# FCC Test Report

# Report No.: AGC01180160702FE05

FCC ID	:	W9D-A40XA41X
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	IP Phone
BRAND NAME	:	АТСОМ
MODEL NAME	:	A41W, A40W, A41, A40
CLIENT	:	ATCOM TECHNOLOGY CO., LIMITED
DATE OF ISSUE	:	July 26, 2016
STANDARD(S) TEST PROCEDURE(S)	:	FCC Part 15.247 KDB 558074 v03r04
<b>REPORT VERSION</b>	:	V1.0



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# **Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	July 26, 2016	Valid	Original Report

# TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	5
2. GENERAL INFORMATION	
2.1. PRODUCT DESCRIPTION	
2.2. TABLE OF CARRIER FREQUENCYS	6
2.3. IEEE 802.11N MODULATION SCHEME	7
2.4. RELATED SUBMITTAL(S) / GRANT (S)	7
2.5. TEST METHODOLOGY	7
2.6. SPECIAL ACCESSORIES	
2.7. EQUIPMENT MODIFICATIONS	8
3. MEASUREMENT UNCERTAINTY	
4. DESCRIPTION OF TEST MODES	9
5. SYSTEM TEST CONFIGURATION	
5.1. CONFIGURATION OF EUT SYSTEM	10
5.2. EQUIPMENT USED IN EUT SYSTEM	
5.3. SUMMARY OF TEST RESULTS	
6. TEST FACILITY	
7. OUTPUT POWER	
7.1. MEASUREMENT PROCEDURE	
7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	12
7.3. LIMITS AND MEASUREMENT RESULT	
8. 6 DB BANDWIDTH	
8.1. MEASUREMENT PROCEDURE	
8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	15
8.3. LIMITS AND MEASUREMENT RESULTS	
9. CONDUCTED SPURIOUS EMISSION	24
9.1. MEASUREMENT PROCEDURE	
9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	24
9.3. MEASUREMENT EQUIPMENT USED	24
9.4. LIMITS AND MEASUREMENT RESULT	24
10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY	43
10.1 MEASUREMENT PROCEDURE	43
10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	43
10.3 MEASUREMENT EQUIPMENT USED	43
10.4 LIMITS AND MEASUREMENT RESULT	43
11. RADIATED EMISSION	51

#### Report No.: AGC01180160702FE05 Page 4 of 88

11.1. MEASUREMENT PROCEDURE	51
11.2. TEST SETUP	52
11.3. LIMITS AND MEASUREMENT RESULT	53
11.4. TEST RESULT	53
12. BAND EDGE EMISSION	59
12.1. MEASUREMENT PROCEDURE	59
12.2. TEST SET-UP	59
12.3. TEST RESULT	60
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	80
APPENDIX B: PHOTOGRAPHS OF EUT	82

I. VERIFICATION OF CO	
Applicant	ATCOM TECHNOLOGY CO., LIMITED
Address	FL2, Block3, Huangguan Industry Park #21 Tai Ran 9th Rd, Futian, Shenzhen City, China
Manufacturer	ATCOM TECHNOLOGY CO., LIMITED
Address	FL2, Block3, Huangguan Industry Park #21 Tai Ran 9th Rd, Futian, Shenzhen City, China
Product Designation	IP Phone
Brand Name	АТСОМ
Test Model	A41W
Series Model	A40W,A41,A40
Model Difference	A41W and A40W support POE function, but others didn't.
Date of test	July 07, 2016 to July 08, 2016
Deviation	None
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BGN/RF

# **1. VERIFICATION OF CONFORMITY**

We hereby certify that:

The above equipment was tested by Dongguan Precise Testing Service Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 15.247.

Max 2 Tested by Max Zhang(Zhang July 26, 2016 Reviewed by Rock Huang(Huang Dinglue) July 26, 2016 Approved by Solger Zhang(Zhang Hongyi) July 26, 2016 Authorized Officer

# 2. GENERAL INFORMATION

# 2.1. PRODUCT DESCRIPTION

The EUT is designed as "IP Phone". It is designed by way of utilizing the DSSS and OFDM technology to achieve the system operation.

A major technical description of EOT is described as following			
<b>Operation Frequency</b>	2.412 GHz~2.462GHz		
Output Bower	IEEE 802.11b:9.74dBm; IEEE 802.11g:7.94dBm;		
Output Power	IEEE 802.11n(20):7.78dBm; IEEE 802.11n(40):3.84dBm		
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(BPSK/QPSK/16-QAM/64-QAM)		
Number of channels	11		
Hardware Version	V6		
Software Version	A41-V1.1.2.cf854		
Antenna Designation	PIFA Antenna		
Antenna Gain	1.5dBi		
Power Supply	DC 5V by adapter		

A major technical description of EUT is described as following

#### 2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency		
	1	2412 MHZ		
	2	2417 MHZ		
	3	2422 MHZ		
	4	2427 MHZ		
	5	2432 MHZ		
2412~2462MHZ	6	2437 MHZ		
	7	2442 MHZ		
	8	2447 MHZ		
	9	2452 MHZ		
	10	2457 MHZ		
	11	2462 MHZ		

Note: For 20MHZ bandwidth system use Channel 1 to Channel 11 For 40MHZ bandwidth system use Channel 3 to Channel 9

MCS Index	Nss	Modulation	R	NCBPS		NDBPS		Data rate(Mbps) 800nsGI		
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0
6	1	64-QAM	3/4	6	312	648	234	489	58.5	121.5
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0

#### 2.3. IEEE 802.11N MODULATION SCHEME

Symbol	Explanation	
NSS	Number of spatial streams	
R Code rate		
NBPSC	Number of coded bits per single carrier	
NCBPS Number of coded bits per symbol		
NDBPS Number of data bits per symbol		
GI	Guard interval	

# 2.4. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: W9D-A40XA41X** filing to comply with the FCC Part 15 requirements.

# 2.5. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.247 rules KDB 558074 D01 DTS Meas Guidance v03r04.

#### 2.6. SPECIAL ACCESSORIES

Refer to section 5.2.

# 2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

# **3. MEASUREMENT UNCERTAINTY**

Conducted measurement: +/- 3.18dB Radiated measurement: +/- 3.91dB

# 4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION				
1	Low channel TX				
2	Middle channel TX				
3	High channel TX				
4	Normal operating				
Note: Transmit by 802.11b with Date rate (1/2/5.5/11) Transmit by 802.11g with Date rate (6/9/12/18/24/36/48/54) Transmit by 202.11g (20 M Ja) with Date rate (6 / / 12/18 / 20 / 20 / 20 / / 20 / / 20 / 2					

Transmit by 802.11n (20MHz) with Date rate (6.5/13/19.5/26/39/52/58.5/65)

Transmit by 802.11n (40MHz) with Date rate

(13.5/27/40.5/54/81/108/121.5/135)

#### Note:

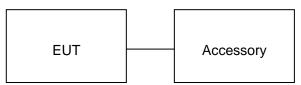
1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency Individually, and the eut is operating at its maximum duty cycle>or equal 98%

- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
- 3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

# **5. SYSTEM TEST CONFIGURATION**

### **5.1. CONFIGURATION OF EUT SYSTEM**

# Configure:



#### 5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	IP Phone	A41W	FCC ID:W9D-A40XA41X	EUT
2	Adapter	CS6D050100FUF	N/A	Marketed
3	PC	Dell	510m	Support
4	Router	TP-link	808A	Support

# 5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247	Output Power	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247	Conducted Spurious Emission	Compliant
§15.247	Maximum Conducted Output Power SPECTRAL Density	Compliant
§15.209	Radiated Emission	Compliant
§15.247	Band Edges	Compliant
§15.207	Line Conduction Emission	Compliant

# 6. TEST FACILITY

Site	Dongguan Precise Testing Service Co., Ltd.
Location	Building D, Baoding Technology Park, Guangming Road2, Dongcheng District, Dongguan, Guangdong, China.
FCC Registration No.	371540
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.10:2013.

#### ALL TEST EQUIPMENT LIST

Radiated Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 3, 2016	July 2, 2017
Trilog Broadband Antenna (25M-1GHz)	SCHWARZBECK	VULB9160	9160-3355	July 3, 2016	July 2, 2017
Signal Amplifier	SCHWARZBECK	BBV 9475	9745-0013	July 3, 2016	July 2, 2017
RF Cable	SCHWARZBECK	AK9515E	96221	July 3, 2016	July 2, 2017
3m Anechoic Chamber	CHENGYU	966	PTS-001	June 3, 2016	June 2, 2017
MULTI-DEVICE Positioning Controller	Max-Full	MF-7802	MF780208339	N/A	N/A
Active loop antenna (9K-30MHz)	Schwarzbeck	FMZB1519	1519-038	June 3, 2016	June 2, 2017
Spectrum analyzer	Agilent	E4407B	MY46185649	June 3, 2016	June 2, 2017
Power Sensor	Agilent	U2021XA	MY55050474	June 3, 2016	June 2, 2017
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA9120D	9120D-1246	June 3, 2016	June 2, 2017
Horn Ant (18G-40GHz)	Schwarzbeck	BBHA 9170	9170-181	June 3, 2016	June 2, 2017

Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 3, 2016	July 2, 2017
Artificial Mains Network	Narda	L2-16B	000WX31025	July 3, 2016	July 2, 2017
Artificial Mains Network (AUX)	Narda	L2-16B	000WX31026	July 3, 2016	July 2, 2017
RF Cable	SCHWARZBECK	AK9515E	96222	July 3, 2016	July 2, 2017
Shielded Room	CHENGYU	843	PTS-002	June 3, 2016	June 2, 2017

# 7. OUTPUT POWER

# 7.1. MEASUREMENT PROCEDURE

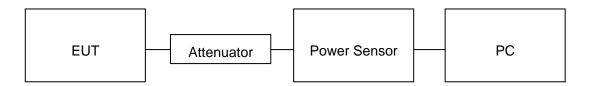
For average power test:

- 1. Connect EUT RF output port to power sensor through an RF attenuator.
- 2. Connect the power sensor to the PC.
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Record the maximum power from the software.

