

FCC TEST REPORT

(Part 15, Subpart E)

Applicant:	Lenovo(Shanghai) Electronics Technology Co., Ltd.
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Manufacturer or Supplier:	Lenovo PC HK Limited
Address:	23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong
Product:	Portable Tablet Computer
Brand Name:	Lenovo
Model Name:	Lenovo TB-X605LC
FCC ID:	O57TBX605LC
Date of tests:	Sep. 19, 2020 ~ Oct. 28, 2020

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 Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
 Date: Oct. 28, 2020	 Date: Oct. 28, 2020

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 SUMMARY OF TEST RESULTS	5
1.1 MEASUREMENT UNCERTAINTY	5
2 GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST MODES	9
2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	11
2.3 DUTY CYCLE OF TEST SIGNAL	17
2.4 DESCRIPTION OF SUPPORT UNITS	19
2.4.1 CONFIGURATION OF SYSTEM UNDER TEST	20
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	20
3 TEST TYPES AND RESULTS	21
3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT	21
3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT	21
3.1.2 LIMITS OF UNWANTED EMISSION	21
3.1.3 TEST INSTRUMENTS	22
3.1.4 TEST PROCEDURES	23
3.1.5 DEVIATION FROM TEST STANDARD	23
3.1.6 TEST SETUP	24
3.1.7 EUT OPERATING CONDITION	25
3.1.8 TEST RESULTS	26
3.2 OUT OF BAND EMISSION MEASUREMENT	106
3.2.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT	106
3.2.2 TEST INSTRUMENTS	107
3.2.3 TEST PROCEDURES	107
3.2.4 DEVIATION FROM TEST STANDARD	107
3.2.5 TEST SETUP	107
3.2.6 EUT OPERATING CONDITION	107
3.2.7 TEST RESULTS	108
3.3 CONDUCTED EMISSION MEASUREMENT	123
3.3.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	123
3.3.2 TEST INSTRUMENTS	123
3.3.3 TEST PROCEDURES	123



3.3.4	DEVIATION FROM TEST STANDARD	124
3.3.5	TEST SETUP	124
3.3.6	EUT OPERATING CONDITIONS	124
3.3.7	TEST RESULTS	125
3.4	MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT	127
3.4.1	LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT	127
3.4.2	TEST SETUP	128
3.4.3	TEST INSTRUMENTS	128
3.4.4	TEST PROCEDURE	129
3.4.5	DEVIATION FROM TEST STANDARD	131
3.4.6	EUT OPERATING CONDITIONS	131
3.4.7	TEST RESULTS	132
3.5	MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT	157
3.5.1	LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT	157
3.5.2	TEST SETUP	157
3.5.3	TEST INSTRUMENTS	157
3.5.4	TEST PROCEDURES	158
3.5.5	DEVIATION FROM TEST STANDARD	158
3.5.6	EUT OPERATING CONDITIONS	158
3.5.7	TEST RESULTS	159
4	PHOTOGRAPHS OF THE TEST CONFIGURATION	172
5	APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	173

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF200918W001-3	Original release	Oct. 28, 2020

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

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 (30MHz~1GMHz)	±4.98dB
Radiated emissions (1GMHz ~6GMHz)	±4.70dB
Radiated emissions (6GMHz ~18GMHz)	±4.60dB
Radiated emissions (18GMHz ~40GMHz)	±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	Portable Tablet Computer
BRAND NAME	Lenovo
MODEL NAME	Lenovo TB-X605LC
NOMINAL VOLTAGE	5.0Vdc (adapter or host equipment) 3.85Vdc (Li-ion, battery)
MODULATION	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS7 802.11ac: up to 390.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5805MHz
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 ~ 5805MHz: 5 for 802.11a, 802.11n, 802.11ac (20MHz) 3 for 802.11n, 802.11ac (40MHz) 2 for 802.11ac (80MHz)
AVERAGE POWER	35.48mW for 5180 ~ 5240MHz 36.14mW for 5260 ~ 5320MHz 34.99mW for 5500 ~ 5720MHz 33.27mW for 5745 ~ 5805MHz
ANTENNA TYPE	PIFA Antenna
ANTENNA GAIN	-0.8dBi for 5180 ~ 5240MHz -0.6dBi for 5260 ~ 5320MHz 1.02Bi for 5500 ~ 5720MHz 0.8dBi for 5745 ~ 5805MHz
HW VERSION	Lenovo Tablet TB-X605LC
SW VERSION	TB-X605LC_RF01_20190604
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable: shielded, detachable, 1meter

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. There were Sample 1, 2, 3, 4, 5 and 6 for this project, the difference is as below:

SAMPLE	EUT CONFIGURATION INFORMATION
1	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC1+DDR1+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
2	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC2+DDR2+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2
3	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC3+DDR3+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
4	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC4+DDR4+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2
5	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC5+DDR5+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
6	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC6+DDR6+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2

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

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

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



List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
AC Adapter 1	Salom	SC-41	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
AC Adapter 2	AcBel	SC-41	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
Battery 1	SCUD	L16D2P31	Rating: 3.85Vdc, 7000mAh
Battery 2	Celxpert	L16D2P31	Rating: 3.85Vdc, 7000mAh
USB Cable 1	LiQi	L27B-052000100-TCCS	1.0m shielded cable w/o core
USB Cable 2	SaiBao	S27B-052000100-TCCS	1.0m shielded cable w/o core
LCD Panel1	BOE	TV101WUM-LL4	10.1 "
LCD Panel2	BOE	TV101WUM-LL5	10.1 "
Photo Camera 1	O-film	L4H7A00	8M AF
Photo Camera 2	Q-tech	F4H7YAZ	8M AF
Photo Camera 3	Lianyi	LE5220FM	5M FF
Photo Camera 4	Jinkang	G7B5-QL607XFF	5M FF
CPU	Qualcomm	SDA-450-A-792NSP-TR-01-0-AA	-
EMMC1+DDR1	SAMSUNG	KMRP60014M-B614(4+64)	64G
EMMC2+DDR2	HYNIX	H9TQ52ACLTMCUR-KUM(4+64)	64G
EMMC3+DDR3	SAMSUNG	KMGD6001BM-B421(3+32)	32G
EMMC4+DDR4	HYNIX	H9TQ27ADFTMCUR-KUM(3+32)	32G
EMMC5+DDR5	SAMSUNG	KMQE60013M-B318(2+16)	16G
EMMC6+DDR6	HYNIX	H9TQ17ABJTCCUR-KUM(2+16)	16G
Speaker 1	Xichun	KFSC1712SBC-S-B232-20J-GT	-
Speaker 2	Xichun	KFSC1712SBC-S-B233-20J-W	-
speaker 1	Haosheng	HB171219B08-13-B1F-RH	-
speaker 2	Haosheng	XHB171219B08-14-B1F-RH	-
motor1	Hongzhifa	HZF-Z04BE-RL67B25-90	-
Motor2	Kunwang	CY0408L-021HB-064	-
Main Broad 1	Hongban	Aae_MB_PCB_V3	-
Main Broad 2	Huashen	Aae_MB_PCB_V3	-
BT/WLAN Module	Qualcomm	WCN-3680B-0-79BWLNSP-TR-05-1	-

2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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 5250 ~ 5350MHz

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 5470 ~ 5725MHz**

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	5720MHz

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 5725 ~ 5850MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
144	5720MHz	157	5785 MHz
149	5745 MHz	161	5805 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	5690 MHz	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	5260-5320	52 to 64	52	OFDM	6.0

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, 40, 48	OFDM	6.0
A	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
A	802.11ac (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 (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11ac (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 (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11n (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5805	144 to 161	144, 149, 157, 161	OFDM	6.0
A	802.11n (20MHz)		144 to 161	144, 149, 157, 161	OFDM	MCS0
A	802.11n (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (20MHz)		144 to 161	144, 149, 157, 161	OFDM	MCS0
A	802.11ac (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	5260-5320	52 to 64	52	OFDM	6.0

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 (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11ac (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, 64	OFDM	6.0
A	802.11n (20MHz)		52 to 64	52, 64	OFDM	MCS0
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (20MHz)		52 to 64	52, 64	OFDM	MCS0
A	802.11ac (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 (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11n (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0



EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5745-5805	144 to 161	144, 149, 157,161	OFDM	6.0
A	802.11n (20MHz)		144 to 161	144, 149, 157,161	OFDM	MCS0
A	802.11n (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (20MHz)		144 to 161	144, 149, 157,161	OFDM	MCS0
A	802.11ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138 to 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 TECHNOLOGY	DATA RATE (Mbps)
B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
B	802.11n (40MHz)		38 to 46	38, 46	OFDM	MCS0
B	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
B	802.11ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
B	802.11ac (80MHz)		42	42	OFDM	MCS0
B	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
B	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
B	802.11n (40MHz)		54 to 62	54, 62	OFDM	MCS0
B	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
B	802.11ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
B	802.11ac (80MHz)		58	58	OFDM	MCS0
B	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
B	802.11n (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
B	802.11n (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
B	802.11ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
B	802.11ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
B	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
B	802.11a	5745-5805	144 to 161	144, 149, 157, 161	OFDM	6.0
B	802.11n (20MHz)		144 to 161	144, 149, 157, 161	OFDM	MCS0
B	802.11n (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
B	802.11ac (20MHz)		144 to 161	144, 149, 157, 161	OFDM	MCS0
B	802.11ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
B	802.11ac (80MHz)		138 to 155	138, 155	OFDM	MCS0



Test Report No.: RF200918W001-3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 70%RH	DC 5V By Adapter	Jace
RE≥1G	23deg. C, 70%RH	DC 5V By Adapter	Jace
PLC	25deg. C, 52%RH	DC 5V By Adapter	Chase Zhou
APCM	25deg. C, 60%RH	DC 3.85V By Battery	Kevin zhang

2.3 DUTY CYCLE OF TEST SIGNAL

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

802.11a: Duty cycle = $1.362/1.560 = 0.873$, Duty factor = $10 * \log(1/0.873) = 0.59$.

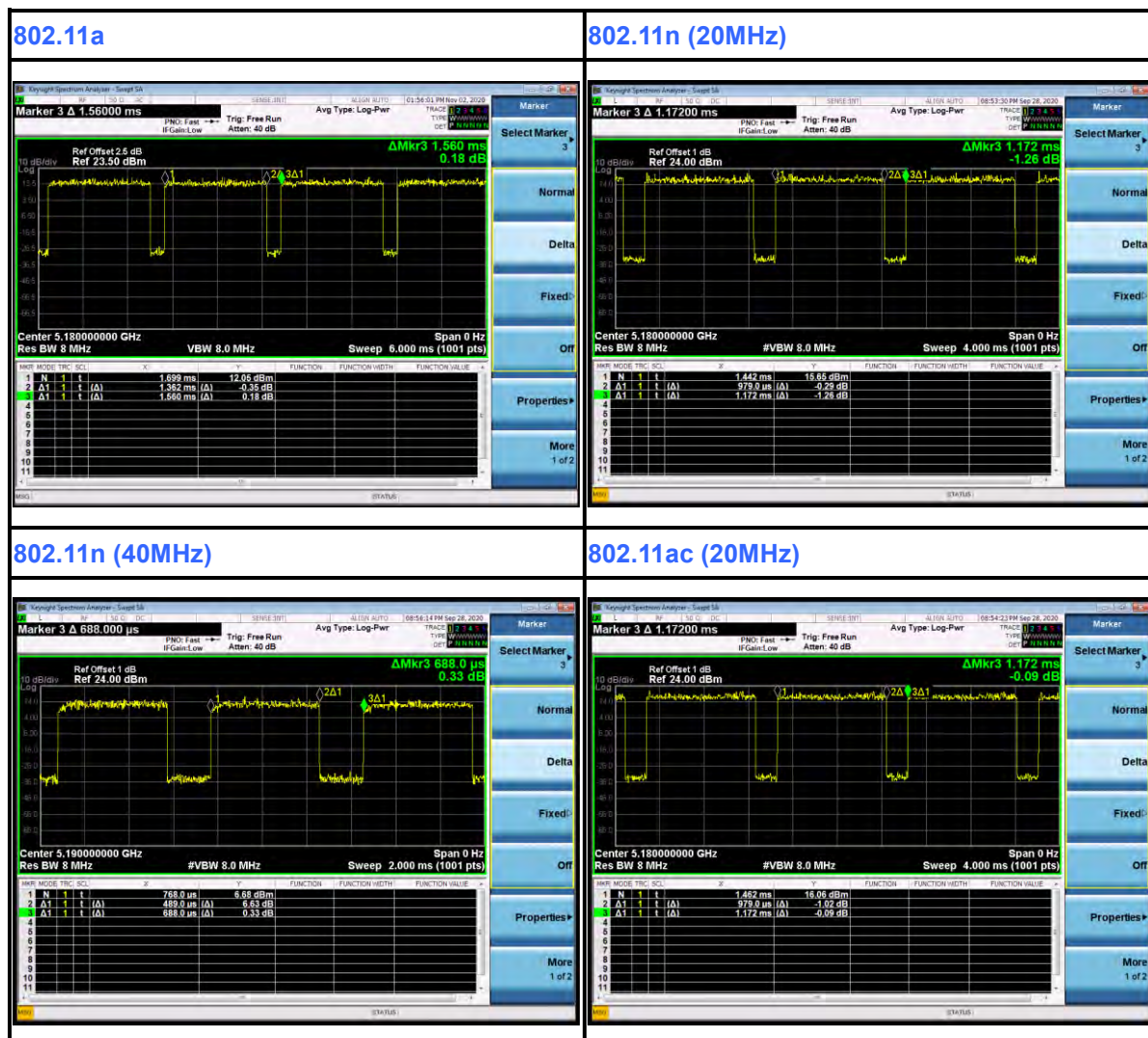
802.11n (20MHz): Duty cycle = $0.98/1.172 = 0.836$, Duty factor = $10 * \log(1/0.836) = 0.78$.

802.11n (40MHz): Duty cycle = $489.0/688.0 = 0.711$, Duty factor = $10 * \log(1/0.711) = 1.48$.

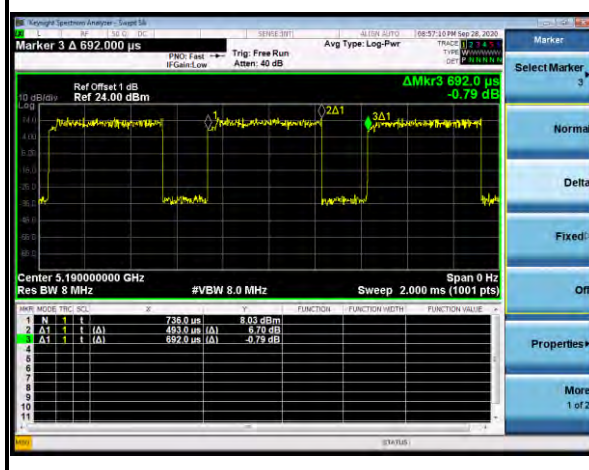
802.11ac (20MHz): Duty cycle = $0.98/1.172 = 0.836$, Duty factor = $10 * \log(1/0.836) = 0.78$.

802.11ac (40MHz): Duty cycle = $493.0/692.0 = 0.712$, Duty factor = $10 * \log(1/0.712) = 1.47$.

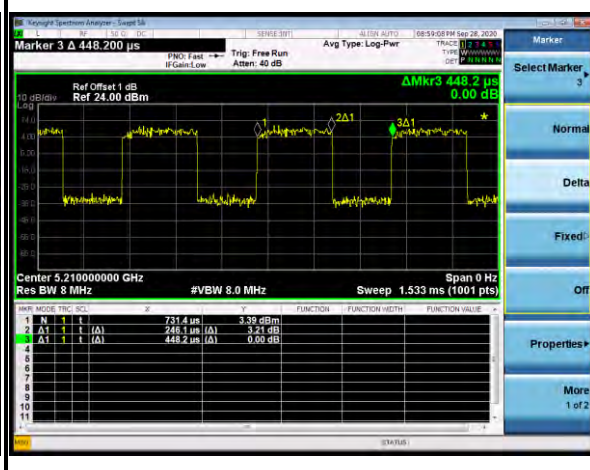
802.11ac (80MHz): Duty cycle = $246.1/448.2 = 0.549$, Duty factor = $10 * \log(1/0.549) = 2.60$.



802.11 ac (40MHz)



802.11ac (80MHz)



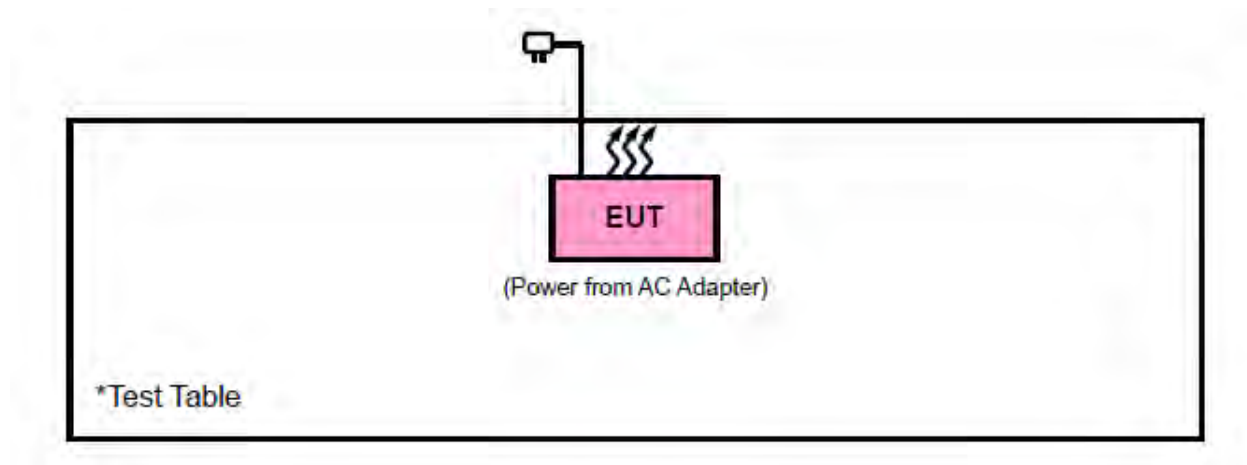
2.4 DESCRIPTION OF SUPPORT UNITS

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

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

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 : 68.3
	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. 27,20	Mar. 26,21
Horn Antenna	ETS-LINDGREN	3117	00168728	Nov. 24, 19	Nov. 23, 20
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Nov. 24, 19	Nov. 23, 20
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. 03,20	Jun. 02,21
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Apr. 27,20	Apr. 26,21
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 02,20	Jun. 01,21
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 02,20	Jun. 01,21
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Apr. 30,20	Apr. 29,21

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:

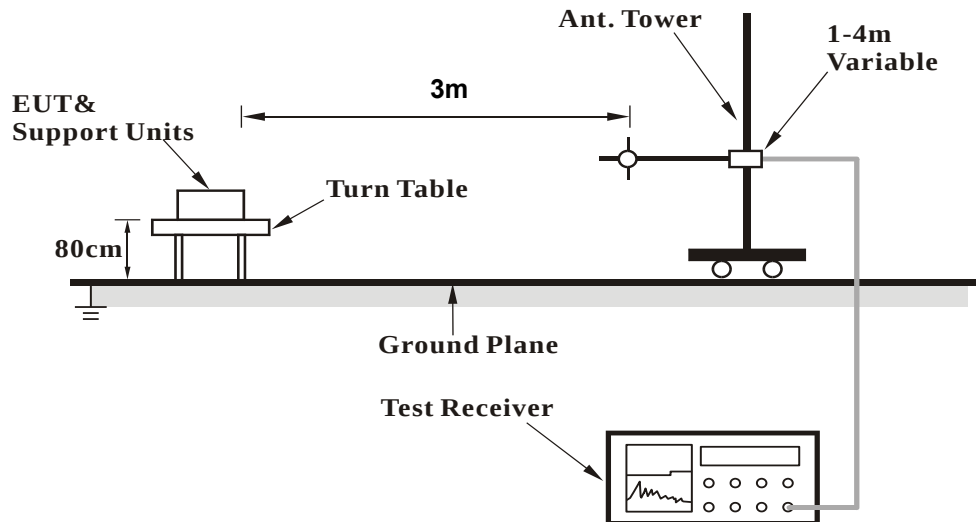
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency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

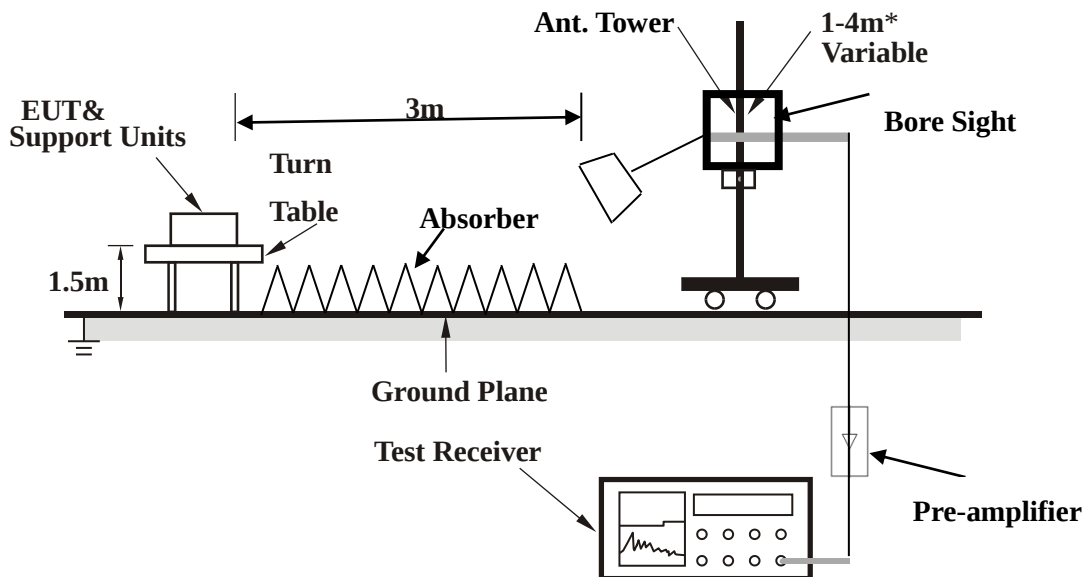
No deviation.

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).



Test Report No.: RF200918W001-3

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 2

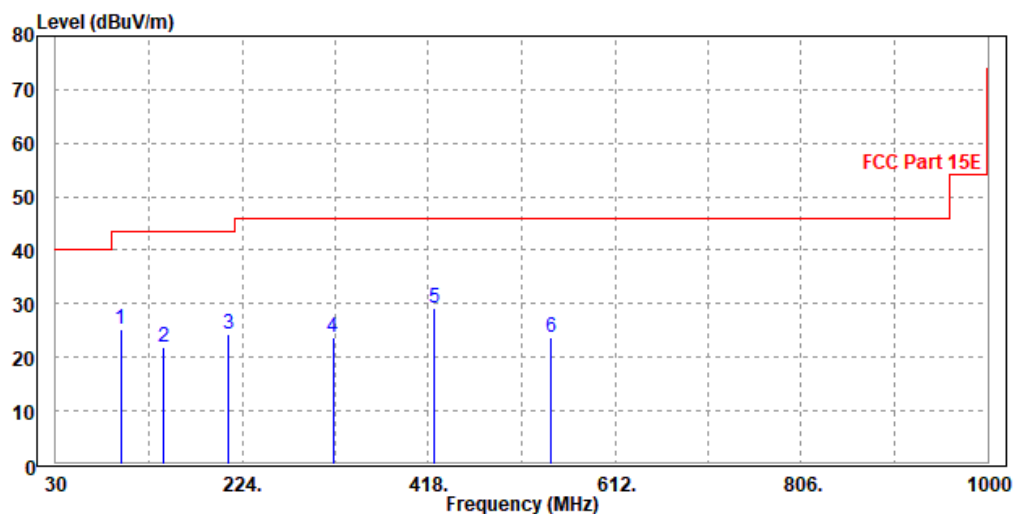
802.11a

CHANNEL	TX Channel 52	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	
97.52	25.18	51.66	43.5	-18.32	9.4	1.3	37.18	101	0	Peak	
142.66	21.82	48.11	43.5	-21.68	9.04	1.56	36.89	101	0	Peak	
210.33	24.41	47.89	43.5	-19.09	11.25	1.84	36.57	101	0	Peak	
318.52	23.82	43.62	46	-22.18	14.67	2.29	36.76	101	0	Peak	
423.52	29.23	45.88	46	-16.77	17.51	2.71	36.87	101	0	Peak	
545.85	23.71	38.58	46	-22.29	19.23	3.07	37.17	101	0	Peak	

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.

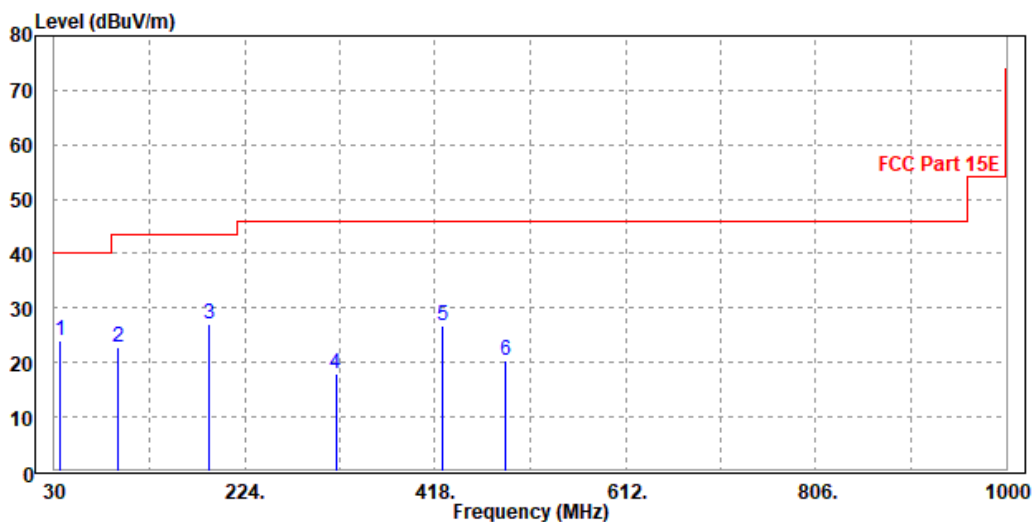


CHANNEL	Channel 52	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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
35.25	23.88	46.64	40	-16.12	13.98	0.86	37.6	200	0	Peak
95.26	22.67	49.34	43.5	-20.83	9.23	1.3	37.2	200	0	Peak
188.25	27.06	51.36	43.5	-16.44	10.56	1.74	36.6	200	0	Peak
316.85	17.82	37.58	46	-28.18	14.72	2.28	36.76	200	0	Peak
425.11	26.74	43.25	46	-19.26	17.65	2.71	36.87	200	0	Peak
489.65	20.29	35.76	46	-25.71	18.56	2.95	36.98	200	0	Peak

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	51.89	57.12	74	-22.11	33.7	7.42	46.35	100	124	Peak
5150	43.28	48.51	54	-10.72	33.7	7.42	46.35	100	124	Average
5180	96.64	101.86			33.7	7.43	46.35	100	124	Peak
5180	88.43	93.65			33.7	7.43	46.35	100	124	Average
5350	51.11	56.24	74	-22.89	33.7	7.47	46.3	100	124	Peak
5350	41.12	46.25	54	-12.88	33.7	7.47	46.3	100	124	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.21	57.36	74	-21.79	33.7	7.42	46.27	100	80	Peak
5150	43.6	48.75	54	-10.4	33.7	7.42	46.27	100	80	Average
5180	97.83	102.97			33.7	7.43	46.27	100	80	Peak
5180	87.68	92.82			33.7	7.43	46.27	100	80	Average
5350	51.77	56.86	74	-22.23	33.7	7.47	46.26	100	80	Peak
5350	42.48	47.57	54	-11.52	33.7	7.47	46.26	100	80	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	51.62	56.85	74	-22.38	33.7	7.42	46.35	100	125	Peak
5150	42	47.23	54	-12	33.7	7.42	46.35	100	125	Average
5200	99.15	104.36			33.7	7.43	46.34	100	125	Peak
5200	90	95.21			33.7	7.43	46.34	100	125	Average
5350	51.04	56.17	74	-22.96	33.7	7.47	46.3	100	125	Peak
5350	41.76	46.89	54	-12.24	33.7	7.47	46.3	100	125	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	54.99	57.63	74	-19.01	36.29	7.42	46.35	100	81	Peak
5150	44.94	47.58	54	-9.06	36.29	7.42	46.35	100	81	Average
5200	102.77	105.36			36.32	7.43	46.34	100	81	Peak
5200	92.08	94.67			36.32	7.43	46.34	100	81	Average
5350	55.03	57.45	74	-18.97	36.41	7.47	46.3	100	81	Peak
5350	44.56	46.98	54	-9.44	36.41	7.47	46.3	100	81	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	51.25	56.48	74	-22.75	33.7	7.42	46.35	100	125	Peak
5150	41.12	46.35	54	-12.88	33.7	7.42	46.35	100	125	Average
5240	99.39	104.58			33.7	7.44	46.33	100	125	Peak
5240	88.5	93.69			33.7	7.44	46.33	100	125	Average
5350	52.32	57.45	74	-21.68	33.7	7.47	46.3	100	125	Peak
5350	41.65	46.78	54	-12.35	33.7	7.47	46.3	100	125	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	57.24	74	-19.4	36.29	7.42	46.35	100	85	Peak
5150	44.48	47.12	54	-9.52	36.29	7.42	46.35	100	85	Average
5240	102.94	105.49			36.34	7.44	46.33	100	85	Peak
5240	92.58	95.13			36.34	7.44	46.33	100	85	Average
5350	55.45	57.87	74	-18.55	36.41	7.47	46.3	100	85	Peak
5350	44.73	47.15	54	-9.27	36.41	7.47	46.3	100	85	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	52.66	57.89	74	-21.34	33.7	7.42	46.35	100	128	Peak
5150	43.34	48.57	54	-10.66	33.7	7.42	46.35	100	128	Average
5180	96.37	101.59			33.7	7.43	46.35	100	128	Peak
5180	87.13	92.35			33.7	7.43	46.35	100	128	Average
5350	51.62	56.75	74	-22.38	33.7	7.47	46.3	100	128	Peak
5350	42.11	47.24	54	-11.89	33.7	7.47	46.3	100	128	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	55.57	58.21	74	-18.43	36.29	7.42	46.35	100	81	Peak
5150	45.48	48.12	54	-8.52	36.29	7.42	46.35	100	81	Average
5180	102.28	104.89			36.31	7.43	46.35	100	81	Peak
5180	91.97	94.58			36.31	7.43	46.35	100	81	Average
5350	54.82	57.24	74	-19.18	36.41	7.47	46.3	100	81	Peak
5350	44.9	47.32	54	-9.1	36.41	7.47	46.3	100	81	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	51.92	57.15	74	-22.08	33.7	7.42	46.35	100	122	Peak
5150	41.55	46.78	54	-12.45	33.7	7.42	46.35	100	122	Average
5200	99.68	104.89			33.7	7.43	46.34	100	122	Peak
5200	90.21	95.42			33.7	7.43	46.34	100	122	Average
5350	52.56	57.69	74	-21.44	33.7	7.47	46.3	100	122	Peak
5350	42.32	47.45	54	-11.68	33.7	7.47	46.3	100	122	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	54.59	57.23	74	-19.41	36.29	7.42	46.35	100	79	Peak
5150	44.21	46.85	54	-9.79	36.29	7.42	46.35	100	79	Average
5200	103.72	106.31			36.32	7.43	46.34	100	79	Peak
5200	93.08	95.67			36.32	7.43	46.34	100	79	Average
5350	55.27	57.69	74	-18.73	36.41	7.47	46.3	100	79	Peak
5350	45.1	47.52	54	-8.9	36.41	7.47	46.3	100	79	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	51.9	57.13	74	-22.1	33.7	7.42	46.35	100	124	Peak
5150	41.73	46.96	54	-12.27	33.7	7.42	46.35	100	124	Average
5240	98.68	103.87			33.7	7.44	46.33	100	124	Peak
5240	89.32	94.51			33.7	7.44	46.33	100	124	Average
5350	52.76	57.89	74	-21.24	33.7	7.47	46.3	100	124	Peak
5350	42.43	47.56	54	-11.57	33.7	7.47	46.3	100	124	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	54.14	56.78	74	-19.86	36.29	7.42	46.35	100	75	Peak
5150	43.71	46.35	54	-10.29	36.29	7.42	46.35	100	75	Average
5240	103.12	105.67			36.34	7.44	46.33	100	75	Peak
5240	93.13	95.68			36.34	7.44	46.33	100	75	Average
5350	55.56	57.98	74	-18.44	36.41	7.47	46.3	100	75	Peak
5350	45.16	47.58	54	-8.84	36.41	7.47	46.3	100	75	Average

