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ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E REQUIREMENT

OF

Barco NV Applicant:

President Kennedypark 35 8500 Kortrijk Belgium

Product Name: ClickShare

Brand Name: Barco

Model No.: R9861600D01C

Model Difference: N/A

FCC ID: 2AAED-R9861600D01

T190521W02-RP2 **Report Number:**

FCC Rule Part: §15.407, Cat: NII

Issue Date: Aug. 14, 2019

Date of Test: May 21, 2019 ~ Jul. 24, 2019

Date of EUT Received: May 21, 2019

Compliance Certification Services Inc.Wugu Lab.

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. Issued by:

(R.O.C.)

service@ccsrf.com

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report. The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory).

Tested By:

Peter Weng / Engineer

Approved By:

Kevin Tsai / Deputy Manager





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Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
T190521W02-RP2	Rev.00	Initial creation of docu- ment	All	Aug. 05, 2019	Violetta Tang
T190521W02-RP2	Rev.01	Add statement of test mode on section 4.2	12	Aug. 14, 2019	Violetta Tang

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GENERAL INFORMATION

1.1 **Product Description**

Product Name:	ClickShare
Brand Name:	Barco
Model No.:	R9861600D01C
Model Difference:	N/A
Hardware Version:	DVT
Software Version:	4.5.23.1 (SX-2.03)
Power Supply:	5Vdc from USB Port

Wi-Fi 802.11	Frequency Range	Channels	Rated Power (Avg.) (dBm)	Modulation Technology		
	5150~5250	4	13.97			
	5250~5350	4	13.94	OEDM		
а	5470~5725	12	12.95	OFDM		
	5725-5850	5	13.98			
	5150~5250	4	HT: 13.93 (Worst case)			
n_HT	5250~5350	4	HT: 12.94 (Worst case)	OFDM		
ac_VHT 20M	5470~5725	11	HT: 12.95 (Worst case)	OFDIVI		
20101	5725-5850	5	HT: 13.95 (Worst case)			
LIT	5150~5250	2	HT: 13.82 (Worst case)			
n_HT	5250~5350	2	HT: 13.87 (Worst case)	OFDM		
ac_VHT 40M	5470~5725	5	HT: 12.88 (Worst case)	OFDIVI		
40101	5725-5850	2	HT: 14.97 (Worst case)			
	5150~5250	1	9.67			
ac_VHT	5250~5350	1	8.99	OFDM		
80M	5470~5725	2	12.83	OFDIVI		
	5725~5850	1	13.88			
Modulatio	on type	64QAM, 16QAM, QPSK, BPSK for OFDM				
Modulatio	Modulation type		256QAM for OFDM in 802.11ac only			
		802.11 a: 6/9/12/18/24/36/48/54 Mbps				
Transition Rate:		802.11 n_20MHz: 6.5 – 72.2Mbps				
		802.11 n_40MHz: 13.5 – 150.0Mbps				
		802.11 ac_20MHz: 6.5 – 86.Mbps				
		802.11 ac_40MHz: 13.5 – 200.0Mbps				
		802.11 ac_80MHz: 29.3 – 433.3Mbps				

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1.2 **Antenna Designation**

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Ceramic Chip	Pulse Electronics	W3078	5150 – 5250	4.3
Ceramic Chip	Pulse Electronics	W3078	5250 - 5350	4.3
Ceramic Chip	Pulse Electronics	W3078	5470 – 5725	4.3
Ceramic Chip	Pulse Electronics	W3078	5725 – 5850	4.3

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1.3 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10:2013

Note: All test items have been performed and record as per the above standards.

1.4 **Test Facility**

Compliance Certification Services Inc. Wugu Lab. No.11, Wugong 6th Rd.,

Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) (TAF code 1309)

FCC Designation number: TW1309

1.5 **Special Accessories**

There are no special accessories used while test was conducted.

1.6 **Equipment Modifications**

There was no modification incorporated into the EUT.

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SYSTEM TEST CONFIGURATION

EUT Configuration 2.1

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 Emissions

The EUT is a placed on a table which is 0.8 m above ground plane. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz. The CISPR Quasi-Peak and Average detector mode is employed according to §15.207. The two LISNs provide 50uH/50 ohm of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

2.3.2 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.

2.3.3 **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.

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2.4 Measurement Results Explanation Example 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.

Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor. Following shows an offset computation example.

2.5 **Configuration of Tested System**

Fig. 2-1 Conducted & Radiated Emission Configuration

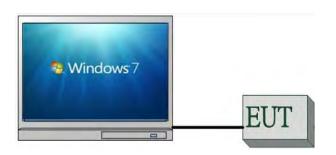


Fig. 2-2 Conducted Emission (AC Power **Line) Configuration**



Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1	WLAN Test Software	N/A	N/A	N/A	N/A	N/A
2	Notebook	Lenovo	T420	S0012407	N/A	N/A

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SUMMARY OF TEST RESULT

FCC Rules	Description Of Test	Result
§15.207	AC Power Line Conducted Emission	Compliant
§15.403(i) §15.407(e)	26 dB & 6dB & 99% Emission Bandwidth	Compliant
§15.407(a)	Maximum Conducted Output Power	Compliant
§15.407(a)	Power Spectral Density	Compliant
§15.205 §15.209 §15.407(b)	Undesirable Radiated Emissions	Compliant
§15.407(c)	Transmission in case of Absence of Information	Compliant
§15.407(g)	Frequency Stability	Compliant
§15.203 §15.407(a)	Antenna Requirement	Compliant

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DESCRIPTION OF TEST MODES

Operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:

operated balla ili o loo ilii			
802.11a / n HT20 Mode,			
802.11ac VHT20 Mode			
Channel	Frequency		
36	5180		
40	5200		
44	5220		
48	5240		

802.11 n HT40 Mode, 802.11ac VHT40 Mode			
channel	Frequency		
38	5190		
46	5230		

802.11ac VHT80 Mode		
channel	Frequency	
42	5210	

Operated band in 5250 MHz ~5350 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode			
channel	Frequency		
52	5260		
56	5280		
60	5300		
64 5320			
	<u> </u>		

802.11 n HT40 Mode, 802.11ac VHT40 Mode			
channel	Frequency		
54	5270		
62	5310		

802.11ac	VHT80 Mode
Channel	Frequency
58	5290

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Operated band in 5500 MHz ~5700 MHz:

802 11a / n	HT20 Mode			
802.11a / n HT20 Mode, 802.11ac VHT20 Mode				
Channel	Frequency			
100	5500			
104	5520			
108	5540			
112	5560			
116	5580			
120	5600			
124	5620			
128	5640			
132	5660			
136	5680			
140	5700			

802.11 n HT40 Mode, 802.11ac VHT40 Mode				
channel	Frequency			
102	5510			
110	5550			
118	5590			
126	5630			
134	5670			

802.11ac VHT80 Mode			
channel	Frequency		
106	5530		
122	5610		

Operated band in 5745 MHz ~5850 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode				
Channel	Frequency			
149	5745			
153	5765			
157	5785			
161	5805			
165	5825			

802.11 n HT40 Mode, 802.11ac VHT40 Mode			
channel	Frequency		
151	5755		
159	5795		

802.11ac VHT80 Mode			
channel	Frequency		
155	5775		

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4.2 The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 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 given UE is pre-scanned among below modes.

Modulation		Transmiss	sion Chain	Multiple Transmission Spatial	
⊠ 802.11 a	⊠ Ch0	⊠ Ch1	☐ Ch2	□ Ch3	□ 2TX
⊠ 802.11 n	⊠ Ch0	⊠ Ch1	□ Ch2	☐ MIMO	
⊠ 802.11 ac	⊠ Ch0	⊠ Ch1	☐ Ch2	☐ Ch3	☐ MIMO

Note: The device didn't support MIMO mode.

4. Therefore, below summary is the modes of test configuration that yield the highest reading and generate the highest emission chosen to carry out the relevantly mandatory test items.

RADIATED EMISSION TEST

RADIATED EMISSION TEST:							
	RADIATED EMISSION TEST (BELOW 1 GHz)						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT	
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	Ch1	
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	Ch1	
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6	Ch1	
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	Ch1	
	RADIATED EMISSION TEST (ABOVE 1 GHz)						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT	
802.11a	5180~5240	36 to 48	26 44 49	OFDM	6	Ch1	
802.11n_HT20	5160~5240	30 10 40	36,44,48	OFDM	MCS0	Ch1	
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0	Ch1	
802.11ac_VHT80	5210	42	42	OFDM	MCS0	Ch1	
802.11a	5260~5320	20 52 to 64 52,60,64	OFDM	6	Ch1		
802.11n_HT20	3200~3320	32 10 04	32,00,04	OFDM	MCS0	Ch1	
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	Ch1	
802.11ac_VHT80	5290	58	58	OFDM	MCS0	Ch1	

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			_			
MODE	FREQUENCY BAND (MHz)		TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	, ,			OFDM	6	Ch1
802.11n_HT20	5500~5720	100 to 144	100,116,140	OFDM	MCS0	Ch1
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS0	Ch1
802.11ac_VHT80	5530~5610	106 to 122	106,122	OFDM	MCS0	Ch1
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	Ch1
802.11n_HT20	3745~5625	149 (0 165	149,157,105	OFDM	MCS0	Ch1
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0	Ch1
802.11ac_VHT80	5775	155	155	OFDM	MCS0	Ch1

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/ac WLAN Transmitter for channel Low, Mid and High, the worst case E2 position was reported.

ANTENNA PORT CONDUCTED MEASUREMENT:

CONDUCTED TEST						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	26 44 49	OFDM	6	Ch1
802.11n_HT20	5160~5240	30 10 40	36,44,48	OFDM	MCS0	Ch1
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0	Ch1
802.11ac_VHT80	5210	42	42	OFDM	MCS0	Ch1
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	Ch1
802.11n_HT20	5200~5520	52 10 04	52,00,04	OFDM	MCS0	Ch1
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	Ch1
802.11ac_VHT80	5290	58	58	OFDM	MCS0	Ch1
802.11a	5500~5700	100 to 140	100,116,140	OFDM	6	Ch1
802.11n_HT20	5500~5700	100 to 140	100,110,140	OFDM	MCS0	Ch1
802.11n_HT40	5510~5670	102 to 134	102,110,134	OFDM	MCS0	Ch1
802.11ac_VHT80	5530~5610	106 to 122	106,122	OFDM	MCS0	Ch1
802.11a	5745 _~ 5925	140 to 165	140 157 165	OFDM	6	Ch1
802.11n_HT20	5745~5825	149 to 165	149,157,165	OFDM	MCS0	Ch1
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0	Ch1
802.11ac_VHT80	5775	155	155	OFDM	MCS0	Ch1

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MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575 dB
26dB & 6dB Emission Bandwidth	+/- 147.256 Hz
The Maximum Output Power	+/- 1.924 dB
Peak Power Spectral Density	+/- 2.038 dB
Frequency Stability	+/- 147.256 Hz
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12 dB
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68 dB
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18 dB
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47 dB
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81 dB
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87 dB

Note:

- 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.
- 3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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CONDUCTED EMISSION TEST

Standard Applicable 6.1

Frequency range within 150 kHz to 30 MHz shall not exceed the Limit table as below.

quondy range within 100 kinz to 60 kinz chair not exceed the zimit table de below.						
	Limits					
Frequency range	dB(uV)					
MHz	Quasi-peak	Average				
0.15 to 0.50	66 to 56	56 to 46				
0.50 to 5	56	46				
5 to 30	60	50				

Measurement Equipment Used 6.2

EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.	
TYPE		NUMBER	NUMBER	CAL.		
CABLE	EMCI	CFD300-NL	CERF	06/29/2019	06/28/2020	
EMI Test Receiver	R&S	ESCI	100064	07/24/2018	07/23/2019	
LISN	SCHWARZ- BECK	NSLK 8127	8127-541	01/31/2019	01/30/2020	
LISN	SCHAFFNER	NNB 41	03/10013	02/13/2019	02/12/2020	
Software	EZ-EMC(CCS-3A1-CE)					

6.3 **EUT Setup**

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
- 3. The LISN was connected with 120Vac/60Hz power source.

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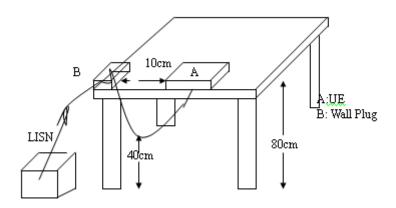
^{1.} The lower limit shall apply at the transition frequencies

^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50



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6.4 Test SET-UP



6.5 Measurement Procedure

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all phases of power being supplied by given UE are completed.

6.6 Measurement Result

Note: Refer to next page for measurement data and plots.

Note2: The * reveals the worst-case results that closet to the limit.

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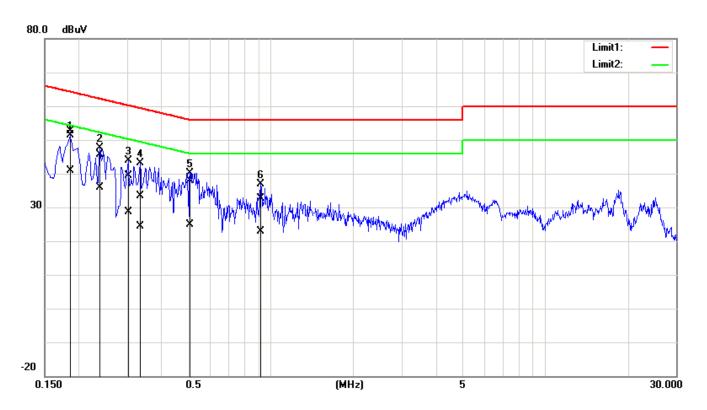


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AC POWER LINE CONDUCTED EMISSION TEST DATA

Description: Operation Date: 2019/7/11 Line: L1 Temp.(°C)/Hum.(%): 24.2(°C)/65%

AC 120V/60Hz **Test Voltage:** Test By: Gary



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Re- mark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1860	42.39	30.72	10.13	52.52	40.85	64.21	54.21	-11.69	-13.36	Pass
2	0.2380	35.57	25.82	10.13	45.70	35.95	62.17	52.17	-16.47	-16.22	Pass
3	0.3020	29.12	18.43	10.14	39.26	28.57	60.19	50.19	-20.93	-21.62	Pass
4	0.3340	23.29	14.34	10.14	33.43	24.48	59.35	49.35	-25.92	-24.87	Pass
5	0.5100	27.79	14.83	10.14	37.93	24.97	56.00	46.00	-18.07	-21.03	Pass
6	0.9220	22.38	12.69	10.17	32.55	22.86	56.00	46.00	-23.45	-23.14	Pass

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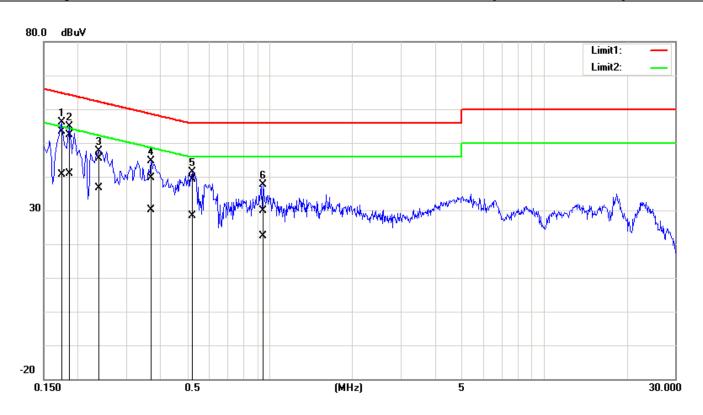


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2019/7/11 **Description:** Operation Date:

Line: Temp.(°C)/Hum.(%): 24.2(°C)/65%

AC 120V/60Hz **Test Voltage:** Test By: Gary



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Re- mark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1740	43.37	30.71	10.02	53.39	40.73	64.76	54.77	-11.37	-14.04	Pass
2	0.1860	42.34	30.94	10.02	52.36	40.96	64.21	54.21	-11.85	-13.25	Pass
3	0.2380	35.36	26.58	10.02	45.38	36.60	62.16	52.17	-16.78	-15.57	Pass
4	0.3700	29.60	20.05	10.03	39.63	30.08	58.50	48.50	-18.87	-18.42	Pass
5	0.5220	29.03	18.31	10.03	39.06	28.34	56.00	46.00	-16.94	-17.66	Pass
6	0.9460	19.96	12.26	10.04	30.00	22.30	56.00	46.00	-26.00	-23.70	Pass

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DUTY CYCLE TEST SIGNAL

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

Formula:

Duty Cycle = Ton / (Ton+Toff)

Measurement Procedure:

- 1. Set span = Zero
- 2. RBW = 8MHz
- 3. VBW = 8MHz,
- 4. Detector = Peak

Duty Cycle:

Mode	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	95.12	0.22	0.48	1.00
802.11n_20	94.20	0.26	0.58	1.00
802.11n_40	88.17	0.55	1.17	2.00
802.11ac_80	81.31	0.90	2.37	3.00

Duty Cycle Factor: $10 * \log(1/0.9512) = 0.22$ Duty Cycle Factor: $10 * \log(1/0.942) = 0.26$ Duty Cycle Factor: $10 * \log(1/0.8817) = 0.55$ Duty Cycle Factor: $10 * \log(1/0.8131) = 0.9$

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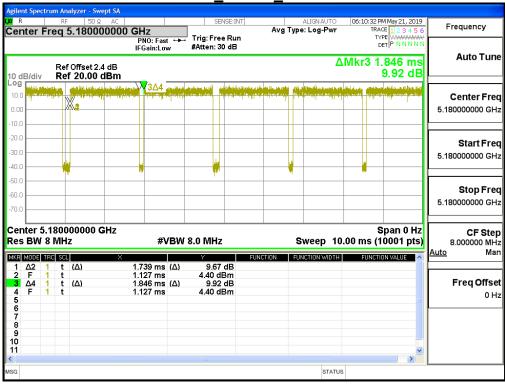


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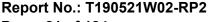
DUTY CYCLE TEST SIGNAL MEASUREMENT RESULT 802.11a 20MHz 5180MHz



802.11n_20MHz_5180MHz



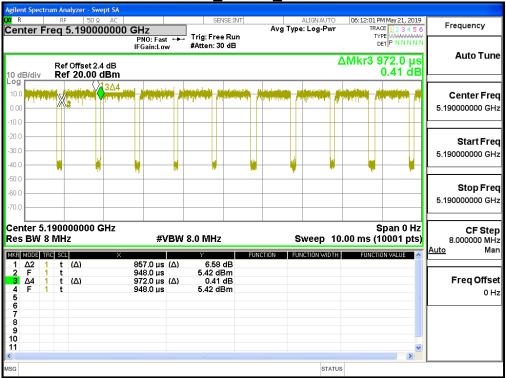
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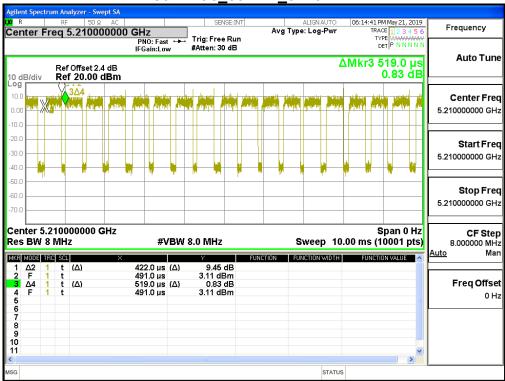
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802.11n 40MHz 5190MHz



802.11ac_80MHz_5210MHz



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26DB & 6DB EMISSION BANDWIDTH MEASUREMENT

8.1 Standard Applicable

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C. The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

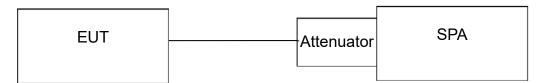
8.2 **Measurement Procedure**

- 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 spectrum analyzer.
 - a. 26dB Band width Measurement: Set the spectrum analyzer as 1% of emission BW Sweep=auto, Detector = Peak, Trace Mode = Max Hold, Manually readjust RBW until the RBW/EBW ratio is 1% based on EBW as observed on the result of pre-sequence measurement.
 - b. Mark the peak frequency and -26dB (upper and lower) frequency.
- 4. Repeat the procedures as list above until all test default channels (low, middle, and high) are completed.
- 5. Minimum Emission Bandwidth for the band 5.725-5.850GHz.
 - a. Set the spectrum analyzer as RBW = 100 kHz, VBW = 3*RBW, Span = 30M/50MHz, Detector=Peak,
 - Sweep=auto
 - b. Mark the peak frequency and -6dB (upper and lower) frequency.
- 6. Repeat above procedures until all frequency of interest measured was complete.

