

ELECTROMAGNETIC EMISSIONS COMPLIANCE CLASS II PERMISSIVE CHANGE REPORT



FCC Applicant:	MICHELIN NORTH AMERICA (US) INC. One Parkway South, Greenville, South Carolina 29615, United States
ISED Applicant:	MICHELIN NORTH AMERICA (CANADA) INC. 2863 Granton Road New Glasgow NS B2H 5C6 Canada
Manufacturer:	MFP MICHELIN 23 Place des Carmes-Deschaux - 63040 Clermont-Fd Cedex9 - France
Product Name:	WiFi Module
Brand Name:	MICHELIN
Model No.:	MI5-TI01
Model Difference:	N/A
Report Number:	ER/2021/A0048
FCC ID	FI5-WL18DBMOD
IC:	5056A-WL18DBMOD
Issue Date:	April 6, 2022
Date of Test:	October 7, 2021 \sim October 12, 2021
Date of EUT Received:	October 5, 2021

Men Lay

Approved By

Blue Yang

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10:2013 and the energy emitted by the sample EUT comply with FCC rule part §15.407, ISED RSS-247.

The results of this report relate only to the sample identified in this report.

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Revision History					
Report Number	Revision	Description	Issue Date	Revised By	Remark
ER/2021/A0048	00	Original.	April 6, 2022	Karen Huang	*
ER/2021/A0048	01	Update FCC applicant address and product name and add manufac- turer information.	June 23, 2022	Susan Lin	*

Note:

1. The remark "*" indicates modification of the report upon requests from certification body.

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GENERAL INFORMATION 1

1.1 **Product Description of Host**

Product Name:	WiFi Module
Brand Name:	MICHELIN
Model No.:	MI5-TI01
Model Difference:	N/A
Hardware Version:	model RV5-01
Firmware Version:	S.4.1.x
EUT Series No.:	050748
Power Supply:	24Vdc

1.2 **Modulation & Data Rate**

Modulation type:	64QAM, 16QAM, QPSK, BPSK for OFDM
	802.11 a: 6 - 54 Mbps
Transition Rate:	802.11 n_20MHz: 6.5 - 72.2 Mbps
	802.11 n_40MHz: 13.5 - 150 Mbps

1.3 **Antenna Designation**

Antenna Type	Freq. (MHz)	Peak Antenna Gain (dBi)	Worst An- tenna Gain	
	5150~5250		-	
All-In-One	5250~5350	-3.2		
	5470~5725			
	5725~5850			
Note: 1. Antenna information is provided by the applicant.				

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1.4 FCC

Wi-Fi	Frequency Range	Channels	Rated Power(Avg) (dBm) (Worst Case)	Modulation Technology
	5180~5240	4	15.43 dBm	OFDM
a/ n_HT	5260~5320	4	13.51 dBm	OFDM
20M	5500~5700	11	16.02 dBm	OFDM
	5745-5825	5	15.96 dBm	OFDM
	5190~5230	2	13.05 dBm	OFDM
n_HT	5270~5310	2	13.00 dBm	OFDM
40M	5510~5670	5	12.92 dBm	OFDM
	5755-5795	2	13.50 dBm	OFDM

1.5 ISED

WLAN 5 GHz for ISED(Slave)

Wi-Fi	Frequency Range	Channels	EIRP/Avg	Rated Power(EIRP/Avg) (dBm) (Worst Case)		Modulation Technology
	5180~5240	4	EIRP	12.23	dBm	OFDM
a/ n_HT	5260~5320	4	Avg	13.51	dBm	OFDM
20M	5500~5700	11	Avg	16.02	dBm	OFDM
	5745-5825	5	Avg	15.96	dBm	OFDM
	5190~5230	2	EIRP	9.85	dBm	OFDM
n_HT	5270~5310	2	Avg	13.00	dBm	OFDM
40M	5510~5670	5	Avg	12.92	dBm	OFDM
	5755-5795	2	Avg	13.50	dBm	OFDM

Note: As per guidance in presentation 2018-04-10-03 IC Certification updates of April 2018 TCB workshop, Client (Slave mode) devices without active scanning function, but with the cabability of operating in 5600-5650 MHz solely under the control of a certified master device meeting the requirement of RSS-247, are allowed in Canada.

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(新売与方前就) 「山根古高未識到別風之(株田眞貝)」同時山(株田眞水園)(シー和電子板音大磁中公司音面町可) 「小口面防複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com.tw/Terms-and-Conditions</u>. Attention is drawn to the limitation of liability, indemni-fication and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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1.6 **Test Methodology of Applied Standards**

FCC Part 15, Subpart E §15.407 FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01 RSS-247 issue 2 Feb. 2017 RSS-Gen Issue 5, Amendment 2, February 2021 ANSI C63.10:2013

1.7 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier
		SAC 1		
		SAC 3		
		Conduction 1		
	No.134, Wu Kung Road, New Taipei	Conducted 1		
	Industrial Park, Wuku District, New	Conducted 2	TW0027	
	Taipei City, Taiwan.	Conducted 3		
		Conducted 4		TW3702
		Conducted 5		
SGS Taiwan Ltd.		Conducted 6		
Central RF Lab.	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conduction C	TW0028	
(TAF code 3702)		SAC C		
$(1A1 \ COUE \ 5102)$		SAC D		
		SAC G		
		Conducted A		
		Conducted B		
		Conducted C		
		Conducted D		
		Conducted E	-	
		Conducted F		
		Conducted G		
	ame is remarked on the equipmen measurements occurred in specif		•	s an indica

1.8 **Special Accessories**

There are no special accessories used while test was conducted.

Equipment Modifications 1.9

There was no modification incorporated into the EUT.

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2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

2.3 Test Procedure

2.3.1 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

2.3.2 Radiated Emissions

The EUT is a placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

2.4 Measurement Results Explanation Example

2.4.1 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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2.4.2 For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

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2.5 **Configuration of Tested System** Fig. 2-1 Radiated Emission Configuration



Fig. 2-2 Conducted (Antenna Port) Emission Configuration



Table 2-1 Equipment Used in Tested System

Radiated Emission Test Site: SAC 3									
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Notebook	Lenovo	L440	R9-00W5LW 14/03	N/A	N/A				
Accece Ponit	ASUS	RT-AX89U	K4IUHP000296	N/A	N/A				

Conducted Emission Test Site: Conducted 2						
EQUIPMENT TYPE	MODEL NUMBER	SERIAL NUM- BER	LAST CAL.	CAL DUE.		
Notebook	Lenovo	T440P	PC-089AH5	N/A	N/A	

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SUMMARY OF TEST RESULT 3

FCC Rules	IC Rules	Description Of Test	Result
§15.407(a)	RSS-247 §6.2.1~ 4 (1)	Maximum Conducted Output Power	Compliant
§15.205 §15.209 §15.407(b)	RSS-247 §6.2.1~ 4 (2)	Undesirable Radiated Emissions	Compliant

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DESCRIPTION OF TEST MODES 4

4.1 802.11a/n operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:							
20 M			4	0 M			
СН	Freq (MHz)		СН	Freq (MHz)			
36	5180		38	5190			
40	5200		46	5230			
44	5220						
48	5240						

Operated band in 5250 MHz ~5350 MHz:

М	40 M			
Freq	СН	Freq (MHz)		
(MHz)		(MHz)		
5260	54	5270		
5280	62	5310		
5300				

20

CH

52 56

60 64

5320

Operated band in 5470 MHz ~5725 MHz:

20 M				
СН	Freq (MHz)			
100	5500			
104	5520			
108	5540			
112	5560			
116	5580			
120	5600			
124	5620			
128	5640			
132	5660			
136	5680			
140	5700			

台灣檢

40 M Freq CH (MHz) 102 5510 110 5550 118 5590 126 5630 134 5670

Operated band in 5745 MHz ~5850 MHz

		IV	11 12.
20 M		4	0 M
СН	Freq (MHz)	СН	Freq (MHz)
149	5745	151	5755
153	5765	159	5795
157	5785		
161	5805		
165	5825		

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4.2 The Worst Test Modes and Channel Details

- The EUT has been tested under operating condition. 1.
- 2. Test program used to control the EUT for staying in continuous transmitting mode is programmed.
- 3. Investigation has been done on all the possible configurations for searching the worst case.

The gevin UE is pre-scanned among below modes.

Modulation	Ті	ransmiss	sion Chair	٦	Single Transmission Spatial	Multiple Transmission Spatial
🛛 802.11 a	\boxtimes Ch0	\Box Ch1	🗆 Ch2	🗆 Ch3	🛛 1TX	□ 2TX
🛛 802.11 n	\boxtimes Ch0	\Box Ch1	🗆 Ch2	🗆 Ch3	🛛 SISO	
□ 802.11 ac	□ Ch0	\Box Ch1	🗆 Ch2	🗆 Ch3		
□ 802.11 ax	\Box Ch0	\Box Ch1	🗆 Ch2	🗆 Ch3		

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RADIATED EMISSION TEST: 4.2.1

RADIATED EMISSION TEST (BELOW 1 GHz)									
	FREQUENCY	AVAILABLE	TESTED	MODULATION	DATA RATE	ANTENNA			
	BAND (MHz)	CHANNEL	CHANNEL	MODULATION	(Mbps)	PORT			
	5180~5240	36 to 48	44						
902 110	5260~5320	52 to 64	60	OFDM	6	ah0			
	5500~5700	100 to 140	116		o	ch0			
	5745~5825	149 to 165	157						

	RADIA		ON TEST (ABC	OVE 1 GHz)		
MODE	FREQUENCY	AVAILABLE	TESTED	MODULATION	DATA RATE	ANTENNA
mobe	BAND (MHz)	CHANNEL	CHANNEL		(Mbps)	PORT
	5180~5240	36 to 48	36,44,48			
	5260~5320	52 to 64	52,60,64			
802.11a	5500~5700	100 to 140	100,116,140	OFDM	6	ch0
	5745~5825	149 to 165	149,157,165			
	5180~5240	36 to 48	36,44,48			
	5260~5320	52 to 64	52,60,64		MCS0	ch0
802.11n_HT20	5500~5700	100 to 140	100,116,140	OFDM		
	5745~5825	149 to 165	149,157,165			
	5190~5230	38 to 46	38,46			
	5270~5310	54 to 62	54,62			
802.11n_HT40	5510~5670	102 to 134	102,110,134	OFDM	MCS0	ch0
	5755~5795	151 to 159	151,159			

Note:

The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for 802.11a/n WLAN Transmitter for channel Low, Mid and High, the worst case H position was reported.

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4.2.2 ANTENNA PORT CONDUCTED MEASUREMENT:

CONDUCTED TEST						
MODE	FREQUENCY	AVAILABLE	TESTED	MODULATION	DATA RATE	ANTENNA
MODE	BAND (MHz)	CHANNEL	CHANNEL	MODULATION	(Mbps)	PORT
	5180~5240	36 to 48	36,44,48			
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	ch0
002.11a	5500~5700	100 to 140	100,116,140		0	CIU
	5745~5825	149 to 165	149,157,165			
	5180~5240	36 to 48	36,44,48		MCS0	
802.11n HT20	5260~5320	52 to 64	52,60,64	OFDM		ch0
002.111_11120	5500~5700	100 to 140	100,116,140			CHU
	5745~5825	149 to 165	149,157,165			
	5190~5230	38 to 46	38,46			
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	ch0
	5510~5670	102 to 134	102,110,134		WIC30	CIU
	5755~5795	151 to 159	151,159			

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MEASUREMENT UNCERTAINTY 5

Test Items	Un	certain	ty
AC Power Line Conducted Emission	+/-	2.34	dB
Emission Bandwidth	+/-	1.53	Hz
The Maximum Output Power Measurement	+/-	1	dB
Peak Power Spectral Density Measurement	+/-	1.53	dB
Frequency Stability	+/-	1.53	Hz
Temperature	+/-	0.4	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty					
	+/-	2.64	dB	9kHz~30MHz	
Polorization: Vortical	+/-	4.93	dB	30MHz - 1000MHz	
Polarization: Vertical	+/-	4.81	dB	1GHz - 18GHz	
	+/-	4.52	dB	18GHz - 40GHz	
	+/-	2.64	dB	9kHz~30MHz	
Polarization: Horizontal	+/-	4.45	dB	30MHz - 1000MHz	
Polarization: Horizontal	+/-	4.81	dB	1GHz - 18GHz	
	+/-	4.52	dB	18GHz - 40GHz	

Note:

- 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT 6

6.1 **Standard Applicable**

FCC

OPERZTION Band		EUT CATEGORY	LIMIT		
		Access Point (Master device)	1 Watt(30dBm)		
U-NII-1		Fixed point-to-point Access Ponit	1 Watt(30dBm)		
		Mobile and portable client device	250mW(23.98dBm)		
U-NII-2A			250mW(23.98dBm) or 11dBm+10 log B		
U-NII-2C			250mW(23.98dBm) or 11dBm+10 log B		
U-NII-3 √ 1 Watt(30dBm)					
If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the direction-al gain of the antenna exceeds 6					

ISED

dBi.

OPERZTION FREQUENCY BAND	LIMIT				
5150~5250 MHz	EIRP shall not exceed 200 mW or 10 + 10 log10B, dBm				
5250~5350 MHz	Conducted output power shall not exceed 250 mW or 11 +10 log10B EIRP shall not exceed 1.0 W or 17 + 10 log10B, dBm				
5470-5600 MHz and 5650-5725 MHz	Conducted output power shall not exceed 250 mW or 11 +10 log10 B EIRP shall not exceed 1.0 W or 17 + 10 log10B, dBm				
5725~5850 MHz	Conducted output power shall not exceed 1 W				
For equipment operating in the band 5725-5850 MHz, If transmitting antennas of directional					

gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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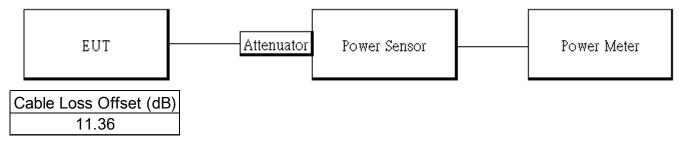
6.2 Measurement Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter
- 4. Power Meter is used as the auxiliary test equipment to conduct the output power measurement.
- 5. Record the max. reading and add 10 log(1/duty cycle).
- 6. Repeat above procedures until all frequency (low, middle, and high channel) measured were complete.

Conducted Emission Test Site: Conducted 2							
EQUIPMENT TYPE	MFR	MODEL NUM- BER	SERIAL NUMBER	LAST CAL.	CAL DUE.		
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242081	09/30/2021	09/29/2022		
Test Software	SGS	Radio Test Soft- ware	Ver. 21	N.C.R	N.C.R		
Power Meter	Anritsu	ML2496A	1804001	03/02/2021	03/01/2022		
Power Sensor	Anritsu	MA2411B	1726104	03/02/2021	03/01/2022		
Power Sensor	Anritsu	MA2411B	1726107	03/02/2021	03/01/2022		
Attenuator	Mini-Circuit	BW-S10W2+	4	12/16/2020	12/15/2021		
DC Block	Mini-Circuits	BLK-18-S+	1	12/16/2020	12/15/2021		
Coaxial Cable	Woken	00100A1F1A196S	N/A	N/A	N/A		

6.3 Measurement Equipment Used

6.4 Test Set-up



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6.5 **Measurement Result**

6.5.1 Conducted output power (FCC)

802.11a_Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	20000	15.43	34.876	23.98	PASS
44	5220	6	20000	15.42	34.796	23.98	PASS
48	5240	6	20000	15.30	33.848	23.98	PASS
52	5260	6	18000	13.21	20.919	23.98	PASS
60	5300	6	16000	13.22	20.967	23.98	PASS
64	5320	6	16000	13.18	20.775	23.98	PASS
100	5500	6	18000	14.31	26.948	23.98	PASS
116	5580	6	20000	16.02	39.951	23.98	PASS
140	5700	6	14000	11.46	13.981	23.98	PASS
149	5745	6	15000	12.33	17.082	30	PASS
157	5785	6	20000	15.96	39.403	30	PASS
165	5825	6	18000	14.01	25.150	30	PASS

802.11n_HT20_Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	20000	14.78	30.059	23.98	PASS
44	5220	MCS0	20000	15.05	31.987	23.98	PASS
48	5240	MCS0	20000	14.86	30.618	23.98	PASS
52	5260	MCS0	18000	13.15	20.653	23.98	PASS
60	5300	MCS0	18000	13.51	22.438	23.98	PASS
64	5320	MCS0	18000	13.31	21.428	23.98	PASS
100	5500	MCS0	19000	14.75	29.852	23.98	PASS
116	5580	MCS0	20000	15.17	32.883	23.98	PASS
140	5700	MCS0	16000	11.92	15.559	23.98	PASS
149	5745	MCS0	17000	12.24	16.748	30	PASS
157	5785	MCS0	20000	15.33	34.117	30	PASS
165	5825	MCS0	19000	13.83	24.153	30	PASS

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802.11n HT40 Ch0

СН	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	17000	11.69	14.772	23.98	PASS
46	5230	MCS0	20000	13.05	20.204	23.98	PASS
54	5270	MCS0	20000	13.00	19.973	23.98	PASS
62	5310	MCS0	17000	12.21	16.651	23.98	PASS
102	5510	MCS0	15000	10.77	11.952	23.98	PASS
110	5550	MCS0	20000	12.92	19.608	23.98	PASS
134	5670	MCS0	18000	12.78	18.986	23.98	PASS
151	5755	MCS0	15500	10.26	10.628	30	PASS
159	5795	MCS0	20000	13.50	22.410	30	PASS

6.5.2 **ISED EIRP**

802.11a_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	15.43	-3.20	12.23	16.711	23.01	PASS
44	5220	15.42	-3.20	12.22	16.672	23.01	PASS
48	5240	15.30	-3.20	12.10	16.218	23.01	PASS
52	5260	13.21	-3.20	10.01	10.023	30	PASS
60	5300	13.22	-3.20	10.02	10.046	30	PASS
64	5320	13.18	-3.20	9.98	9.954	30	PASS
100	5500	14.31	-3.20	11.11	12.912	30	PASS
116	5580	16.02	-3.20	12.82	19.143	30	PASS
140	5700	11.46	-3.20	8.26	6.699	30	PASS

802.11n HT20 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	14.78	-3.20	11.58	14.388	23.01	PASS
44	5220	15.05	-3.20	11.85	15.311	23.01	PASS
48	5240	14.86	-3.20	11.66	14.655	23.01	PASS
52	5260	13.15	-3.20	9.95	9.886	30	PASS
60	5300	13.51	-3.20	10.31	10.740	30	PASS
64	5320	13.31	-3.20	10.11	10.257	30	PASS
100	5500	14.75	-3.20	11.55	14.289	30	PASS
116	5580	15.17	-3.20	11.97	15.740	30	PASS
140	5700	11.92	-3.20	8.72	7.447	30	PASS

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802.11n HT40 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	11.69	-3.20	8.49	7.063	23.01	PASS
46	5230	13.05	-3.20	9.85	9.661	23.01	PASS
54	5270	13.00	-3.20	9.80	9.550	30	PASS
62	5310	12.21	-3.20	9.01	7.962	30	PASS
102	5510	10.77	-3.20	7.57	5.715	30	PASS
110	5550	12.92	-3.20	9.72	9.376	30	PASS
134	5670	12.78	-3.20	9.58	9.078	30	PASS

6.5.3 Conducted output power (ISED)

802.11a Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	13.21	20.919	23.98	PASS
60	5300	13.22	20.967	23.98	PASS
64	5320	13.18	20.775	23.98	PASS
100	5500	14.31	26.948	23.98	PASS
116	5580	16.02	39.951	23.98	PASS
140	5700	11.46	13.981	23.98	PASS
149	5745	12.33	17.082	30	PASS
157	5785	15.96	39.403	30	PASS
165	5825	14.01	25.150	30	PASS

802.11n_HT20_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	13.15	20.653	23.98	PASS
60	5300	13.51	22.438	23.98	PASS
64	5320	13.31	21.428	23.98	PASS
100	5500	14.75	29.852	23.98	PASS
116	5580	15.17	32.883	23.98	PASS
140	5700	11.92	15.559	23.98	PASS
149	5745	12.24	16.748	30	PASS
157	5785	15.33	34.117	30	PASS
165	5825	13.83	24.153	30	PASS

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802.11n_HT40_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	13.00	19.973	23.98	PASS
62	5310	12.21	16.651	23.98	PASS
102	5510	10.77	11.952	23.98	PASS
110	5550	12.92	19.608	23.98	PASS
134	5670	12.78	18.986	23.98	PASS
151	5755	10.26	10.628	30	PASS
159	5795	13.50	22.410	30	PASS

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7 UNDESIRABLE RADIATED EMISSION MEASUREMENT

7.1 Standard Applicable

7.1.1 Band Edge

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 5.725-5.85 GHz band: 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 5 MHz.

