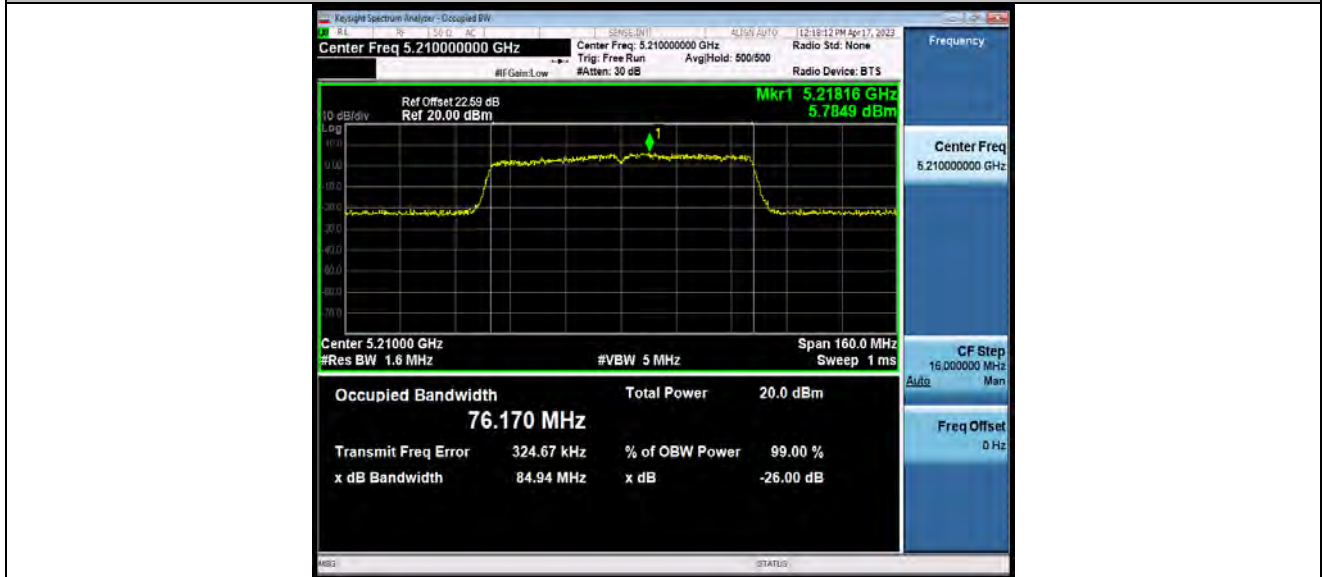


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5290



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5530



11AC80SISO_Ant1_5610



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80SISO_Ant1_5690



11AC80SISO_Ant1_5775



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF03



MIN EMISSION BANDWIDTH

TEST RESULT B4

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.920	5736.840	5752.760	0.5	PASS
		5785	14.040	5777.440	5791.480	0.5	PASS
		5825	15.400	5817.120	5832.520	0.5	PASS
11N20SISO	Ant1	5745	16.120	5736.680	5752.800	0.5	PASS
		5785	15.520	5776.960	5792.480	0.5	PASS
		5825	15.160	5817.640	5832.800	0.5	PASS
11N40SISO	Ant1	5755	35.840	5737.080	5772.920	0.5	PASS
		5795	35.440	5777.080	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	16.680	5736.520	5753.200	0.5	PASS
		5785	15.600	5776.960	5792.560	0.5	PASS
		5825	15.080	5817.360	5832.440	0.5	PASS
11AC40SISO	Ant1	5755	35.840	5736.760	5772.600	0.5	PASS
		5795	35.680	5777.080	5812.760	0.5	PASS
11AC80SISO	Ant1	5775	75.200	5737.400	5812.600	0.5	PASS