8.3 **Measurement Equipment Used**

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

8.4 **Test Set-up**



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8.5 **Measurement Result** 26dB Bandwidth

802 11n HT20 Ch1

802.11a_Cn1	802.11n_H120_Cn1				
Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.431	13.103	5180	20.518	13.121
5220	24.323	13.860	5220	29.045	14.631
5240	25.66	14.093	5240	27.806	14.441
5260	25.165	14.008	5260	27.735	14.430
5300	28.435	14.539	5300	27.126	14.334
5320	20.341	13.084	5320	20.795	13.180
5500	18.697	12.718	5500	19.808	12.968
5580	26.053	14.159	5580	28.53	14.553
5700	18.735	12.727	5700	20.387	13.094

802.11n HT40 Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	41.263	16.156
5230	50	16.990
5270	50	16.990
5310	42.46	16.280
5510	40.777	16.104
5550	50	16.990
5670	40.943	16.122

802.11ac _VHT80_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	81.97	19.137
5290	82.712	19.176
5530	82.031	19.140
5610	100	20.000

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6dB Bandwidth (5725 MHz~ 5850 MHz) measure with Peak detector for FCC

802.11a Ch1

802.11n HT20 Ch1

0021110_0111						
Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)				
5745	15.139	11.801				
5785	15.148	11.804				
5825	15.164	11.808				

0020_0						
Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)				
5745	15.156	11.806				
5785	14.286	11.549				
5825	15.489	11.900				

802.11n HT40 Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	
5755	35.122	15.456	
5795	35.035	15.445	

802.11ac _VHT80_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.141	18.759

99% BW verification for DFS Function

802.11a_Ch1

802.11n_HT20_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)	Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.40	< 5250	5240	5248.91	< 5250
5745	5736.87	> 5725	5745	5736.21	> 5725

802.11n HT40 Ch1

802.11n HT80 Ch1

	~ _				
Frequency (MHz)	- Frequency		Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5230	5248.25	< 5250	5210	5247.50	< 5250
5755	5737.00	> 5725	5775	5737.10	> 5725

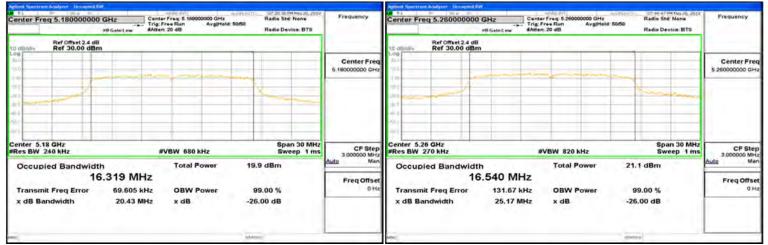
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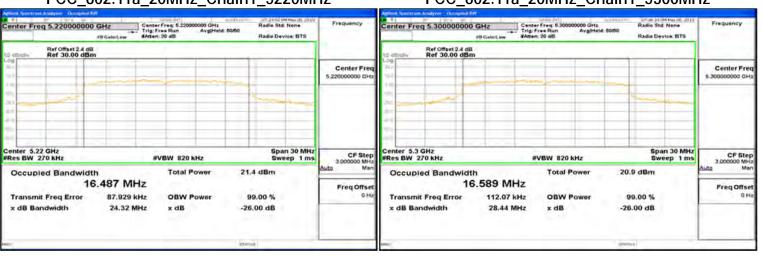
FCC_802.11a_20MHz_Chain1_5180MHz

FCC_802.11a_20MHz_Chain1_5260MHz



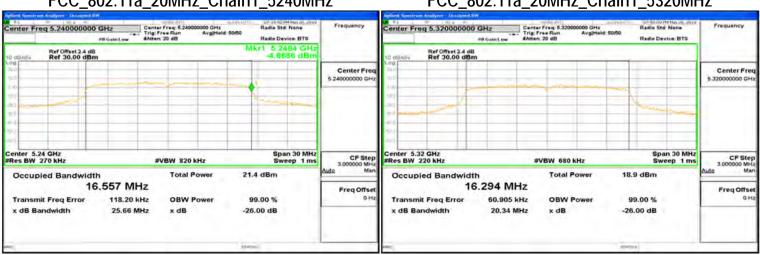
FCC 802.11a 20MHz Chain1 5220MHz

FCC 802.11a 20MHz Chain1 5300MHz



FCC_802.11a_20MHz_Chain1_5240MHz

FCC_802.11a_20MHz_Chain1_5320MHz



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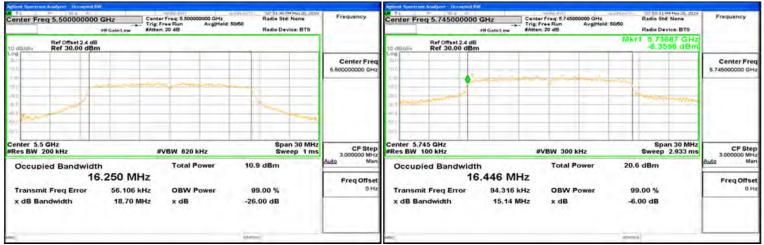
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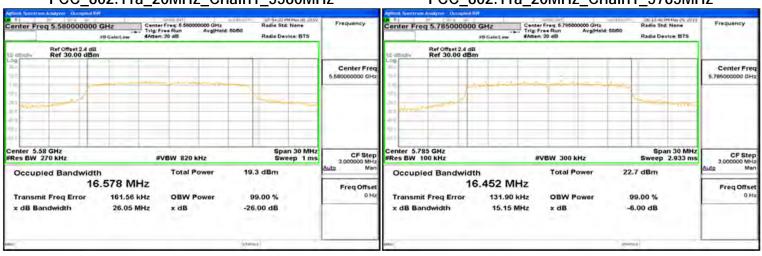
FCC_802.11a_20MHz_Chain1_5500MHz

FCC_802.11a_20MHz_Chain1_5745MHz



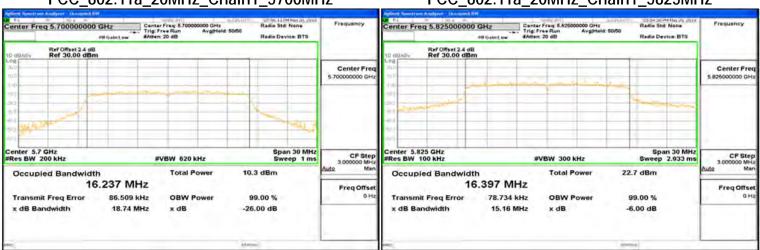
FCC 802.11a 20MHz Chain1 5580MHz

FCC 802.11a 20MHz Chain1 5785MHz



FCC_802.11a_20MHz_Chain1_5700MHz

FCC_802.11a_20MHz_Chain1_5825MHz



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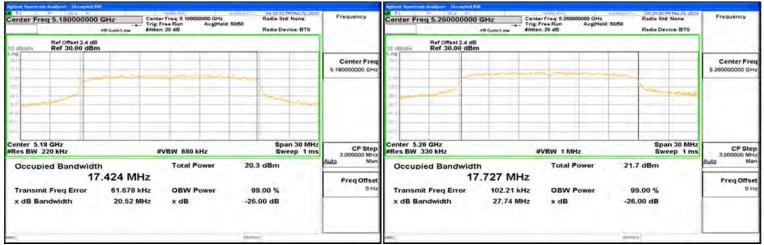
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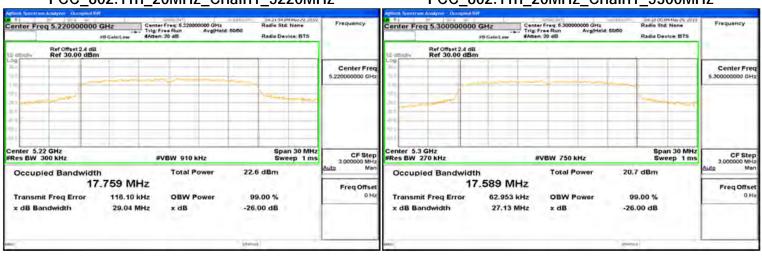
FCC_802.11n_20MHz_Chain1_5180MHz

FCC_802.11n_20MHz_Chain1_5260MHz



FCC 802.11n 20MHz Chain1 5220MHz

FCC 802.11n 20MHz Chain1 5300MHz



FCC_802.11n_20MHz_Chain1_5240MHz

FCC_802.11n_20MHz_Chain1_5320MHz



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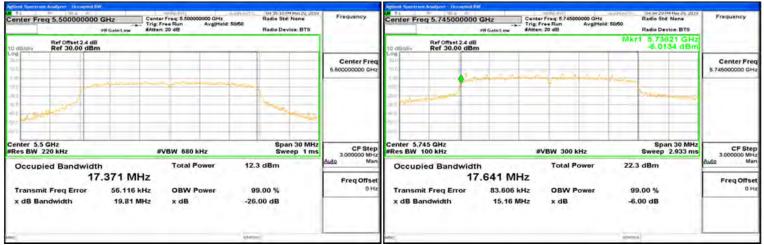
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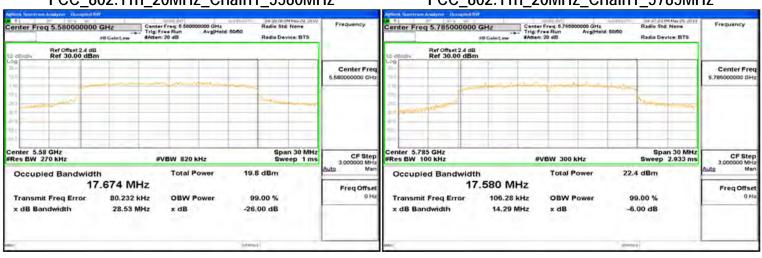
FCC_802.11n_20MHz_Chain1_5500MHz

FCC_802.11n_20MHz_Chain1_5745MHz



FCC 802.11n 20MHz Chain1 5580MHz

FCC 802.11n 20MHz Chain1 5785MHz



FCC_802.11n_20MHz_Chain1_5700MHz

FCC_802.11n_20MHz_Chain1_5825MHz



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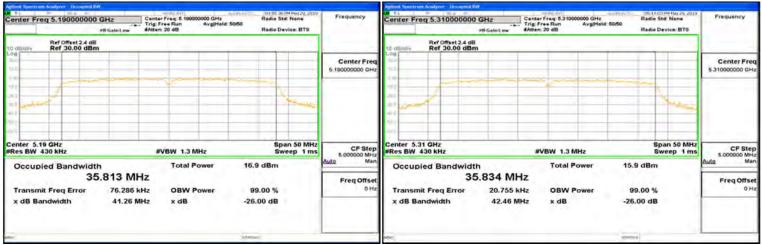
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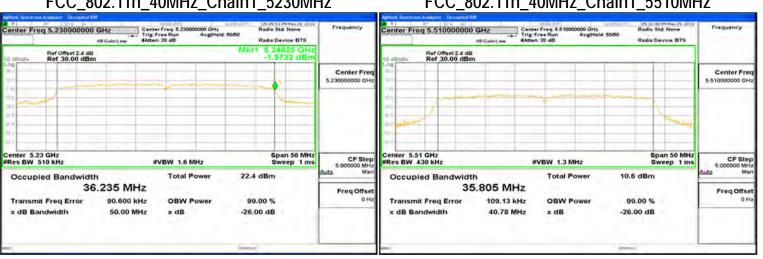
FCC_802.11n_40MHz_Chain1_5190MHz

FCC_802.11n_40MHz_Chain1_5310MHz



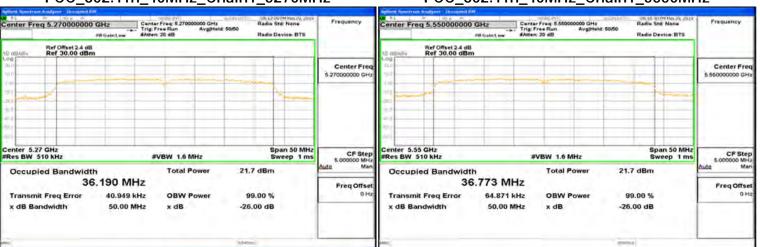
FCC 802.11n 40MHz Chain1 5230MHz

FCC 802.11n 40MHz Chain1 5510MHz



FCC_802.11n_40MHz_Chain1_5270MHz

FCC_802.11n_40MHz_Chain1_5550MHz



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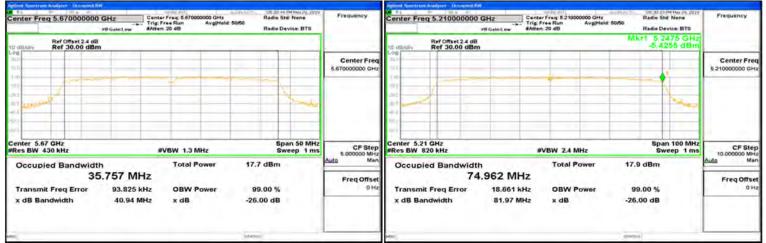
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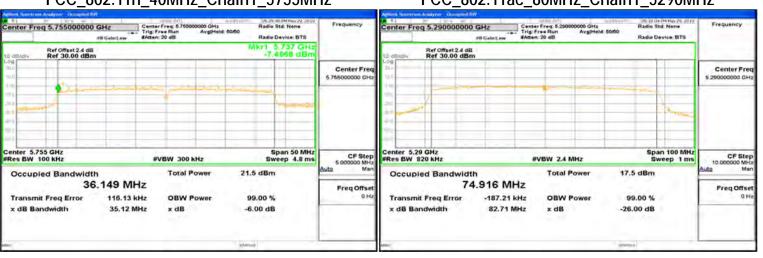
FCC_802.11n_40MHz_Chain1_5670MHz

FCC_802.11ac_80MHz_Chain1_5210MHz



FCC 802.11n 40MHz Chain1 5755MHz

FCC 802.11ac 80MHz Chain1 5290MHz



FCC_802.11n_40MHz_Chain1_5795MHz

FCC_802.11ac_80MHz_Chain1_5530MHz



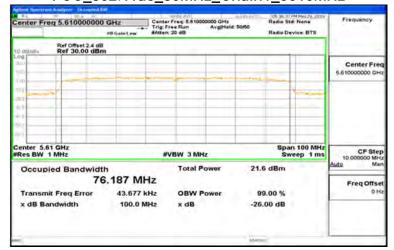
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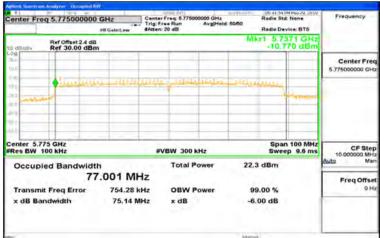


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FCC_802.11ac_80MHz_Chain1_5610MHz



FCC_802.11ac_80MHz_Chain1_5775MHz



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MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

Standard Applicable 9.1

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 dBi.

The antenna gain is not grater than 6 dBi. Therefore, reduction of power is not required.

Measurement Procedure 9.2

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

Measurement Equipment Used 9.3

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Power Meter	Anritsu	ML2496A	1242004	10/23/2018	10/22/2019
Power Sensor	Anritsu	MA2411B	1207365	10/23/2018	10/22/2019
Power Sensor	Anritsu	MA2411B	1207368	10/24/2018	10/23/2019
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

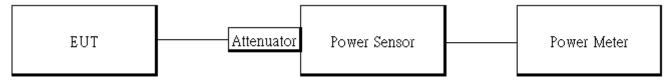
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9.4 **Test Set-up**



9.5 **Measurement Result Conducted output power (FCC)** 802 11a Ch1

802.11a_			TOTAL	TOTAL		REQUIRED		
СН	Frequency (MHz)	Data Rate	POWER (dBm)	POWER (mW)		LIMIT (dBm)		RESULT
36	5180	6	12.76	18.868		23.98		PASS
44	5220	6	13.87	24.363		23.98		PASS
48	5240	6	13.97	24.930		23.98		PASS
52	5260	6	13.85	24.251	23.98	or 11+10log(B) =	25.01	PASS
60	5300	6	13.94	24.759	23.98	or 11+10log(B) =	25.54	PASS
64	5320	6	11.43	13.891	23.98	or 11+10log(B) =	24.08	PASS
100	5500	6	6.19	4.157	23.98	or 11+10log(B) =	23.72	PASS
116	5580	6	12.95	19.712	23.98	or 11+10log(B) =	25.16	PASS
140	5700	6	4.75	2.984	23.98	or 11+10log(B) =	23.73	PASS
149	5745	6	13.79	23.918		30		PASS
157	5785	6	13.98	24.988		30		PASS
165	5825	6	13.94	24.759		30		PASS

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802.11n_HT20_Ch1

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	MCS0	12.48	17.699		23.98		PASS
44	5220	MCS0	13.91	24.601		23.98		PASS
48	5240	MCS0	13.93	24.714		23.98		PASS
52	5260	MCS0	12.94	19.677	23.98	or 11+10log(B) =	25.43	PASS
60	5300	MCS0	12.85	19.273	23.98	or 11+10log(B) =	25.33	PASS
64	5320	MCS0	12.02	15.920	23.98	or 11+10log(B) =	24.18	PASS
100	5500	MCS0	6.17	4.140	23.98	or 11+10log(B) =	23.97	PASS
116	5580	MCS0	12.95	19.722	23.98	or 11+10log(B) =	25.55	PASS
140	5700	MCS0	4.20	2.630	23.98	or 11+10log(B) =	24.09	PASS
149	5745	MCS0	13.95	24.828	30		PASS	
157	5785	MCS0	13.78	23.875	30		PASS	
165	5825	MCS0	13.87	24.375		30		PASS

802.11n HT40 Ch1

	·							
СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	MCS0	9.76	9.455		23.98		PASS
46	5230	MCS0	13.82	24.081		23.98		PASS
54	5270	MCS0	13.87	24.360	23.98	or 11+10log(B) =	27.99	PASS
62	5310	MCS0	8.89	7.739	23.98	or 11+10log(B) =	27.28	PASS
102	5510	MCS0	4.38	2.740	23.98	or 11+10log(B) =	27.10	PASS
110	5550	MCS0	12.88	19.395	23.98	or 11+10log(B) =	27.99	PASS
134	5670	MCS0	10.44	11.058	23.98	or 11+10log(B) =	27.12	PASS
151	5755	MCS0	13.82	24.081		23.98		PASS
159	5795	MCS0	14.97	31.382		30		PASS

802.11ac_VHT80_Ch1

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)			RESULT
42	5210	MCS0	9.67	9.265		23.98		PASS
58	5290	MCS0	8.99	7.922	23.98	or 11+10log(B) =	30.18	PASS
106	5530	MCS0	7.57	5.713	23.98	or 11+10log(B) =	30.14	PASS
122	5610	MCS0	12.83	19.180	23.98	or 11+10log(B) =	31.00	PASS
155	5775	MCS0	13.88	24.426		23.98		PASS

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10 MAXIMUM POWER SPECTRAL DENSITY

Standard Applicable 10.1

OPERZTION Band		EUT CATEGORY	LIMIT
		Access Point (Master device)	17dBm/ MHz
U-NII-1		Fixed point-to-point Access Ponit	Trabili, wii iz
	√	Mobile and portable client device	11dBm/ MHz
U-NII-2A	V		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3			30dBm/ 500kHz

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

The antenna gain is not grater than 6 dBi. Therefore, reduction of power is not required.

10.2 **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 Spectrum.

4. For U-NII1, U-NII-2A, U-NII-2C Band:

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

For U-NII-3 Band:

Set RBW=500 kHz, VBW≥ 3RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

- 5. User the cursor on spectrum to peak search the highest level of trace
- 6. Record the max. reading and add 10 log(1/duty cycle).
- 7. Repeat above procedures until all default test channel (low, middle, and high) was complete.