APPLICABLE TO	EIRP LIMIT	FIELD STRENGTH AT 3m
15.407(b)(1) RSS-247 <u>§</u> 6.2.1.2		
15.407(b)(2) RSS-247 §6.2.2.2	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
15.407(b)(3) RSS-247 §6.2.3.2		
15.407(b)(4)(i) RSS-247 §6.2.4.2	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2 (dBµV/m) *1 PK:105.2 (dBµV/m) *2 PK: 110.8(dBµV/m) *3 PK:122.2 (dBµV/m) *4

*1 beyond 75 MHz or more above of the bandedge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27

dBm/MHz at the band edge.

 $EIRP = ((E^*d)^2) / 30$, where E is the field in V/m, d is the measurement distance (3m), EIRP is the equivalent isotropically radiated power in Watts.

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7.1.2 **Spurious Emission**

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

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.

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7.2 **Measurement Equipment Used**

	Radia	ated Emission Te	st Site: SAC 3		
EQUIPMENT TYPE	MFR	MODEL NUM- BER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Horn Antenna	SCHWARZ- BECK	BBHA9170	184	12/11/2020	12/10/2021
Horn Antenna	SCHWARZ- BECK	BBHA9120D	1441	09/27/2021	09/26/2022
Bi-log Antenna	SCHWARZ- BECK	VULB9168	378	08/20/2021	08/19/2022
Loop Antenna	ETS.LIND- GREN	6502	148045	10/19/2020	10/18/2021
PXA Spectrum Ana- lyzer	Agilent	N9030A	MY53120760	04/27/2021	04/26/2022
EMI Test Receiver	R&S	ESCI 7	100759	08/26/2021	08/25/2022
Pre-Amplifier	HP	8449B	3008A00578	12/16/2020	12/15/2021
Pre-Amplifier	EMC Instru- ments	EMC184045B	980135	10/27/2020	10/26/2021
Pre-Amplifier	HP	8447D	2944A07676	12/16/2020	12/15/2021
Attenuator	Mini-Circuit	BW-S10W2+	4	12/16/2020	12/15/2021
Filter 5150-5350 MHz	Micro-Tronics	BRM50703	1	12/16/2020	12/15/2021
Filter 5470-5725 MHz	Micro-Tronics	BRM50704	1	12/16/2020	12/15/2021
Filter 5725-5875 MHz	Micro-Tronics	BRM50705	1	12/16/2020	12/15/2021
High Pass Filter	WI	WHKX7.0/18G- 8SS	45	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2636/2	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 104	340057/4	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 104PEA	800052/2	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2621/2	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2617/2	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2630/2	12/16/2020	12/15/2021
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY22962/2	12/16/2020	12/15/2021
Site Cal	SGS	SAC 3	N/A	01/01/2021	12/31/2021
Test Software	audix	e3	Ver. 9 210322	N.C.R	N.C.R
DC Power Supply	Gwinstek	SPS-3610	GEV856761	09/18/2021	09/17/2022

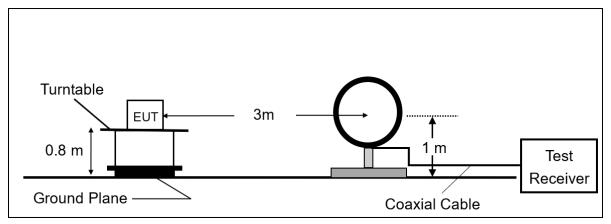
Note: N.C.R refers to Not Calibrated Required.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

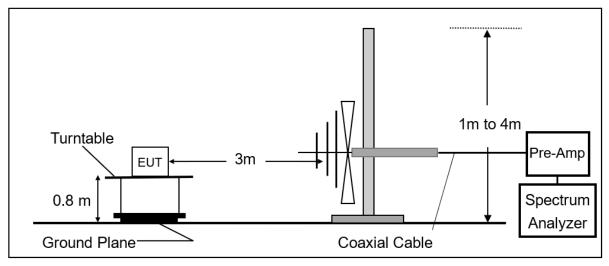


7.3 **Test SET-UP**

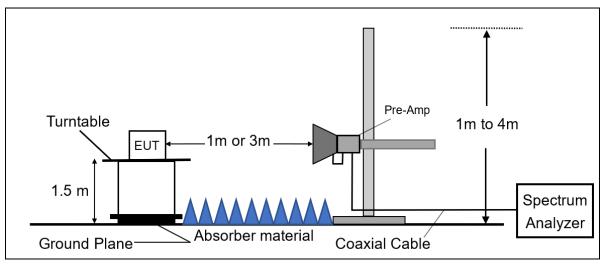
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



(C) Radiated Emission Test Set-Up, Frequency Above 1GHz.



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台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.sgs.com.tw
			Member of SGS Group



7.4 Measurement Procedure

- **1.** The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
- **3.** The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- **4.** The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- **5.** EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- **6.** Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz.
- **7.** Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.
- 8. At frequency above 1 GHz, Set the spectrum analyzer:
 - A. RBW=1 MHz, VBW=3 MHz for **Peak** Detector.
 - **B.** Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for **Average** Detector.
- **9.** Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- **10.** And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- **11.** Repeat above procedures until all frequency measured were complete.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



7.5 **Field Strength Calculation**

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength RA = Reading Amplitude AF = Antenna Factor

CL = Cable Attenuation Factor (Cable Loss) AG = Amplifier Gain

The limit of the emission level is expressed in dBuV/m, which converts $20^{*}\log(uV/m)$

Actual FS($dB\mu V/m$) = SPA. Reading level($dB\mu V$) + Factor(dB) Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

7.6 Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

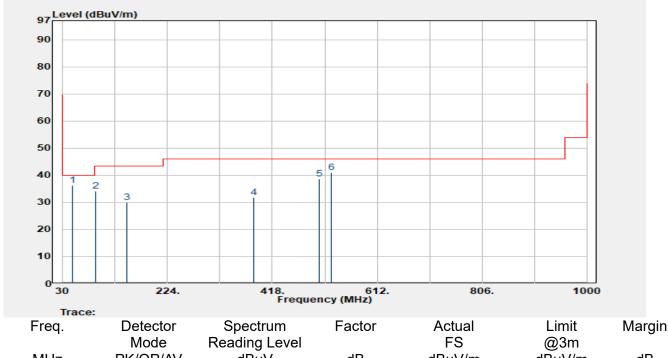
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7.7 **Radiated Spurious Emission Measurement Result**

7.7.1 **Below 1GHz Worst-Case Data:**

Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11a	Test Date	:2021-10-07
Test Frequency	:5220 MHz	Temp./Humi.	:26.2/60
Test Mode	:Tx CH Mid	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen



	MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dD
-		FN/QF/AV	υσμν	uБ	ασμν/π	ασμν/π	dB
	48.010	QP	44.47	-8.16	36.31	40.00	-3.69
	90.140	Peak	48.26	-14.08	34.17	43.50	-9.33
	149.310	Peak	37.28	-7.36	29.92	43.50	-13.58
	384.050	Peak	36.42	-4.53	31.89	46.00	-14.11
	504.330	Peak	41.45	-2.94	38.52	46.00	-7.48
	528.000	QP	43.57	-2.69	40.88	46.00	-5.12
	520.000	QF	43.57	-2.09	40.00	40.00	-J.

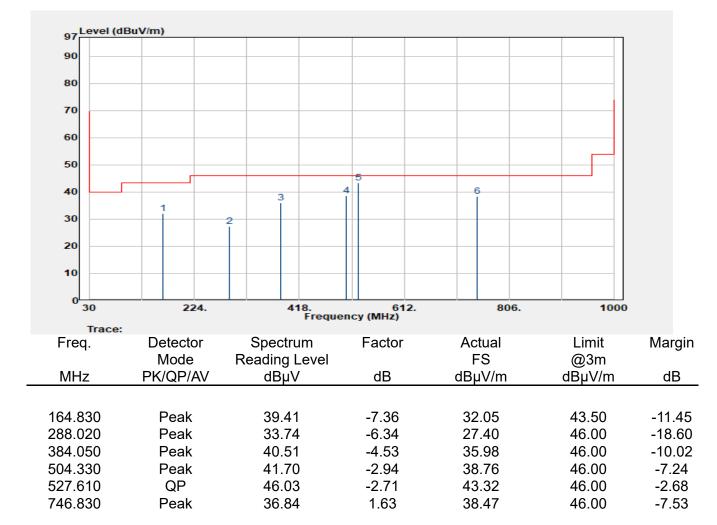
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

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台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.sgs.com.tw
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Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5220 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

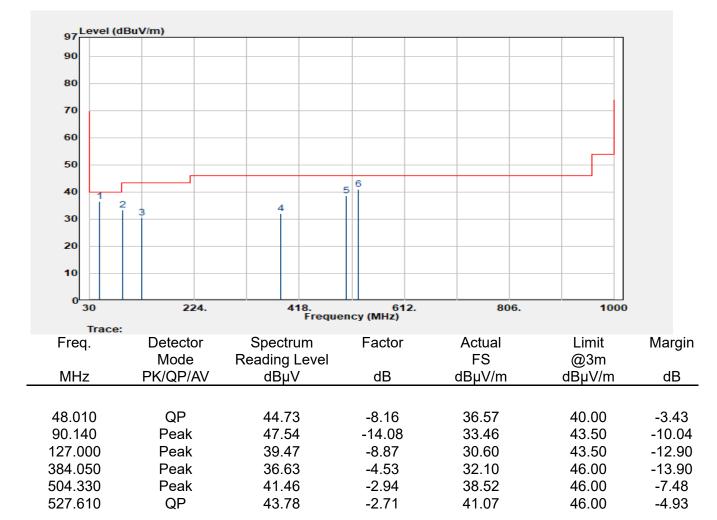
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

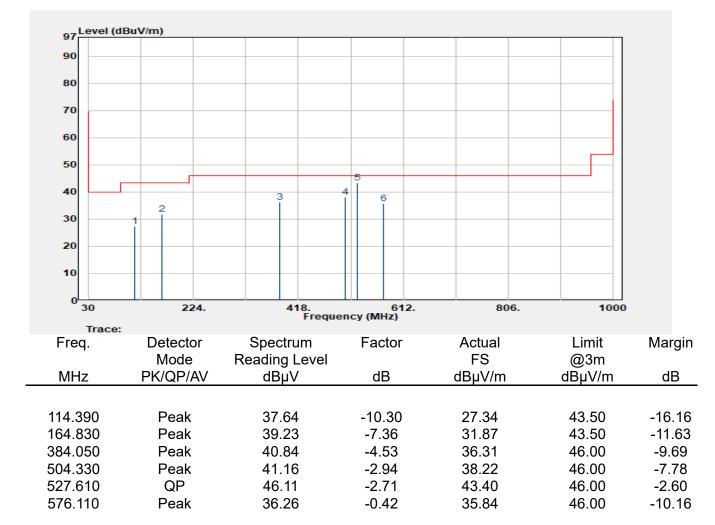
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

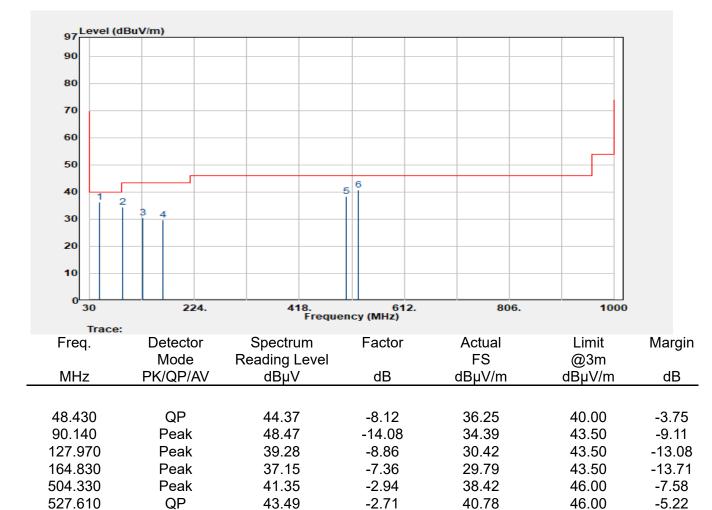
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

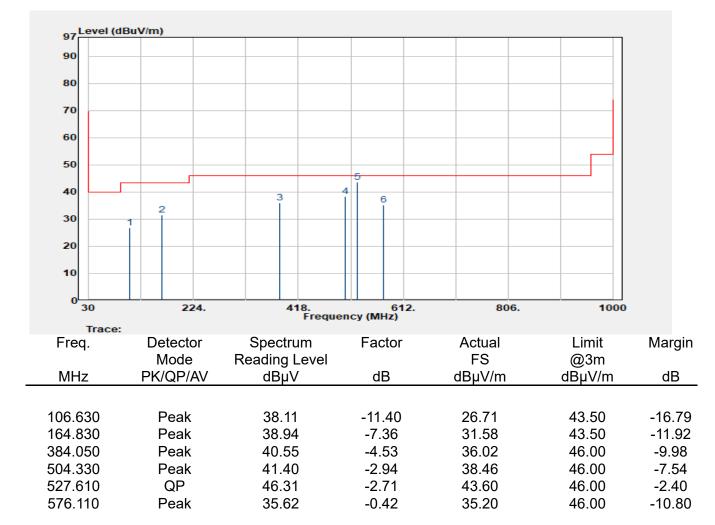
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

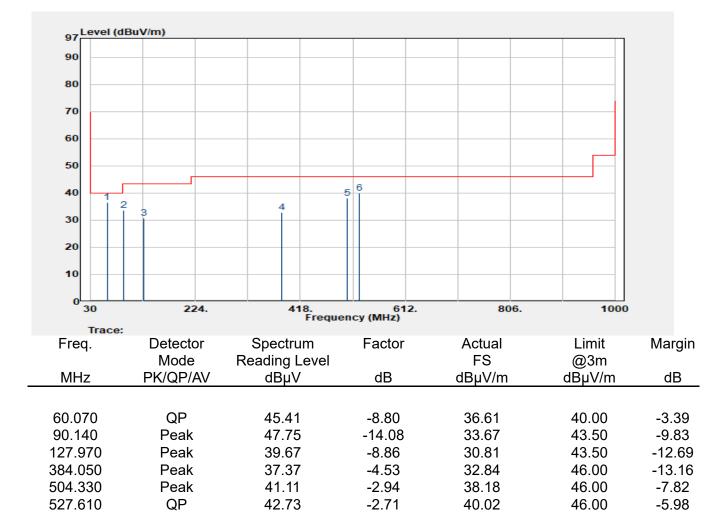
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

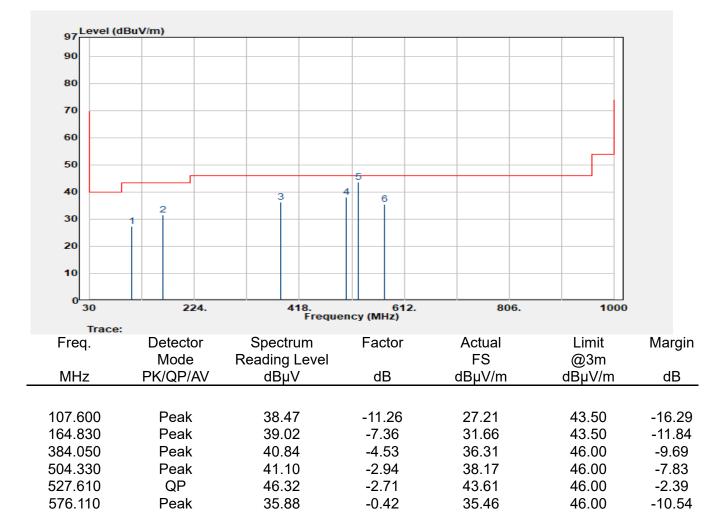
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



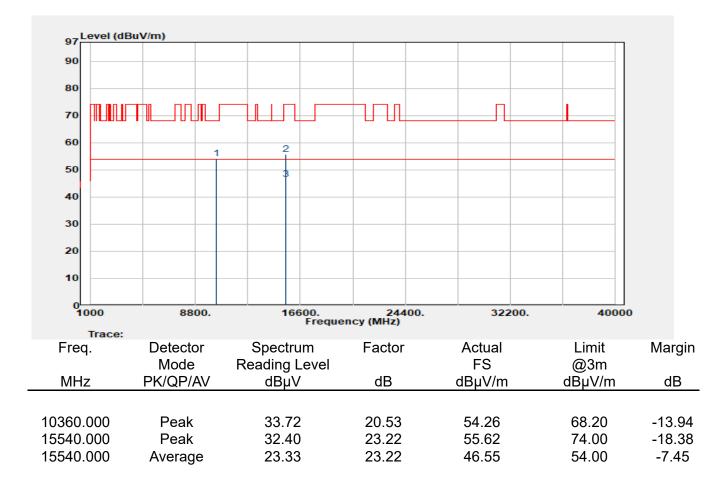
Report No.: ER/2021/A0048 Page: 36 of 137



7.7.2 Above 1GHz Worst-Case Data:

Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5180 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen



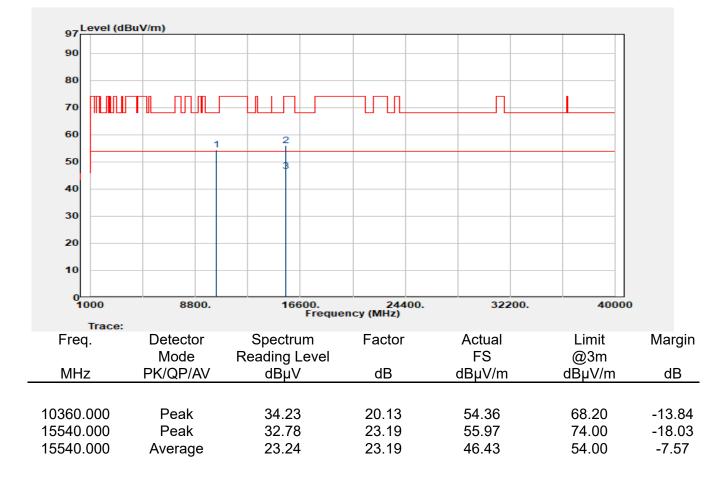
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Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5180 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

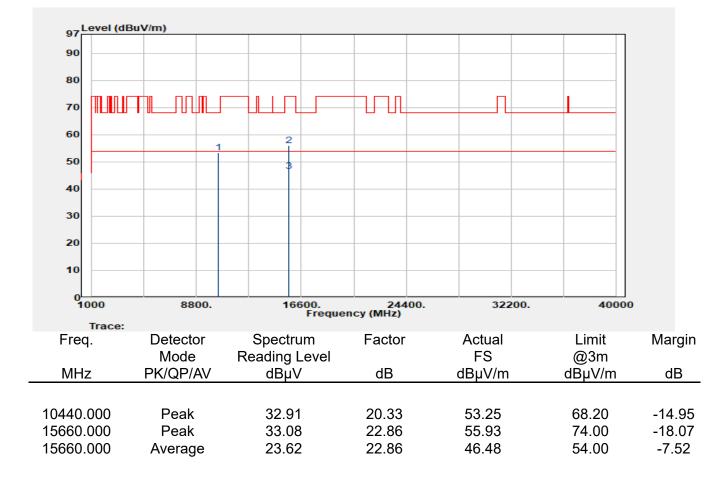
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5220 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5220 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5240 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

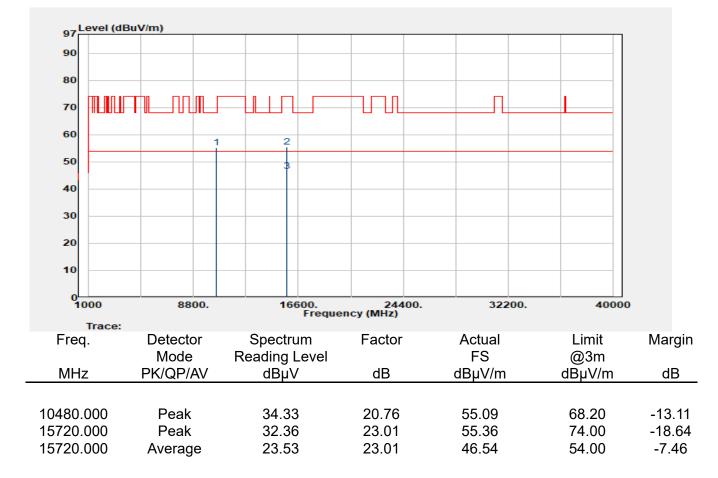
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5240 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5260 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

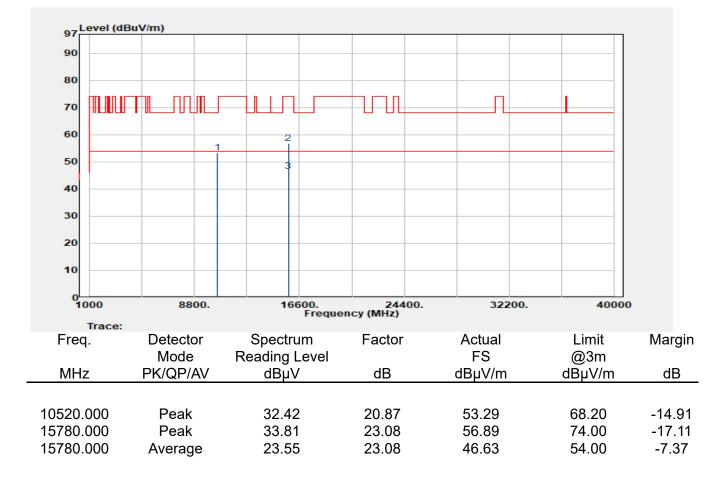
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5260 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

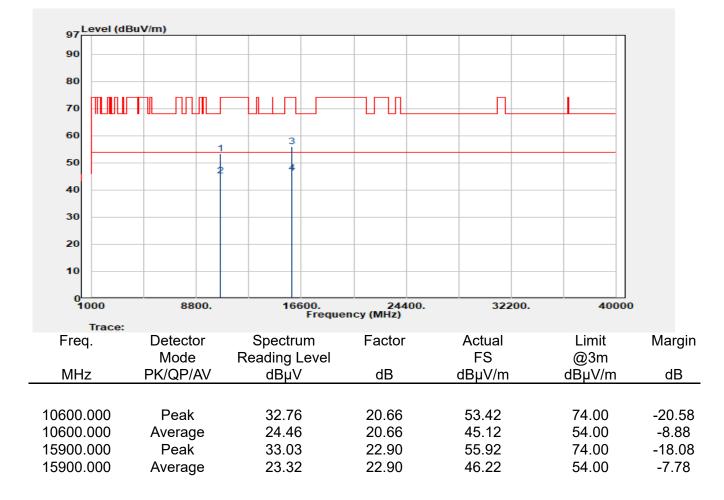
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

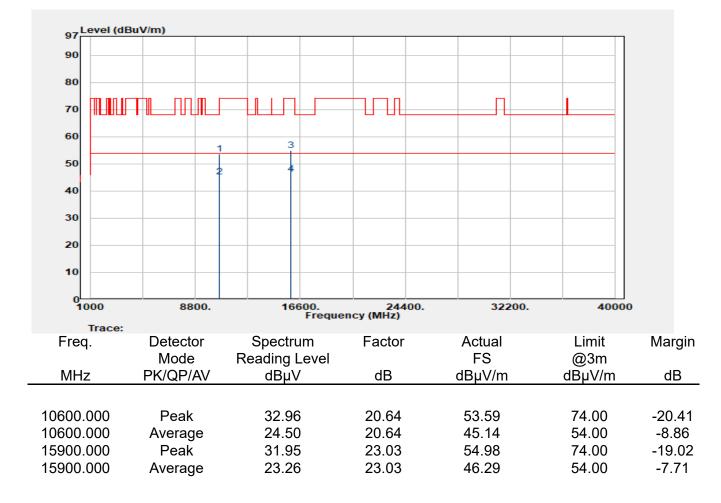
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

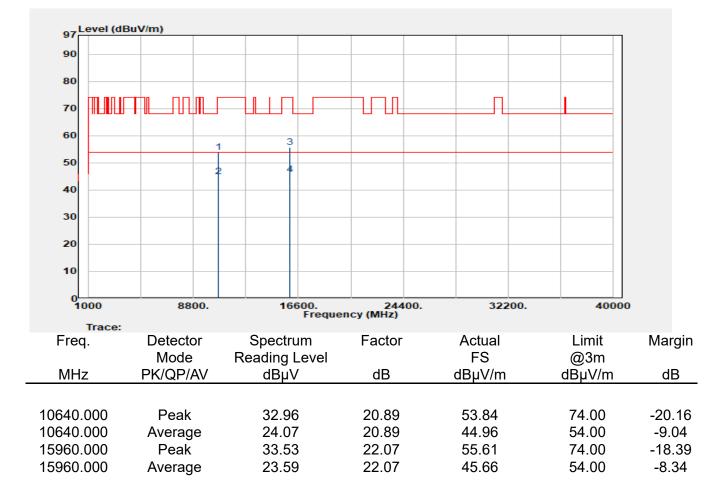
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5320 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

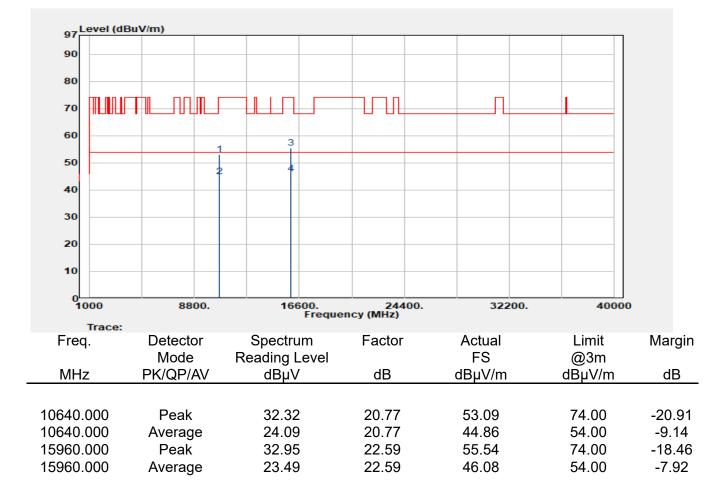
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5320 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

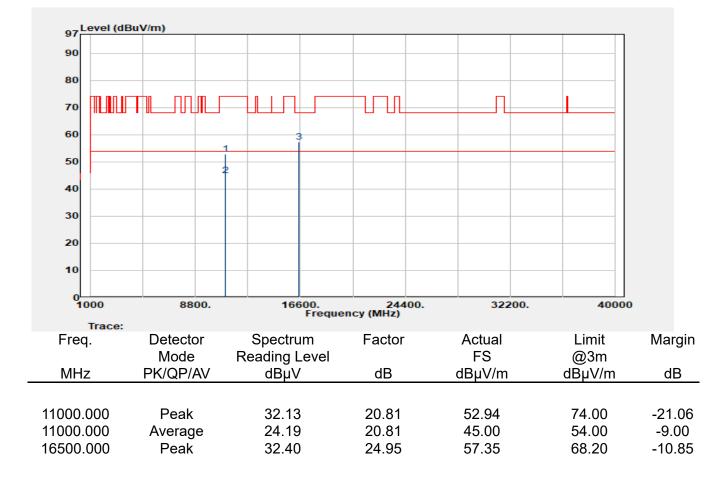
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5500 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

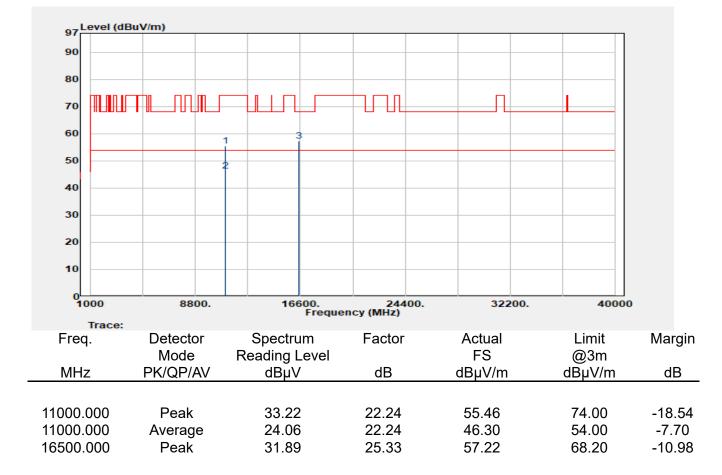
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5500 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

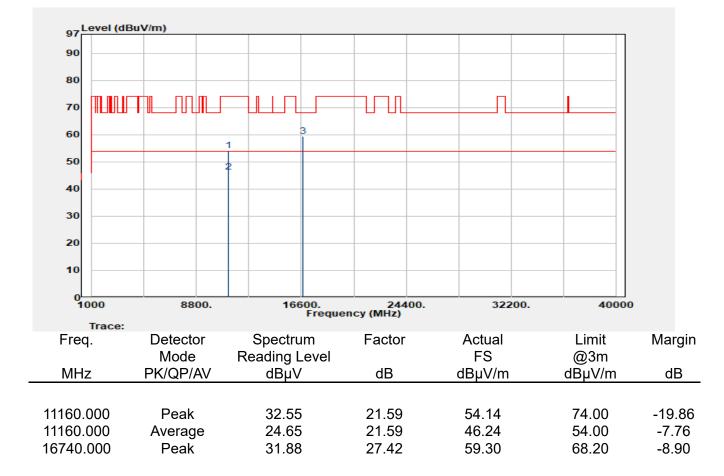
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

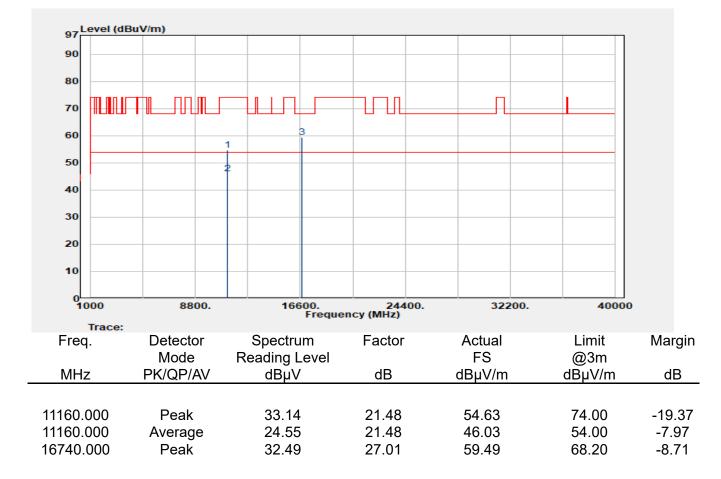
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

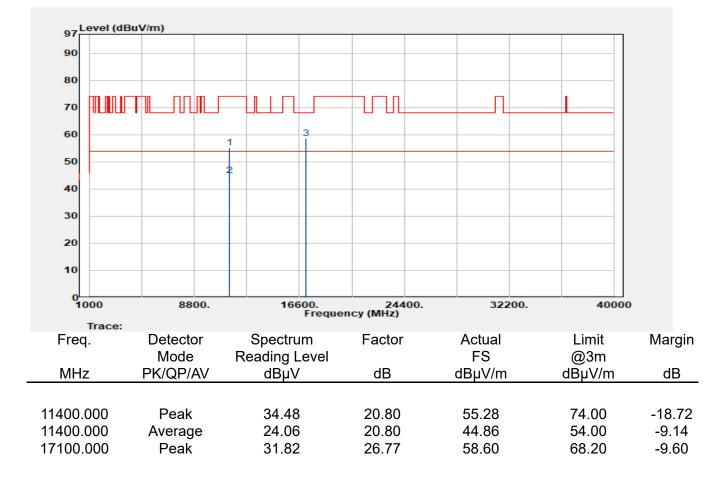
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5700 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

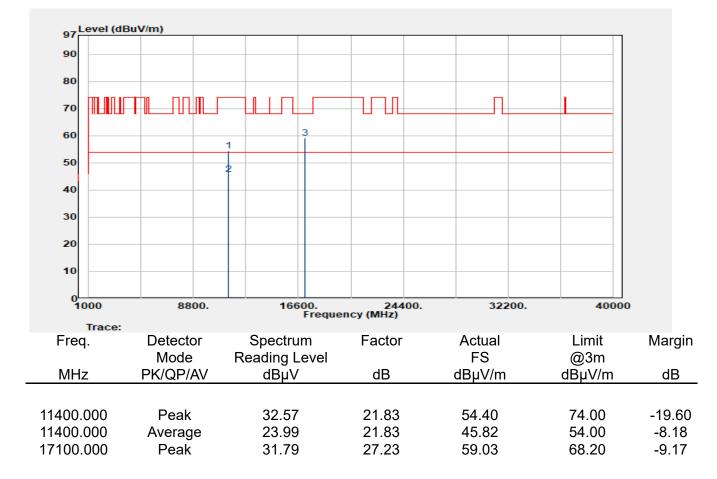
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5700 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5745 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

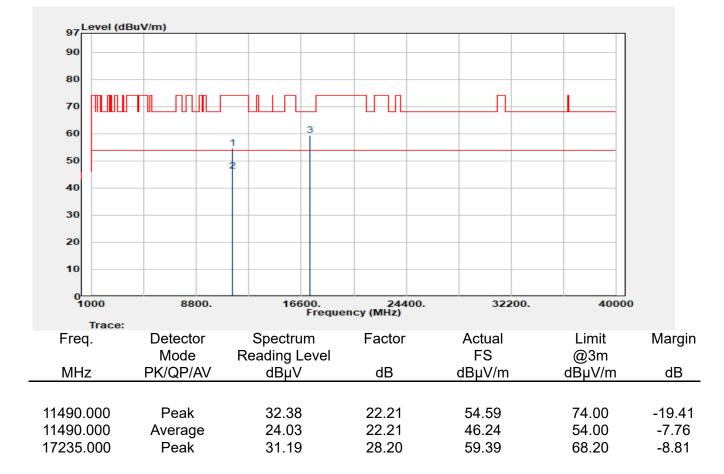
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5745 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

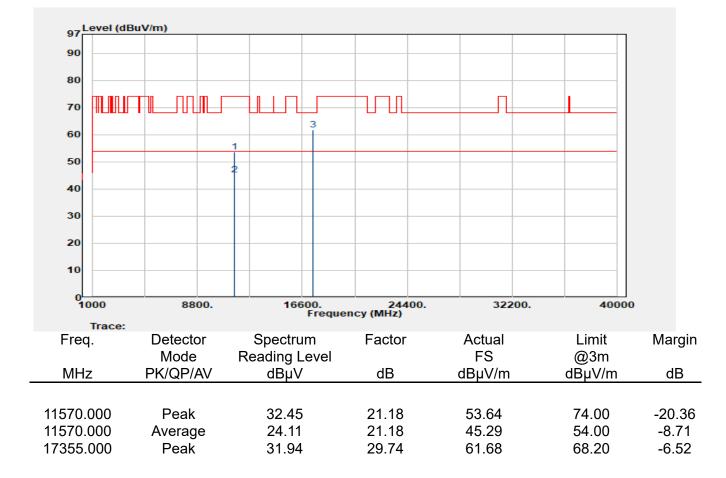
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

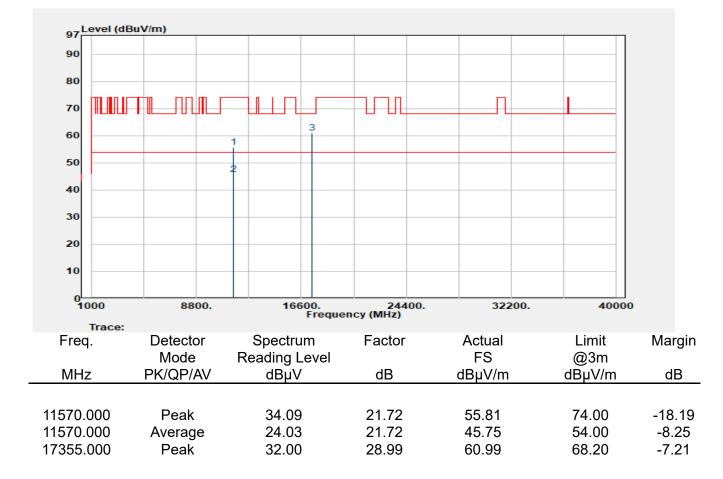
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