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03

TEST GRAPHS B4

11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825

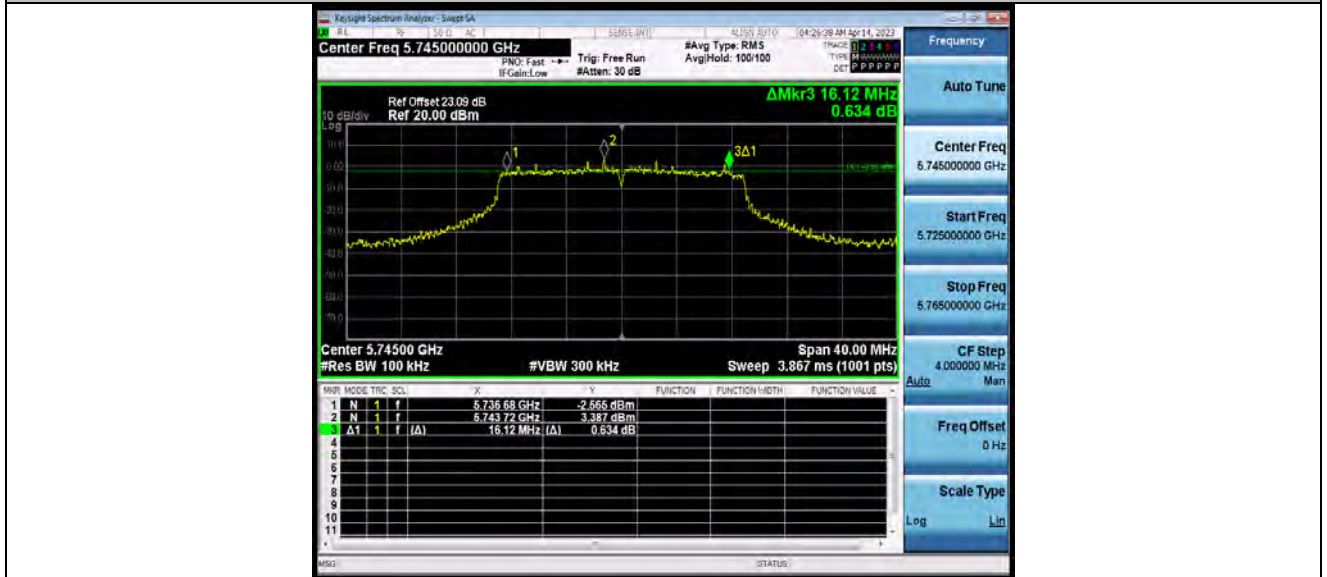


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5825



11N40SISO_Ant1_5755

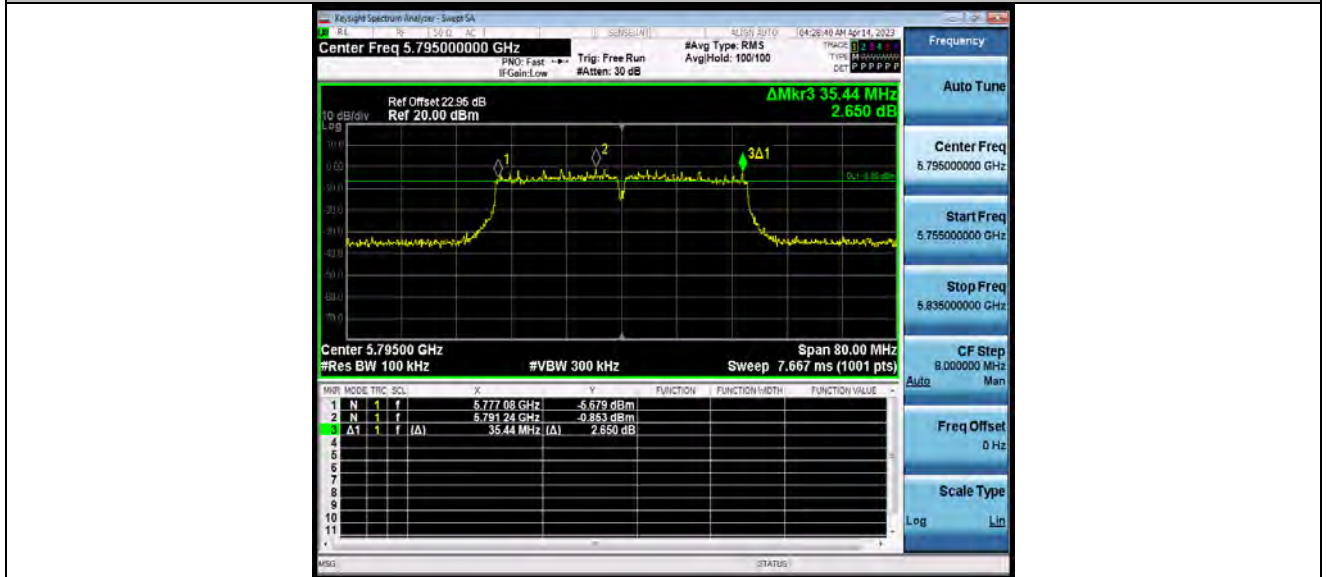


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825

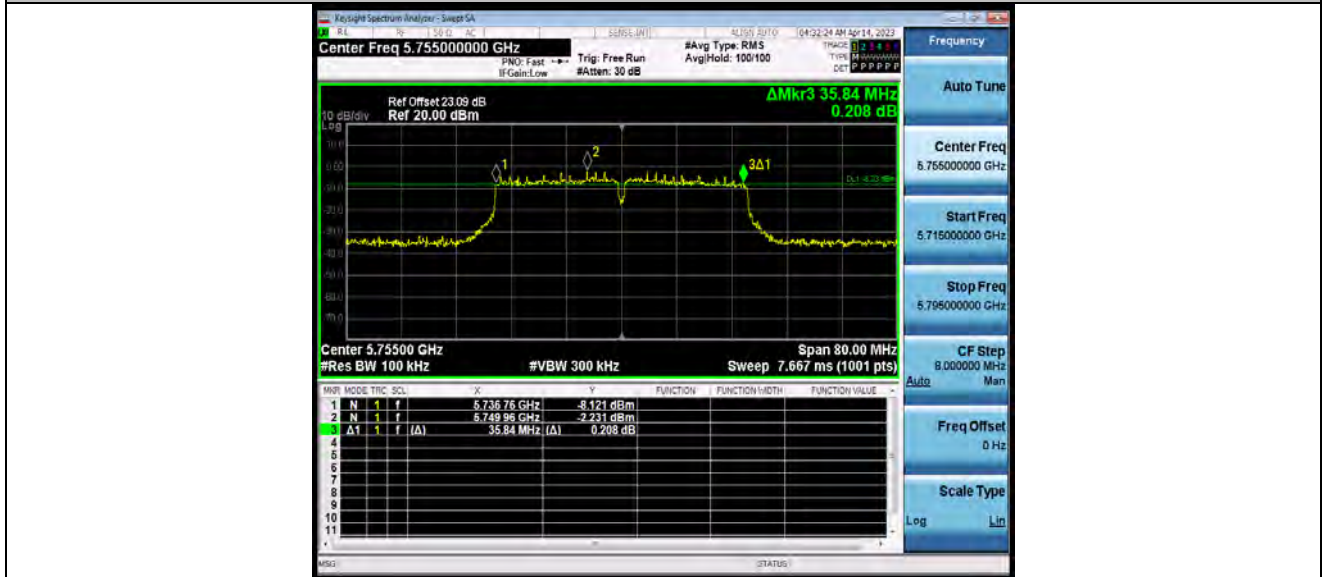


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC40ISO_Ant1_5755

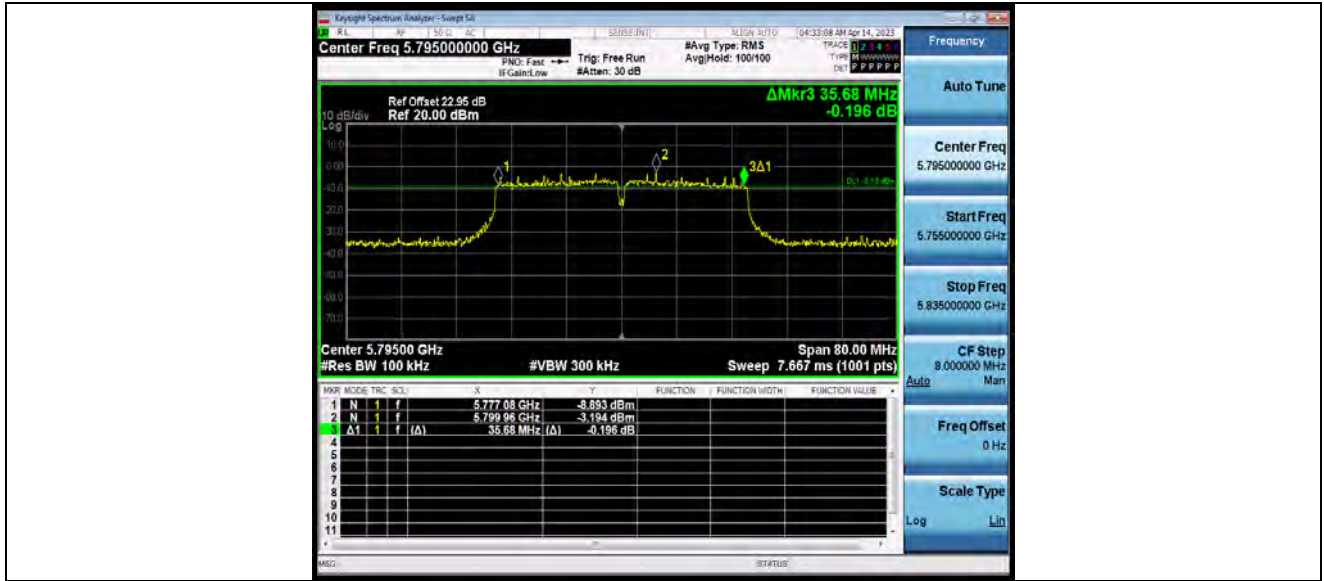


11AC40ISO_Ant1_5795

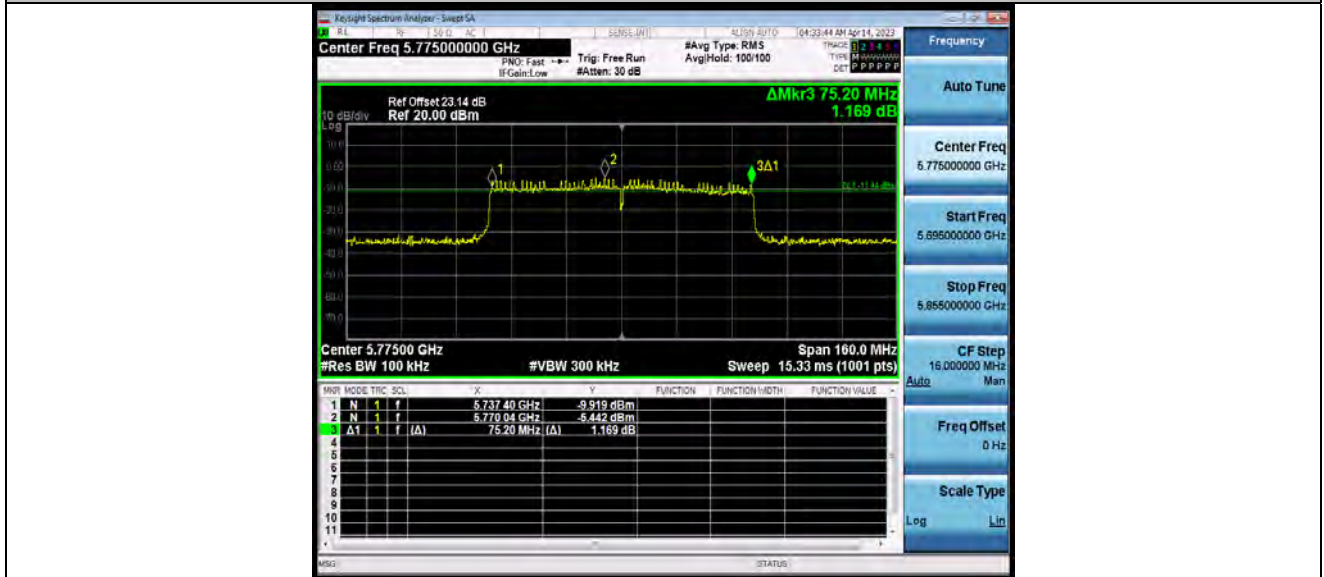


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11AC80ISO_Ant1_5775





DUTY CYCLE TEST RESULT

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.03	2.07	98.07
		5200	2.03	2.06	98.54
		5240	2.03	2.07	98.07
		5260	2.03	2.06	98.54
		5300	2.03	2.07	98.07
		5320	2.02	2.06	98.06
		5500	2.03	2.06	98.54
		5580	2.03	2.07	98.07
		5700	2.03	2.07	98.07
		5720	2.02	2.06	98.06
		5745	2.03	2.07	98.07
		5785	2.03	2.07	98.07
		5825	2.03	2.07	98.07
		11N20SISO	Ant1	5180	1.70
5200	1.70			1.74	97.70
5240	1.70			1.74	97.70
5260	1.70			1.74	97.70
5300	1.70			1.74	97.70
5320	1.70			1.74	97.70
5500	1.70			1.74	97.70
5580	1.71			1.74	98.28
5700	1.70			1.74	97.70