10.3 Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

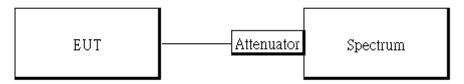
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Test Set-up 10.4



10.5 **Measurement Result**

	POWER DENS	SITY 802.1	1a MODE_Ch	0	
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	2.04	0.22	2.26	11	-8.74
5220	1.40	0.22	1.62	11	-9.38
5240	2.03	0.22	2.25	11	-8.75
5260	1.92	0.22	2.14	11	-8.86
5300	2.03	0.22	2.25	11	-8.75
5320	1.55	0.22	1.77	11	-9.23
5500	-6.84	0.22	-6.62	11	-17.62
5580	1.52	0.22	1.74	11	-9.26
5700	-7.42	0.22	-7.20	11	-18.20
5745	-0.71	-	-0.71	30	-30.71
5785	-1.63	-	-1.63	30	-31.63
5825	-2.28	-	-2.28	30	-32.28

POWER DENSITY 802.11n HT20 MODE_Ch0					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	2.37	0.26	2.63	11	-8.37
5220	2.06	0.26	2.32	11	-8.68
5240	1.42	0.26	1.68	11	-9.32
5260	0.78	0.26	1.04	11	-9.96
5300	0.31	0.26	0.57	11	-10.43
5320	1.30	0.26	1.56	11	-9.44
5500	-5.55	0.26	-5.29	11	-16.29
5580	1.24	0.26	1.50	11	-9.50
5700	-4.65	0.26	-4.39	11	-15.39
5745	-0.33	-	-0.33	30	-30.33
5785	-2.44	-	-2.44	30	-32.44
5825	-2.49	-	-2.49	30	-32.49

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POWER DENSITY 802.11n HT40 MODE_Ch0								
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)			
5190	-4.13	0.55	-3.58	11	-14.58			
5230	-2.31	0.55	-1.76	11	-12.76			
5270	-1.5	0.55	-0.95	11	-11.95			
5310	-5.14	0.55	-4.59	11	-15.59			
5510	-10.3	0.55	-9.75	11	-20.75			
5550	-2.86	0.55	-2.31	11	-13.31			
5670	-3.77	0.55	-3.22	11	-14.22			
5755	-4.06	-	-4.06	30	-34.06			
5795	-4.46	-	-4.46	30	-34.46			

POWER DENSITY 802.11ac VHT80 MODE_Ch0								
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)			
5210	-7.84	0.90	-6.94	11	-17.94			
5290	-7.91	0.90	-7.01	11	-18.01			
5530	-9.98	0.90	-9.08	11	-20.08			
5610	-5.63	0.90	-4.73	11	-15.73			
5775	-7.69	-	-7.69	30	-37.69			

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802.11a_20MHz_5180MHz

802.11a_20MHz_5260MHz

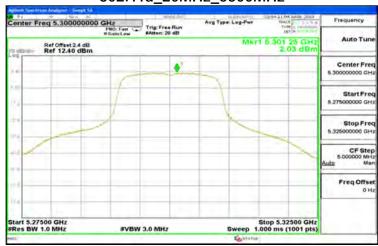




802.11a_20MHz_5220MHz

802.11a_20MHz_5300MHz





802.11a_20MHz_5240MHz

802.11a_20MHz_5320MHz





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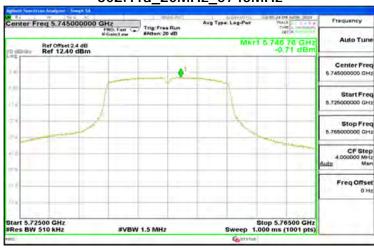


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802.11a_20MHz_5500MHz

802.11a_20MHz_5745MHz





802.11a_20MHz_5580MHz

802.11a 20MHz 5785MHz





802.11a_20MHz_5700MHz

802.11a_20MHz_5825MHz





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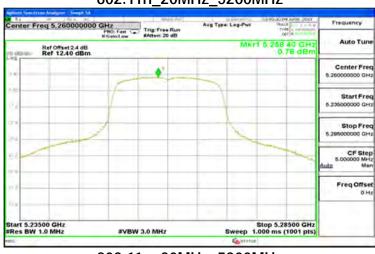


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802.11n_20MHz_5180MHz

802.11n_20MHz_5260MHz





802.11n_20MHz_5220MHz

802.11n_20MHz_5300MHz





802.11n_20MHz_5240MHz

802.11n_20MHz_5320MHz





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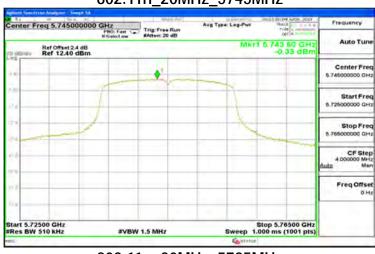


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802.11n_20MHz_5500MHz

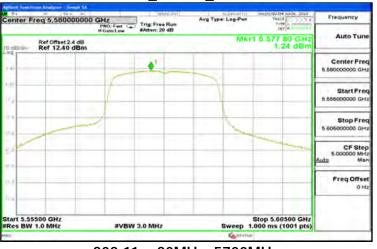
802.11n_20MHz_5745MHz





802.11n_20MHz_5580MHz

802.11n_20MHz_5785MHz





802.11n_20MHz_5700MHz

802.11n_20MHz_5825MHz





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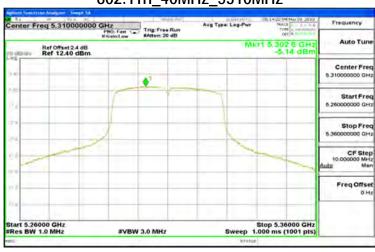


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802.11n_40MHz_5190MHz

802.11n 40MHz 5310MHz

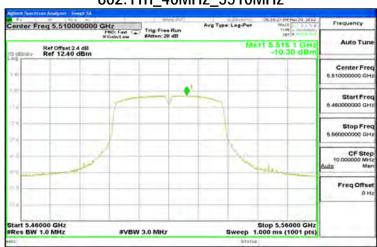




802.11n_40MHz_5230MHz

802.11n_40MHz_5510MHz





802.11n 40MHz 5270MHz

802.11n_40MHz_5550MHz





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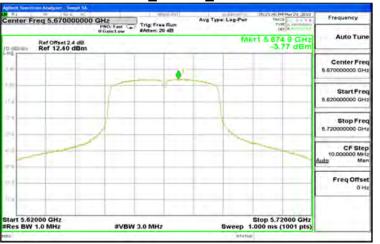
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802.11n_40MHz_5670MHz

802.11ac_80MHz_5210MHz





802.11n_40MHz_5755MHz

802.11ac_80MHz_5290MHz





802.11n 40MHz 5795MHz

802.11ac_80MHz_5530MHz





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802.11ac_80MHz_5610MHz



802.11ac_80MHz_5775MHz



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11 UNDESIRABLE RADIATED EMISSION MEASUREMENT

Standard Applicable

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 the band edge.

APPLICABLE TO	LIMIT			
FCC KDB 789033 D02 General UNII Test Procedures New Rules	FIELD STRENGTH AT 3m			
	PK: 74 (dBμV/m)	AV 54 (dBμV/m)		
APPLICABLE TO	EIRP LIMIT	FIELD STRENGTH AT 3m		
15.407(b)(1)				
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.3 (dBµV/m)		
15.407(b)(3)				
15.407(b)(4)(i)	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.

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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^{*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.



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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.
- 2. Emission level $(dB\mu V/m) = 20 \log Emission level (dB\mu V/m)$

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11.2 **Measurement Equipment Used**

966A Chamber							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.		
Bilog Antenna	Sunol Sci- ences	JB1	A052609	03/06/2019	03/05/2020		
Cable	HUBER SU- HNER	SUCOFLEX 104PEA	25157	02/26/2019	02/25/2020		
Cable	HUBER SU- HNER	SUCOFLEX 104PEA	20995	02/26/2019	02/25/2020		
Digital Thermo- Hygro Meter	WISEWIND	1206	D07	01/30/2019	01/29/2020		
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/20/2018	08/19/2019		
Low Pass Filter	EWT	EWT-56-0019	RF46	02/26/2019	02/25/2020		
High Pass Filter	WI	WHKX7.0/18G -8SS	45	02/26/2019	02/25/2020		
Horn Antenna	ETS LIND- GREN	3116	00026370	12/26/2018	12/25/2019		
Loop Antenna	COM-POWER	AL-130	121051	03/22/2019	03/21/2020		
Pre-Amplifier	EMEC	EM330	060609	02/26/2019	02/25/2020		
Pre-Amplifier	MITEQ	AMF-6F- 260400-40-8P	985646	02/26/2019	02/25/2020		
Pre-Amplifier	HP	8449B	3008A00965	02/26/2019	02/25/2020		
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/29/2019	05/28/2020		
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R		
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R		
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R		
Software		e3 V6	6.11-20180413				

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

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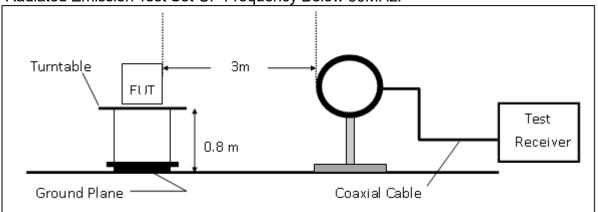


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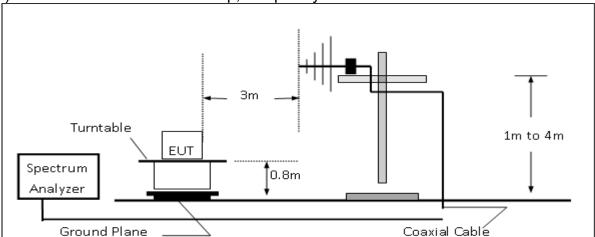


11.3 **Test SET-UP**

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



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



(C) Radiated Emission Test Set-UP Frequency Over 1 GHz Turntable Зт 1m to 4m EUT Spectrum 1.5m Analyzer Ground Plane Absorber Coaxial Cable

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11.4 Measurement Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules. 2
- 3. The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- The turn table shall rotate 360 degrees to determine the position of maximum emission 4. level.
- EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) 6. and Quasi-peak (QP) at frequency below 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency 7. above 1 GHz.
- 8. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- Maximum procedure was performed on the six highest emissions to ensure EUT compli-9. ance.
- 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.

11.5 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	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

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)

11.6 Test Results of Radiated Spurious Emissions form 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) 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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11.7 **Measurement Result**

Radiated Spurious Emission Measurement Result

Below 1GHz Worst-Case Data:

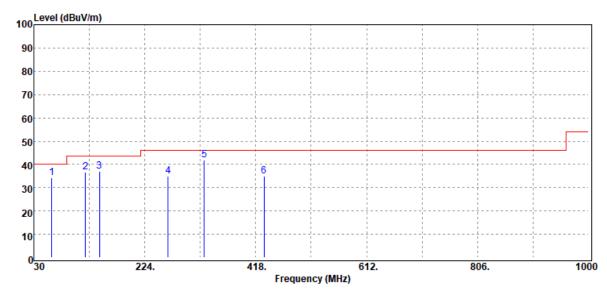
Report Number :T190521W02 **Test Date** :2019-07-23

Temp./Humi. :21.8/45 **Operation Band** :802.11a / Band1

Frequency :5220 MHz :VERTICAL Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
61.04	Peak	49.80	-15.64	34.16	40.00	-5.84
120.21	Peak	45.61	-8.88	36.73	43.50	-6.77
144.46	Peak	46.88	-9.92	36.96	43.50	-6.54
264.74	Peak	43.76	-8.95	34.81	46.00	-11.19
327.79	Peak	49.22	-7.25	41.97	46.00	-4.03
432.55	Peak	39.35	-4.32	35.03	46.00	-10.97

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。



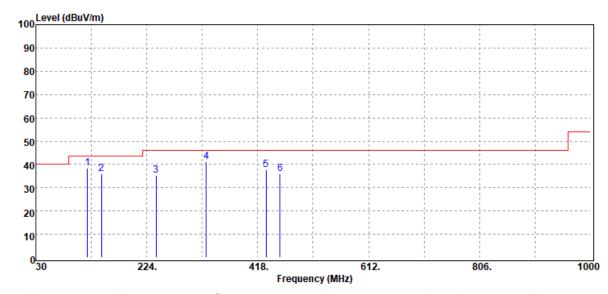
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5220 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
120.21	Peak	47.34	-8.88	38.46	43.50	-5.04
144.46	Peak	45.88	-9.92	35.96	43.50	-7.54
240.49	Peak	45.71	-10.25	35.46	46.00	-10.54
327.79	Peak	48.37	-7.25	41.12	46.00	-4.88
432.55	Peak	41.91	-4.32	37.59	46.00	-8.41
456.80	Peak	39.65	-3.76	35.89	46.00	-10.11

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。



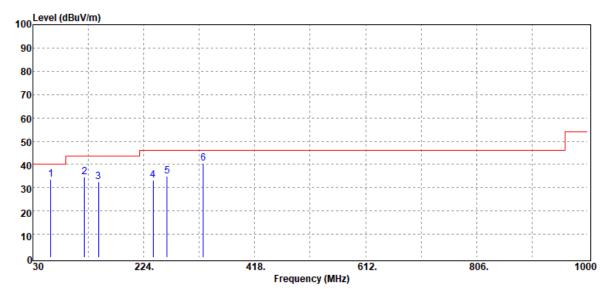
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
61.04	Peak	49.25	-15.64	33.61	40.00	-6.39
120.21	Peak	43.33	-8.88	34.45	43.50	-9.05
144.46	Peak	42.44	-9.92	32.52	43.50	-10.98
240.49	Peak	43.38	-10.25	33.13	46.00	-12.87
264.74	Peak	43.80	-8.95	34.85	46.00	-11.15
327.79	Peak	47.64	-7.25	40.39	46.00	-5.61

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。



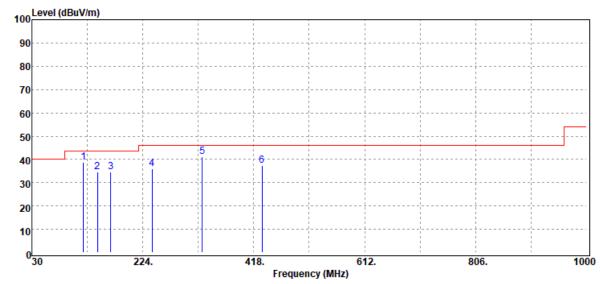
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
120.21	Peak	47.60	-8.88	38.72	43.50	-4.78
144.46	Peak	44.61	-9.92	34.69	43.50	-8.81
167.74	Peak	45.20	-10.56	34.64	43.50	-8.86
240.49	Peak	46.37	-10.25	36.12	46.00	-9.88
327.79	Peak	48.27	-7.25	41.02	46.00	-4.98
432.55	Peak	41.57	-4.32	37.25	46.00	-8.75

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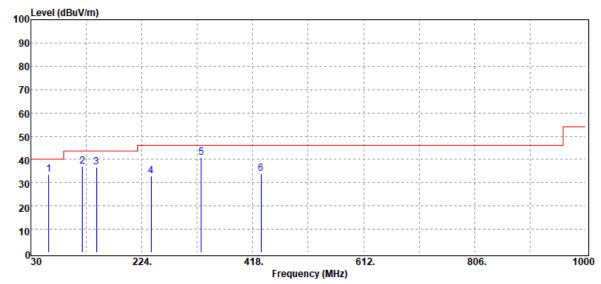
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
61.04	Peak	49.11	-15.64	33.47	40.00	-6.53
120.21	Peak	45.87	-8.88	36.99	43.50	-6.51
144.46	Peak	46.74	-9.92	36.82	43.50	-6.68
240.49	Peak	42.96	-10.25	32.71	46.00	-13.29
327.79	Peak	48.21	-7.25	40.96	46.00	-5.04
432.55	Peak	38.39	-4.32	34.07	46.00	-11.93

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。



EUT Pol.

Report No.: T190521W02-RP2

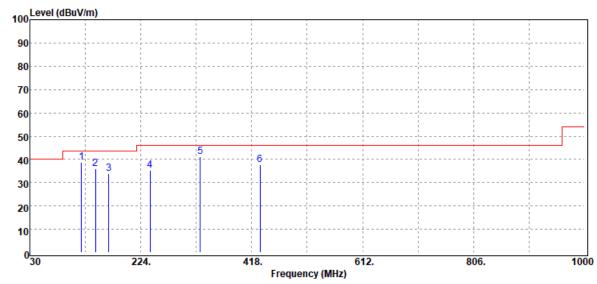
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
120.21	Peak	47.76	-8.88	38.88	43.50	-4.62
144.46	Peak	45.96	-9.92	36.04	43.50	-7.46
167.74	Peak	44.34	-10.56	33.78	43.50	-9.72
240.49	Peak	45.67	-10.25	35.42	46.00	-10.58
327.79	Peak	48.39	-7.25	41.14	46.00	-4.86
432.55	Peak	41.99	-4.32	37.67	46.00	-8.33

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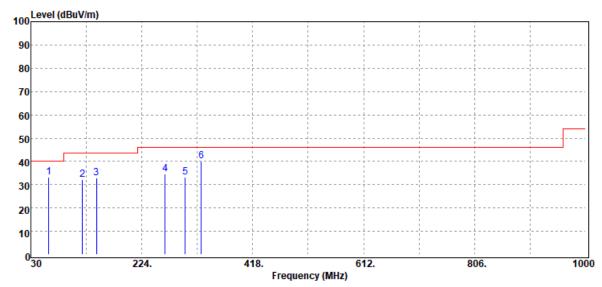
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
61.04	Peak	49.01	-15.64	33.37	40.00	-6.63
120.21	Peak	41.23	-8.88	32.35	43.50	-11.15
144.46	Peak	42.93	-9.92	33.01	43.50	-10.49
264.74	Peak	43.57	-8.95	34.62	46.00	-11.38
299.66	Peak	41.61	-8.25	33.36	46.00	-12.64
327.79	Peak	47.43	-7.25	40.18	46.00	-5.82

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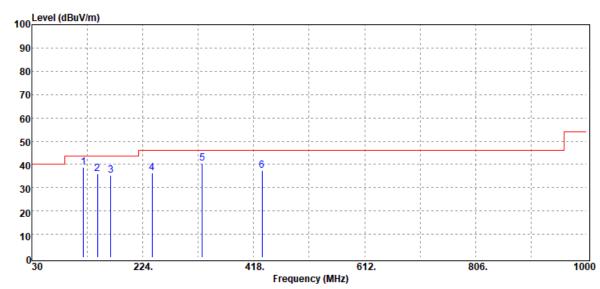
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
120.21	Peak	47.48	-8.88	38.60	43.50	-4.90
144.46	Peak	45.89	-9.92	35.97	43.50	-7.53
167.74	Peak	45.69	-10.56	35.13	43.50	-8.37
240.49	Peak	46.43	-10.25	36.18	46.00	-9.82
327.79	Peak	47.90	-7.25	40.65	46.00	-5.35
432.55	Peak	41.71	-4.32	37.39	46.00	-8.61

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Above 1GHz Data:

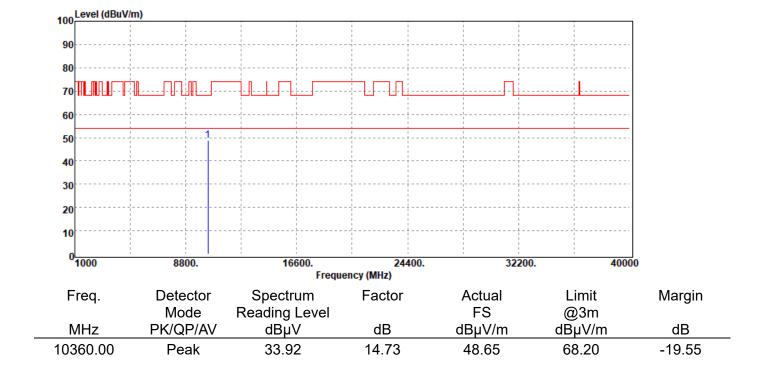
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5180 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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EUT Pol.

Report No.: T190521W02-RP2

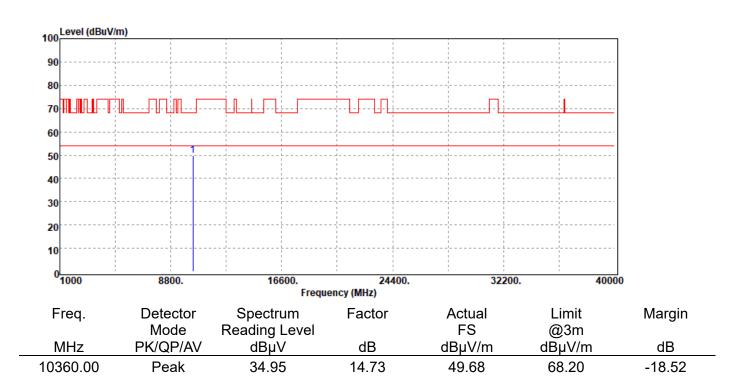
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5180 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane



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。



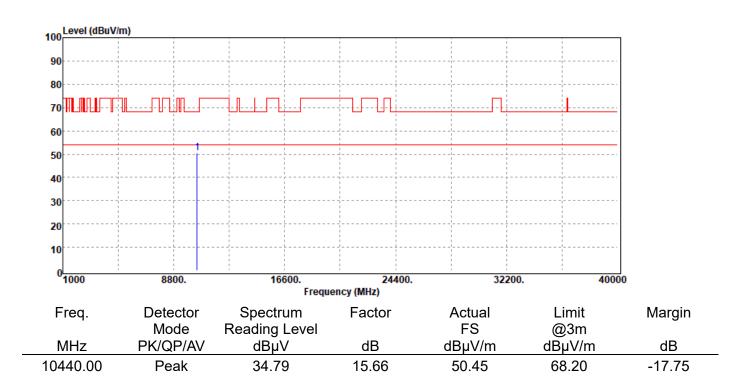
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5220 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



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。



EUT Pol.

Report No.: T190521W02-RP2

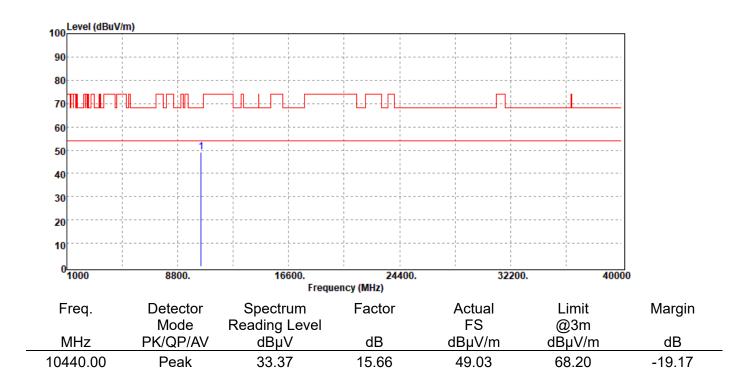
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5220 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Mid Engineer :Kane



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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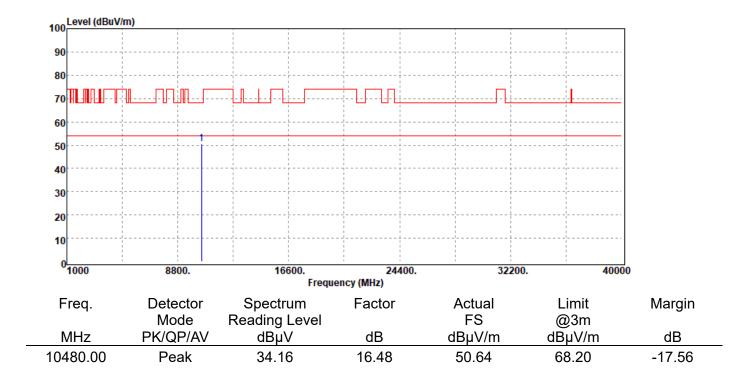
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5240 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



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EUT Pol.