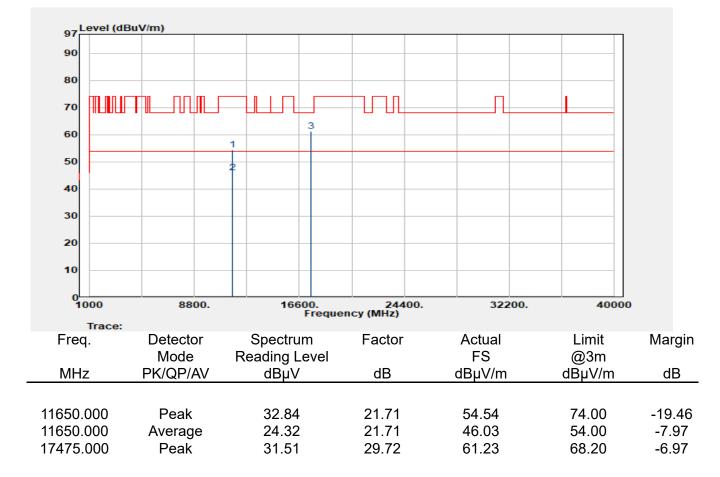
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5825 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

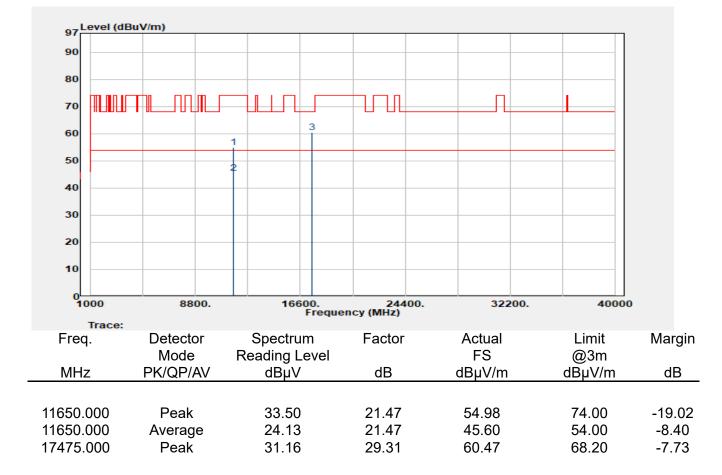
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5825 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

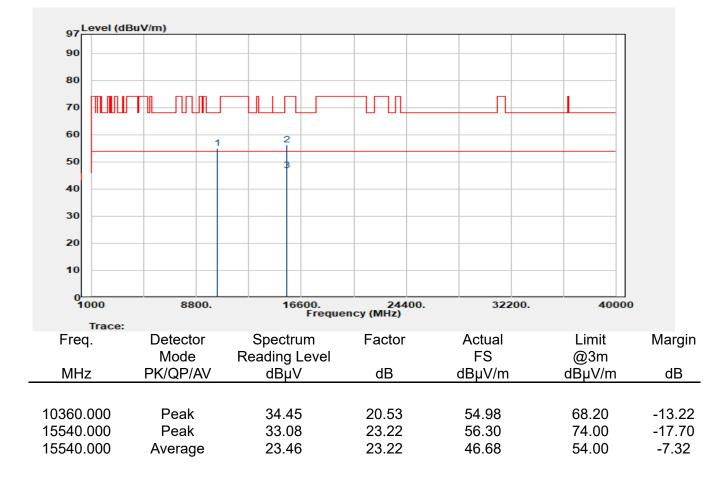
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5180 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5180 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5220 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5220 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

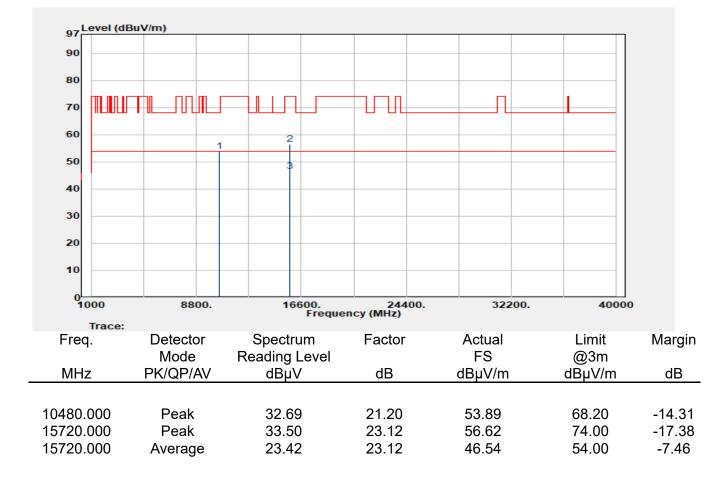
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5240 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

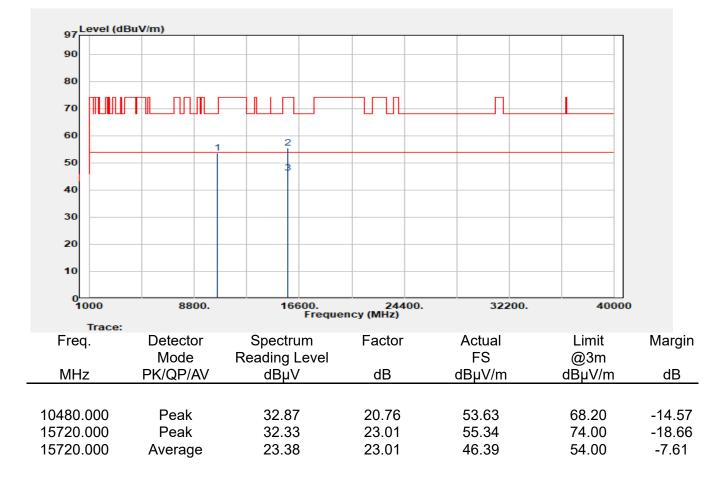
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5240 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

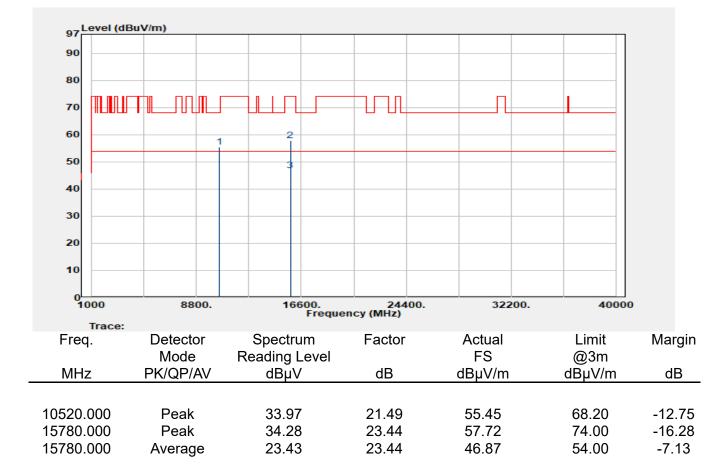
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5260 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

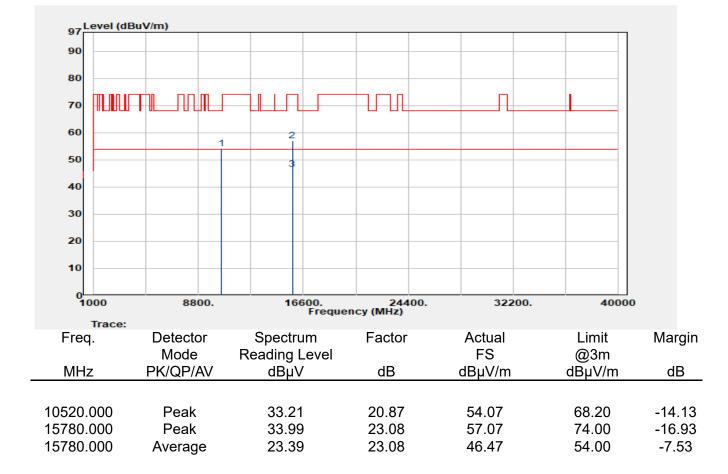
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5260 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

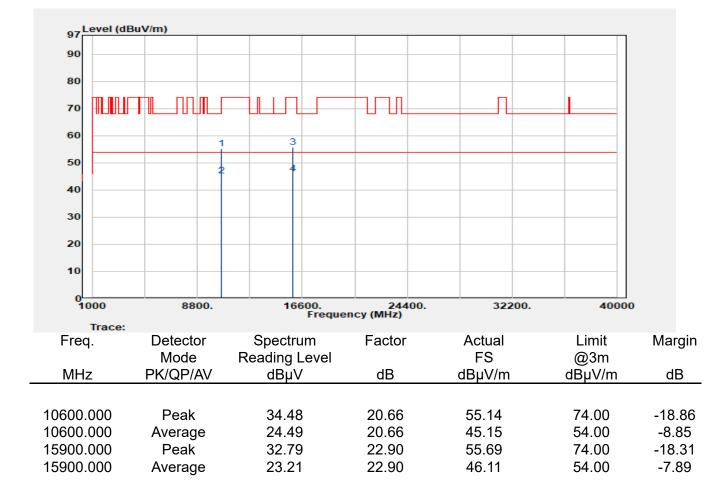
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

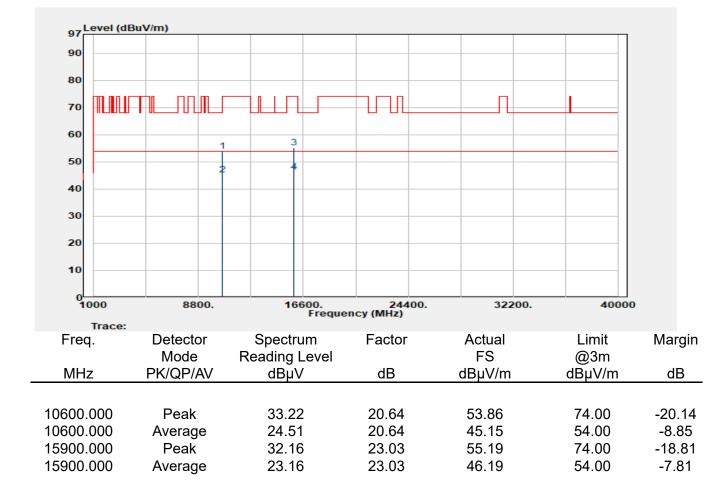
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5300 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

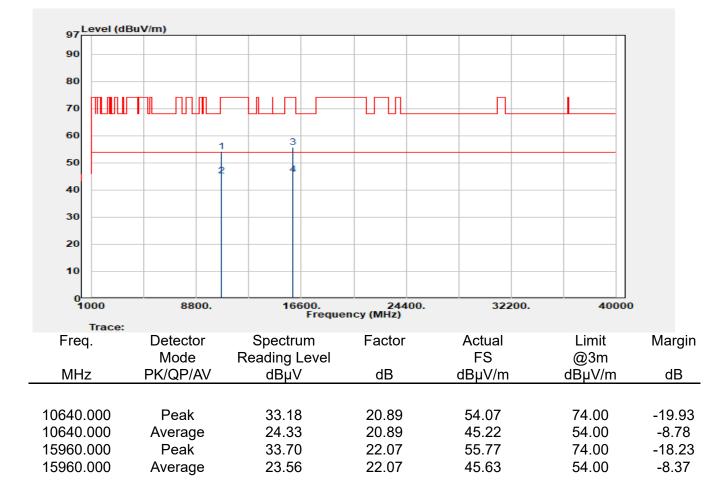
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5320 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

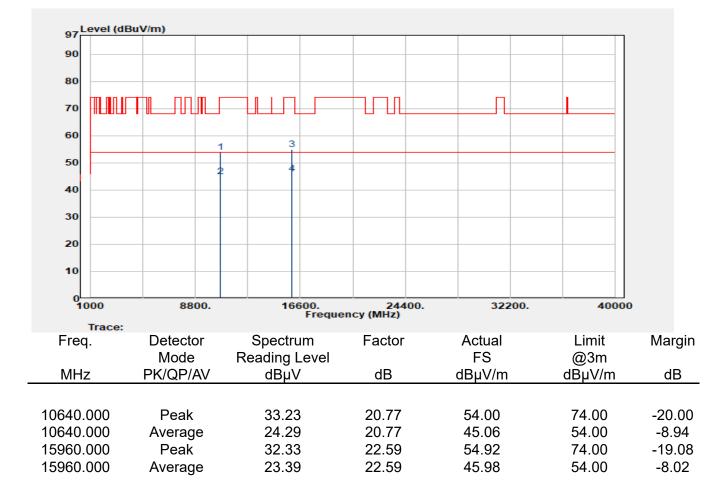
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5320 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

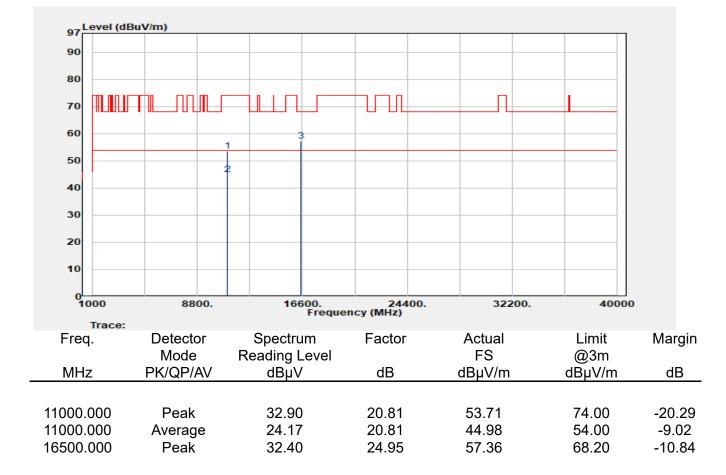
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5500 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

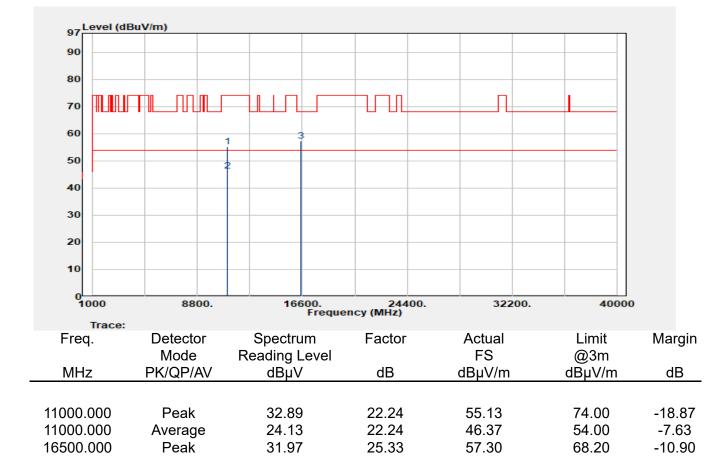
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5500 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

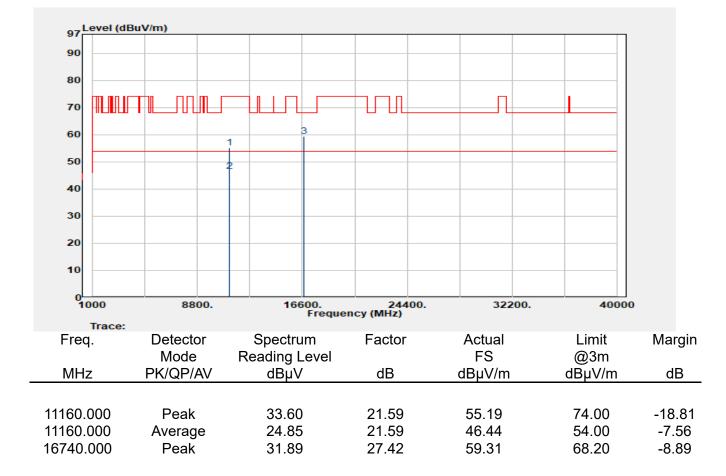
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

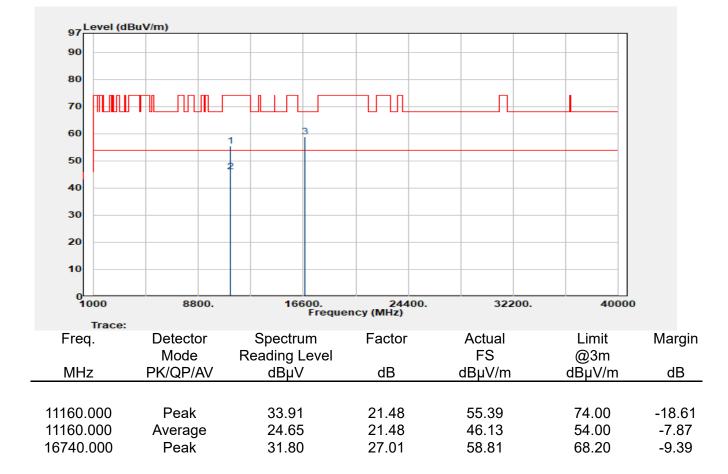
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5580 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

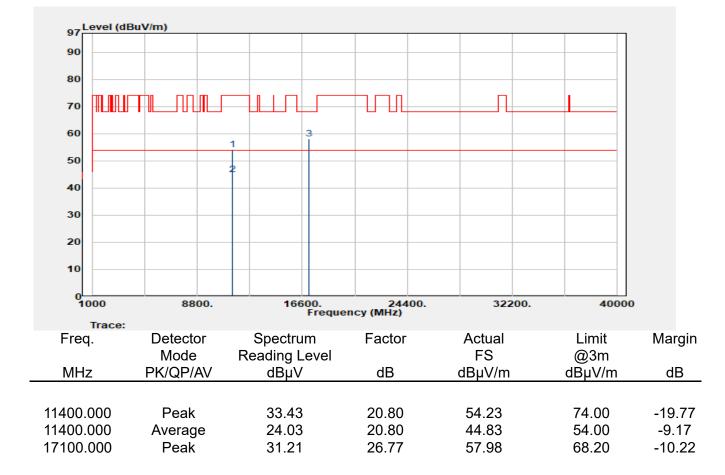
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5700 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

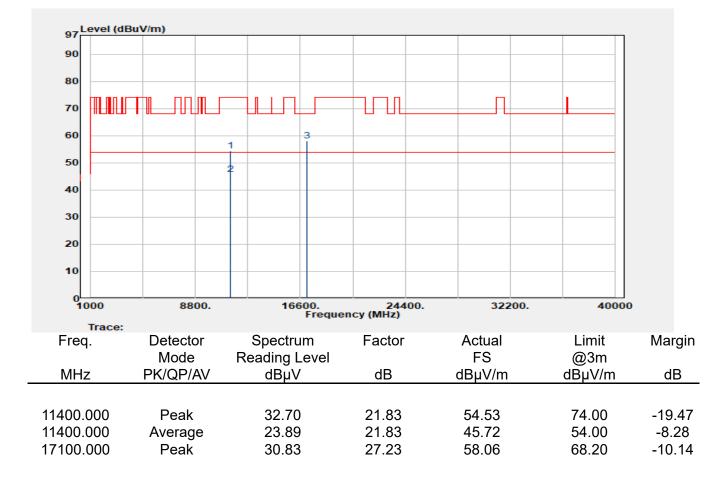
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5700 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