5720	1.70			1.74	97.70
5745	1.70			1.74	97.70
5785	1.70			1.74	97.70
5825	1.70			1.74	97.70
11N40SISO	Ant1			5190	0.83
		5230	0.84	0.87	96.55
		5270	0.84	0.87	96.55



11N40SISO	Ant1	5310	0.84	0.87	96.55
		5510	0.84	0.87	96.55
		5550	0.84	0.87	96.55
		5670	0.84	0.87	96.55
		5710	0.84	0.88	95.45
		5755	0.83	0.87	95.40
		5795	0.84	0.88	95.45
11AC20SISO	Ant1	5180	1.71	1.74	98.28
		5200	1.70	1.74	97.70
		5240	1.71	1.74	98.28
		5260	1.70	1.74	97.70
		5300	1.71	1.74	98.28
		5320	1.71	1.74	98.28
		5500	1.70	1.73	98.27
		5580	1.70	1.74	97.70
		5700	1.70	1.74	97.70
		5720	1.71	1.74	98.28
		5745	1.71	1.74	98.28
		5785	1.70	1.74	97.70
		5825	1.71	1.74	98.28
11AC40SISO	Ant1	5190	0.84	0.88	95.45
		5230	0.84	0.87	96.55
		5270	0.84	0.87	96.55
		5310	0.84	0.87	96.55
		5510	0.84	0.88	95.45
		5550	0.84	0.88	95.45
		5670	0.84	0.88	95.45
		5710	0.84	0.88	95.45
		5755	0.84	0.87	96.55
		5795	0.84	0.87	96.55
11AC80SISO	Ant1	5210	0.42	0.45	93.33
		5290	0.41	0.45	91.11
		5530	0.41	0.45	91.11
		5610	0.41	0.45	91.11
		5690	0.41	0.45	91.11



BUREAU VERITAS

Test Report No.: W7L-P23030025RF03

		5775	0.42	0.45	93.33
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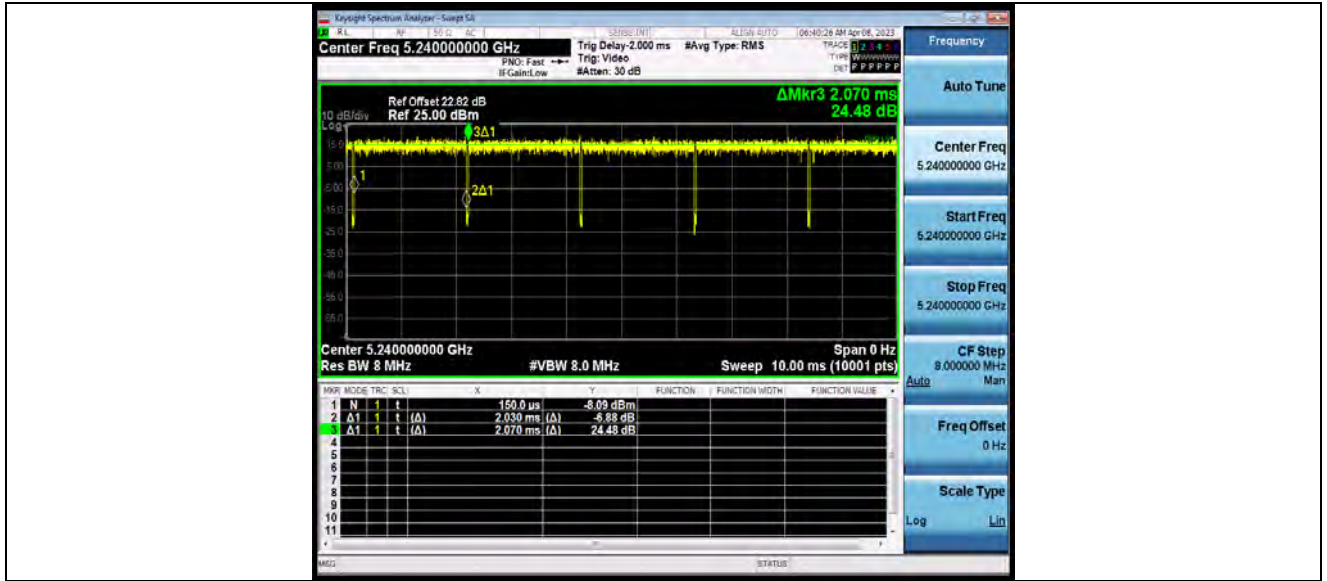
TEST GRAPHS



