

FCC TEST REPORT

(Part 15, Subpart E)

Applicant:	MUNIC
Address:	100 Avenue de Stalingrad 94800 Villejuif – France

Manufacturer or Supplier:	MUNIC
Address:	100 Avenue de Stalingrad 94800 Villejuif – France
Product:	telematics embedded system
Brand Name:	MUNIC
Model Name:	C4D-4G4USAB_V8+
FCC ID:	A6GC4D-4G4USV8-2
Date of tests:	May. 05, 2022 ~ May. 27, 2022

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: May. 31, 2022	 Date: May. 31, 2022

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22040029RF03	Original release	May. 31, 2022

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
15.403(i)	26 dB Bandwidth	Compliance
15.407(e)	6 dB Bandwidth	Compliance
15.203	Antenna Requirement	Compliance

NOTE:

1. Except the data of RSE, other data please refer to the appendix A.

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	$\pm 2.70\text{dB}$
Radiated emissions (30MHz~1GMHz)	$\pm 4.98\text{dB}$
Radiated emissions (1GMHz ~6GMHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GMHz ~18GMHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GMHz ~40GMHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Power Spectral Density	$\pm 0.85\text{ dB}$

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	telematics embedded system
BRAND NAME	MUNIC
MODEL NAME	C4D-4G4USAB_V8+
NOMINAL VOLTAGE	DC 13.7V
MODULATION	OFDM
TRANSFER RATE	802.11a: up to 54Mbps 802.11n: up to 300Mbps 802.11ac: up to 1083.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n/ac/ax (20MHz) 2 for 802.11n/ac/ ax (40MHz) 1 for 802. 802.11ac/ ax (80MHz) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n/ac/ ax (20MHz) 3 for 802.11n/ac/ ax (40MHz) 2 for 802.11ac/ ax (80MHz)
AVERAGE POWER	27.80mW for 5180 ~ 5240MHz 31.05mW for 5745 ~ 5825MHz
ANTENNA TYPE	Fixed Internal Antenna
ANTENNA GAIN	4.3 dBi for 5180 ~ 5240MHz 4.3 dBi for 5745 ~ 5825MHz
HW VERSION	HW.01
SW VERSION	SW.01
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 transmitter and one receiver.

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

4. List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Battery 1	Howell	Li-polymer 552535H	Capacity: Li-ion, 270mAh
Battery 2	Akkutronics	382530-PTL	Capacity: Li-ion, 270mAh

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) / 802.11ax (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210 MHz		

FOR 5745 ~ 5825MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
144	5720MHz	157	5785 MHz
149	5745 MHz	165	5825 MHz
153	5765 MHz		

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
138	5690MHz	155	5775 MHz

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

Where

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

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

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

NOTE: “-” means no effect.

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11ac (80MHz)	5180-5240	42	42	OFDM	MCS0

**RADIATED EMISSION TEST (ABOVE 1GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ 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	802.11an (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11an (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	149, 157, 165	OFDM	6.0
A	802.11an (20MHz)		144 to 165	149, 157, 165	OFDM	MCS0
A	802.11an (40MHz)		142 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138, 155	155	OFDM	MCS0

POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11ac (80MHz)	5180-5240	42	42	OFDM	MCS0



BANDEDGE MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ 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	5745-5825	144 to 165	149, 157,165	OFDM	6.0
A	802.11n/ac (20MHz)		144 to 165	149, 157,165	OFDM	MCS0
A	802.11n/ac (40MHz)		142 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	155	OFDM	MCS0

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATIO N	DATA RATE (Mbps)
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	5745-5825	144 to 165	149, 157,165	OFDM	6.0
A	802.11n/ac (20MHz)		144 to 165	149, 157,165	OFDM	MCS0
A	802.11n/ac (40MHz)		142 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	155	OFDM	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 70%RH	DC13.7V	Star Le
RE≥1G	23deg. C, 70%RH	DC13.7V	Star Le
PLC	25deg. C, 52%RH	DC13.7V	James Fu
APCM	25deg. C, 60%RH	DC13.7V	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 [%]
		ANT0
5GHZ	11a	95.39
	11n20	94.93
	11n40	94.09
	11ac20	94.50
	11ac40	95.39
	11ac80	73.44

Note:

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

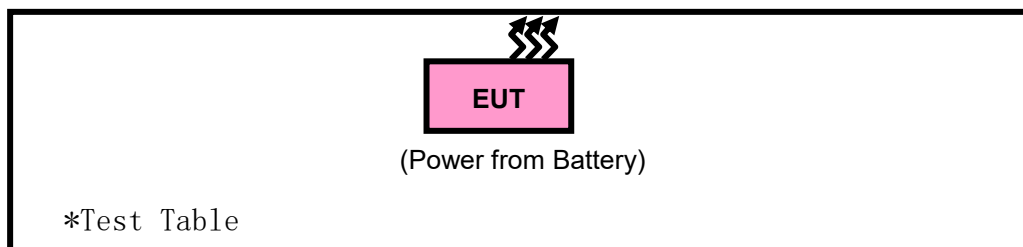
2.4 DESCRIPTION OF SUPPORT UNITS

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	Thnikpad L440	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)(4)	See note 2 (FCC 16-24)	

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

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

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	00161964	Feb. 24,22	Feb. 23,23
Horn Antenna	ETS-LINDGREN	3117	00168692	Mar. 06,22	Mar. 05,23
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 25, 21	Aug. 24, 22
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 03,21	Jun. 02,22
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Apr. 27,22	Apr. 26,23
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 02,21	Jun. 01,22
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 02,21	Jun. 01,22
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Apr. 30,22	Apr. 29,23
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 25,21	Aug. 24,22
Power Meter	Anritsu	ML2495A	1506002	Feb. 22,22	Feb. 21,23
Power Sensor	Anritsu	MA2411B	1339352	May. 07,21	May. 06,22
Power Sensor	Anritsu	MA2411B	1339352	May. 06,22	May. 07,23
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.05,21	Sep.04,22

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:

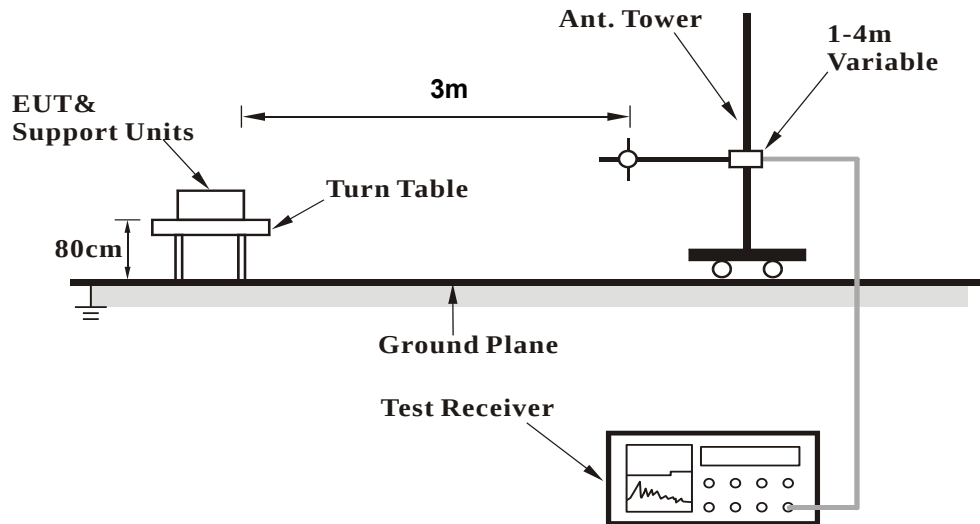
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency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

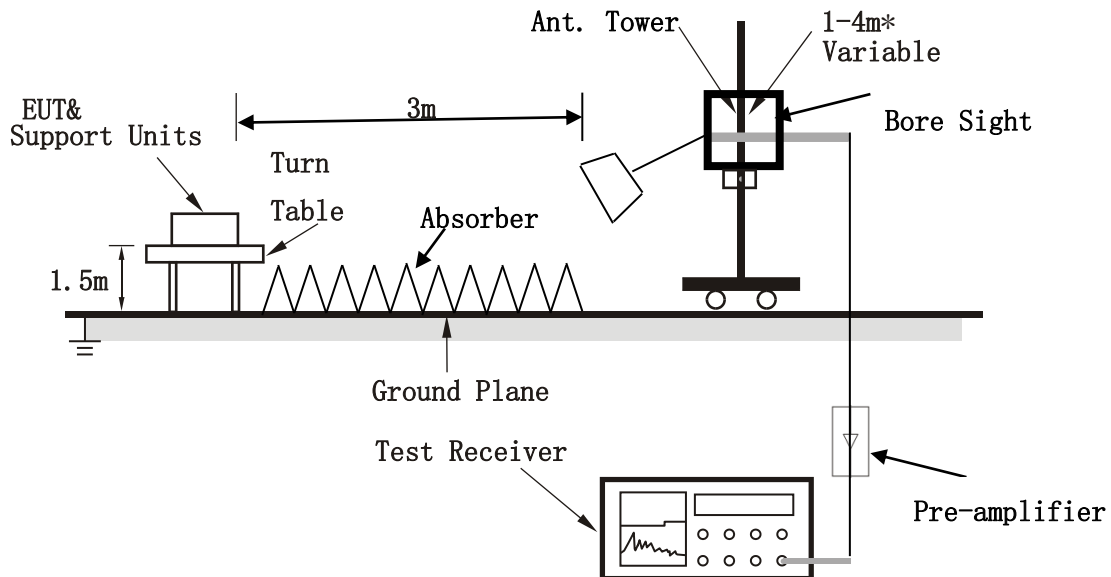
No deviation.

3.1.6 TEST SETUP

< Frequency Range 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).



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3.1.7 EUT OPERATING CONDITION

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



3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

Band 1

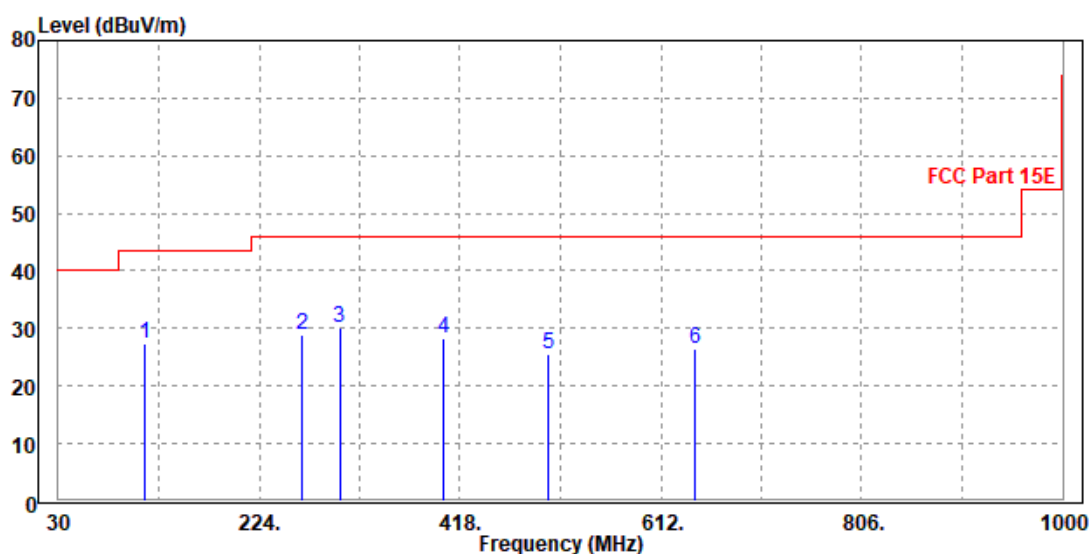
802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
113.42	27.24	54.02	43.5	-16.26	9.76	0.57	37.11	191	344	QP
264.74	28.92	51.09	46	-17.08	13.65	0.86	36.68	165	158	QP
301.6	30.07	51.87	46	-15.93	14.04	0.91	36.75	108	251	QP
402.48	28.19	47.69	46	-17.81	16.25	1.08	36.83	158	78	QP
503.36	25.59	43.22	46	-20.41	18.15	1.23	37.01	132	38	QP
644.98	26.36	41.84	46	-19.64	20.55	1.41	37.44	168	262	QP

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

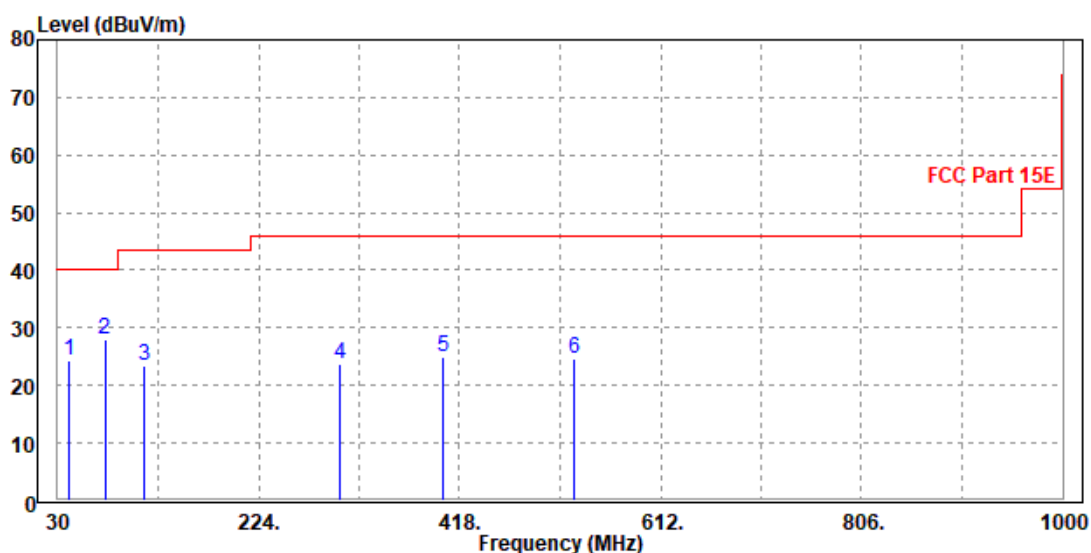


CHANNEL	Channel 42	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
41.64	24.28	49.42	40	-15.72	11.97	0.37	37.48	103	312	QP
75.59	28.13	57.17	40	-11.87	7.82	0.48	37.34	115	302	QP
113.42	23.31	51.15	43.5	-20.19	8.7	0.57	37.11	111	208	QP
302.57	23.71	45.49	46	-22.29	14.06	0.91	36.75	168	323	QP
402.48	24.9	44.32	46	-21.1	16.33	1.08	36.83	103	341	QP
528.58	24.53	42.21	46	-21.47	18.17	1.26	37.11	131	142	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	55.31	57.62	74	-18.69	34.52	9.52	46.35	108	168	Peak
5150	50.38	52.69	54	-3.62	34.52	9.52	46.35	108	168	Average
5180	100.82	103.05	/	/	34.54	9.58	46.35	145	306	Peak
5180	93.43	95.66	/	/	34.54	9.58	46.35	145	306	Average
5350	56.77	58.45	74	-17.23	34.68	9.94	46.3	133	176	Peak
5350	47.82	49.5	54	-6.18	34.68	9.94	46.3	133	176	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	56.82	59.05	74	-17.18	34.6	9.52	46.35	103	70	Peak
5150	50.86	53.09	54	-3.14	34.6	9.52	46.35	103	70	Average
5180	102.41	104.58	/	/	34.6	9.58	46.35	121	329	Peak
5180	94.26	96.43	/	/	34.6	9.58	46.35	121	329	Average
5350	54.37	56.13	74	-19.63	34.6	9.94	46.3	143	69	Peak
5350	47.85	49.61	54	-6.15	34.6	9.94	46.3	143	69	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	57.54	59.85	74	-16.46	34.52	9.52	46.35	102	36	Peak
5150	49.93	52.24	54	-4.07	34.52	9.52	46.35	102	36	Average
5200	100.15	102.31	/	/	34.56	9.62	46.34	117	164	Peak
5200	92.35	94.51	/	/	34.56	9.62	46.34	117	164	Average
5350	53.91	55.59	74	-20.09	34.68	9.94	46.3	116	246	Peak
5350	48.93	50.61	54	-5.07	34.68	9.94	46.3	116	246	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	54.94	57.17	74	-19.06	34.6	9.52	46.35	130	142	Peak
5150	50.37	52.6	54	-3.63	34.6	9.52	46.35	130	142	Average
5200	100.46	102.58	/	/	34.6	9.62	46.34	102	353	Peak
5200	93.06	95.18	/	/	34.6	9.62	46.34	102	353	Average
5350	55.38	57.14	74	-18.62	34.6	9.94	46.3	101	343	Peak
5350	48.61	50.37	54	-5.39	34.6	9.94	46.3	101	343	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	54.33	56.64	74	-19.67	34.52	9.52	46.35	146	46	Peak
5150	48.93	51.24	54	-5.07	34.52	9.52	46.35	146	46	Average
5240	99.86	101.89	/	/	34.59	9.71	46.33	113	317	Peak
5240	91.93	93.96	/	/	34.59	9.71	46.33	113	317	Average
5350	54.28	55.96	74	-19.72	34.68	9.94	46.3	115	131	Peak
5350	48.51	50.19	54	-5.49	34.68	9.94	46.3	115	131	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	54.66	56.89	74	-19.34	34.6	9.52	46.35	124	233	Peak
5150	49.5	51.73	54	-4.5	34.6	9.52	46.35	124	233	Average
5240	100.57	102.59	/	/	34.6	9.71	46.33	146	106	Peak
5240	93.48	95.5	/	/	34.6	9.71	46.33	146	106	Average
5350	54.03	55.79	74	-19.97	34.6	9.94	46.3	149	339	Peak
5350	48.27	50.03	54	-5.73	34.6	9.94	46.3	149	339	Average