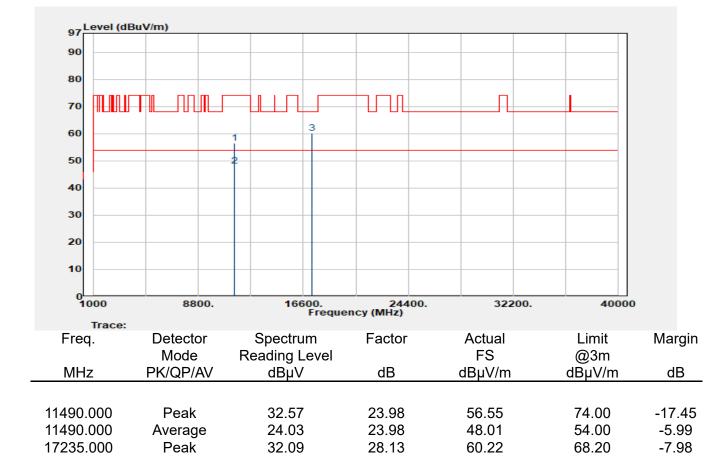
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5745 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

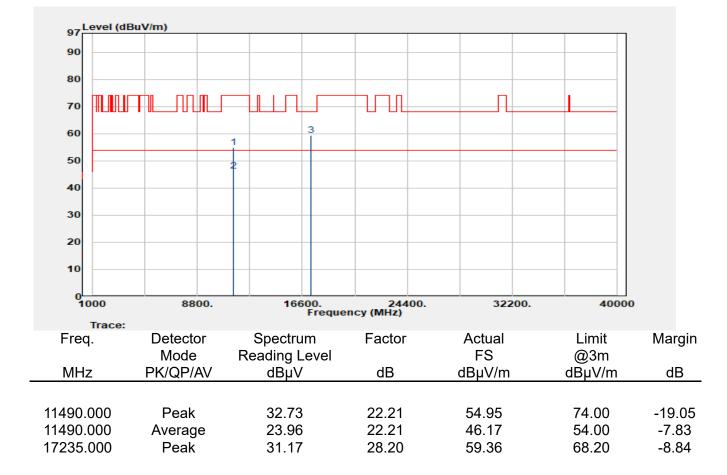
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5745 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

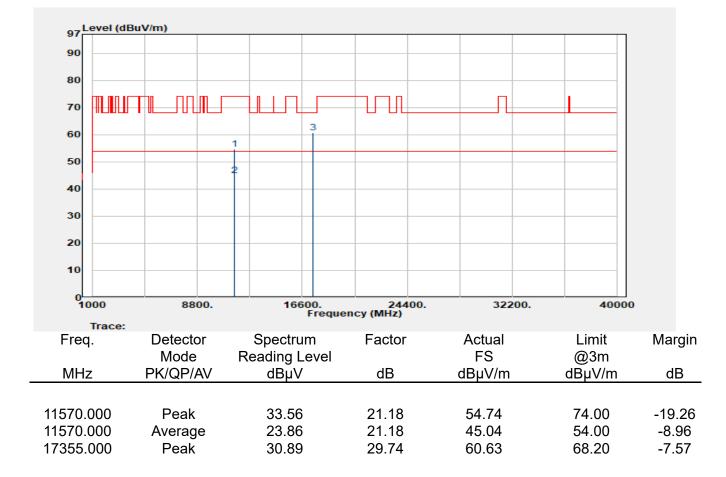
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

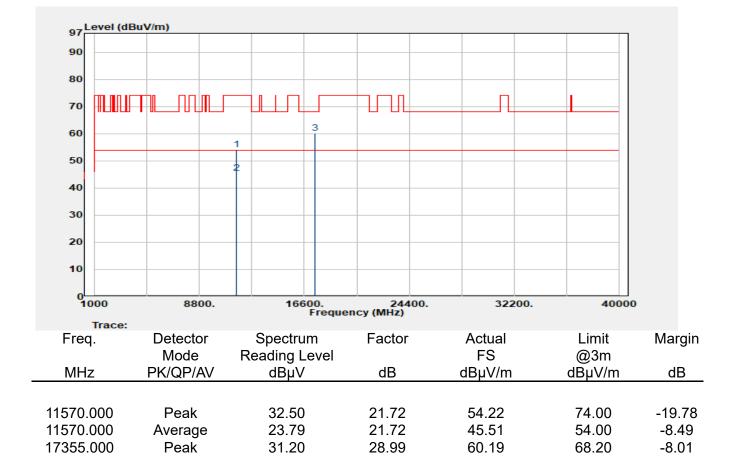
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5785 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

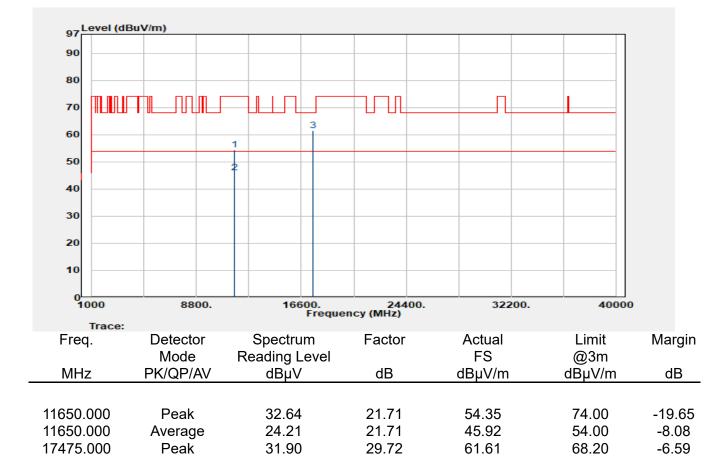
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5825 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

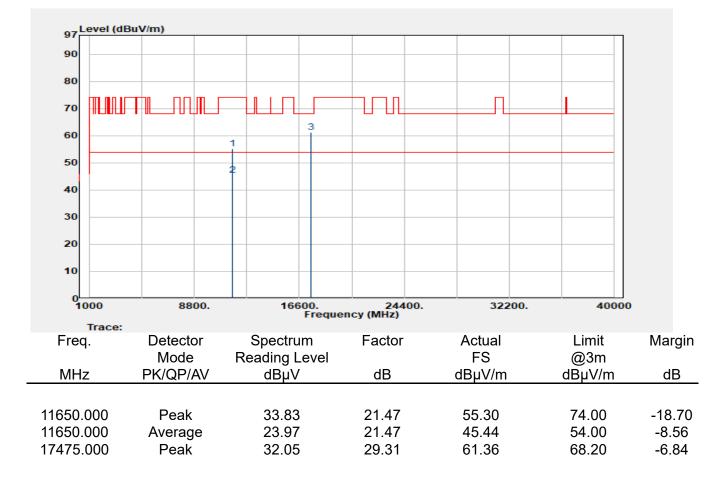
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5825 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

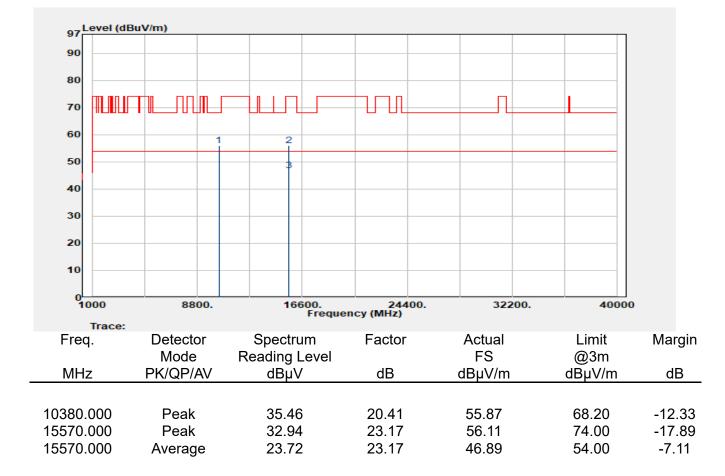
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5190 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

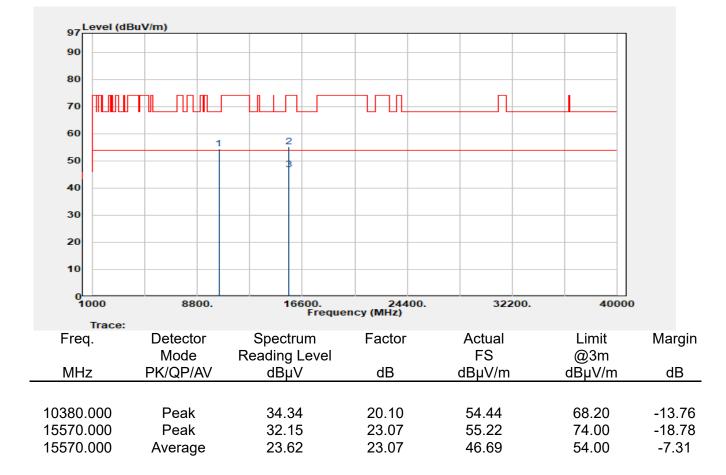
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5190 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

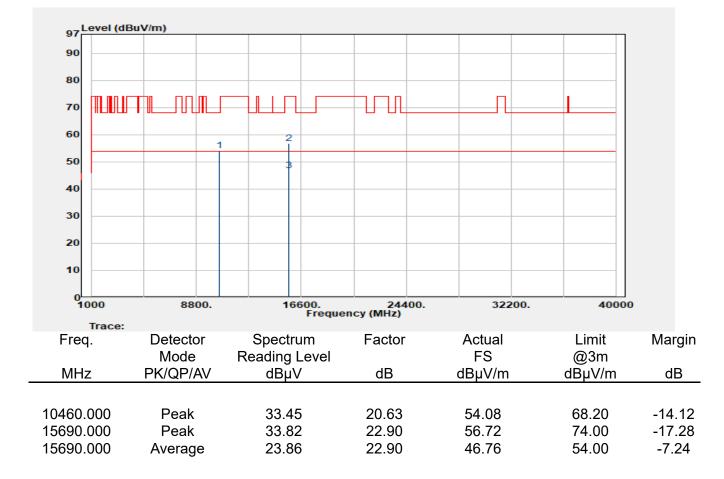
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5230 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

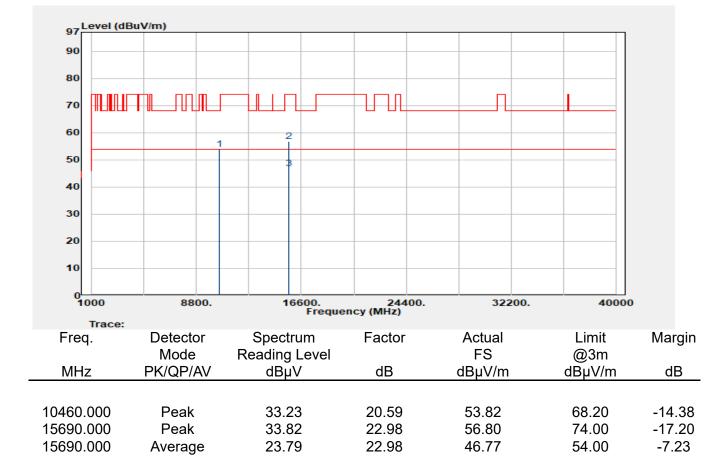
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5230 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

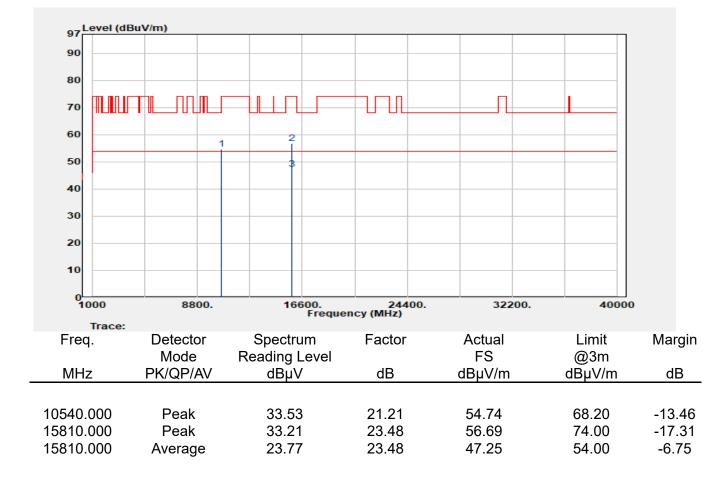
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5270 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

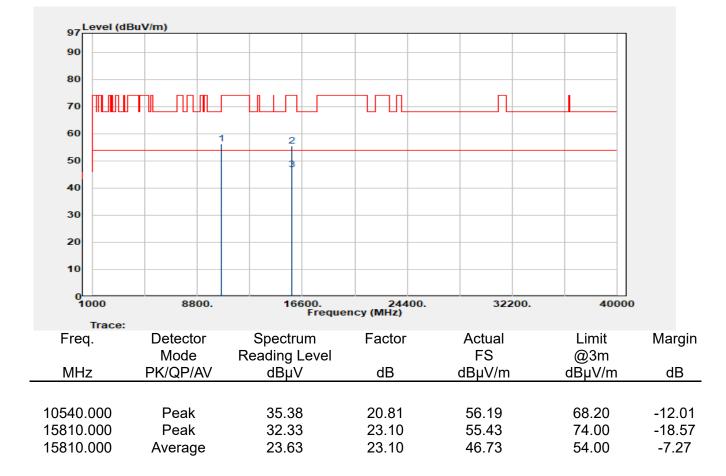
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5270 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

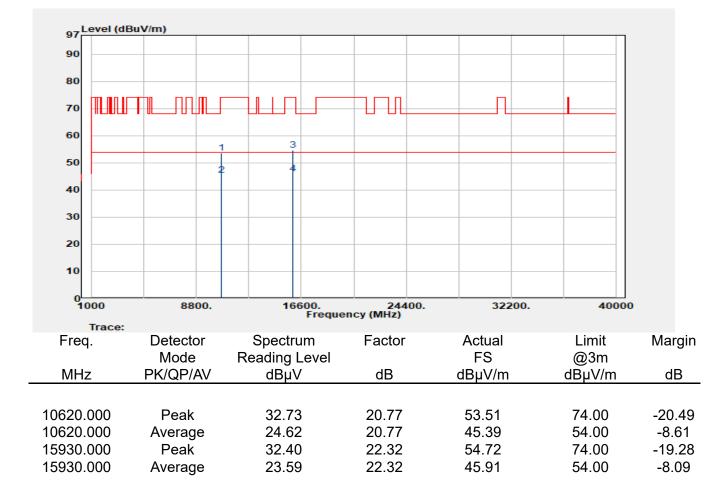
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5310 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

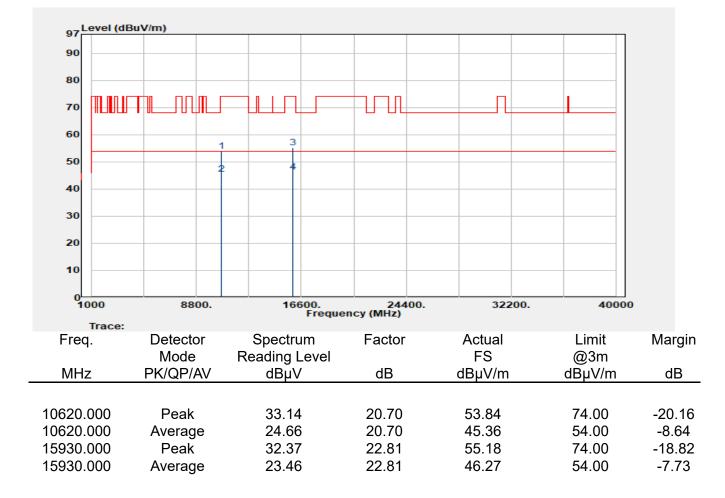
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5310 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

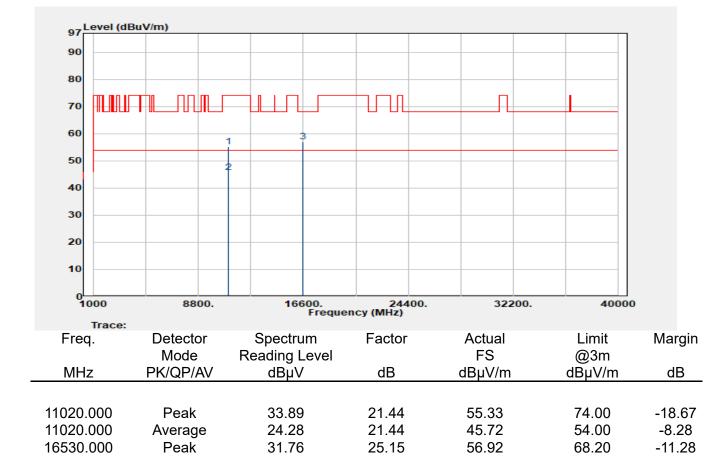
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5510 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

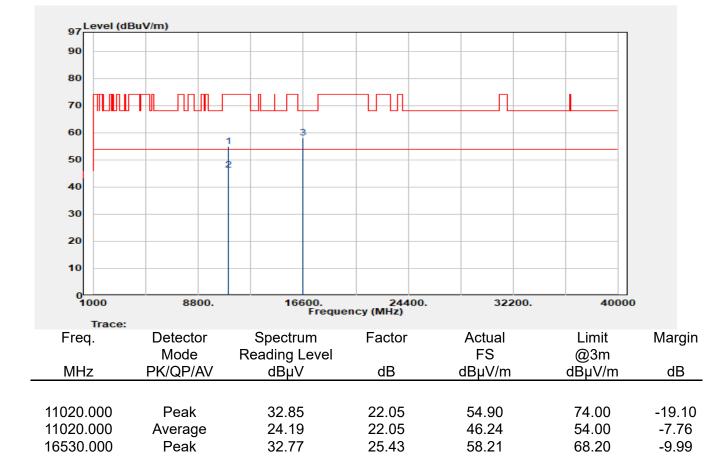
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5510 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

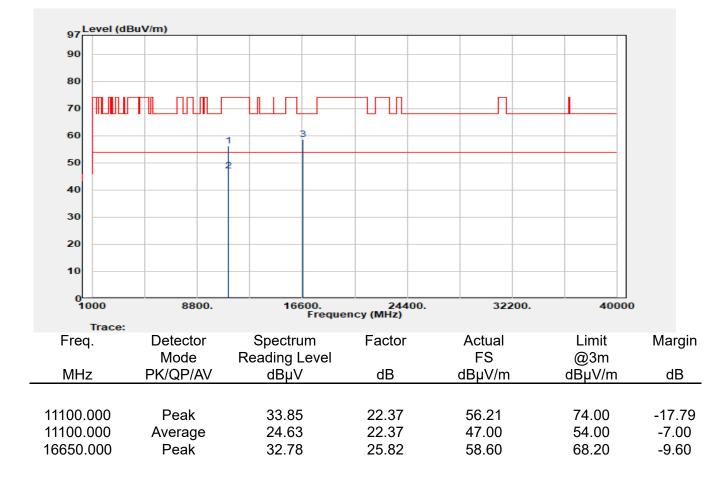
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5550 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