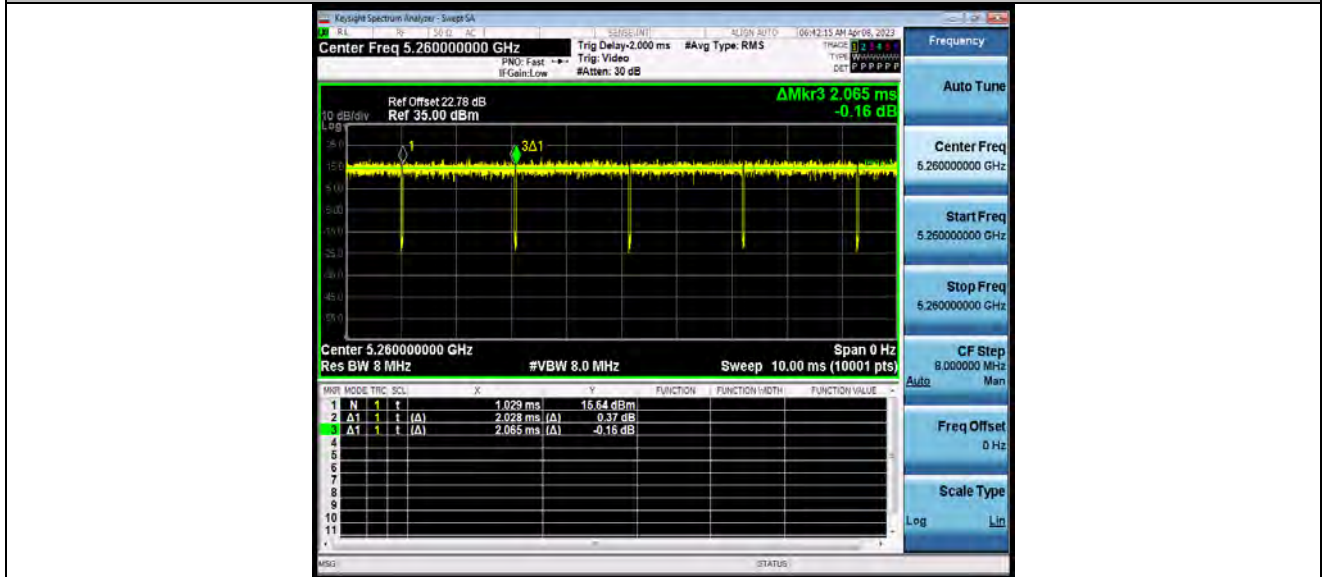


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5260

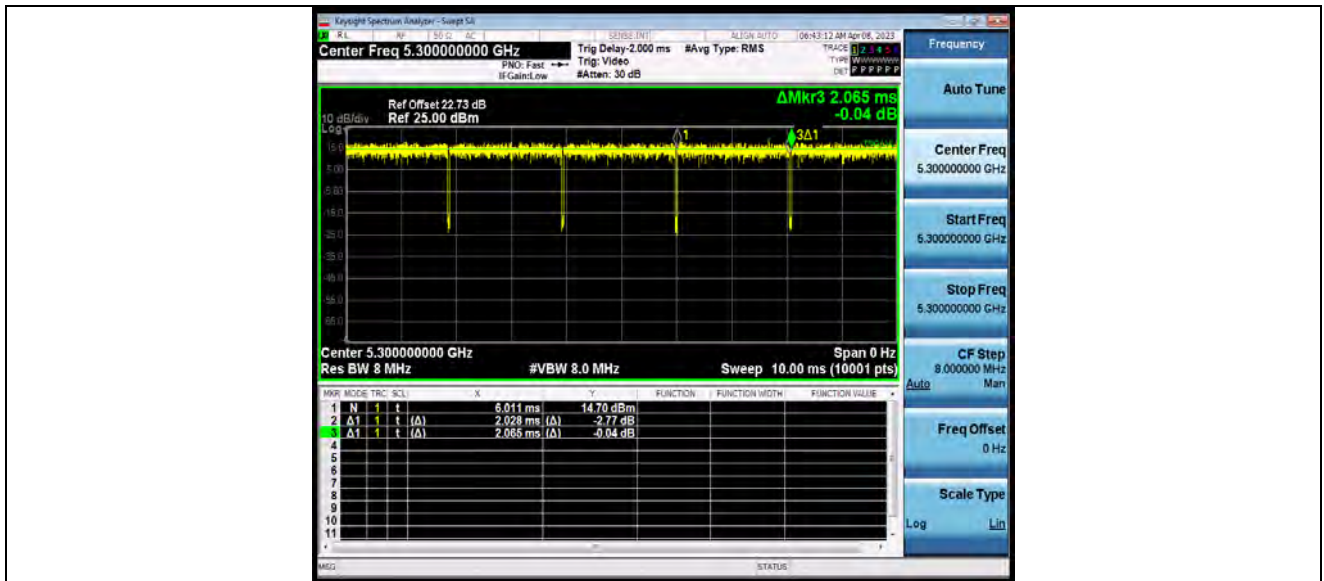


11A_Ant1_5300

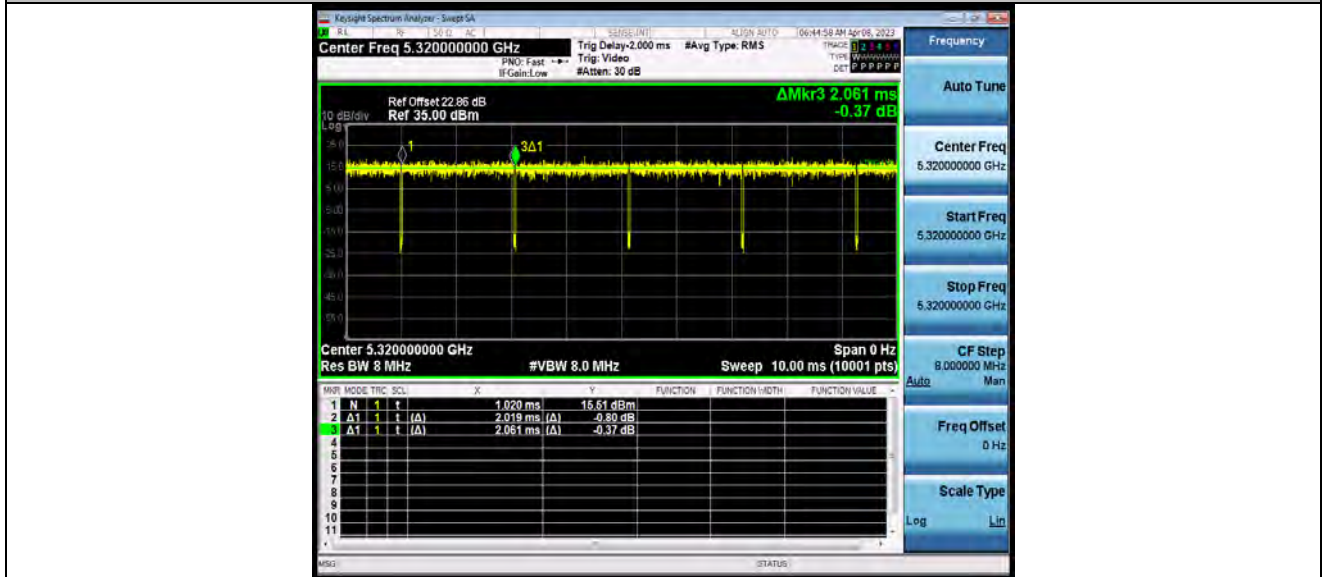


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5320