REMARKS:

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



802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
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	56.94	59.25	74	-17.06	34.52	9.52	46.35	111	146	Peak
5150	50.04	52.35	54	-3.96	34.52	9.52	46.35	111	146	Average
5180	98	100.23	/	/	34.54	9.58	46.35	131	333	Peak
5180	88.7	90.93	/	/	34.54	9.58	46.35	131	333	Average
5350	56.6	58.28	74	-17.4	34.68	9.94	46.3	146	244	Peak
5350	47.47	49.15	54	-6.53	34.68	9.94	46.3	146	244	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	56.21	58.44	74	-17.79	34.6	9.52	46.35	102	351	Peak
5150	50.37	52.6	54	-3.63	34.6	9.52	46.35	102	351	Average
5180	97.24	99.41	/	/	34.6	9.58	46.35	106	274	Peak
5180	91.18	93.35	/	/	34.6	9.58	46.35	106	274	Average
5350	55.02	56.78	74	-18.98	34.6	9.94	46.3	111	180	Peak
5350	49.19	50.95	54	-4.81	34.6	9.94	46.3	111	180	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	54.42	56.73	74	-19.58	34.52	9.52	46.35	150	66	Peak
5150	49.18	51.49	54	-4.82	34.52	9.52	46.35	150	66	Average
5200	98.53	100.69	/	/	34.56	9.62	46.34	144	252	Peak
5200	90.98	93.14	/	/	34.56	9.62	46.34	144	252	Average
5350	54.99	56.67	74	-19.01	34.68	9.94	46.3	145	218	Peak
5350	47.73	49.41	54	-6.27	34.68	9.94	46.3	145	218	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	53.86	56.09	74	-20.14	34.6	9.52	46.35	140	213	Peak
5150	49.2	51.43	54	-4.8	34.6	9.52	46.35	140	213	Average
5200	99.28	101.4	/	/	34.6	9.62	46.34	104	180	Peak
5200	91.77	93.89	/	/	34.6	9.62	46.34	104	180	Average
5350	54.79	56.55	74	-19.21	34.6	9.94	46.3	140	98	Peak
5350	48.91	50.67	54	-5.09	34.6	9.94	46.3	140	98	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	54.8	57.11	74	-19.2	34.52	9.52	46.35	133	258	Peak
5150	49.42	51.73	54	-4.58	34.52	9.52	46.35	133	258	Average
5240	98.98	101.01	/	/	34.59	9.71	46.33	125	52	Peak
5240	91.85	93.88	/	/	34.59	9.71	46.33	125	52	Average
5350	55.33	57.01	74	-18.67	34.68	9.94	46.3	138	86	Peak
5350	48.15	49.83	54	-5.85	34.68	9.94	46.3	138	86	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	56.13	74	-20.1	34.6	9.52	46.35	108	138	Peak
5150	49.66	51.89	54	-4.34	34.6	9.52	46.35	108	138	Average
5240	99.29	101.31	/	/	34.6	9.71	46.33	120	105	Peak
5240	92.28	94.3	/	/	34.6	9.71	46.33	120	105	Average
5350	53.7	55.46	74	-20.3	34.6	9.94	46.3	109	131	Peak
5350	48.86	50.62	54	-5.14	34.6	9.94	46.3	109	131	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	58.72	61.03	74	-15.28	34.52	9.52	46.35	126	81	Peak
5150	51.86	54.17	54	-2.14	34.52	9.52	46.35	126	81	Average
5190	94.02	96.21	/	/	34.55	9.6	46.34	113	52	Peak
5190	86.69	88.88	/	/	34.55	9.6	46.34	113	52	Average
5350	53.98	55.66	74	-20.02	34.68	9.94	46.3	102	100	Peak
5350	48.44	50.12	54	-5.56	34.68	9.94	46.3	102	100	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	60.41	62.64	74	-13.59	34.6	9.52	46.35	100	199	Peak
5150	53.47	55.7	54	-0.53	34.6	9.52	46.35	100	199	Average
5190	94.43	96.57	/	/	34.6	9.6	46.34	133	131	Peak
5190	88.8	90.94	/	/	34.6	9.6	46.34	133	131	Average
5350	58.19	59.95	74	-15.81	34.6	9.94	46.3	146	156	Peak
5350	48.32	50.08	54	-5.68	34.6	9.94	46.3	146	156	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	55.38	57.69	74	-18.62	34.52	9.52	46.35	134	145	Peak
5150	48.87	51.18	54	-5.13	34.52	9.52	46.35	134	145	Average
5230	95.17	97.23	/	/	34.58	9.69	46.33	134	114	Peak
5230	89.19	91.25	/	/	34.58	9.69	46.33	134	114	Average
5350	51.41	53.09	74	-22.59	34.68	9.94	46.3	144	141	Peak
5350	48.07	49.75	54	-5.93	34.68	9.94	46.3	144	141	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	55.35	57.58	74	-18.65	34.6	9.52	46.35	146	174	Peak
5150	48.58	50.81	54	-5.42	34.6	9.52	46.35	146	174	Average
5230	95.6	97.64	/	/	34.6	9.69	46.33	101	89	Peak
5230	90.26	92.3	/	/	34.6	9.69	46.33	101	89	Average
5350	53.3	55.06	74	-20.7	34.6	9.94	46.3	120	217	Peak
5350	48.09	49.85	54	-5.91	34.6	9.94	46.3	120	217	Average

REMARKS:

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



802.11ac (80MHz)

CHANNEL	TX Channel 42	DETECTOR FUNCTION	Peak (PK)
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	57.67	59.98	74	-16.33	34.52	9.52	46.35	117	323	Peak
5150	52.34	54.65	54	-1.66	34.52	9.52	46.35	117	323	Average
5210	92.2	94.33	/	/	34.57	9.64	46.34	129	22	Peak
5210	85.23	87.36	/	/	34.57	9.64	46.34	129	22	Average
5350	54.9	56.58	74	-19.1	34.68	9.94	46.3	149	302	Peak
5350	49.27	50.95	54	-4.73	34.68	9.94	46.3	149	302	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	60.78	63.01	74	-13.22	34.6	9.52	46.35	119	53	Peak
5150	53.31	55.54	54	-0.69	34.6	9.52	46.35	119	53	Average
5210	91.35	93.45	/	/	34.6	9.64	46.34	135	201	Peak
5210	87.01	89.11	/	/	34.6	9.64	46.34	135	201	Average
5350	54.49	56.25	74	-19.51	34.6	9.94	46.3	112	343	Peak
5350	48.35	50.11	54	-5.65	34.6	9.94	46.3	112	343	Average

REMARKS:

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



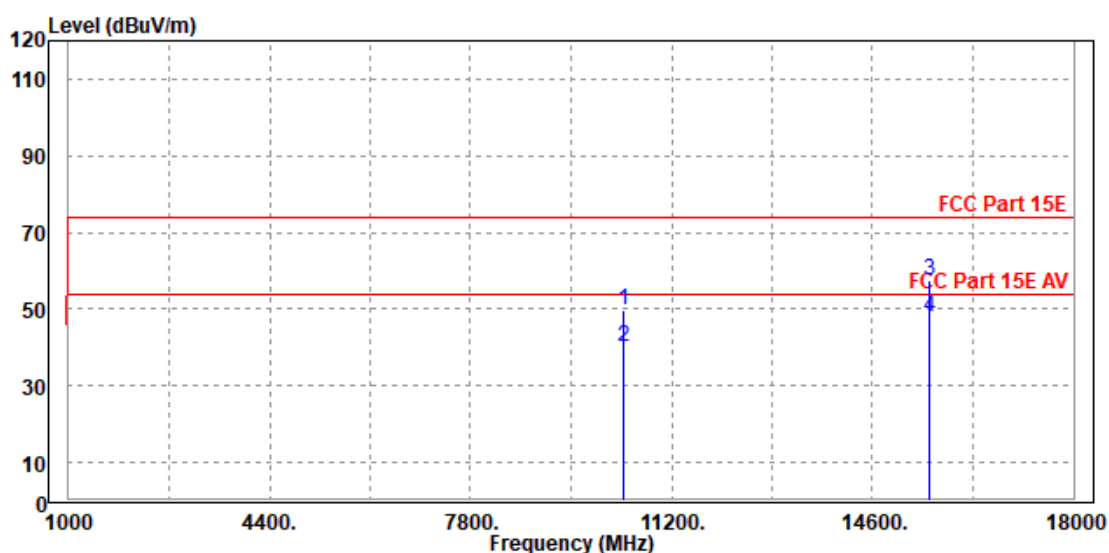
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802.11ac (40MHz)

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

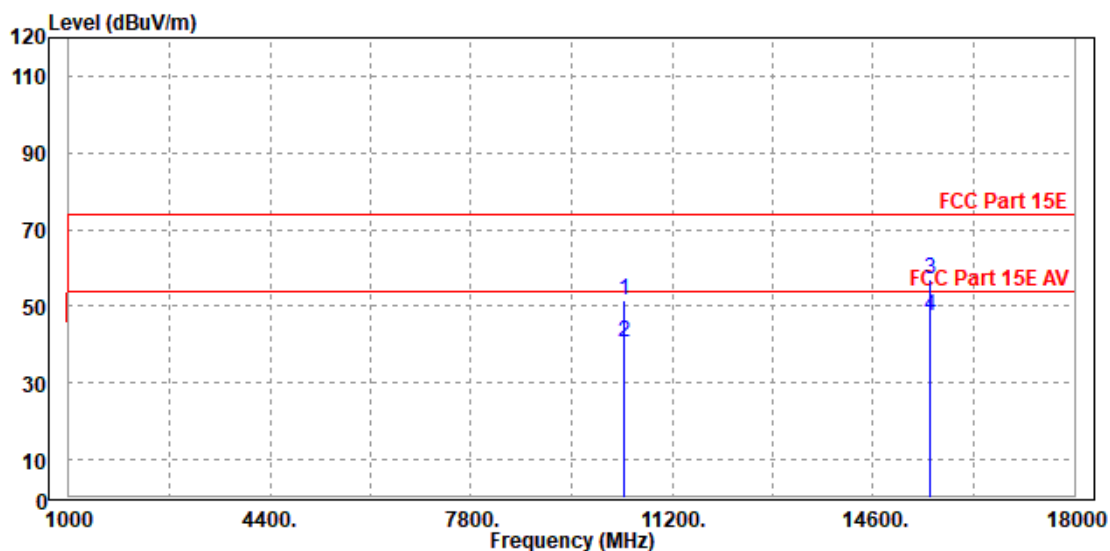
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10384.000	49.69	45.72	74.00	-24.31	3.97	Peak	Horizontal
2	10384.000	40.25	36.28	54.00	-13.75	3.97	Average	Horizontal
3	PK15570.000	57.48	43.21	74.00	-16.52	14.27	Peak	Horizontal
4	PP15570.000	47.86	33.59	54.00	-6.14	14.27	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	10384.000	51.45	46.33	74.00	-22.55	5.12	Peak	Vertical
2	10384.000	40.81	35.69	54.00	-13.19	5.12	Average	Vertical
3	PK15570.000	57.05	43.77	74.00	-16.95	13.28	Peak	Vertical
4	PP15570.000	47.60	34.32	54.00	-6.40	13.28	Average	Vertical



REMARKS:

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

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	102.56	101.36	/	/	35.09	11.28	45.17	100	230	Peak
5745	96.56	95.36	/	/	35.09	11.28	45.17	100	230	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	105.74	104.74	/	/	34.89	11.28	45.17	110	310	Peak
5745	98.96	97.96	/	/	34.89	11.28	45.17	110	310	Average

REMARKS:

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

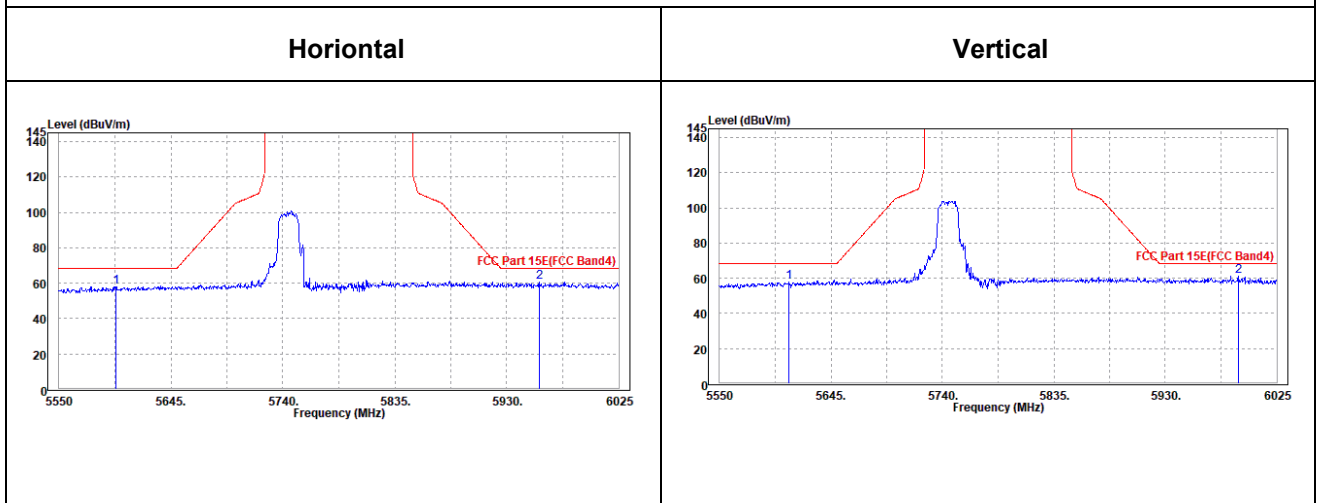


Oobe Data

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
5597.975	57.99	58.62	68.2	-10.21	34.92	10.67	46.22	200	360	Peak
5957.55	60.62	59.22	68.2	-7.58	35.35	12.17	46.12	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
5609.375	57.88	58.66	68.2	-10.32	34.73	10.71	46.22	210	0	Peak
5992.7	61.15	59.75	68.2	-7.05	35.19	12.32	46.11	210	0	Peak

CH 149





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	102.45	101.02	/	/	35.14	11.45	45.16	123	296	Peak
5785	96.57	95.14	/	/	35.14	11.45	45.16	123	296	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	104.86	103.63	/	/	34.94	11.45	45.16	104	112	Peak
5785	98.66	97.43	/	/	34.94	11.45	45.16	104	112	Average

REMARKS:

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



**BUREAU
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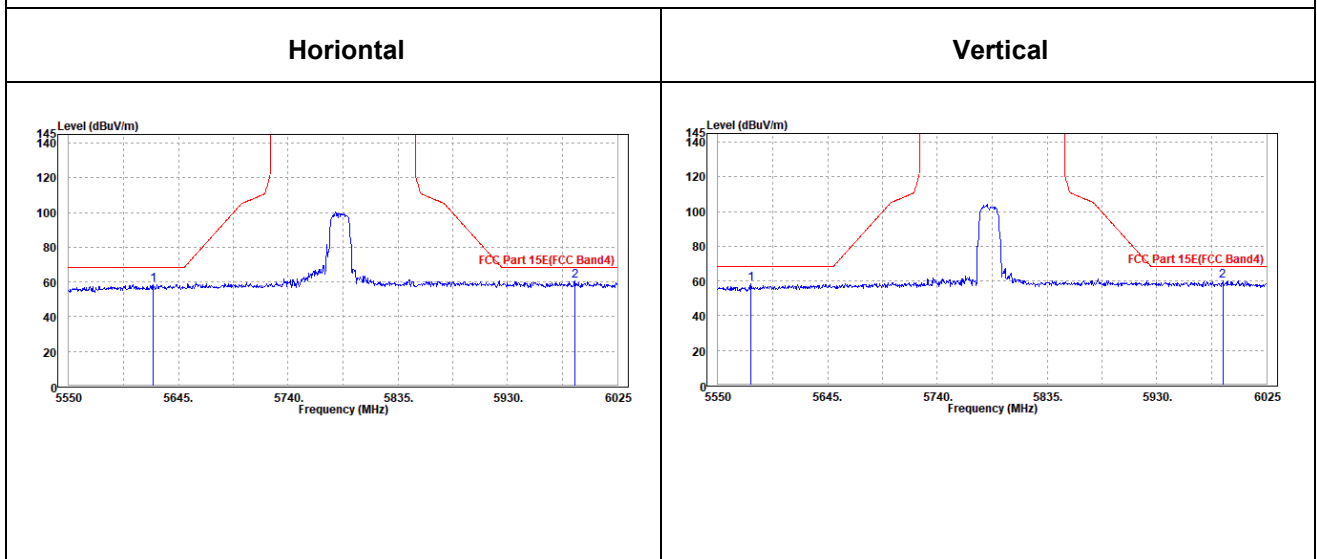
Test Report No.: W7L-P22040029RF03

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
5623.15	58.42	58.92	68.2	-9.78	34.95	10.77	46.22	115	329	Peak
5987.95	60.46	58.88	68.2	-7.74	35.39	12.3	46.11	115	329	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
5578.5	58.53	59.49	68.2	-9.67	34.69	10.58	46.23	104	211	Peak
5987	60.16	58.79	68.2	-8.04	35.18	12.3	46.11	104	211	Peak

CH 157





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	103.48	101.82	/	/	35.19	11.62	45.15	126	224	Peak
5825	96.87	95.21	/	/	35.19	11.62	45.15	126	224	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	104.6	103.14	/	/	34.99	11.62	45.15	134	45	Peak
5825	98.49	97.03	/	/	34.99	11.62	45.15	134	45	Average

REMARKS:

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

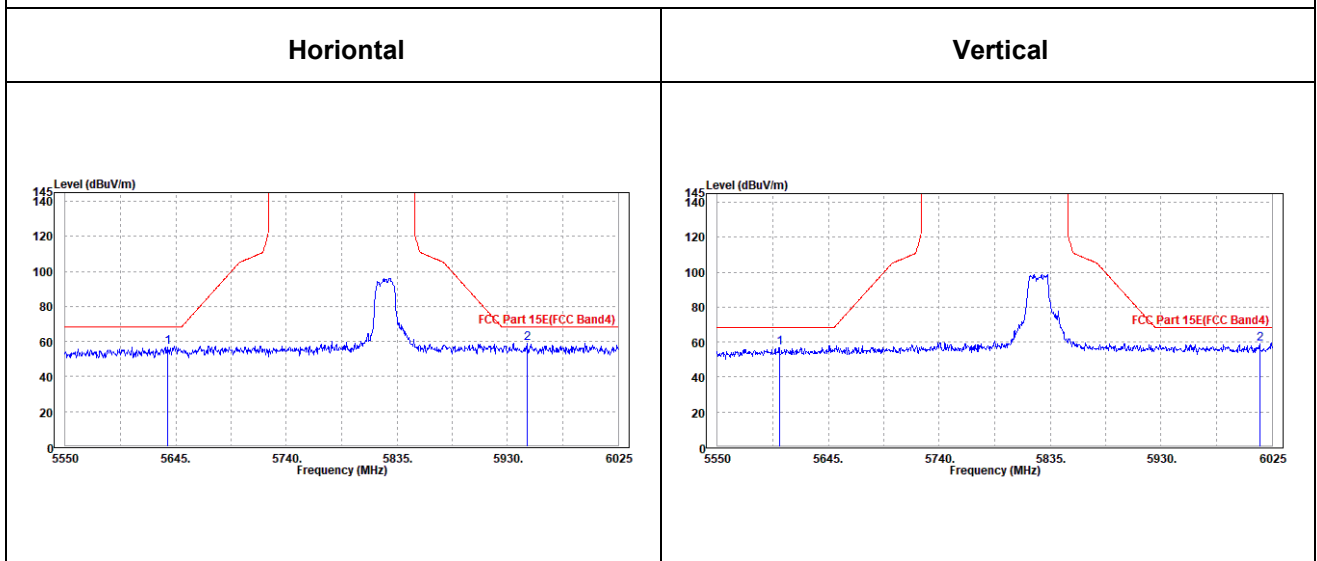


OOBE DATA

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
5637.875	56.76	57.17	68.2	-11.44	34.97	10.83	46.21	207	159	Peak
5946.625	59.26	57.91	68.2	-8.94	35.34	12.13	46.12	207	159	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	56.8	57.61	68.2	-11.4	34.72	10.69	46.22	210	300	Peak
6014.55	59.21	57.74	68.2	-8.99	35.22	12.36	46.11	210	300	Peak

CH 165





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	101.08	99.88	/	/	35.09	11.28	45.17	100	213	Peak
5745	94.36	93.16	/	/	35.09	11.28	45.17	100	213	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	104.54	103.54	/	/	34.89	11.28	45.17	110	310	Peak
5745	98.17	97.17	/	/	34.89	11.28	45.17	110	310	Average

REMARKS:

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

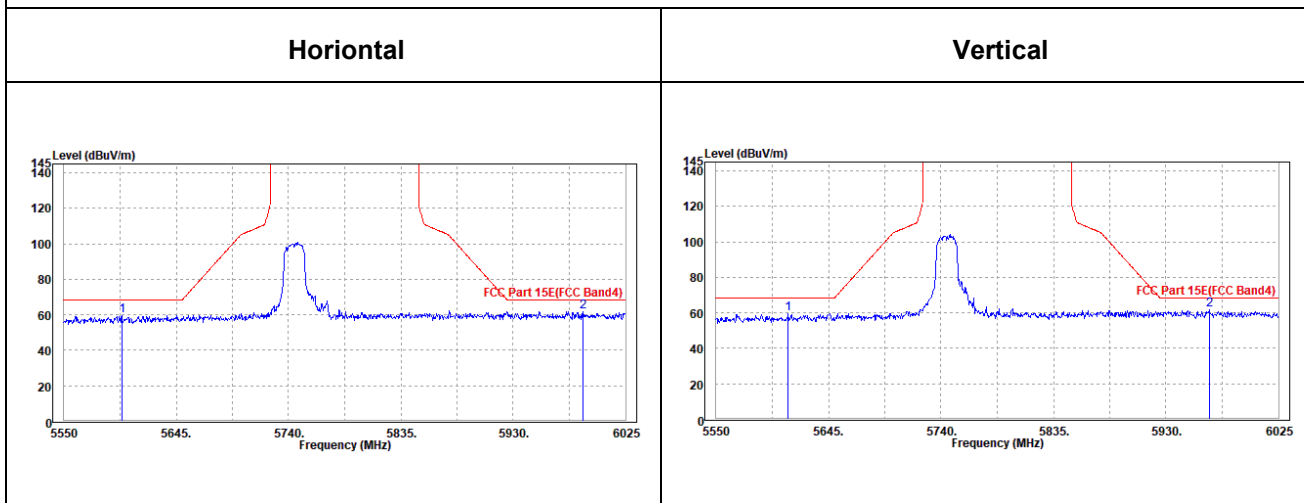


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802.11n (20MHZ)

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
5598.925	59.7	60.33	68.2	-8.5	34.92	10.67	46.22	200	224	Peak
5988.9	61.81	60.23	68.2	-6.39	35.39	12.3	46.11	200	224	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5610.8	59.28	60.05	68.2	-8.92	34.73	10.72	46.22	210	321	Peak
5966.575	61.85	60.6	68.2	-6.35	35.16	12.21	46.12	210	321	Peak

CH 149





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	103.21	102.79	/	/	35.14	11.45	46.17	113	256	Peak
5785	95.46	95.04	/	/	35.14	11.45	46.17	113	256	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	105.38	105.16	/	/	34.94	11.45	46.17	121	205	Peak
5785	98.49	98.27	/	/	34.94	11.45	46.17	121	205	Average

REMARKS:

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

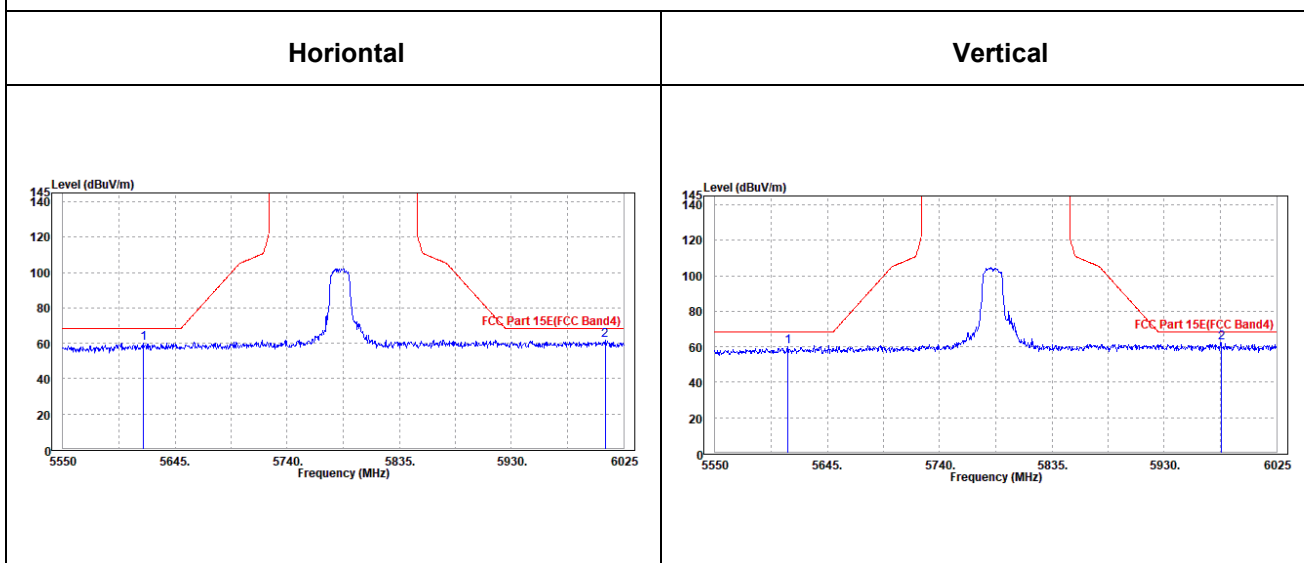


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802.11n (20MHZ)

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
5618.4	60.15	60.68	68.2	-8.05	34.94	10.75	46.22	190	276	Peak
6009.325	61.68	60.03	68.2	-6.52	35.4	12.36	46.11	190	276	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
5611.275	59.93	60.7	68.2	-8.27	34.73	10.72	46.22	200	205	Peak
5977.975	62.34	61.03	68.2	-5.86	35.17	12.26	46.12	200	205	Peak

CH 157





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	102.24	101.59	/	/	35.19	11.62	46.16	120	273	Peak
5825	94.96	94.31	/	/	35.19	11.62	46.16	120	273	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	105.39	104.94	/	/	34.99	11.62	46.16	100	211	Peak
5825	99.23	98.78	/	/	34.99	11.62	46.16	100	211	Average

REMARKS:

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

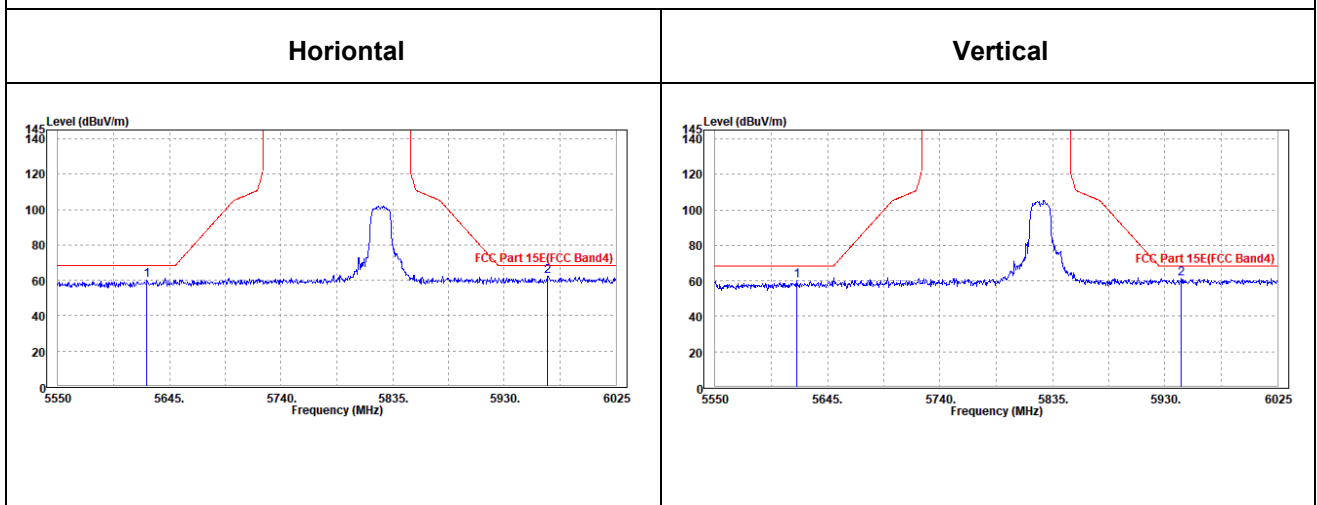


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802.11n (20MHZ)

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
5626	60.06	60.54	68.2	-8.14	34.95	10.78	46.21	212	249	Peak
5967.05	62.32	60.87	68.2	-5.88	35.36	12.21	46.12	212	249	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5619.35	60.32	61.04	68.2	-7.88	34.74	10.76	46.22	196	214	Peak
5943.775	61.1	59.99	68.2	-7.1	35.13	12.11	46.13	196	214	Peak

CH 165





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	97.89	97.64	/	/	35.11	11.32	46.18	124	275	Peak
5755	92.35	92.1	/	/	35.11	11.32	46.18	124	275	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	99.93	99.88	/	/	34.91	11.32	46.18	116	208	Peak
5755	94.67	94.62	/	/	34.91	11.32	46.18	116	208	Average

REMARKS:

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

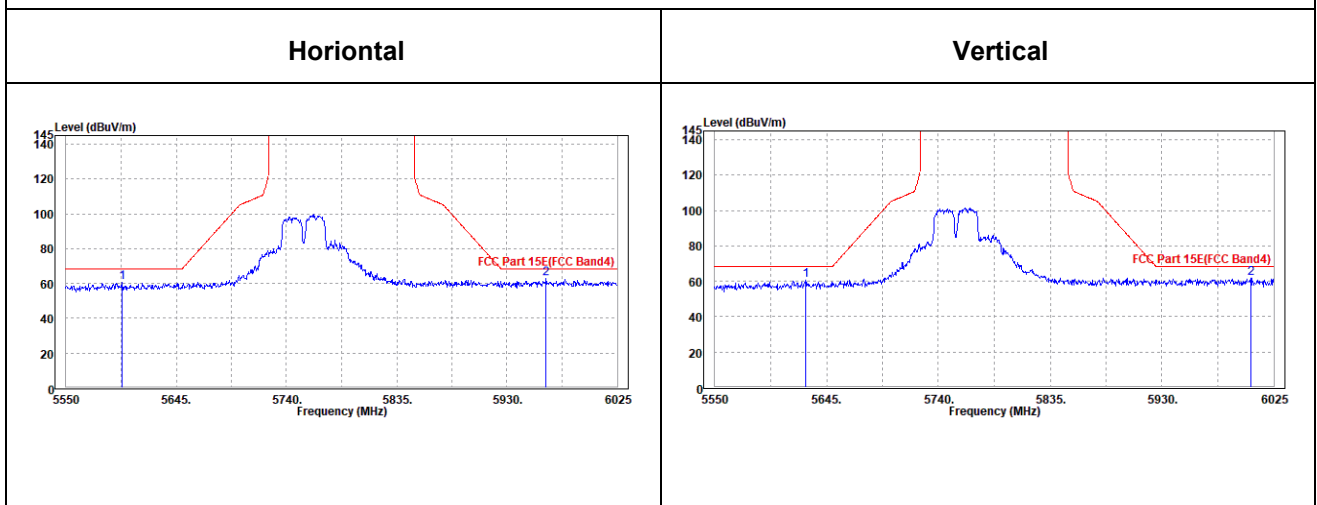


OBE DATA

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
5597.975	60.67	61.3	68.2	-7.53	34.92	10.67	46.22	212	255	Peak
5963.725	62.77	61.33	68.2	-5.43	35.36	12.2	46.12	212	255	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
5626.95	60.79	61.46	68.2	-7.41	34.75	10.79	46.21	223	208	Peak
6005.525	61.89	60.44	68.2	-6.31	35.21	12.35	46.11	223	208	Peak