Report No.: T190521W02-RP2

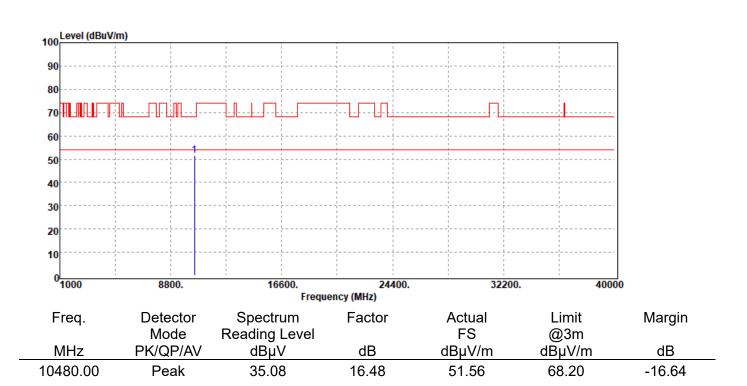
Page: 63 of 184

Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band1 Temp./Humi. :21.8/45

Frequency :5240 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH High Engineer :Kane



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EUT Pol.

Report No.: T190521W02-RP2

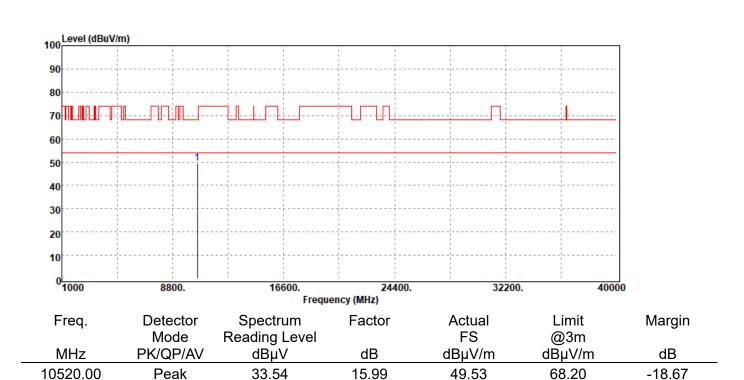
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

Frequency :5260 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane



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。



EUT Pol.

Report No.: T190521W02-RP2

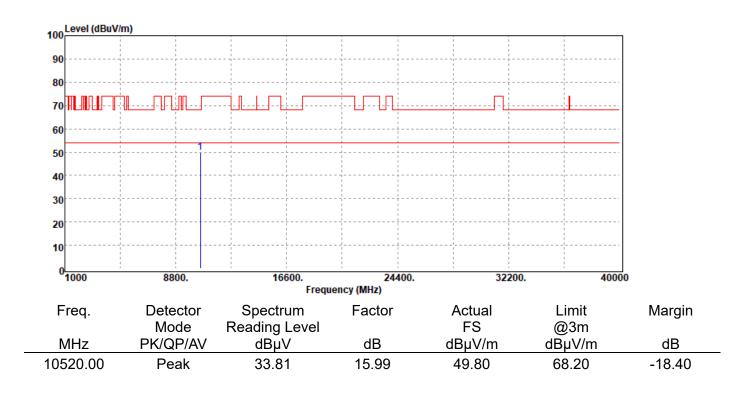
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

Frequency :5260 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane



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。



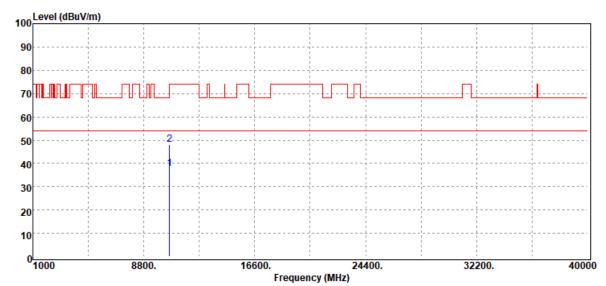
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 10600.00	Average	22.42	15.27	37.69	54.00	-16.31
10600.00	Peak	32.81	15.27	48.08	74.00	-25.92

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。



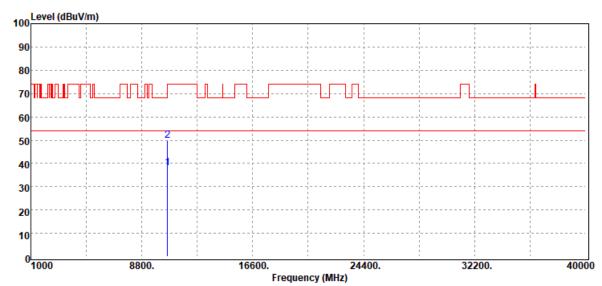
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
10600.00	Average	22.63	15.27	37.90	54.00	-16.10	
10600.00	Peak	34.52	15.27	49.79	74.00	-24.21	

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Operation Mode

Report No.: T190521W02-RP2

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:Kane

Engineer

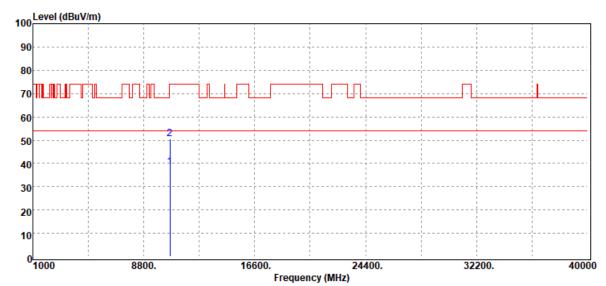
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5320 MHz Antenna Pol.

EUT Pol. :E2 Plan

:Tx CH High



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 10640.00	Average	22.37	16.05	38.42	54.00	-15.58
10640.00	Peak	34.56	16.05	50.61	74.00	-23.39

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。



EUT Pol.

Report No.: T190521W02-RP2

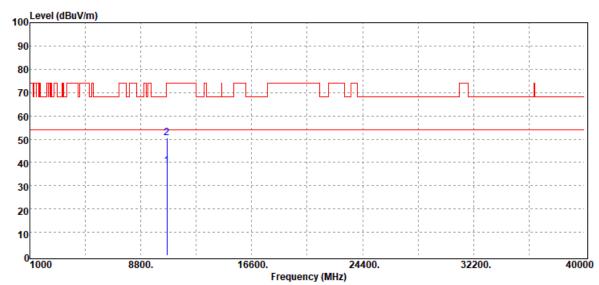
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5320 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
	10640.00	Average	22.41	16.05	38.46	54.00	-15.54	
	10640.00	Peak	34.48	16.05	50.53	74.00	-23.47	

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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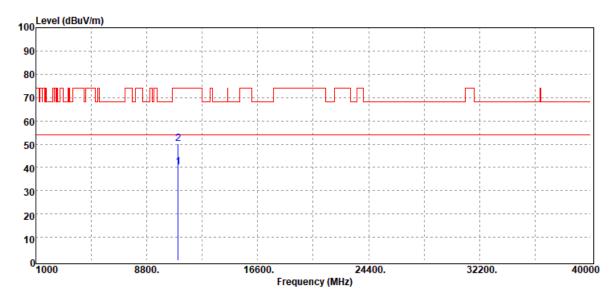
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5500 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	22.53	17.44	39.97	54.00	-14.03
11000.00	Peak	32.73	17.44	50.17	74.00	-23.83

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。



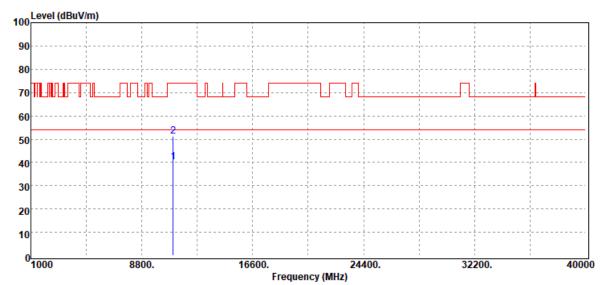
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5500 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11000.00	Average	22.76	17.44	40.20	54.00	-13.80
11000.00	Peak	33.94	17.44	51.38	74.00	-22.62

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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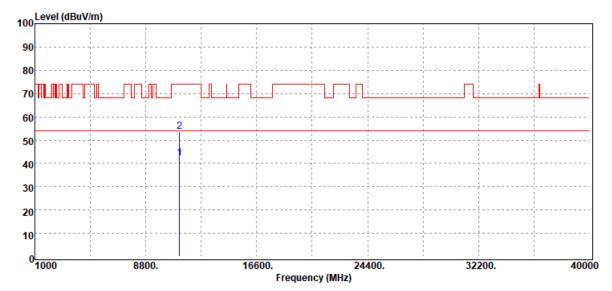
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	25.39	16.85	42.24	54.00	-11.76
11160.00	Peak	36.61	16.85	53.46	74.00	-20.54

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。



EUT Pol.

Report No.: T190521W02-RP2

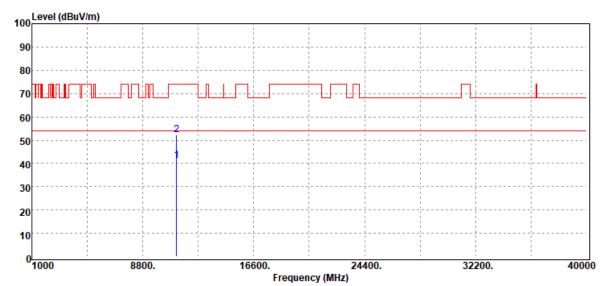
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11160.00	Average	24.25	16.85	41.10	54.00	-12.90	
11160.00	Peak	35.42	16.85	52.27	74.00	-21.73	

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。



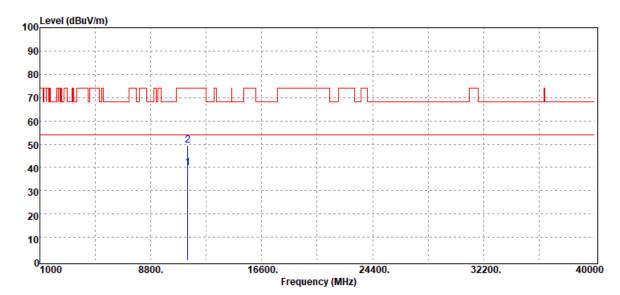
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5700 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11400.00	Average	22.78	16.89	39.67	54.00	-14.33
11400.00	Peak	32.75	16.89	49.64	74.00	-24.36

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。



EUT Pol.

Report No.: T190521W02-RP2

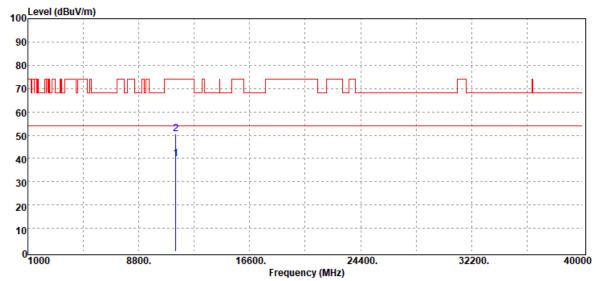
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5700 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dΒμV/m	dB	
11400.00	Average	22.91	16.89	39.80	54.00	-14.20	
11400.00	Peak	33.69	16.89	50.58	74.00	-23.42	

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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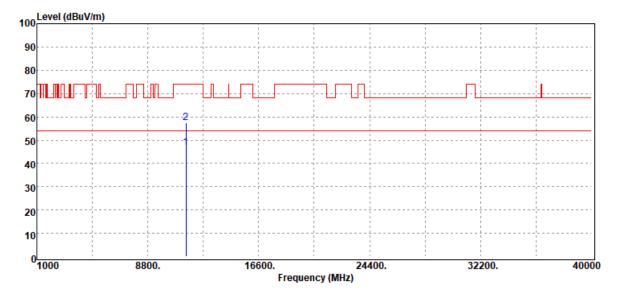
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5745 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11490.00	Average	30.84	15.95	46.79	54.00	-7.21
11490.00	Peak	41.37	15.95	57.32	74.00	-16.68

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。



EUT Pol.

Report No.: T190521W02-RP2

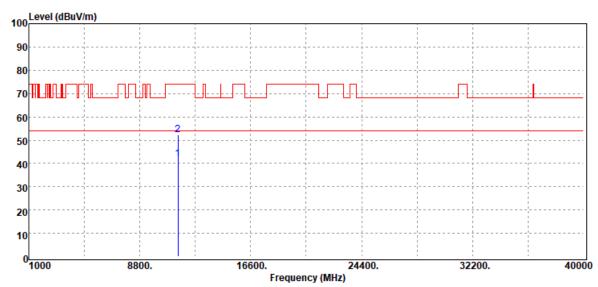
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5745 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11490.00	Average	25.75	15.95	41.70	54.00	-12.30
11490.00	Peak	36.27	15.95	52.22	74.00	-21.78

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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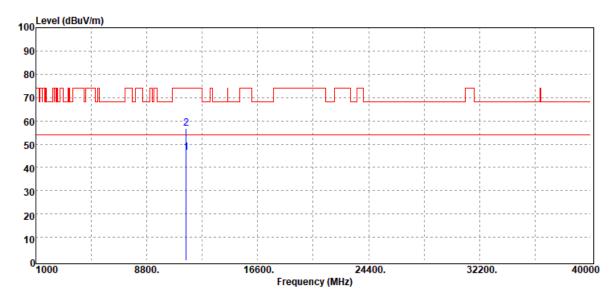
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11570.00	Average	29.82	16.41	46.23	54.00	-7.77
11570.00	Peak	40.37	16.41	56.78	74.00	-17.22

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。



EUT Pol.

Report No.: T190521W02-RP2

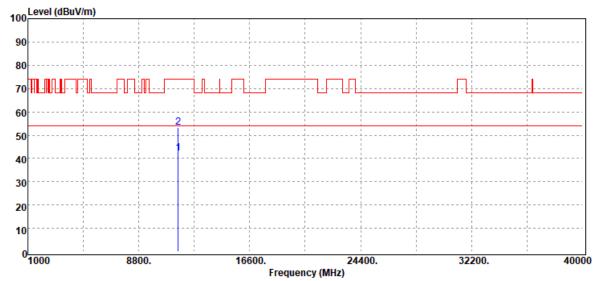
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
	11570.00	Average	25.93	16.41	42.34	54.00	-11.66	
	11570.00	Peak	36.76	16.41	53.17	74.00	-20.83	

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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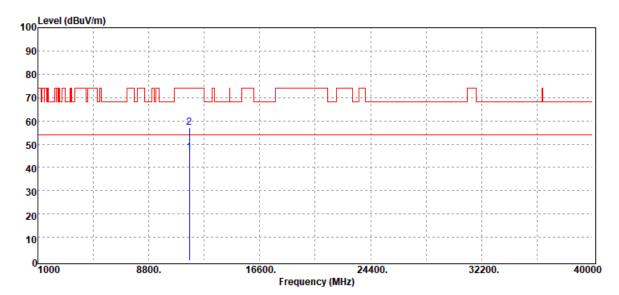
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5825 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	30.27	16.21	46.48	54.00	-7.52
11650.00	Peak	41.01	16.21	57.22	74.00	-16.78

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。



EUT Pol.

Report No.: T190521W02-RP2

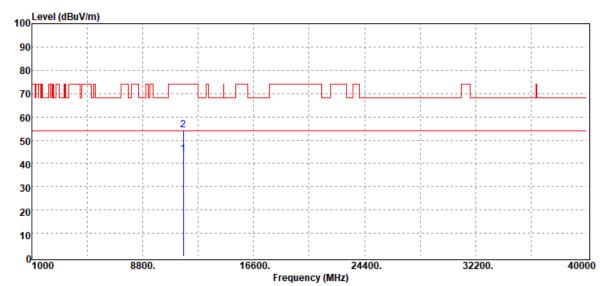
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11a / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5825 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
 11650.00	Average	27.86	16.21	44.07	54.00	-9.93
11650.00	Peak	38.14	16.21	54.35	74.00	-19.65

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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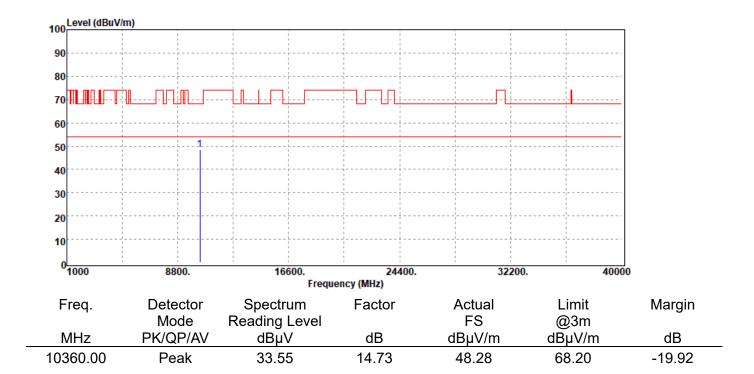
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5180 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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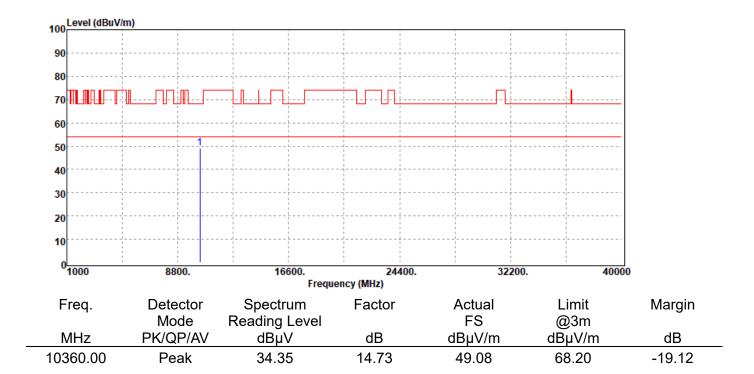
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5180 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



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。



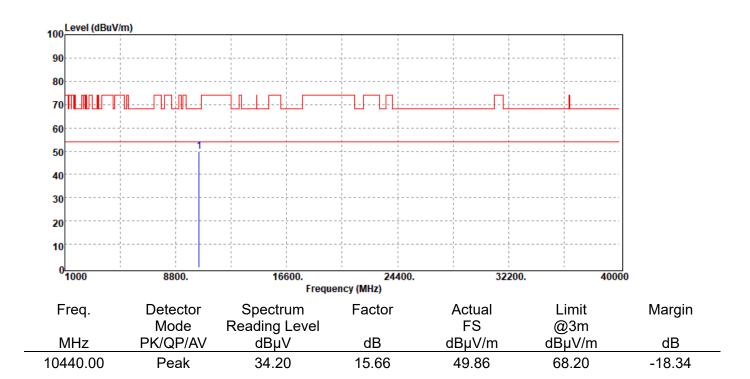
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5220 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



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。



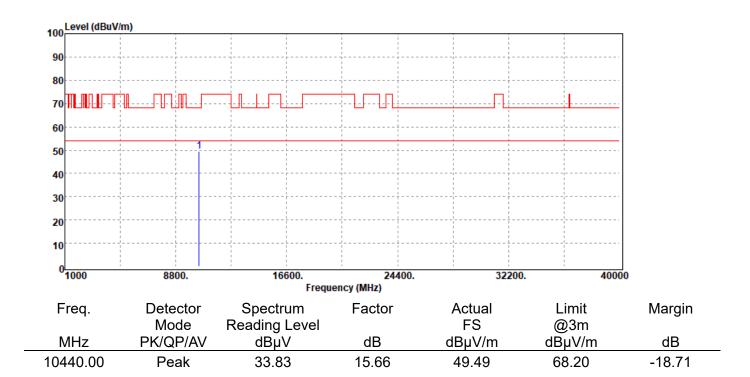
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5220 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



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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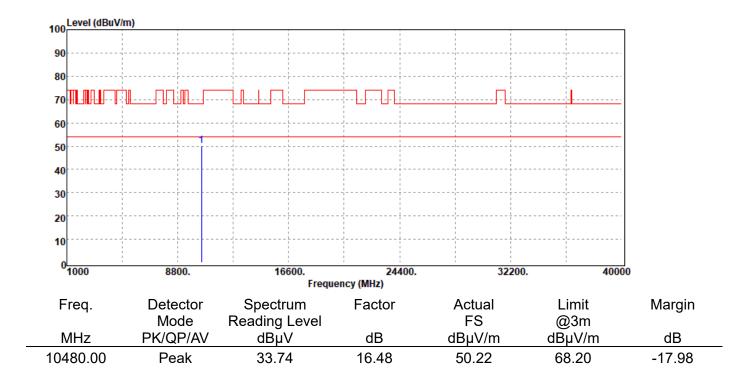
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5240 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



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。



EUT Pol.