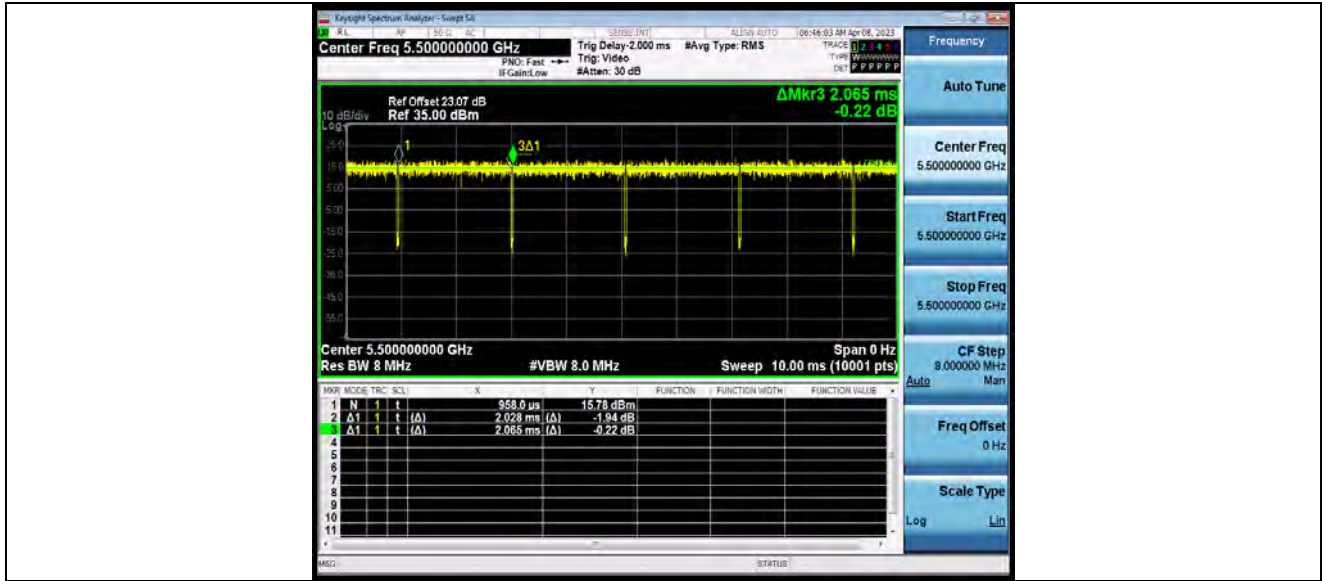


11A_Ant1_5500

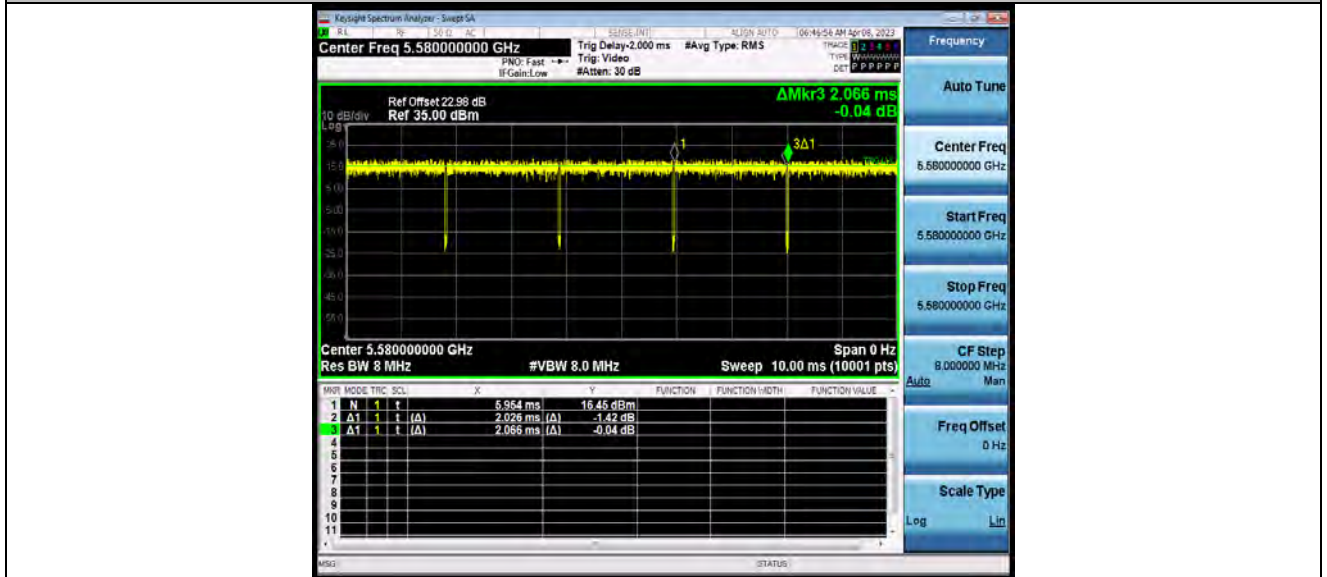


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5580

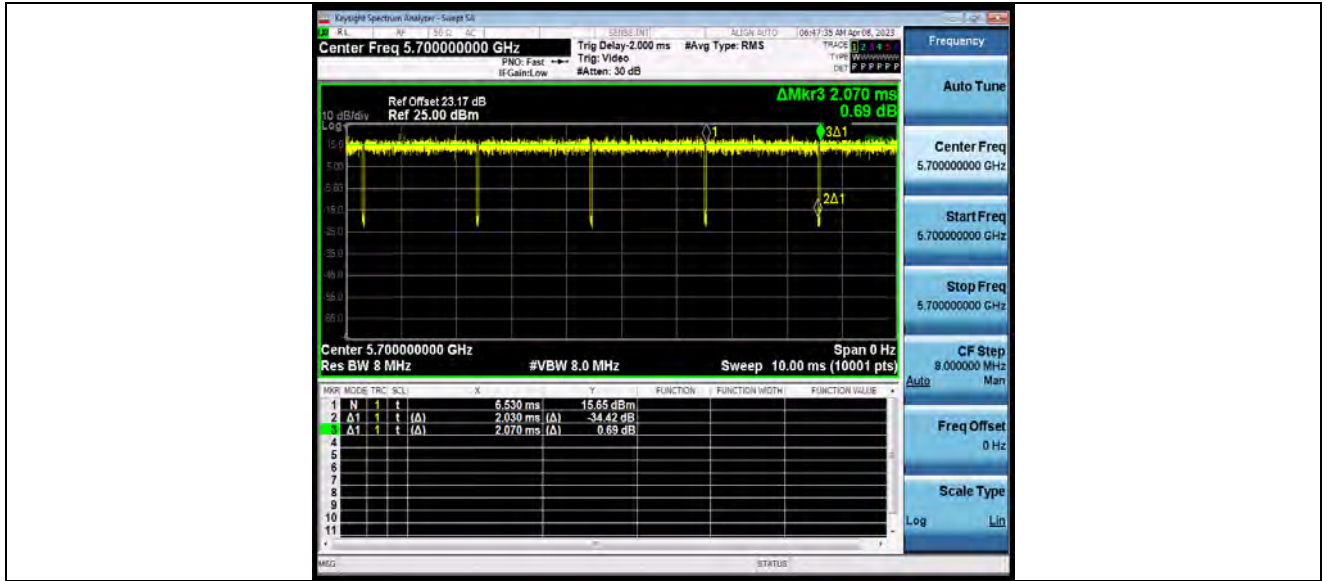


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