REMARKS:

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



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.4	57.63	74	-21.6	33.7	7.42	46.35	100	128	Peak
5150	42.63	47.86	54	-11.37	33.7	7.42	46.35	100	128	Average
5190	95.15	100.36			33.7	7.43	46.34	100	128	Peak
5190	86.01	91.22			33.7	7.43	46.34	100	128	Average
5350	51.99	57.12	74	-22.01	33.7	7.47	46.3	100	128	Peak
5350	41.65	46.78	54	-12.35	33.7	7.47	46.3	100	128	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	55.32	57.96	74	-18.68	36.29	7.42	46.35	100	85	Peak
5150	45.51	48.15	54	-8.49	36.29	7.42	46.35	100	85	Average
5190	99.75	102.35			36.31	7.43	46.34	100	85	Peak
5190	89.71	92.31			36.31	7.43	46.34	100	85	Average
5350	54.82	57.24	74	-19.18	36.41	7.47	46.3	100	85	Peak
5350	44.7	47.12	54	-9.3	36.41	7.47	46.3	100	85	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	52.01	57.24	74	-21.99	33.7	7.42	46.35	100	121	Peak
5150	41.52	46.75	54	-12.48	33.7	7.42	46.35	100	121	Average
5230	95.26	100.45			33.7	7.44	46.33	100	121	Peak
5230	84.96	90.15			33.7	7.44	46.33	100	121	Average
5350	52.86	57.99	74	-21.14	33.7	7.47	46.3	100	121	Peak
5350	42.22	47.35	54	-11.78	33.7	7.47	46.3	100	121	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	54.59	57.23	74	-19.41	36.29	7.42	46.35	100	81	Peak
5150	44.14	46.78	54	-9.86	36.29	7.42	46.35	100	81	Average
5230	99.77	102.32			36.34	7.44	46.33	100	81	Peak
5230	88.7	91.25			36.34	7.44	46.33	100	81	Average
5350	55.72	58.14	74	-18.28	36.41	7.47	46.3	100	81	Peak
5350	45.25	47.67	54	-8.75	36.41	7.47	46.3	100	81	Average

REMARKS:

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



802.11ac (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
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	51.92	57.15	74	-22.08	33.7	7.42	46.35	100	126	Peak
5150	41.75	46.98	54	-12.25	33.7	7.42	46.35	100	126	Average
5180	95.41	100.63			33.7	7.43	46.35	100	126	Peak
5180	84.45	89.67			33.7	7.43	46.35	100	126	Average
5350	51.35	56.48	74	-22.65	33.7	7.47	46.3	100	126	Peak
5350	41.62	46.75	54	-12.38	33.7	7.47	46.3	100	126	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	57.58	74	-19.06	36.29	7.42	46.35	100	84	Peak
5150	44.25	46.89	54	-9.75	36.29	7.42	46.35	100	84	Average
5180	99.74	102.35			36.31	7.43	46.35	100	84	Peak
5180	87.64	90.25			36.31	7.43	46.35	100	84	Average
5350	54.33	56.75	74	-19.67	36.41	7.47	46.3	100	84	Peak
5350	43.81	46.23	54	-10.19	36.41	7.47	46.3	100	84	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	51.54	56.77	74	-22.46	33.7	7.42	46.35	100	121	Peak
5150	41.35	46.58	54	-12.65	33.7	7.42	46.35	100	121	Average
5200	97.15	102.36			33.7	7.43	46.34	100	121	Peak
5200	86.15	91.36			33.7	7.43	46.34	100	121	Average
5350	52.35	57.48	74	-21.65	33.7	7.47	46.3	100	121	Peak
5350	42.02	47.15	54	-11.98	33.7	7.47	46.3	100	121	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	55.22	57.86	74	-18.78	36.29	7.42	46.35	100	86	Peak
5150	44.62	47.26	54	-9.38	36.29	7.42	46.35	100	86	Average
5200	102	104.59			36.32	7.43	46.34	100	86	Peak
5200	90.06	92.65			36.32	7.43	46.34	100	86	Average
5350	55.26	57.68	74	-18.74	36.41	7.47	46.3	100	86	Peak
5350	45.03	47.45	54	-8.97	36.41	7.47	46.3	100	86	Average

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	52.22	57.45	74	-21.78	33.7	7.42	46.35	100	123	Peak
5150	41.55	46.78	54	-12.45	33.7	7.42	46.35	100	123	Average
5240	96.97	102.16			33.7	7.44	46.33	100	123	Peak
5240	85.02	90.21			33.7	7.44	46.33	100	123	Average
5350	52.56	57.69	74	-21.44	33.7	7.47	46.3	100	123	Peak
5350	42.38	47.51	54	-11.62	33.7	7.47	46.3	100	123	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	54.7	57.34	74	-19.3	36.29	7.42	46.35	100	81	Peak
5150	44.34	46.98	54	-9.66	36.29	7.42	46.35	100	81	Average
5240	102.68	105.23			36.34	7.44	46.33	100	81	Peak
5240	89.87	92.42			36.34	7.44	46.33	100	81	Average
5350	55.43	57.85	74	-18.57	36.41	7.47	46.3	100	81	Peak
5350	44.69	47.11	54	-9.31	36.41	7.47	46.3	100	81	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	52.89	58.12	74	-21.11	33.7	7.42	46.35	100	120	Peak
5150	43.3	48.53	54	-10.7	33.7	7.42	46.35	100	120	Average
5190	95.11	100.32			33.7	7.43	46.34	100	120	Peak
5190	84.35	89.56			33.7	7.43	46.34	100	120	Average
5350	52.51	57.64	74	-21.49	33.7	7.47	46.3	100	120	Peak
5350	42.39	47.52	54	-11.61	33.7	7.47	46.3	100	120	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	55.22	57.86	74	-18.78	36.29	7.42	46.35	100	76	Peak
5150	45.32	47.96	54	-8.68	36.29	7.42	46.35	100	76	Average
5190	98.76	101.36			36.31	7.43	46.34	100	76	Peak
5190	87.55	90.15			36.31	7.43	46.34	100	76	Average
5350	55.22	57.64	74	-18.78	36.41	7.47	46.3	100	76	Peak
5350	44.33	46.75	54	-9.67	36.41	7.47	46.3	100	76	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	51.12	56.35	74	-22.88	33.7	7.42	46.35	100	125	Peak
5150	41.02	46.25	54	-12.98	33.7	7.42	46.35	100	125	Average
5230	94.82	100.01			33.7	7.44	46.33	100	125	Peak
5230	84.44	89.63			33.7	7.44	46.33	100	125	Average
5350	51.35	56.48	74	-22.65	33.7	7.47	46.3	100	125	Peak
5350	41.44	46.57	54	-12.56	33.7	7.47	46.3	100	125	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	54.38	57.02	74	-19.62	36.29	7.42	46.35	100	76	Peak
5150	44.51	47.15	54	-9.49	36.29	7.42	46.35	100	76	Average
5230	99.76	102.31			36.34	7.44	46.33	100	76	Peak
5230	88.69	91.24			36.34	7.44	46.33	100	76	Average
5350	55.27	57.69	74	-18.73	36.41	7.47	46.3	100	76	Peak
5350	44.79	47.21	54	-9.21	36.41	7.47	46.3	100	76	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	53.46	58.69	74	-20.54	33.7	7.42	46.35	100	127	Peak
5150	44.31	49.54	54	-9.69	33.7	7.42	46.35	100	127	Average
5210	95.44	100.64			33.7	7.44	46.34	100	127	Peak
5210	85.05	90.25			33.7	7.44	46.34	100	127	Average
5350	52.72	57.85	74	-21.28	33.7	7.47	46.3	100	127	Peak
5350	42.55	47.68	54	-11.45	33.7	7.47	46.3	100	127	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.71	60.35	74	-16.29	36.29	7.42	46.35	100	115	Peak
5150	47.23	49.87	54	-6.77	36.29	7.42	46.35	100	115	Average
5210	100.64	103.21			36.33	7.44	46.34	100	115	Peak
5210	90.64	93.21			36.33	7.44	46.34	100	115	Average
5350	55.23	57.65	74	-18.77	36.41	7.47	46.3	100	115	Peak
5350	45.03	47.45	54	-8.97	36.41	7.47	46.3	100	115	Average

REMARKS:

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



Band 2

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ 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	53.8	59.03	74	-20.2	33.7	7.42	46.35	100	210	Peak
5150	45.12	50.35	54	-8.88	33.7	7.42	46.35	100	210	Average
5260	98.96	104.13			33.7	7.45	46.32	100	210	Peak
5260	92.18	97.35			33.7	7.45	46.32	100	210	Average
5350	50.68	55.81	74	-23.32	33.7	7.47	46.3	100	210	Peak
5350	45.77	50.9	54	-8.23	33.7	7.47	46.3	100	210	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.14	59.78	74	-16.86	36.29	7.42	46.35	100	80	Peak
5150	48.1	50.74	54	-5.9	36.29	7.42	46.35	100	80	Average
5260	99.71	102.22			36.36	7.45	46.32	100	80	Peak
5260	91.06	93.57			36.36	7.45	46.32	100	80	Average
5350	53.28	55.7	74	-20.72	36.41	7.47	46.3	100	80	Peak
5350	46.93	49.35	54	-7.07	36.41	7.47	46.3	100	80	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 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	53.71	58.94	74	-20.29	33.7	7.42	46.35	100	210	Peak
5150	45.84	51.07	54	-8.16	33.7	7.42	46.35	100	210	Average
5300	97.61	102.76			33.7	7.46	46.31	100	210	Peak
5300	91.19	96.34			33.7	7.46	46.31	100	210	Average
5350	50.74	55.87	74	-23.26	33.7	7.47	46.3	100	210	Peak
5350	44.3	49.43	54	-9.7	33.7	7.47	46.3	100	210	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	58.2	60.84	74	-15.8	36.29	7.42	46.35	130	100	Peak
5150	48.03	50.67	54	-5.97	36.29	7.42	46.35	130	100	Average
5300	101.77	104.24			36.38	7.46	46.31	130	100	Peak
5300	92.77	95.24			36.38	7.46	46.31	130	100	Average
5350	54.01	56.43	74	-19.99	36.41	7.47	46.3	130	100	Peak
5350	46.47	48.89	54	-7.53	36.41	7.47	46.3	130	100	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 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	52.25	57.48	74	-21.75	33.7	7.42	46.35	100	215	Peak
5150	42.33	47.56	54	-11.67	33.7	7.42	46.35	100	215	Average
5320	98.84	103.98			33.7	7.46	46.3	100	215	Peak
5320	87.31	92.45			33.7	7.46	46.3	100	215	Average
5350	53.65	58.78	74	-20.35	33.7	7.47	46.3	100	215	Peak
5350	43.56	48.69	54	-10.44	33.7	7.47	46.3	100	215	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	55.05	57.69	74	-18.95	36.29	7.42	46.35	100	100	Peak
5150	46.03	48.67	54	-7.97	36.29	7.42	46.35	100	100	Average
5320	103.4	105.85			36.39	7.46	46.3	100	100	Peak
5320	93.17	95.62			36.39	7.46	46.3	100	100	Average
5350	56.33	58.75	74	-17.67	36.41	7.47	46.3	100	100	Peak
5350	46.56	48.98	54	-7.44	36.41	7.47	46.3	100	100	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	52.66	57.89	74	-21.34	33.7	7.42	46.35	100	212	Peak
5150	42.4	47.63	54	-11.6	33.7	7.42	46.35	100	212	Average
5260	98.48	103.65			33.7	7.45	46.32	100	212	Peak
5260	86.98	92.15			33.7	7.45	46.32	100	212	Average
5350	52.71	57.84	74	-21.29	33.7	7.47	46.3	100	212	Peak
5350	43.23	48.36	54	-10.77	33.7	7.47	46.3	100	212	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	58.12	74	-18.52	36.29	7.42	46.35	100	101	Peak
5150	45.92	48.56	54	-8.08	36.29	7.42	46.35	100	101	Average
5260	102.26	104.77			36.36	7.45	46.32	100	101	Peak
5260	91.16	93.67			36.36	7.45	46.32	100	101	Average
5350	55.54	57.96	74	-18.46	36.41	7.47	46.3	100	101	Peak
5350	45.06	47.48	54	-8.94	36.41	7.47	46.3	100	101	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	53.46	58.69	74	-20.54	33.7	7.42	46.35	100	215	Peak
5150	43.12	48.35	54	-10.88	33.7	7.42	46.35	100	215	Average
5300	99.36	104.51			33.7	7.46	46.31	100	215	Peak
5300	89.97	95.12			33.7	7.46	46.31	100	215	Average
5350	53.58	58.71	74	-20.42	33.7	7.47	46.3	100	215	Peak
5350	42.19	47.32	54	-11.81	33.7	7.47	46.3	100	215	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	55.72	58.36	74	-18.28	36.29	7.42	46.35	100	105	Peak
5150	45.9	48.54	54	-8.1	36.29	7.42	46.35	100	105	Average
5300	103.33	105.8			36.38	7.46	46.31	100	105	Peak
5300	92.06	94.53			36.38	7.46	46.31	100	105	Average
5350	55.56	57.98	74	-18.44	36.41	7.47	46.3	100	105	Peak
5350	45.46	47.88	54	-8.54	36.41	7.47	46.3	100	105	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 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	52.63	57.86	74	-21.37	33.7	7.42	46.35	100	218	Peak
5150	42.66	47.89	54	-11.34	33.7	7.42	46.35	100	218	Average
5320	99.12	104.26			33.7	7.46	46.3	100	218	Peak
5320	90.31	95.45			33.7	7.46	46.3	100	218	Average
5350	53.62	58.75	74	-20.38	33.7	7.47	46.3	100	218	Peak
5350	43.44	48.57	54	-10.56	33.7	7.47	46.3	100	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	54.05	56.69	74	-19.95	36.29	7.42	46.35	100	100	Peak
5150	45.08	47.72	54	-8.92	36.29	7.42	46.35	100	100	Average
5320	103.33	105.78			36.39	7.46	46.3	100	100	Peak
5320	92.91	95.36			36.39	7.46	46.3	100	100	Average
5350	56.34	58.76	74	-17.66	36.41	7.47	46.3	100	100	Peak
5350	46.33	48.75	54	-7.67	36.41	7.47	46.3	100	100	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	52.45	57.68	74	-21.55	33.7	7.42	46.35	100	212	Peak
5150	42.92	48.15	54	-11.08	33.7	7.42	46.35	100	212	Average
5270	95.08	100.25			33.7	7.45	46.32	100	212	Peak
5270	84.4	89.57			33.7	7.45	46.32	100	212	Average
5350	53.29	58.42	74	-20.71	33.7	7.47	46.3	100	212	Peak
5350	43.23	48.36	54	-10.77	33.7	7.47	46.3	100	212	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	55.25	57.89	74	-18.75	36.29	7.42	46.35	100	105	Peak
5150	45.02	47.66	54	-8.98	36.29	7.42	46.35	100	105	Average
5270	100.14	102.65			36.36	7.45	46.32	100	105	Peak
5270	91.1	93.61			36.36	7.45	46.32	100	105	Average
5350	55.7	58.12	74	-18.3	36.41	7.47	46.3	100	105	Peak
5350	45.09	47.51	54	-8.91	36.41	7.47	46.3	100	105	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	52.41	57.64	74	-21.59	33.7	7.42	46.35	100	215	Peak
5150	42.35	47.58	54	-11.65	33.7	7.42	46.35	100	215	Average
5310	93.52	98.67			33.7	7.46	46.31	100	215	Peak
5310	84.54	89.69			33.7	7.46	46.31	100	215	Average
5350	53.51	58.64	74	-20.49	33.7	7.47	46.3	100	215	Peak
5350	43.22	48.35	54	-10.78	33.7	7.47	46.3	100	215	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	54.77	57.41	74	-19.23	36.29	7.42	46.35	100	102	Peak
5150	45.72	48.36	54	-8.28	36.29	7.42	46.35	100	102	Average
5310	97.66	100.12			36.39	7.46	46.31	100	102	Peak
5310	87.79	90.25			36.39	7.46	46.31	100	102	Average
5350	56.37	58.79	74	-17.63	36.41	7.47	46.3	100	102	Peak
5350	46.26	48.68	54	-7.74	36.41	7.47	46.3	100	102	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	52.61	57.84	74	-21.39	33.7	7.42	46.35	100	213	Peak
5150	42.4	47.63	54	-11.6	33.7	7.42	46.35	100	213	Average
5260	98.52	103.69			33.7	7.45	46.32	100	213	Peak
5260	87.19	92.36			33.7	7.45	46.32	100	213	Average
5350	53.32	58.45	74	-20.68	33.7	7.47	46.3	100	213	Peak
5350	43.08	48.21	54	-10.92	33.7	7.47	46.3	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
5150	55.2	57.84	74	-18.8	36.29	7.42	46.35	100	99	Peak
5150	45.01	47.65	54	-8.99	36.29	7.42	46.35	100	99	Average
5260	102.74	105.25			36.36	7.45	46.32	100	99	Peak
5260	91.99	94.5			36.36	7.45	46.32	100	99	Average
5350	55.04	57.46	74	-18.96	36.41	7.47	46.3	100	99	Peak
5350	45.43	47.85	54	-8.57	36.41	7.47	46.3	100	99	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 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	52.66	57.89	74	-21.34	33.7	7.42	46.35	100	212	Peak
5150	43.13	48.36	54	-10.87	33.7	7.42	46.35	100	212	Average
5300	99.44	104.59			33.7	7.46	46.31	100	212	Peak
5300	90.09	95.24			33.7	7.46	46.31	100	212	Average
5350	53.28	58.41	74	-20.72	33.7	7.47	46.3	100	212	Peak
5350	43.19	48.32	54	-10.81	33.7	7.47	46.3	100	212	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	56.01	58.65	74	-17.99	36.29	7.42	46.35	100	98	Peak
5150	45.32	47.96	54	-8.68	36.29	7.42	46.35	100	98	Average
5300	103.54	106.01			36.38	7.46	46.31	100	98	Peak
5300	92.85	95.32			36.38	7.46	46.31	100	98	Average
5350	55.47	57.89	74	-18.53	36.41	7.47	46.3	100	98	Peak
5350	45.16	47.58	54	-8.84	36.41	7.47	46.3	100	98	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 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	52.25	57.48	74	-21.75	33.7	7.42	46.35	100	211	Peak
5150	42.12	47.35	54	-11.88	33.7	7.42	46.35	100	211	Average
5320	99.71	104.85			33.7	7.46	46.3	100	211	Peak
5320	89.01	94.15			33.7	7.46	46.3	100	211	Average
5350	53.54	58.67	74	-20.46	33.7	7.47	46.3	100	211	Peak
5350	43.18	48.31	54	-10.82	33.7	7.47	46.3	100	211	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	55.72	58.36	74	-18.28	36.29	7.42	46.35	100	99	Peak
5150	44.51	47.15	54	-9.49	36.29	7.42	46.35	100	99	Average
5320	103.67	106.12			36.39	7.46	46.3	100	99	Peak
5320	92.78	95.23			36.39	7.46	46.3	100	99	Average
5350	56.25	58.67	74	-17.75	36.41	7.47	46.3	100	99	Peak
5350	46.37	48.79	54	-7.63	36.41	7.47	46.3	100	99	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	53.01	58.24	74	-20.99	33.7	7.42	46.35	100	212	Peak
5150	42.35	47.58	54	-11.65	33.7	7.42	46.35	100	212	Average
5270	93.95	99.12			33.7	7.45	46.32	100	212	Peak
5270	84.19	89.36			33.7	7.45	46.32	100	212	Average
5350	52.56	57.69	74	-21.44	33.7	7.47	46.3	100	212	Peak
5350	43.02	48.15	54	-10.98	33.7	7.47	46.3	100	212	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	58.12	74	-18.52	36.29	7.42	46.35	100	105	Peak
5150	45.05	47.69	54	-8.95	36.29	7.42	46.35	100	105	Average
5270	97.5	100.01			36.36	7.45	46.32	100	105	Peak
5270	87.74	90.25			36.36	7.45	46.32	100	105	Average
5350	55.82	58.24	74	-18.18	36.41	7.47	46.3	100	105	Peak
5350	46.35	48.77	54	-7.65	36.41	7.47	46.3	100	105	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	52.45	57.68	74	-21.55	33.7	7.42	46.35	100	216	Peak
5150	42.36	47.59	54	-11.64	33.7	7.42	46.35	100	216	Average
5310	94.17	99.32			33.7	7.46	46.31	100	216	Peak
5310	84.21	89.36			33.7	7.46	46.31	100	216	Average
5350	53.56	58.69	74	-20.44	33.7	7.47	46.3	100	216	Peak
5350	42.99	48.12	54	-11.01	33.7	7.47	46.3	100	216	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	58.64	74	-18	36.29	7.42	46.35	100	102	Peak
5150	45.57	48.21	54	-8.43	36.29	7.42	46.35	100	102	Average
5310	98.32	100.78			36.39	7.46	46.31	100	102	Peak
5310	88.79	91.25			36.39	7.46	46.31	100	102	Average
5350	56.37	58.79	74	-17.63	36.41	7.47	46.3	100	102	Peak
5350	46.25	48.67	54	-7.75	36.41	7.47	46.3	100	102	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	53.39	58.62	74	-20.61	33.7	7.42	46.35	100	218	Peak
5150	42.62	47.85	54	-11.38	33.7	7.42	46.35	100	218	Average
5290	96.19	101.35			33.7	7.45	46.31	100	218	Peak
5290	87.22	92.38			33.7	7.45	46.31	100	218	Average
5350	54.1	59.23	74	-19.9	33.7	7.47	46.3	100	218	Peak
5350	43.62	48.75	54	-10.38	33.7	7.47	46.3	100	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	55	57.64	74	-19	36.29	7.42	46.35	100	95	Peak
5150	45.51	48.15	54	-8.49	36.29	7.42	46.35	100	95	Average
5290	99.96	102.45			36.37	7.45	46.31	100	95	Peak
5290	90.77	93.26			36.37	7.45	46.31	100	95	Average
5350	57.26	59.68	74	-16.74	36.41	7.47	46.3	100	95	Peak
5350	46.84	49.26	54	-7.16	36.41	7.47	46.3	100	95	Average

REMARKS:

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



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	52.41	57.48	74	-21.59	33.7	7.49	46.26	100	212	Peak
5460	41.98	47.05	54	-12.02	33.7	7.49	46.26	100	212	Average
#5470	52.78	57.85	68.3	-15.52	33.7	7.49	46.26	100	212	Peak
5500	98.2	103.25			33.7	7.5	46.25	100	212	Peak
5500	87.51	92.56			33.7	7.5	46.25	100	212	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	56.95	74	-19.34	36.48	7.49	46.26	100	95	Peak
5460	45.6	47.89	54	-8.4	36.48	7.49	46.26	100	95	Average
#5470	55.14	57.43	68.3	-13.16	36.48	7.49	46.26	100	95	Peak
5500	102.96	105.21			36.5	7.5	46.25	100	95	Peak
5500	94.06	96.31			36.5	7.5	46.25	100	95	Average

REMARKS:

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

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	52.05	57.12	74	-21.95	33.7	7.49	46.26	100	216	Peak
5460	41.51	46.58	54	-12.49	33.7	7.49	46.26	100	216	Average
#5470	52.58	57.65	68.3	-15.72	33.7	7.49	46.26	100	216	Peak
5580	98.63	103.48			33.8	7.58	46.23	100	216	Peak
5580	89.71	94.56			33.8	7.58	46.23	100	216	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	55.02	57.31	74	-18.98	36.48	7.49	46.26	100	96	Peak
5460	44.86	47.15	54	-9.14	36.48	7.49	46.26	100	96	Average
#5470	55.58	57.87	68.3	-12.72	36.48	7.49	46.26	100	96	Peak
5580	103.59	105.69			36.55	7.58	46.23	100	96	Peak
5580	94.15	96.25			36.55	7.58	46.23	100	96	Average

REMARKS:

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

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	98.7	103.25			33.94	7.7	46.19	100	215	Peak
5700	89.76	94.31			33.94	7.7	46.19	100	215	Average
#5725	55.2	59.69	68.3	-13.1	33.97	7.73	46.19	100	215	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	104.34	106.21			36.62	7.7	46.19	100	97	Peak
5700	94.48	96.35			36.62	7.7	46.19	100	97	Average
#5725	57.39	59.22	68.3	-10.91	36.63	7.73	46.19	100	97	Peak

REMARKS:

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

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	54.29	59.36	68.3	-14.01	33.7	7.49	46.26	180	360	Peak
5720	97.85	102.36			33.96	7.72	46.19	180	360	Peak
5720	89.05	93.56			33.96	7.72	46.19	180	360	Average
#5850	56.03	60.2	68.3	-12.27	34.12	7.86	46.15	180	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
#5470	57.42	59.71	68.3	-10.88	36.48	7.49	46.26	100	30	Peak
5720	102.74	104.58			36.63	7.72	46.19	100	30	Peak
5720	95.71	97.55			36.63	7.72	46.19	100	30	Average
#5850	59.22	60.8	68.3	-9.08	36.71	7.86	46.15	100	30	Peak

REMARKS:

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

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	53.6	58.67	74	-20.4	33.7	7.49	46.26	100	213	Peak
5460	43.29	48.36	54	-10.71	33.7	7.49	46.26	100	213	Average
#5470	54.14	59.21	68.3	-14.16	33.7	7.49	46.26	100	213	Peak
5500	98.73	103.78			33.7	7.5	46.25	100	213	Peak
5500	89.1	94.15			33.7	7.5	46.25	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
5460	55.4	57.69	74	-18.6	36.48	7.49	46.26	100	98	Peak
5460	45.92	48.21	54	-8.08	36.48	7.49	46.26	100	98	Average
#5470	56.17	58.46	68.3	-12.13	36.48	7.49	46.26	100	98	Peak
5500	103.38	105.63			36.5	7.5	46.25	100	98	Peak
5500	94.1	96.35			36.5	7.5	46.25	100	98	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

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	53.34	58.41	74	-20.66	33.7	7.49	46.26	100	211	Peak
5460	42.45	47.52	54	-11.55	33.7	7.49	46.26	100	211	Average
#5470	54.31	59.38	68.3	-13.99	33.7	7.49	46.26	100	211	Peak
5580	97.84	102.69			33.8	7.58	46.23	100	211	Peak
5580	88.71	93.56			33.8	7.58	46.23	100	211	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	56.02	58.31	74	-17.98	36.48	7.49	46.26	100	96	Peak
5460	45.34	47.63	54	-8.66	36.48	7.49	46.26	100	96	Average
#5470	56.96	59.25	68.3	-11.34	36.48	7.49	46.26	100	96	Peak
5580	103.58	105.68			36.55	7.58	46.23	100	96	Peak
5580	92.47	94.57			36.55	7.58	46.23	100	96	Average

REMARKS:

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

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	99.1	103.65			33.94	7.7	46.19	100	213	Peak
5700	89.57	94.12			33.94	7.7	46.19	100	213	Average
#5725	55.14	59.63	68.3	-13.16	33.97	7.73	46.19	100	213	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	104.02	105.89			36.62	7.7	46.19	100	98	Peak
5700	94.45	96.32			36.62	7.7	46.19	100	98	Average
#5725	58.05	59.88	68.3	-10.25	36.63	7.73	46.19	100	98	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5700MHz: Fundamental frequency.
3. #: Out of restricted band.

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	56.1	61.17	68.3	-12.2	33.7	7.49	46.26	200	15	Peak
5720	98.02	102.53			33.96	7.72	46.19	200	15	Peak
5720	88.64	93.15			33.96	7.72	46.19	200	15	Average
#5850	58.03	62.2	68.3	-10.27	34.12	7.86	46.15	200	15	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	57.23	59.52	68.3	-11.07	36.48	7.49	46.26	100	15	Peak
5720	102.01	103.85			36.63	7.72	46.19	100	15	Peak
5720	94.71	96.55			36.63	7.72	46.19	100	15	Average
#5850	59.53	61.11	68.3	-8.77	36.71	7.86	46.15	100	15	Peak

REMARKS:

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

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	53.29	58.36	74	-20.71	33.7	7.49	46.26	100	212	Peak
5460	42.05	47.12	54	-11.95	33.7	7.49	46.26	100	212	Average
#5470	53.72	58.79	68.3	-14.58	33.7	7.49	46.26	100	212	Peak
5510	92.62	97.65			33.71	7.51	46.25	100	212	Peak
5510	84.68	89.71			33.71	7.51	46.25	100	212	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	55.34	57.63	74	-18.66	36.48	7.49	46.26	100	99	Peak
5460	45.56	47.85	54	-8.44	36.48	7.49	46.26	100	99	Average
#5470	56.03	58.32	68.3	-12.27	36.48	7.49	46.26	100	99	Peak
5510	96.46	98.69			36.51	7.51	46.25	100	99	Peak
5510	88.02	90.25			36.51	7.51	46.25	100	99	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5510MHz: Fundamental frequency.
3. #: Out of restricted band.

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	52.41	57.48	74	-21.59	33.7	7.49	46.26	100	211	Peak
5460	43.16	48.23	54	-10.84	33.7	7.49	46.26	100	211	Average
#5470	53.89	58.96	68.3	-14.41	33.7	7.49	46.26	100	211	Peak
5500	92.4	97.45			33.7	7.5	46.25	100	211	Peak
5500	83.62	88.67			33.7	7.5	46.25	100	211	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	55.92	58.21	74	-18.08	36.48	7.49	46.26	100	101	Peak
5460	45.4	47.69	54	-8.6	36.48	7.49	46.26	100	101	Average
#5470	56.69	58.98	68.3	-11.61	36.48	7.49	46.26	100	101	Peak
5500	96.38	98.63			36.5	7.5	46.25	100	101	Peak
5500	88.07	90.32			36.5	7.5	46.25	100	101	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

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	91.96	96.59			33.9	7.67	46.2	100	215	Peak
5670	83.94	88.57			33.9	7.67	46.2	100	215	Average
#5725	54.87	59.36	68.3	-13.43	33.97	7.73	46.19	100	215	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	95.96	97.89			36.6	7.67	46.2	100	98	Peak
5670	87.82	89.75			36.6	7.67	46.2	100	98	Average
#5725	57.86	59.69	68.3	-10.44	36.63	7.73	46.19	100	98	Peak

REMARKS:

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

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	54.06	59.13	68.3	-14.24	33.7	7.49	46.26	100	0	Peak
5710	93.42	97.95			33.95	7.71	46.19	100	0	Peak
5710	85.05	89.58			33.95	7.71	46.19	100	0	Average
#5850	55.7	59.87	68.3	-12.6	34.12	7.86	46.15	100	0	Peak
ANTENNA POLARITY & test distance: Vertical at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
#5470	57.16	59.45	68.3	-11.14	36.48	7.49	46.26	100	20	Peak
5710	96.71	98.56			36.63	7.71	46.19	100	20	Peak
5710	88.9	90.75			36.63	7.71	46.19	100	20	Average
#5850	58.84	60.42	68.3	-9.46	36.71	7.86	46.15	100	20	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5710MHz: Fundamental frequency.
3. #: Out of restricted band.