CH 151





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	98.1	97.63	/	/	35.15	11.49	46.17	113	268	Peak
5795	92.18	91.71	/	/	35.15	11.49	46.17	113	268	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	100.73	100.46	/	/	34.95	11.49	46.17	119	245	Peak
5795	95.59	95.32	/	/	34.95	11.49	46.17	119	245	Average

REMARKS:

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

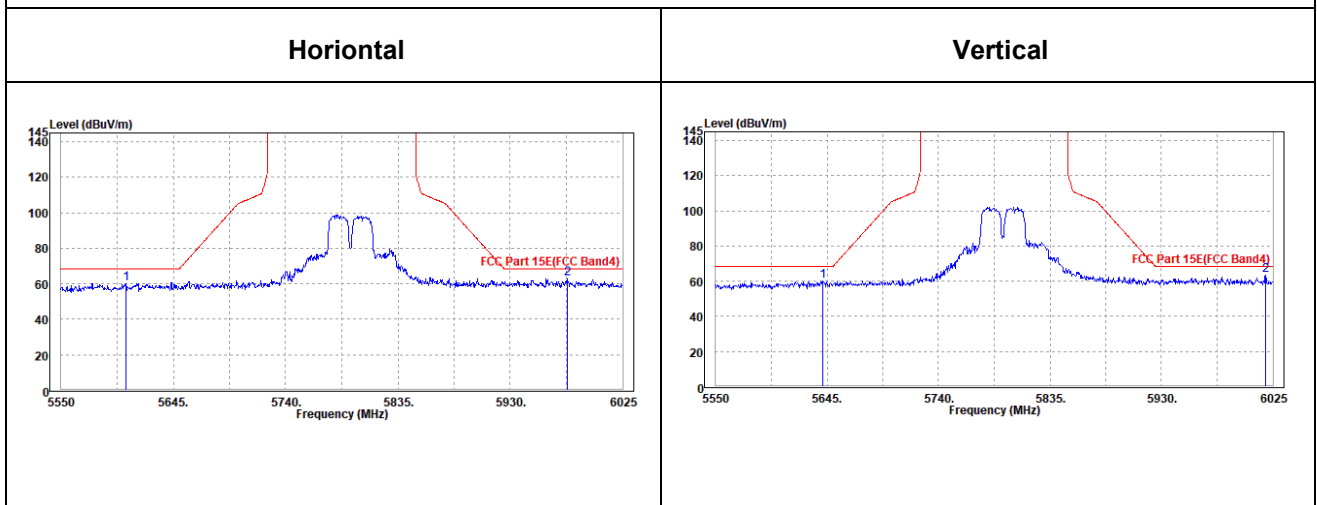


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802.11n (40MHz)

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
5604.625	60.33	60.93	68.2	-7.87	34.93	10.69	46.22	212	267	Peak
5978.45	62.81	61.3	68.2	-5.39	35.37	12.26	46.12	212	267	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	60.3	60.89	68.2	-7.9	34.77	10.85	46.21	204	201	Peak
6018.825	63.22	61.74	68.2	-4.98	35.22	12.36	46.1	204	201	Peak

CH 159





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	94.96	94.59	/	/	35.13	11.41	46.17	104	256	Peak
5775	89.68	89.31	/	/	35.13	11.41	46.17	104	256	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	96.68	96.51	/	/	34.93	11.41	46.17	117	218	Peak
5775	92.93	92.76	/	/	34.93	11.41	46.17	117	218	Average

REMARKS:

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



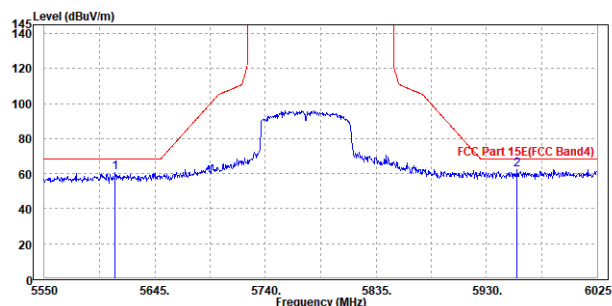
OOBE DATA

802.11ac (80MHZ)

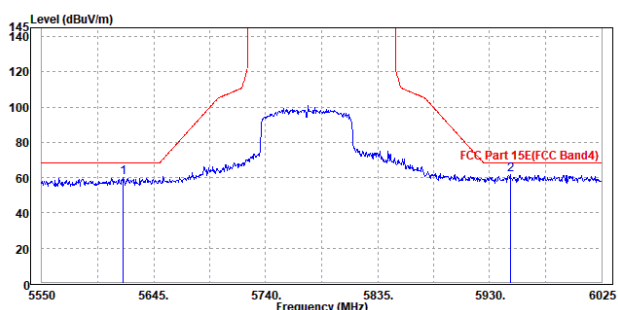
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5610.8	60.37	60.94	68.2	-7.83	34.93	10.72	46.22	182	246	Peak
5956.125	62.31	60.91	68.2	-5.89	35.35	12.17	46.12	182	246	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5619.35	60.08	60.8	68.2	-8.12	34.74	10.76	46.22	190	257	Peak
5947.575	61.92	60.77	68.2	-6.28	35.14	12.13	46.12	190	257	Peak

CH 155

Horizontal



Vertical



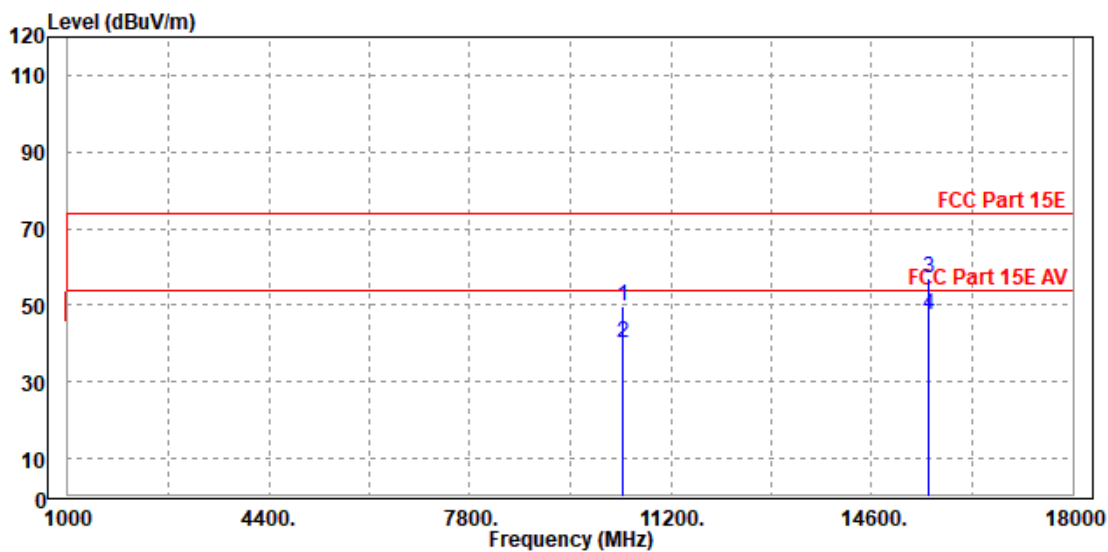
HARMONIC:

802.11ac 20

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

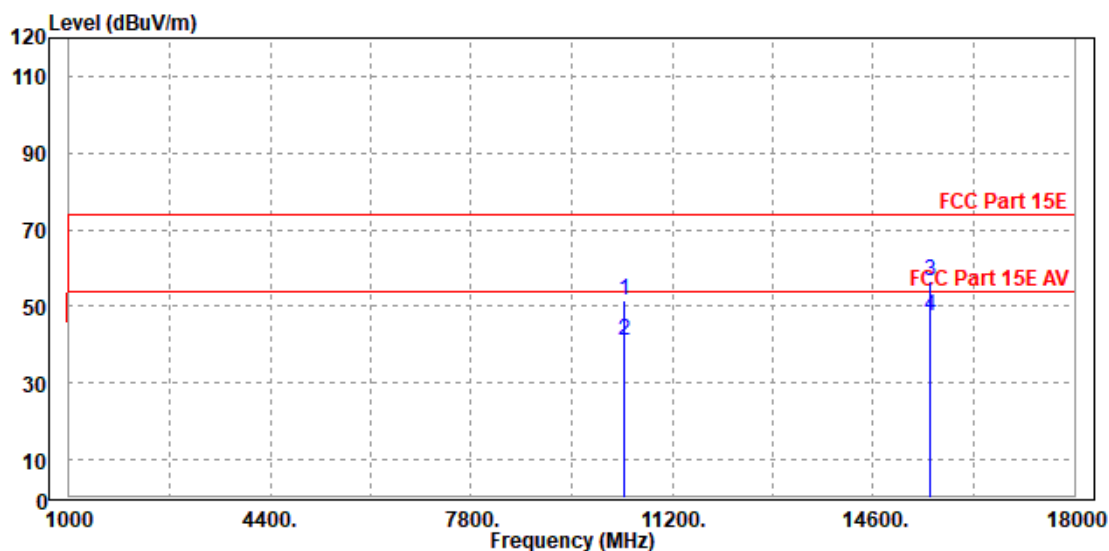
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10384.000	49.70	45.73	74.00	-24.30	3.97	Peak	Horizontal
2	10384.000	40.19	36.22	54.00	-13.81	3.97	Average	Horizontal
3	PK15570.000	57.16	42.89	74.00	-16.84	14.27	Peak	Horizontal
4	PP15570.000	47.57	33.30	54.00	-6.43	14.27	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	10384.000	51.50	46.38	74.00	-22.50	5.12	Peak	Vertical
2	10384.000	40.97	35.85	54.00	-13.03	5.12	Average	Vertical
3	PK15570.000	56.48	43.20	74.00	-17.52	13.28	Peak	Vertical
4	PP15570.000	47.50	34.22	54.00	-6.50	13.28	Average	Vertical



REMARKS:

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

3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	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. 15,22	Feb. 14,23
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 04,22	Mar. 03,23

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

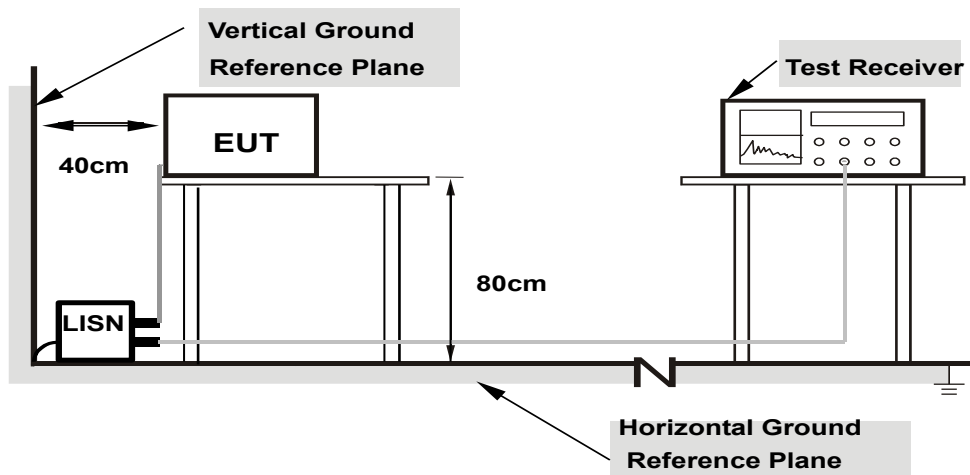
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 3.1.6.

3.2.7 TEST RESULTS

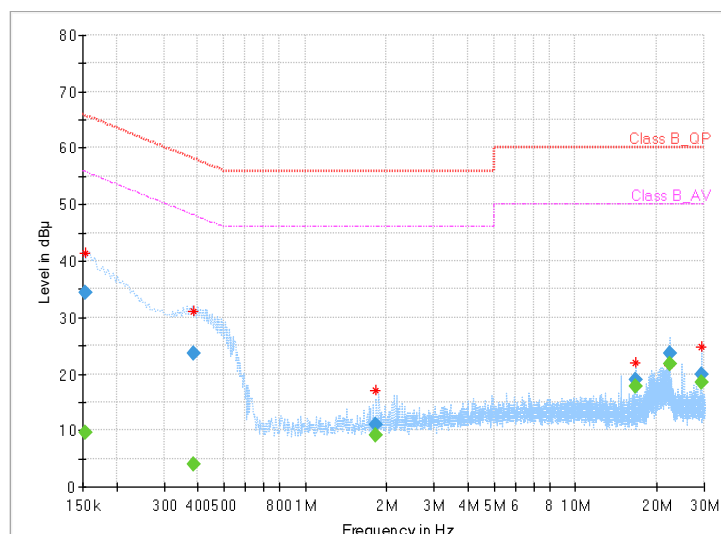
CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	24deg. C, 55%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	---	9.64	55.78	46.14	L1	ON	9.7
0.154000	34.33	---	65.78	31.45	L1	ON	9.7
0.384000	---	3.95	48.19	44.24	L1	ON	9.7
0.384000	23.54	---	58.19	34.65	L1	ON	9.7
1.828000	---	9.19	46.00	36.81	L1	ON	9.7
1.828000	11.01	---	56.00	44.99	L1	ON	9.7
16.800000	---	17.79	50.00	32.21	L1	ON	9.8
16.800000	18.87	---	60.00	41.13	L1	ON	9.8
22.400000	---	21.81	50.00	28.19	L1	ON	9.8
22.400000	23.67	---	60.00	36.33	L1	ON	9.8
29.488000	---	18.45	50.00	31.55	L1	ON	9.8
29.488000	19.92	---	60.00	40.08	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

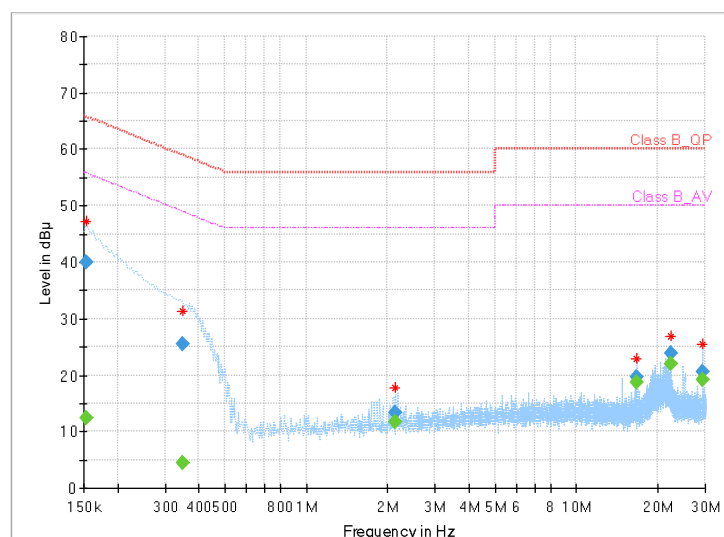


Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	24deg. C, 55%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	---	12.40	55.78	43.38	N	ON	9.7
0.154000	39.92	---	65.78	25.86	N	ON	9.7
0.348000	---	4.55	49.01	44.46	N	ON	9.7
0.348000	25.54	---	59.01	33.47	N	ON	9.7
2.140000	---	11.72	46.00	34.28	N	ON	9.8
2.140000	13.26	---	56.00	42.74	N	ON	9.8
16.804000	---	18.70	50.00	31.30	N	ON	9.9
16.804000	19.62	---	60.00	40.38	N	ON	9.9
22.408000	---	21.95	50.00	28.05	N	ON	9.9
22.408000	23.83	---	60.00	36.17	N	ON	9.9
29.492000	---	19.17	50.00	30.83	N	ON	9.9
29.492000	20.65	---	60.00	39.35	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