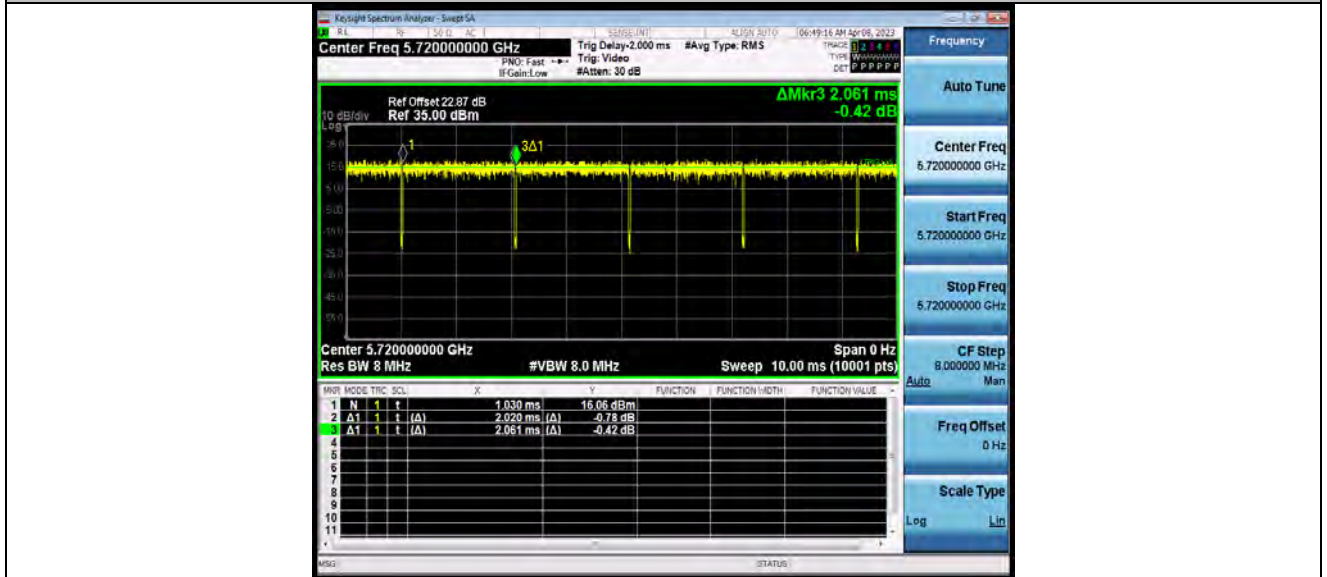


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11A_Ant1_5720

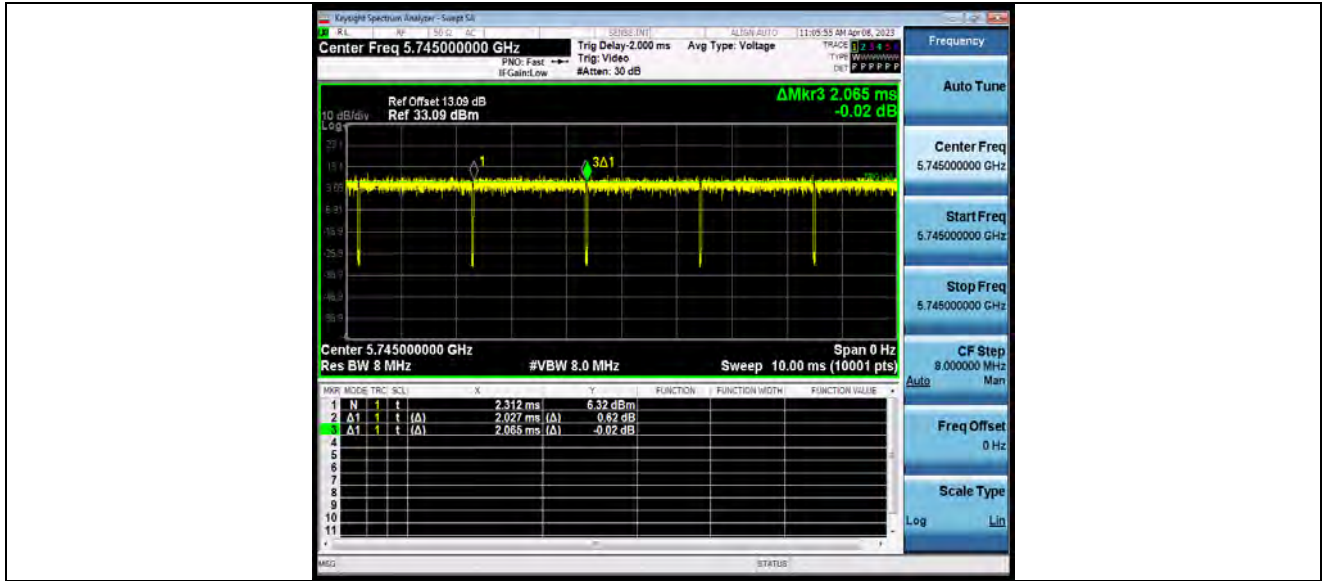


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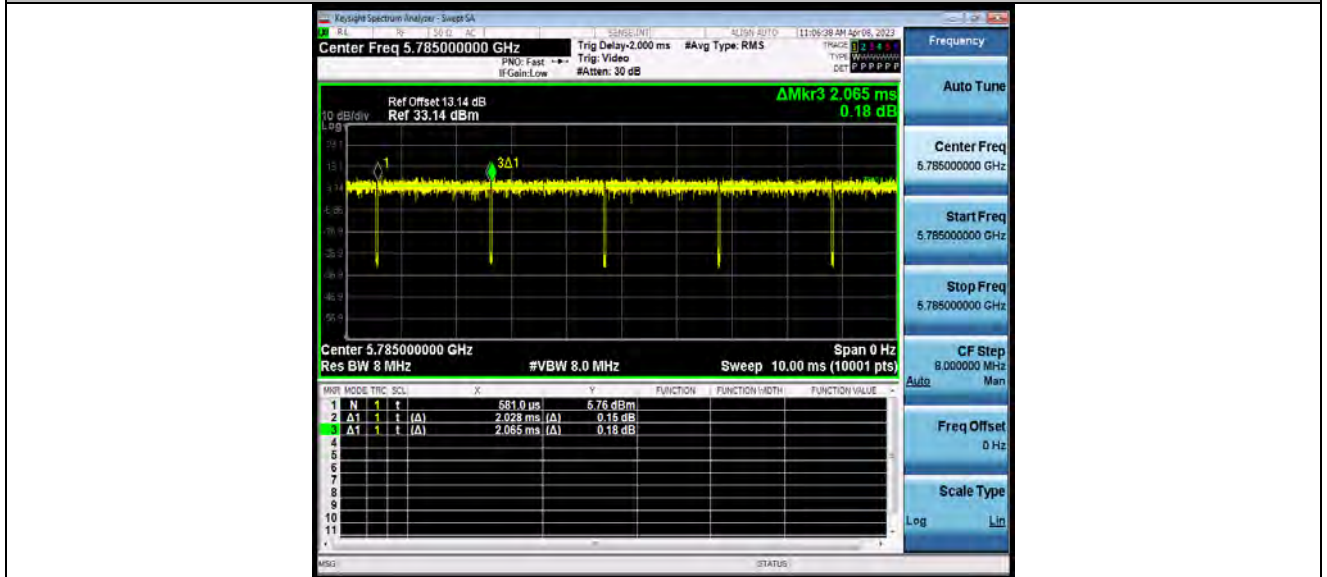