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	53.38	58.45	74	-20.62	33.7	7.49	46.26	100	212	Peak
5460	43.52	48.59	54	-10.48	33.7	7.49	46.26	100	212	Average
#5470	54.29	59.36	68.3	-14.01	33.7	7.49	46.26	100	212	Peak
5500	99.64	104.69			33.7	7.5	46.25	100	212	Peak
5500	90.21	95.26			33.7	7.5	46.25	100	212	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	55.4	57.69	74	-18.6	36.48	7.49	46.26	100	96	Peak
5460	46.22	48.51	54	-7.78	36.48	7.49	46.26	100	96	Average
#5470	56.36	58.65	68.3	-11.94	36.48	7.49	46.26	100	96	Peak
5500	104.1	106.35			36.5	7.5	46.25	100	96	Peak
5500	94.33	96.58			36.5	7.5	46.25	100	96	Average

REMARKS:

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

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	53.59	58.66	74	-20.41	33.7	7.49	46.26	100	213	Peak
5460	42.89	47.96	54	-11.11	33.7	7.49	46.26	100	213	Average
#5470	54.41	59.48	68.3	-13.89	33.7	7.49	46.26	100	213	Peak
5580	98.67	103.52			33.8	7.58	46.23	100	213	Peak
5580	87.8	92.65			33.8	7.58	46.23	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
5460	56.13	58.42	74	-17.87	36.48	7.49	46.26	100	98	Peak
5460	45.4	47.69	54	-8.6	36.48	7.49	46.26	100	98	Average
#5470	57.36	59.65	68.3	-10.94	36.48	7.49	46.26	100	98	Peak
5580	103.46	105.56			36.55	7.58	46.23	100	98	Peak
5580	94.54	96.64			36.55	7.58	46.23	100	98	Average

REMARKS:

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

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	99.1	103.65			33.94	7.7	46.19	100	216	Peak
5700	89.73	94.28			33.94	7.7	46.19	100	216	Average
#5725	54.97	59.46	68.3	-13.33	33.97	7.73	46.19	100	216	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	104.98	106.85			36.62	7.7	46.19	100	96	Peak
5700	94.58	96.45			36.62	7.7	46.19	100	96	Average
#5725	57.85	59.68	68.3	-10.45	36.63	7.73	46.19	100	96	Peak

REMARKS:

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

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	54.49	59.56	68.3	-13.81	33.7	7.49	46.26	200	70	Peak
5720	95.89	100.4			33.96	7.72	46.19	200	70	Peak
5720	87.04	91.55			33.96	7.72	46.19	200	70	Average
#5850	57.71	61.88	68.3	-10.59	34.12	7.86	46.15	200	70	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	57.33	59.62	68.3	-10.97	36.48	7.49	46.26	100	15	Peak
5720	101.61	103.45			36.63	7.72	46.19	100	15	Peak
5720	94.71	96.55			36.63	7.72	46.19	100	15	Average
#5850	60.1	61.68	68.3	-8.2	36.71	7.86	46.15	100	15	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.

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	54.71	59.78	74	-19.29	33.7	7.49	46.26	100	213	Peak
5460	44.14	49.21	54	-9.86	33.7	7.49	46.26	100	213	Average
#5470	55.07	60.14	68.3	-13.23	33.7	7.49	46.26	100	213	Peak
5510	92.57	97.6			33.71	7.51	46.25	100	213	Peak
5510	84.62	89.65			33.71	7.51	46.25	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
5460	56.61	58.9	74	-17.39	36.48	7.49	46.26	100	95	Peak
5460	46.66	48.95	54	-7.34	36.48	7.49	46.26	100	95	Average
#5470	57.59	59.88	68.3	-10.71	36.48	7.49	46.26	100	95	Peak
5510	97.4	99.63			36.51	7.51	46.25	100	95	Peak
5510	89.02	91.25			36.51	7.51	46.25	100	95	Average

REMARKS:

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

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	54.19	59.26	74	-19.81	33.7	7.49	46.26	100	218	Peak
5460	43.6	48.67	54	-10.4	33.7	7.49	46.26	100	218	Average
#5470	55.24	60.31	68.3	-13.06	33.7	7.49	46.26	100	218	Peak
5500	91.53	96.58			33.7	7.5	46.25	100	218	Peak
5500	84.59	89.64			33.7	7.5	46.25	100	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
5460	57.56	59.85	74	-16.44	36.48	7.49	46.26	100	96	Peak
5460	46.28	48.57	54	-7.72	36.48	7.49	46.26	100	96	Average
#5470	58.01	60.3	68.3	-10.29	36.48	7.49	46.26	100	96	Peak
5500	97.38	99.63			36.5	7.5	46.25	100	96	Peak
5500	88	90.25			36.5	7.5	46.25	100	96	Average

REMARKS:

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

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	91.68	96.31			33.9	7.67	46.2	100	221	Peak
5670	82.92	87.55			33.9	7.67	46.2	100	221	Average
#5725	55.86	60.35	68.3	-12.44	33.97	7.73	46.19	100	221	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	96.52	98.45			36.6	7.67	46.2	100	99	Peak
5670	88.39	90.32			36.6	7.67	46.2	100	99	Average
#5725	57.87	59.7	68.3	-10.43	36.63	7.73	46.19	100	99	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 5670MHz: Fundamental frequency.
3. #: Out of restricted band.

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	54.18	59.25	68.3	-14.12	33.7	7.49	46.26	200	70	Peak
5710	91.12	95.65			33.95	7.71	46.19	200	70	Peak
5710	84.92	89.45			33.95	7.71	46.19	200	70	Average
#5850	56.88	61.05	68.3	-11.42	34.12	7.86	46.15	200	70	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	57.16	59.45	68.3	-11.14	36.48	7.49	46.26	100	20	Peak
5710	96.25	98.1			36.63	7.71	46.19	100	20	Peak
5710	88.73	90.58			36.63	7.71	46.19	100	20	Average
#5850	59.21	60.79	68.3	-9.09	36.71	7.86	46.15	100	20	Peak

REMARKS:

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



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	55.57	60.64	74	-18.43	33.7	7.49	46.26	100	216	Peak
5460	44.61	49.68	54	-9.39	33.7	7.49	46.26	100	216	Average
#5470	55.71	60.78	68.3	-12.59	33.7	7.49	46.26	100	216	Peak
5530	96.28	101.25			33.74	7.53	46.24	100	216	Peak
5530	87.68	92.65			33.74	7.53	46.24	100	216	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	57.58	59.87	74	-16.42	36.48	7.49	46.26	100	98	Peak
5460	48.03	50.32	54	-5.97	36.48	7.49	46.26	100	98	Average
#5470	58.31	60.6	68.3	-9.99	36.48	7.49	46.26	100	98	Peak
5530	100.17	102.36			36.52	7.53	46.24	100	98	Peak
5530	91.5	93.69			36.52	7.53	46.24	100	98	Average

REMARKS:

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

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	56.09	61.16	68.3	-12.21	33.7	7.49	46.26	100	140	Peak
5690	94.85	99.43			33.93	7.69	46.2	100	140	Peak
5690	86.67	91.25			33.93	7.69	46.2	100	140	Average
#5850	58.12	62.29	68.3	-10.18	34.12	7.86	46.15	100	140	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	58.39	60.68	68.3	-9.91	36.48	7.49	46.26	100	70	Peak
5690	93.04	94.94			36.61	7.69	46.2	100	70	Peak
5690	85.35	87.25			36.61	7.69	46.2	100	70	Average
#5850	60.41	61.99	68.3	-7.89	36.71	7.86	46.15	100	70	Peak

REMARKS:

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



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	95.25	99.69			33.99	7.75	46.18	100	221	Peak
5745	85.77	90.21			33.99	7.75	46.18	100	221	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	99.47	101.25			36.65	7.75	46.18	100	108	Peak
5745	89.58	91.36			36.65	7.75	46.18	100	108	Average

REMARKS:

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



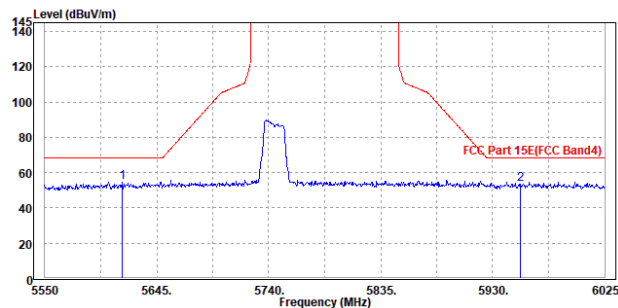
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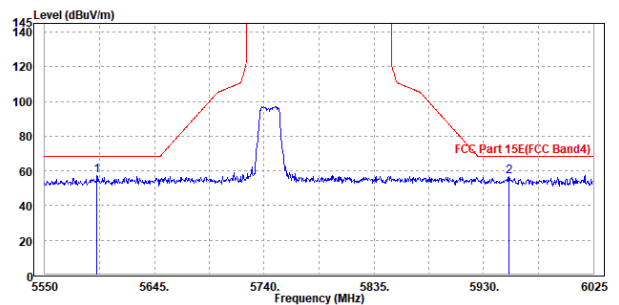
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5616.025	54.34	59.1	68.3	-13.96	33.84	7.62	46.22	100	107	Peak
5953.275	53.58	57.5	68.3	-14.72	34.24	7.96	46.12	100	107	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
5595.125	57.32	59.38	68.3	-10.98	36.56	7.6	46.22	100	107	Peak
5951.85	57	58.39	68.3	-11.3	36.77	7.96	46.12	100	107	Peak

CH 149

Horizontal



Vertical



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	94.32	98.66			34.04	7.79	46.17	100	219	Peak
5785	84.98	89.32			34.04	7.79	46.17	100	219	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	98.85	100.56			36.67	7.79	46.17	100	105	Peak
5785	88.53	90.24			36.67	7.79	46.17	100	105	Average

REMARKS:

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



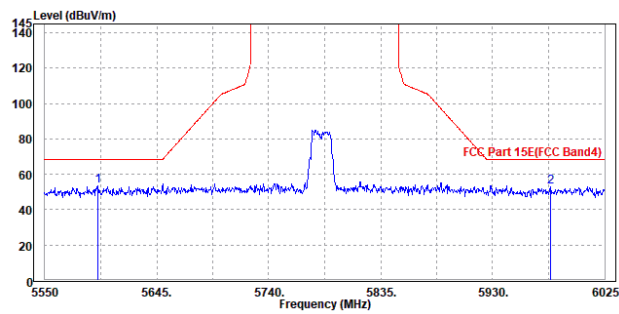
OOBE DATA

802.11a

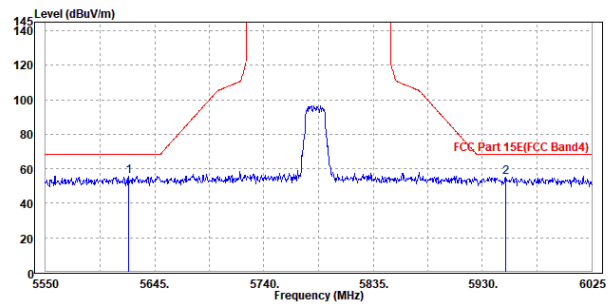
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5594.65	53.27	58.08	68.3	-15.03	33.81	7.6	46.22	100	107	Peak
5978.925	52.73	56.59	68.3	-15.57	34.27	7.99	46.12	100	107	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
5622.2	55.5	57.53	68.3	-12.8	36.57	7.62	46.22	100	107	Peak
5949.95	55.39	56.78	68.3	-12.91	36.77	7.96	46.12	100	107	Peak

CH 157

Horizontal



Vertical



CHANNEL	TX Channel 161	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
5805	94.12	98.36			34.09	7.83	46.16	100	211	Peak
5805	84.48	88.72			34.09	7.83	46.16	100	211	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
5805	98.69	100.36			36.68	7.81	46.16	100	102	Peak
5805	88.02	89.69			36.68	7.81	46.16	100	102	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5805MHz: Fundamental frequency.

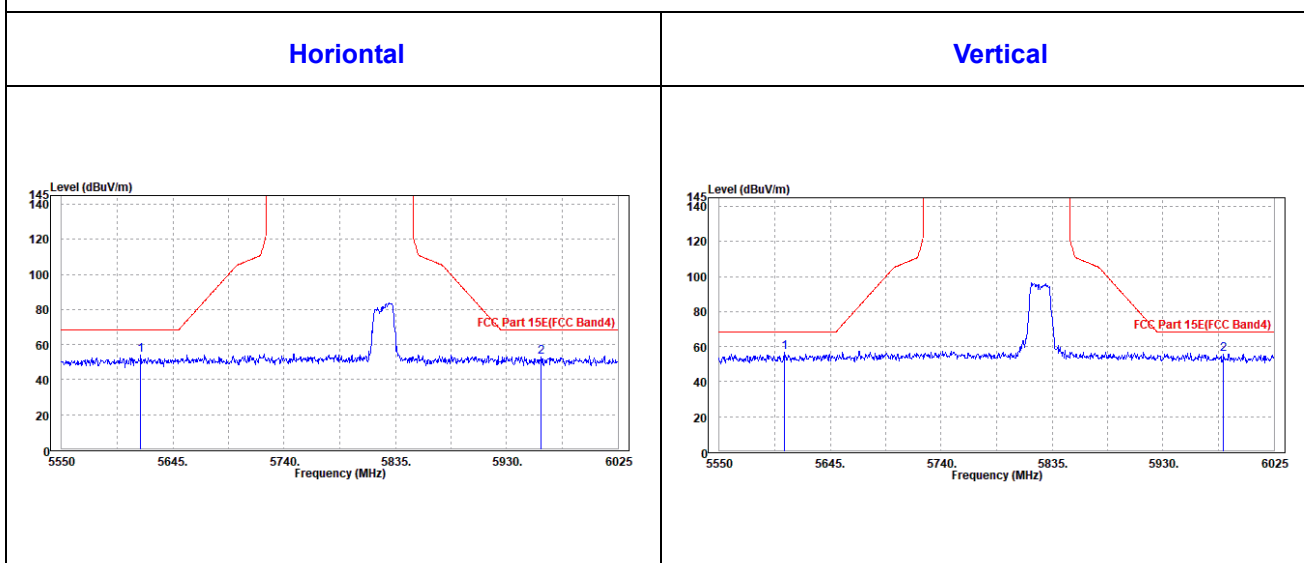


OOBE DATA

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
5617.45	53.97	58.73	68.3	-14.33	33.84	7.62	46.22	100	107	Peak
5959.45	52.71	56.61	68.3	-15.59	34.25	7.97	46.12	100	107	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
5606.05	56.88	58.93	68.3	-11.42	36.56	7.61	46.22	100	107	Peak
5981.775	55.83	57.17	68.3	-12.47	36.79	7.99	46.12	100	107	Peak

CH 161





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	94.21	98.65			33.99	7.75	46.18	100	213	Peak
5745	85.19	89.63			33.99	7.75	46.18	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	98.54	100.32			36.65	7.75	46.18	100	107	Peak
5745	88.43	90.21			36.65	7.75	46.18	100	107	Average

REMARKS:

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

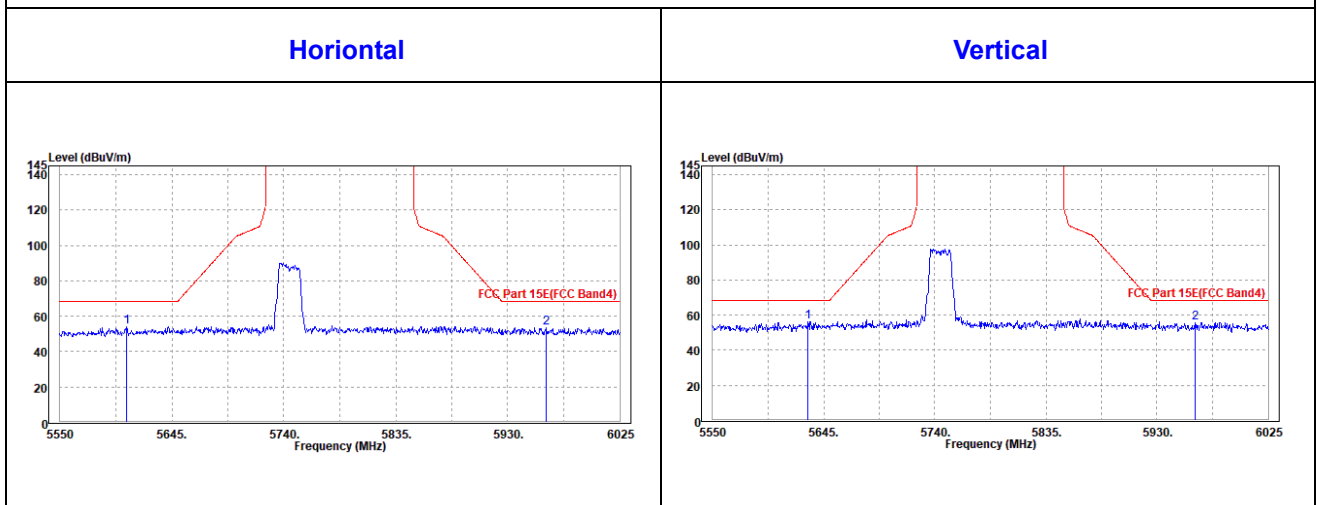


Oobe Data

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
5606.525	53.88	58.66	68.3	-14.42	33.83	7.61	46.22	100	107	Peak
5962.3	53.26	57.16	68.3	-15.04	34.25	7.97	46.12	100	107	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
5631.7	56.49	58.49	68.3	-11.81	36.58	7.63	46.21	100	107	Peak
5962.3	55.82	57.19	68.3	-12.48	36.78	7.97	46.12	100	107	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	93.55	97.89			34.04	7.79	46.17	100	221	Peak
5785	85.28	89.62			34.04	7.79	46.17	100	221	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	99.04	100.75			36.67	7.79	46.17	100	106	Peak
5785	89.87	91.58			36.67	7.79	46.17	100	106	Average

REMARKS:

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

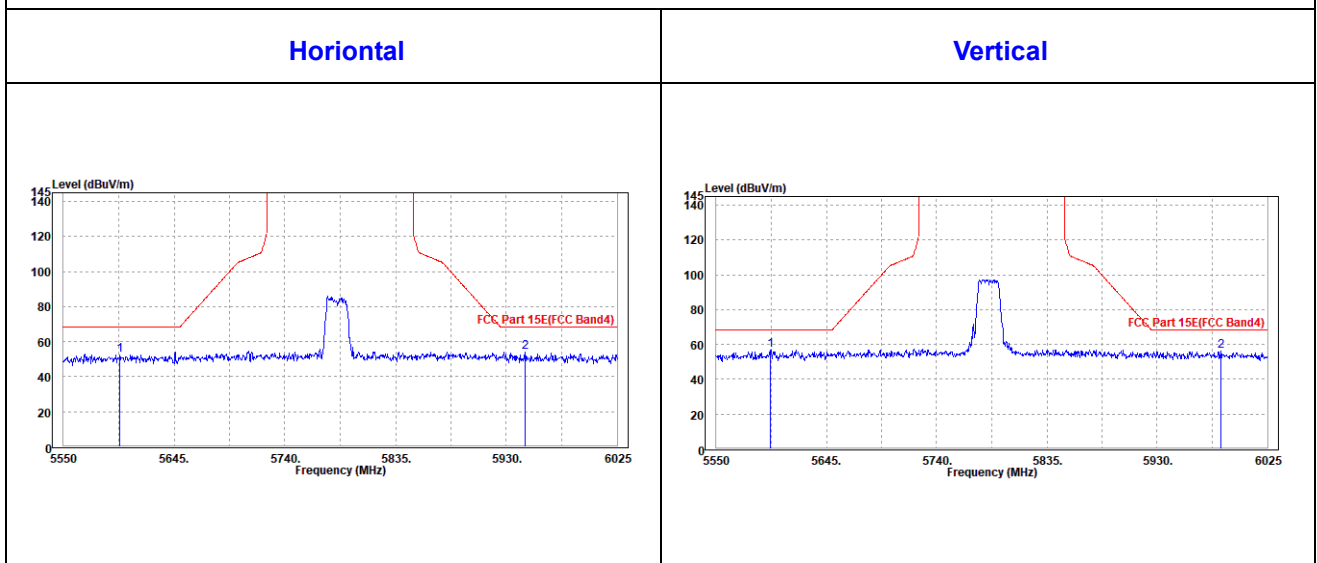


Oobe Data

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
5598.45	52.48	57.28	68.3	-15.82	33.82	7.6	46.22	100	107	Peak
5946.15	53.87	57.8	68.3	-14.43	34.24	7.96	46.13	100	107	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
5597.025	56.95	59.01	68.3	-11.35	36.56	7.6	46.22	100	107	Peak
5984.625	56.46	57.79	68.3	-11.84	36.79	7.99	46.11	100	107	Peak

CH 157



CHANNEL	TX Channel 161	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
5805	92.94	97.22			34.07	7.81	46.16	100	215	Peak
5805	82.86	87.14			34.07	7.81	46.16	100	215	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
5805	97.98	99.65			36.68	7.81	46.16	100	108	Peak
5805	88.64	90.31			36.68	7.81	46.16	100	108	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5805MHz: Fundamental frequency.



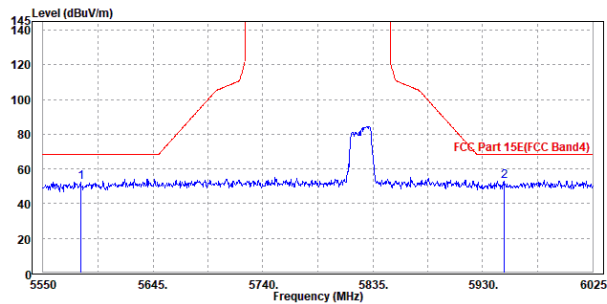
Oobe Data

802.11n (20MHz)

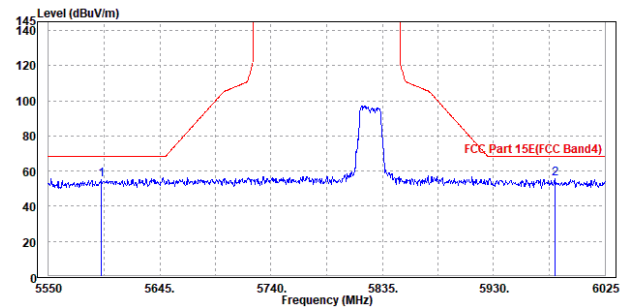
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5582.3	52.63	57.48	68.3	-15.67	33.8	7.58	46.23	100	107	Peak
5948.525	52.94	56.86	68.3	-15.36	34.24	7.96	46.12	100	107	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
5594.65	55.21	57.27	68.3	-13.09	36.56	7.6	46.22	100	107	Peak
5982.25	55.73	57.06	68.3	-12.57	36.79	7.99	46.11	100	107	Peak

CH 161

Horizontal



Vertical





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	89.15	93.56			34.01	7.76	46.18	100	218	Peak
5755	80.17	84.58			34.01	7.76	46.18	100	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
5755	93.86	95.63			36.65	7.76	46.18	100	105	Peak
5755	84.76	86.53			36.65	7.76	46.18	100	105	Average

REMARKS:

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



**BUREAU
VERITAS**

Test Report No.: RF200918W001-3

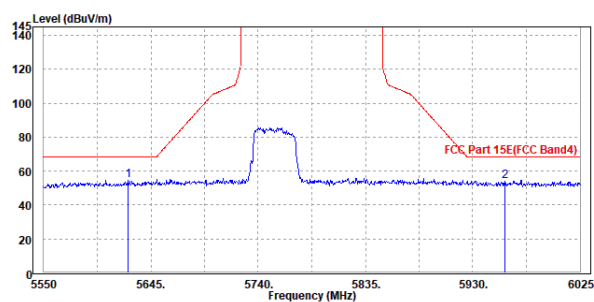
Oobe DATA

802.11n (40MHZ)

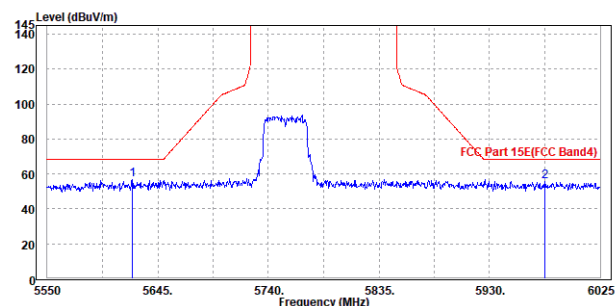
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5624.575	54.37	59.11	68.3	-13.93	33.85	7.63	46.22	100	107	Peak
5958.5	54.15	58.05	68.3	-14.15	34.25	7.97	46.12	100	107	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
5623.15	56.62	58.64	68.3	-11.68	36.57	7.63	46.22	100	107	Peak
5977.5	55.94	57.28	68.3	-12.36	36.79	7.99	46.12	100	107	Peak

CH 151

Horizontal



Vertical



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	88.2	92.52			34.05	7.8	46.17	100	213	Peak
5795	79.33	83.65			34.05	7.8	46.17	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
5795	91.99	93.68			36.68	7.8	46.17	100	107	Peak
5795	82.9	84.59			36.68	7.8	46.17	100	107	Average

REMARKS:

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



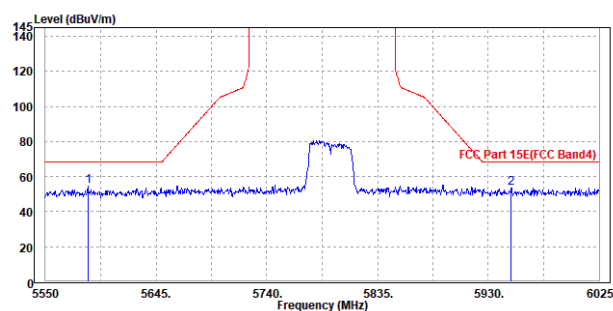
Oobe DATA

802.11n (40MHZ)

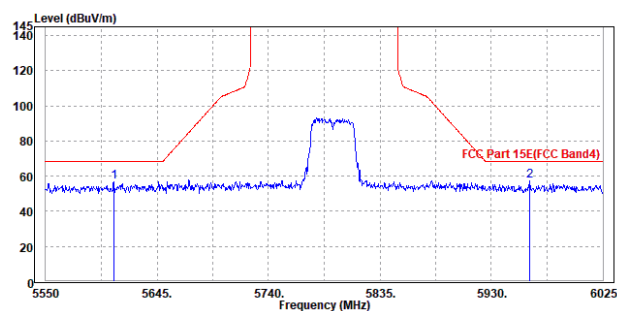
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5586.575	54.35	59.19	68.3	-13.95	33.8	7.59	46.23	100	107	Peak
5949.475	53.41	57.33	68.3	-14.89	34.24	7.96	46.12	100	107	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
5607.95	56.63	58.68	68.3	-11.67	36.56	7.61	46.22	100	107	Peak
5962.3	57.37	58.74	68.3	-10.93	36.78	7.97	46.12	100	107	Peak

CH 159

Horizontal



Vertical





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	94.81	99.25			33.99	7.75	46.18	100	221	Peak
5745	86.04	90.48			33.99	7.75	46.18	100	221	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	98.38	100.16			36.65	7.75	46.18	100	108	Peak
5745	89.27	91.05			36.65	7.75	46.18	100	108	Average

REMARKS:

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

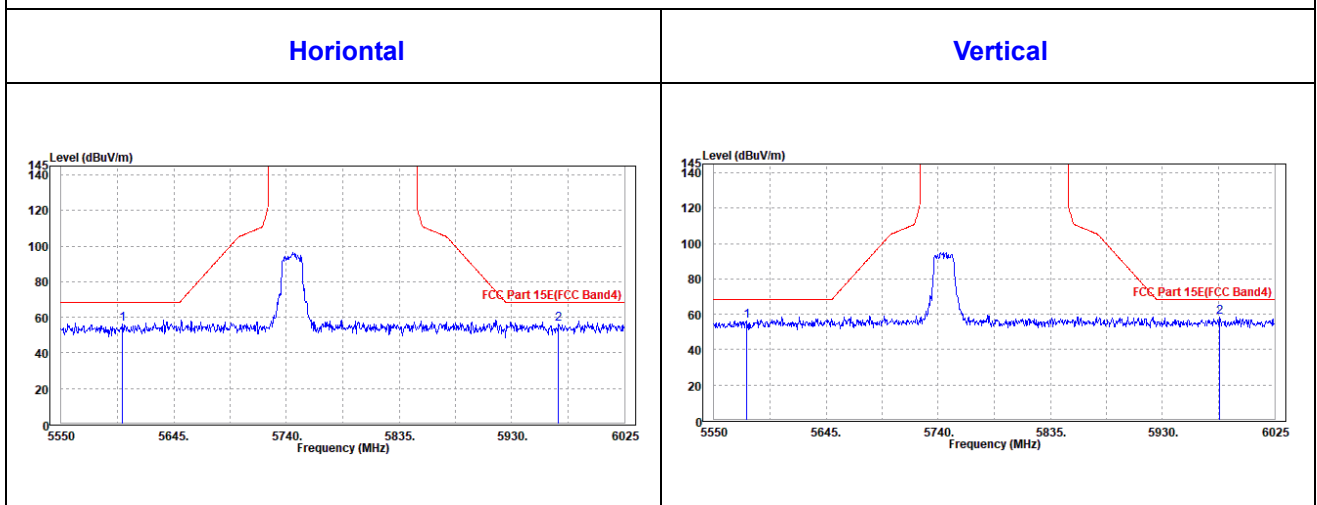


Oobe Data

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
5601.3	56.38	58.66	68.3	-11.92	36.34	7.6	46.22	110	350	Peak
5969.425	56.21	57.86	68.3	-12.09	36.49	7.98	46.12	110	350	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	56.17	58.27	68.3	-12.13	36.55	7.58	46.23	110	120	Peak
5978.45	58.21	59.55	68.3	-10.09	36.79	7.99	46.12	110	120	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	94.87	99.21			34.04	7.79	46.17	100	219	Peak
5785	85.33	89.67			34.04	7.79	46.17	100	219	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	98.16	99.87			36.67	7.79	46.17	100	105	Peak
5785	88.61	90.32			36.67	7.79	46.17	100	105	Average

REMARKS:

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

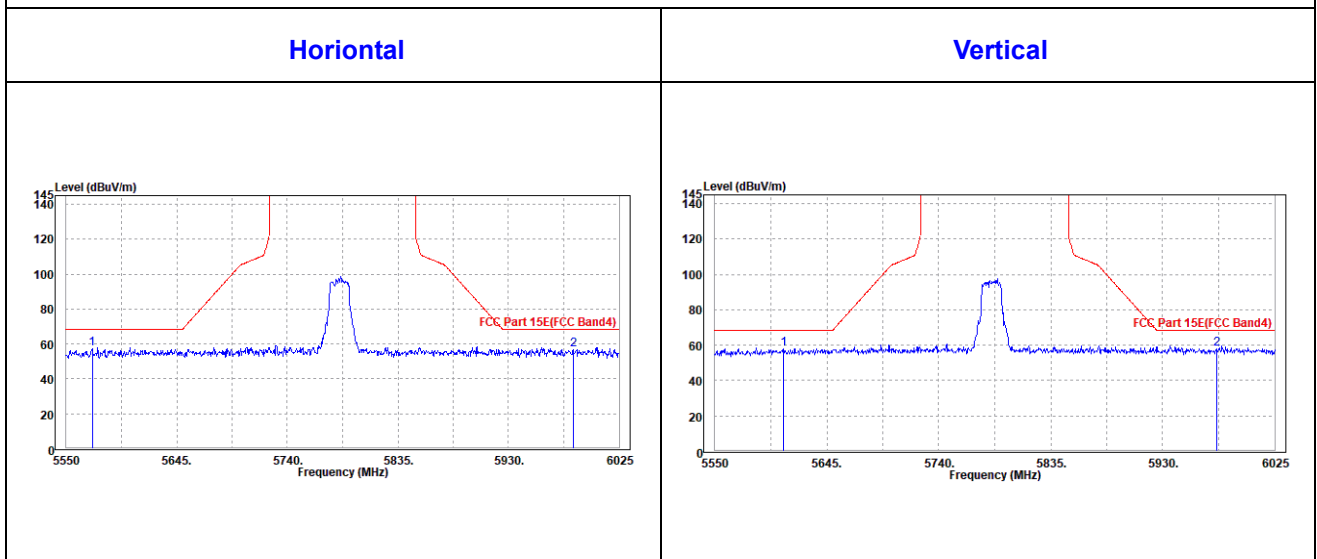


OOBE DATA

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
5572.325	57.14	59.47	68.3	-11.16	36.33	7.57	46.23	110	130	Peak
5985.575	56.82	58.44	68.3	-11.48	36.49	8	46.11	110	130	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
5607.95	58.08	60.13	68.3	-10.22	36.56	7.61	46.22	110	120	Peak
5976.075	58.1	59.44	68.3	-10.2	36.79	7.99	46.12	110	120	Peak

CH 157



CHANNEL	TX Channel 161	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
5805	95.51	99.75			34.09	7.83	46.16	100	211	Peak
5805	85.41	89.65			34.09	7.83	46.16	100	211	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
5805	98.18	99.85			36.68	7.81	46.16	100	102	Peak
5805	88.45	90.12			36.68	7.81	46.16	100	102	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5805MHz: Fundamental frequency.