Report No.: T190521W02-RP2

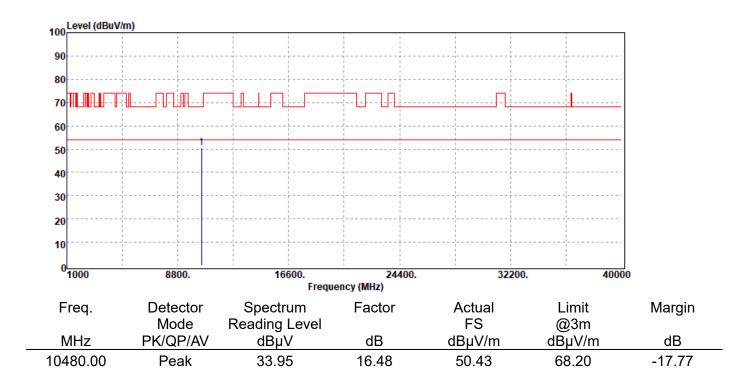
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 1 Temp./Humi. :21.8/45

Frequency :5240 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH High Engineer :Kane



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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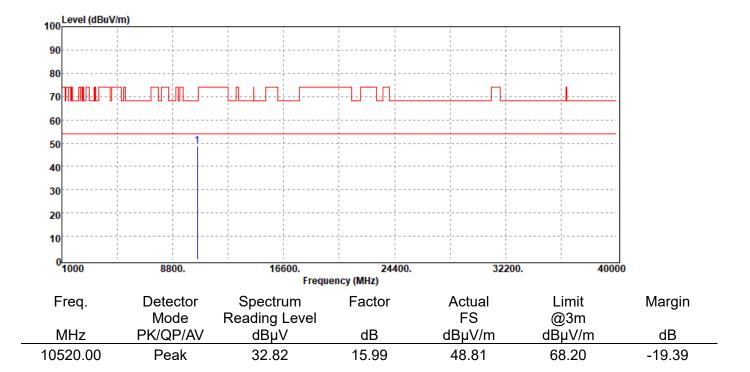
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

Frequency :5260 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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。



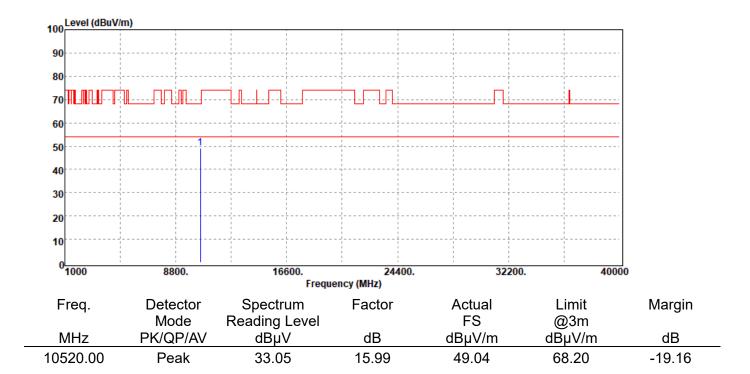
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

Frequency :5260 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



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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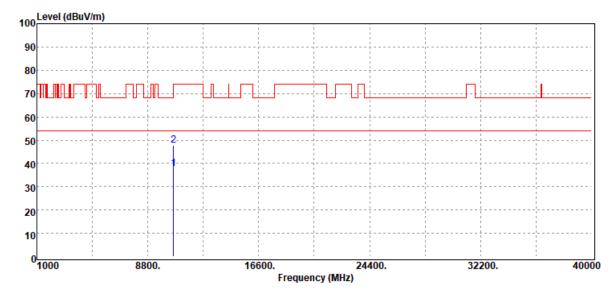
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10600.00) Average	22.32	15.27	37.59	54.00	-16.41
10600.00) Peak	32.54	15.27	47.81	74.00	-26.19

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。



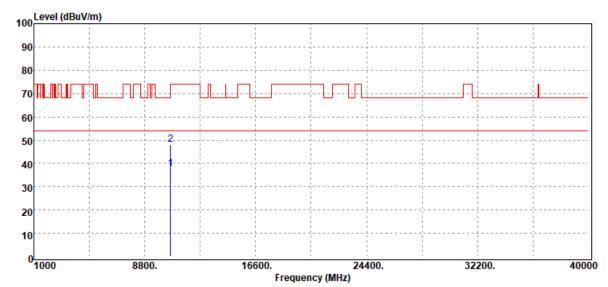
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5300 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 10600.00	Average	22.48	15.27	37.75	54.00	-16.25
10600.00	Peak	32.78	15.27	48.05	74.00	-25.95

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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:Kane

Engineer

Report Number :T190521W02 **Test Date** :2019-07-23

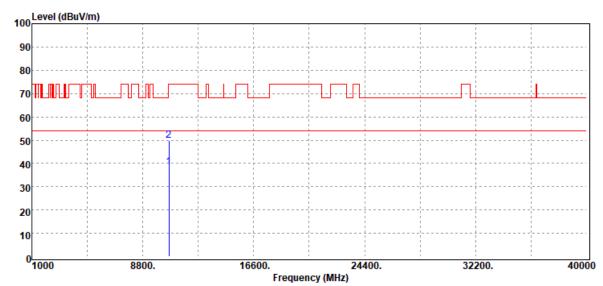
Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5320 MHz Antenna Pol.

EUT Pol. :E2 Plan

:Tx CH High

Operation Mode



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
10640.00	Average	22.52	16.05	38.57	54.00	-15.43
10640.00	Peak	33.90	16.05	49.95	74.00	-24.05

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‧



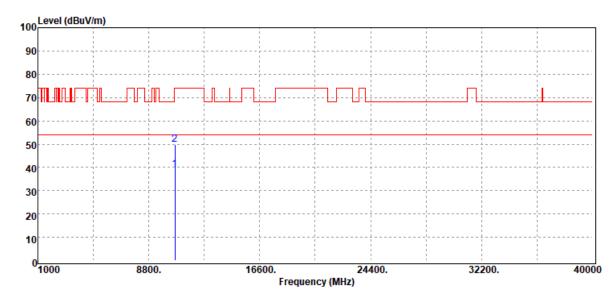
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5320 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	_
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBμV/m	dB
10640.00	Average	22.88	16.05	38.93	54.00	-15.07
10640.00	Peak	33.62	16.05	49.67	74.00	-24.33

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。



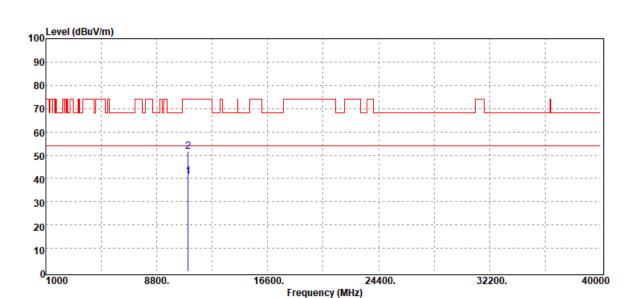
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5500 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11000.00	Average	23.23	17.44	40.67	54.00	-13.33
11000.00	Peak	34.15	17.44	51.59	74.00	-22.41

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。



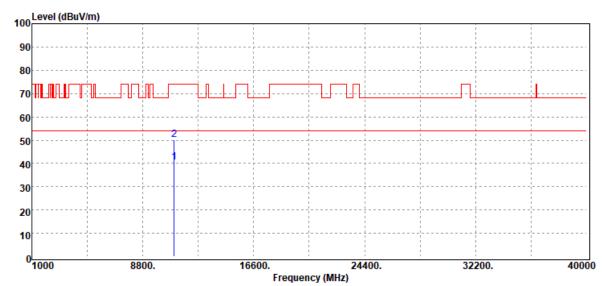
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5500 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11000.00	Average	23.17	17.44	40.61	54.00	-13.39	
11000.00	Peak	32.75	17.44	50.19	74.00	-23.81	

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。



EUT Pol.

Report No.: T190521W02-RP2

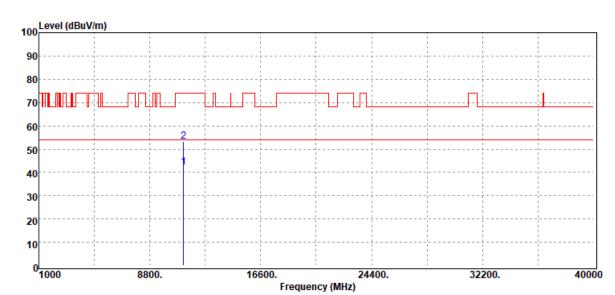
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
_	11160.00	Average	25.29	16.85	42.14	54.00	-11.86	
	11160.00	Peak	36.42	16.85	53.27	74.00	-20.73	

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。



EUT Pol.

Report No.: T190521W02-RP2

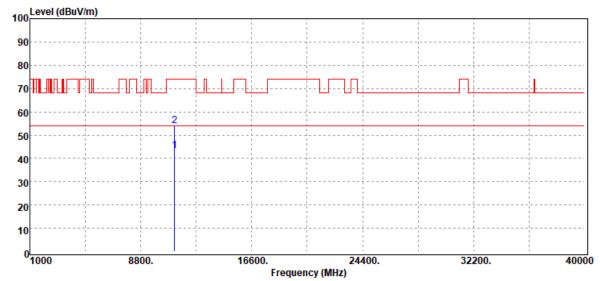
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5580 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB	
 11160.00	Average	26.51	16.85	43.36	54.00	-10.64	
11160.00	Peak	37.21	16.85	54.06	74.00	-19.94	

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。



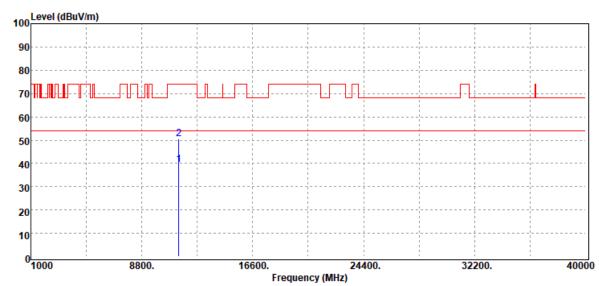
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5700 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	22.66	16.89	39.55	54.00	-14.45
11400.00	Peak	33.69	16.89	50.58	74.00	-23.42

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。



EUT Pol.

Report No.: T190521W02-RP2

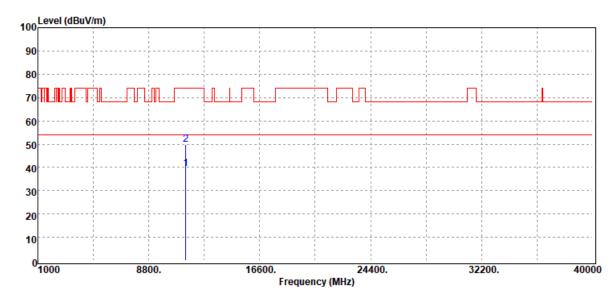
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5700 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	_
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11400.00	Average	22.69	16.89	39.58	54.00	-14.42
11400.00	Peak	32.96	16.89	49.85	74.00	-24.15

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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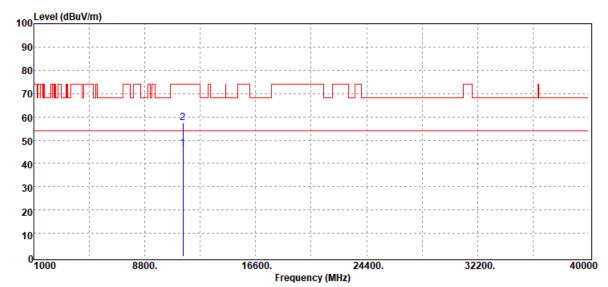
:Kane

Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5745 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11490.00	Average	30.58	15.95	46.53	54.00	-7.47
11490.00	Peak	41.60	15.95	57.55	74.00	-16.45

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。



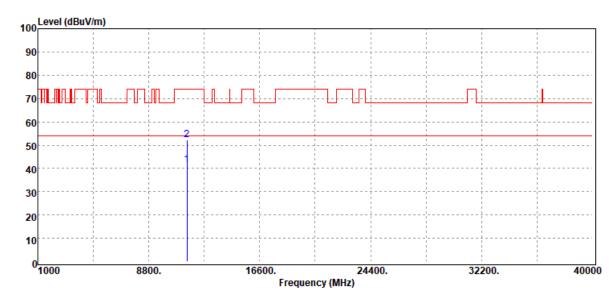
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5745 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11490.00	Average	25.71	15.95	41.66	54.00	-12.34
11490.00	Peak	36.39	15.95	52.34	74.00	-21.66

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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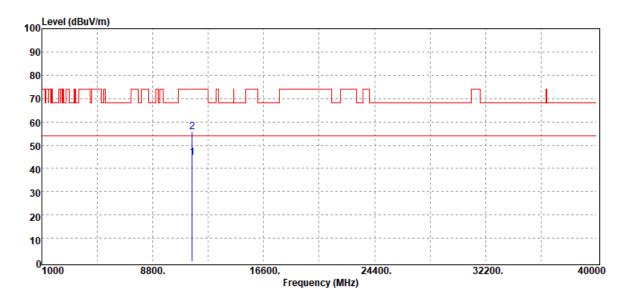
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
 11570.00	Average	28.37	16.41	44.78	54.00	-9.22
11570.00	Peak	39.40	16.41	55.81	74.00	-18.19

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。



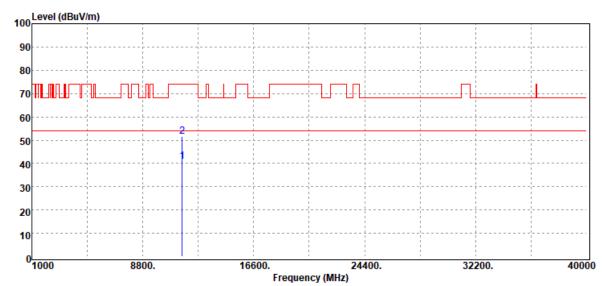
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5785 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
	11570.00	Average	24.38	16.41	40.79	54.00	-13.21
	11570.00	Peak	35.18	16.41	51.59	74.00	-22.41

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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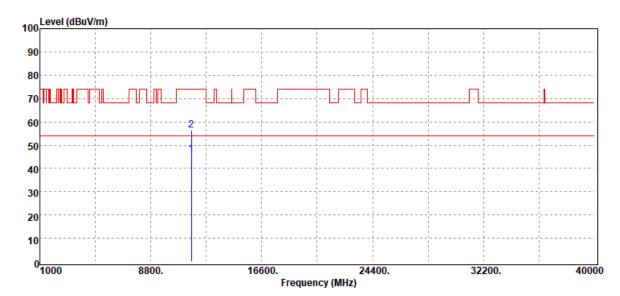
:Kane

Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5825 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	29.89	16.21	46.10	54.00	-7.90
11650.00	Peak	40.07	16.21	56.28	74.00	-17.72

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。



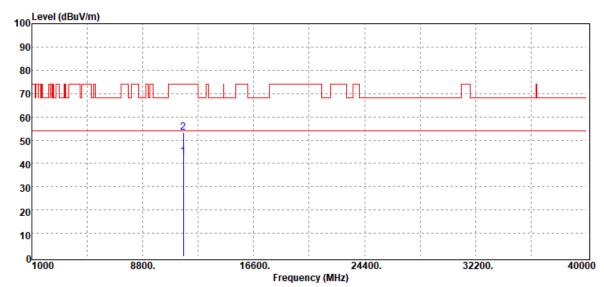
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n20/Band 4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5825 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB	
11650.00	Average	26.72	16.21	42.93	54.00	-11.07	
11650.00	Peak	37.23	16.21	53.44	74.00	-20.56	

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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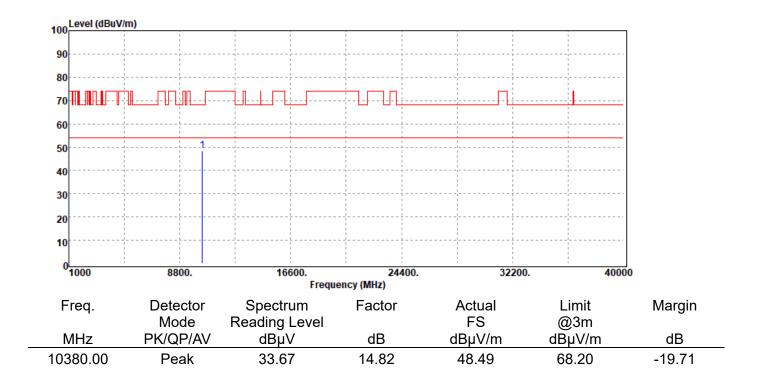
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band1 Temp./Humi. :21.8/45

Frequency :5190 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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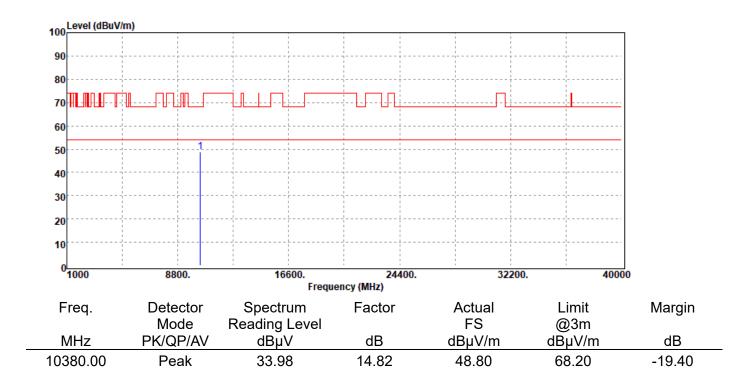
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band1 Temp./Humi. :21.8/45

Frequency :5190 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



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。



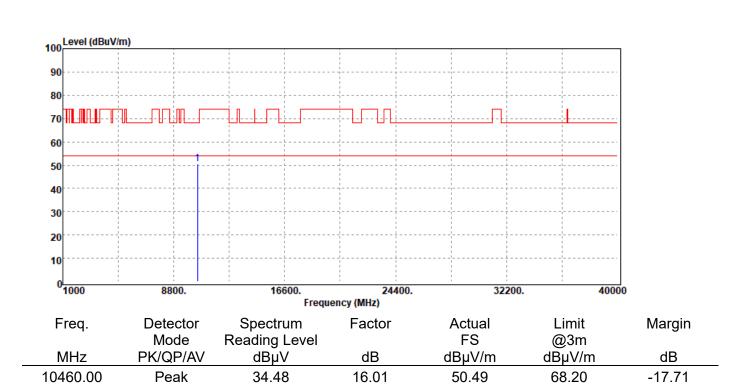
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band1 Temp./Humi. :21.8/45

Frequency :5230 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



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。



:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

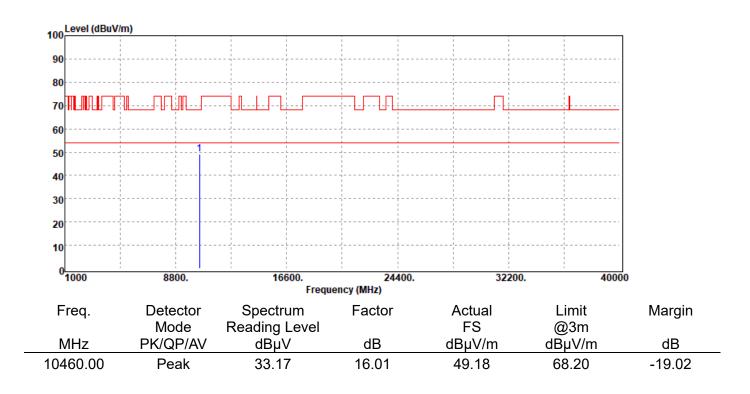
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band1 Temp./Humi. :21.8/45

Frequency :5230 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH High Engineer :Kane



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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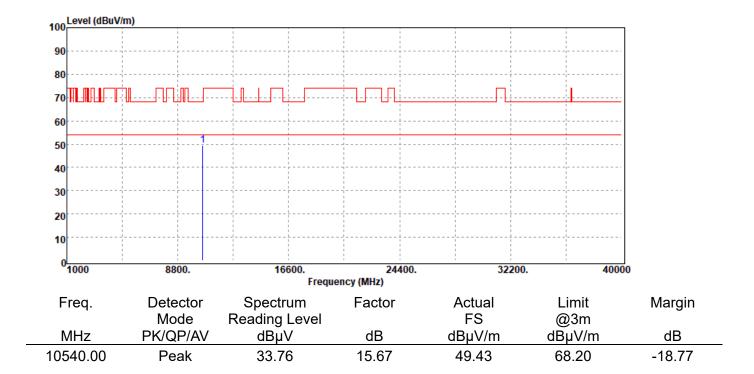
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band2 Temp./Humi. :21.8/45

Frequency :5270 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

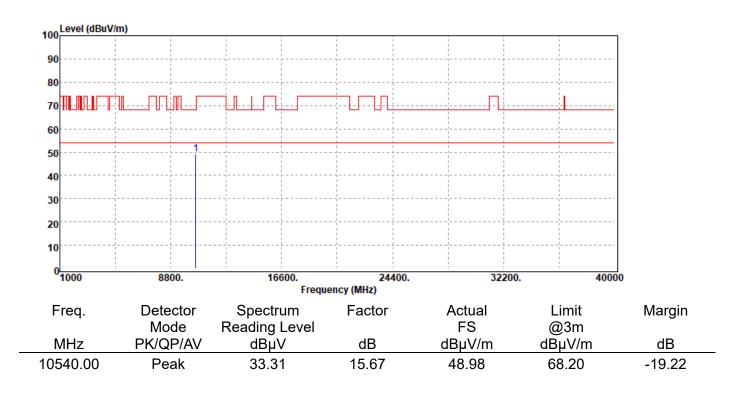
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11n40 / Band2 Temp./Humi. :21.8/45

Frequency :5270 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane



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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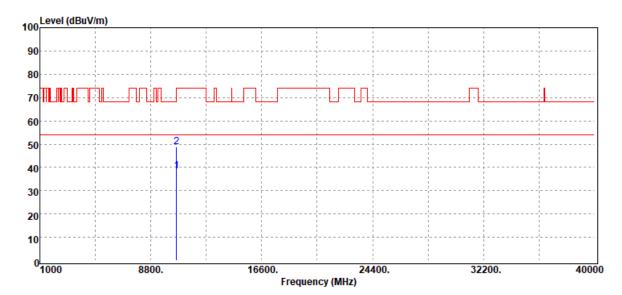
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band2 Temp./Humi. :21.8/45

:VERTICAL Frequency :5310 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
10620.00	Average	22.87	15.66	38.53	54.00	-15.47
10620.00	Peak	33.25	15.66	48.91	74.00	-25.09

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。



:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

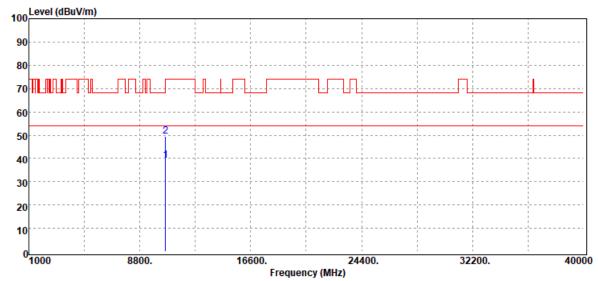
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band2 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5310 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	23.59	15.66	39.25	54.00	-14.75
10620.00	Peak	33.72	15.66	49.38	74.00	-24.62