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VERITAS**

Test Report No.: W7L-P23030025RF03



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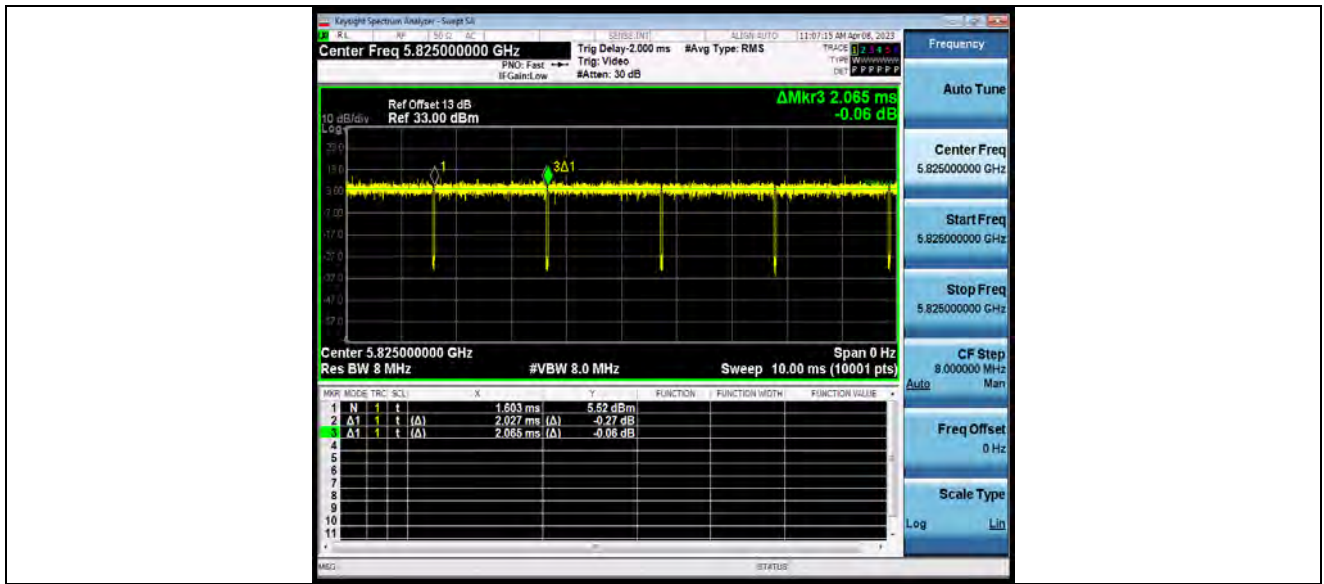


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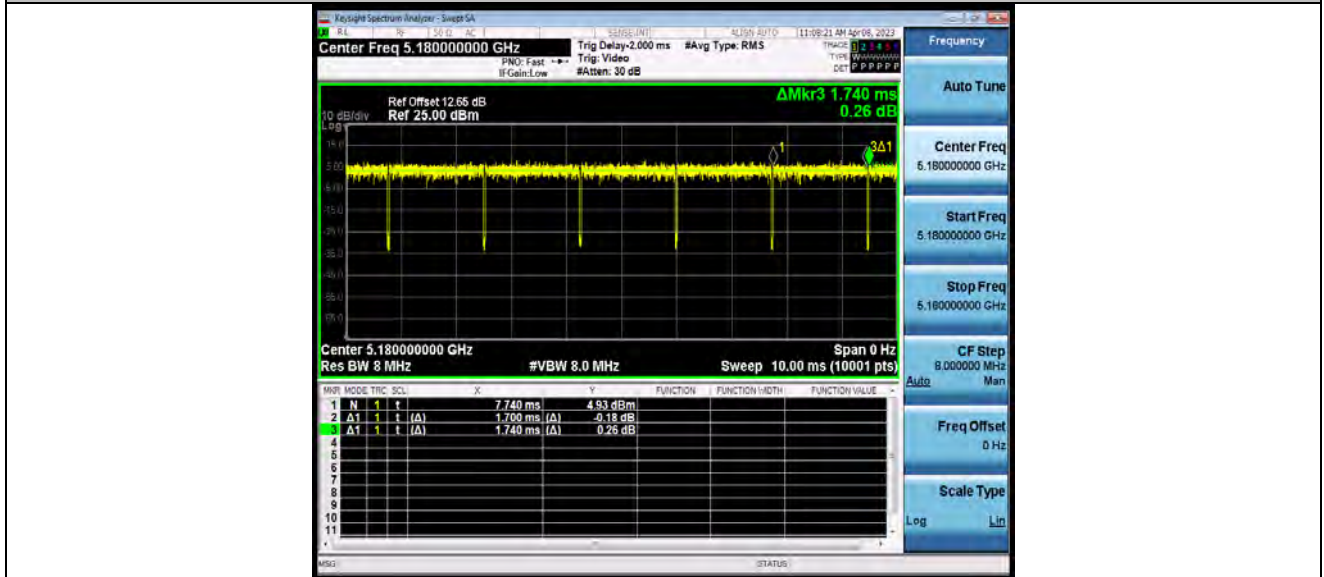