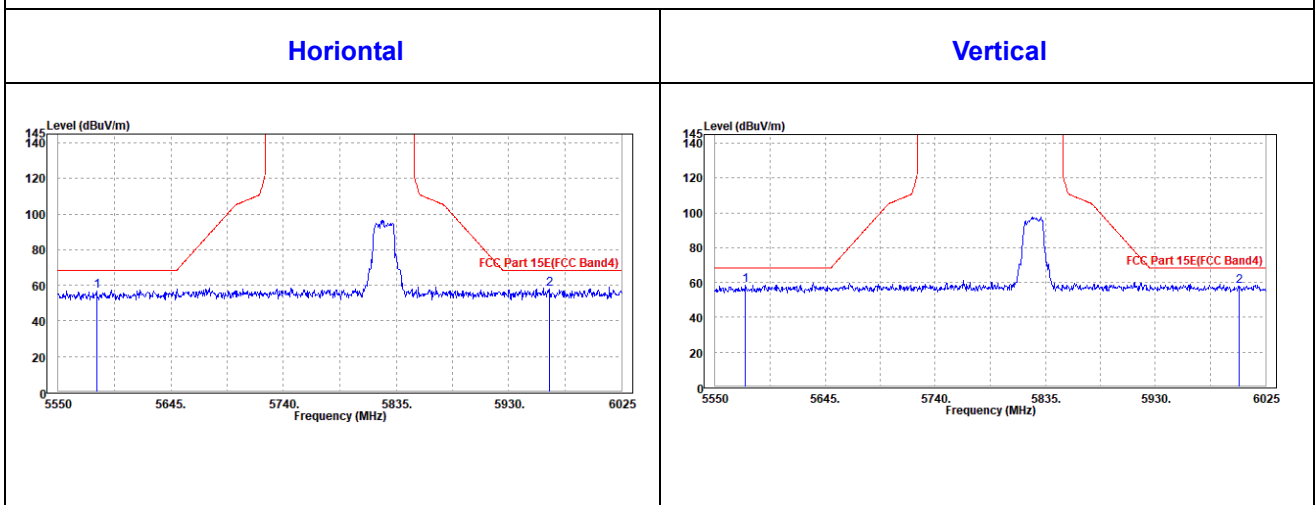


Oobe Data

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
5582.3	56.58	58.9	68.3	-11.72	36.33	7.58	46.23	110	130	Peak
5964.675	58.15	59.81	68.3	-10.15	36.49	7.97	46.12	110	130	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
5576.125	58.29	60.39	68.3	-10.01	36.55	7.58	46.23	110	120	Peak
6002.2	57.89	59.19	68.3	-10.41	36.8	8.01	46.11	110	120	Peak

CH 161





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	90.1	94.51			34.01	7.76	46.18	100	218	Peak
5755	81.84	86.25			34.01	7.76	46.18	100	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
5755	94.77	96.54			36.65	7.76	46.18	100	105	Peak
5755	85.35	87.12			36.65	7.76	46.18	100	105	Average

REMARKS:

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

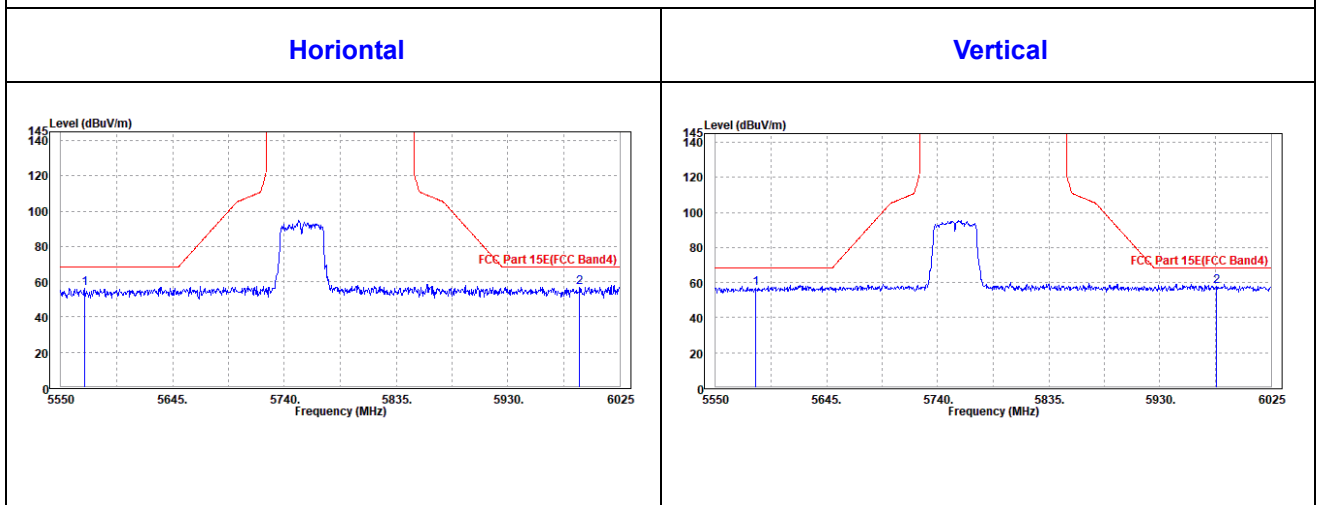


OOBE DATA

802.11ac (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5569.95	56.21	58.54	68.3	-12.09	36.33	7.57	46.23	100	300	Peak
5990.8	56.61	58.22	68.3	-11.69	36.5	8	46.11	100	300	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
5584.2	56.59	58.68	68.3	-11.71	36.55	7.59	46.23	100	360	Peak
5977.975	57.93	59.27	68.3	-10.37	36.79	7.99	46.12	100	360	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	88.95	93.27			34.05	7.8	46.17	100	213	Peak
5795	79.82	84.14			34.05	7.8	46.17	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
5795	90.85	92.54			36.68	7.8	46.17	100	107	Peak
5795	81.36	83.05			36.68	7.8	46.17	100	107	Average

REMARKS:

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



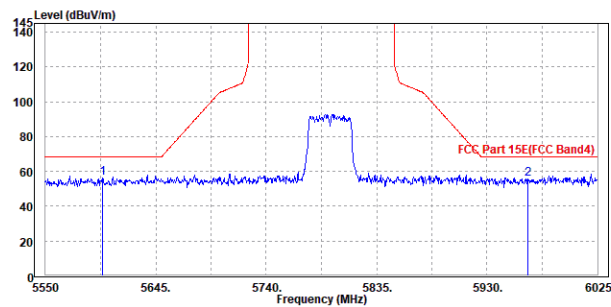
OOBE DATA

802.11ac (40MHZ)

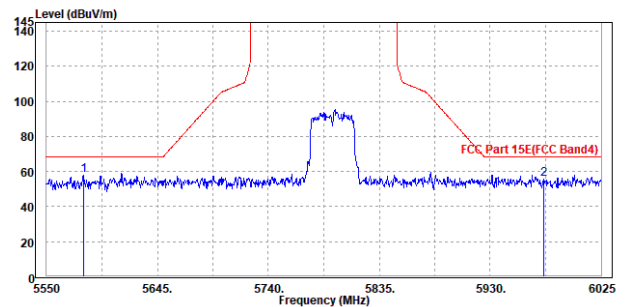
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5598.925	56.38	58.66	68.3	-11.92	36.34	7.6	46.22	100	300	Peak
5965.15	55.95	57.61	68.3	-12.35	36.49	7.97	46.12	100	300	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	57.72	59.82	68.3	-10.58	36.55	7.58	46.23	100	360	Peak
5975.6	55.47	56.81	68.3	-12.83	36.79	7.99	46.12	100	360	Peak

CH 159

Horizontal



Vertical





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	96.2	100.56			34.03	7.78	46.17	100	215	Peak
5775	85.92	90.28			34.03	7.78	46.17	100	215	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	101.92	103.64			36.67	7.78	46.17	100	108	Peak
5775	92.78	94.5			36.67	7.78	46.17	100	108	Average

REMARKS:

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



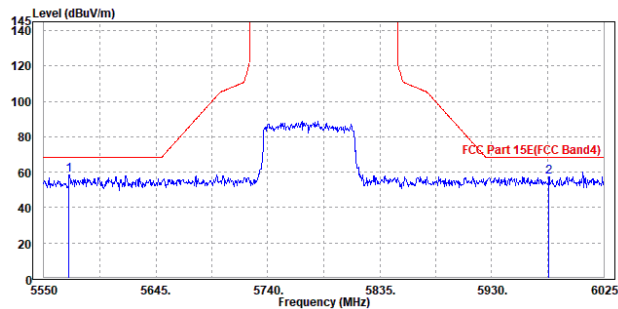
OOBE DATA

802.11ac (80MHZ)

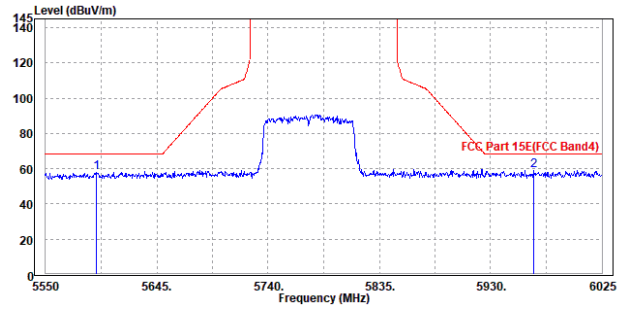
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5571.375	58.49	60.82	68.3	-9.81	36.33	7.57	46.23	100	300	Peak
5978.45	57.56	59.2	68.3	-10.74	36.49	7.99	46.12	100	300	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
5593.7	57.9	59.96	68.3	-10.4	36.56	7.6	46.22	100	360	Peak
5967.05	58.8	60.16	68.3	-9.5	36.78	7.98	46.12	100	360	Peak

CH 155

Horizontal



Vertical



3.2 OUT OF BAND EMISSION MEASUREMENT

3.2.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

OUT OF THE RESTRICTED BANDS	APPLICABLE TO	EIRP LIMIT (dBm/MHz)
	15.407(b)(1)	-27
	15.407(b)(2)	
	15.407(b)(3)	
	15.407(b)(4)	See note

NOTE:

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) 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.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 03,20	Jun. 02,21
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 03,20	Jun. 02,21

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. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

3.2.3 TEST PROCEDURES

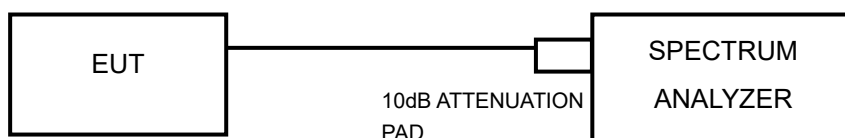
- a. Check the calibration of the measurement instrument using either an internal calibrator or a known signal from an external generator.
- b. The resolution bandwidth is set to 1MHzThe Video bandwidth is set to ≥ 1 MHz, report the peak value out of operating band.
- c. Repeat above procedures until all frequencies measured were complete.

NOTE: All modes of operation were investigated and the worst-case emissions are reported, antenna gain was added into the test result.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



3.2.6 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.

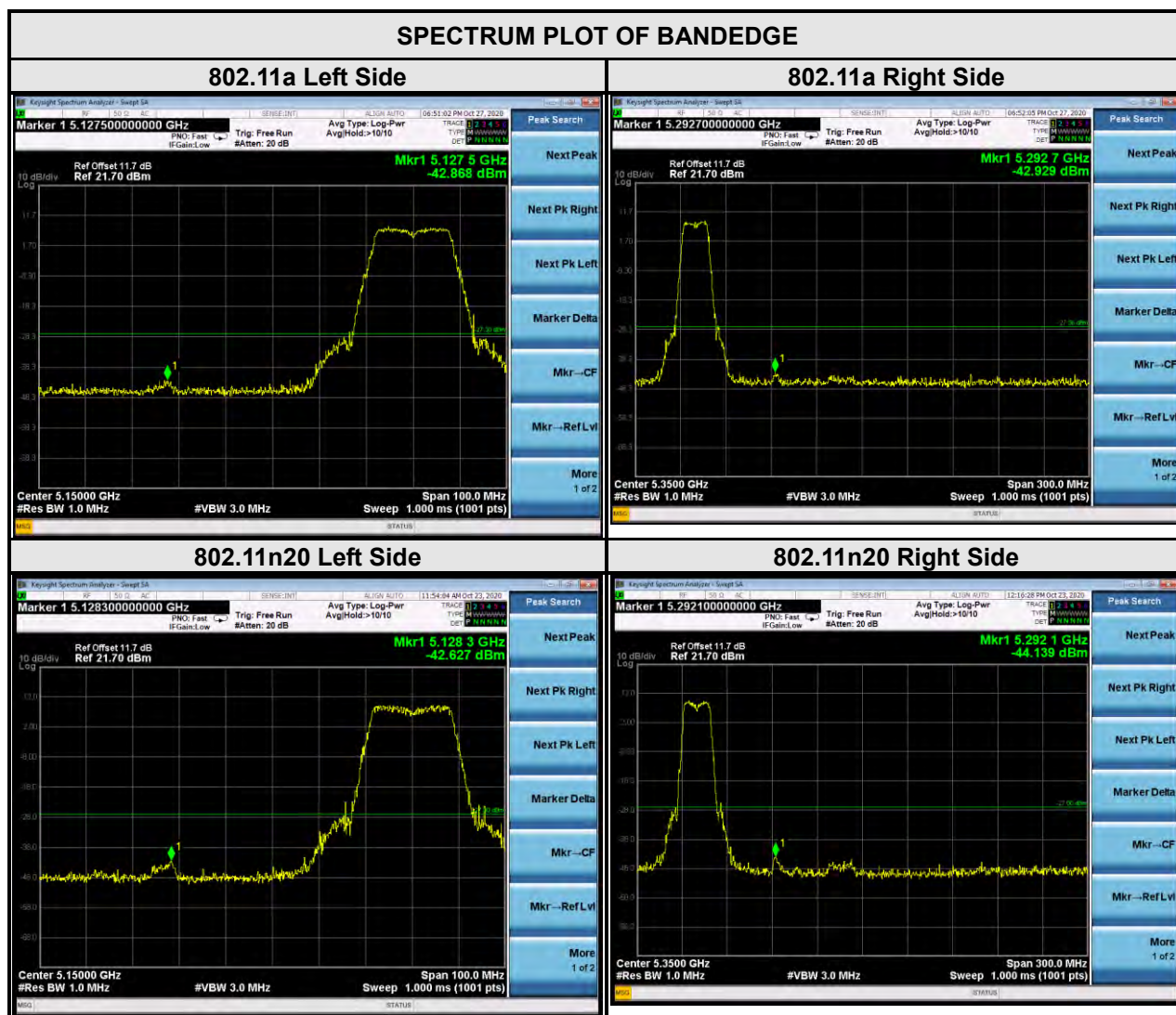


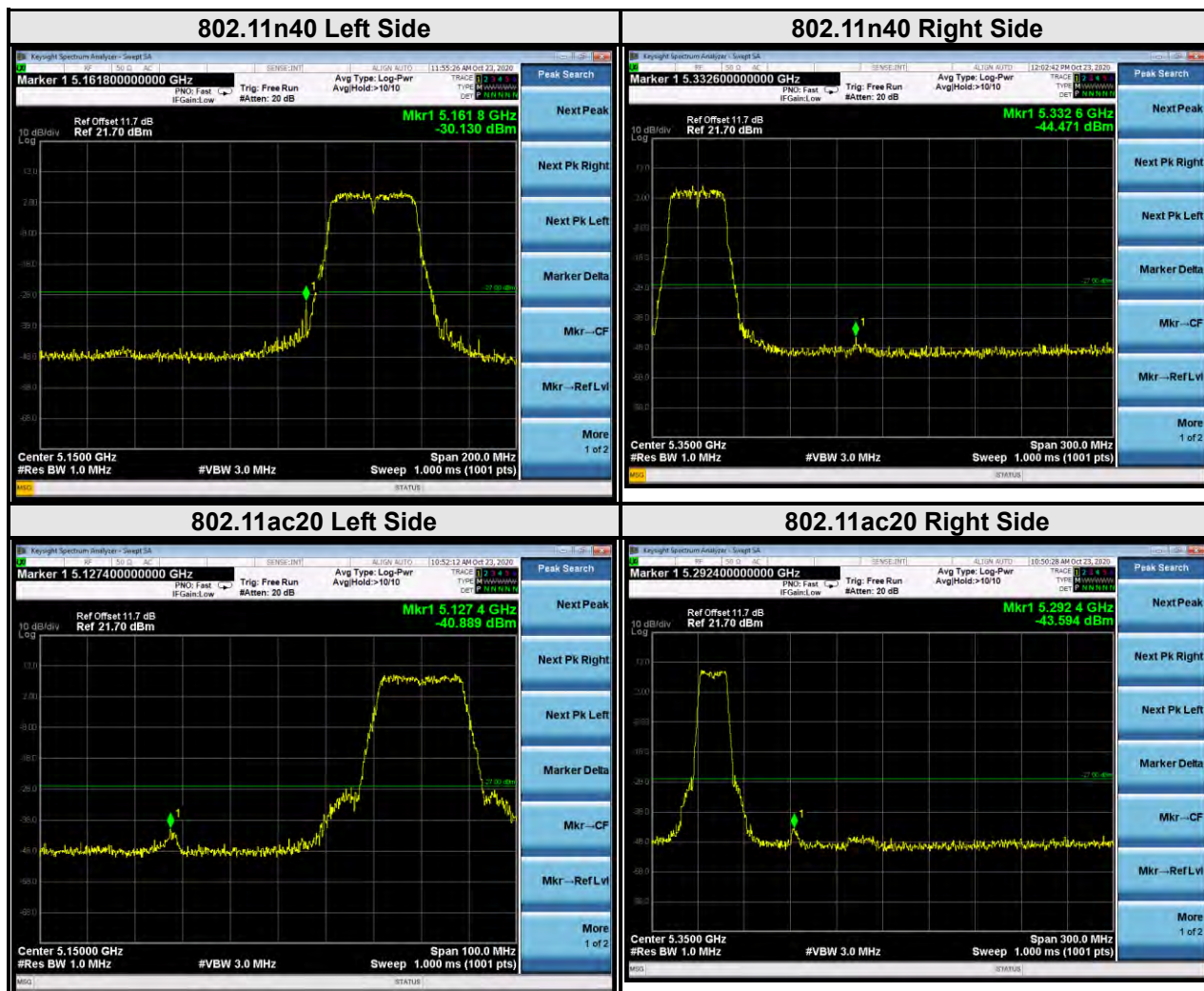
BUREAU
VERITAS

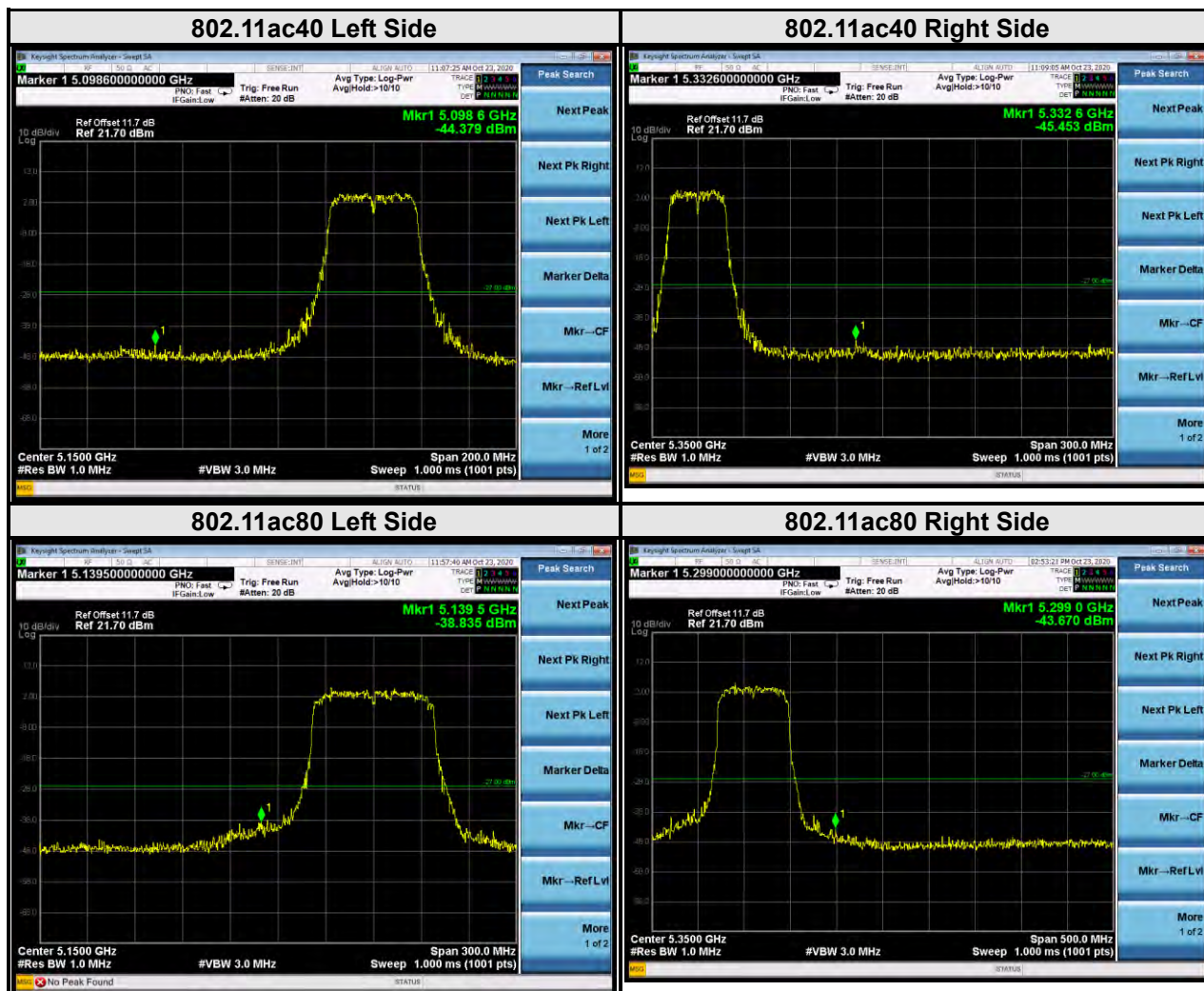
Test Report No.: RF200918W001-3

3.2.7 TEST RESULTS

For U-NII-1:





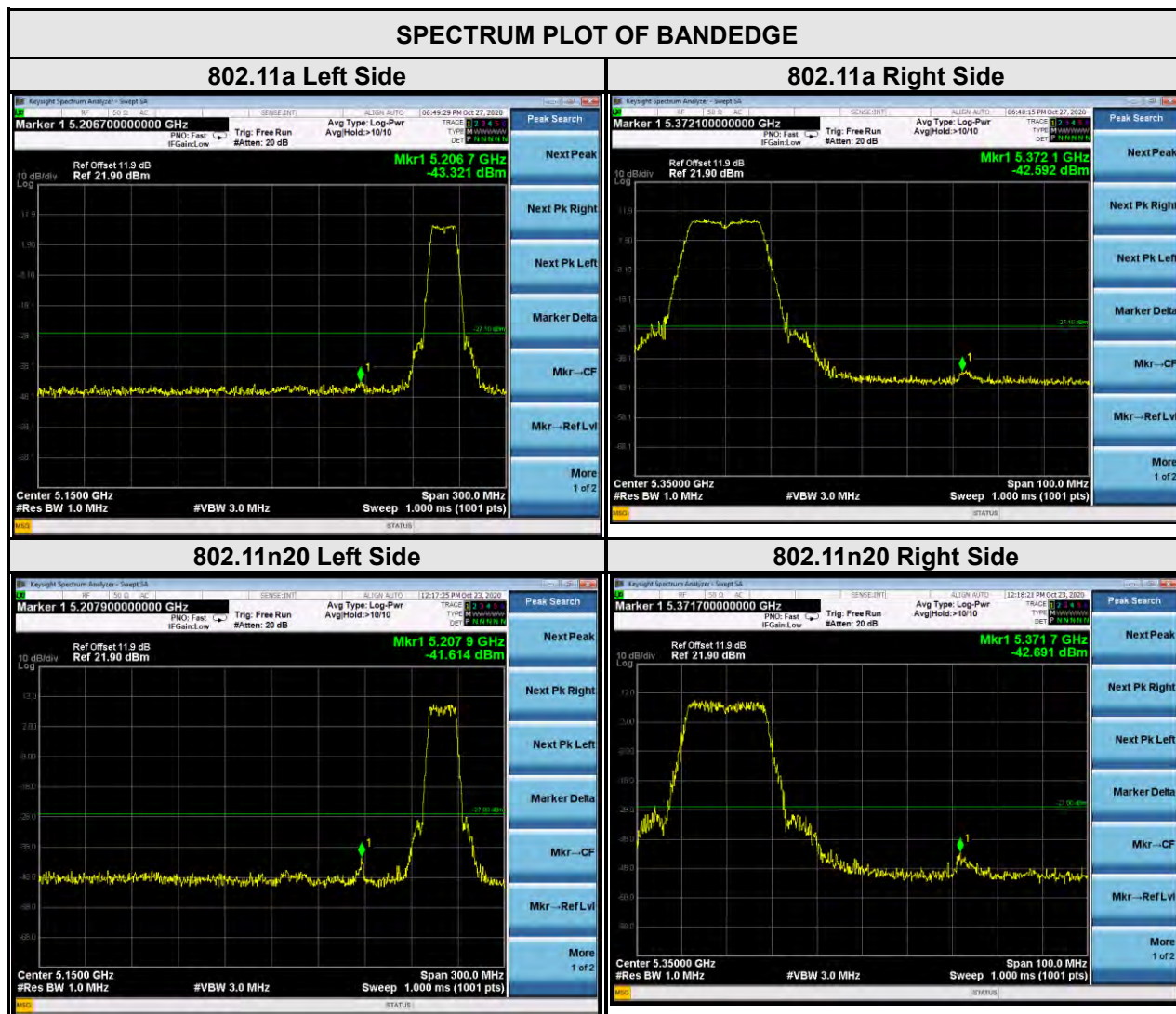




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Test Report No.: RF200918W001-3

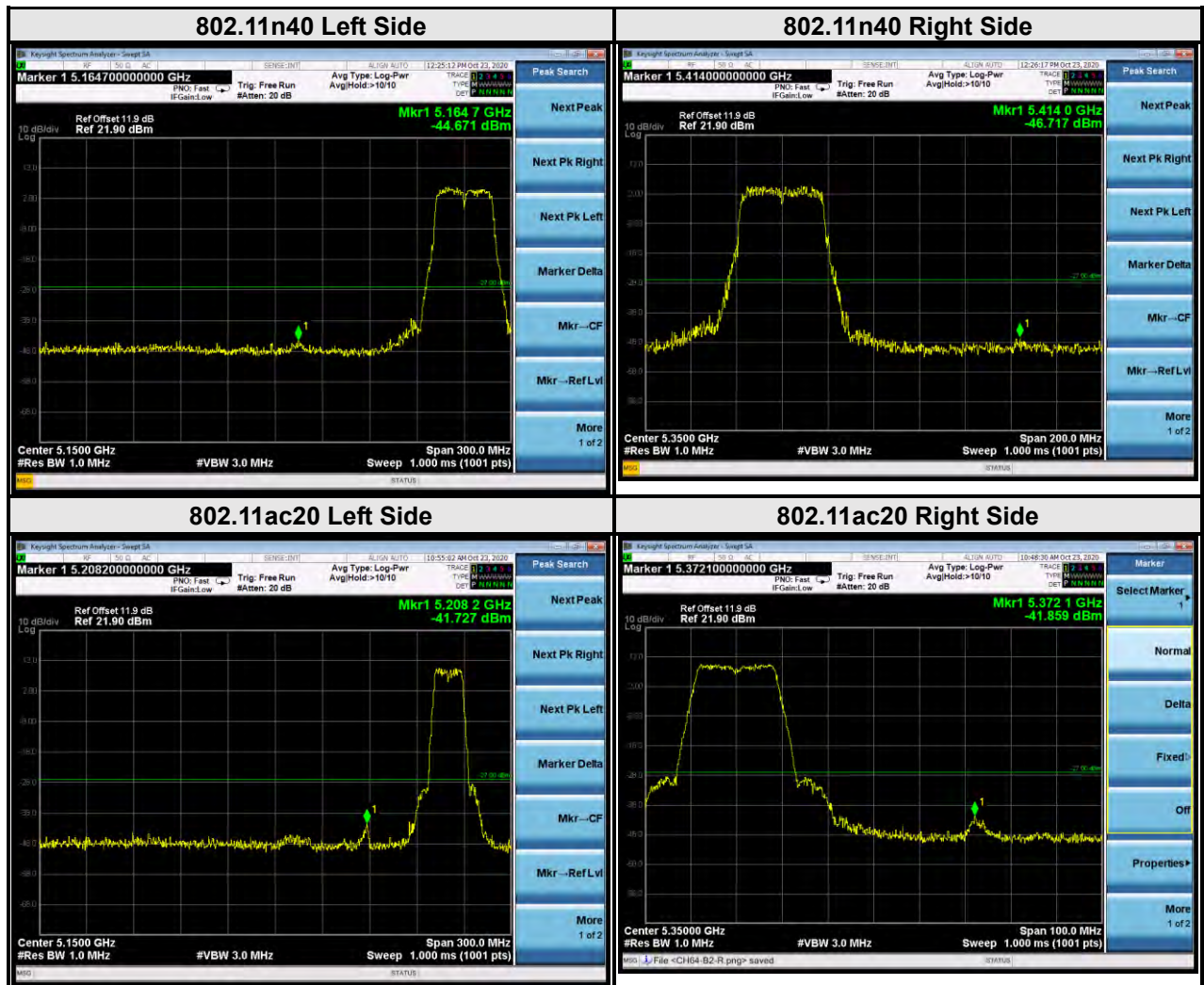
For U-NII-2A:





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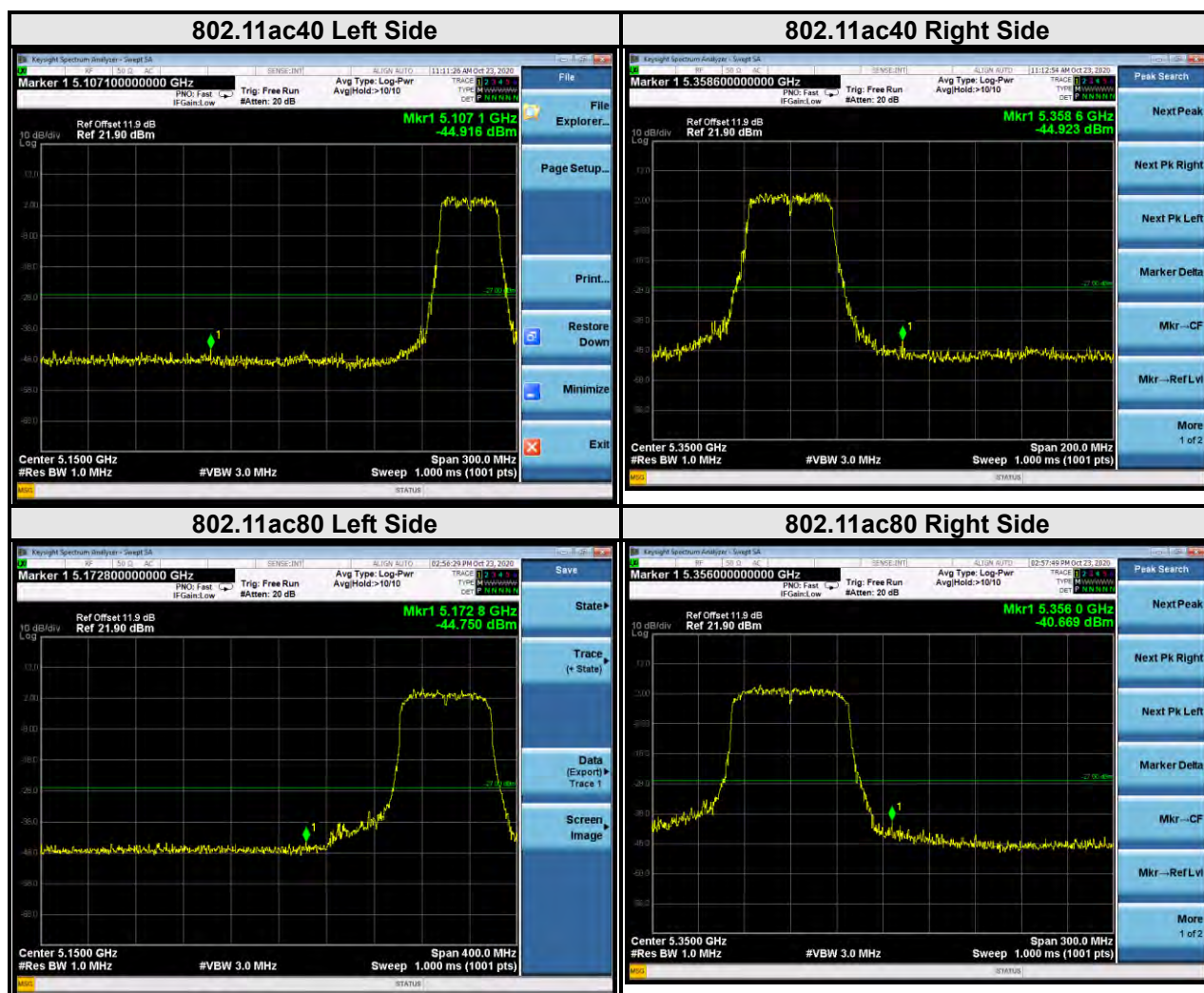
Test Report No.: RF200918W001-3





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Test Report No.: RF200918W001-3





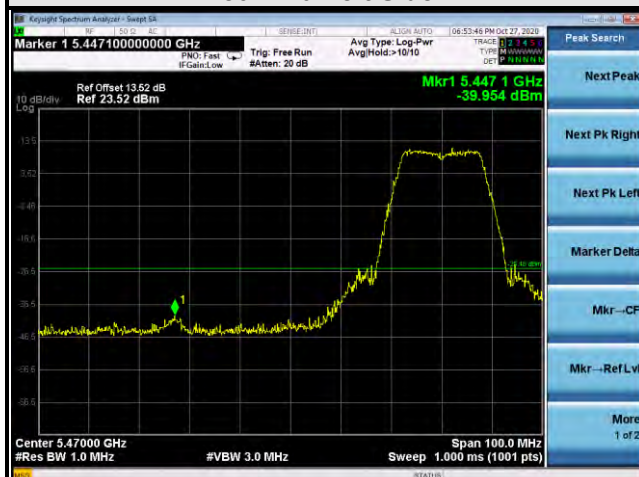
BUREAU
VERITAS

Test Report No.: RF200918W001-3

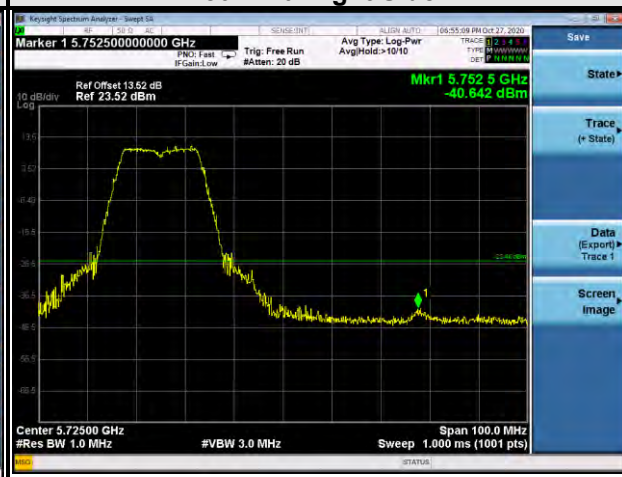
For U-NII-2C:

SPECTRUM PLOT OF BANDEDGE

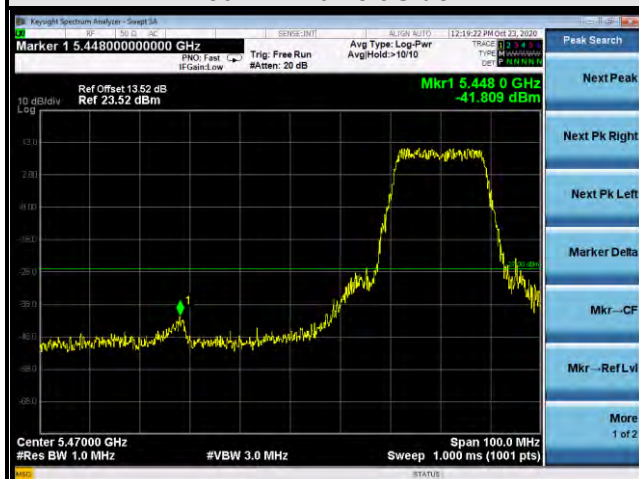
802.11a Left Side



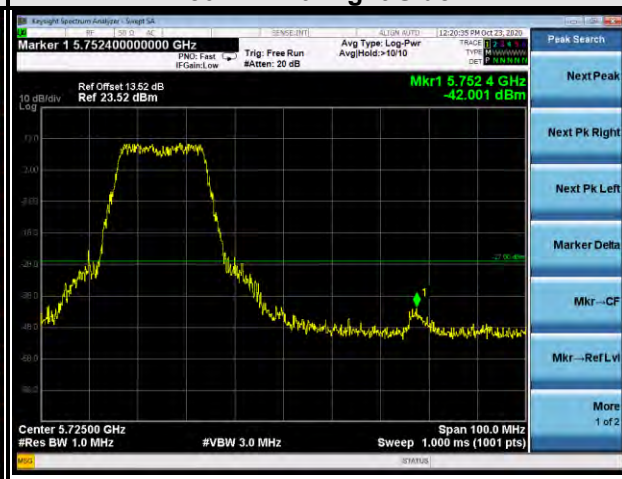
802.11a Right Side



802.11n20 Left Side



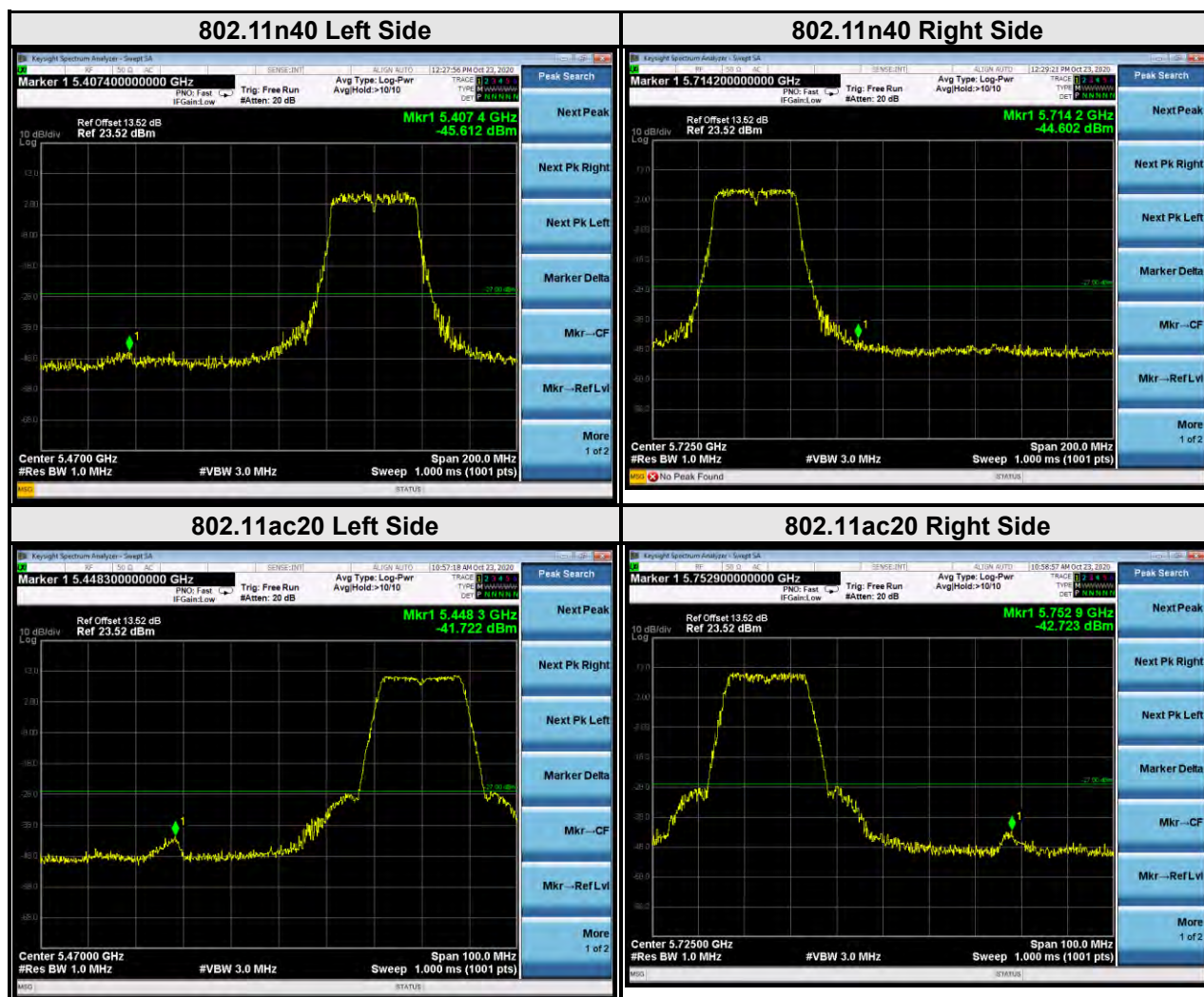
802.11n20 Right Side

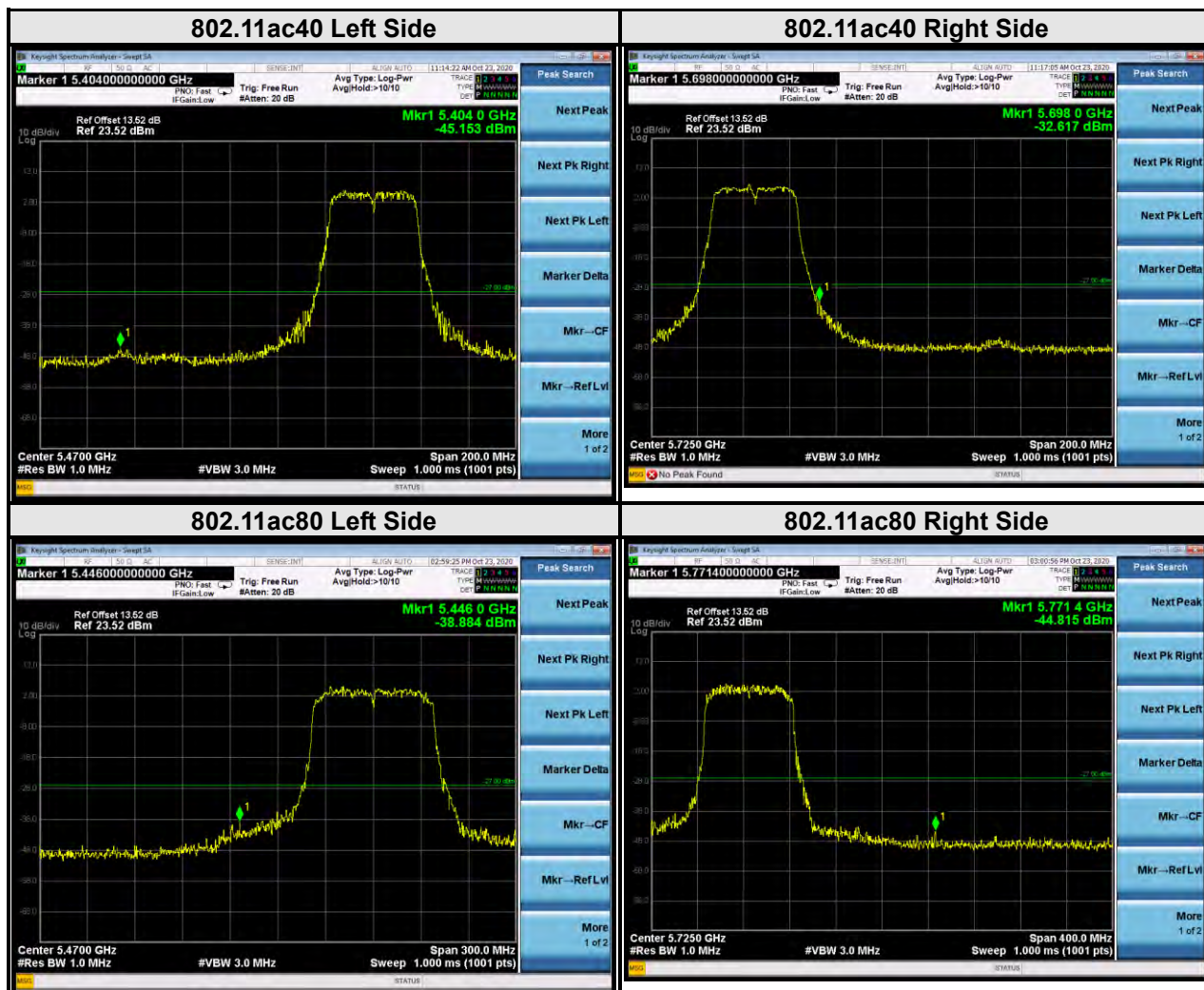




BUREAU
VERITAS

Test Report No.: RF200918W001-3



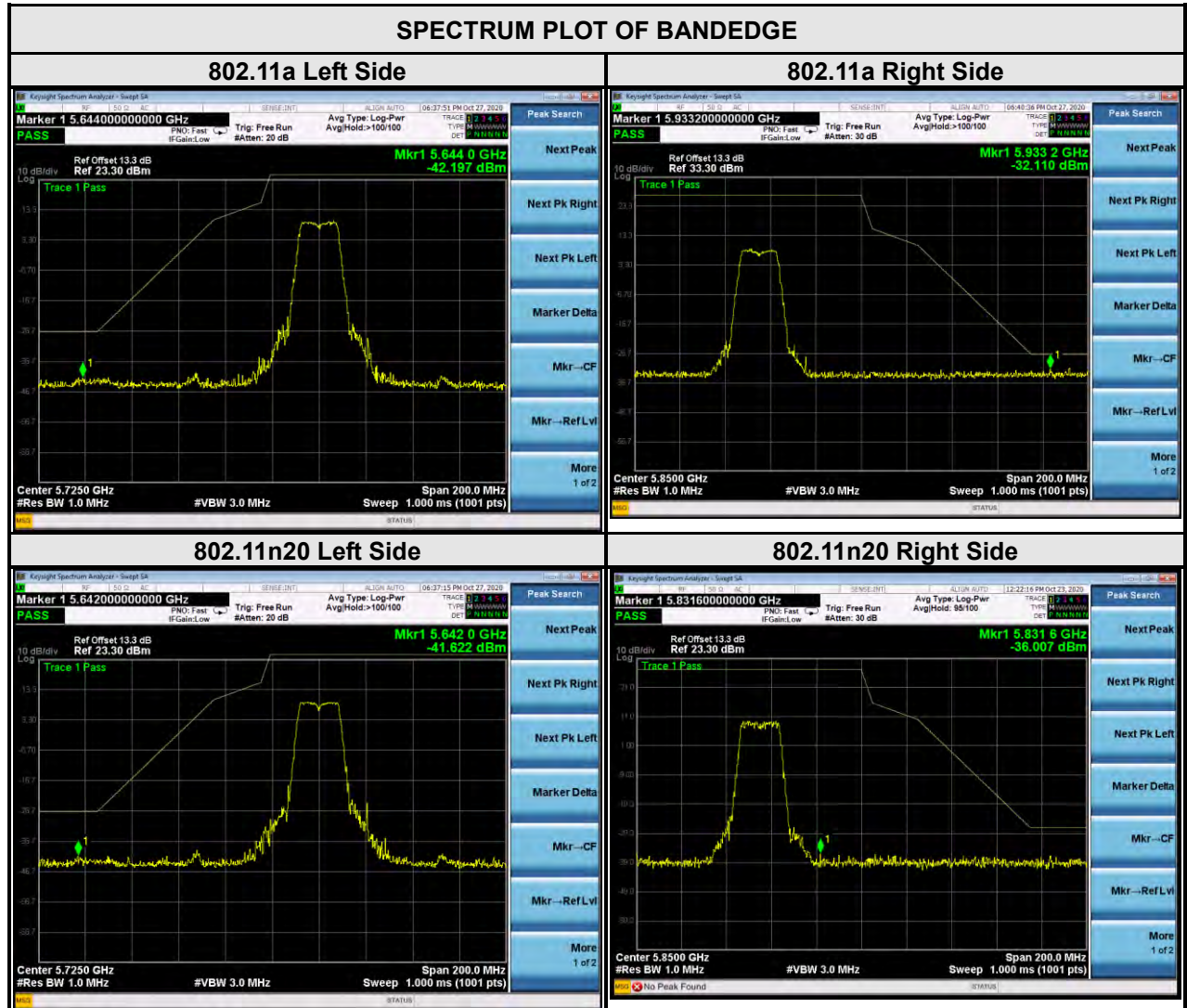




BUREAU
VERITAS

Test Report No.: RF200918W001-3

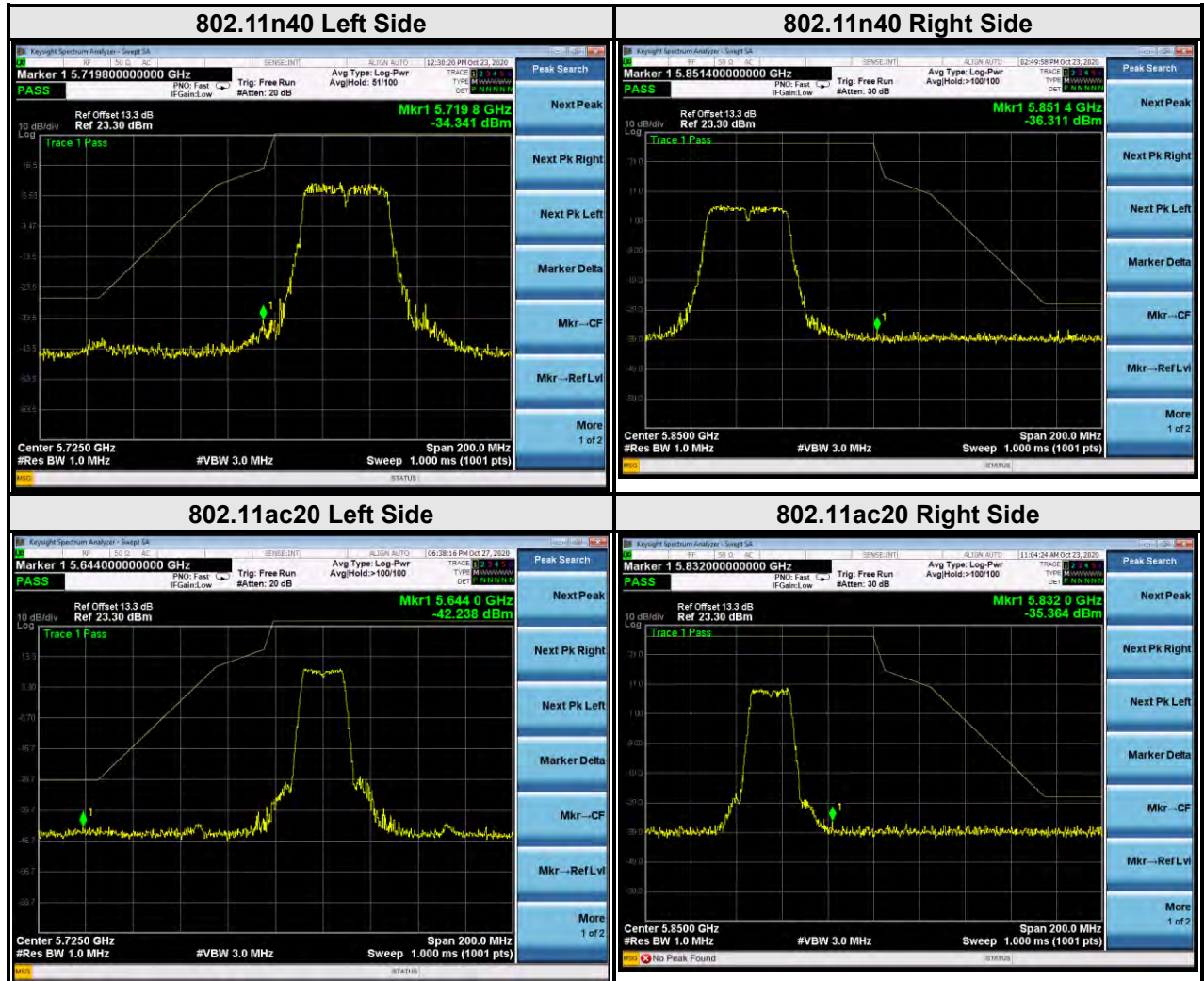
For U-NII-3:





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VERITAS

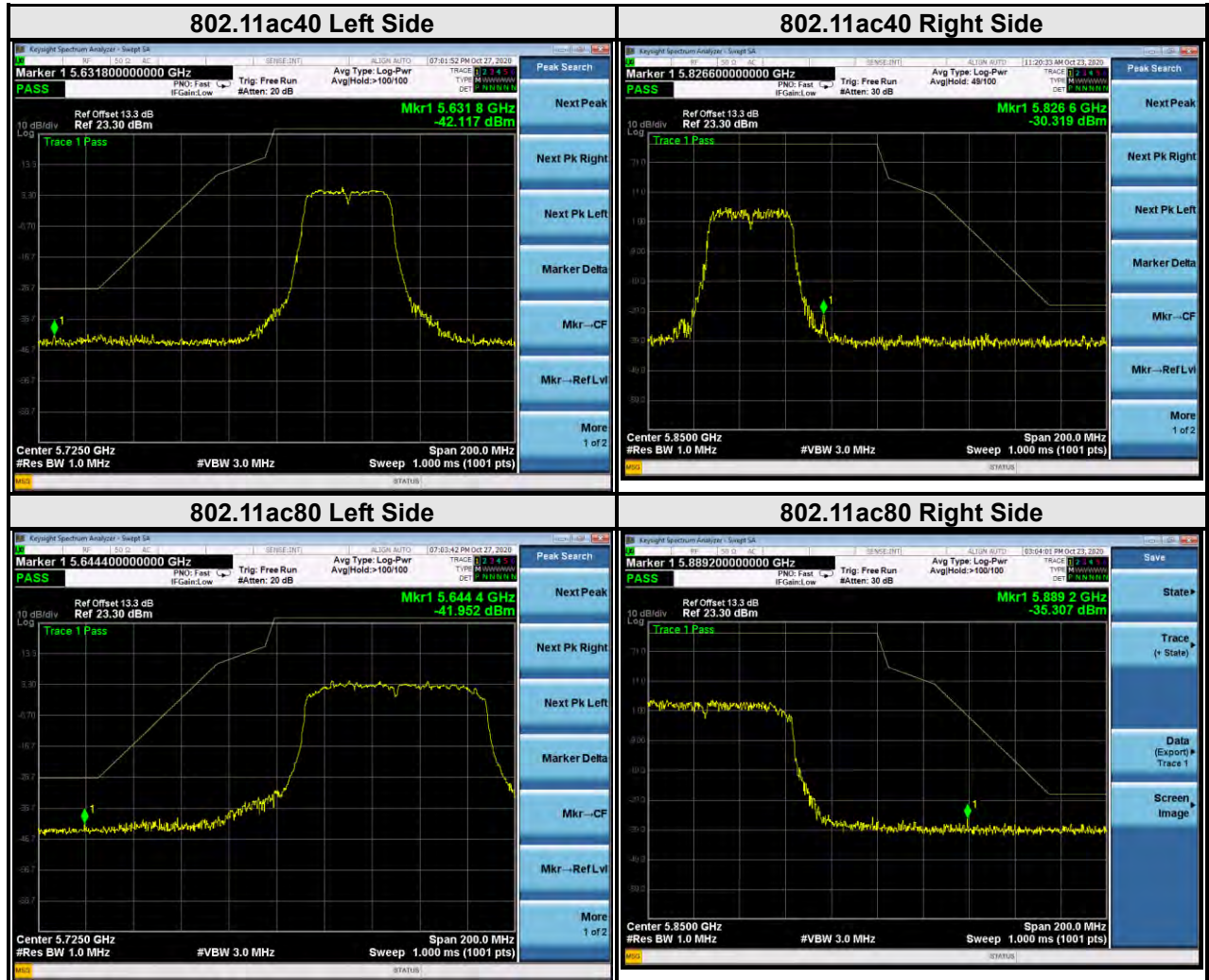
Test Report No.: RF200918W001-3





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VERITAS

Test Report No.: RF200918W001-3





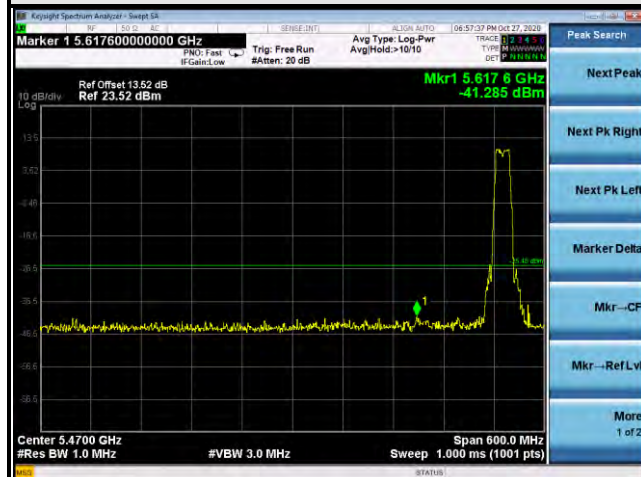
BUREAU
VERITAS

Test Report No.: RF200918W001-3

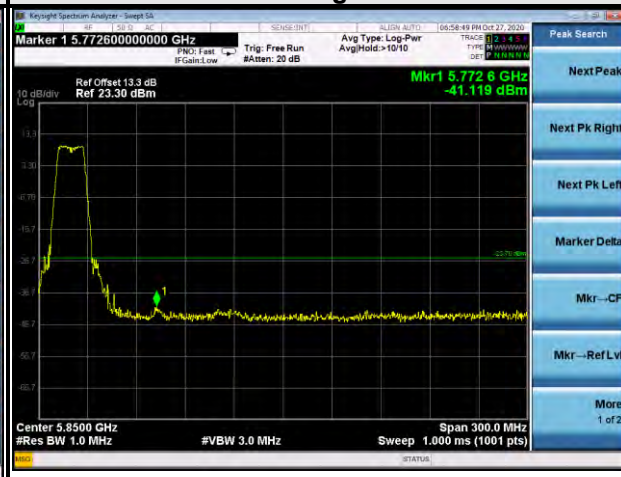
For CH144& CH142& CH138

SPECTRUM PLOT OF BANDEDGE

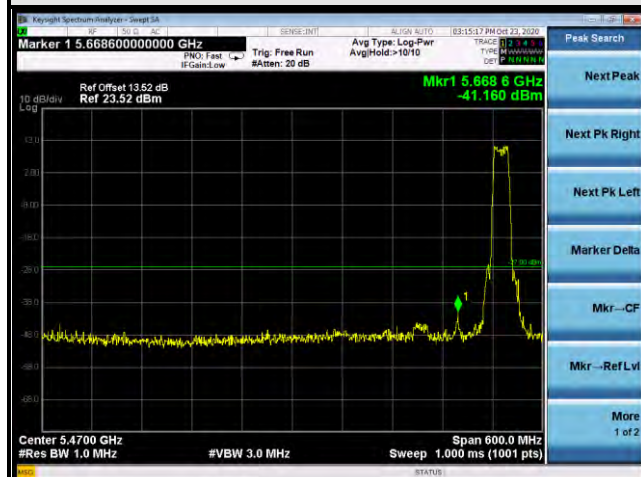
802.11a Left Side



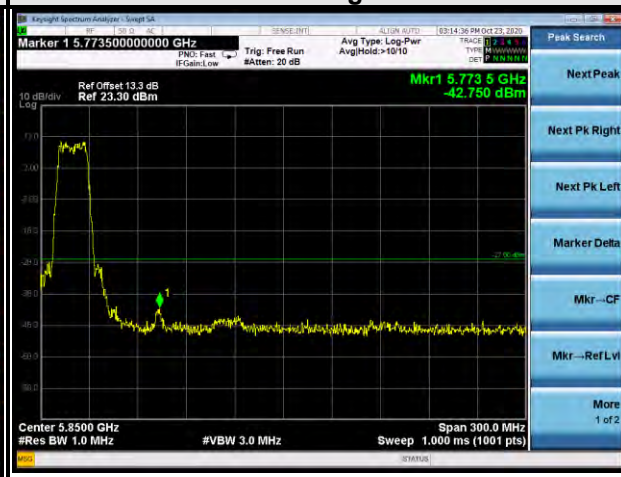
802.11a Right Side



802.11n20 Left Side



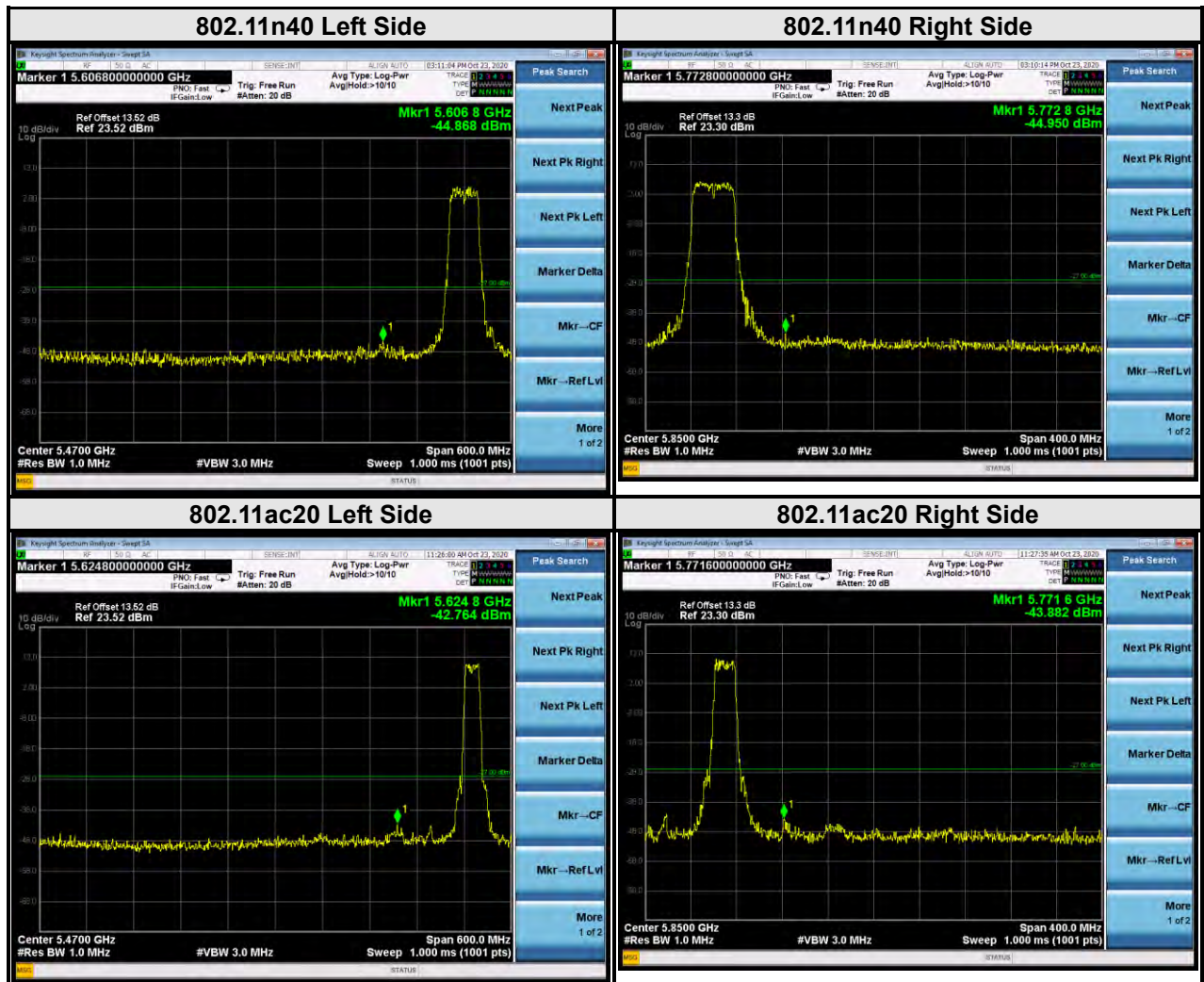
802.11n20 Right Side





BUREAU
VERITAS

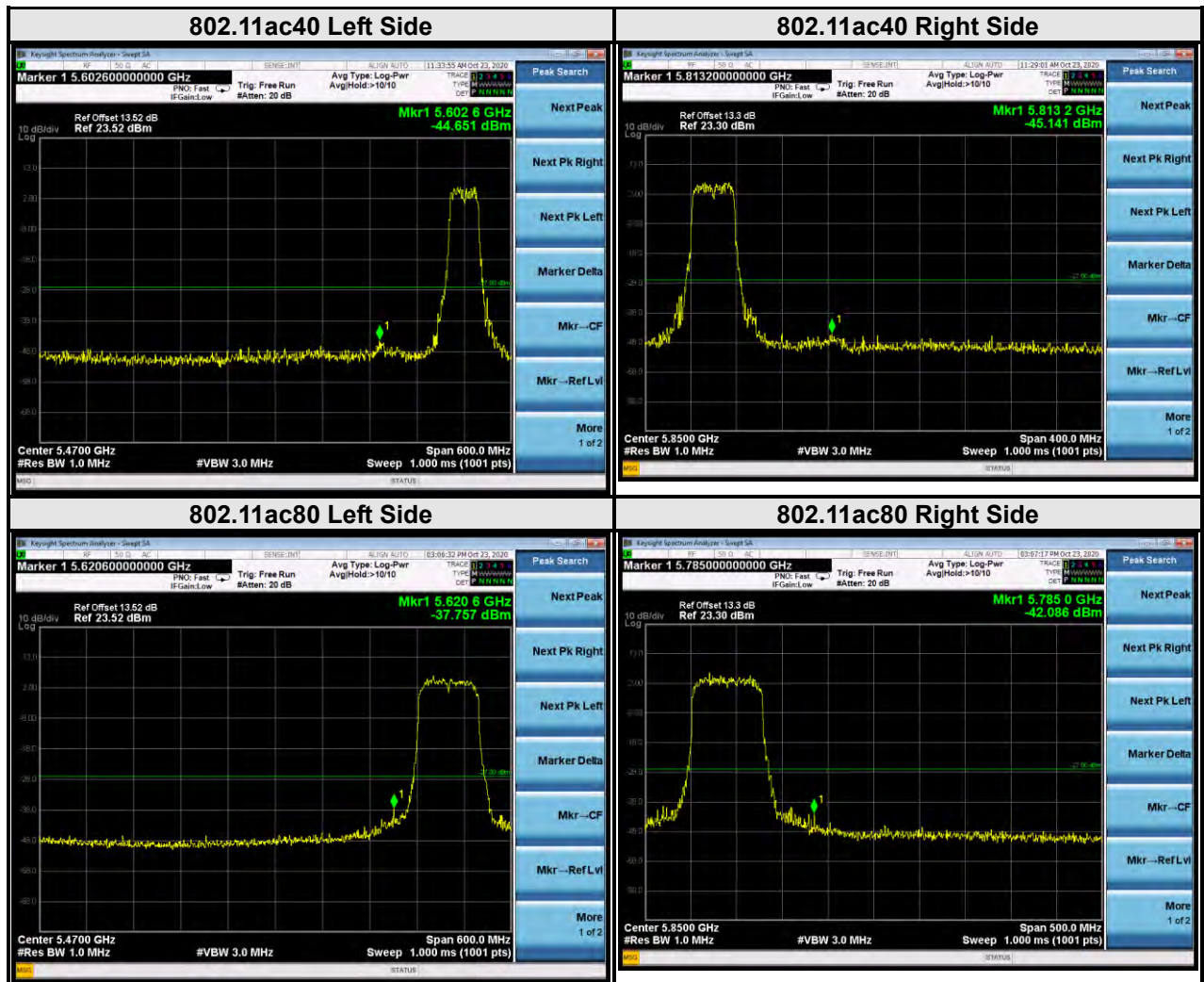
Test Report No.: RF200918W001-3





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Test Report No.: RF200918W001-3



3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 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.

3.3.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 26,20	Feb. 25,21
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Feb. 26,20	Feb. 25,21

NOTE:

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

3.3.3 TEST PROCEDURES

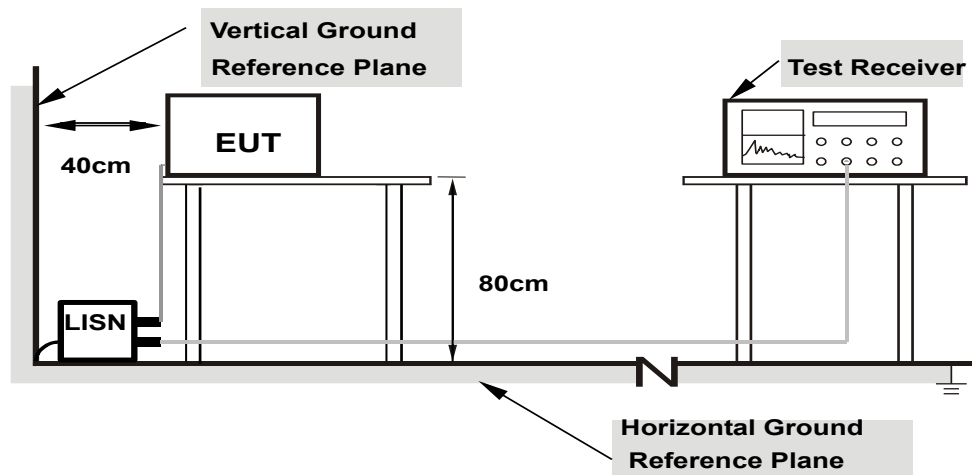
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

3.3.5 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).

3.3.6 EUT OPERATING CONDITIONS

Same as 3.1.6.

3.3.7 TEST RESULTS

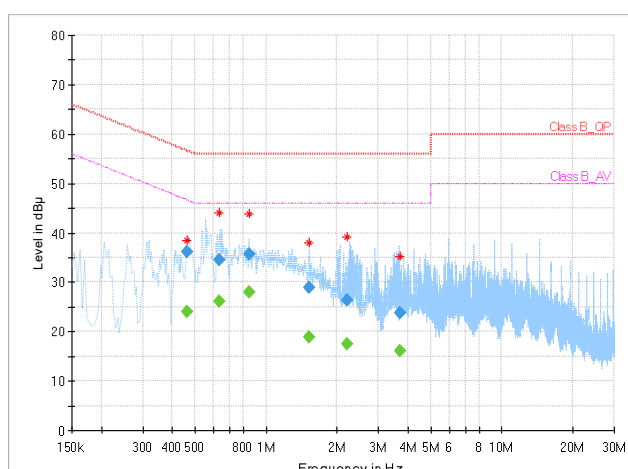
CONDUCTED WORST-CASE DATA :

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	Chase Zhou		

Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.464000	---	23.97	46.62	-22.65	L	ON	9.7
0.464000	36.07	---	56.62	-20.55	L	ON	9.7
0.632000	---	26.21	46.00	-19.79	L	ON	9.7
0.632000	34.61	---	56.00	-21.39	L	ON	9.7
0.848000	---	28.01	46.00	-17.99	L	ON	9.7
0.848000	35.77	---	56.00	-20.23	L	ON	9.7
1.528000	---	18.87	46.00	-27.13	L	ON	9.8
1.528000	28.97	---	56.00	-27.03	L	ON	9.8
2.204000	---	17.46	46.00	-28.54	L	ON	9.8
2.204000	26.38	---	56.00	-29.62	L	ON	9.8
3.696000	---	16.11	46.00	-29.89	L	ON	9.8
3.696000	23.76	---	56.00	-32.24	L	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 = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum

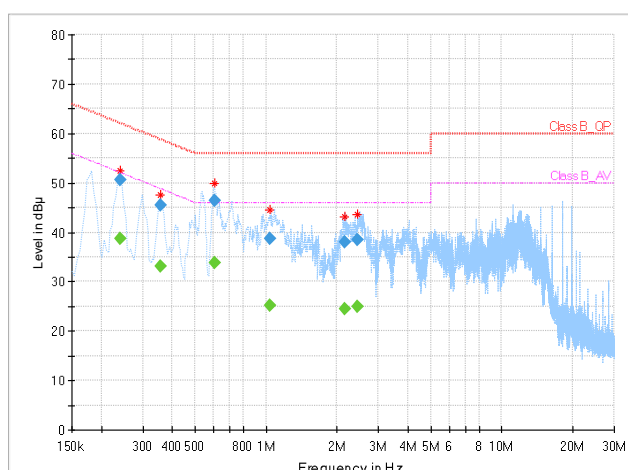


Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	24deg. C, 55%RH
Tested By	Chase Zhou		

Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.240000	---	38.74	52.10	-13.36	N	ON	9.8
0.240000	50.56	---	62.10	-11.54	N	ON	9.8
0.356000	---	33.03	48.82	-15.79	N	ON	9.8
0.356000	45.50	---	58.82	-13.32	N	ON	9.8
0.604000	---	33.82	46.00	-12.18	N	ON	9.8
0.604000	46.38	---	56.00	-9.62	N	ON	9.8
1.044000	---	25.13	46.00	-20.87	N	ON	9.8
1.044000	38.80	---	56.00	-17.20	N	ON	9.8
2.152000	---	24.60	46.00	-21.40	N	ON	9.8
2.152000	38.13	---	56.00	-17.87	N	ON	9.8
2.428000	---	25.01	46.00	-20.99	N	ON	9.8
2.428000	38.60	---	56.00	-17.40	N	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 = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum



3.4 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.4.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

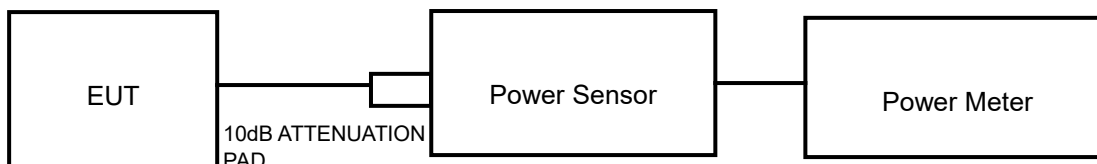
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24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

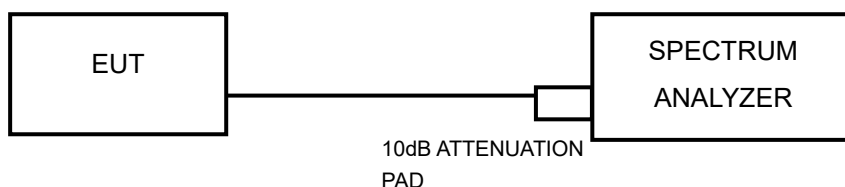
3.4.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

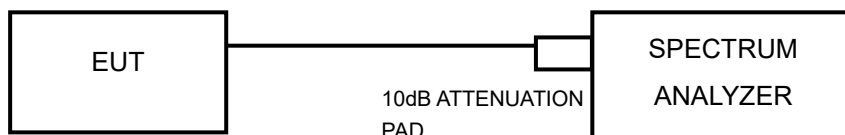
802.11a, 802.11n (20MHz), 802.11n (40MHz) TEST CONFIGURATION



11ac TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.4.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 26,20	Feb. 25,21
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 26,20	Feb. 25,21
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	Jun. 02,20	Jun. 03,21
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 26,20	Feb. 25,21

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.

3.4.4 TEST PROCEDURE

FOR POWER MEASUREMENT

For 802.11a, 802.11n (20MHz), 802.11n (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.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

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



3.4.7 TEST RESULTS

OUTPUT POWER:**802.11a**

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	14.03	0.59	14.62	28.97	24	PASS
40	5200	14.05	0.59	14.64	29.11	24	PASS
48	5240	14.07	0.59	14.66	29.24	24	PASS
52	5260	14.26	0.59	14.85	30.55	24	PASS
60	5300	14.06	0.59	14.65	29.17	24	PASS
64	5320	14.08	0.59	14.67	29.31	24	PASS
100	5500	14.09	0.59	14.68	29.38	24	PASS
116	5580	14.01	0.59	14.60	28.84	24	PASS
140	5700	14.06	0.59	14.65	29.17	24	PASS
144	5720	14.12	0.59	14.71	29.58	24	PASS
144	5720	14.12	0.59	14.71	29.58	30	PASS
149	5745	14.18	0.59	14.77	29.99	30	PASS
157	5785	14.13	0.59	14.72	29.65	30	PASS
161	5805	14.21	0.59	14.80	30.20	30	PASS

**802.11n (20MHz)**

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	14.03	0.78	14.81	30.27	24	PASS
40	5200	14.32	0.78	15.1	32.36	24	PASS
48	5240	14.06	0.78	14.84	30.48	24	PASS
52	5260	14.25	0.78	15.03	31.84	24	PASS
60	5300	14.48	0.78	15.26	33.57	24	PASS
64	5320	14.40	0.78	15.18	32.96	24	PASS
100	5500	14.56	0.78	15.34	34.20	24	PASS
116	5580	14.24	0.78	15.02	31.77	24	PASS
140	5700	14.20	0.78	14.98	31.48	24	PASS
144	5720	14.01	0.78	14.79	30.13	24	PASS
144	5720	14.01	0.78	14.79	30.13	30	PASS
149	5745	14.23	0.78	15.01	31.70	30	PASS
157	5785	14.15	0.78	14.93	31.12	30	PASS
161	5805	14.36	0.78	15.14	32.66	30	PASS



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	12.48	1.48	13.96	24.89	24	PASS
46	5230	12.13	1.48	13.61	22.96	24	PASS
54	5270	12.24	1.48	13.72	23.55	24	PASS
62	5310	12.06	1.48	13.54	22.59	24	PASS
102	5510	12.32	1.48	13.8	23.99	24	PASS
110	5550	12.46	1.48	13.94	24.77	24	PASS
134	5670	12.29	1.48	13.77	23.82	24	PASS
142	5710	12.18	1.48	13.66	23.23	24	PASS
142	5710	12.18	1.48	13.66	23.23	30	PASS
151	5755	12.06	1.48	13.54	22.59	30	PASS
159	5798	12.18	1.48	13.66	23.23	30	PASS

802.11ac (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	13.98	0.78	14.76	29.92	24	PASS
40	5200	14.15	0.78	14.93	31.12	24	PASS
48	5240	13.92	0.78	14.7	29.51	24	PASS
52	5260	14.15	0.78	14.93	31.12	24	PASS
60	5300	14.23	0.78	15.01	31.70	24	PASS
64	5320	14.04	0.78	14.82	30.34	24	PASS
100	5500	14.38	0.78	15.16	32.81	24	PASS
116	5580	14.20	0.78	14.98	31.48	24	PASS
140	5700	14.14	0.78	14.92	31.05	24	PASS
144	5720	13.96	0.78	14.74	29.79	24	PASS
144	5720	13.96	0.78	14.74	29.79	30	PASS
149	5745	14.15	0.78	14.93	31.12	30	PASS
157	5785	14.09	0.78	14.87	30.69	30	PASS
161	5805	14.17	0.78	14.95	31.26	30	PASS

802.11ac (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	12.04	1.48	13.52	22.49	24	PASS
46	5230	11.81	1.48	13.29	21.33	24	PASS
54	5270	12.13	1.48	13.61	22.96	24	PASS
62	5310	11.92	1.48	13.4	21.88	24	PASS
102	5510	12.16	1.48	13.64	23.12	24	PASS
110	5550	12.29	1.48	13.77	23.82	24	PASS
134	5670	12.13	1.48	13.61	22.96	24	PASS
142	5710	11.97	1.48	13.45	22.13	24	PASS
142	5710	11.97	1.48	13.45	22.13	30	PASS
151	5755	12.04	1.48	13.52	22.49	30	PASS
159	5798	12.15	1.48	13.63	23.07	30	PASS

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	Duty Factor	FINAL AVERAGE POWER (dBm)	FINAL AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS/FAIL
42	5210	12.90	2.6	15.50	35.48	24	PASS
58	5290	12.98	2.6	15.58	36.14	24	PASS
106	5530	12.71	2.6	15.31	33.96	24	PASS
122	5610	12.84	2.6	15.44	34.99	24	PASS
138	5690	12.72	2.6	15.32	34.04	24	PASS
138	5690	12.72	2.6	15.32	34.04	30	PASS
155	5775	12.62	2.6	15.22	33.27	30	PASS

99% OCCUPIED BANDWIDTH & 26dB BANDWIDTH/6dB BANDWIDTH DATA FROM:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	16.98	22.24	PASS
40	5200	16.98	22.34	PASS
48	5240	17.10	22.08	PASS
52	5260	17.04	22.02	PASS
60	5300	17.04	22.03	PASS
64	5320	17.10	22.29	PASS
100	5500	16.98	22.12	PASS
116	5580	16.98	22.08	PASS
140	5700	18.06	21.97	PASS
144	5720	16.98	22.39	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
144	5720	16.98	16.37	PASS
149	5745	16.98	16.37	PASS
157	5785	17.04	16.35	PASS
161	5805	16.92	16.36	PASS



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	18.00	22.28	PASS
40	5200	18.00	22.49	PASS
48	5240	18.06	22.50	PASS
52	5260	18.00	22.43	PASS
60	5300	18.00	22.58	PASS
64	5320	17.94	22.54	PASS
100	5500	18.06	22.47	PASS
116	5580	18.06	22.34	PASS
140	5700	18.06	21.97	PASS
144	5720	18.00	22.73	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
144	5720	18.00	17.62	PASS
149	5745	18.06	17.58	PASS
157	5785	18.00	17.58	PASS
161	5805	17.94	17.60	PASS

**802.11n (40MHz)**

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
38	5190	36.30	44.28	PASS
46	5230	36.40	45.46	PASS
54	5270	36.30	45.11	PASS
62	5310	36.40	44.97	PASS
102	5510	36.50	45.04	PASS
110	5550	36.40	45.04	PASS
134	5670	36.60	44.72	PASS
142	5710	36.30	45.20	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
142	5710	36.30	35.25	PASS
151	5755	36.30	35.49	PASS
159	5795	36.30	35.16	PASS

**802.11ac (20MHz)**

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	17.94	21.83	PASS
40	5200	18.00	22.34	PASS
48	5240	18.06	22.19	PASS
52	5260	18.00	22.17	PASS
60	5300	17.94	22.24	PASS
64	5320	18.00	22.09	PASS
100	5500	18.00	22.00	PASS
116	5580	18.00	22.00	PASS
140	5700	18.00	22.70	PASS
144	5720	17.88	22.13	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
144	5720	17.88	17.59	PASS
149	5745	17.94	17.59	PASS
157	5785	17.94	17.56	PASS
161	5805	18.00	17.57	PASS



802.11ac (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
38	5190	36.20	44.19	PASS
46	5230	36.20	44.43	PASS
54	5270	36.20	44.22	PASS
62	5310	36.10	43.77	PASS
102	5510	36.20	44.25	PASS
110	5550	36.30	44.34	PASS
134	5670	36.30	44.45	PASS
142	5710	36.10	43.97	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
142	5710	36.10	17.59	PASS
151	5755	36.40	35.05	PASS
159	5795	36.20	35.30	PASS

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
42	5210	74.64	84.51	PASS
58	5290	74.64	84.27	PASS
106	5530	74.64	83.95	PASS
122	5610	74.64	84.08	PASS
138	5690	74.76	84.11	PASS
CHANNEL	CHANNEL FREQUENCY	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH	PASS/FAIL
138	5690	74.76	75.15	PASS
155	5775	74.76	75.05	PASS



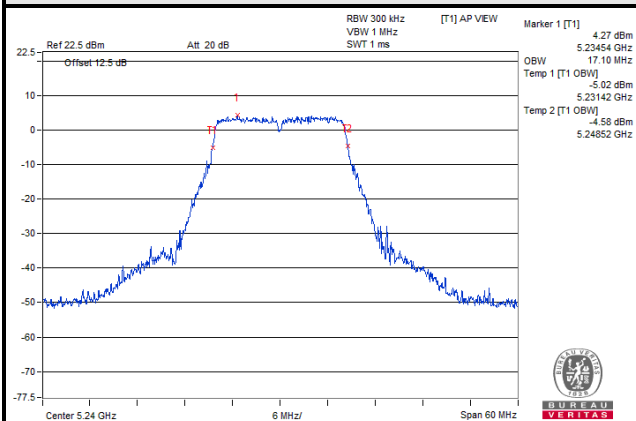
BUREAU
VERITAS

Test Report No.: RF200918W001-3

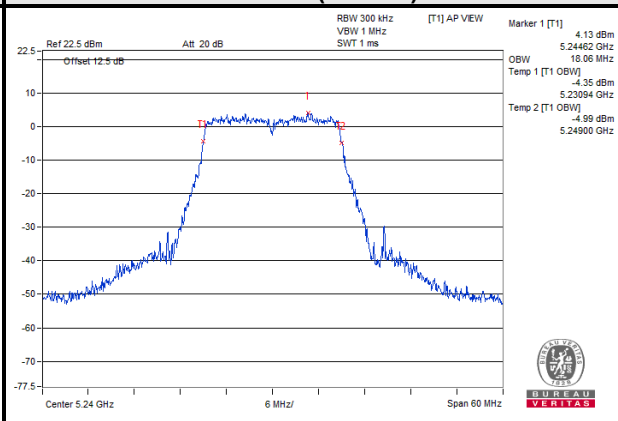
For U-NII-1:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH

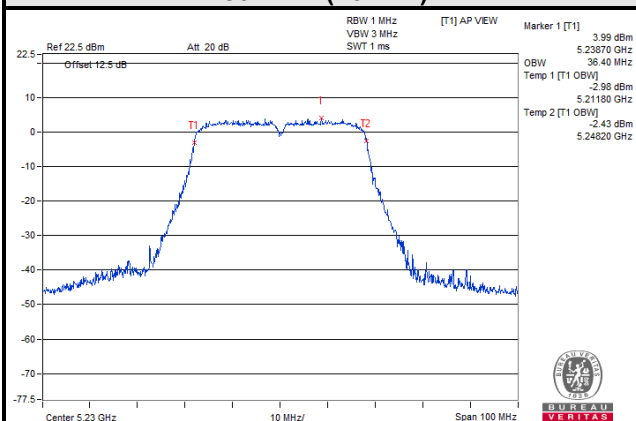
802.11a



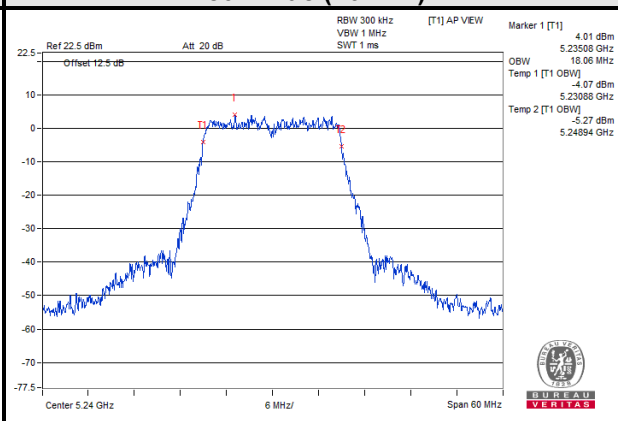
802.11n (20MHz)



802.11n (40MHz)



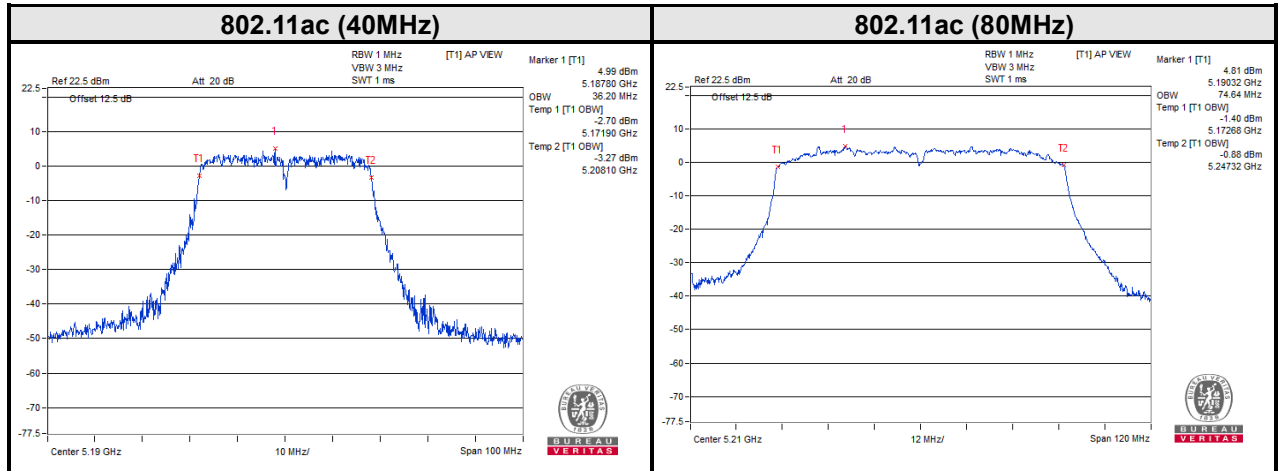
802.11ac (20MHz)

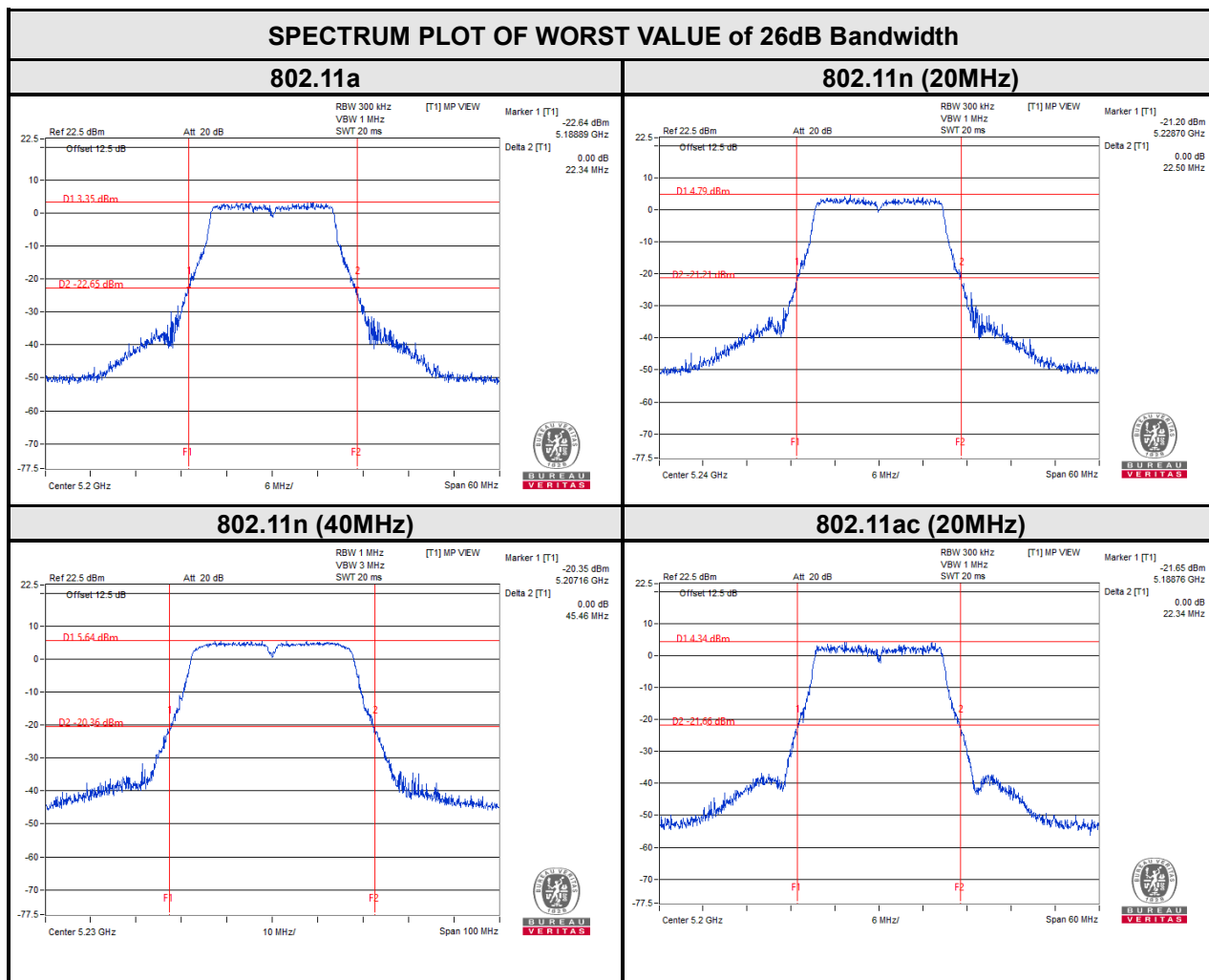




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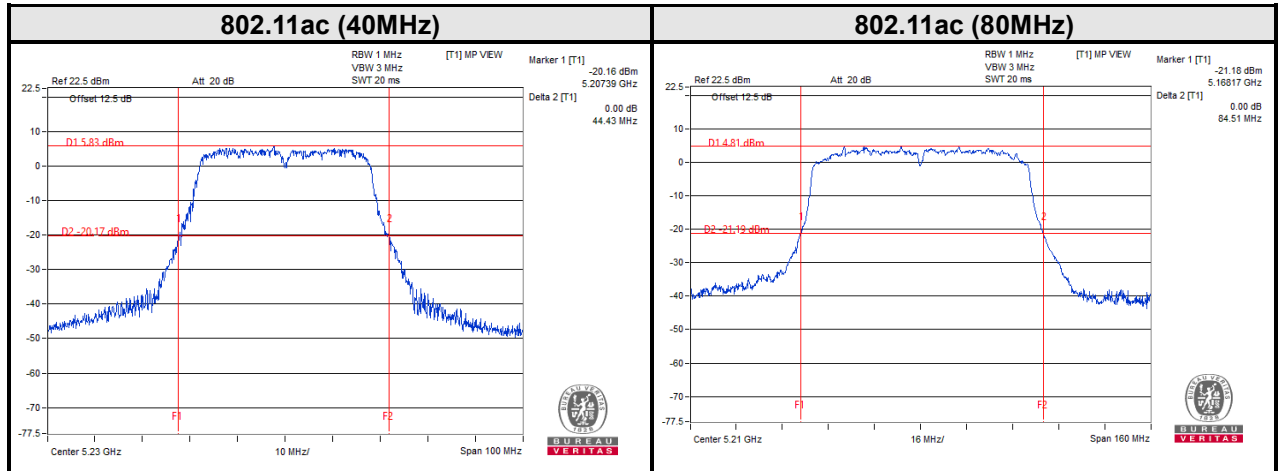