**Note**: The EUT was tested according to KDB 558074v03r04 for compliance to FCC 47CFR 15.247 requirements.

# 7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

# AVERAGE POWER SETUP



# 7.3. LIMITS AND MEASUREMENT RESULT

TEST ITEM	OUTPUT POWER
TEST MODE	802.11b with data rate 1

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	9.27	30	Pass
2.437	9.74	30	Pass
2.462	9.53	30	Pass

TEST ITEM	OUTPUT POWER
TEST MODE	802.11g with data rate 6

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	7.66	30	Pass
2.437	7.94	30	Pass
2.462	7.46	30	Pass

TEST ITEM	OUTPUT POWER
TEST MODE	802.11n 20 with data rate 6.5

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	7.23	30	Pass
2.437	7.78	30	Pass
2.462	7.33	30	Pass

TEST ITEM	OUTPUT POWER
TEST MODE	802.11n 40 with data rate 6.5

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	3.61	30	Pass
2.437	3.84	30	Pass
2.452	3.66	30	Pass

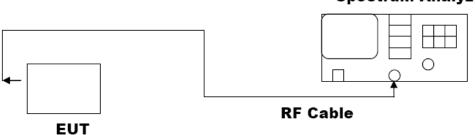
# 8.6 DB BANDWIDTH

### 8.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥ 3×RBW.
- 4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

# 8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



#### **Spectrum Analyzer**

# 8.3. LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11b with data rate 11

LIMITS AND MEASUREMENT RESULT						
Applicable Limite	Applicable Limits					
Applicable Limits	Test Da	Criteria				
	Low Channel	10.10	PASS			
>500KHZ	Middle Channel	10.10	PASS			
	High Channel	10.10	PASS			

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11g with data rate 54

LIMITS AND MEASUREMENT RESULT						
Applicable Limite	Applicable Limits					
Applicable Limits	Test Da	Criteria				
	Low Channel	16.61	PASS			
>500KHZ	Middle Channel	16.60	PASS			
	High Channel	16.60	PASS			

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 20 with data rate 65

LIMITS AND MEASUREMENT RESULT						
Applicable Limite	Applicable Limits					
Applicable Limits	Test Da	Criteria				
	Low Channel	17.83	PASS			
>500KHZ	Middle Channel	17.83	PASS			
	High Channel	17.83	PASS			

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 40 with data rate 65

LIMITS AND MEASUREMENT RESULT						
Applicable Limite	Applicable Limits					
Applicable Limits	Test Da	Criteria				
	Low Channel	36.48	PASS			
>500KHZ	Middle Channel	36.48	PASS			
	High Channel	36.48	PASS			



#### 802.11b TEST RESULT TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

#### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



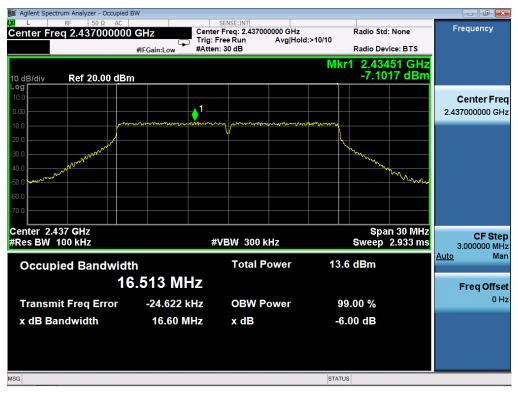


#### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

# 802.11g TEST RESULT

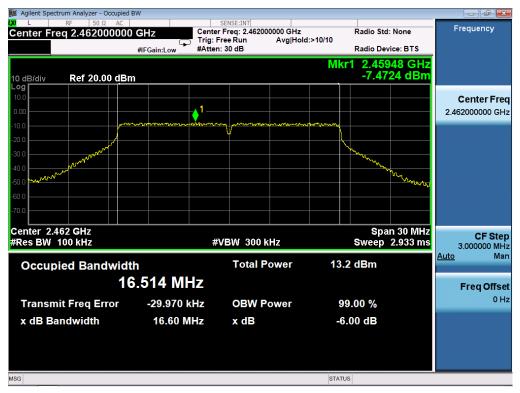
#### TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

🍺 Agilent Spectrum Analyzer -	Occupied BW					
Center Freq 2.4120		SENSE:INT Center Freg: 2.412	000000 GHz	Rad	io Std: None	Frequency
	G	Takes Frank Dave	Avg Hold:>		io Device: BTS	
	#IFGain:Low	#Atten: 30 dB				
10 dB/div Ref 20.0	00 dBm			MKr1 2	.40951 GHz 7.3459 dBm	
10.0						Center Freq
0.00		<b>1</b>				2.412000000 GHz
-10.0		mon mine	~~~~ <u>~</u> ~~~ <u>~</u> ~~~~ <u>~</u> ~~~ <u>~</u> ~~~~ <u>~</u> ~~~ <u>~</u> ~~~~ <u>~</u> ~~~~~ <u>~</u> ~~~~~ <u>~</u> ~~~~~ <u>~</u> ~~~~~~	menne		
-20.0						
-30.0				- Mary	×-	
-40.0					- Margaret	
-50.0 -50.0					March .	
-60.0						
-70.0						
Center 2.412 GHz		<u>I</u> I			Span 30 MHz	05.000
#Res BW 100 kHz		#VBW 300	kHz	Sw	eep 2.933 ms	CF Step 3.000000 MHz
Occupied Bane	dwidth	Total	Power	13.4 dB	m	<u>Auto</u> Man
	16.514 M	Hz				Freq Offset
Transmit Freq Er			Power	99.00	%	0 Hz
x dB Bandwidth	16.61	MHz xdB		-6.00 d	B	
MSG				STATUS		



#### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL





#### 802.11n (20) TEST RESULT

#### TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

#### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

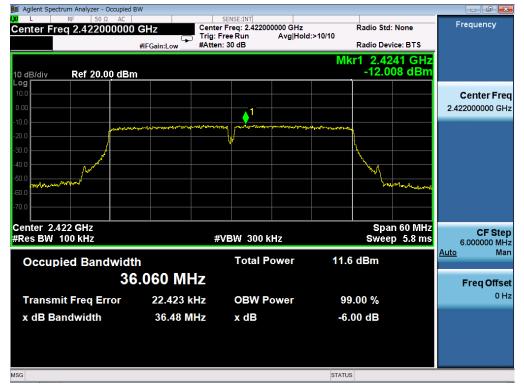
Mailent Spectrum Analyzer - Occupied BW		CENCE-INT				
Center Freq 2.437000000 Gl	Z Center	SENSE:INT Freq: 2.437000000 GHz		td: None	Frequency	
#IF	Trig: Free Run Avg Hold:>10/10 #IFGain:Low #Atten: 30 dB Radio					
10 dB/div Ref 20.00 dBm			Mkr1 2.43 -7.7	412 GHz 860 dBm		
10.0					Center Freq	
0.00	<b>↓</b> 1 ──				2.437000000 GHz	
-10.0	and a law of many and a second s	and the second s	www.www.			
-20.0			horan-			
-40.0				Mr.		
-50.0 North				- Mar Mar		
-60.0						
-70.0						
Center 2.437 GHz #Res BW 100 kHz	#1	VBW 300 kHz		an 30 MHz 2.933 ms	CF Step	
					3.000000 MHz <u>Auto</u> Man	
Occupied Bandwidth		Total Power	12.6 dBm			
1/./	'15 MHz				Freq Offset	
Transmit Freq Error	-2.815 kHz	OBW Power	99.00 %		0 Hz	
x dB Bandwidth	17.83 MHz	x dB	-6.00 dB			
MSG			STATUS			



#### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

# 802.11n (40) TEST RESULT

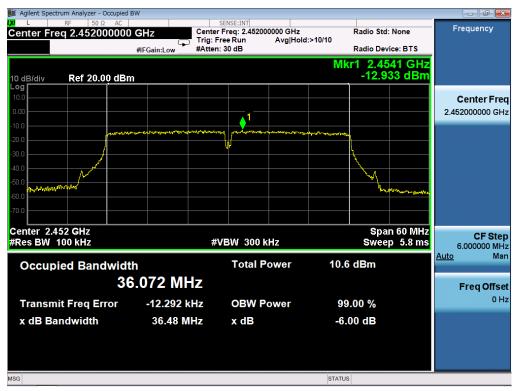
#### TEST PLOT OF BANDWIDTH FOR LOW CHANNEL





#### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



# 9. CONDUCTED SPURIOUS EMISSION

# 9.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Trace 1 Max hold, then View.
- Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements. Owing to satisfy the requirements of the number of measurement points, we set the RBW=1MHz, VBW>RBW, scan up through 10th harmonic, and consider the tested results as the worst case, if the tested results conform to the requirement, we can deem that the real tested results(set the RBW=100KHz, VBW>RBW) are conform to the requirement.

# 9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

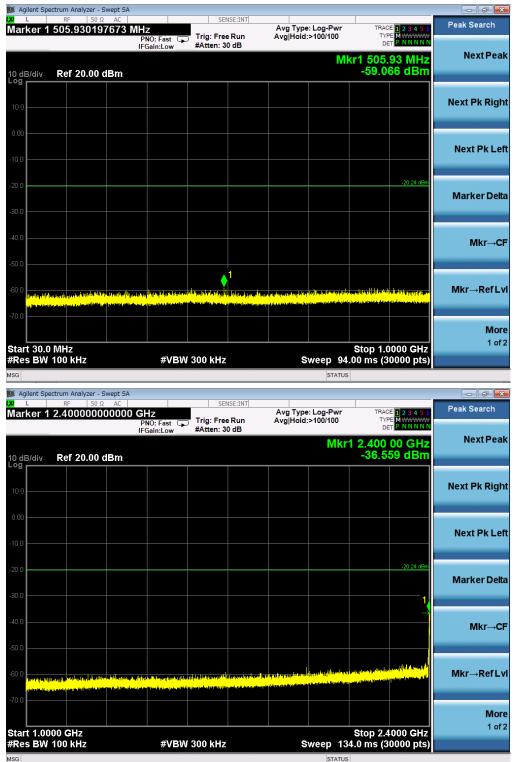
The same as described in section 8.2.

# 9.3. MEASUREMENT EQUIPMENT USED

The same as described in section 6.