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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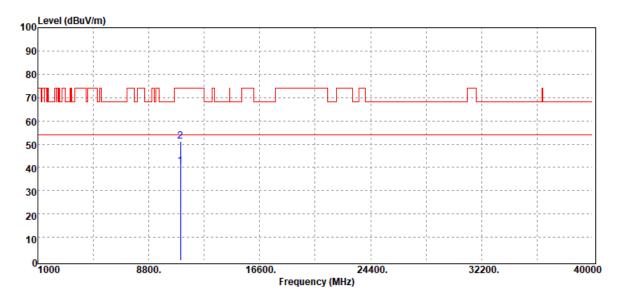
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5510 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



	Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
		Mode	Reading Level		FS	@3m	_
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
1	1020.00	Average	22.91	17.69	40.60	54.00	-13.40
1	1020.00	Peak	33.41	17.69	51.10	74.00	-22.90

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。



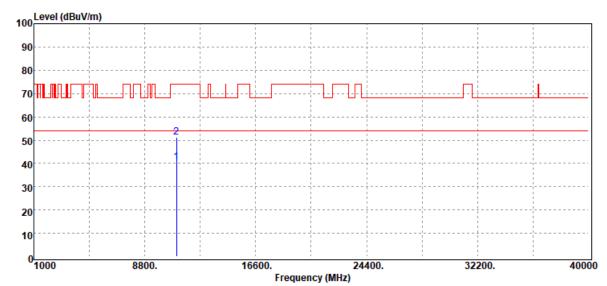
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5510 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11020.00	Average	22.64	17.69	40.33	54.00	-13.67	
11020.00	Peak	33.65	17.69	51.34	74.00	-22.66	

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。



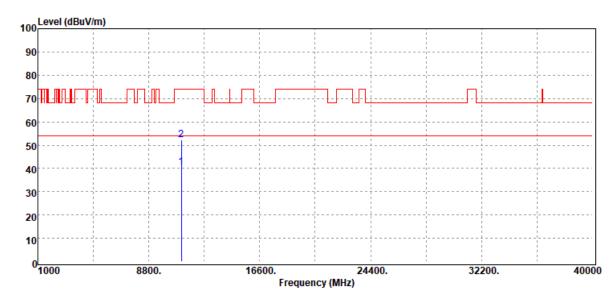
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5550 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	23.19	17.36	40.55	54.00	-13.45
11100.00	Peak	34.78	17.36	52.14	74.00	-21.86

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。



:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

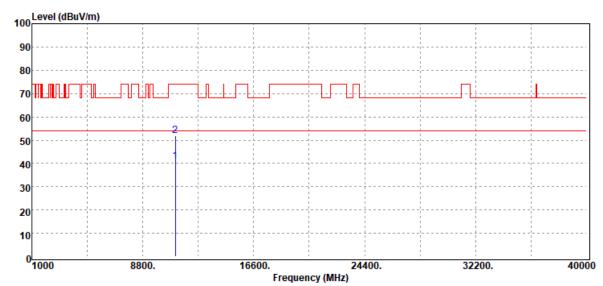
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5550 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11100.00	Average	23.43	17.36	40.79	54.00	-13.21	
11100.00	Peak	34.39	17.36	51.75	74.00	-22.25	

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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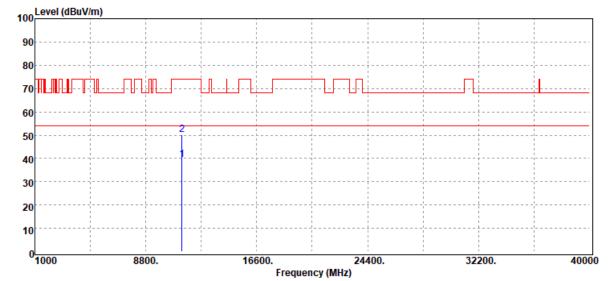
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5670 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBμV/m	dB
11340.00	Average	23.17	16.32	39.49	54.00	-14.51
11340.00	Peak	33.84	16.32	50.16	74.00	-23.84

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。



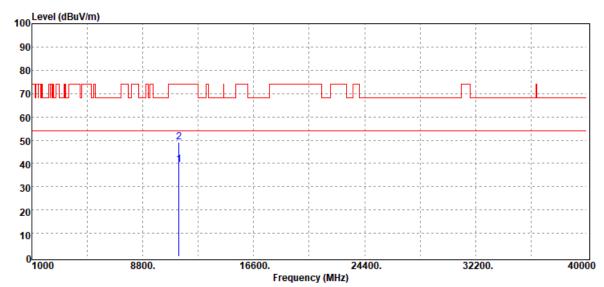
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5670 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
	11340.00	Average	22.97	16.32	39.29	54.00	-14.71
	11340.00	Peak	32.88	16.32	49.20	74.00	-24.80

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。



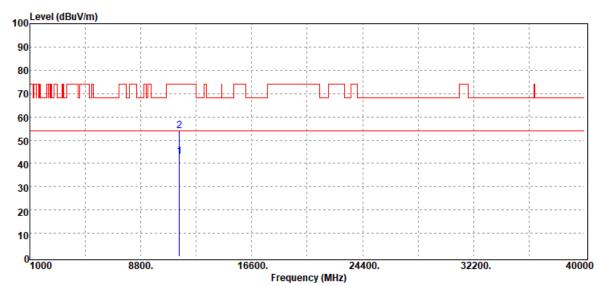
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5755 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
	11510.00	Average	26.99	15.83	42.82	54.00	-11.18	
	11510.00	Peak	38.06	15.83	53.89	74.00	-20.11	

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。



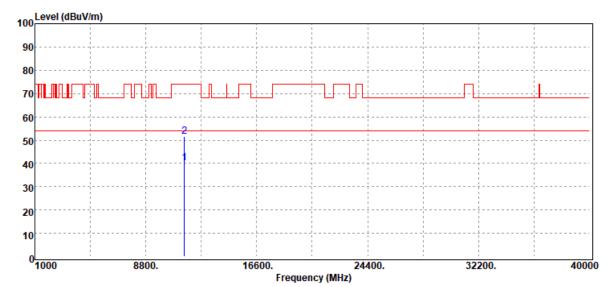
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5755 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	24.23	15.83	40.06	54.00	-13.94
11510.00	Peak	35.64	15.83	51.47	74.00	-22.53

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。



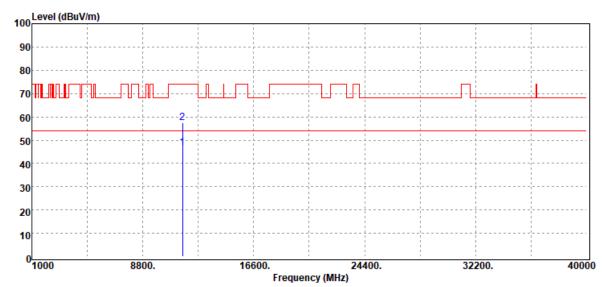
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5795 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11590.00	Average	30.13	16.74	46.87	54.00	-7.13
11590.00	Peak	40.61	16.74	57.35	74.00	-16.65

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。



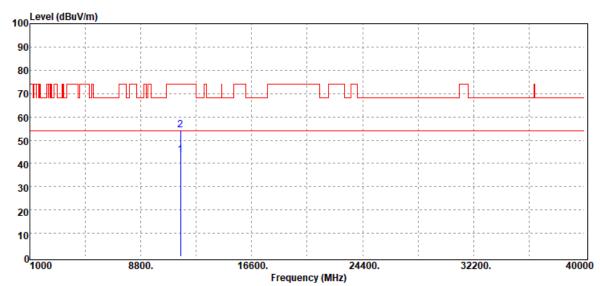
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11n40 / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5795 MHz Antenna Pol.

Operation Mode :Tx CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
 11590.00	Average	26.94	16.74	43.68	54.00	-10.32
11590.00	Peak	37.50	16.74	54.24	74.00	-19.76

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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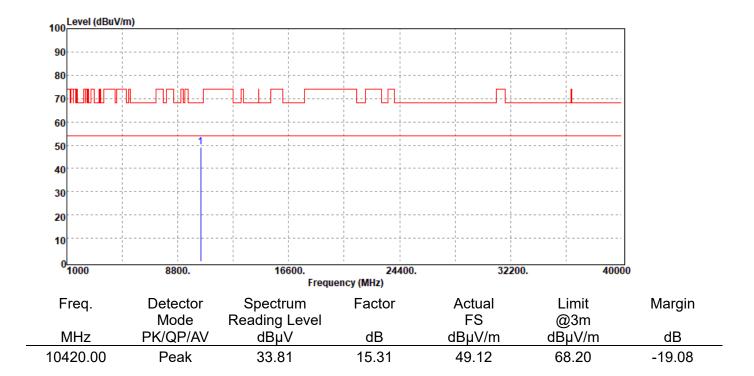
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11ac80 / Band1 Temp./Humi. :21.8/45

Frequency :5210 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



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。



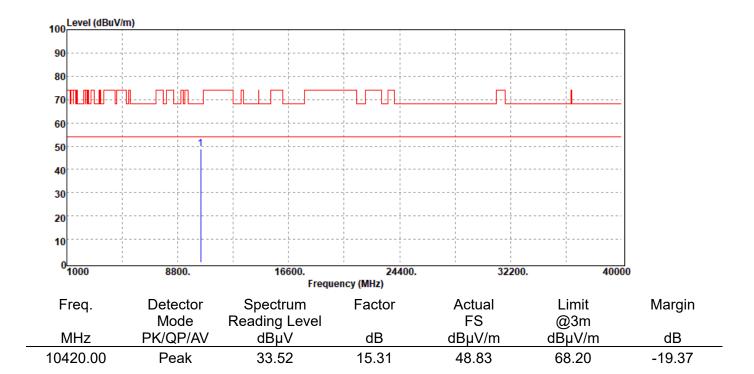
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11ac80 / Band1 Temp./Humi. :21.8/45

Frequency :5210 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



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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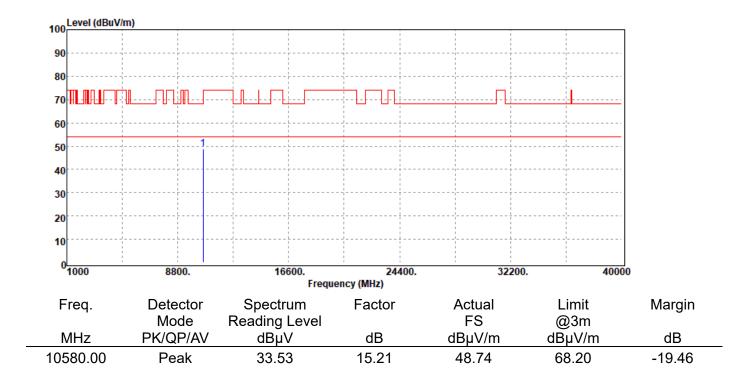
Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11ac80 / Band2 Temp./Humi. :21.8/45

Frequency :5290 MHz Antenna Pol. :VERTICAL

Operation Mode :Tx CH High Engineer :Kane

EUT Pol. :E2 Plan



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。



:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

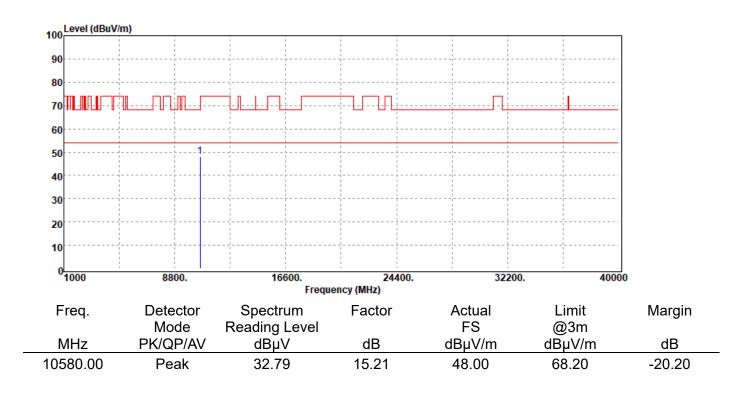
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Report Number :T190521W02 Test Date :2019-07-23

Operation Band :802.11ac80 / Band2 Temp./Humi. :21.8/45

Frequency :5290 MHz Antenna Pol. :HORIZONTAL

Operation Mode :Tx CH High Engineer :Kane



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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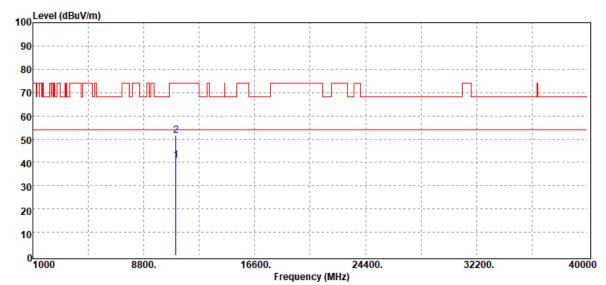
Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5530 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11060.00	Average	23.40	17.46	40.86	54.00	-13.14
11060.00	Peak	34.07	17.46	51.53	74.00	-22.47

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。



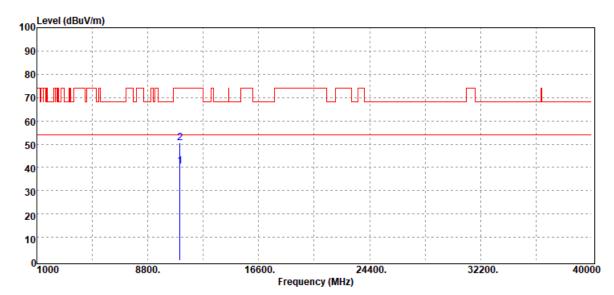
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5530 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11060.00	Average	23.14	17.46	40.60	54.00	-13.40
11060.00	Peak	33.11	17.46	50.57	74.00	-23.43

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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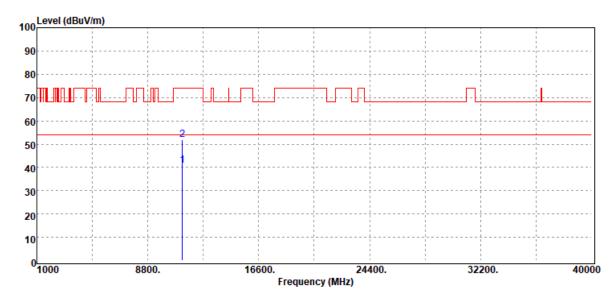
:Kane

Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band3 Temp./Humi. :21.8/45

:VERTICAL Frequency :5610 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	24.07	16.62	40.69	54.00	-13.31
11220.00	Peak	35.19	16.62	51.81	74.00	-22.19

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。



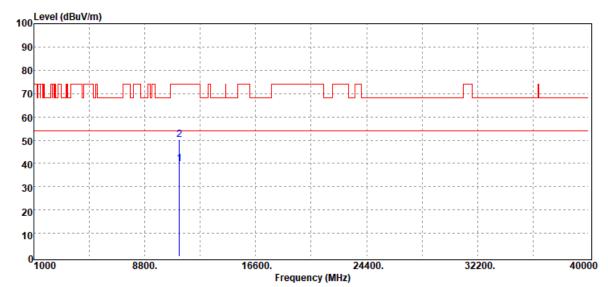
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band3 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5610 MHz Antenna Pol.

Operation Mode :Tx CH Mid Engineer :Kane EUT Pol. :E2 Plan



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
_	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
	11220.00	Average	23.11	16.62	39.73	54.00	-14.27
	11220.00	Peak	33.64	16.62	50.26	74.00	-23.74

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。



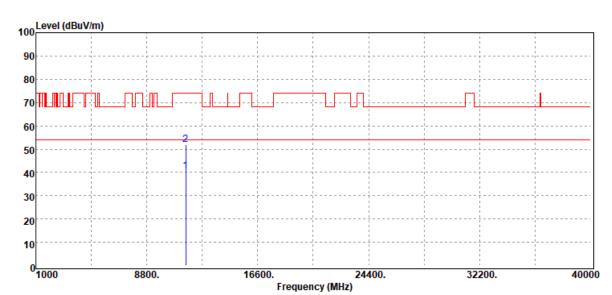
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band4 Temp./Humi. :21.8/45

:VERTICAL Frequency :5775 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
11550.00	Average	24.28	16.09	40.37	54.00	-13.63	
11550.00	Peak	35.65	16.09	51.74	74.00	-22.26	

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。



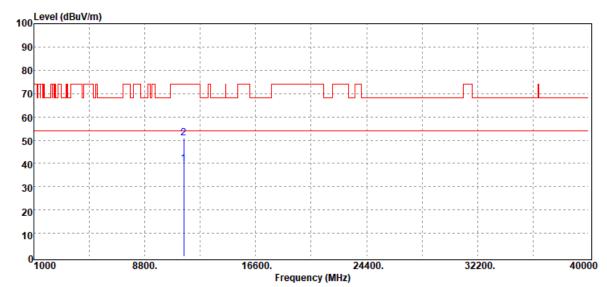
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Report Number :T190521W02 **Test Date** :2019-07-23

Operation Band :802.11ac80 / Band4 Temp./Humi. :21.8/45

:HORIZONTAL Frequency :5775 MHz Antenna Pol.

Operation Mode :Tx CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
11550.00	Average	23.86	16.09	39.95	54.00	-14.05
11550.00	Peak	34.73	16.09	50.82	74.00	-23.18

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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Radiated Band Edge Measurement Result

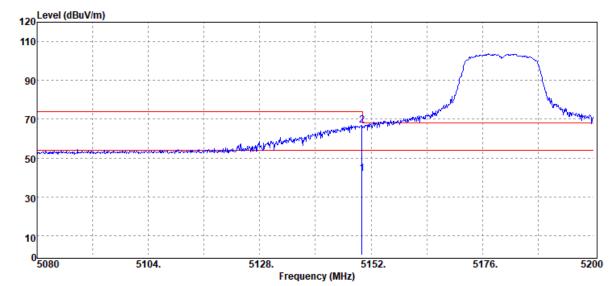
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Operation Band :802.11a / Band1 Temp./Humi. :23.9/51

Frequency :5180 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5150.00	Average	37.15	4.92	42.07	54.00	-11.93
5150.00	Peak	62.06	4.92	66.98	74.00	-7.02

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。



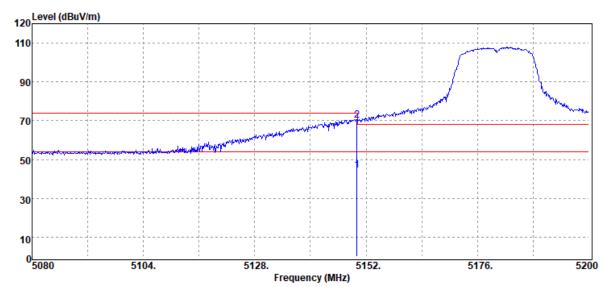
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band1 Temp./Humi. :23.9/51

Frequency :5180 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
 5150.00	Average	39.61	4.92	44.53	54.00	-9.47	
5150.00	Peak	65.42	4.92	70.34	74.00	-3.66	

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。



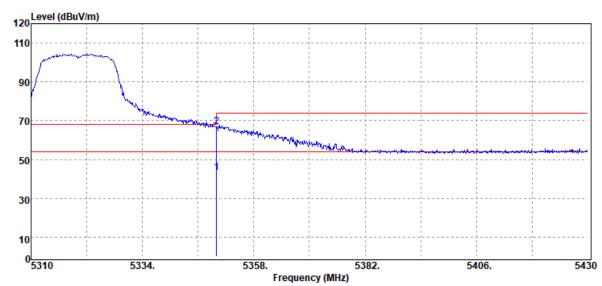
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band2 Temp./Humi. :23.9/51

Frequency :5320 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 5350.00	Average	38.04	5.21	43.25	54.00	-10.75
5350.00	Peak	61.44	5.21	66.65	74.00	-7.35

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。



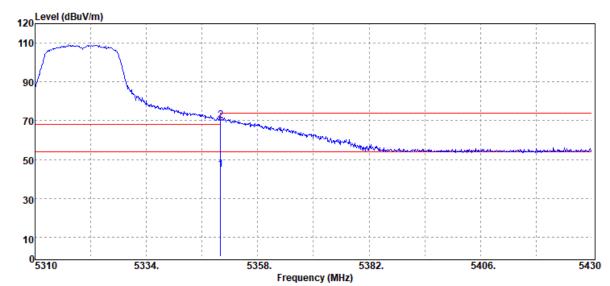
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band2 Temp./Humi. :23.9/51

Frequency :5320 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5350.00	Average	39.73	5.21	44.94	54.00	-9.06
5350.00	Peak	65.13	5.21	70.34	74.00	-3.66

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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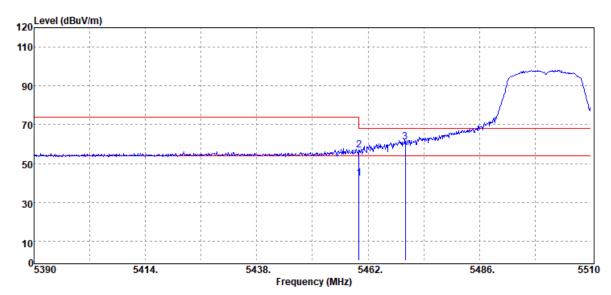
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band3 Temp./Humi. :23.9/51

Frequency :5500 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	51.07	5.63	56.70	74.00	-17.30
5470.00	Peak	55.58	5.65	61.23	68.20	-6.97

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。



:E2 Plan

EUT Pol.