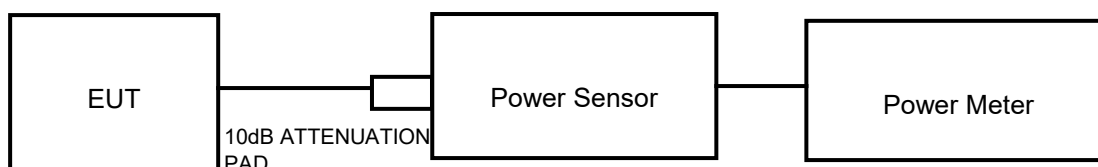
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	B	Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)
U-NII-3	√		1 Watt (30 dBm)

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

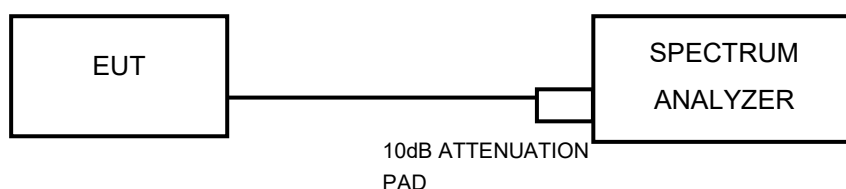
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

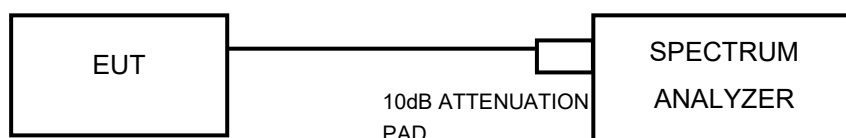
802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz) TEST CONFIGURATION



11ac TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 22,22	Feb. 21,23
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Apr. 26,22	Apr. 25,23
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Feb. 24,22	Feb. 23,23
Power Sensor	ANRITSU	MA2411B	1339352	May. 07,21	May. 06,22
Power Sensor	ANRITSU	MA2411B	1339352	May. 06,22	May. 07,23

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)

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 802.11ac (80MHz)

1. Measure the duty cycle, x , of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW $\geq$ 3 MHz.
5. Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
8. Do not use sweep triggering. Allow the sweep to “free run.”
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Add $10 \log (1/x)$, where x is the duty cycle, to the measured power 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). For example, add $10 \log (1/0.25) = 6 \text{ dB}$ if the duty cycle is 25%.

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.

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.



Test Report No.: W7L-P22040029RF03

3.3.7 TEST RESULTS

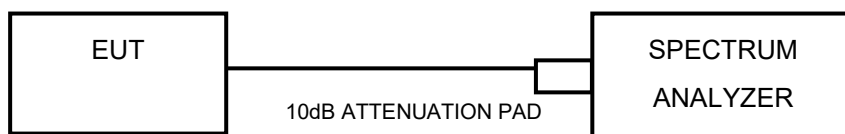
Please Refer to Appendix A. Of this test report.

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-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

- 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

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.6.



Test Report No.: W7L-P22040029RF03

3.4.7 TEST RESULTS

Please Refer to Appendix A. Of this test report.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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

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

6 APPENDIX A

EMISSION BANDWIDTH

TEST RESULT

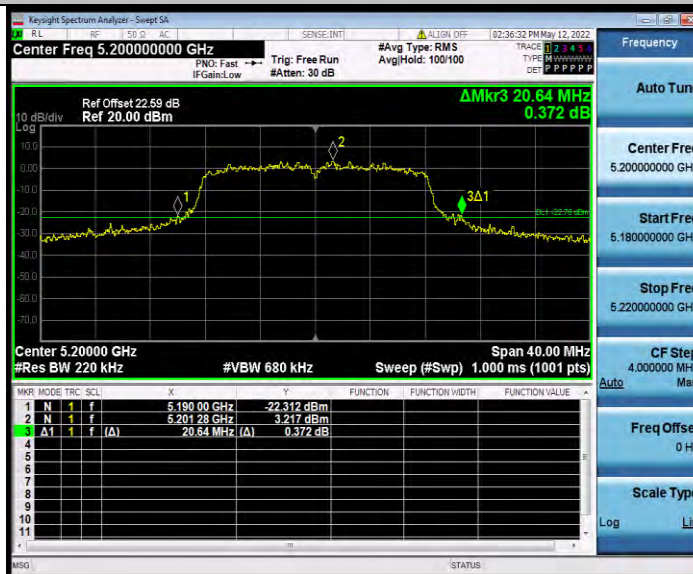
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.040	5169.560	5190.600	---	---
		5200	20.640	5190.000	5210.640	---	---
		5240	21.160	5229.560	5250.720	---	---
		5745	21.680	5735.240	5756.920	---	---
		5785	26.960	5774.240	5801.200	---	---
		5825	30.240	5812.240	5842.480	---	---
11N20SISO	Ant1	5180	20.320	5169.600	5189.920	---	---
		5200	20.080	5189.800	5209.880	---	---
		5240	20.800	5229.840	5250.640	---	---
		5745	21.200	5734.760	5755.960	---	---
		5785	20.960	5774.720	5795.680	---	---
		5825	21.440	5814.680	5836.120	---	---
11N40SISO	Ant1	5190	55.840	5157.520	5213.360	---	---
		5230	46.800	5204.960	5251.760	---	---
		5755	78.320	5716.600	5794.920	---	---
		5795	77.040	5756.200	5833.240	---	---
11AC20SISO	Ant1	5180	20.440	5169.640	5190.080	---	---
		5200	20.600	5189.840	5210.440	---	---
		5240	20.920	5229.600	5250.520	---	---
		5745	19.560	5735.480	5755.040	---	---
		5785	19.600	5775.280	5794.880	---	---
		5825	20.320	5815.360	5835.680	---	---
11AC40SISO	Ant1	5190	43.360	5167.920	5211.280	---	---
		5230	45.840	5206.560	5252.400	---	---
		5755	65.920	5726.600	5792.520	---	---
		5795	76.160	5756.840	5833.000	---	---
11AC80SISO	Ant1	5210	153.760	5133.200	5286.960	---	---
		5775	152.320	5702.360	5854.680	---	---