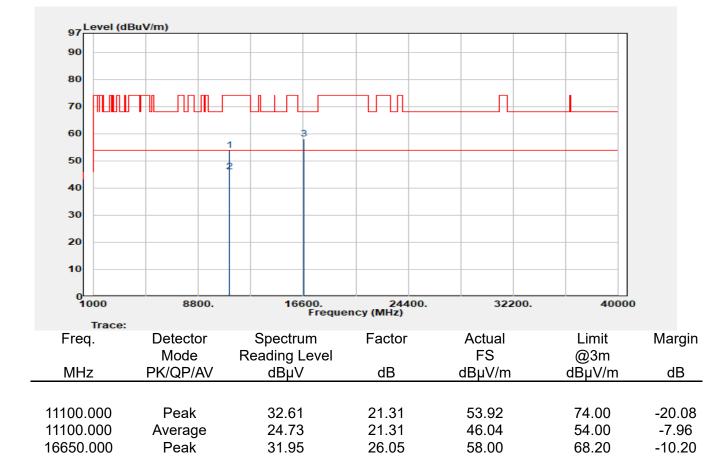
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5550 MHz
Test Mode	:Tx CH Mid
EUT Pol	:H Plane

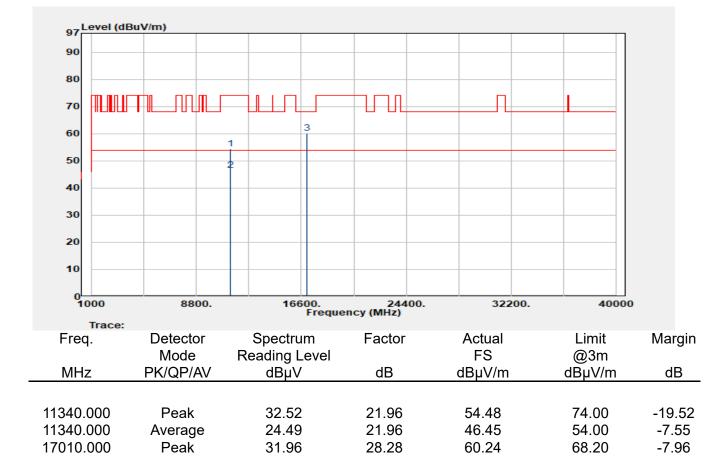
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5670 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

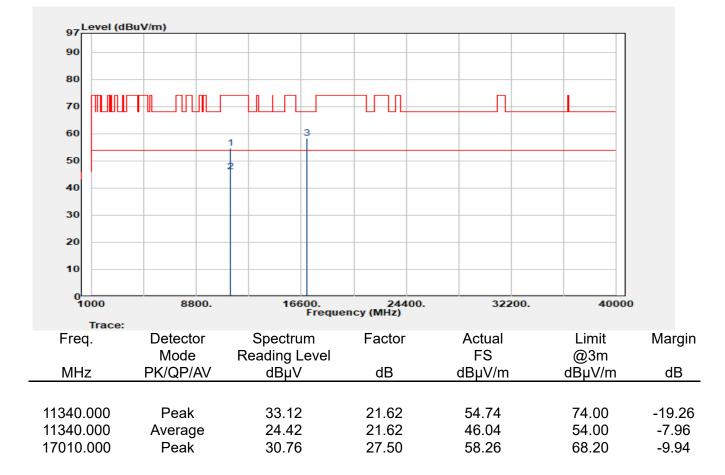
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5670 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

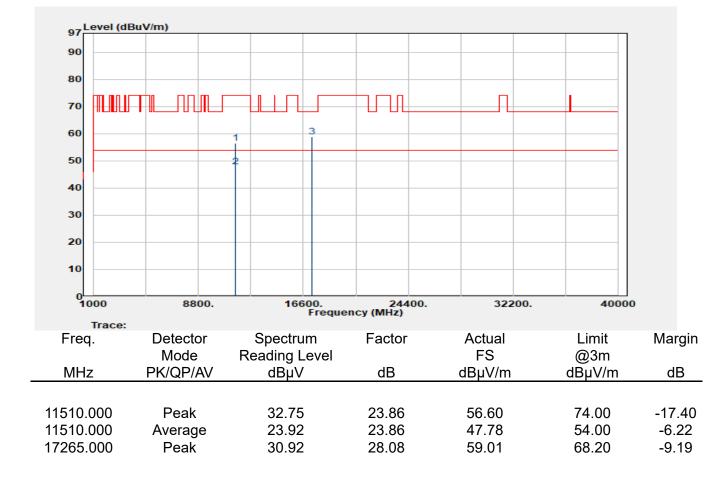
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5755 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

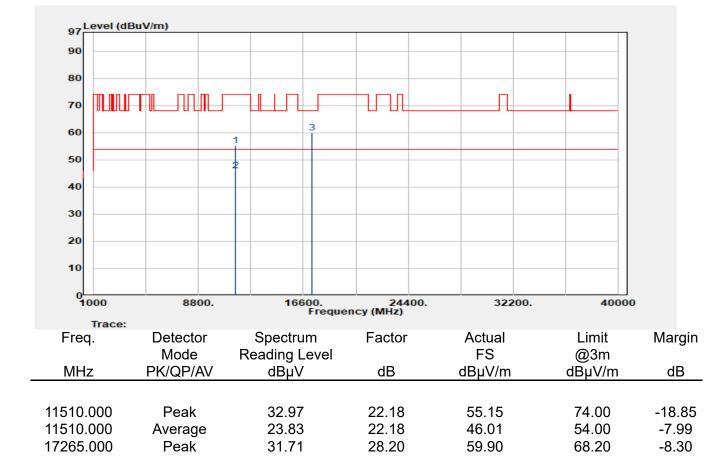
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5755 MHz
Test Mode	:Tx CH Low
EUT Pol	:H Plane

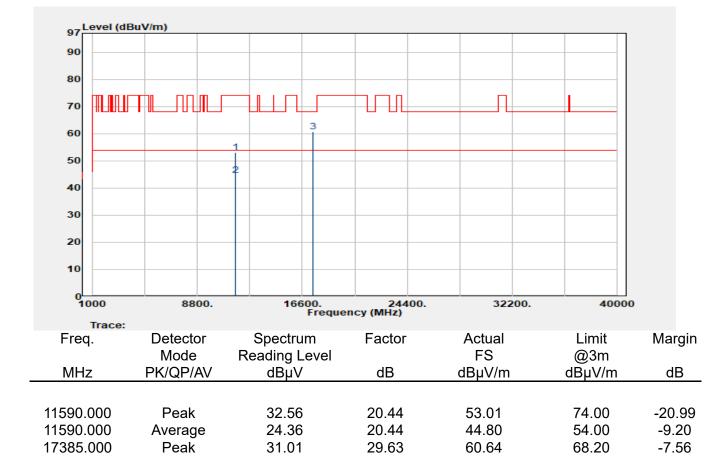
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5795 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

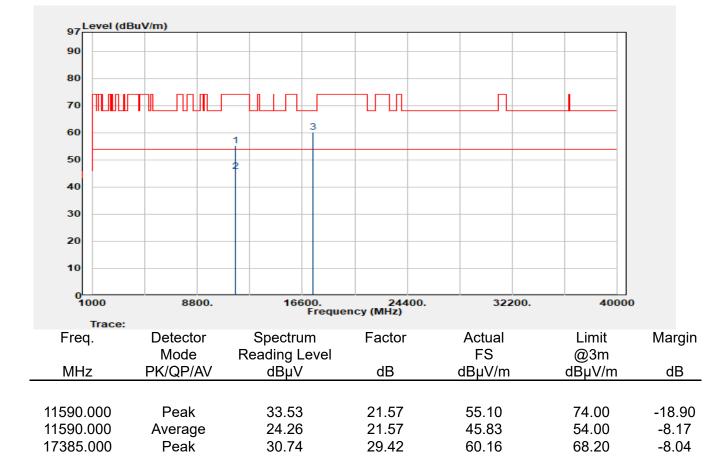
Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5795 MHz
Test Mode	:Tx CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-07
Temp./Humi.	:26.2/60
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



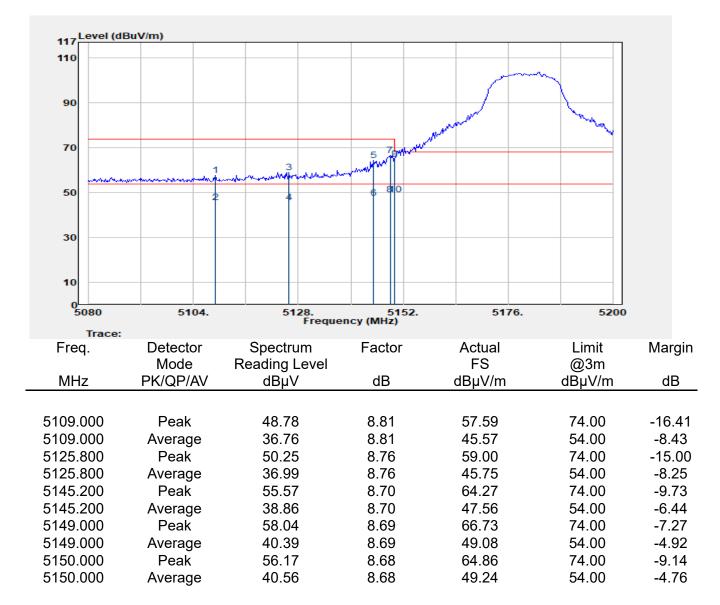
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7.7.3 Band edge falling to restricted band

Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5180 MHz
Test Mode	:Bandedge CH Low
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen



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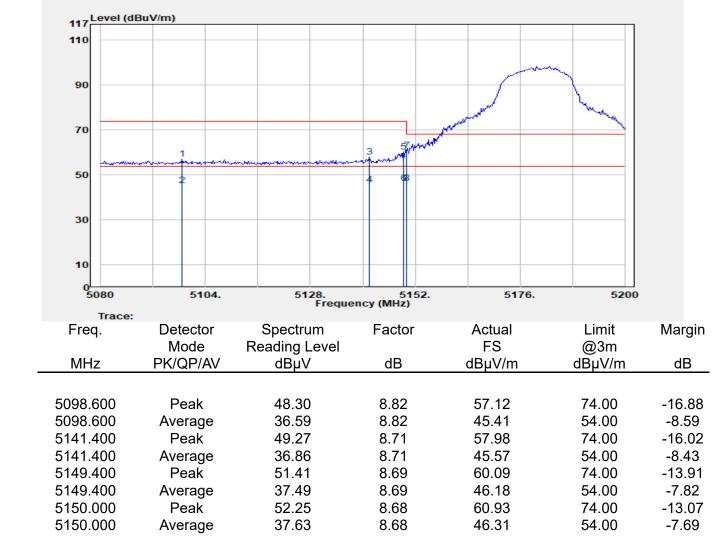
:SAC 3

:25.9/65 :Horizontal :Ricky Chen

:2021-10-09



Report Number	:ER-2021-A0048	Test Site
Operation Mode	:802.11a	Test Date
Test Frequency	:5180 MHz	Temp./Humi.
Test Mode	:Bandedge CH Low	Antenna Pol.
EUT Pol	:H Plane	Engineer



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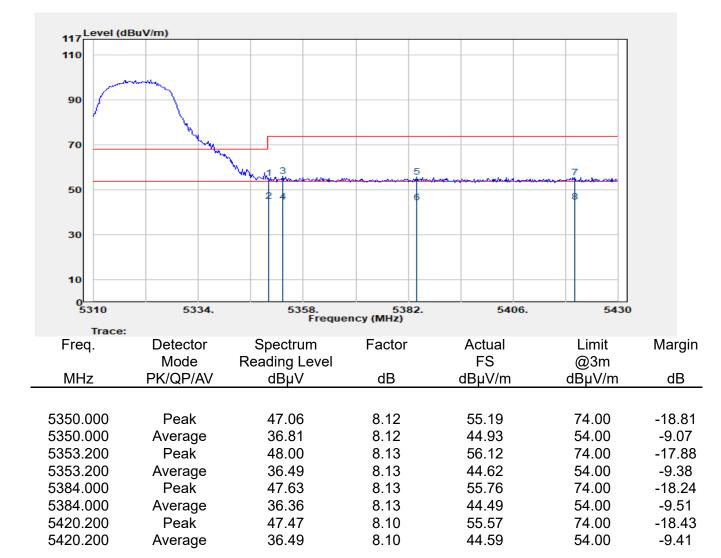
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Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5320 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

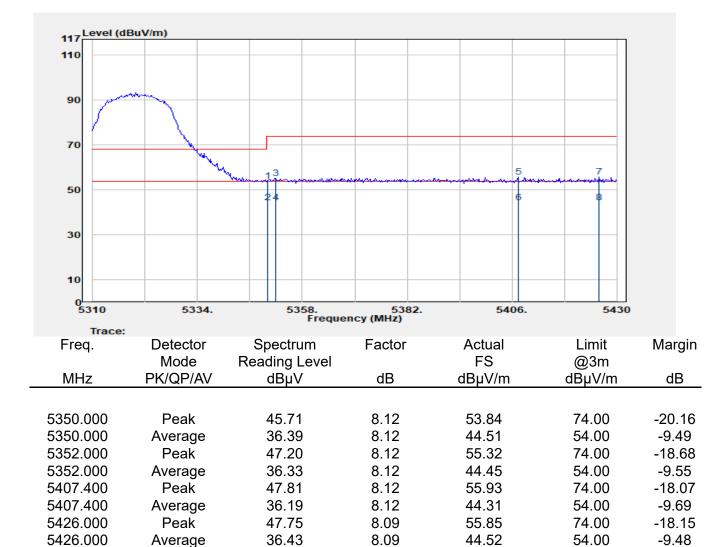
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5320 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



:SAC 3

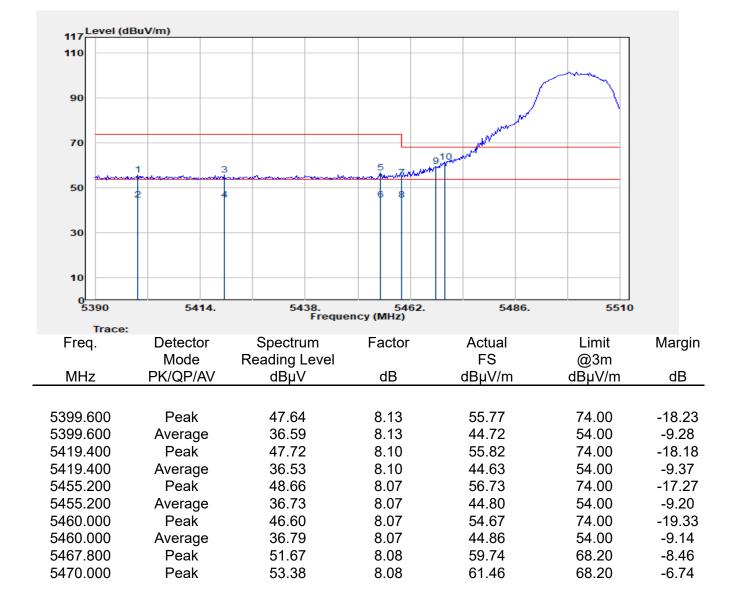
:25.9/65 :Vertical

:2021-10-09

:Ricky Chen



Report Number	:ER-2021-A0048	Test Site
Operation Mode	:802.11a	Test Date
Test Frequency	:5500 MHz	Temp./Humi.
Test Mode	:Bandedge CH Low	Antenna Pol.
EUT Pol	:H Plane	Engineer

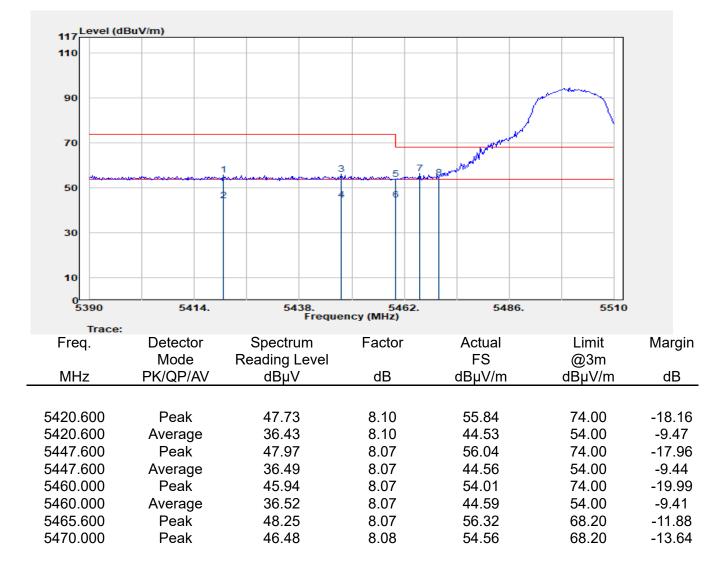


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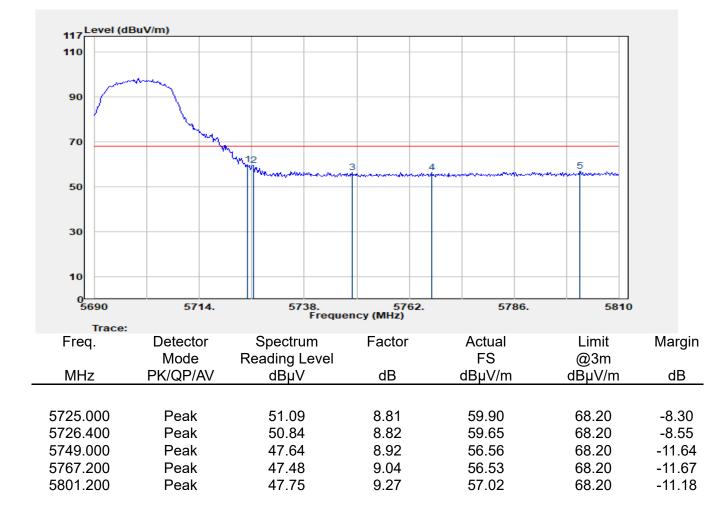
Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11a	Test Date	:2021-10-09
Test Frequency	:5500 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5700 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

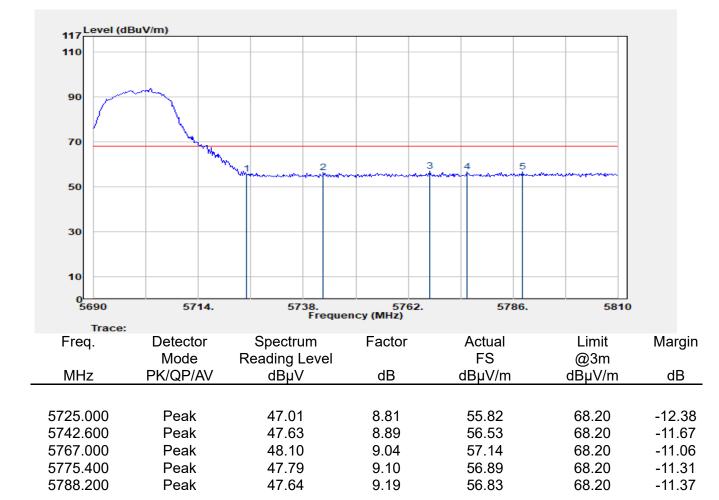
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