# 9.4. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT					
Appliechie Limite	Measurement Result				
Applicable Limits	Test Data	Criteria			
In any 100 KHz Bandwidth Outside the	At least -20dBc than the limit				
frequency band in which the spread spectrum	Specified on the BOTTOM	PASS			
intentional radiator is operating, the radio frequency	Channel				
power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power. In addition, radiation emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in§15.209(a))	At least -20dBc than the limit Specified on the TOP Channel	PASS			



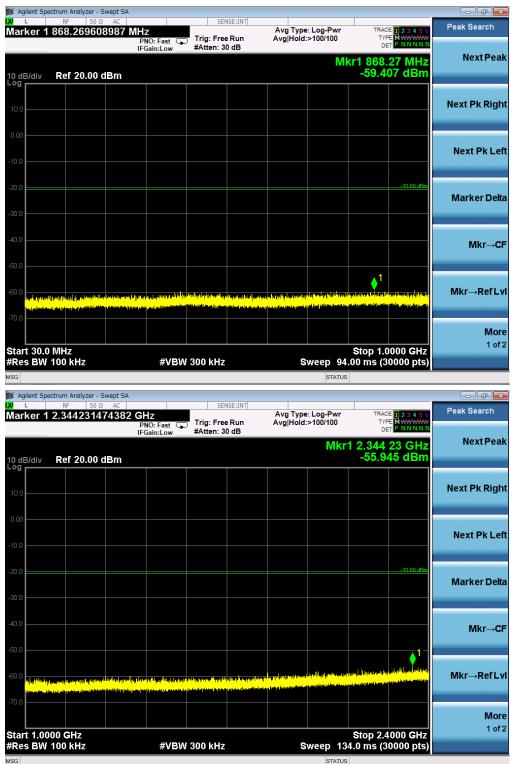
#### TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11b FOR MODULATION IN LOW CHANNEL

🚺 Agilent Spe	ectrum Analyzer - S								
<mark>x</mark> L Marker 1	RF 50 Ω 24.992494	249808 C	GHZ NO: Fast 😱 Gain:Low		Avg Type Avg Hold:		TY	DE <b>1 2 3 4 5 6</b> PE <b>M</b> WWWW P NNNNN	Peak Search
0 dB/div	Ref 20.00 (	dBm				Mk	r1 24.99 -39.0	2 5 GHz 44 dBm	Next Pea
10.0									Next Pk Righ
0.00									Next Pk Lei
20.0 30.0								-20.24 dBm	Marker Delt
40.0					Helitari	l de la			Mkr→C
60.0									Mkr→RefL
70.0 Start 2.48	GHz 1.0 MHz		#\/B\\	3.0 MHz		ween_f	Stop 2 58.00 ms (3	5.00 GHz	<b>Mor</b> 1 of
SG			#VDVV	5.0 10112		STAT		oooo proj	

# TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE OF 802.11b FOR MODULATION IN MIDDLE CHANNEL

🎉 Agilent Spe	ectrum Analyzer - Swept S	A					
Marker 1	RF 50 Ω AC 930.966032201		SENSE:INT	Avg Type: Avg Hold:	Log-Pwr	TRACE 1 2 3 4 5 6 TYPE M WWWWW	Peak Search
		PNO: Fast 😱 IFGain:Low	#Atten: 30 dB	Avginola.	100/100	DET PNNNN	N
10 dB/div Log	Ref 20.00 dBm				Mł	r1 930.97 MHz -58.454 dBm	Next Peak
209							Next Pk Right
10.0							NEXL FK RIGH
0.00							
-10.0							Next Pk Lef
-10.0							
-20.0						-20.12 dBm	Marker Delta
-30.0							
-40.0							
-40.0							Mkr→CF
-50.0							
-60.0		line and att a to start a data allo to the	a a fille a station of the state of the stat	u ma la set a ma trail, bis set lite	ang talang tan na tapa		Mkr→RefLv
and south and	and the second	distante a production destruction	and a second line of the	mary as , so long this shift in the of the line		an you do we have been all a statements and the second second second second second second second second second	
-70.0							More
Start 30.0	MHz					Stop 1.0000 GHz	1 of 2
#Res BW		#VBW	300 kHz	SI	weep 94.	.00 ms (30000 pts)	
MSG					STATUS		

Agilent Spectrum Analyzer - Swept SA           L         RF         50 Ω         AC		SENSE:INT				
arker 1 2.400000000000	GHz PNO: Fast	Trig: Free Run	Avg Type: L Avg Hold:>1	.og-Pwr 100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW	Peak Search
	IFGain:Low	#Atten: 30 dB			DET	NextDe
				Mkr1 2	.400 00 GHz -55.255 dBm	NextPe
dB/div Ref 20.00 dBm					-55.255 aBm	
.0						Next Pk Rig
						Next Pk L
.0						
.0					-20.12 dBm	
						Marker Do
.0						Mkr→
.0					1	
				k	a di kama di seri da seri kali sebut di se	
. O		didated burger albert ber		A CONTRACTOR OF THE OWNER.	Constitution in the association in the second	Mkr→Ref
	a da alla di Cherime ne da padaistika					
.0						M
						10
art 1.0000 GHz tes BW 100 kHz					op 2.4000 GHz	
	#\/ D1A/	300 682	SW	een 13/0	me (30000 nte)	
Res DW 100 KHZ	#VBW	300 kHz	Sw		ms (30000 pts)	
â	#VBW	300 kHz	Sw	eep 134.0	ms (30000 pts)	
	#VBW	300 kHz	Sw			
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC	4 GHz	SENSE:INT	Avg Type: L	STATUS	TRACE 1 2 3 4 5 6 TYPE M WWWWW	
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC		SENSE:INT		STATUS .og-Pwr 100/100	TRACE 123456 TYPE MWWWWW DET PNNNN	Peak Search
Agilent Spectrum Analyzer - Swept SA L RF 50Ω AC A arker 1 24.09480652688	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20 00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100	TRACE 123456 TYPE MWWWWW DET PNNNN	Peak Search Next Pe
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20 00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100		Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100	TRACE 1 2 3 4 5 6 TYPE M OET PNINNN 4.094 8 GHz -38.715 dBm	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100	TRACE 1 2 3 4 5 6 TYPE M OET PNINNN 4.094 8 GHz -38.715 dBm	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 00/100	TRACE 1 2 3 4 5 6 TYPE M OET PNINNN 4.094 8 GHz -38.715 dBm	Peak Search
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 00 00 00 00 00 00 00 00 00	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 9ET PNNNNN 4.094 8 GHz 38.715 dBm -20 12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT	Avg Type: L	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref
Aglient Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast 😱	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE    2 3 4 5 6 TYPE    2 3 4 5 6 TYPE    2 3 4 5 6 TYPE    2 4 5 6 Per    2 4	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref
Agilent Spectrum Analyzer - Swept SA L RF 50 Ω AC arker 1 24.09480652688 dB/div Ref 20.00 dBm 0 0 0 0 0 0 0 0 0 0 0 0 0	4 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: L Avg Hold:>1	og-Pwr 100/100 Mkr1 2	TRACE 1 2 3 4 5 6 TYPE NNNNN 4.094 8 GHz 38.715 dBm -20.12 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De



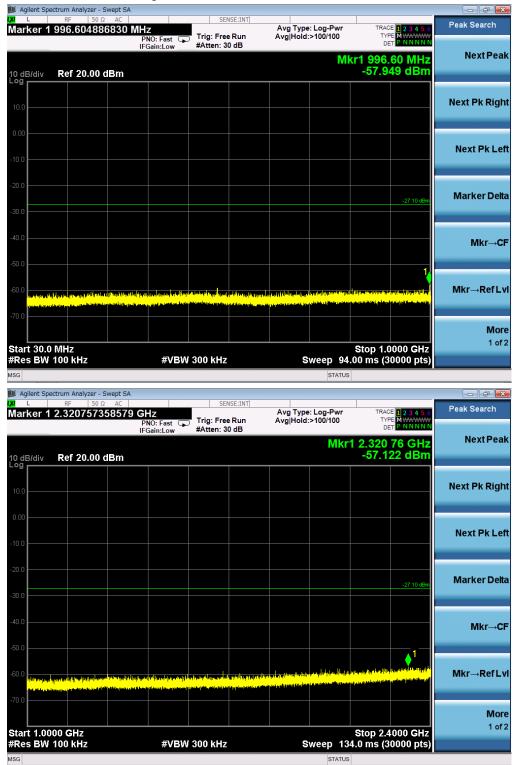
# TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE OF 802.11b FOR MODULATION IN HIGH CHANNEL



# TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11g FOR MODULATION IN LOW CHANNEL

🊺 Agilent Spe	ectrum Analyzer - Swept S	SA							- 7
Marker 1	RF         50 Ω         AC           365.146171539			SE:INT	Avg Type Avg Hold:	: Log-Pwr	TRAC	E 1 2 3 4 5 6 E MWWWW	Peak Search
		PNO: Fast 🕞	#Atten: 30		Avginoid.		DE 1kr1 365.		Next Peak
10 dB/div Log	Ref 20.00 dBm					IV	-59.1	53 dBm	
									Next Pk Right
10.0									Next PK Right
0.00									
-10.0									Next Pk Left
-20.0									
-20.0								-27.35 dBm	Marker Delta
-30.0									
-40.0									Mkr→CF
-50.0									
		↓ <sup>1</sup>							Min Defini
					literia di Andri Alian Referenza di Angra			ditrapositipati Ditracologia pa	Mkr→RefLvl
-70.0									More
Start 30.0	MHz						Stop 1 0	000 GHz	1 of 2
#Res BW		#VBW	300 kHz		S	weep 9	4.00 ms (3	0000 pts)	
MSG						STATU	JS		