TEST GRAPHS

11A_Ant1_5180



11A_Ant1_5200

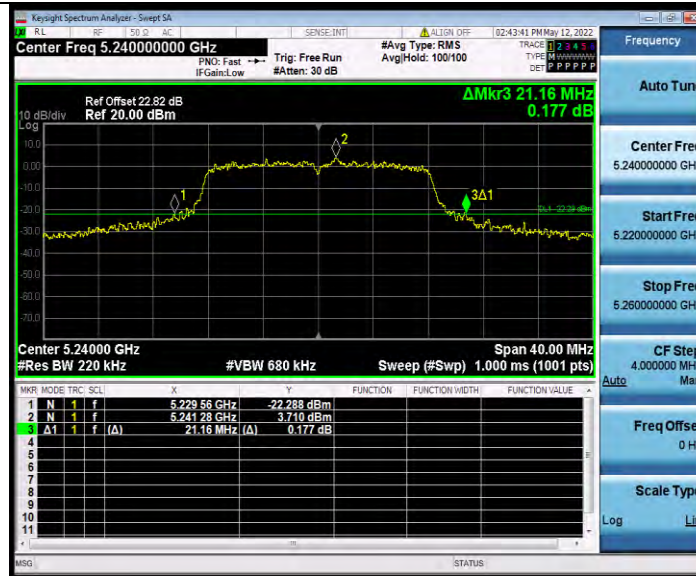


11A_Ant1_5240



BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11A_Ant1_5745



11A_Ant1_5785



BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11A_Ant1_5825

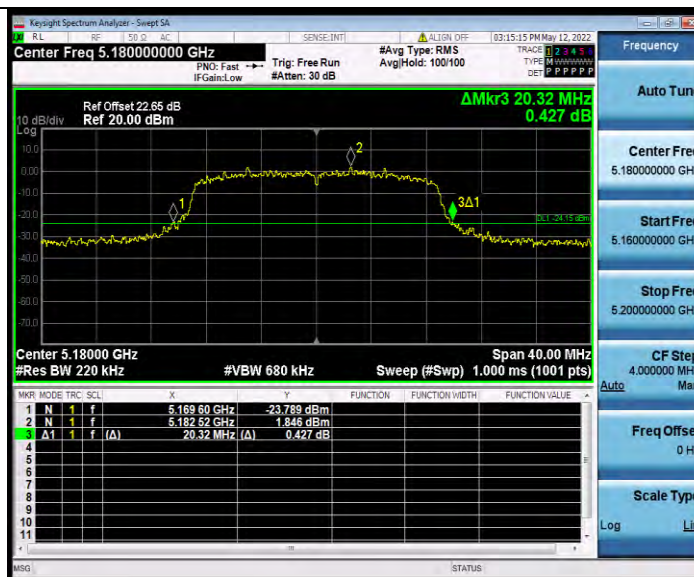


11N20SISO_Ant1_5180

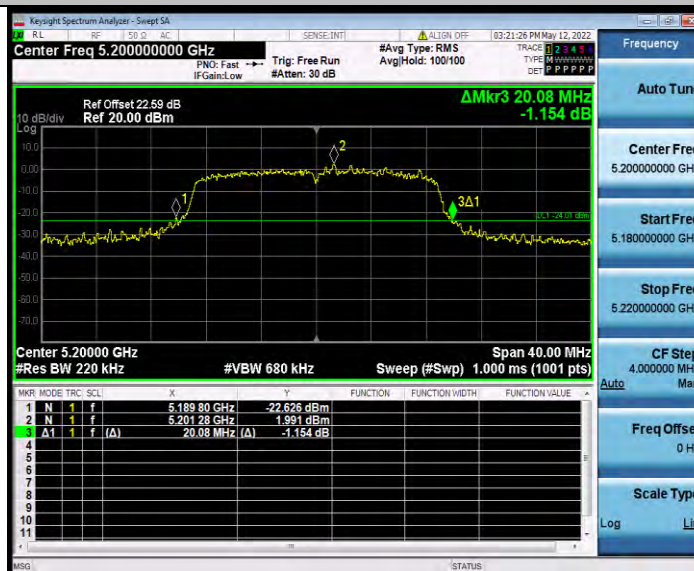


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5200

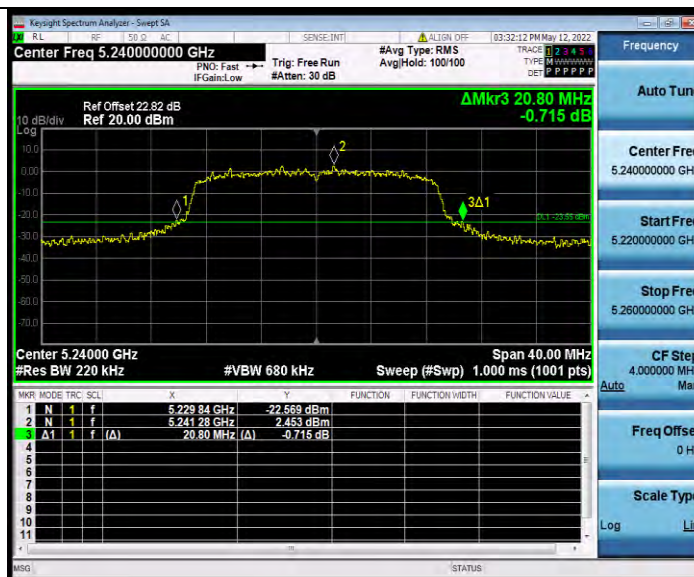


11N20SISO_Ant1_5240

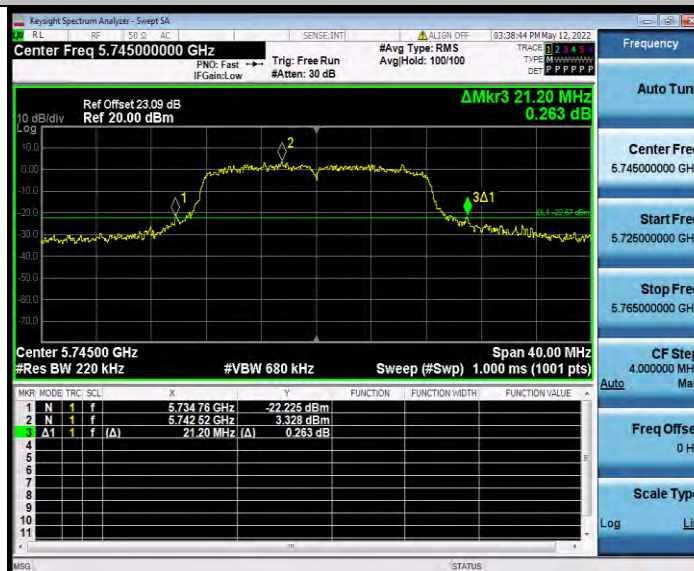


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5745

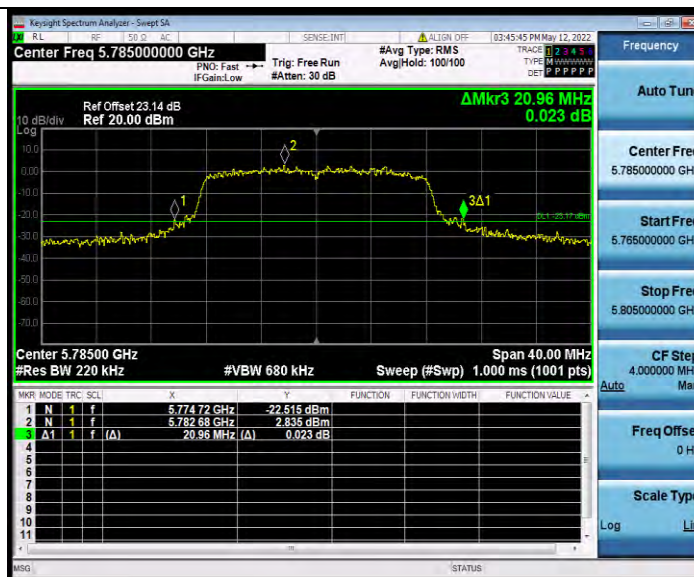


11N20SISO_Ant1_5785

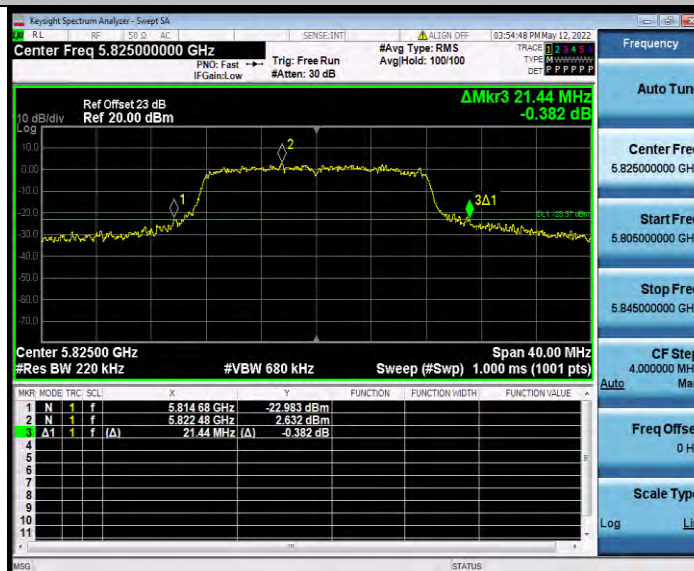


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5825

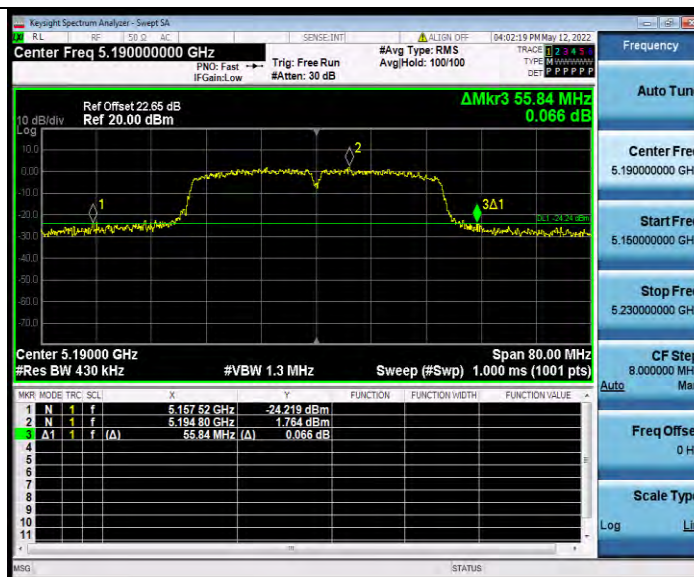


11N40SISO_Ant1_5190

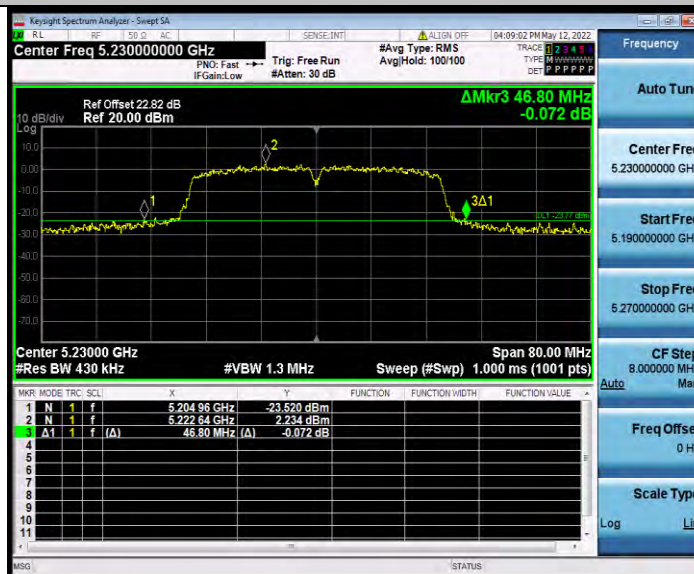


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N40SISO_Ant1_5230

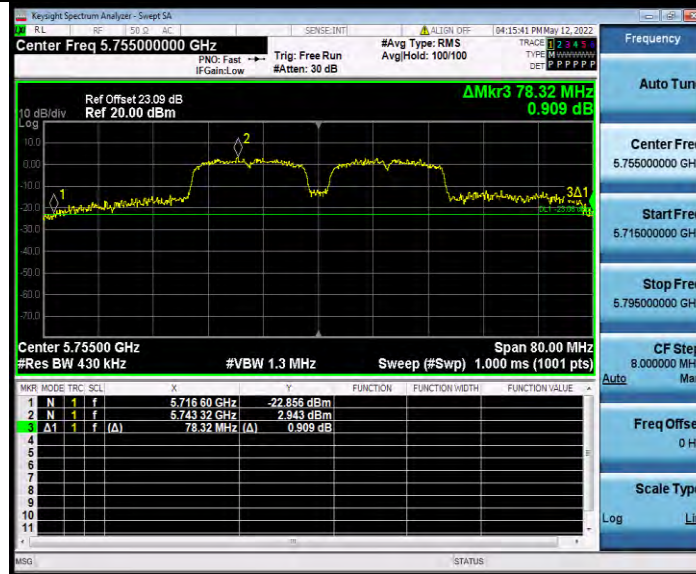


11N40SISO_Ant1_5755

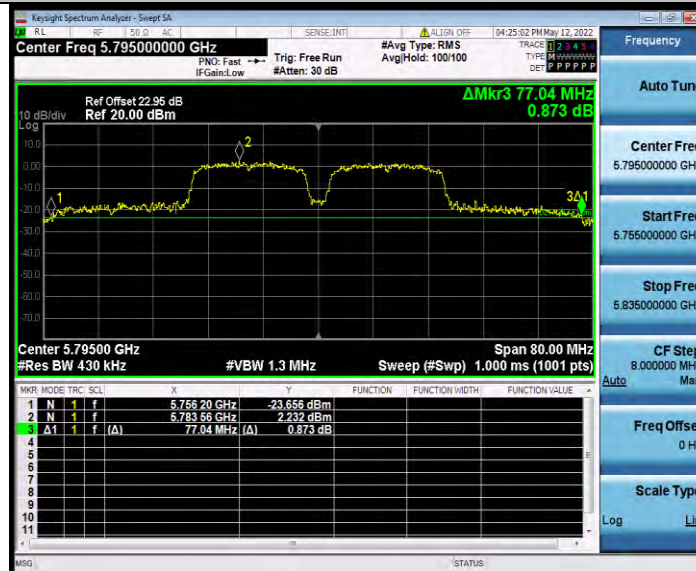


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VERITAS

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11N40SISO_Ant1_5795



11AC20SISO_Ant1_5180

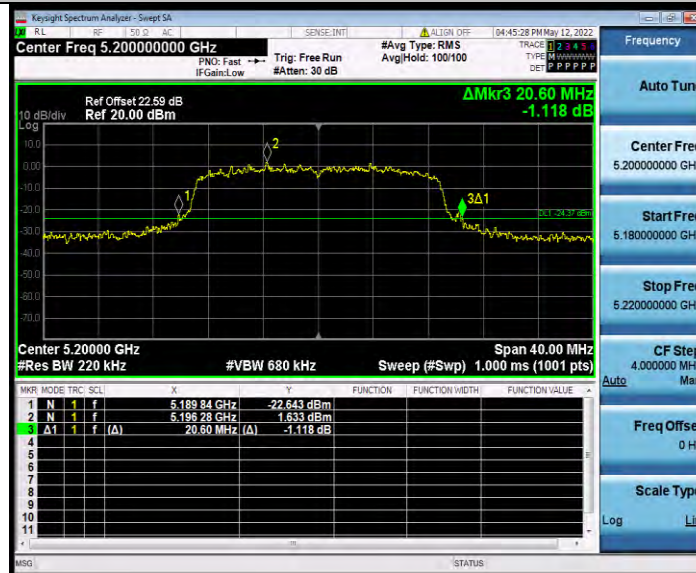


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VERITAS

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11AC20SISO_Ant1_5200

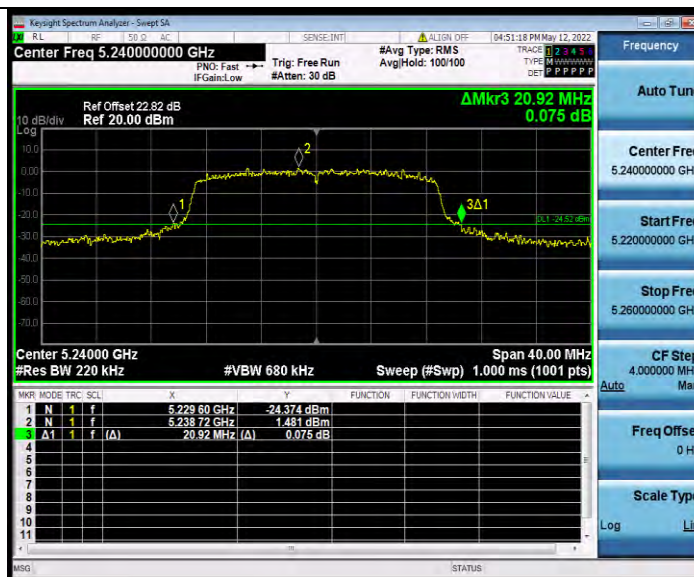


11AC20SISO_Ant1_5240



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VERITAS

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11AC20SISO_Ant1_5745

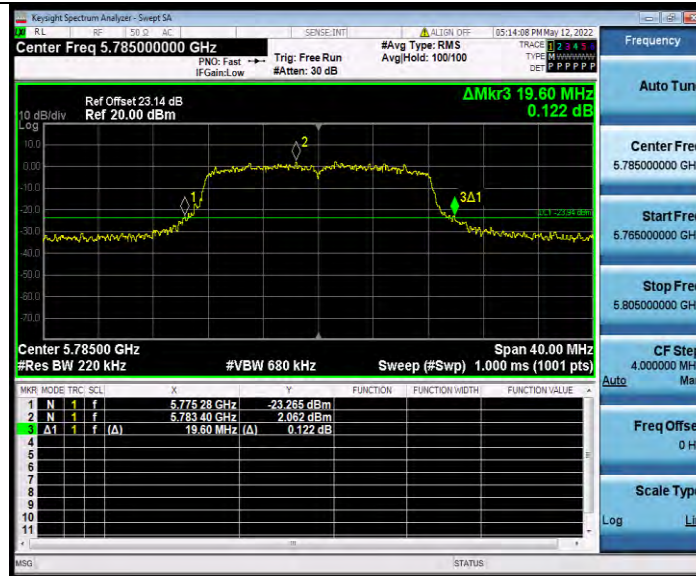


11AC20SISO_Ant1_5785

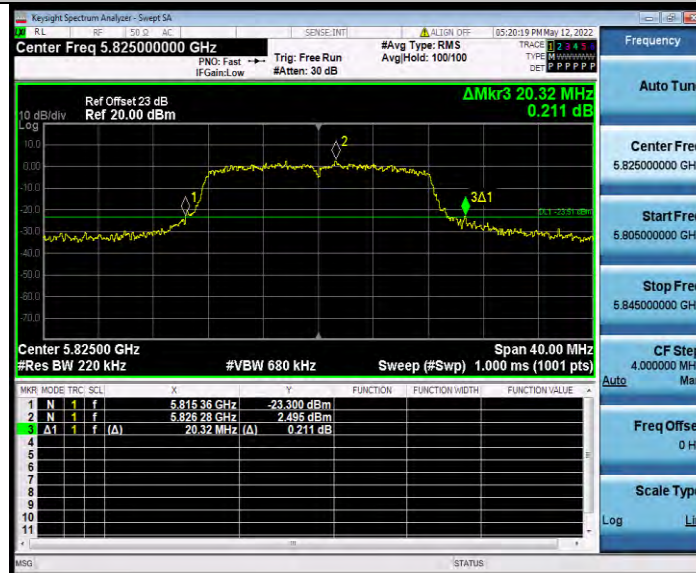


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VERITAS

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11AC20SISO_Ant1_5825

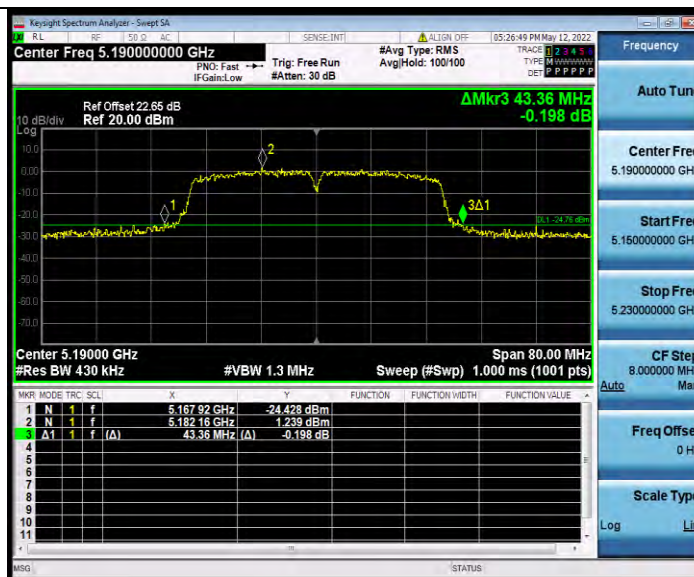


11AC40SISO_Ant1_5190



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VERITAS

Test Report No.: W7L-P22040029RF03



11AC40SISO_Ant1_5230

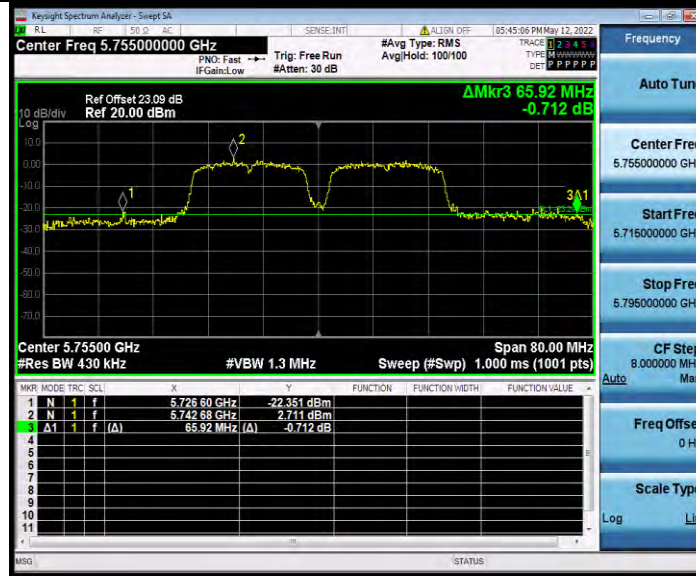


11AC40SISO_Ant1_5755

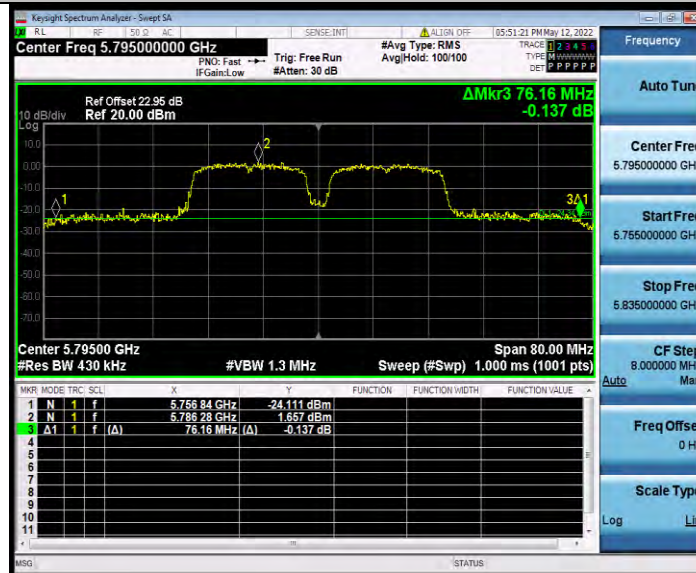


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VERITAS

Test Report No.: W7L-P22040029RF03



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5210



BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



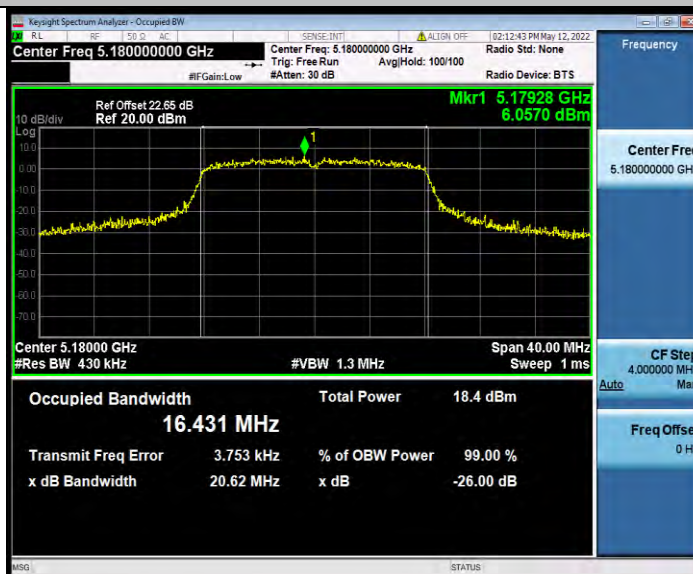
OCCUPIED CHANNEL BANDWIDTH

TEST RESULT

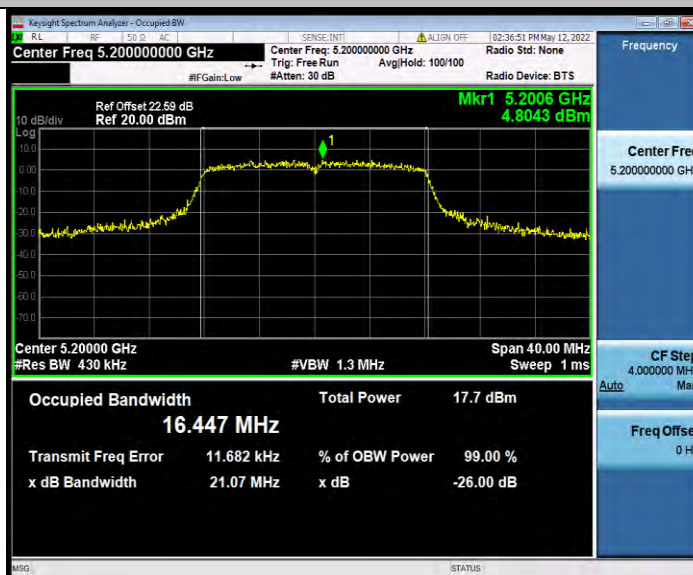
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.431	5171.788	5188.219	---	---
		5200	16.447	5191.788	5208.235	---	---
		5240	16.421	5231.800	5248.221	---	---
		5745	16.522	5736.768	5753.290	---	---
		5785	16.592	5776.746	5793.338	---	---
		5825	16.723	5816.731	5833.454	---	---
11N20SISO	Ant1	5180	17.573	5171.204	5188.777	---	---
		5200	17.535	5191.240	5208.775	---	---
		5240	17.513	5231.253	5248.766	---	---
		5745	16.426	5736.812	5753.238	---	---
		5785	16.442	5776.796	5793.238	---	---
		5825	16.437	5816.805	5833.242	---	---
11N40SISO	Ant1	5190	36.181	5171.922	5208.103	---	---
		5230	36.123	5211.944	5248.067	---	---
		5755	54.096	5732.170	5786.266	---	---
		5795	45.200	5770.601	5815.801	---	---
11AC20SISO	Ant1	5180	17.538	5171.237	5188.775	---	---
		5200	17.547	5191.231	5208.778	---	---
		5240	17.555	5231.228	5248.783	---	---
		5745	16.412	5736.796	5753.208	---	---
		5785	16.440	5776.775	5793.215	---	---
		5825	16.444	5816.789	5833.233	---	---
11AC40SISO	Ant1	5190	36.118	5171.945	5208.063	---	---
		5230	36.104	5211.978	5248.082	---	---
		5755	36.611	5736.821	5773.432	---	---
		5795	36.858	5776.596	5813.454	---	---
11AC80SISO	Ant1	5210	76.107	5171.920	5248.027	---	---
		5775	76.107	5737.022	5813.129	---	---