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Test Report No.: RF200918W001-3

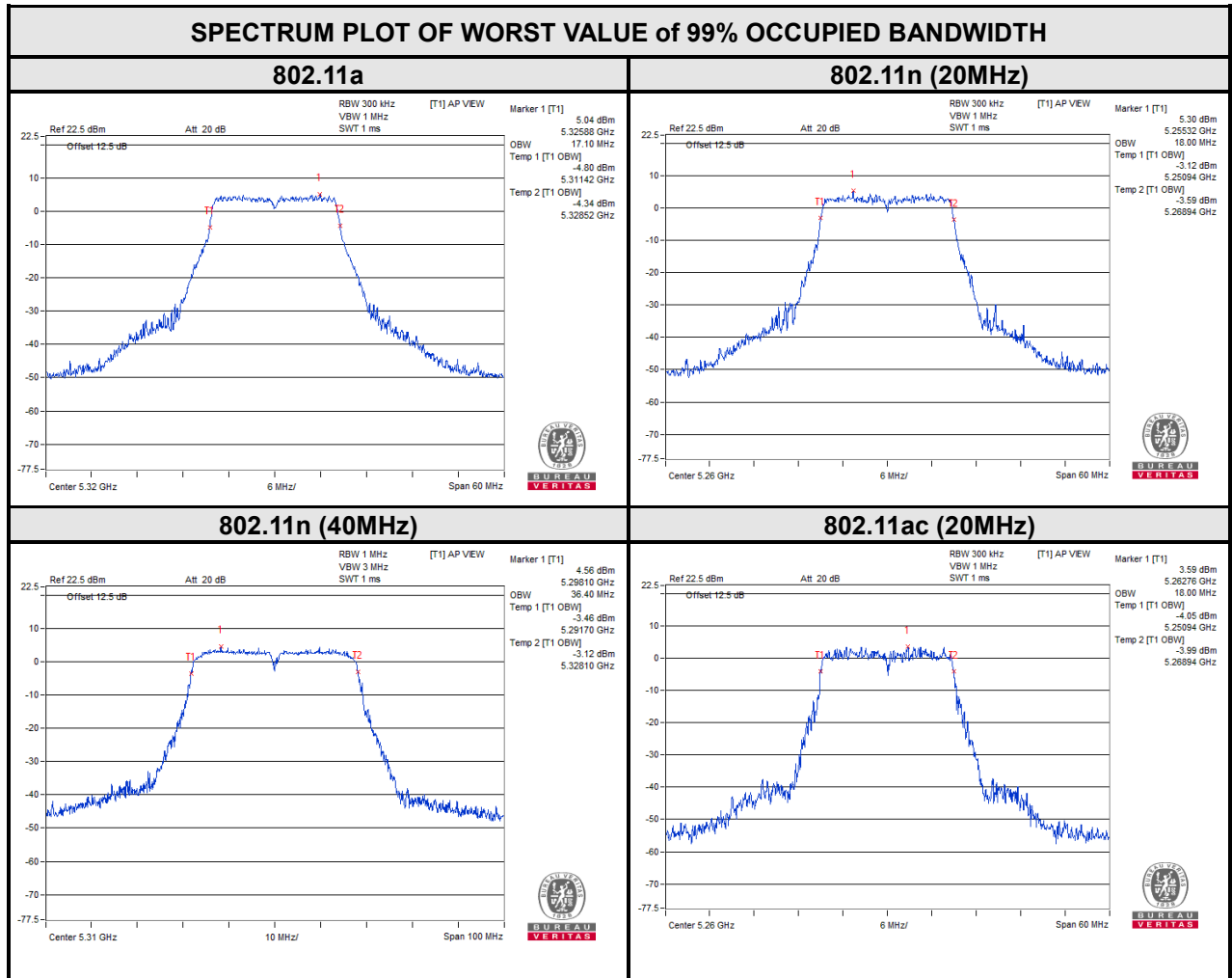




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Test Report No.: RF200918W001-3

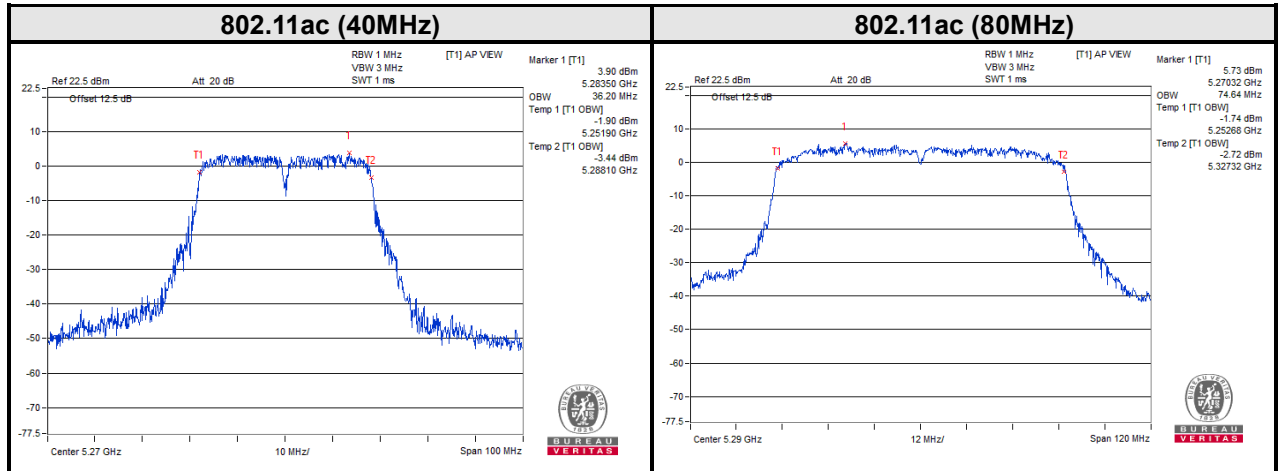
For U-NII-2A:





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Test Report No.: RF200918W001-3



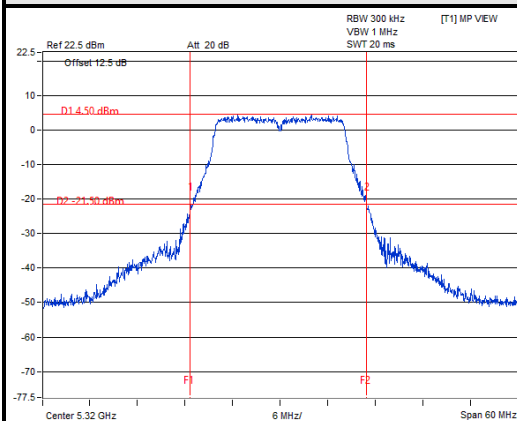


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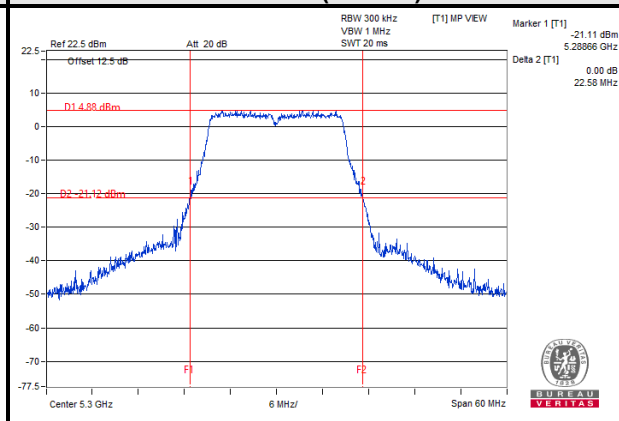
Test Report No.: RF200918W001-3

SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth

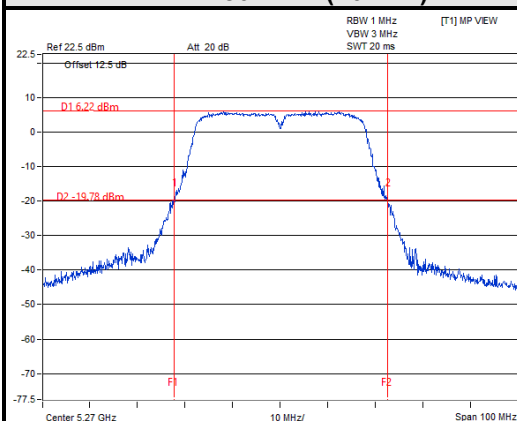
802.11a



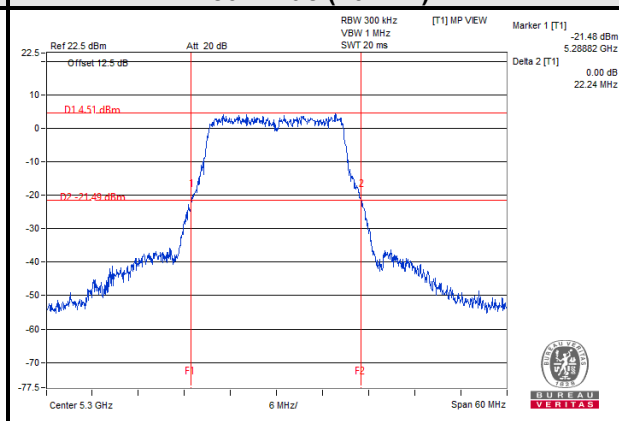
802.11n (20MHz)



802.11n (40MHz)



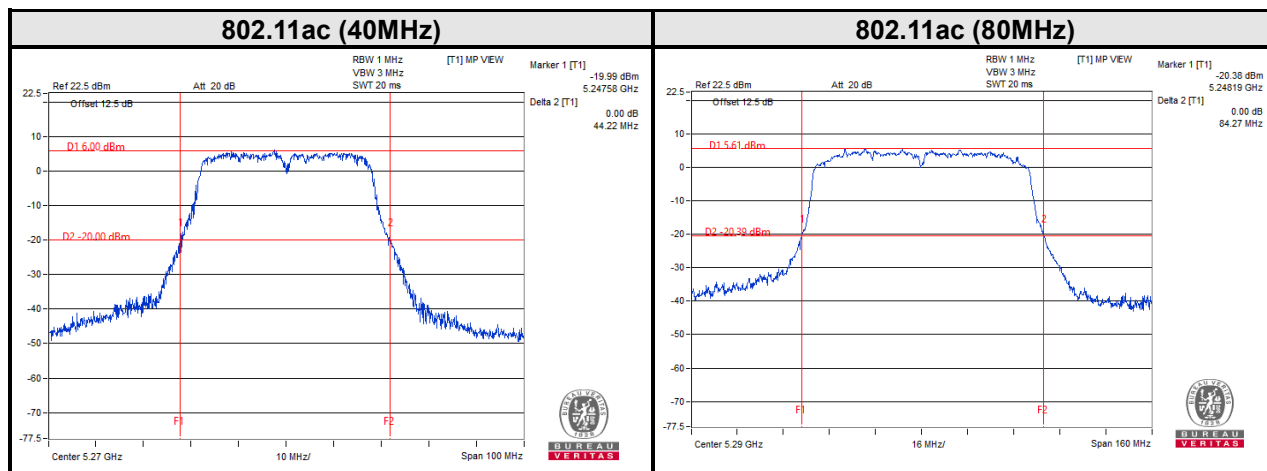
802.11ac (20MHz)





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Test Report No.: RF200918W001-3

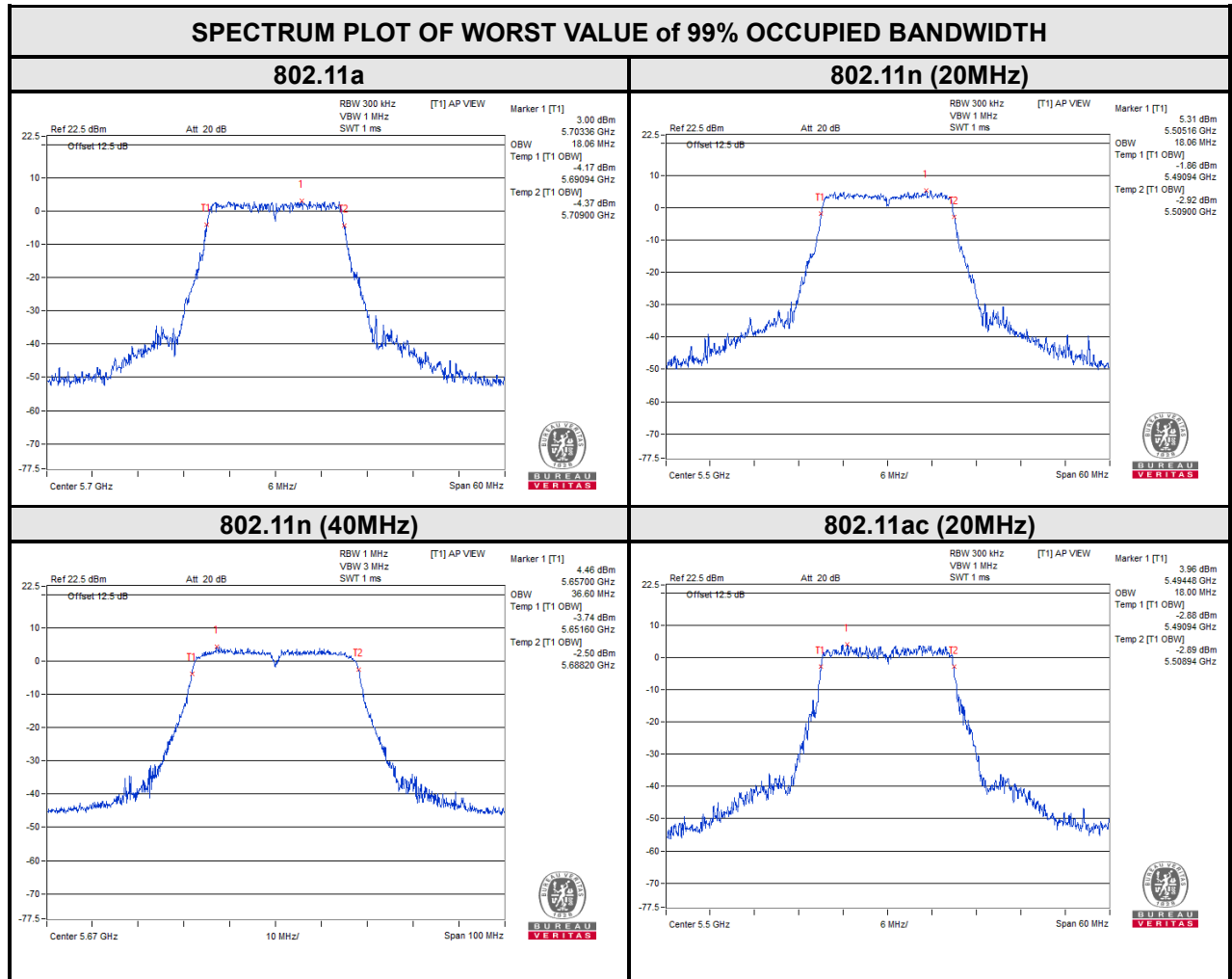




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Test Report No.: RF200918W001-3

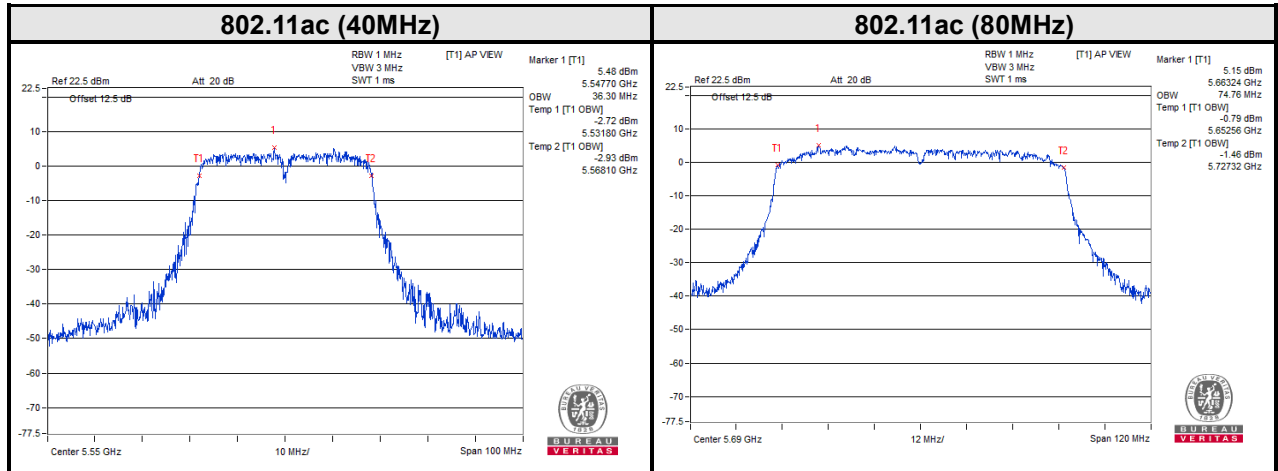
For U-NII-2C:





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Test Report No.: RF200918W001-3



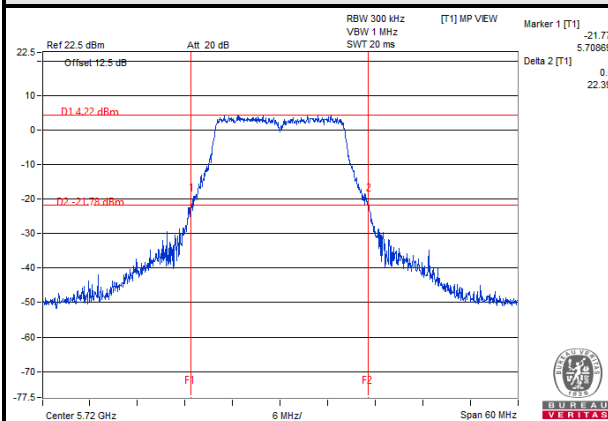


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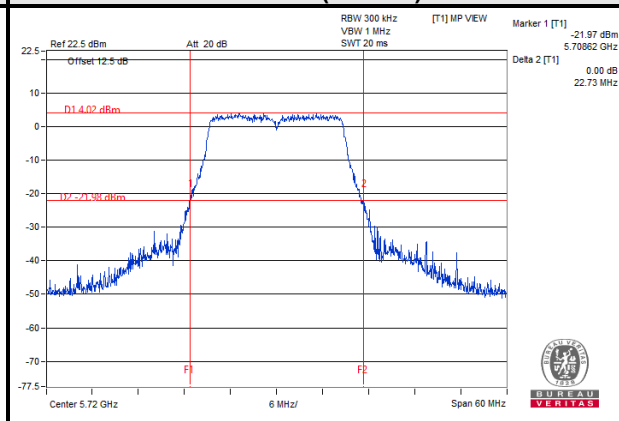
Test Report No.: RF200918W001-3

SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth

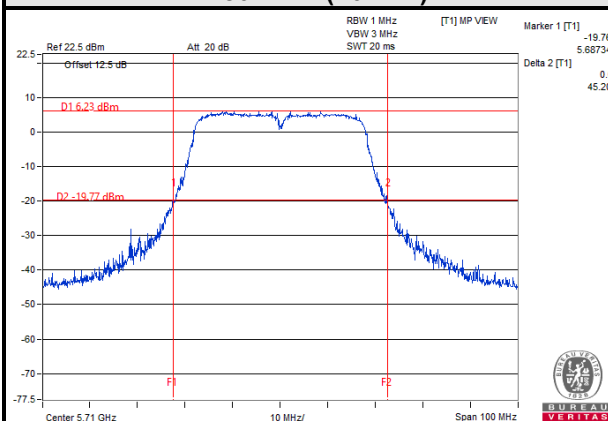
802.11a



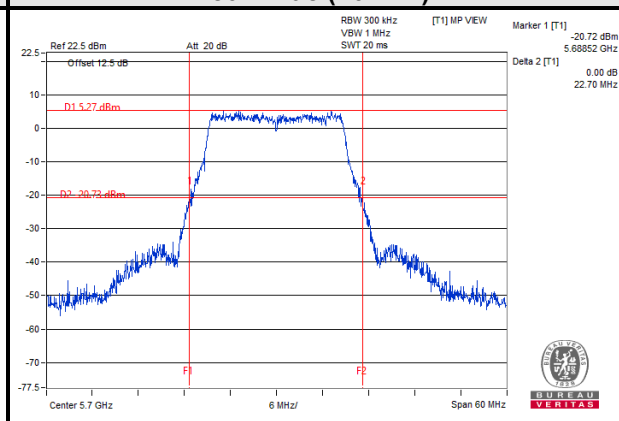
802.11n (20MHz)



802.11n (40MHz)



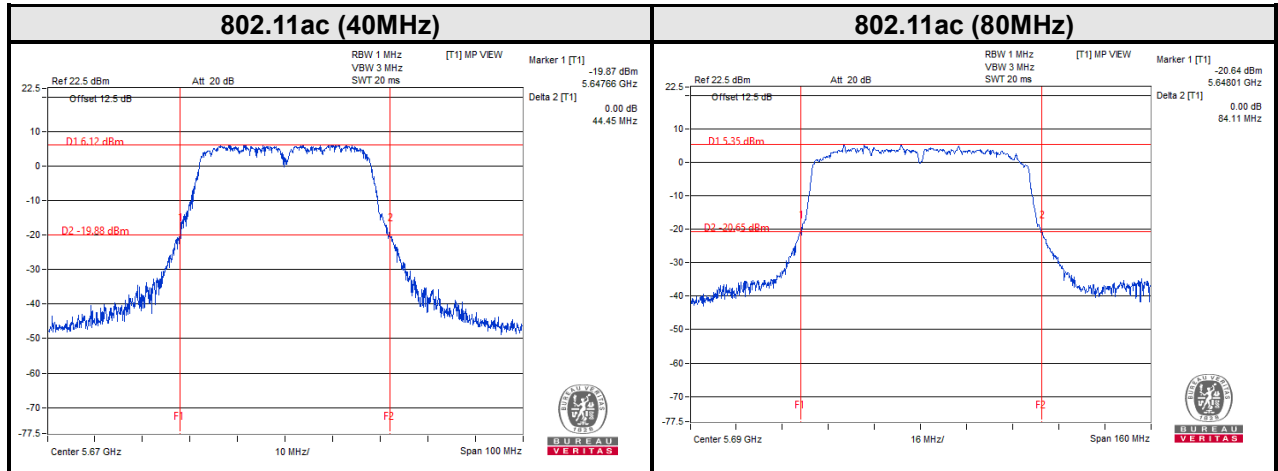
802.11ac (20MHz)





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Test Report No.: RF200918W001-3





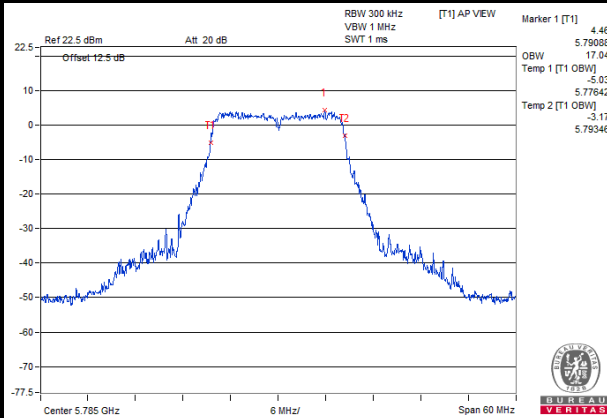
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Test Report No.: RF200918W001-3

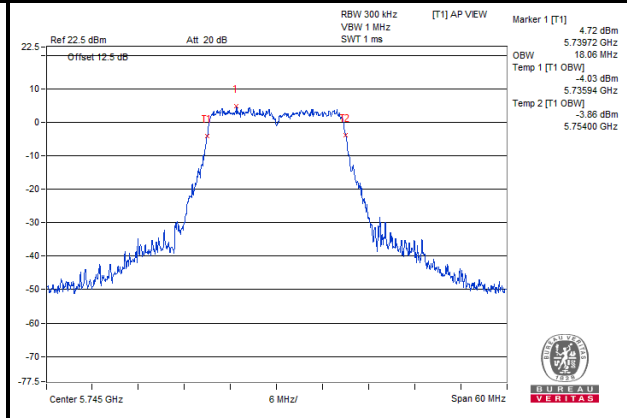
For U-NII-3:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH

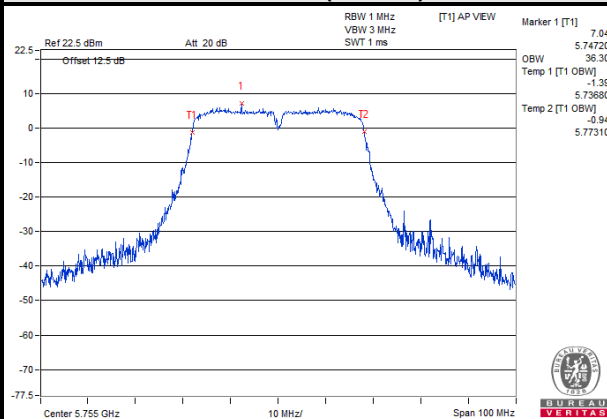
802.11a



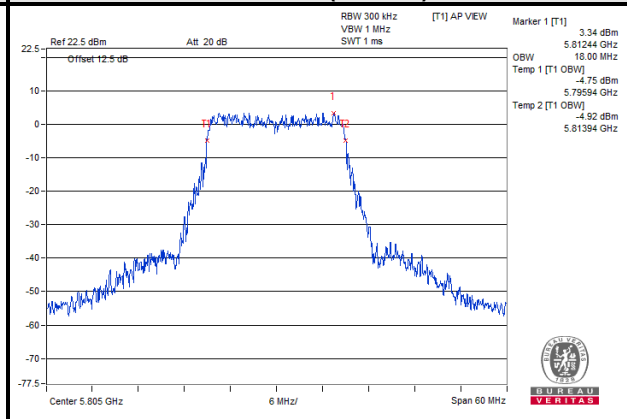
802.11n (20MHz)



802.11n (40MHz)



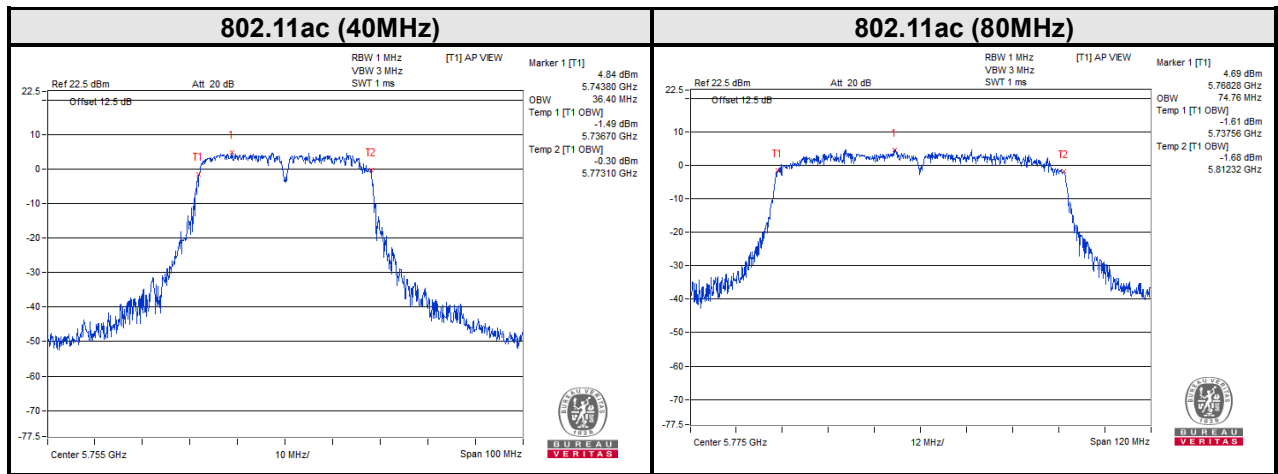
802.11ac (20MHz)





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Test Report No.: RF200918W001-3



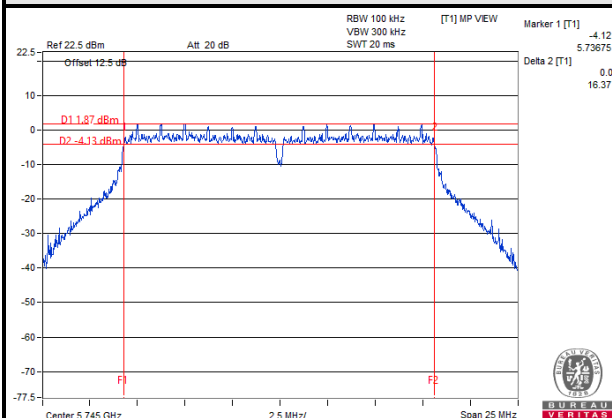


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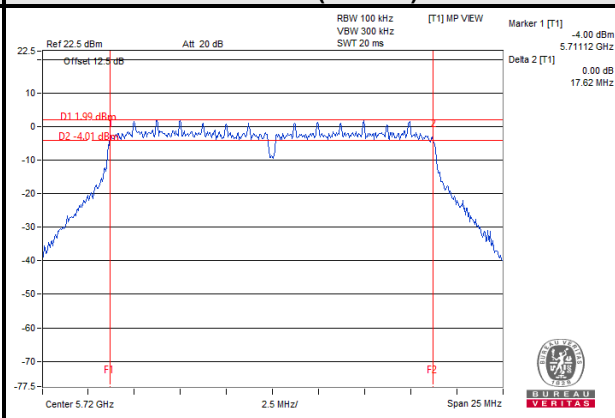
Test Report No.: RF200918W001-3

SPECTRUM PLOT OF WORST VALUE of 6dB Bandwidth

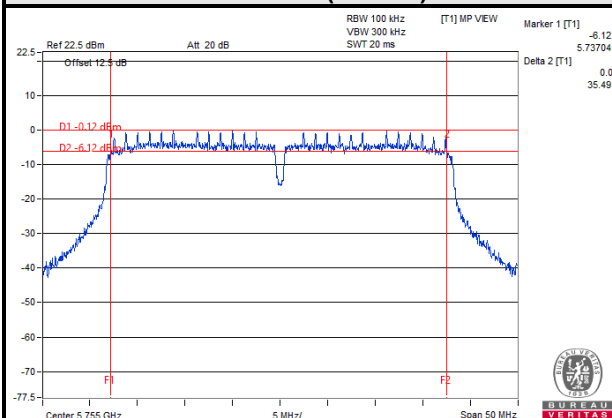
802.11a



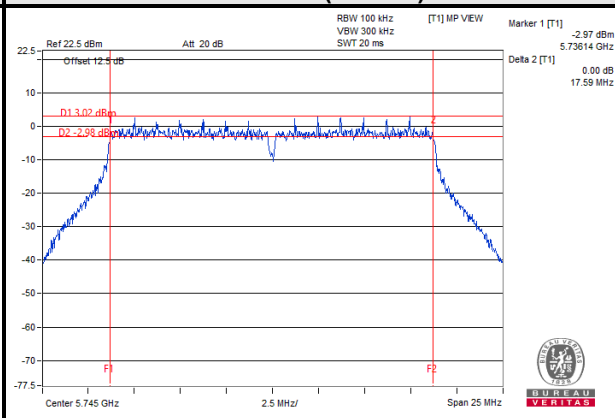
802.11n (20MHz)



802.11n (40MHz)



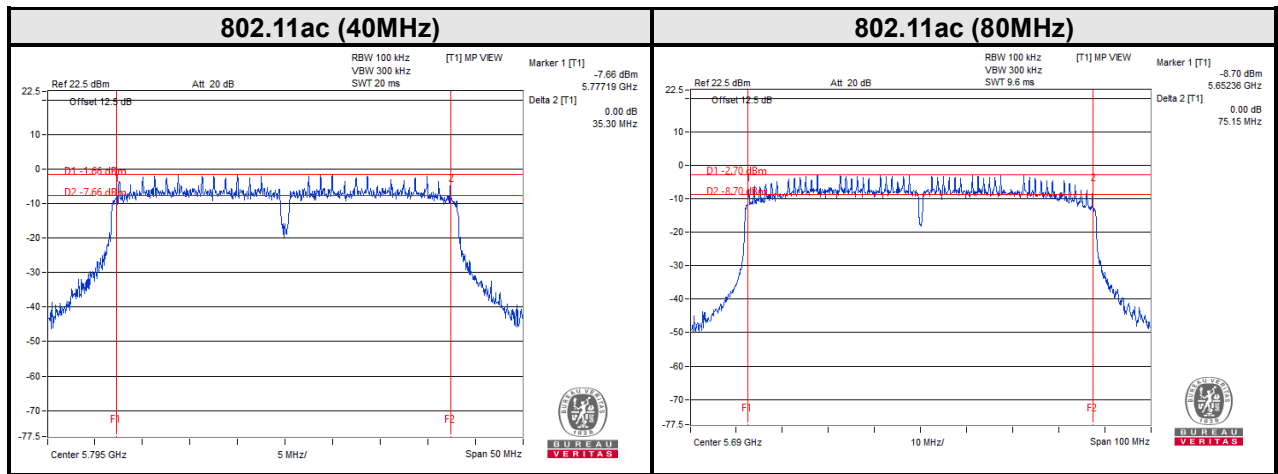
802.11ac (20MHz)





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Test Report No.: RF200918W001-3

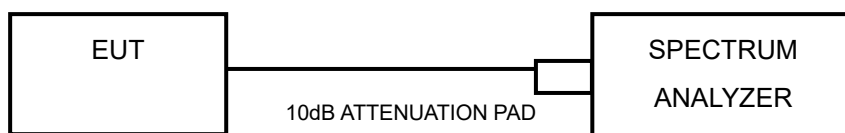


3.5 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.4 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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITIONS

Same as 3.1.6.