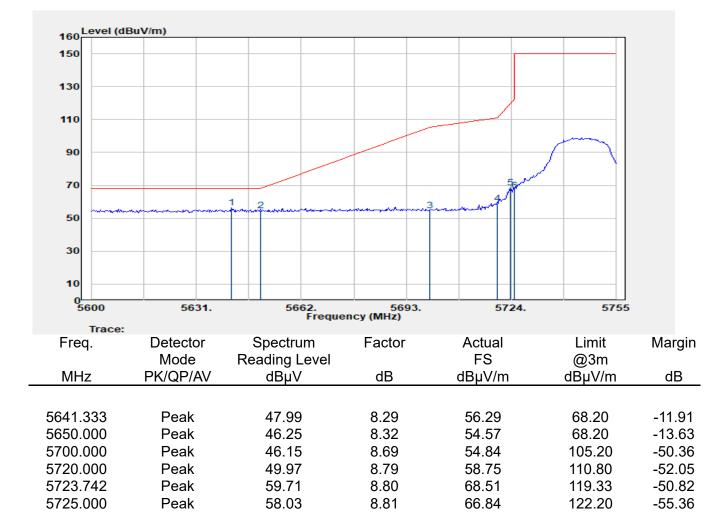
Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5700 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



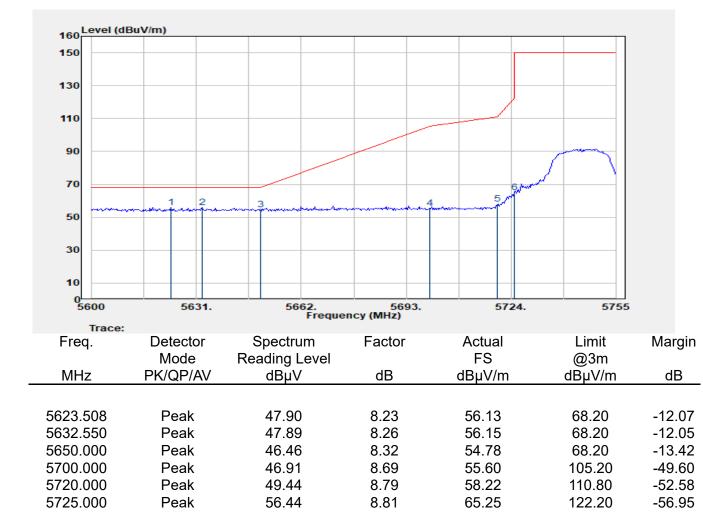


Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11a	Test Date	:2021-10-09
Test Frequency	:5745 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen





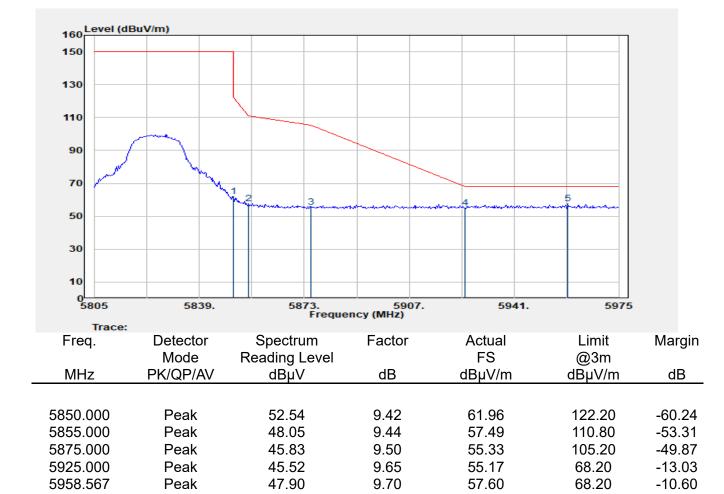
Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11a	Test Date	:2021-10-09
Test Frequency	:5745 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5825 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

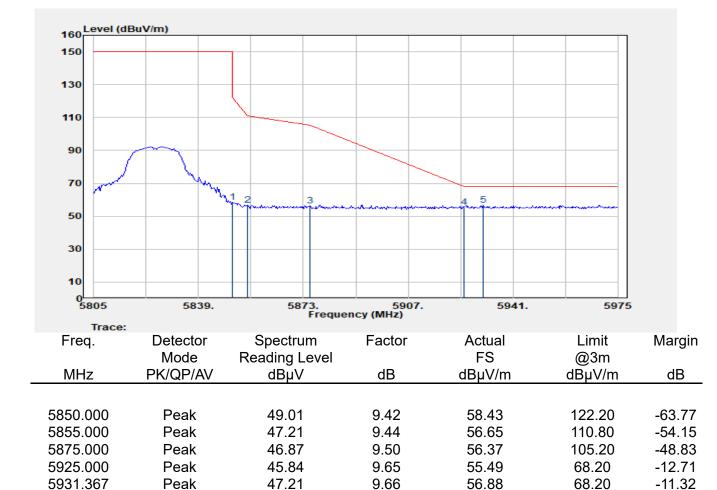
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11a
Test Frequency	:5825 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

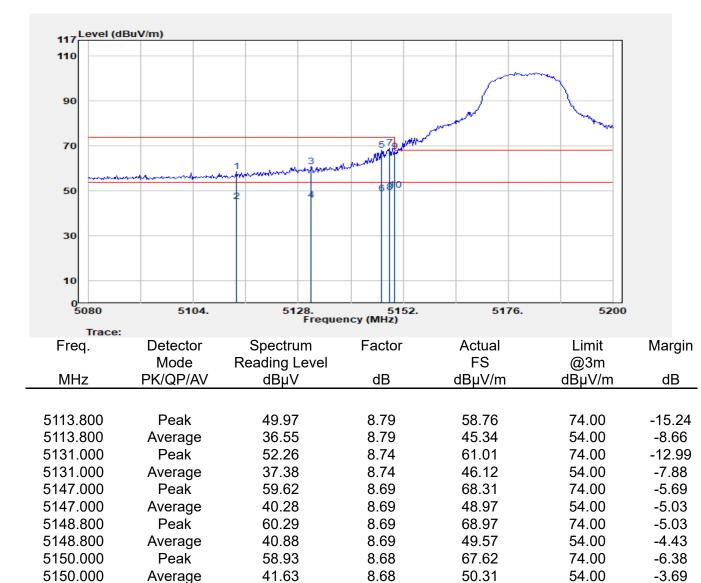
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048	Test S
Operation Mode	:802.11n20	Test [
Test Frequency	:5180 MHz	Temp
Test Mode	:Bandedge CH Low	Anter
EUT Pol	:H Plane	Engin

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen



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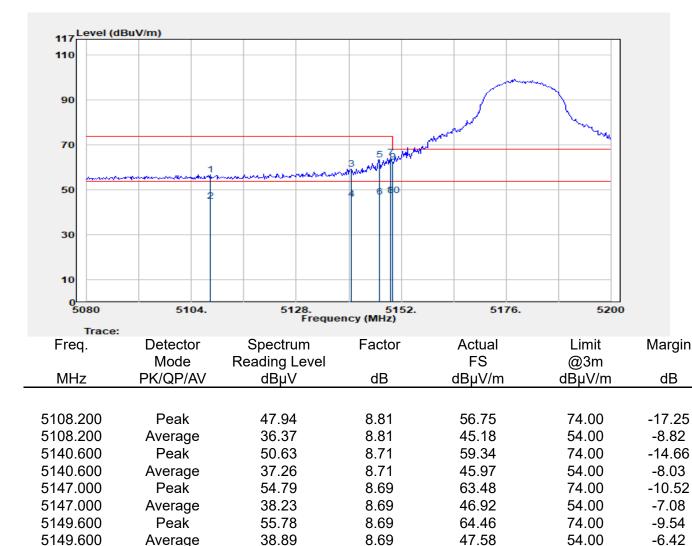


5150.000

5150.000

Report Number	:ER-2021-A0048	Test S
Operation Mode	:802.11n20	Test D
Test Frequency	:5180 MHz	Temp
Test Mode	:Bandedge CH Low	Anten
EUT Pol	:H Plane	Engin

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



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53.76

38.89

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Average

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8.68

8.68

62.44

47.57

74.00

54.00

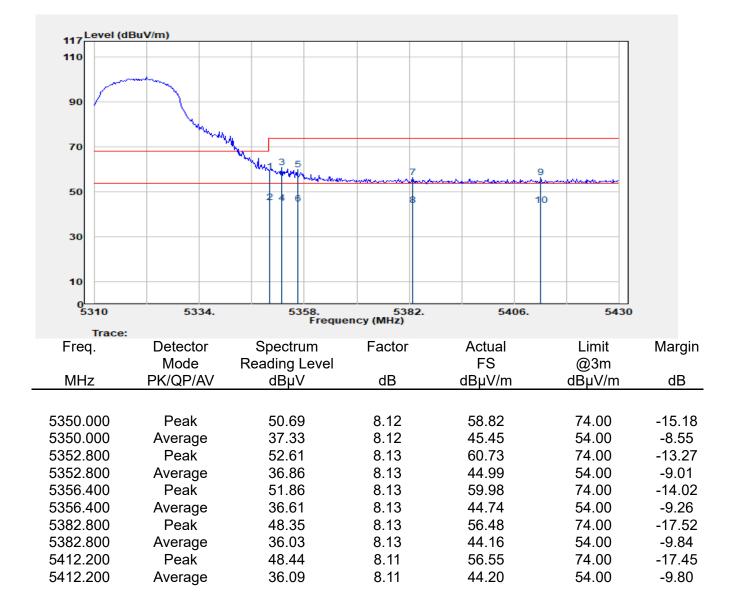
-11.56

-6.43



Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5320 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen

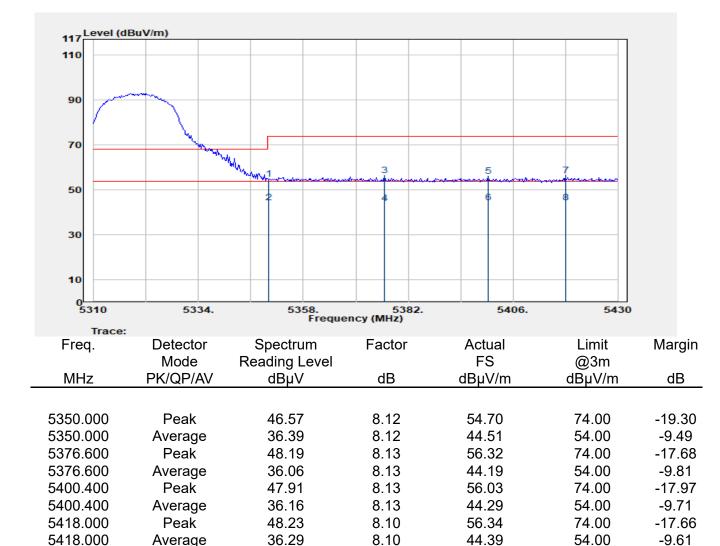


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Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5320 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

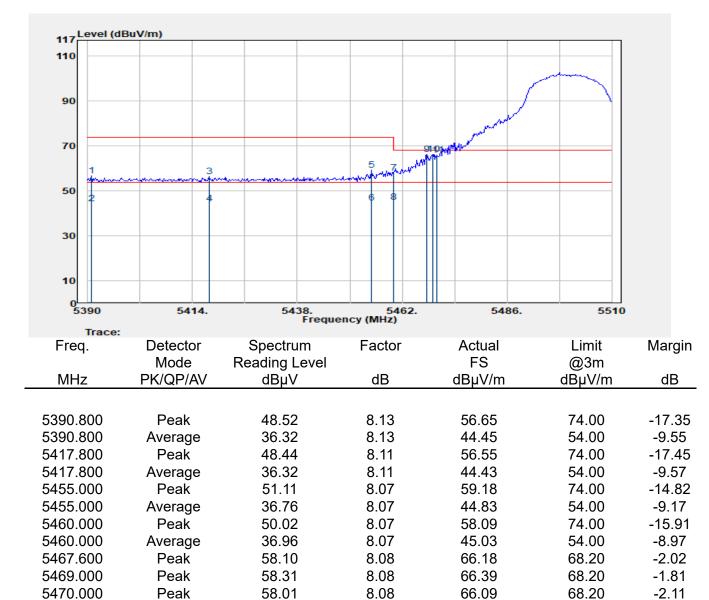
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048	Test
Operation Mode	:802.11n20	Test
Test Frequency	:5500 MHz	Tem
Test Mode	:Bandedge CH Low	Ante
EUT Pol	:H Plane	Engi

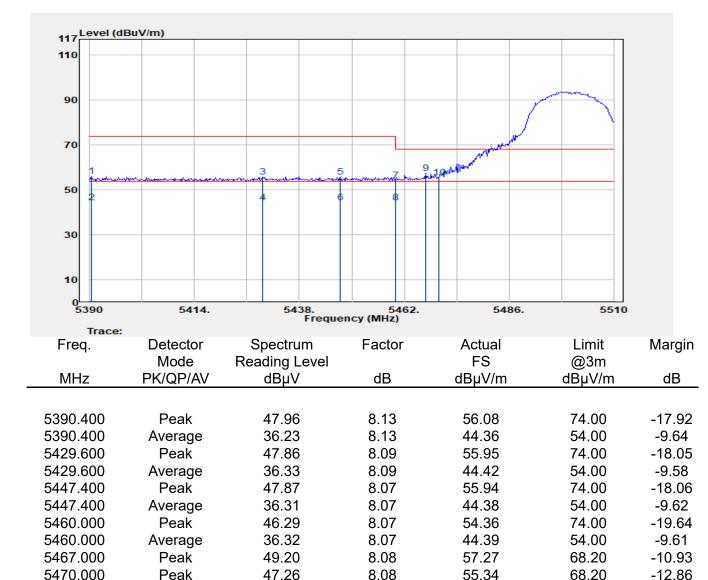
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048	Test Site
Operation Mode	:802.11n20	Test Date
Test Frequency	:5500 MHz	Temp./Hu
Test Mode	:Bandedge CH Low	Antenna
EUT Pol	:H Plane	Engineer

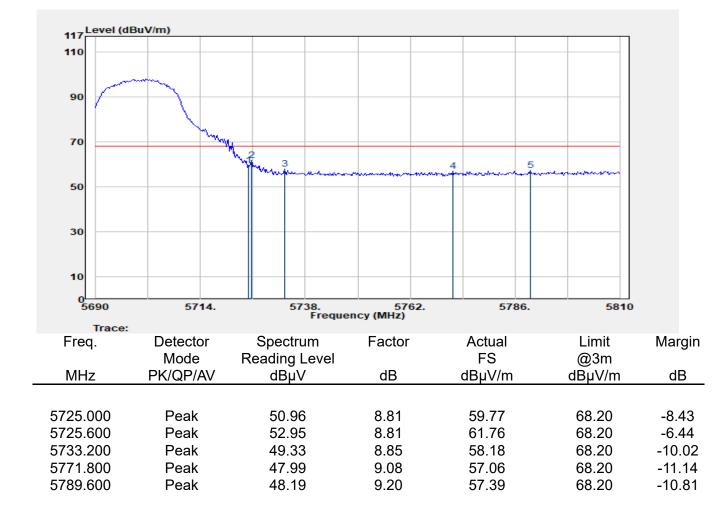
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5700 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

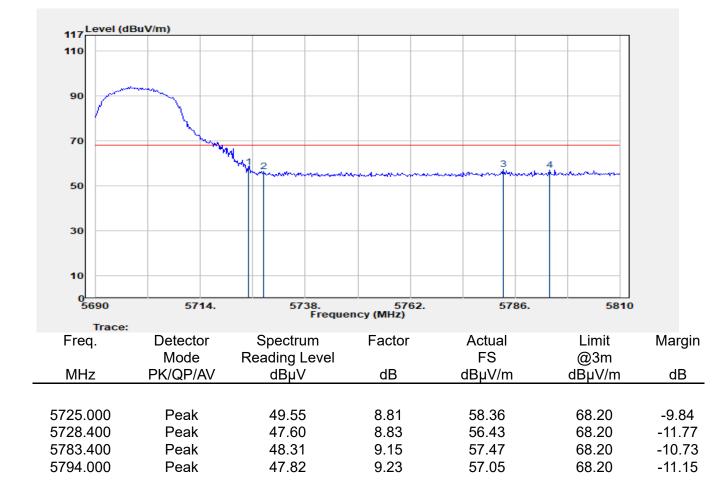
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





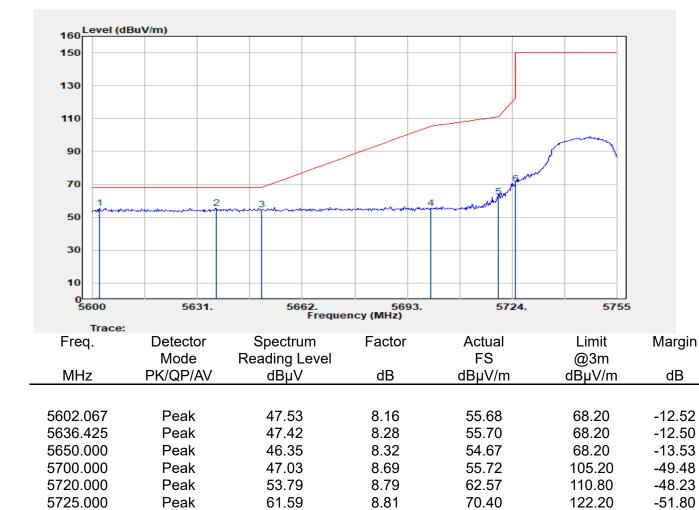
Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5700 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



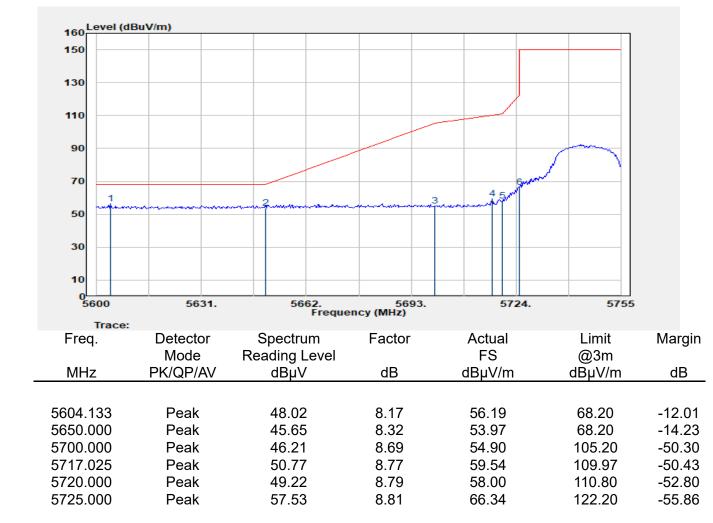


Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n20	Test Date	:2021-10-09
Test Frequency	:5745 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen





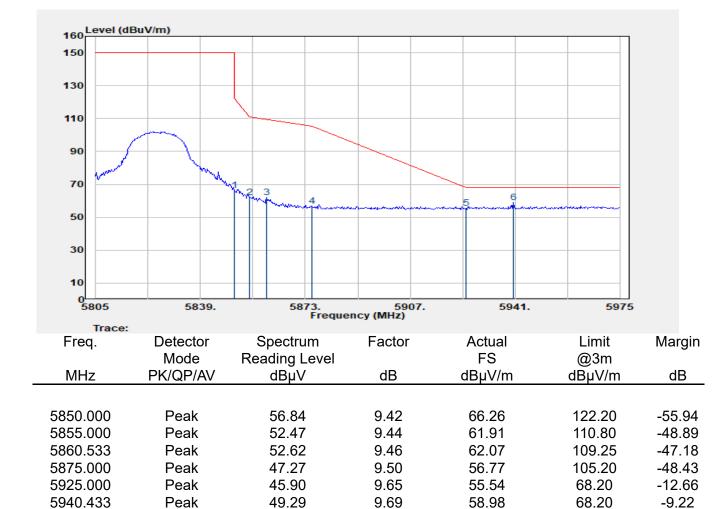
Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n20	Test Date	:2021-10-09
Test Frequency	:5745 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5825 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

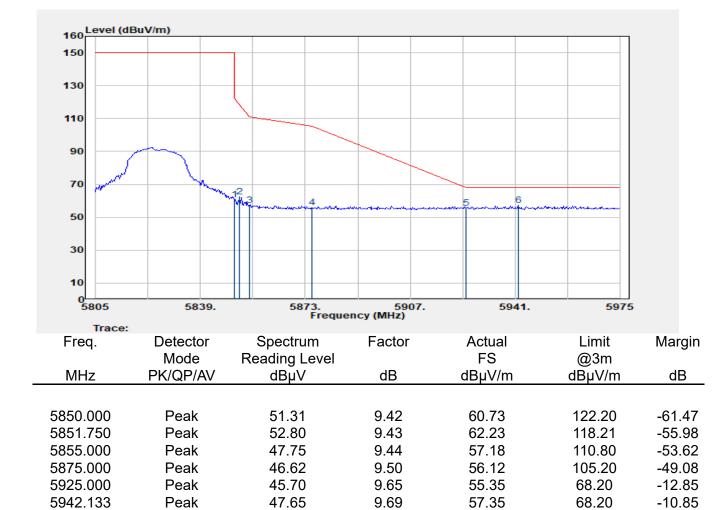
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





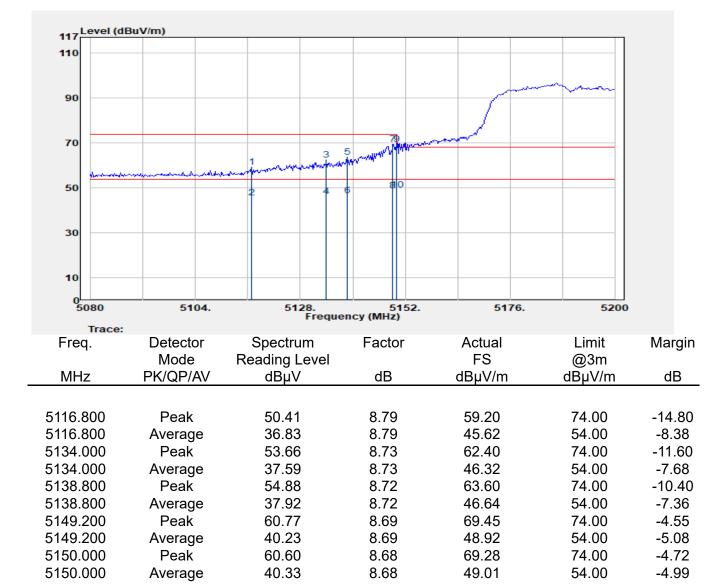
Report Number	:ER-2021-A0048
Operation Mode	:802.11n20
Test Frequency	:5825 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n40	Test Date	:2021-10-09
Test Frequency	:5190 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen



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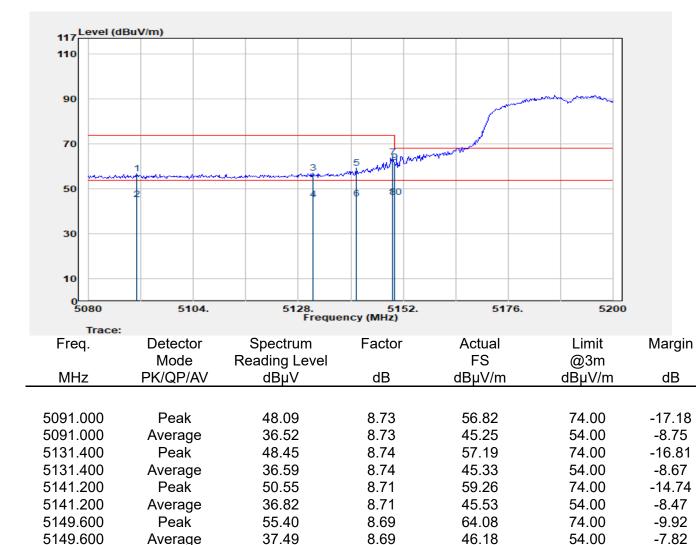


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5150.000

Report Number	:ER-2021-A0048	Test Site
Operation Mode	:802.11n40	Test Date
Test Frequency	:5190 MHz	Temp./Humi.
Test Mode	:Bandedge CH Low	Antenna Pol.
EUT Pol	:H Plane	Engineer

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



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53.23

37.56

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Average

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8.68

8.68

61.91

46.24

74.00

54.00

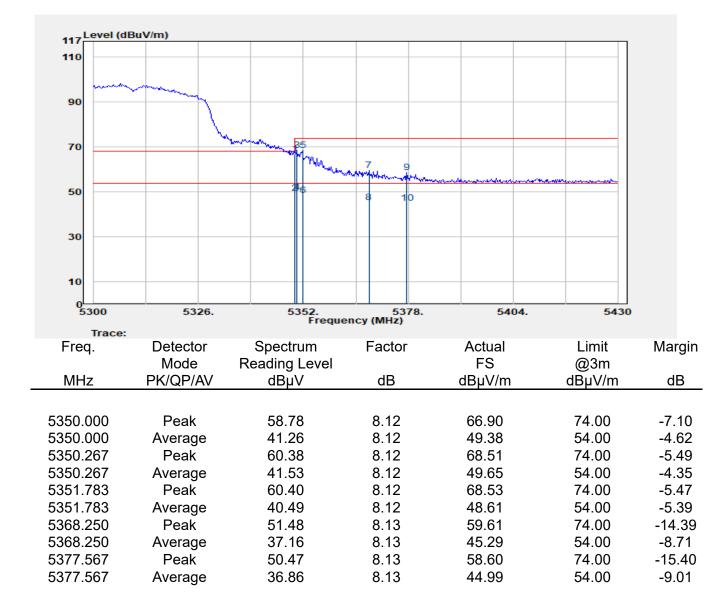
-12.09

-7.76



Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5310 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen



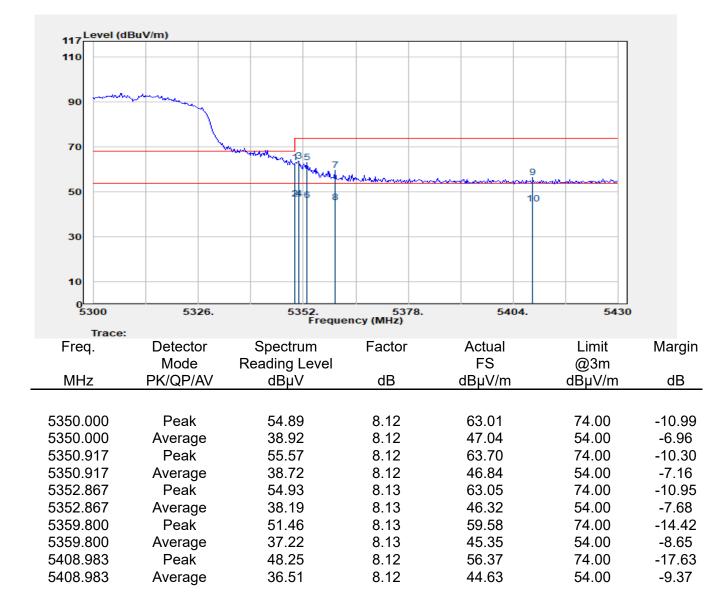
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Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5310 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

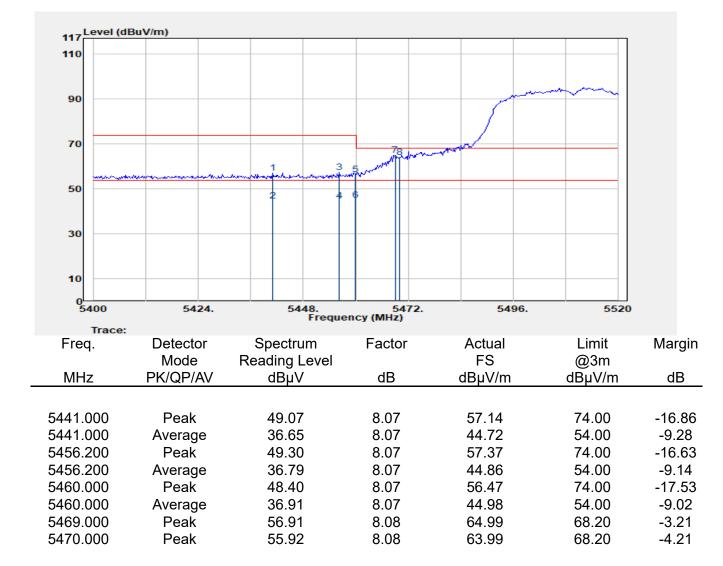
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



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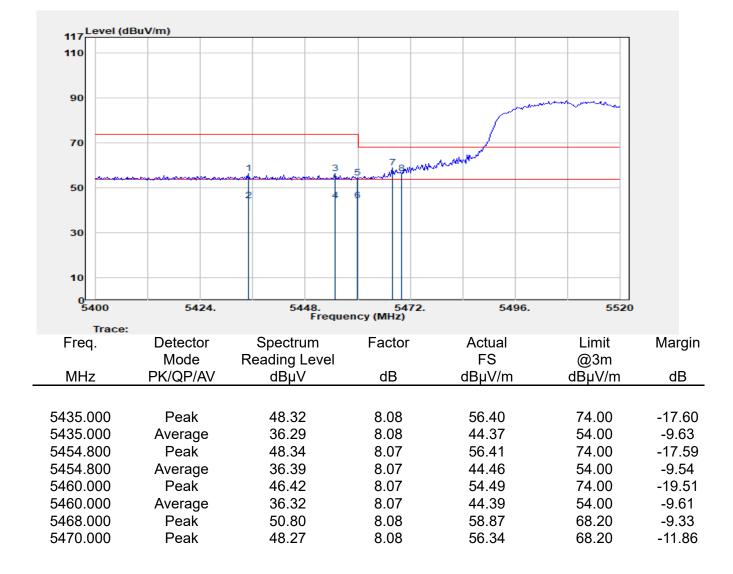


Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n40	Test Date	:2021-10-09
Test Frequency	:5510 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen





Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n40	Test Date	:2021-10-09
Test Frequency	:5510 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen

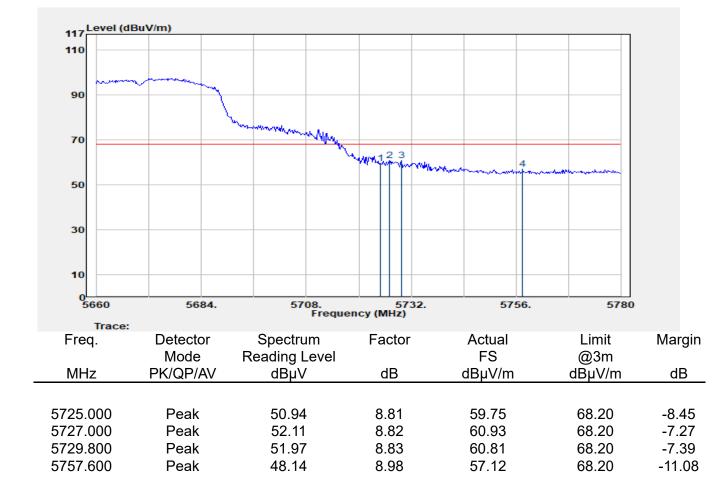


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Report Number	:ER-2021-A0048	-
Operation Mode	:802.11n40	-
Test Frequency	:5670 MHz	-
Test Mode	:Bandedge CH High	
EUT Pol	:H Plane	

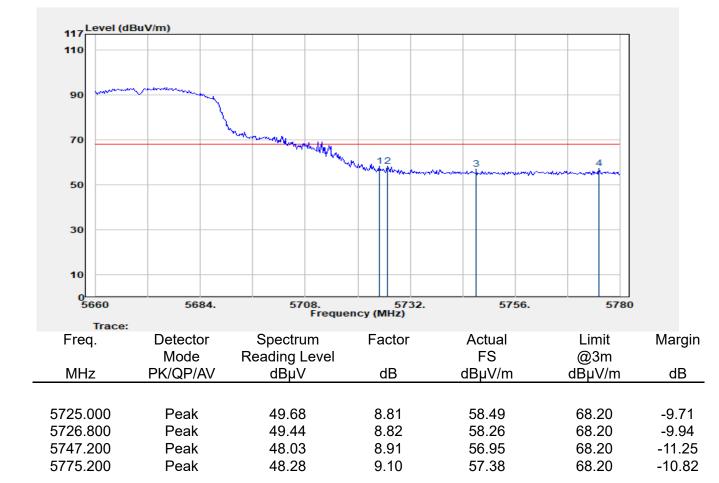
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





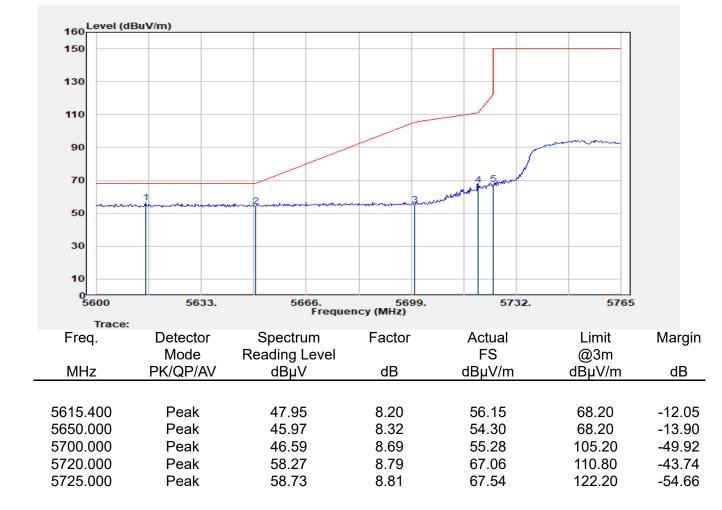
Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5670 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen





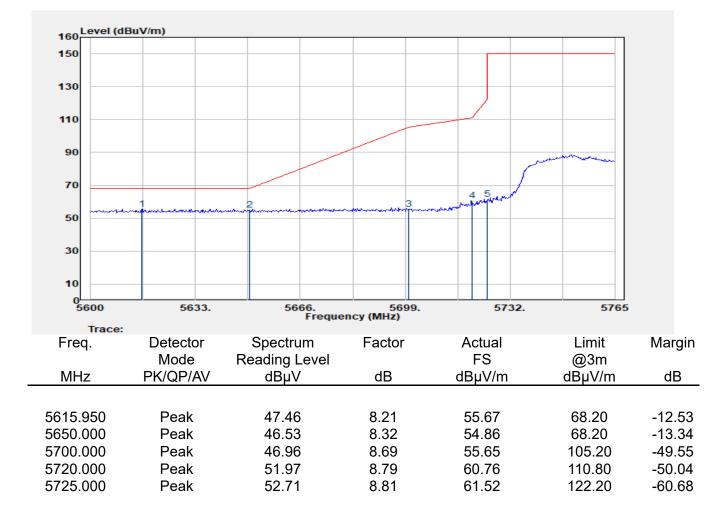
Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n40	Test Date	:2021-10-09
Test Frequency	:5755 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



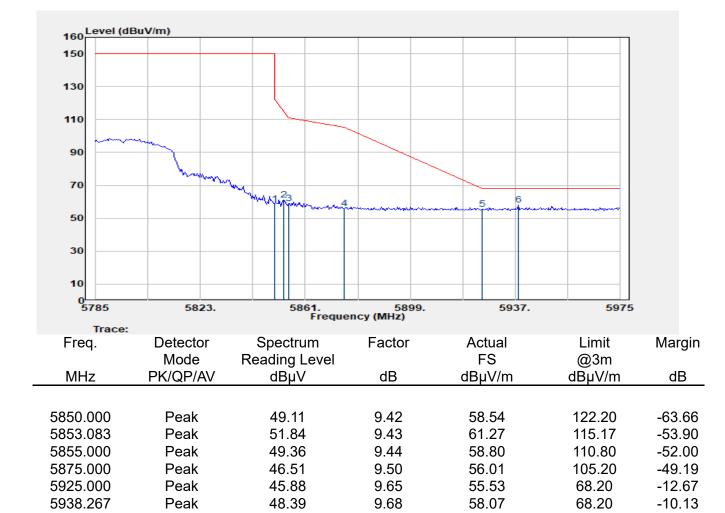
Report Number	:ER-2021-A0048	Test Site	:SAC 3
Operation Mode	:802.11n40	Test Date	:2021-10-09
Test Frequency	:5755 MHz	Temp./Humi.	:25.9/65
Test Mode	:Bandedge CH Low	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen





Report Number	:ER-2021-A0048
Operation Mode	:802.11n40
Test Frequency	:5795 MHz
Test Mode	:Bandedge CH High
EUT Pol	:H Plane
EUT POI	:H Plane

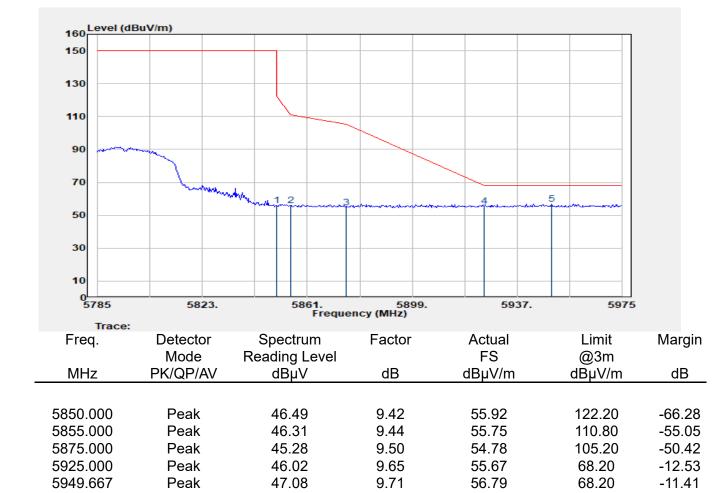
Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Vertical
Engineer	:Ricky Chen





-2021-A0048
2.11n40
95 MHz
ndedge CH High
Plane

Test Site	:SAC 3
Test Date	:2021-10-09
Temp./Humi.	:25.9/65
Antenna Pol.	:Horizontal
Engineer	:Ricky Chen



~ End of Report ~

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