Report No.: T190521W02-RP2

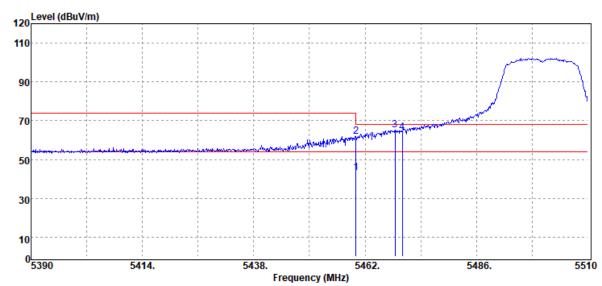
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band3 Temp./Humi. :23.9/51

Frequency :5500 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
5460.00	Average	37.38	5.63	43.01	54.00	-10.99
5460.00	Peak	56.28	5.63	61.91	74.00	-12.09
5468.48	Peak	59.47	5.64	65.11	68.20	-3.09
5470.00	Peak	58.38	5.65	64.03	68.20	-4.17

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。



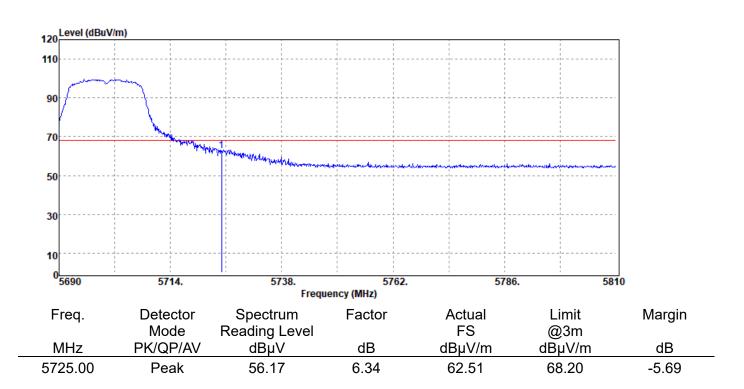
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band3 Temp./Humi. :23.9/51

Frequency :5700 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



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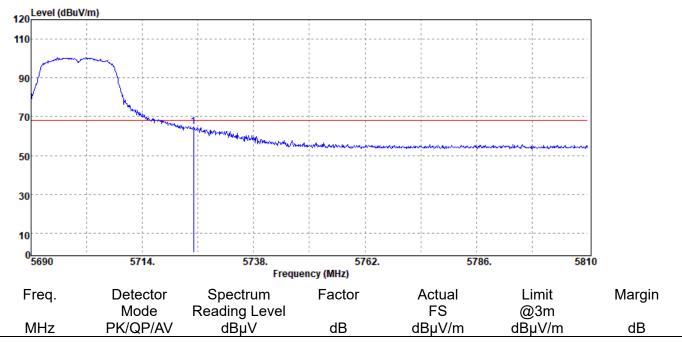
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Report Number :T190521W02 **Test Date** :2019-07-20

Operation Band :802.11a / Band3 Temp./Humi. :23.9/51

:HORIZONTAL Frequency :5700 MHz Antenna Pol.

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin	
	Mode	Reading Level		FS	@3m		
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5725.00	Peak	58.36	6.34	64.70	68.20	-3.50	

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。



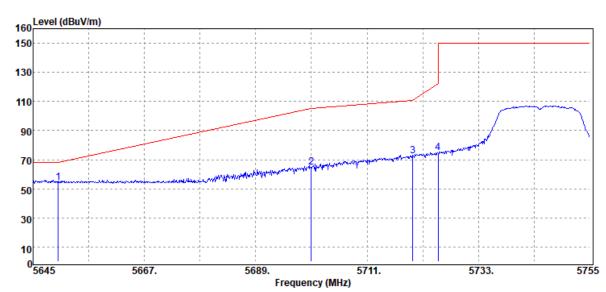
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band4 Temp./Humi. :23.9/51

Frequency :5745 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5650.00	Peak	48.41	6.04	54.45	68.20	-13.75
5700.00	Peak	58.21	6.32	64.53	105.20	-40.67
5720.00	Peak	66.41	6.33	72.74	110.80	-38.06
5725.00	Peak	68.37	6.34	74.71	122.20	-47.49

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。



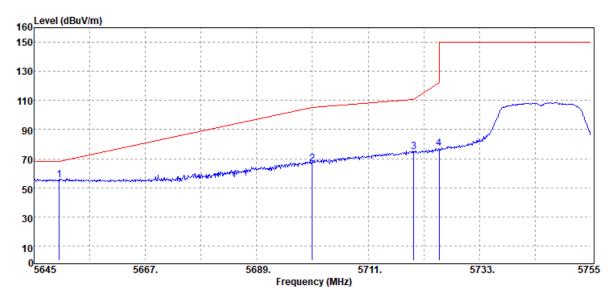
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band4 Temp./Humi. :23.9/51

Frequency :5745 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5650.00	Peak	49.37	6.04	55.41	68.20	-12.79
5700.00	Peak	60.24	6.32	66.56	105.20	-38.64
5720.00	Peak	68.29	6.33	74.62	110.80	-36.18
5725.00	Peak	70.54	6.34	76.88	122.20	-45.32

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。



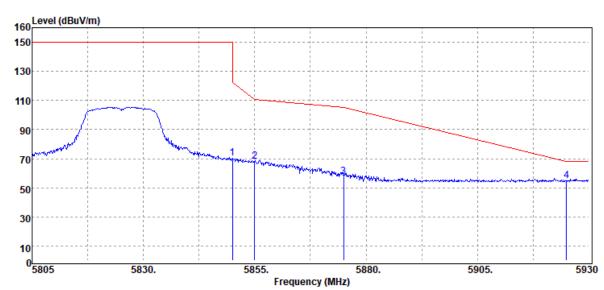
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band4 Temp./Humi. :23.9/51

Frequency :5825 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5850.00	Peak	63.75	6.39	70.14	122.20	-52.06
5855.00	Peak	61.87	6.38	68.25	110.80	-42.55
5875.00	Peak	51.25	6.37	57.62	105.20	-47.58
5925.00	Peak	48.61	6.42	55.03	68.20	-13.17

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。



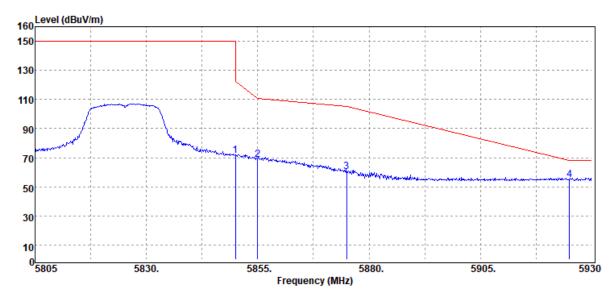
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11a / Band4 Temp./Humi. :23.9/51

Frequency :5825 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	64.80	6.39	71.19	122.20	-51.01
5855.00	Peak	62.55	6.38	68.93	110.80	-41.87
5875.00	Peak	53.79	6.37	60.16	105.20	-45.04
5925.00	Peak	48.41	6.42	54.83	68.20	-13.37

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。



Operation Mode

Report No.: T190521W02-RP2

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:Kane

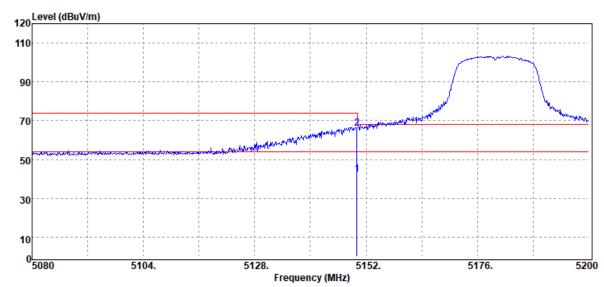
Engineer

Report Number :T190521W02 **Test Date** :2019-07-20

Operation Band :802.11n20 / Band1 Temp./Humi. :23.9/51

:VERTICAL Frequency :5180 MHz Antenna Pol.

:BE CH Low EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
 5150.00	Average	37.41	4.92	42.33	54.00	-11.67
5150.00	Peak	61.24	4.92	66.16	74.00	-7.84

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。



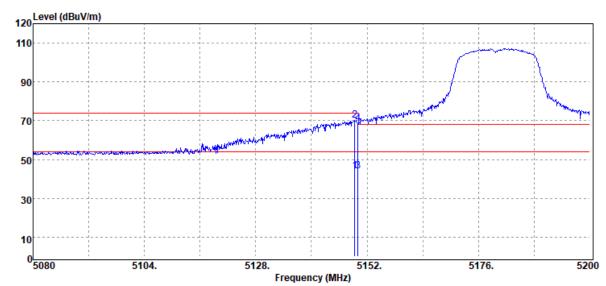
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band1 Temp./Humi. :23.9/51

Frequency :5180 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5149.36	Average	38.97	4.92	43.89	54.00	-10.11
5149.36	Peak	65.34	4.92	70.26	74.00	-3.74
5150.00	Average	39.20	4.92	44.12	54.00	-9.88
5150.00	Peak	63.77	4.92	68.69	74.00	-5.31

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。



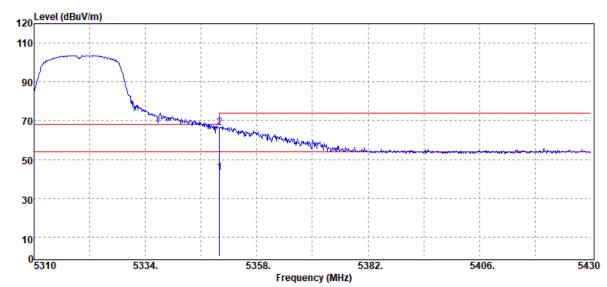
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band2 Temp./Humi. :23.9/51

Frequency :5320 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5350.00	Average	37.91	5.21	43.12	54.00	-10.88
5350.00	Peak	61.02	5.21	66.23	74.00	-7.77

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。



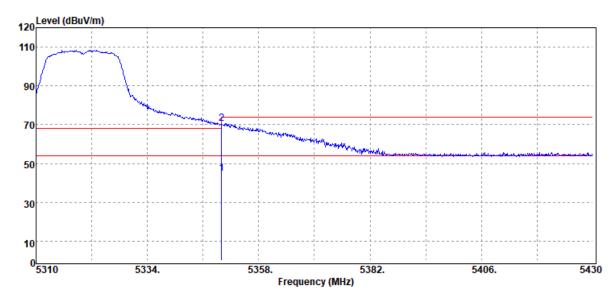
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band2 Temp./Humi. :23.9/51

Frequency :5320 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 5350.00	Average	39.43	5.21	44.64	54.00	-9.36
5350.00	Peak	65.33	5.21	70.54	74.00	-3.46

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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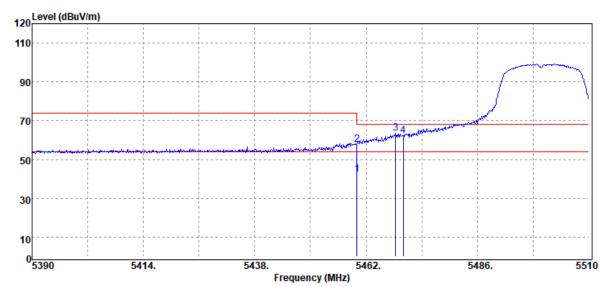
:Kane

Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band3 Temp./Humi. :23.9/51

Frequency :5500 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	52.11	5.63	57.74	74.00	-16.26
5468.36	Peak	57.94	5.64	63.58	68.20	-4.62
5470.00	Peak	56.47	5.65	62.12	68.20	-6.08

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。



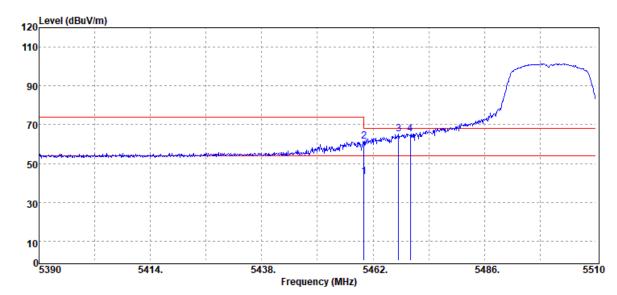
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band3 Temp./Humi. :23.9/51

Frequency :5500 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	37.39	5.63	43.02	54.00	-10.98
5460.00	Peak	56.02	5.63	61.65	74.00	-12.35
5467.52	Peak	59.35	5.64	64.99	68.20	-3.21
5470.00	Peak	59.38	5.65	65.03	68.20	-3.17

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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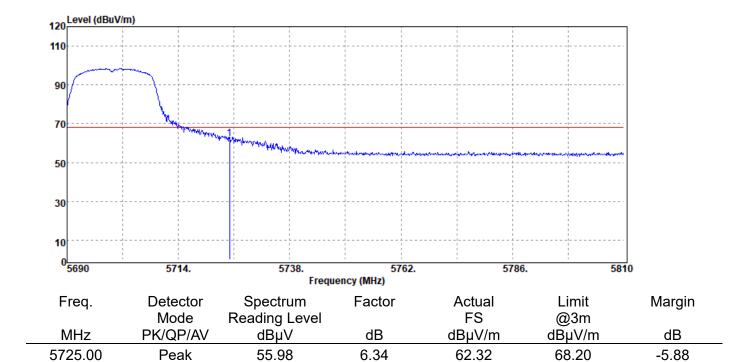
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band3 Temp./Humi. :23.9/51

Frequency :5700 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



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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Report Number :T190521W02

Operation Band :802.11n20 / Band3 Temp./

Frequency :5700 MHz
Operation Mode :BE CH High

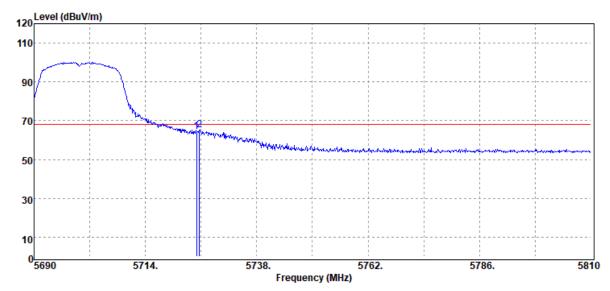
EUT Pol. :E2 Plan

Test Date :2019-07-20

Temp./Humi. :23.9/51

Antenna Pol. :HORIZONTAL

Engineer :Kane



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5725.00	Peak	58.12	6.34	64.46	68.20	-3.74
5725.64	Peak	58.64	6.34	64.98	68.20	-3.22

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。



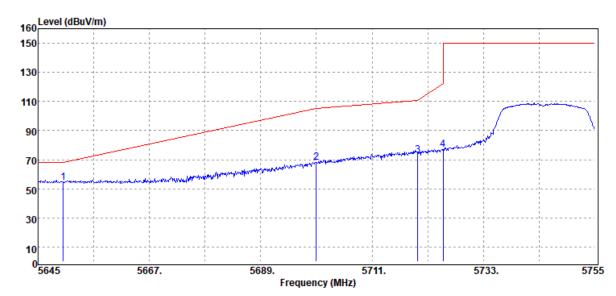
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band4 Temp./Humi. :23.9/51

Frequency :5745 MHz Antenna Pol. :VERTICAL
Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5650.00	Peak	48.43	6.04	54.47	68.20	-13.73
5700.00	Peak	61.52	6.32	67.84	105.20	-37.36
5720.00	Peak	66.61	6.33	72.94	110.80	-37.86
5725.00	Peak	70.55	6.34	76.89	122.20	-45.31

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。



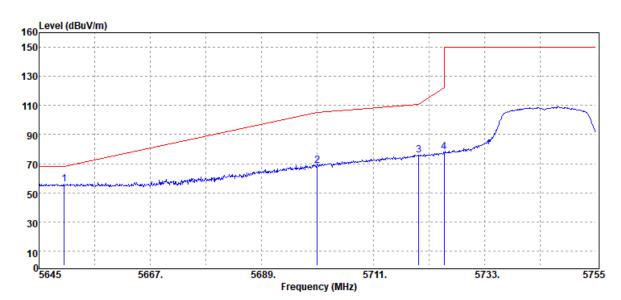
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band4 Temp./Humi. :23.9/51

Frequency :5745 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5650.00	Peak	49.82	6.04	55.86	68.20	-12.34
5700.00	Peak	62.41	6.32	68.73	105.20	-36.47
5720.00	Peak	69.29	6.33	75.62	110.80	-35.18
5725.00	Peak	71.61	6.34	77.95	122.20	-44.25

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。



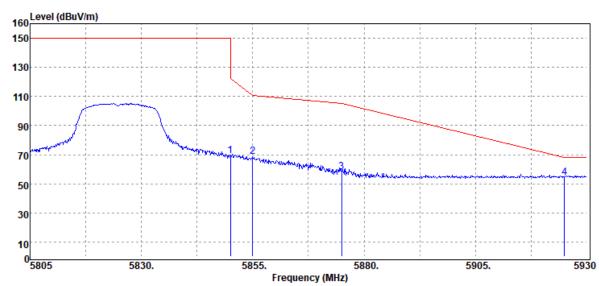
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n20 / Band4 Temp./Humi. :23.9/51

Frequency :5825 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5850.00	Peak	62.84	6.39	69.23	122.20	-52.97
5855.00	Peak	62.18	6.38	68.56	110.80	-42.24
5875.00	Peak	51.93	6.37	58.30	105.20	-46.90
5925.00	Peak	47.83	6.42	54.25	68.20	-13.95

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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Report Number :T190521W02

Operation Band :802.11n20 / Band4

Frequency :5825 MHz
Operation Mode :BE CH High

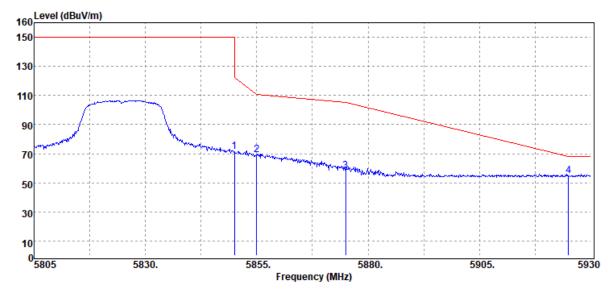
EUT Pol. :E2 Plan

Test Date :2019-07-20

Temp./Humi. :23.9/51

Antenna Pol. :HORIZONTAL

Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5850.00	Peak	65.17	6.39	71.56	122.20	-50.64
5855.00	Peak	62.75	6.38	69.13	110.80	-41.67
5875.00	Peak	51.61	6.37	57.98	105.20	-47.22
5925.00	Peak	48.17	6.42	54.59	68.20	-13.61

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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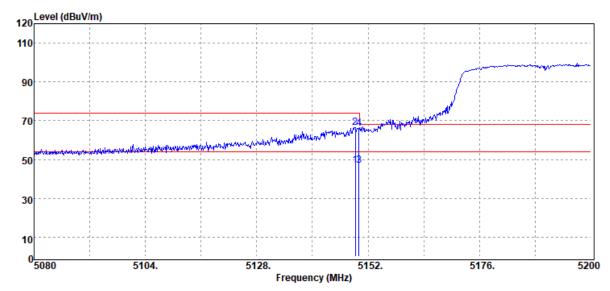
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band1 Temp./Humi. :23.9/51

Frequency :5190 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5149.24	Average	41.83	4.92	46.75	54.00	-7.25
5149.24	Peak	61.60	4.92	66.52	74.00	-7.48
5150.00	Average	41.97	4.92	46.89	54.00	-7.11
5150.00	Peak	60.91	4.92	65.83	74.00	-8.17

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。



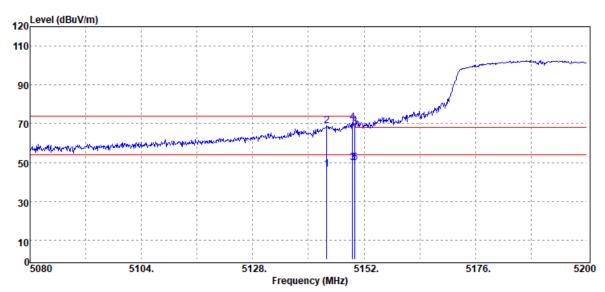
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band1 Temp./Humi. :23.9/51

Frequency :5190 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH Low Engineer :Kane

Operation Mode :BE CH Low Engineer EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5143.96	Average	41.69	4.92	46.61	54.00	-7.39
5143.96	Peak	63.83	4.92	68.75	74.00	-5.25
5149.48	Average	44.83	4.92	49.75	54.00	-4.25
5149.48	Peak	65.67	4.92	70.59	74.00	-3.41
5150.00	Average	45.11	4.92	50.03	54.00	-3.97
5150.00	Peak	62.99	4.92	67.91	74.00	-6.09

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。



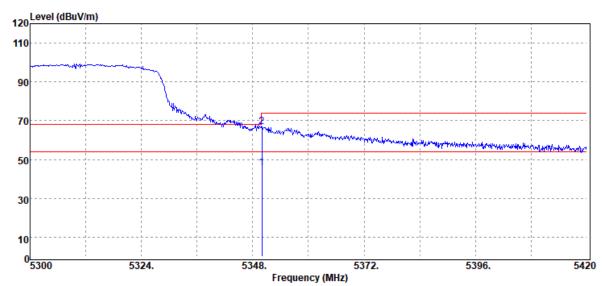
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band2 Temp./Humi. :23.9/51