Agilent Spectrum Analyzer - Swep           L         RF         50 Ω         A           L         RF         50 Ω         A	AC	SENSE:INT	Avg Type: Log-Pwr		Peak Search
arker 1 2.399906663	555 GHZ PNO: Fast IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Hold:>100/100	TRACE <b>1 2 3 4 5 6</b> TYPE <b>M</b> WWWW DET <b>P N N N N N</b>	
	I GUILLOW		Mkr1	2.399 91 GHz	NextPea
dB/div Ref 20.00 dB	m			-41.286 dBm	
0					Next Pk Rig
00					
					Next Pk Le
0					
.0					
.0				-27.35 dBm	Marker De
				1.	
0					Mkr→0
				and the second distribution	
				and a subsection of the first standard	Mkr→RefL
.0					
					<b>M</b> o 1 o
art 1.0000 GHz es BW 100 kHz				Stop 2.4000 GHz	10
CASE - 100 COLUMN (15 DZ	#VRW	300 kHz	Sween 134	0 ms (30000 nts)	
es BW 100 KHz	#VBW	300 kHz	Sweep 134.	0 ms (30000 pts)	
		300 kHz		0 ms (30000 pts)	
Agilent Spectrum Analyzer - Swep L RF 50 Ω /	ot SA	300 kHz			Peak Search
Agilent Spectrum Analyzer - Swep L RF 50 Ω A	ot SA	SENSE:INT	STATUS	0 ms (30000 pts) TRACE 1 2 3 4 5 0 TYPE MUNICIPAL DET P NNNNN	
Agilent Spectrum Analyzer - Swep L RF 50 Ω /	ot SA AC     0000 GHz PNO: Fast 😱	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search
Agilent Spectrum Analyzer - Swep L RF 50 Ω A arker 1 25.00000000	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P.NNNN	Peak Search
Agilent Spectrum Analyzer - Swep RF 50 0 / riker 1 25.000000000 dB/div Ref 20.00 dBr	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea
Agilent Spectrum Analyzer - Swep RF 50 0 / riker 1 25.000000000 dB/div Ref 20.00 dBr	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea
Agilent Spectrum Analyzer - Swep L RF 50 Ω / A arker 1 25.000000000 dB/div Ref 20.00 dBr	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea
Agilent Spectrum Analyzer - Swep L RF 50 Ω / arker 1 25.000000000 dB/div Ref 20.00 dBr	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea Next Pk Rig
Agilent Spectrum Analyzer - Swep L RF 50 Ω / A arker 1 25.000000000 dB/div Ref 20.00 dBr	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea Next Pk Rig
Agilent Spectrum Analyzer - Swep L RF 50 Ω A rker 1 25.000000000 dB/div Ref 20.00 dB/ 0	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 2 3.4 5 6 TYPE MWWWW DET PNNNNN 25.000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Agilent Spectrum Analyzer - Swep L RF 50 Ω A arker 1 25.000000000 dB/div Ref 20.00 dBr 0 0 0 0 0 0 0 0 0 0 0 0 0	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100	TRACE 123456 TYPE MWWWWW DET P.NNNN 25.0000 0 GHz	Peak Search Next Pea Next Pk Rig Next Pk Le
Agilent Spectrum Analyzer - Swep L RF 50 Ω A arker 1 25.000000000 dB/div Ref 20.00 dB 9 0 0 0 0 0 0 0 0 0 0 0 0 0	at SA AC 0000 GHz PN0: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Agilent Spectrum Analyzer - Swep L RF 50 Ω / A arker 1 25.000000000 dB/div Ref 20.00 dBr 0 0 0 0 0 0 0 0 0 0 0 0 0	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS	TRACE 2 3.4 5 6 TYPE MWWWW DET PNNNNN 25.000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
Agilent Spectrum Analyzer - Swep C RF 50 0 / / arker 1 25.000000000 dB/div Ref 20.00 dBr 0 0 0 0 0 0 0 0 0 0 0 0 0	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS Avg Type: Log-Pwr Avg Hoid:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
Agilent Spectrum Analyzer - Swep L RF 50 0 / arker 1 25.000000000 dB/div Ref 20.00 dBr 0 0 0 0 0 0 0 0 0 0 0 0 0	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Per Next Pk Rig Next Pk Lo Marker De Mkr→C
Agilent Spectrum Analyzer - Swep	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le Marker Del Mkr→C
Agilent Spectrum Analyzer - Swep L RF 50 0 / arker 1 25.0000000000 dB/div Ref 20.00 dBr dB/div Ref 20.00 dBr	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le Marker Del Mkr→C
Agilent Spectrum Analyzer - Swep L RF 50 Ω / Arker 1 25.000000000 dB/div Ref 20.00 dBr 0 0 0 0 0 0 0 0 0 0 0 0 0	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS	TRACE 123456 TYPE 123456 DET PINNNN 25.0000 0 GHz -39.044 dBm	Peak Search Next Peak Next Pk Rig Next Pk Le Marker Del Mkr-C Mkr-C
Agilent Spectrum Analyzer - Swep L RF 50 0 / / arker 1 25.000000000 dB/div Ref 20.00 dBr dB/div Ref 20.00	m	SENSE:INT Trig: Free Run #Atten: 30 dB	STATUS Avg Type: Log-Pwr Avg Hold:>100/100  Mkr1	TRACE 1 2 3 4 5 6 TYPE MANAGEM DET PINNINN 25.0000 0 GHz -39.044 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le Marker De Mkr-C Mkr-Ref L



#### TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE OF 802.11g FOR MODULATION IN MIDDLE CHANNEL

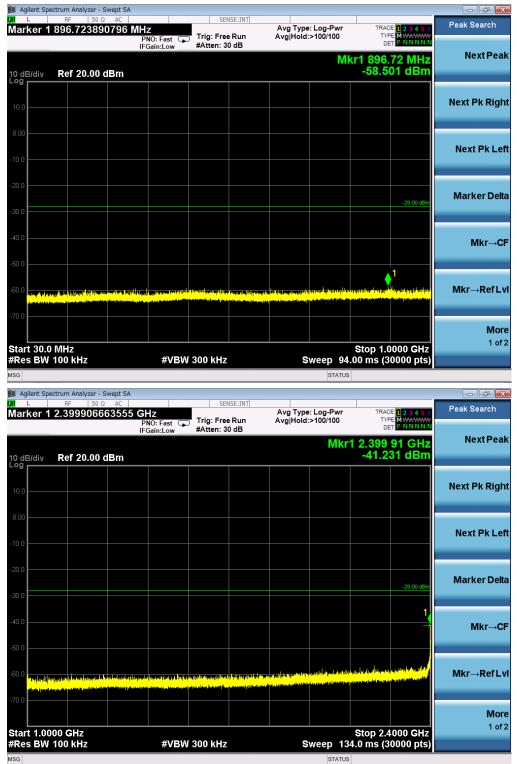


#### TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE

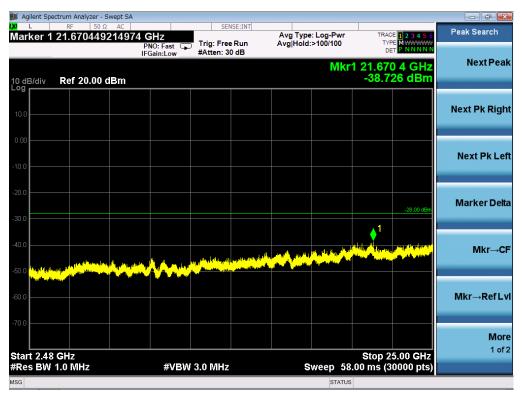
OF 802.11g FOR MODULATION IN HIGH CHANNEL

Milent Spectrum Analyzer - Swept SA L RF 50 Ω AC Marker 1 856.564552152	MHz PNO: Fast C Trig: Free Run	Avg Type: Log-Pwr Avg Hold:>100/100 DET P NNN	<del>MV</del>
10 dB/div Ref 20.00 dBm	IFGain:Low #Atten: 30 dB	Mkr1 856.56 Mi -59.154 dB	Next Peal
10.0			Next Pk Righ
-10.0			Next Pk Lef
20.0		-27.47	💼 Marker Delt
-40.0			Mkr→C
	and the second	9 sever processes to be a several to be a seve	Mkr→RefLv
.70.0			Mon 1 of
Start 30.0 MHz #Res BW 100 kHz	#VBW 300 kHz	Stop 1.0000 GI Sweep 94.00 ms (30000 p	ts)

Agilent Spectrum Analyzer - Swe L RF 50 Ω	AC	SENSE:INT			
arker 1 2.375405846	PNO: Fast 🖵	Trig: Free Run	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW DET P NNNNN	Peak Search
	IFGain:Low	#Atten: 30 dB	Billend		NextPe
dB/div Ref 20.00 dE	2m		IVIKE	2.375 41 GHz -57.198 dBm	
g					
					Next Pk Rig
0.0					
.00					
					Next Pk L
0.0					
0.0					Marker De
0.0				-27.47 dBm	
0.0					Mkr→
0.0					
				4	
). O	and want to send the set of the set	elan fermesi elan 100 kreen koolikootik		n a hite ann hir a na sta bhliatha an a	Mkr→Refl
the initial property of the second	al a second a particular so and a first second all sufficient and a second second second second second second s	alaan in in dia ka ka mara ana ka maraka in	and physical and a strend s		
0.0					
					Mc 1 o
tart 1.0000 GHz				Stop 2.4000 GHz	
Res BW 100 kHz	#VBW	300 kHz	Sweep 134	1.0 ms (30000 pts)	
	#VBW	300 kHz	Sweep 134 status	4.0 ms (30000 pts)	
G		300 kHz		1.0 ms (30000 pts)	
G Agilent Spectrum Analyzer - Swe L RF 50 Ω	ept SA AC	300 KHz	STATUS	1.0 ms (30000 pts)	Peak Search
G Agilent Spectrum Analyzer - Swe L RF 50 Ω	ept SA AC 49195 GHz PNO: Fast 😱			1.0 ms (30000 pts)	Peak Search
G Agilent Spectrum Analyzer - Swe L RF 50 Ω	ept SA AC <b>49195 GHz</b>	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	
Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div. Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	4.0 ms (30000 pts)	Peak Search
Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div. Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe
a Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe
Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe
Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sw L   RF   50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sw L   RF   50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sw L   RF   50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
G Agilent Spectrum Analyzer - Swa	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts) TRACE 123456 TYPE NUMBER DET P. NUMBER 24.9685 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
a Agilent Spectrum Analyzer - Swa L   RF   50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE 0 0 0 0 0 0 0 0 0 0 0 0 0	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L
G Agilent Spectrum Analyzer - Swall RF 50 Ω arker 1 24.96847584 0 dB/div Ref 20.00 dE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100 Mlkr	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De
a Aglient Spectrum Analyzer - Swe L   ℝF   50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE 9 00 00 00 00 00 00 00 00 00	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
arker 1 24.96847584	ept SA AC <b>49195 GHz</b> PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mlkr	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
agilent Spectrum Analyzer - Swetch         Agilent Spectrum Analyzer - Swetch         αrker 1 24.96847584         arker 1 24.96847584         agilent Spectrum Analyzer - Swetch         arker 1 24.96847584         arker 1 24.97847584         arker 1 24.97847584	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
agilent Spectrum Analyzer - Swetch         Agilent Spectrum Analyzer - Swetch         arker 1 24.96847584         arker 1 24.96847584         dB/div       Ref 20.00 dE         00       00	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
agilent Spectrum Analyzer - Swetch         Agilent Spectrum Analyzer - Swetch         αrker 1 24.96847584         arker 1 24.96847584         agilent Spectrum Analyzer - Swetch         arker 1 24.96847584         arker 1 24.97847584         arker 1 24.97847584	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swe Agilent Spectrum Analyzer - Swe arker 1 24.96847584 arker	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref I
Agilent Spectrum Analyzer - Swe Agilent Spectrum Analyzer - Swe arker 1 24.96847584 dB/div Ref 20.00 dE g g g g g g g g g g g g g	ept SA AC     49195 GHz PN0: Fast IFGain:Low 3m	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MIKr1	1.0 ms (30000 pts) TRACE 23456 TYPE 234566 TYPE 234566 TYPE 234566 TYPE 234566 TYPE 234566 TYPE	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref I
Agilent Spectrum Analyzer - Swe L RF 50 Ω arker 1 24.96847584 dB/div Ref 20.00 dE 9 10 10 10 10 10 10 10 10 10 10	ept SA AC   PN0: Fast IFGain:Low BM	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	1.0 ms (30000 pts)	Peak Search Next Pe Next Pk Rig Next Pk L



#### TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11n20 FOR MODULATION IN LOW CHANNEL

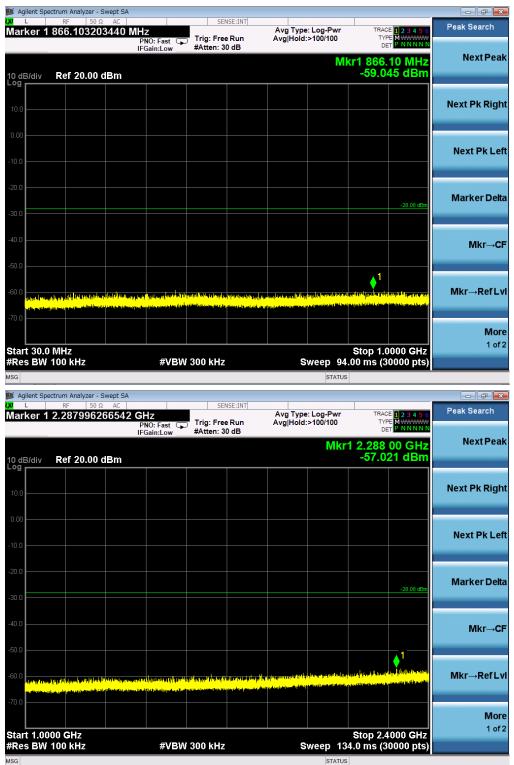


#### TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE

OF 802.11n20 FOR MODULATION IN MIDDLE CHANNEL

Agilent Spectrum Analyzer - Swept SA	SENSE	E-INT		
Marker 1 897.629254308 N		Avg Type: Log-P Run Avg Hold:>100/10		Peak Search
10 dB/div Ref 20.00 dBm			Mkr1 897.63 MHz -59.062 dBm	NextPeak
10.0				Next Pk Right
.00				Next Pk Lef
20.0			-27.79 dBm	Marker Delta
40.0				Mkr→Cl
		ng kanang kanang kang ang kang pang pang pang pang Kang kang pang pang pang pang pang pang pang p		Mkr→RefLv
-70.0			Stop 1.0000 GHz	<b>Mor</b> 1 of:
#Res BW 100 kHz	#VBW 300 kHz		94.00 ms (30000 pts)	

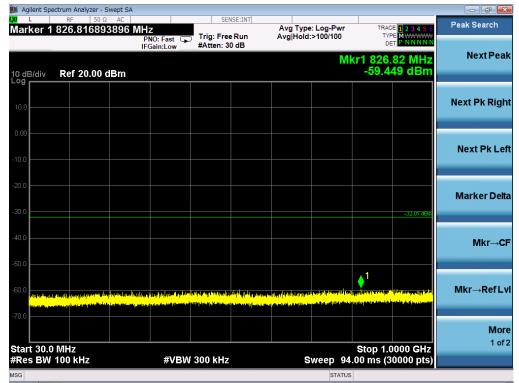
🕻 Agilent Sp	RF 50	Ω AC		SEN	NSE:INT					
	1 2.390153	005100 0	PNO: Fast 🗔		e Run	Avg Type Avg Hold	e: Log-Pwr :>100/100		123456 MWWWWWW PNNNNN	Peak Search
		1	FGain:Low	#Atten: 5	UUB		Mkr1	2.390	15 GHz	NextPea
0 dB/div .og	Ref 20.00	dBm						-55.33	5 dBm	
										Next Pk Rig
10.0										noxerieng
0.00										
0.0										Next Pk L
0.0									-27.79 dBm	Marker De
0.0									-27.75 000	
0.0										BAler
										Mkr→
0.0										
0.0 <mark>arty/y/lb</mark>	a ( year of a last of a fact of		No albiment Survey	udraed Break			an dhadhaa Madiina	i de la formalación Managentes	atabua dendrosent naga antina pasa t	Mkr→Refl
<mark>1-000005a</mark> 0.0	a na kana na kata na kata kata kata kata	and a second	and a first strength a bear of a	a na fina na sana na sa	late of a scalar formal and					
										Mo
tort 1 0					1			<u> </u>		1 0
	000 GHz		-#\(D\)	1 200 kHz					000 GHz	
	000 GHz 100 kHz		#VBW	/ 300 kHz		s	weep 134			
Res BW	100 kHz		#VBW			8	weep 134			- ¢
Res BW	100 kHz	Ω AC 4546818	GHz	SEI	NSE:INT	Avg Type	STATUS	.0 ms (30	123456	Peak Search
Res BW	Pectrum Analyzer RF 50	Ω AC 4546818		SEI	VSE:INT		STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET	123456 MWWWWW PNNNN	Peak Search
Agilent Sp L arker 1	Pectrum Analyzer RF 50	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNN	Peak Search
Agilent Sp L arker 1	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe
Res BW arker 1 arker 1	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe
Res BW	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe
Agilent Sp Agilent Sp L arker 1 0 dB/div 0.0	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe Next Pk Rig
Agilent Sp Agilent Sp arker 1 0 dB/div	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe Next Pk Rig
Res BW G Agilent Sp L Agilent S	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Sp Agilent Sp L L Agilent Sp L Agilent Sp L Agile	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type	STATUS STATUS :: Log-Pwr :>100/100	.0 ms (30 TRACE TYPE DET 24, 875	123456 MWWWWW PNNNNN 4 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
Res BW G Agilent Sp L C O dB/div O G O O O O O O O O O O O O O O O O O	2 100 kHz pectrum Analyzer RF 50 1 24.87540	Ω AC 4546818	GHz PNO: Fast	) Trig: Free	VSE:INT	Avg Type Avg Hold	*: Log-Pwr :>100/100 Mkr1	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L
Res BW G Agilent Sp L C O dB/div O G O O O O O O O O O O O O O O O O O	100 kHz vectrum Analyzer RF 50 124.87540 Ref 20.00	Ω AC   4546818   0 dBm	GHz PNO: Fast FGain:Low	Ser	YSE:INT P Run 0 dB	Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Res BW G G G G G G G G G G G G G G G G G G G	100 kHz vectrum Analyzer RF 50 124.87540 Ref 20.00	Ω AC 4546818	GHz PNO: Fast FGain:Low	Ser	NSE:INT P Run 0 dB	Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Res BW G Agilent Sp L arker 1 0 dB/div 9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	100 kHz vectrum Analyzer RF 50 124.87540 Ref 20.00	Ω AC   4546818   0 dBm	GHz PNO: Fast FGain:Low	Ser	YSE:INT P Run 0 dB	Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Res BW G G Agilent Sp L C G G G G G G G G G G G G G G G G G G	100 kHz vectrum Analyzer RF 50 124.87540 Ref 20.00	Ω AC   4546818   0 dBm	GHz PNO: Fast FGain:Low	Ser	YSE:INT P Run 0 dB	Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Res BW G G G G G G G G G G G G G G G G G G G	100 kHz vectrum Analyzer RF 50 124.87540 Ref 20.00	Ω AC   4546818   0 dBm	GHz PNO: Fast FGain:Low	Ser	YSE:INT P Run 0 dB	Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNN 4GHz 0dBm -27.79 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref L
Res         BW           G	100 kHz RF 50 124.87540 Ref 20.00	Ω AC   4546818   0 dBm	GHz PNO: Fast FGain:Low	Ser		Avg Type Avg Hold	Example 134	0 ms (30	123456 PNNNNN 4GHz 0dBm	



## TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE OF 802.11n20 FOR MODULATION IN HIGH CHANNEL

							ctrum Analyzer -	🊺 Agilent Sj
Peak Search	TRACE <b>1 2 3 4 5 6</b> TYPE <b>M</b> <del>WWWWW</del> DET P N N N N N	:: Log-Pwr :>100/100	Avg Typ Avg Hold		GHz NO: Fast Gain:Low		RF 50 9 24.939203	<mark>x</mark> L Marker
Next Peal	24.939 2 GHz -38.381 dBm	Mkr		#Atten: 0	-Gain:Low		Ref 20.00	10 dB/div
Next Pk Righ								10.0
Next Pk Lef								0.00 10.0
Marker Delta	-28.08 dBm							-20.0
Mkr→Cf		<mark>hu da a shiri</mark> t	And and		AAre	n der ster stehen		-40.0
Mkr→RefLv								-60.0
<b>More</b> 1 of 2	Stop 25.00 GHz 00 ms (30000 pts)	weep <u>58</u>		3.0 MHz	#VBM		GHz 1.0 MHz	Start 2.4
		STATUS						ISG

## TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11n40 FOR MODULATION IN LOW CHANNEL



Agilent Spectrum Analyzer - Swept           L         RF         50 Ω         AC		SENSE:INT			Deek Ceerek
arker 1 2.4000000000	PNO: Fast 😱	Trig: Free Run	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Peak Search
	IFGain:Low	#Atten: 30 dB	Mkr1	2.400 00 GHz	NextPe
dB/div Ref 20.00 dBm	ı			-44.758 dBm	
.0					Next Pk Rig
00					
.0					Next Pk L
0					
					Marker De
				-32.01 dBm	
o				1	Mkr⊸
0					
	andre and the network the	and an	data yang makang sata basa di silata shara basa ba	s date the conduct of the sector states	Mkr→Refl
	an a fad ter sa ti pite sa la la la si an	a and a production of the second s		a new Araba de seg des statil à l'addre à l'addre and a	
0					
					<b>M</b> c 1 c
rt 1.0000 GHz es BW 100 kHz	#\/B\//	300 kHz	Sween 134	Stop 2.4000 GHz .0 ms (30000 pts)	
			STATUS	.o ina (30000 pra)	
	SA			.o ma (50000 pra)	
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC		SENSE:INT	STATUS		Peak Search
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC	502 GHz PNO: Fast	SENSE:INT		TRACE 23456 TYPE MWWWWW	
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC	502 GHz	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC Irker 1 24.980485049 HS/div. Ref 20 00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P. NNNNN	Peak Search
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC Irker 1 24.980485049 HS/div. Ref 20 00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC Irker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC Irker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe
Agilent Spectrum Analyzer - Swept L RF 50 Ω AC Irker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept L RF 50 Ω Ac Irker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept L RF 50 Ω Ac Irker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig
Agilent Spectrum Analyzer - Swept L RF 50 Ω Acc arker 1 24.980485049 dB/div Ref 20.00 dBm	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept	502 GHz PNO: Fast IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hold:>100/100 MKC1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 1 2 3 4 5 5 TYPE MWWWW DET P NNNNN 24.980 5 GHz	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
arker 1 24.980485049           dB/div         Ref 20.00 dBm           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref L
Agilent Spectrum Analyzer - Swept L RF 50 0 AC arker 1 24.980485049 dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 MKr1	TRACE 123456 TYPE MANNAN 24.9805GHz -38.622dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref L
Agilent Spectrum Analyzer - Swept	1502 GHz PNO: Fast IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 12 3 4 5 6 TYPE MYWWWWWW DET P.NNNN 24.980 5 GHz -38.622 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→Ref L Mar

Agilent Sp	RF 50 \$	Ω AC		SE	NSE:INT					Back Saarab
arker 1	432.04606		<b>Z</b> PNO: Fast ⊂ FGain:Low	Trig: Fre #Atten: 3		Avg Type Avg Hold	e: Log-Pwr :>100/100	TRAC TYI DI	DE 1 2 3 4 5 6 PE MWWWW ET P NNNNN	Peak Search
	_		Gameen				M	(r1 432	.05 MHz 83 dBm	Next Pea
dB/div	Ref 20.00	dBm						-00.9		
0.0										Next Pk Rig
00										
										Next Pk L
.0										Marker De
.0									-32.90 dBm	
.0										Mkr→
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0000000 10000000 0.0	in an an in a substantia in a substantia	l te Markaisa guanda ag	Laurena dan person	andra da Afrika andra Sama	a Milaliana at a	der i sjiler oer til her til beser en s		na an leas an ann Ann An An	in aire an ta bhliach gan bha le as T	
										Mo 1 o
										10
	) MHz 100 kHz		#VBV	V 300 kHz		s	weep 94.	Stop 1.0 .00 ms (3	0000 GHz 10000 pts)	
les BW			#VBV	V 300 kHz		S	status	Stop 1.0 .00 ms (3	0000 GHZ 10000 pts)	
les BW			#VBV		NSE:INT		STATUS	.00 ms (3	10000 pts)	
Agilent Sp	ectrum Analyzer -	Ω AC 21771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT		STATUS	00 ms (3	22 1 2 3 4 5 6 PE MWWWWW	Peak Search
Agilent Sp L	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	GHz	SE	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search
Agilent Sp L arker 1	ectrum Analyzer - RF 50 S	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	260000 pts)	Peak Search
Agilent Sp L arker 1	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe
Agilent Sp L arker 1 dB/div	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe
Agilent Sp Agilent Sp arker 1	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe Next Pk Rig
Agilent Sp. L arker 1 dB/div	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe Next Pk Rig
Agilent Sp Agilent Sp C dB/div g 00 00 00	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe Next Pk Rig Next Pk Lu
Agilent Sp Agilent Sp C dB/div g 00 00 00	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	65 GHz	Peak Search Next Pe Next Pk Rig Next Pk Lu
Agilent Sp Agilent Sp arker 1 arker 1	ectrum Analyzer - RF 50 5 1 2.3936531	α AC 121771 C	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	60000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lo Marker De
Agilent Sp Agilent Sp arker 1	ectrum Analyzer - RF 50 5 1 2.3936531	α AC <b>121771 C</b>	SHZ PNO: Fast G	) Trig: Fre	NSE:INT	Avg Type	STATUS 2: Log-Pwr :>100/100	00 ms (3	60000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lo Marker De
Agilent Sp Agilent Sp arker 1 0.0 0.0 0.0	ectrum Analyzer - RF 50 5 1 2.3936531	2 AC   221771 G dBm	SHZ PN0: Fast C FGain:Low	Trig: Fre #Atten: 3	NSE:INT	Avg Type Avg Hold	ELOG-Pwr 100/100 MKr*	00 ms (3	60000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→0
Agilent Sp Agilent Sp arker 1 0.0 0.0 0.0	2 100 kHz ectrum Analyzer - RF 501 2.3936531 Ref 20.00	2 AC   221771 G dBm	SHZ PN0: Fast C FGain:Low	Trig: Fre #Atten: 3	NSE:INT	Avg Type Avg Hold	ELOG-Pwr 100/100 MKr*	00 ms (3	60000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→0
Agilent Sp Agilent Sp arker 1 arker 1 00 00 00 00 00 00 00 00 00 0	2 100 kHz ectrum Analyzer - RF 501 2.3936531 Ref 20.00	2 AC   221771 G dBm	SHZ PN0: Fast C FGain:Low	Trig: Fre #Atten: 3	NSE:INT	Avg Type Avg Hold	ELOG-Pwr 100/100 MKr*	00 ms (3	20000 pts) 20000	Peak Search Next Per Next Pk Rig Next Pk Lo Marker De Mkr→C Mkr→Ref L
Agilent Sp Agilent Sp arker 1 00 00 00 00 00 00 00 00 00 00 00 00 00	2 100 kHz ectrum Analyzer - RF 501 2.3936531 Ref 20.00	2 AC   221771 G dBm	SHZ PNO: Fast C FGain:Low	Trig: Fre #Atten: 3	NSE:INT		ELOG-Pwr 100/100 MKr*	00 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→Ref L Mo 1 o

# TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE OF 802.11n40 FOR MODULATION IN MIDDLE CHANNEL



## TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE

OF 802.11n40 FOR MODULATION IN HIGH CHANNEL

🚺 Agilent Spectrum Analyzer - Swept SA 🗶 L   RF   50 Ω AC	SEN	SE:INT		
Marker 1 883.984132804	PNO: Fast Trig: Free IFGain:Low #Atten: 30			
10 dB/div Ref 20.00 dBm			Mkr1 883.98 MHz -59.184 dBm	Next Peal
10.0				Next Pk Righ
0.00				
-10.0				Next Pk Lef
-20.0				
-30.0			-32.93 dBm	Marker Delta
-40.0				Mkr→Ci
-50.0				
-60.0	entry legangayahoweyahii thera anyahiru operanga	and the spectrum and the strengthened in the strengthened		Mkr→RefLv
-70.0		mentile de serve general par de plan de la brance la procesa antile de brance.	al ( han bay the Lyng and the Color of the	
Start 30.0 MHz			Stop 1.0000 GHz	More 1 of 2
#Res BW 100 kHz	#VBW 300 kHz	Sweep	94.00 ms (30000 pts)	

Agilent Spectrum Analyzer - Sw           L         RF         50 Ω		SENSE:INT	Aug Tages Law Dag	TRACE PLANE	Peak Search
arker 1 2.39925330	PNO: Fast GFZ IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	
	IF Gall.LOW	witten. oo ub	Mkr1	2.399 25 GHz	NextPea
dB/div Ref 20.00 d	Bm			-56.896 dBm	
0.0					Next Pk Rig
.00					
0.0					Next Pk L
0.0					Marker De
0.0					Marker De
				-32.93 dBm	
0.0					Mkr→(
0.0					
0.0				1	
	an ina manalan na bagan sa kanalan kanalan kanalan sa kanalan sa kanalan sa kanalan sa kanalan sa kanalan sa k			Under har hand ball and distances	Mkr→RefL
Tabilitation and include this water in the second state in the second state of the second state of the second s	and a second	<mark>, and the state of the state o</mark>	i den en en en la mine en la mine en la compañía de		
0.0					Мо
tart 1.0000 GHz					1 0
Res BW 100 kHz				Stop 2.4000 GHz	
	#VBW	/ 300 kHz	Sweep 134.	0 ms (30000 pts)	
	#VBW	/ 300 kHz	Sweep 134.	0 ms (30000 pts)	
G Agilent Spectrum Analyzer - Sv	vept SA			0 ms (30000 pts)	
G	vept SA AC 23984 GHz	SENSE:INT	STATUS Avg Type: Log-Pwr	TRACE 123456	Peak Search
G Agilent Spectrum Analyzer - Sw L RF 50 Ω	vept SA AC	SENSE:INT	STATUS		Peak Search
G Agilent Spectrum Analyzer - Sv L RF 50Ω arker 1 24.9602195	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search
G Agilent Spectrum Analyzer - Sw L RF 50 Ω	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET PNNNNN	
a Agilent Spectrum Analyzer - Su	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pea
G Agilent Spectrum Analyzer - Sv L RF 50Ω arker 1 24.9602195	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe
a Agilent Spectrum Analyzer - Su	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe
a Agilent Spectrum Analyzer - Sv arker 1 24.9602195 dB/div Ref 20.00 dl 0.0	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sv arker 1 24.9602195 dB/div Ref 20.00 df	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search
a Agilent Spectrum Analyzer - Sv arker 1 24.9602195 dB/div Ref 20.00 dl 0.0	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sv arker 1 24.9602195 dB/div Ref 20.00 dl 0.0 0.0	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe Next Pk Rig
a Agilent Spectrum Analyzer - Sv arker 1 24.9602195 dB/div Ref 20.00 dl 0.0 0.0	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	STATUS Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNNN 24.9602 GHz	Peak Search Next Pe Next Pk Rig Next Pk Lu
a       Agilent Spectrum Analyzer - Sw         RF       50 Ω         arker 1 24.9602195         0 dB/div       Ref 20.00 dl	AC 23984 GHz PNO: Fast G IFGain:Low	SENSE:INT	Avg Type: Log-Pwr Avg Hoid:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk La Marker De
a       Agilent Spectrum Analyzer - Su         RF       50 Ω         arker 1 24.9602195         dB/div       Ref 20.00 di         00       0.0         0.0       0.0         0.0       0.0         0.0       0.0	AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 2 3 4 5 6 TYPE MWWWW DET P NNNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk La Marker De
agilent Spectrum Analyzer - Sv         Agilent Spectrum Analyzer - SvΩ         arker 1 24.9602195         0 dB/div       Ref 20.00 dI         0 dB/div       Ref 20.00 dI	AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De
G Agilent Spectrum Analyzer - Sv L RF 50 Ω arker 1 24.9602195 0 dB/div Ref 20.00 d 0 0 0 0 0 0 0 0 0 0 0 0 0 0	wept SA AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr-4
agilent Spectrum Analyzer - Sv         Agilent Spectrum Analyzer - SvΩ         arker 1 24.9602195         0 dB/div       Ref 20.00 dI         0 dB/div       Ref 20.00 dI	wept SA AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→4
G Agilent Spectrum Analyzer - Sv L RF 50 Ω arker 1 24.9602195 0 dB/div Ref 20.00 d 0 0 0 0 0 0 0 0 0 0 0 0 0 0	wept SA AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr-4
agilent Spectrum Analyzer - SW         Agilent Spectrum Analyzer - SOΩ         arker 1 24.9602195         dB/div       Ref 20.00 dl         00	wept SA AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk L Marker De Mkr→Ref L
agilent Spectrum Analyzer - SW         Agilent Spectrum Analyzer - SOΩ         arker 1 24.9602195         0 dB/div       Ref 20.00 dI	wept SA AC 23984 GHz PNO: Fast IFGain:Low Bm	SENSE:INT Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	TRACE 1 2 3 4 5 6 TYPE MANNAN DET PINNNN 24.960 2 GHz -38.928 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu

Note: The 100kHz RBW used in the conducted spurious test from 2.4835GHz to 25GHz may result in long measuring times, To avoid such long measuring times, the 1MHz RBW can be used for pre-test. If the emission level exceeded the limit at one or more frequencies, the 100kHz RBW would be used for final test at the special frequency.

## **10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY**

## **10.1 MEASUREMENT PROCEDURE**

- (1). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- (2). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- (3). Set SPA Trace 1 Max hold, then View.

Note: The method of AVPSD in the KDB 558074 item 10.3 was used in this testing.

## **10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)**

Refer To Section 8.2.

### **10.3 MEASUREMENT EQUIPMENT USED**

Refer To Section 6.

### **10.4 LIMITS AND MEASUREMENT RESULT**

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11b with data rate 1

Channel No.	PSD (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-7.385	8	Pass
Middle Channel	-7.144	8	Pass
High Channel	-7.320	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11g with data rate 6

Channel No.	PSD (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-12.616	8	Pass
Middle Channel	-12.528	8	Pass
High Channel	-12.524	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 20 with data rate 6.5

Channel No.	PSD (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-13.063	8	Pass
Middle Channel	-12.845	8	Pass
High Channel	-13.289	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 40 with data rate 6.5

Channel No.	PSD (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-16.145	8	Pass
Middle Channel	-17.712	8	Pass
High Channel	-17.767	8	Pass



# 802.11b TEST RESULT

### TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

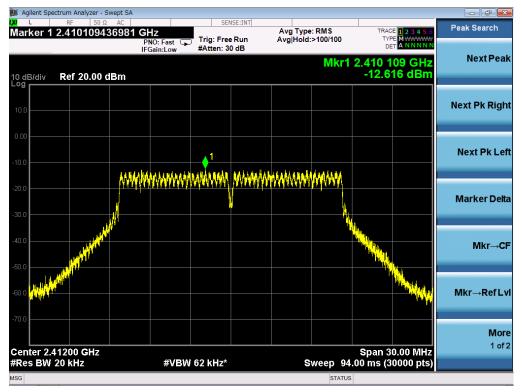


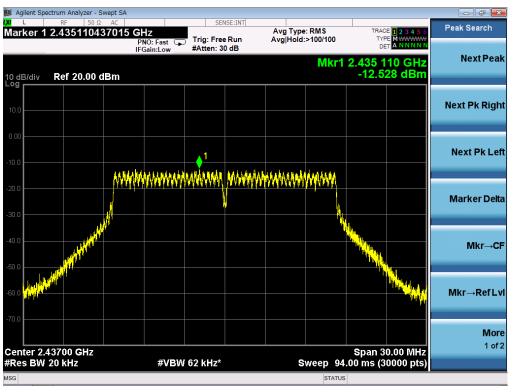


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

## 802.11g TEST RESULT

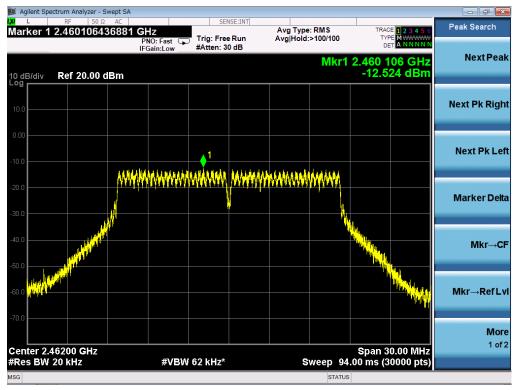
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

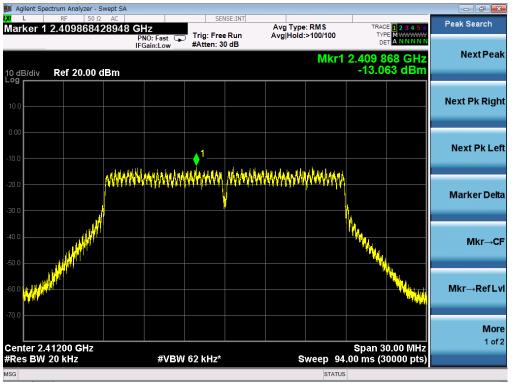




TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

#### TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

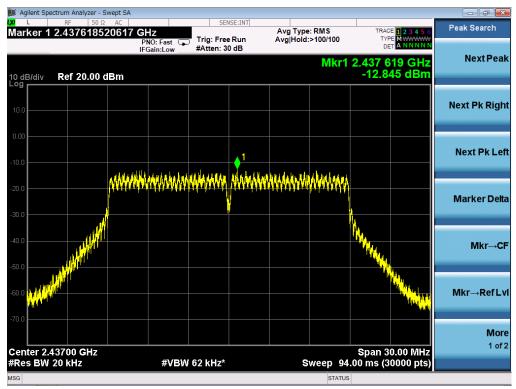


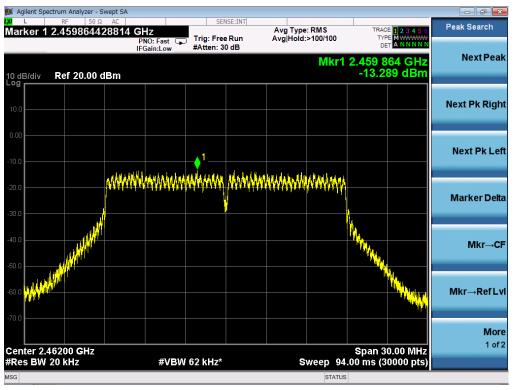


## 802.11n 20 TEST RESULT

#### TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

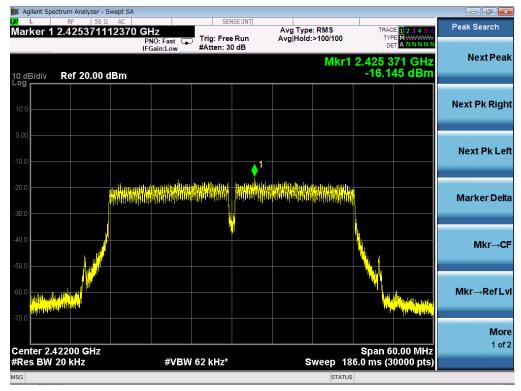




TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

#### 802.11n 40 TEST RESULT

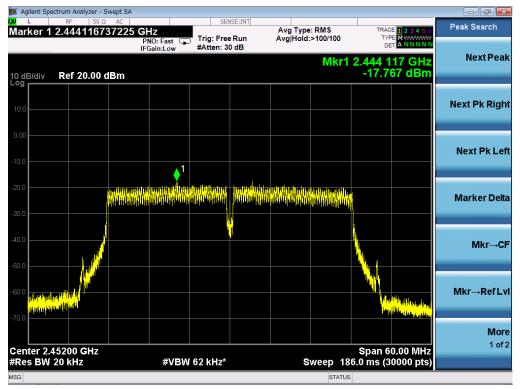
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL





## TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

#### TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



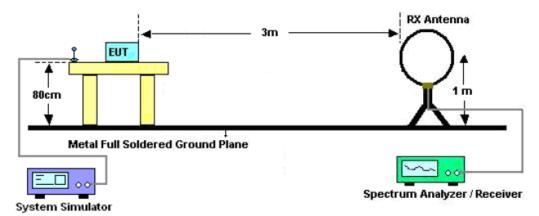
## **11. RADIATED EMISSION**

## **11.1. MEASUREMENT PROCEDURE**

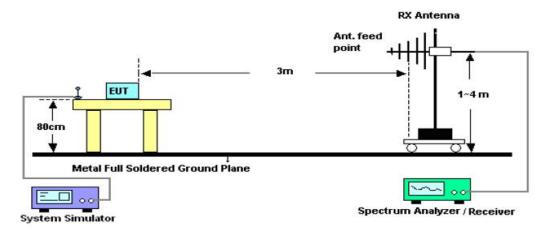
- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

### 11.2. TEST SETUP

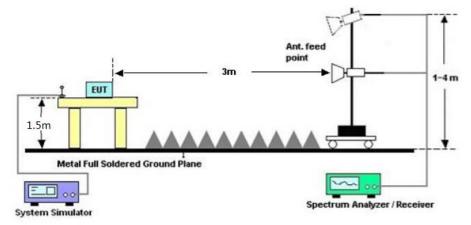
Radiated Emission Test-Setup Frequency Below 30MHz



#### RADIATED EMISSION TEST SETUP 30MHz-1000MHz



## RADIATED EMISSION TEST SETUP ABOVE 1000MHz



## **11.3. LIMITS AND MEASUREMENT RESULT**

15.209(a) Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

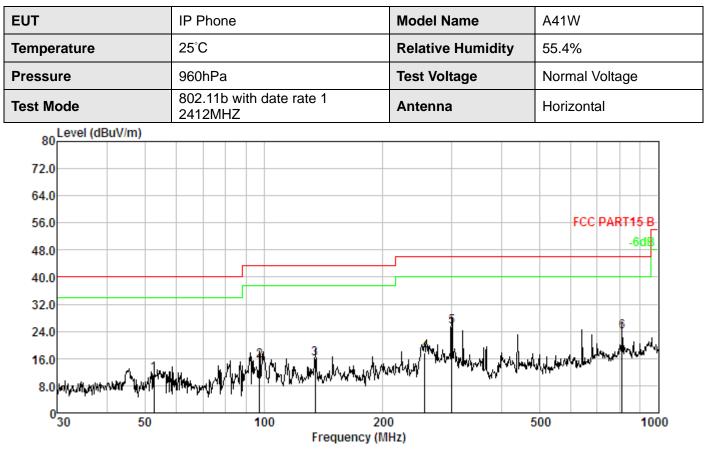
Note: All modes were tested For restricted band radiated emission,

the test records reported below are the worst result compared to other modes.