TEST GRAPHS

11A_Ant1_5180



11A_Ant1_5200

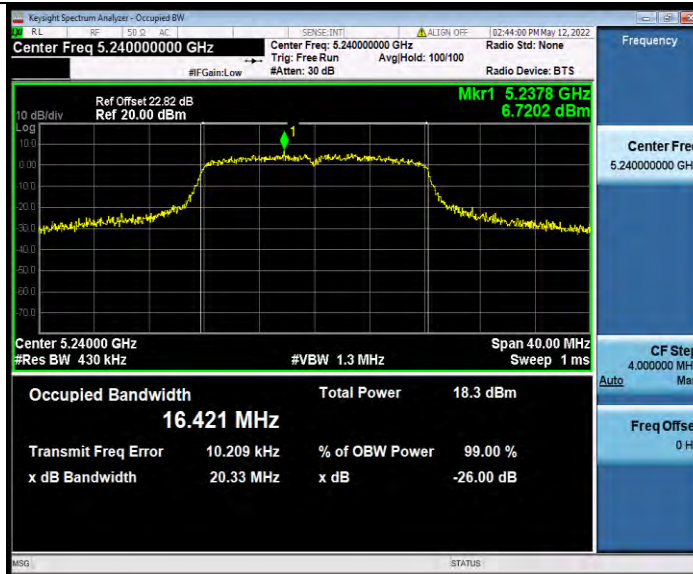


11A_Ant1_5240

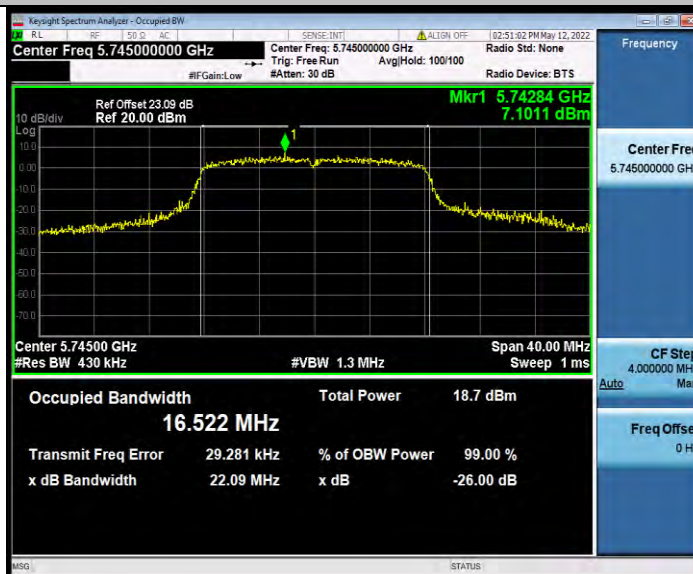


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11A_Ant1_5745



11A_Ant1_5785

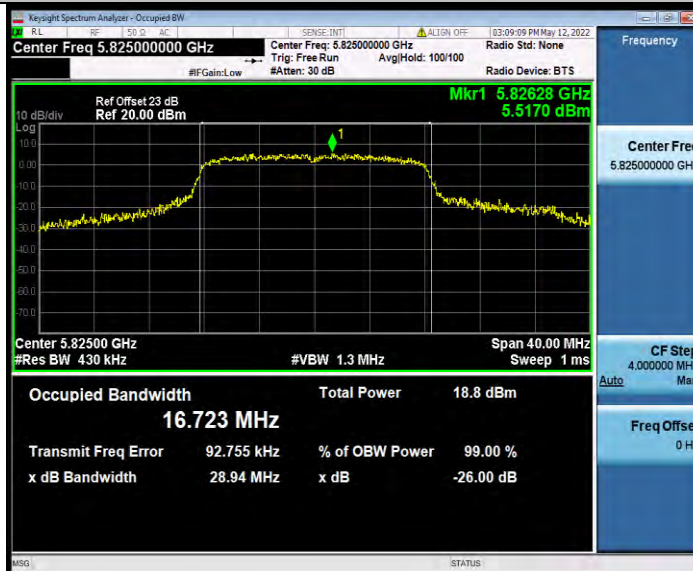


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11A_Ant1_5825

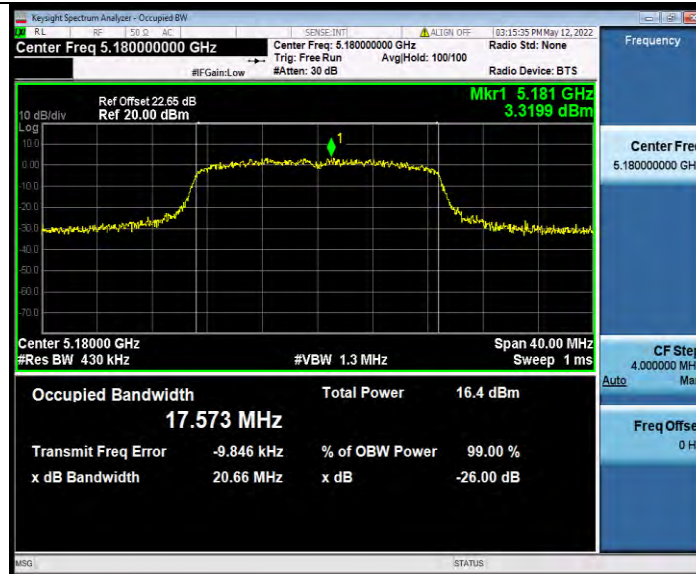


11N20SISO_Ant1_5180

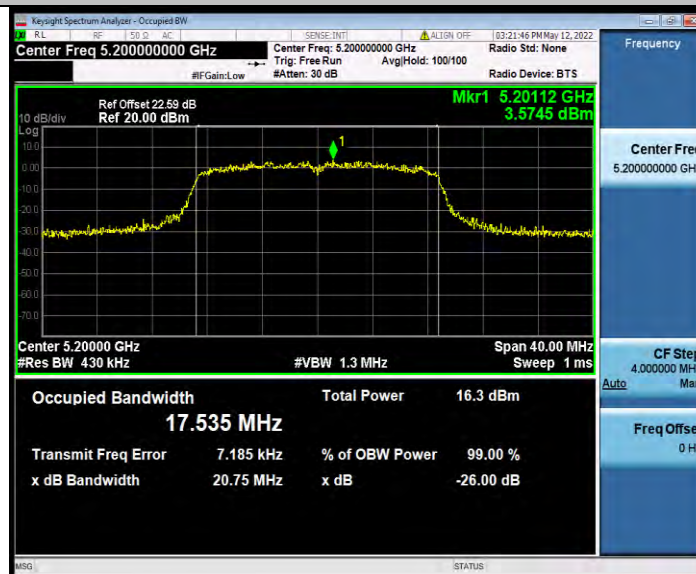


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5200

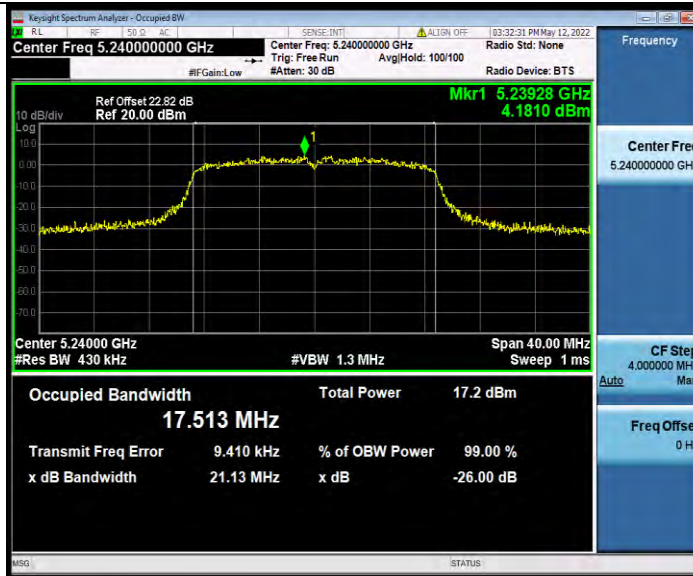


11N20SISO_Ant1_5240

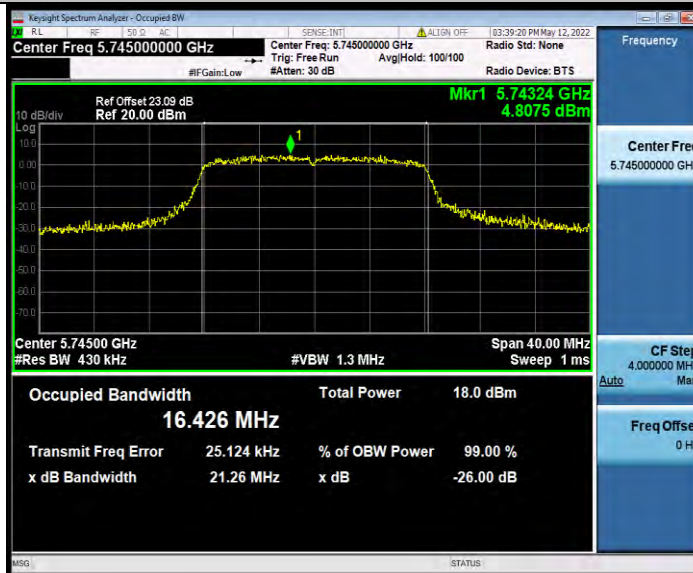


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



BUREAU
VERITAS

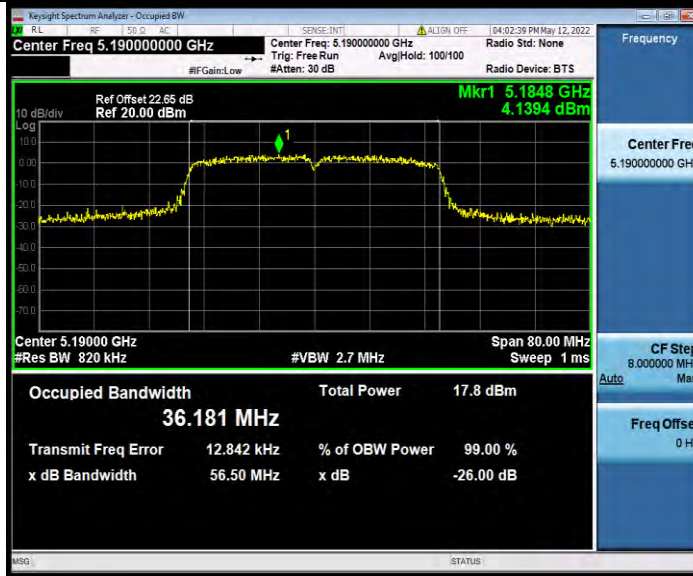
Test Report No.: W7L-P22040029RF03



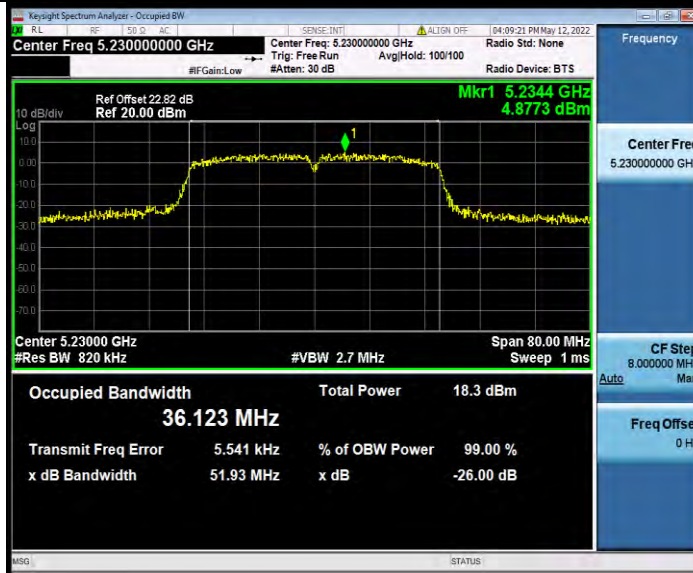


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N40SISO_Ant1_5230



11N40SISO_Ant1_5755

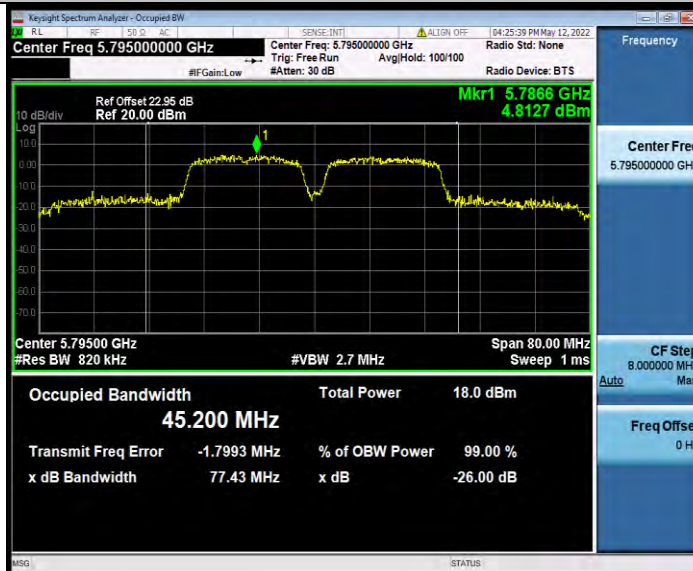


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N40SISO_Ant1_5795



11AC20SISO_Ant1_5180



BUREAU
VERITAS

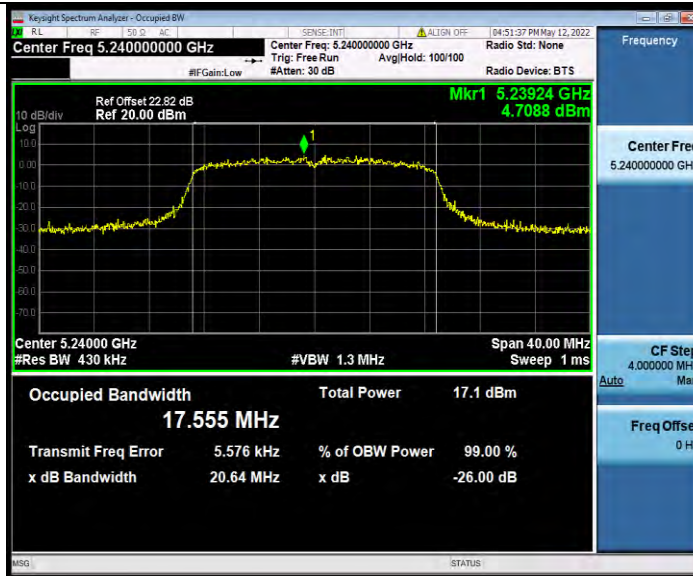
Test Report No.: W7L-P22040029RF03



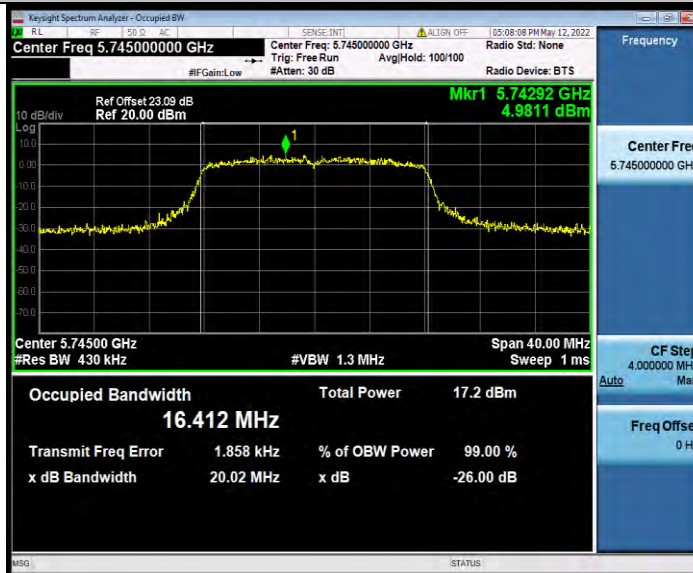


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11AC20SISO_Ant1_5745

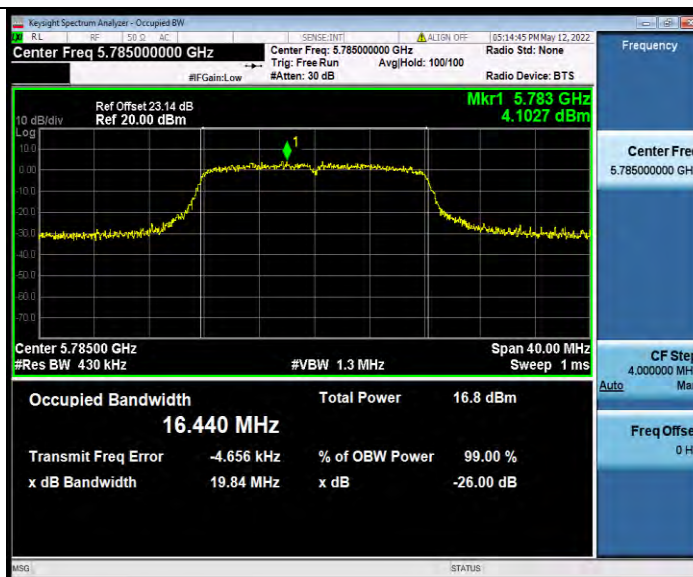


11AC20SISO_Ant1_5785

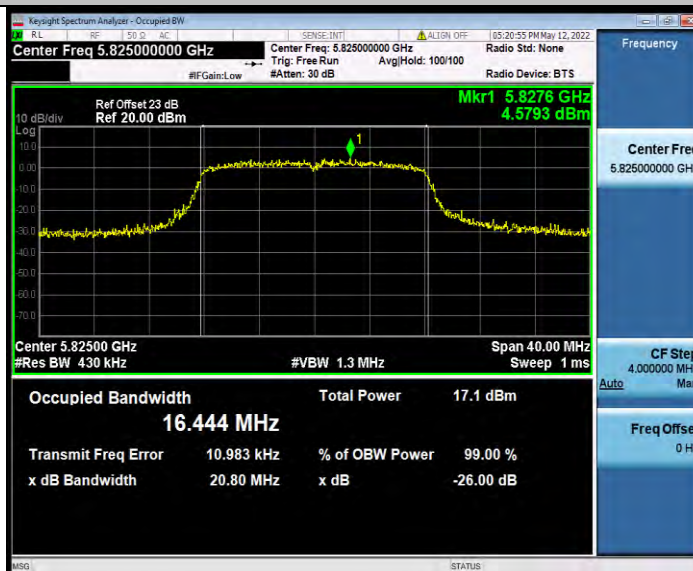


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11AC20SISO_Ant1_5825