3.5.7 TEST RESULTS

For U-NII-1 & U-NII-2A& U-NII-2C:
802.11a

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
36	5180	6.85	0.59	7.44	11	PASS
40	5200	6.57	0.59	7.16	11	PASS
48	5240	7.02	0.59	7.61	11	PASS
52	5260	7.57	0.59	8.16	11	PASS
60	5300	7.82	0.59	8.41	11	PASS
64	5320	7.13	0.59	7.72	11	PASS
100	5500	6.85	0.59	7.44	11	PASS
116	5580	5.91	0.59	6.50	11	PASS
140	5700	7.53	0.59	8.12	11	PASS
144	5720	7.14	0.59	7.73	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
36	5180	7.21	0.78	7.99	11	PASS
40	5200	6.56	0.78	7.34	11	PASS
48	5240	6.71	0.78	7.49	11	PASS
52	5260	7.15	0.78	7.93	11	PASS
60	5300	6.82	0.78	7.6	11	PASS
64	5320	6.63	0.78	7.41	11	PASS
100	5500	8.10	0.78	8.88	11	PASS
116	5580	6.88	0.78	7.66	11	PASS
140	5700	6.34	0.78	7.12	11	PASS
144	5720	7.68	0.78	8.46	11	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
38	5190	2.15	1.48	3.63	11	PASS
46	5230	1.66	1.48	3.14	11	PASS
54	5270	3.05	1.48	4.53	11	PASS
62	5310	2.52	1.48	4.00	11	PASS
102	5510	1.63	1.48	3.11	11	PASS
110	5550	3.88	1.48	5.36	11	PASS
134	5670	2.19	1.48	3.67	11	PASS
142	5710	3.46	1.48	4.94	11	PASS

802.11 ac (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
36	5180	6.69	0.78	7.47	11	PASS
40	5200	6.34	0.78	7.12	11	PASS
48	5240	6.27	0.78	7.05	11	PASS
52	5260	6.85	0.78	7.63	11	PASS
60	5300	6.22	0.78	7.00	11	PASS
64	5320	6.17	0.78	6.95	11	PASS
100	5500	6.64	0.78	7.42	11	PASS
116	5580	6.90	0.78	7.68	11	PASS
140	5700	7.34	0.78	8.12	11	PASS
144	5720	7.82	0.78	8.60	11	PASS



802.11ac (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
38	5190	1.91	1.47	3.38	11	PASS
46	5230	1.76	1.47	3.23	11	PASS
54	5270	2.47	1.47	3.94	11	PASS
62	5310	3.04	1.47	4.51	11	PASS
102	5510	3.07	1.47	4.54	11	PASS
110	5550	3.49	1.47	4.96	11	PASS
134	5670	2.76	1.47	4.23	11	PASS
142	5710	3.13	1.47	4.6	11	PASS

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
42	5210	1.47	2.6	4.07	11	PASS
58	5290	2.10	2.6	4.70	11	PASS
106	5530	2.30	2.6	4.90	11	PASS
122	5610	1.87	2.6	4.47	11	PASS
138	5690	1.76	2.6	4.36	11	PASS

For U-NII-3:

Note: dBm/500kHz= dBm/MHz+10*log(0.5/1)= dBm/MHz-3.01

802.11a

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
144	5720	-4.09	-1.87	0.59	-1.28	30	PASS
149	5745	-3.92	-1.70	0.59	-1.11	30	PASS
157	5785	-4.22	-2.00	0.59	-1.41	30	PASS
161	5805	-3	-0.78	0.59	-0.19	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
144	5720	-4.3	-2.08	0.78	-1.30	30	PASS
149	5745	-3.89	-1.67	0.78	-0.89	30	PASS
157	5785	-4.15	-1.93	0.78	-1.15	30	PASS
161	5805	-2.83	-0.61	0.78	0.17	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
142	5710	-8.41	-6.19	1.48	-4.71	30	PASS
151	5755	-6.60	-4.38	1.48	-2.90	30	PASS
159	5795	-8.73	-6.51	1.48	-5.03	30	PASS



802.11ac (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/300kHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
144	5720	-2.99	-0.77	0.78	0.01	30	PASS
149	5745	-2.98	-0.76	0.78	0.02	30	PASS
157	5785	-3.38	-1.16	0.78	-0.38	30	PASS
161	5805	-3.67	-1.45	0.78	-0.67	30	PASS

802.11ac (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/300kHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
142	5710	-7.4	-5.18	1.47	-3.71	30	PASS
151	5755	-7.23	-5.01	1.47	-3.54	30	PASS
159	5795	-7.78	-5.56	1.47	-4.09	30	PASS

802.11ac (80MHz)

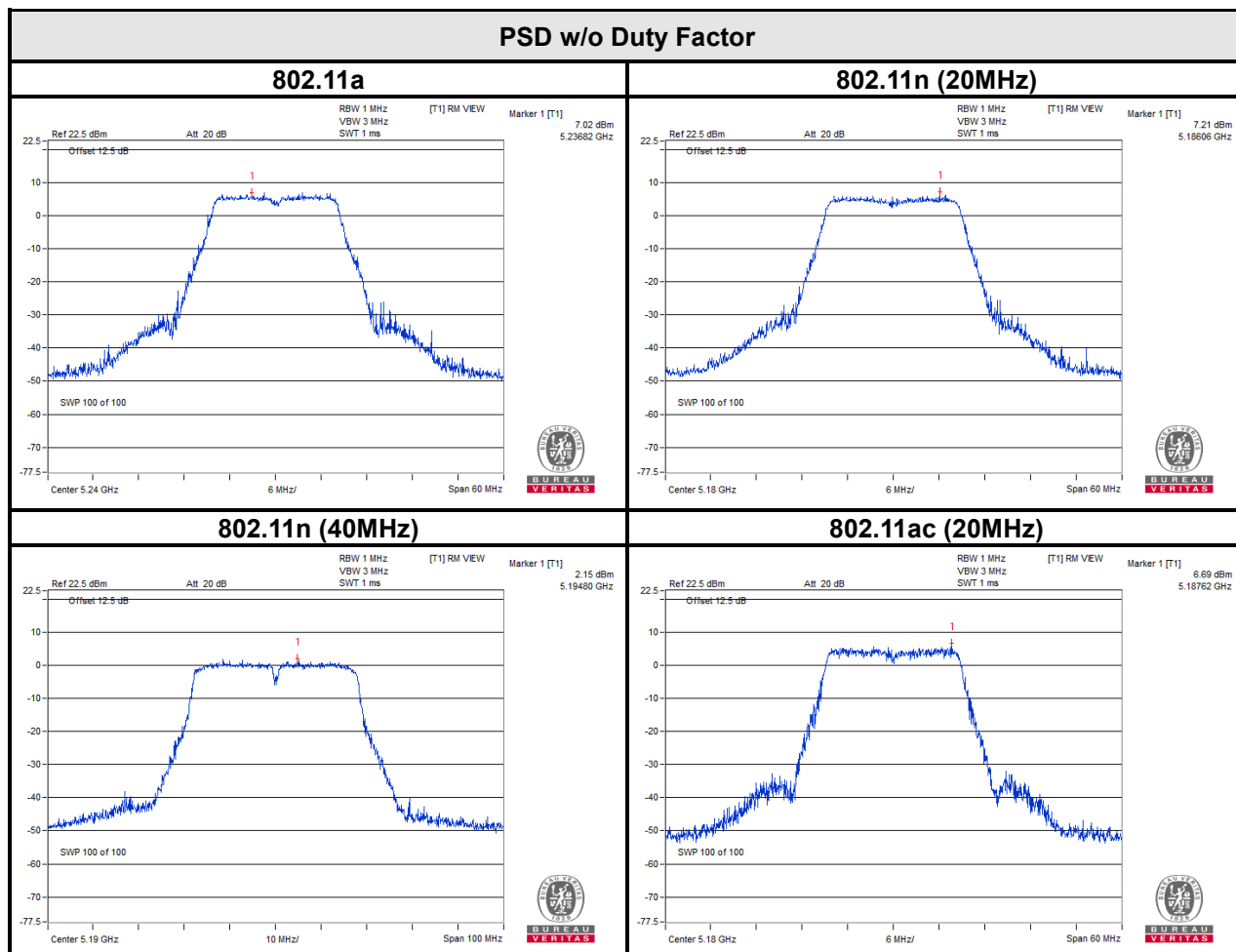
CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
138	5690	-9.51	-7.29	2.6	-4.69	30	PASS
155	5775	-9.68	-7.46	2.6	-4.86	30	PASS



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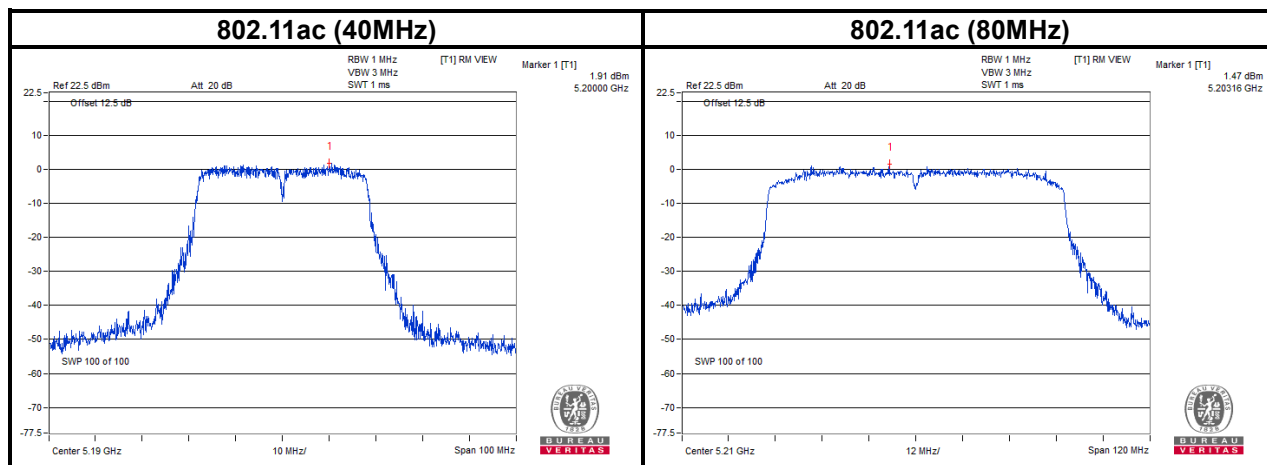
For 5180~5240MHz





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Test Report No.: RF200918W001-3

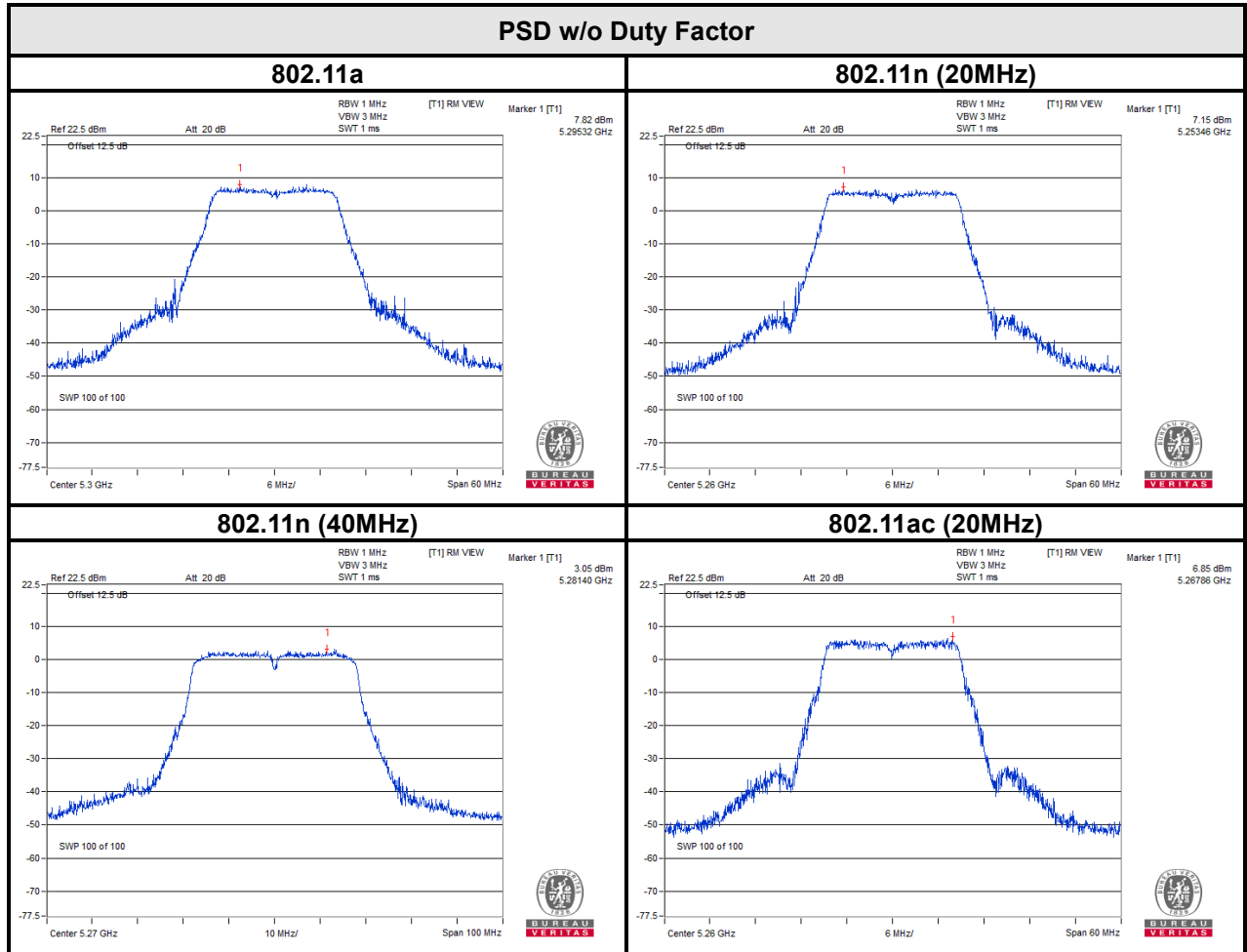




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VERITAS

Test Report No.: RF200918W001-3

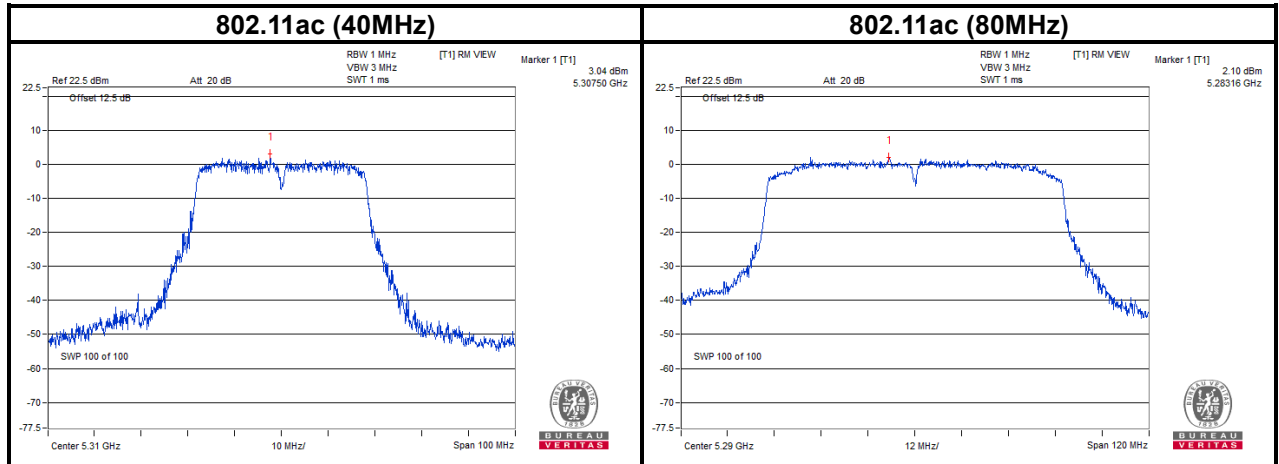
For 5260~5320MHz





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Test Report No.: RF200918W001-3

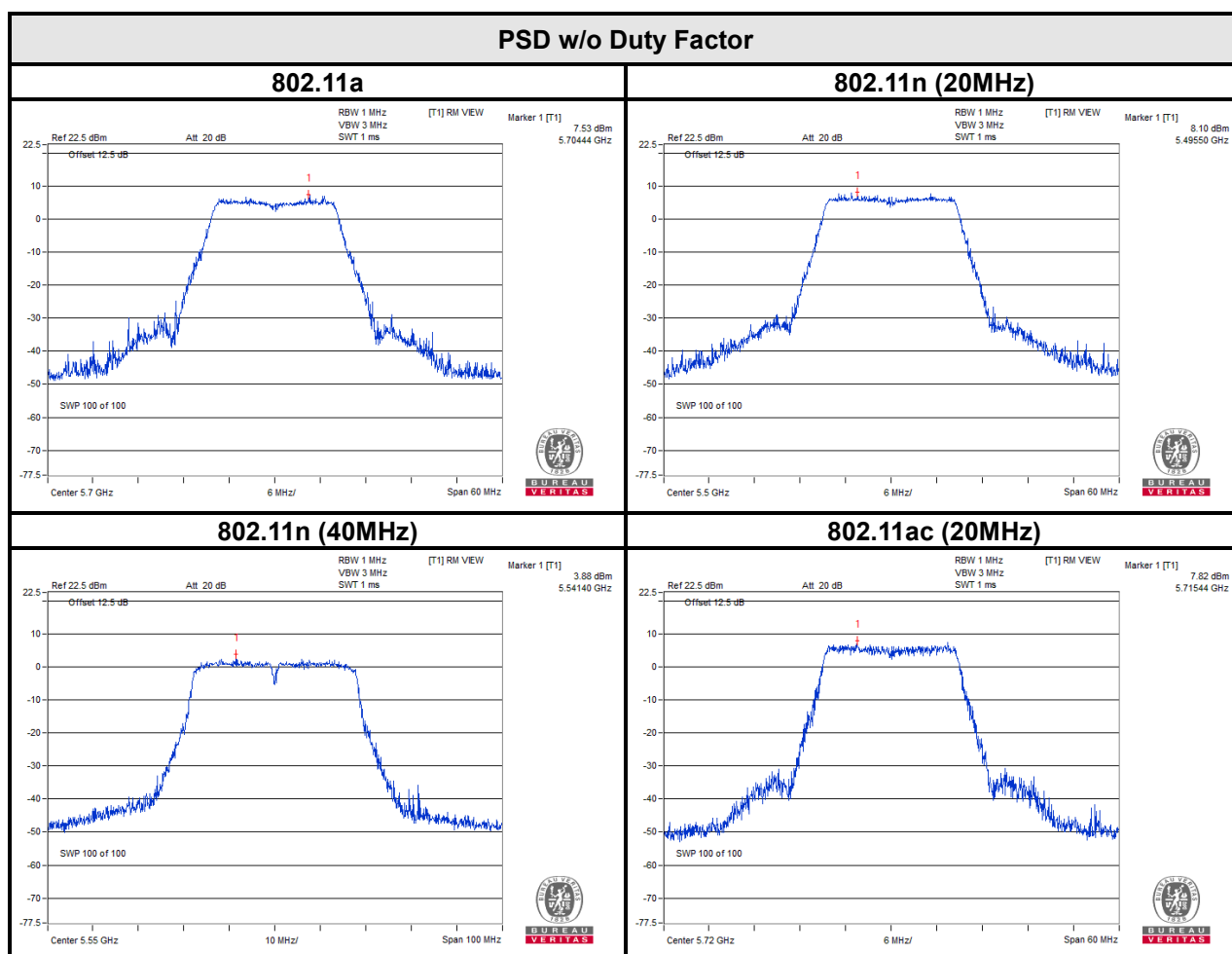




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VERITAS

Test Report No.: RF200918W001-3

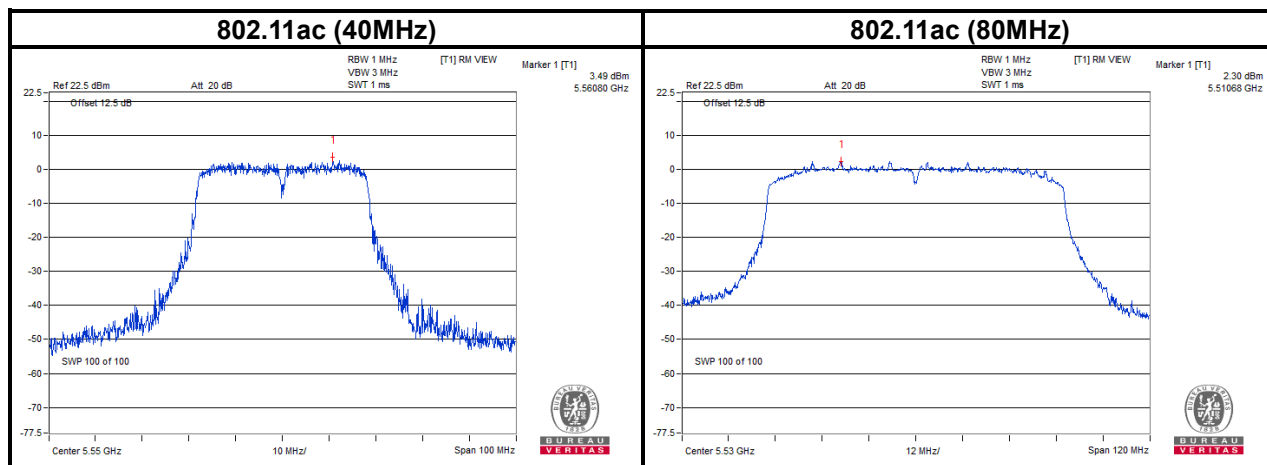
For 5500~5720MHz





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VERITAS

Test Report No.: RF200918W001-3

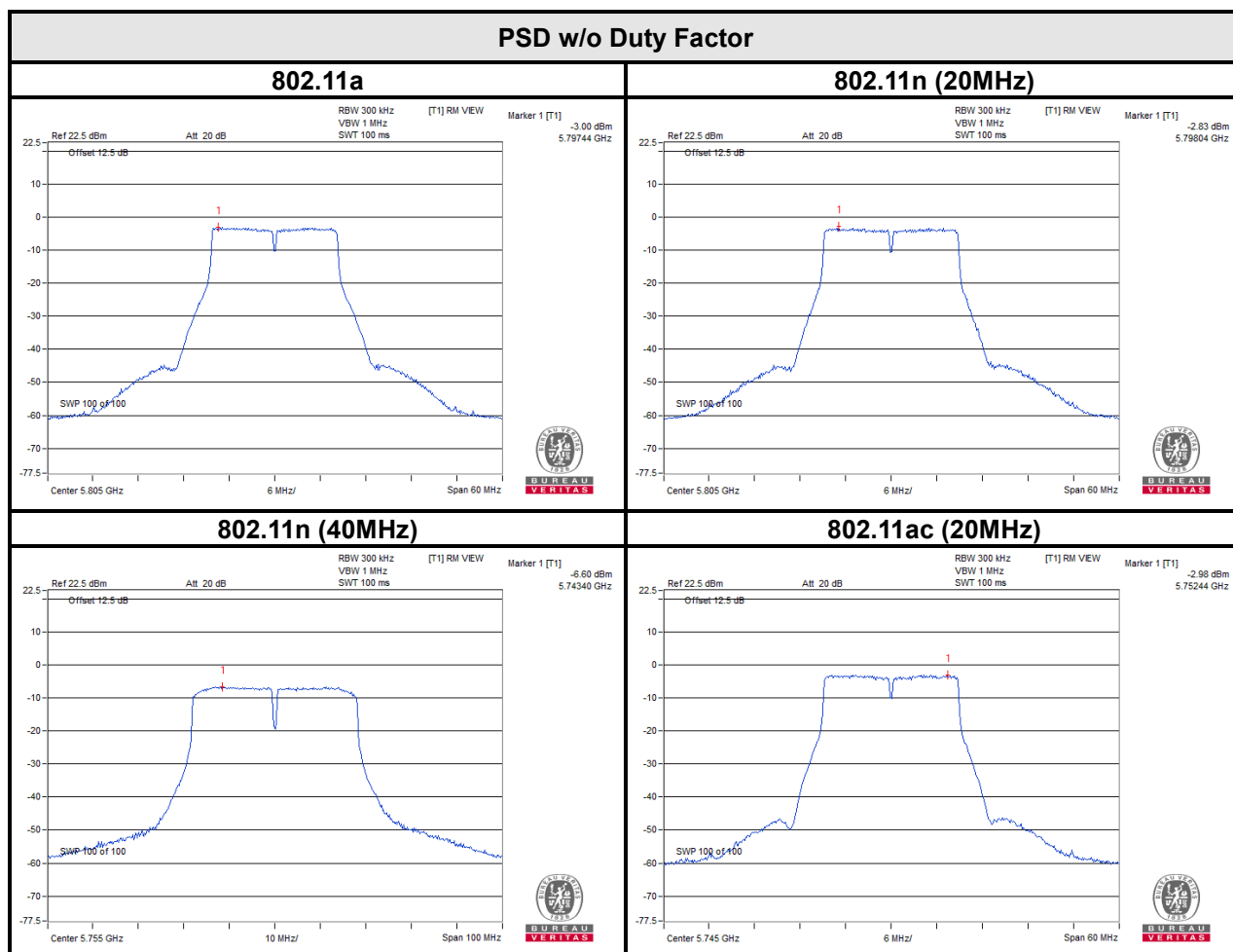




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VERITAS

Test Report No.: RF200918W001-3

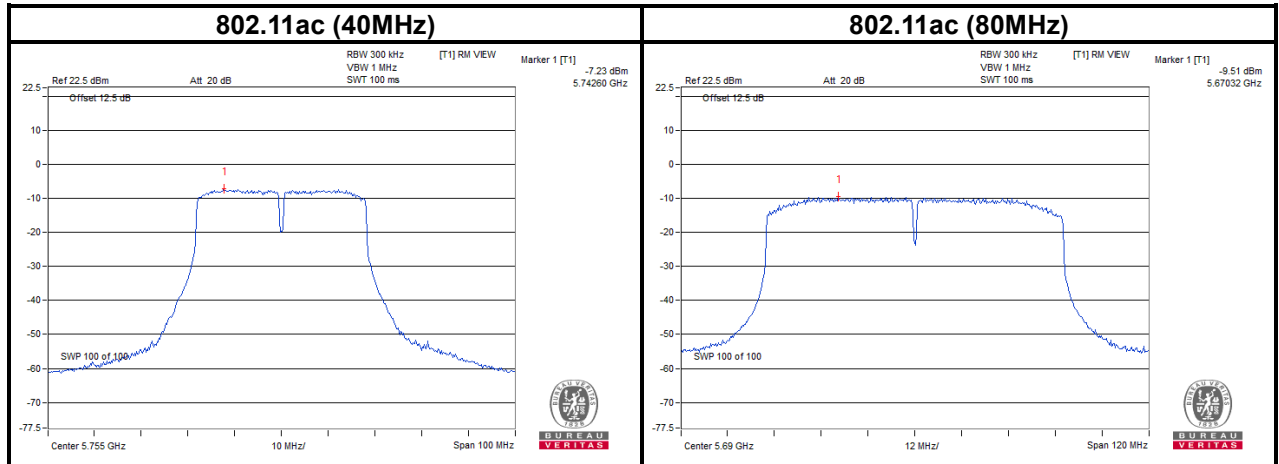
For 5745~5805MHz





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Test Report No.: RF200918W001-3



4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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

---END---