Frequency :5310 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	40.56	5.21	45.77	54.00	-8.23
5350.00	Peak	61.65	5.21	66.86	74.00	-7.14

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。



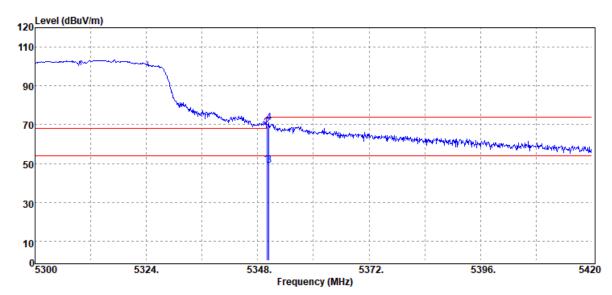
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Report Number :T190521W02 **Test Date** :2019-07-20

Operation Band :802.11n40 / Band2 Temp./Humi. :23.9/51

:HORIZONTAL Frequency :5310 MHz Antenna Pol. **Operation Mode** :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5350.00	Average	44.01	5.21	49.22	54.00	-4.78
5350.00	Peak	63.47	5.21	68.68	74.00	-5.32
5350.40	Average	43.91	5.22	49.13	54.00	-4.87
5350.40	Peak	65.58	5.22	70.80	74.00	-3.20

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。



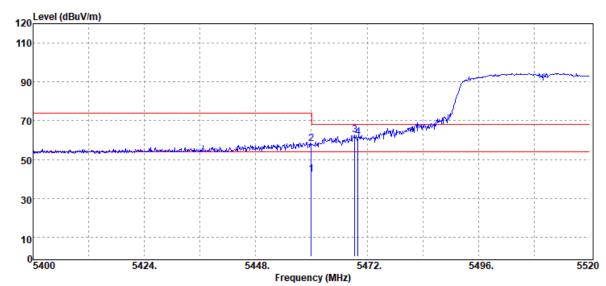
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band3 Temp./Humi. :23.9/51

Frequency :5510 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	52.43	5.63	58.06	74.00	-15.94
5469.36	Peak	56.96	5.65	62.61	68.20	-5.59
5470.00	Peak	55.64	5.65	61.29	68.20	-6.91

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。



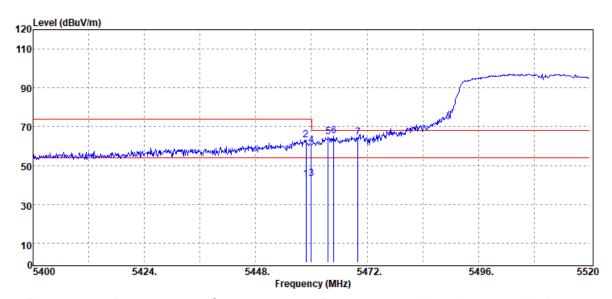
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band3 Temp./Humi. :23.9/51

Frequency :5510 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5458.80	Average	37.26	5.63	42.89	54.00	-11.11
5458.80	Peak	57.67	5.63	63.30	74.00	-10.70
5460.00	Average	37.68	5.63	43.31	54.00	-10.69
5460.00	Peak	54.57	5.63	60.20	74.00	-13.80
5463.60	Peak	59.12	5.63	64.75	68.20	-3.45
5464.80	Peak	59.40	5.63	65.03	68.20	-3.17
5470.00	Peak	58.62	5.65	64.27	68.20	-3.93

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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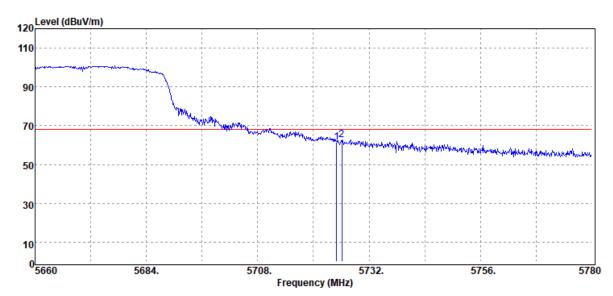
:Kane

Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band3 Temp./Humi. :23.9/51

Frequency :5670 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer EUT Pol. :E2 Plan



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5725.00	Peak	55.13	6.34	61.47	68.20	-6.73
5726.12	Peak	56.28	6.34	62.62	68.20	-5.58

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。



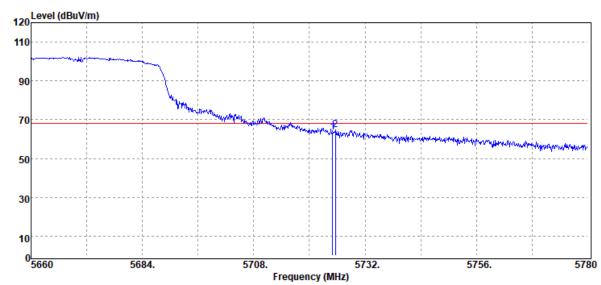
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band3 Temp./Humi. :23.9/51

Frequency :5670 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 5725.00	Peak	57.14	6.34	63.48	68.20	-4.72
5725.64	Peak	58.25	6.34	64.59	68.20	-3.61

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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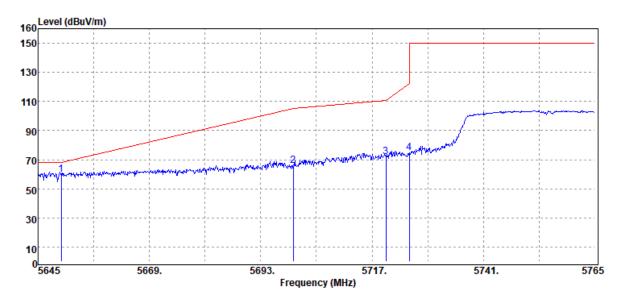
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band4 Temp./Humi. :23.9/51

Frequency :5755 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5650.00	Peak	53.53	6.04	59.57	68.20	-8.63
5700.00	Peak	59.81	6.32	66.13	105.20	-39.07
5720.00	Peak	65.69	6.33	72.02	110.80	-38.78
5725.00	Peak	68.37	6.34	74.71	122.20	-47.49

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。



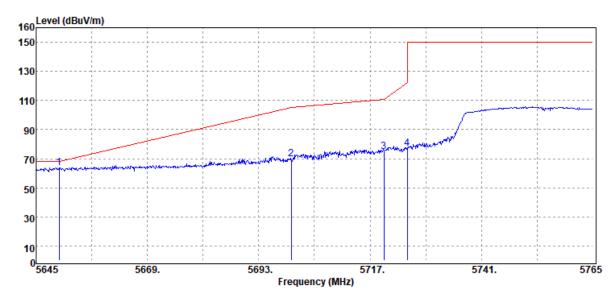
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band4 Temp./Humi. :23.9/51

Frequency :5755 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	57.59	6.04	63.63	68.20	-4.57
5700.00	Peak	63.62	6.32	69.94	105.20	-35.26
5720.00	Peak	68.36	6.33	74.69	110.80	-36.11
5725.00	Peak	70.86	6.34	77.20	122.20	-45.00

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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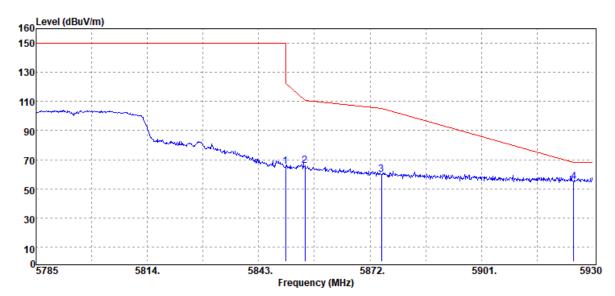
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band4 Temp./Humi. :23.9/51

Frequency :5795 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
5850.00	Peak	59.18	6.39	65.57	122.20	-56.63
5855.00	Peak	59.26	6.38	65.64	110.80	-45.16
5875.00	Peak	53.55	6.37	59.92	105.20	-45.28
5925.00	Peak	48.60	6.42	55.02	68.20	-13.18

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。



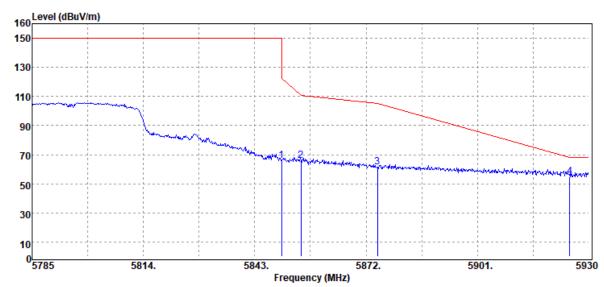
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11n40 / Band4 Temp./Humi. :23.9/51

Frequency :5795 MHz Antenna Pol. :HORIZONTAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5850.00	Peak	59.41	6.39	65.80	122.20	-56.40
5855.00	Peak	59.56	6.38	65.94	110.80	-44.86
5875.00	Peak	54.97	6.37	61.34	105.20	-43.86
5925.00	Peak	48.56	6.42	54.98	68.20	-13.22

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。



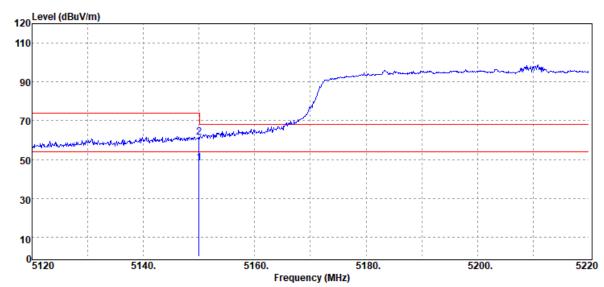
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band1 Temp./Humi. :23.9/51

Frequency :5210 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
5150.00	Average	43.25	4.92	48.17	54.00	-5.83	
5150.00	Peak	56.37	4.92	61.29	74.00	-12.71	

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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Report Number :T190521W02

Operation Band :802.11ac80 / Band1

Frequency :5210 MHz
Operation Mode :BE CH Low

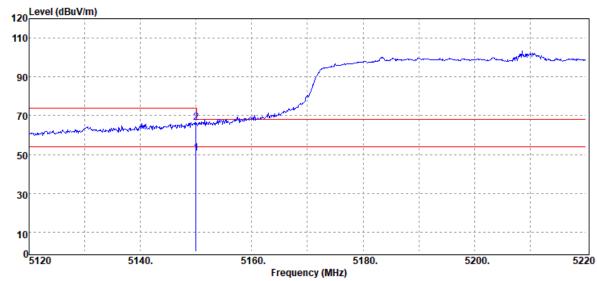
EUT Pol. :E2 Plan

Test Date :2019-07-20

Temp./Humi. :23.9/51

Antenna Pol. :HORIZONTAL

Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
 5150.00	Average	45.90	4.92	50.82	54.00	-3.18
5150.00	Peak	61.54	4.92	66.46	74.00	-7.54

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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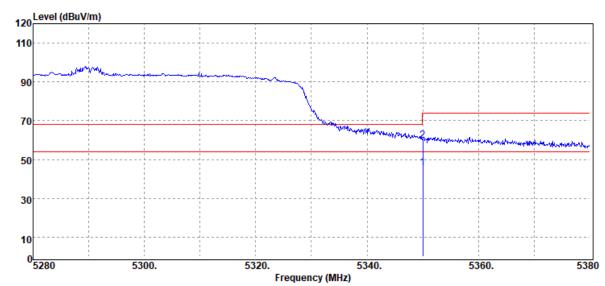
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band2 Temp./Humi. :23.9/51

Frequency :5290 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
 5350.00	Average	40.51	5.21	45.72	54.00	-8.28
5350.00	Peak	54.72	5.21	59.93	74.00	-14.07

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。



:E2 Plan

EUT Pol.

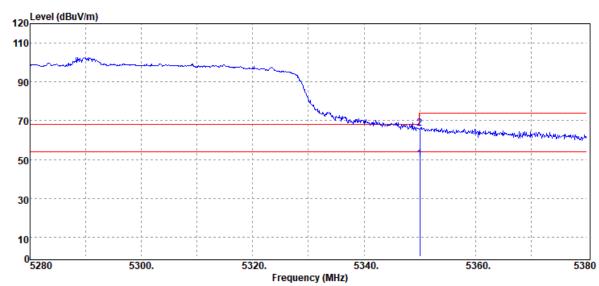
Report No.: T190521W02-RP2

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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band2 Temp./Humi. :23.9/51

Frequency :5290 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH High Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dΒμV/m	dB
 5350.00	Average	45.03	5.21	50.24	54.00	-3.76
5350.00	Peak	60.78	5.21	65.99	74.00	-8.01

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:Kane

Engineer

Report Number :T190521W02 Test Date :2019-07-20

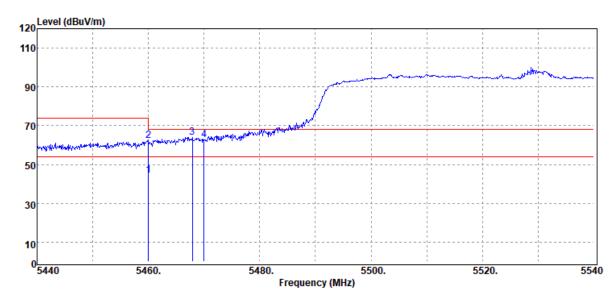
Operation Band :802.11ac80 / Band3 Temp./Humi. :23.9/51

Frequency :5530 MHz Antenna Pol. :VERTICAL

EUT Pol. :E2 Plan

:BE CH Low

Operation Mode



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	38.79	5.63	44.42	54.00	-9.58
5460.00	Peak	56.62	5.63	62.25	74.00	-11.75
5467.90	Peak	58.31	5.64	63.95	68.20	-4.25
5470.00	Peak	56.96	5.65	62.61	68.20	-5.59

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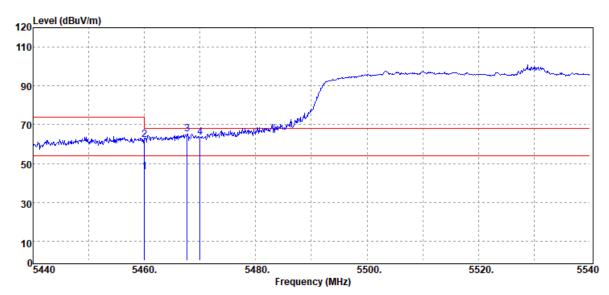
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band3 Temp./Humi. :23.9/51

Frequency :5530 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5460.00	Average	40.16	5.63	45.79	54.00	-8.21
5460.00	Peak	56.46	5.63	62.09	74.00	-11.91
5467.70	Peak	59.53	5.64	65.17	68.20	-3.03
5470.00	Peak	57.99	5.65	63.64	68.20	-4.56

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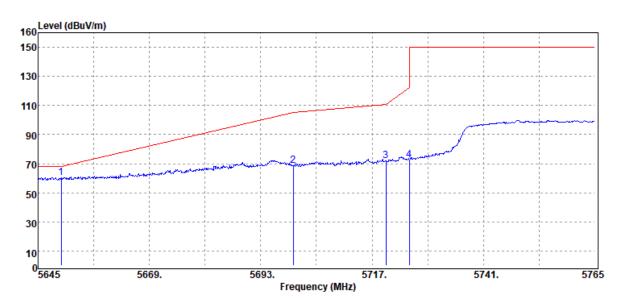
Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band4 Temp./Humi. :23.9/51

Frequency :5775 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH Low Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	54.11	6.04	60.15	68.20	-8.05
5700.00	Peak	62.46	6.32	68.78	105.20	-36.42
5720.00	Peak	65.64	6.33	71.97	110.80	-38.83
5725.00	Peak	66.35	6.34	72.69	122.20	-49.51

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Report Number :T190521W02

Operation Band :802.11ac80 / Band4

Frequency :5775 MHz
Operation Mode :BE CH Low

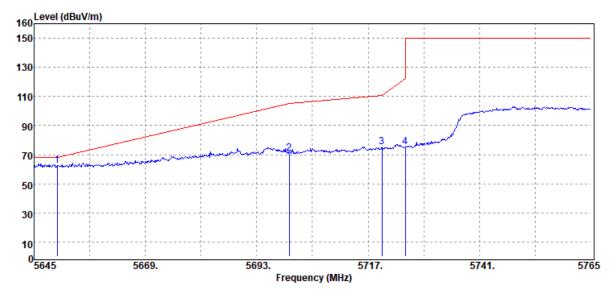
EUT Pol. :E2 Plan

Test Date :2019-07-20

Temp./Humi. :23.9/51

Antenna Pol. :HORIZONTAL

Engineer :Kane



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5650.00	Peak	56.50	6.04	62.54	68.20	-5.66
5700.00	Peak	64.67	6.32	70.99	105.20	-34.21
5720.00	Peak	68.82	6.33	75.15	110.80	-35.65
5725.00	Peak	68.70	6.34	75.04	122.20	-47.16

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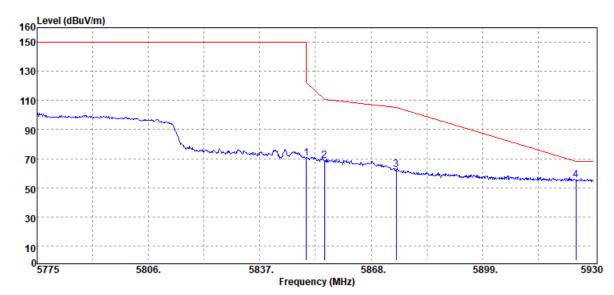
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band4 Temp./Humi. :23.9/51

Frequency :5775 MHz Antenna Pol. :VERTICAL

Operation Mode :BE CH High Engineer :Kane EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5850.00	Peak	63.93	6.39	70.32	122.20	-51.88
5855.00	Peak	62.18	6.38	68.56	110.80	-42.24
5875.00	Peak	56.19	6.37	62.56	105.20	-42.64
5925.00	Peak	49.00	6.42	55.42	68.20	-12.78

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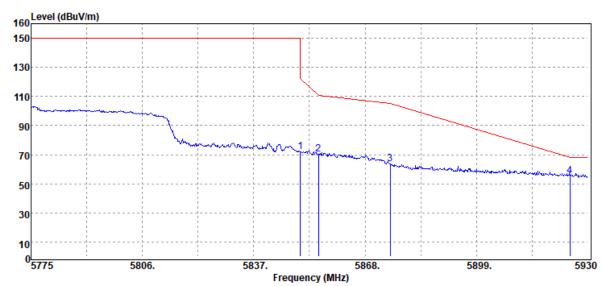
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Report Number :T190521W02 Test Date :2019-07-20

Operation Band :802.11ac80 / Band4 Temp./Humi. :23.9/51

Frequency :5775 MHz Antenna Pol. :HORIZONTAL
Operation Mode :BE CH High Engineer :Kane

EUT Pol. :E2 Plan



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dΒμV/m	dB
5850.00	Peak	65.67	6.39	72.06	122.20	-50.14
5855.00	Peak	64.01	6.38	70.39	110.80	-40.41
5875.00	Peak	57.22	6.37	63.59	105.20	-41.61
5925.00	Peak	49.09	6.42	55.51	68.20	-12.69

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12 TRANSMISSION IN THE ABSENCE OF DATA

Standard Applicable 12.1

According to §15.407(c)

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

12.2 Result

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

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13 FREQUENCY STABILITY

13.1 Standard Applicable

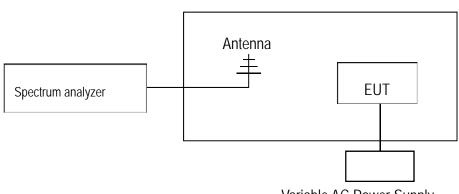
Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

13.2 **Measurement Procedure**

- 1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
- 2. Set EUT as normal operation.
- 3. Turn the EUT on and couple its output to spectrum.
- 4. Turn the EUT off and set the chamber to the highest temperature specified.
- 5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
- 6. Repeat step with the temperature chamber set to the lowest temperature.

Test SET-UP 13.3

Temperature Chamber



Variable AC Power Supply

13.4 **Measurement Equipment Used:**

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020
Thermo- static/Hrgrosatic Chamber	TAICHY	MHG-150LF	930619	10/08/2018	10/07/2019

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13.5 **Measurement Result**

Startup:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2°C	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
0	4.25	36	5180	5,179.91186	0.00001701
	5.75	36	5180	5,179.97016	0.00000576
25	5	36	5180	5,180.00108	-0.00000021
40	4.25	36	5180	5,179.93300	0.00001294
	5.75	36	5180	5,180.07016	-0.00001354

2 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2°C	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
0	4.25	36	5180	5,180.06880	-0.00001328
	5.75	36	5180	5,179.91255	0.00001688
25	5	36	5180	5,179.93334	0.00001287
40	4.25	36	5180	5,179.92805	0.00001389
	5.75	36	5180	5,179.95100	0.00000946

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5 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2°C	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
0	4.25	36	5180	5,179.98538	0.00000282
	5.75	36	5180	5,179.89538	0.00002020
25	5	36	5180	5,180.07829	-0.00001511
40	4.25	36	5180	5,180.01055	-0.00000204
	5.75	36	5180	5,179.95948	0.00000782

10 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2℃	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
0	4.25	36	5180	5,179.93966	0.00001165
	5.75	36	5180	5,179.99831	0.00000033
25	5	36	5180	5,180.04266	-0.00000824
40	4.25	36	5180	5,179.99651	0.00000067
	5.75	36	5180	5,180.00769	-0.00000149

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14 ANTENNA REQUIREMENT

14.1 Standard Applicable

According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

According to §15.407, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

14.2 **Antenna Connected Construction**

The antenna is designed as permanently attached and no consideration of replacement. Please see EUT photo for details.

~ End of Report ~

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