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5180

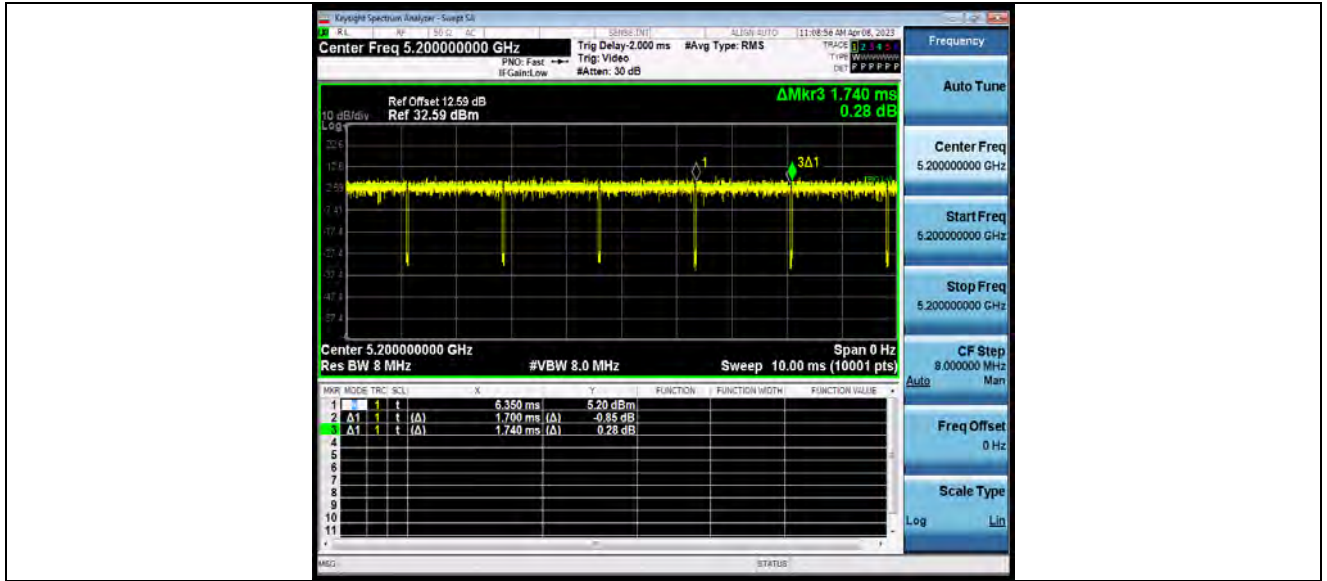


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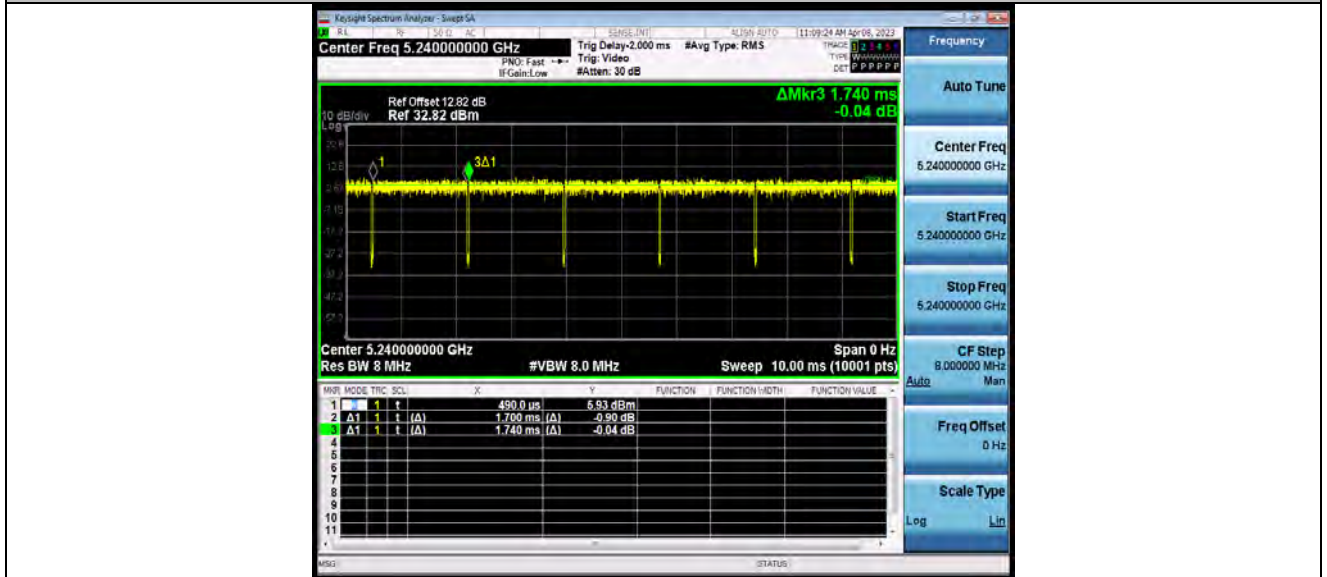


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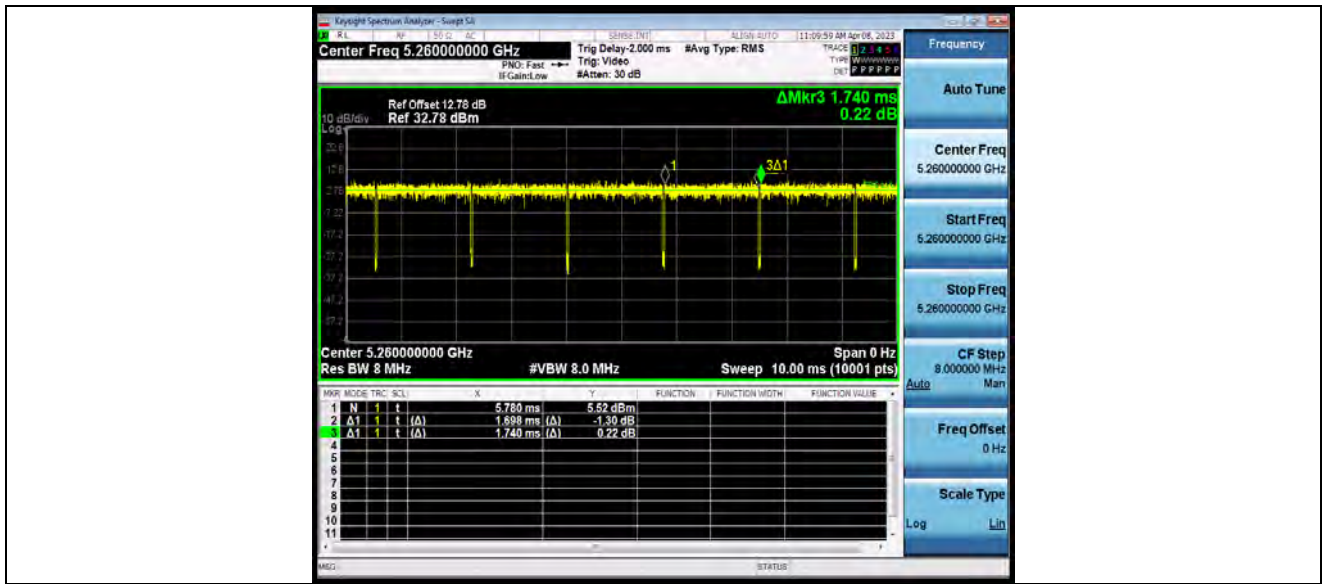


11N20SISO_Ant1_5260

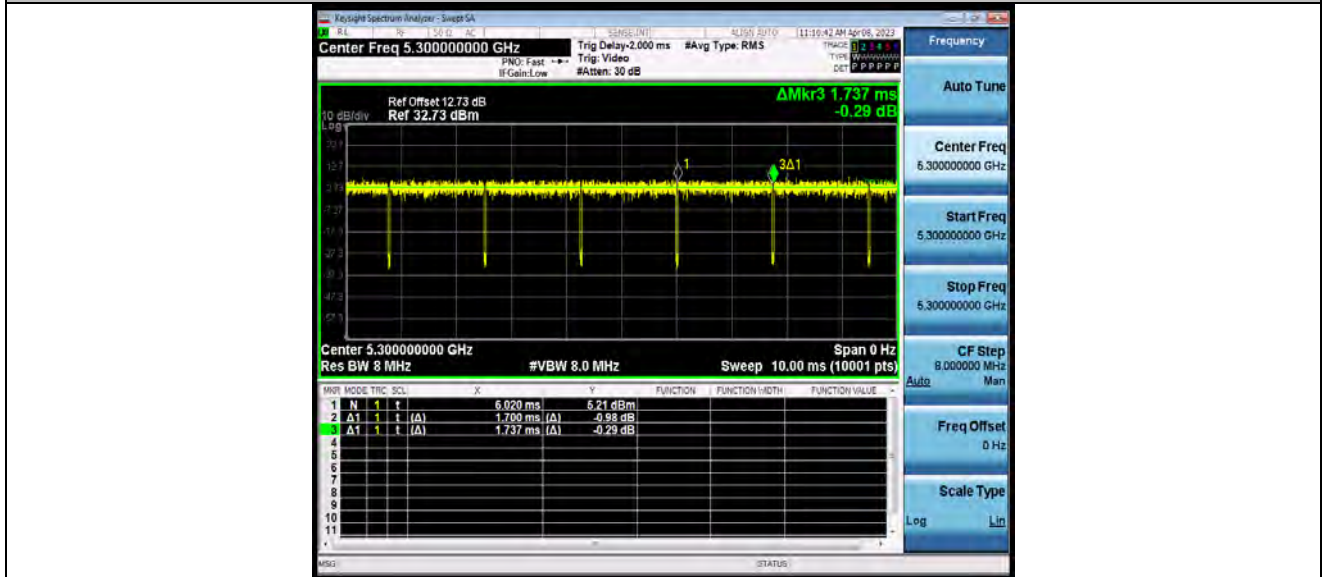


BUREAU VERITAS

Test Report No.: W7L-P23030025RF03



11N20SISO_Ant1_5300



11N20SISO_Ant1_5320