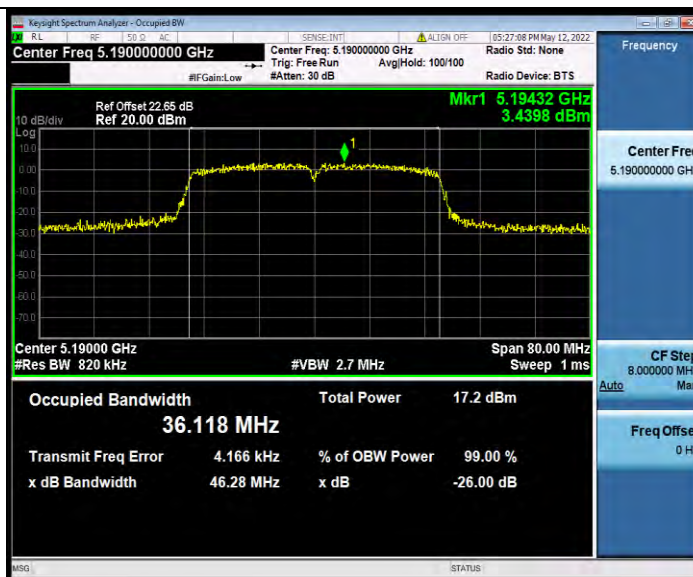


11AC40SISO_Ant1_5190

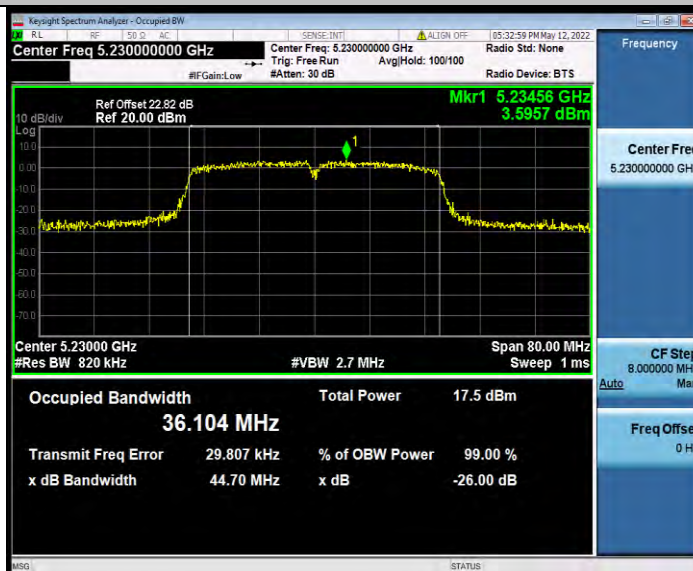


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11AC40SISO_Ant1_5230

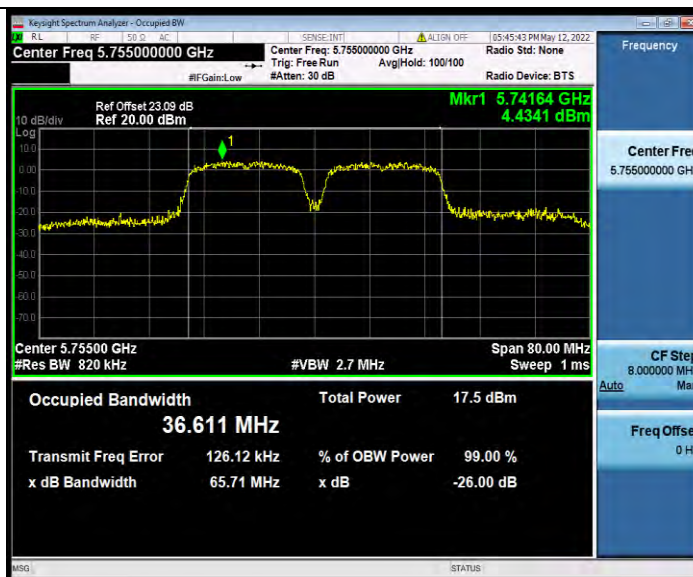


11AC40SISO_Ant1_5755

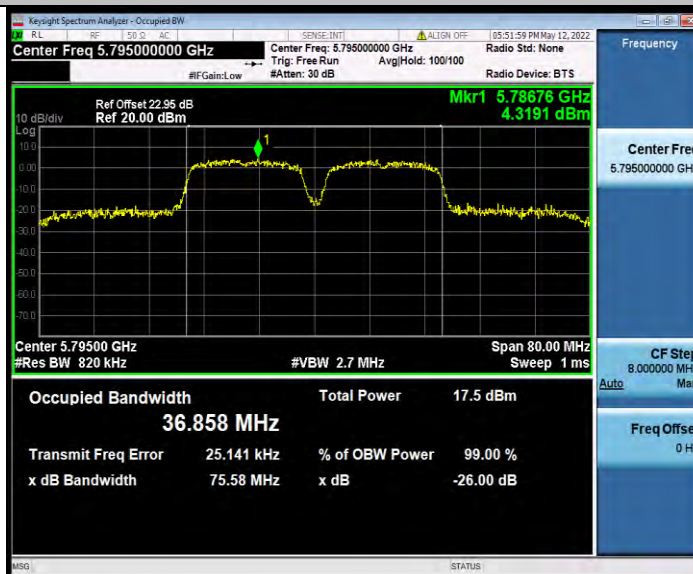


BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11AC40SISO_Ant1_5795

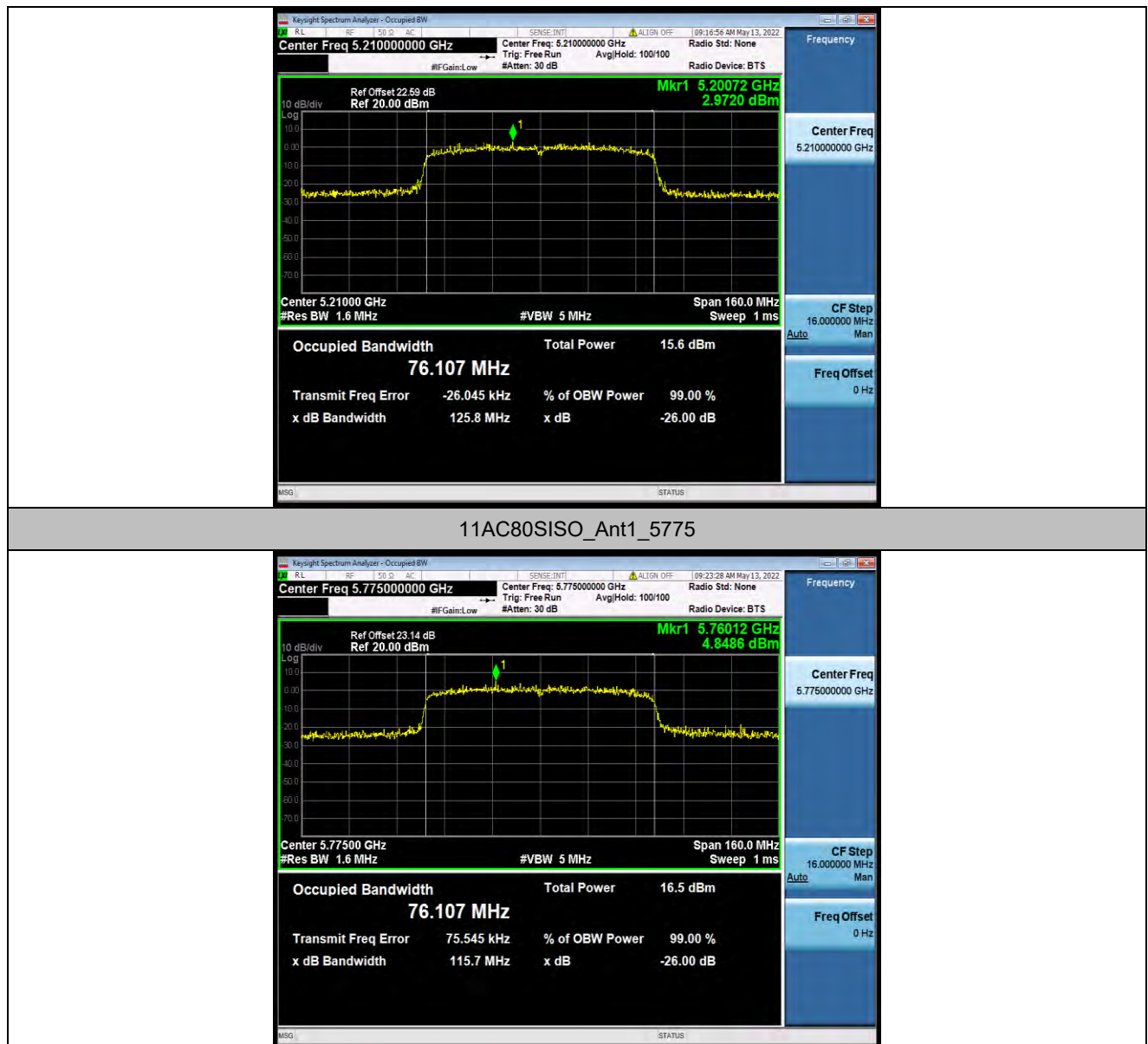


11AC80SISO_Ant1_5210



BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11AC80SISO_Ant1_5775

MIN EMISSION BANDWIDTH

TEST RESULT B4

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	13.840	5738.080	5751.920	0.5	PASS
		5785	14.400	5778.080	5792.480	0.5	PASS
		5825	14.120	5817.480	5831.600	0.5	PASS
11N20SISO	Ant1	5745	13.800	5738.120	5751.920	0.5	PASS
		5785	14.400	5778.080	5792.480	0.5	PASS
		5825	14.440	5817.440	5831.880	0.5	PASS
11N40SISO	Ant1	5755	34.400	5738.120	5772.520	0.5	PASS
		5795	34.400	5778.120	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	15.080	5737.480	5752.560	0.5	PASS
		5785	13.440	5778.080	5791.520	0.5	PASS
		5825	15.040	5817.480	5832.520	0.5	PASS
11AC40SISO	Ant1	5755	34.960	5737.480	5772.440	0.5	PASS
		5795	33.760	5778.120	5811.880	0.5	PASS
11AC80SISO	Ant1	5775	73.920	5737.400	5811.320	0.5	PASS

TEST GRAPHS B4

11A_Ant1_5745



11A_Ant1_5785

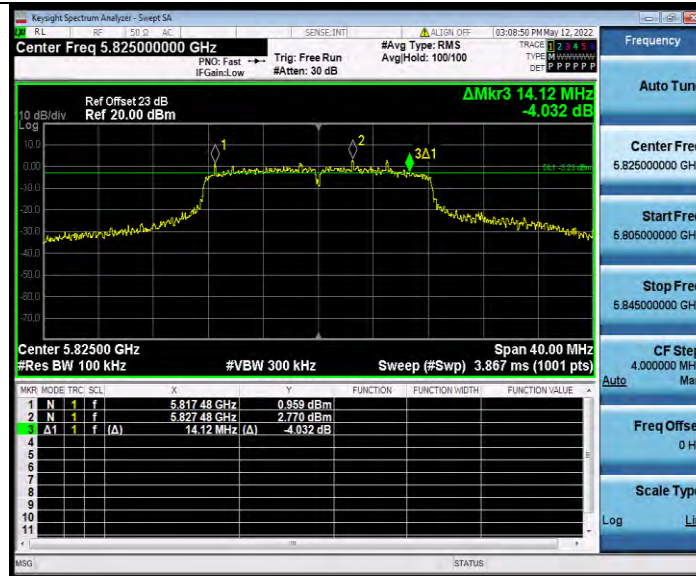


11A_Ant1_5825



BUREAU
VERITAS

Test Report No.: W7L-P22040029RF03



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785