## 11.4. TEST RESULT

### **RADIATED EMISSION BELOW 30MHZ**

No emission found between lowest internal used/generated frequencies to 30MHz.

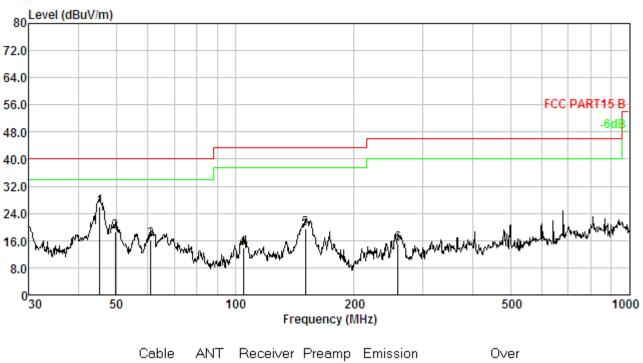


#### **RADIATED EMISSION BELOW 1GHZ**

No.	Freq MHz	Cable Loss dB		Receiver Reading dBuV	Preamp Factor dB	Emission Le∨el dBuV/m	Limit dBuV/m	O∨er Limit dB	Remark	
1.	52.575	1.56	12.08	27.92	30.17	11.39	40.00	-28.61	QP	
2.	97.456	2.12	9.99	33.51	30.38	15.24	43.50	-28.26	QP	
3.	135.032	2.42	13.00	30.91	30.49	15.84	43.50	-27.66	QP	
4.	255.623	2.99	12.04	33.43	30.72	17.74	46.00	-28.26	QP	
5.	299.316	3.14	13.18	39.84	30.77	25.39	46.00	-20.61	QP	
6.	810.265	4.04	21.83	29.06	31.12	23.81	46.00	-22.19	QP	

**RESULT: PASS** 

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



No.	Freq MHz	Loss dB		Reading dBuV		Level dBuV/m	Limit dBuV/m	Limit dB	Remark	
1.	45.375	1.43	13.17	41.53	30.11	26.02	40.00	-13.98	QP	
2.	49.707	1.51	12.32	34.93	30.15	18.61	40.00	-21.39	QP	
3.	61.132	1.70	12.09	32.60	30.22	16.17	40.00	-23.83	QP	
4.	104.903	2.19	10.66	31.58	30.41	14.02	43.50	-29.48	QP	
5.	150.538	2.52	13.90	33.47	30.53	19.36	43.50	-24.14	QP	
6.	259.234	3.01	12.11	30.69	30.72	15.09	46.00	-30.91	QP	

### **RESULT: PASS**

Note:

- 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.
- 2. The "Factor" value can be calculated automatically by software of measurement system.
- 3. All test modes had been pre-tested. The 802.11b at low channel is the worst case and recorded in the report.

## **RADIATED EMISSION ABOVE 1GHZ**

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type			
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value rype			
4824.080	48.57	3.72	52.29	74	-21.71	peak			
4824.066	43.74	3.72	47.46	54	-6.54	AVG			
7236.032	41.96	8.15	50.11	74	-23.89	peak			
7236.043	35.61	8.15	43.76	54	-10.24	AVG			
Remark:									
Factor = Ante	enna Factor + Ca	able Loss – P	re-amplifier.						

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type			
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type			
4824.102	46.75	3.72	50.47	74	-23.53	peak			
4824.031	41.55	3.72	45.27	54	-8.73	AVG			
7236.106	39.33	8.15	47.48	74	-26.52	peak			
7236.046	33.45	8.15	41.6	54	-12.4	AVG			
Remark:									
Factor = Ante	enna Factor + Ca	able Loss – P	re-amplifier.						

## Report No.: AGC01180160702FE05 Page 57 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type		
4874.036	48.38	3.75	52.13	74	-21.87	peak		
4874.040	44.49	3.75	48.24	54	-5.76	AVG		
7311.116	41.71	8.16	49.87	74	-24.13	peak		
7311.108	38.68	8.16	46.84	54	-7.16	AVG		
Remark:								
actor = Antenna Factor + Cable Loss – Pre-amplifier.								

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4874.106	46.15	3.75	49.9	74	-24.1	peak
4874.060	40.47	3.75	44.22	54	-9.78	AVG
7311.020	40.89	8.16	49.05	74	-24.95	peak
7311.054	36.75	8.16	44.91	54	-9.09	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

#### Report No.: AGC01180160702FE05 Page 58 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4924.076	46.84	3.81	50.65	74	-23.35	peak
4924.099	41.13	3.81	44.94	54	-9.06	AVG
7386.119	41.74	8.19	49.93	74	-24.07	peak
7386.029	36.66	8.19	44.85	54	-9.15	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4924.108	44.15	3.81	47.96	74	-26.04	peak
4924.032	38.36	3.81	42.17	54	-11.83	AVG
7386.087	40.41	8.19	48.6	74	-25.4	peak
7386.092	35.59	8.19	43.78	54	-10.22	AVG
Remark:						
-actor = Ante	enna Factor + Ca	able Loss – F	re-amplifier.			

## **RESULT: PASS**

Note:

Other emissions from 8G to 25 GHz are considered as ambient noise. No recording in the test report. Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

All test modes had been pre-tested. The 802.11b mode is the worst case and recorded in the report.

## **12. BAND EDGE EMISSION**

## **12.1. MEASUREMENT PROCEDURE**

Radiated restricted band edge measurements

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting

### 12.2. TEST SET-UP

same as 11.2

Note:

1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level

2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB( $\mu$ V) to represent the Amplitude. Use the F dB( $\mu$ V/m) to represent the Field Strength. So A=F.

## 12.3. TEST RESULT

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

ΡK

	m Analyzer - Swept SA	1					-		- F -
	RF 50 Ω AC	GHz		SE:INT		e: Log-Pwr	TRAC	E <b>1 2 3 4 5</b> 6	Peak Search
		PNO: Fast 🕞 IFGain:Low	Trig: Free #Atten: 10		Avg Hold	:>100/100	TYI DI		
						Mkr	2 2.390	00 GHz	Next Peak
10 dB/div R	ef 106.99 dBµV						44.08	4 dBµV	
97.0						<u>1</u>			
87.0									Next Pk Right
77.0					/			<b>A</b>	
67.0									
57.0		2		$\sim$					Next Pk Left
47.0	and the second and the second	and the second descent	Aller Walter Street						
37.0									
27.0									Marker Delta
17.0									
Start 2.3700		-40 (15)4					Stop 2.4	2500 GHz	Min 05
#Res BW 1.0		#VDV	/ 3.0 MHz			Sweep 1			Mkr→CF
MKR MODE TRC S	f 2.41	2 01 GHz	۲ 97.861 dB		TION FUI	ICTION WIDTH	FUNCTION	ON VALUE	
2 N 1 1	f 2.39	0 00 GHz	44.084 dBµ	<b>N</b>					Mkr→RefLvl
4 5								=	WIKI → KEI LVI
6									
8									More
10									1 of 2
			m					۲.	
MSG						STATUS			

**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 61 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 62 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 63 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 64 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Horizontal



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 65 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Vertical



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 66 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Horizontal



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 67 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Vertical



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 68 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	Antenna	Horizontal



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 69 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	Antenna	Vertical



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 70 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20with data rate 6.5 2462MHZ	Antenna	Horizontal



**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 71 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2462MHZ	Antenna	Vertical



**RESULT: PASS** 

## Report No.: AGC01180160702FE05 Page 72 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 6.5 2422MHZ	Antenna	Horizontal

Milent Spectru	um Analyzer - Swept SA RF 50 Ω AC		SENSE:IN	rl I			
Marker 2 2.	390150150150	PNO: Fast		Avg Typ	e: Log-Pwr i:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNN	Peak Search
10 dB/div	Ref 106.99 dBµV	IFGain:Low	#Atten: 10 db		Mkr	2 2.390 15 GHz 46.561 dBµV	Next Peak
97.0							Next Pk Right
77.0 67.0 57.0 47.0	مالىپىرىلى .	2					Next Pk Left
37.0 27.0 17.0							Marker Delta
Start 2.3700 #Res BW 1.	0 MHz	#VB\	V 3.0 MHz		Sweep 1.	Stop 2.44500 GHz 066 ms (1000 pts)	Mkr→Cf
MKR         MODE         TRC           1         N         1           2         N         1           3         -         -           4         -         -           5         -         -           6         -         -	f 2.4	19 70 GHz 90 15 GHz	Υ 90.910 dBμV 46.561 dBμV	FUNCTION FU	NCTION WIDTH	FUNCTION VALUE	Mkr→RefLv
7 8 9 9 10 11 11 11 11 11 11 11 11 11 11 11 11							More 1 of 2
MSG					STATUS		

**RESULT: PASS** 

#### Report No.: AGC01180160702FE05 Page 73 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 6.5 2422MHZ	Antenna	Vertical



**RESULT: PASS** 

ΡK

#### Report No.: AGC01180160702FE05 Page 74 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40with data rate 6.5 2452MHZ	Antenna	Horizontal



**RESULT: PASS** 

ΡK

#### Report No.: AGC01180160702FE05 Page 75 of 88

EUT	IP Phone	Model Name	A41W
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 6.5 2452MHZ	Antenna	Vertical

ΡK



## **RESULT: PASS**

Note: The PK values of the emission were less than AV limits, so the AV values were deemed to comply with the requirement without test.

# **13. FCC LINE CONDUCTED EMISSION TEST**

## **13.1. LIMITS OF LINE CONDUCTED EMISSION TEST**

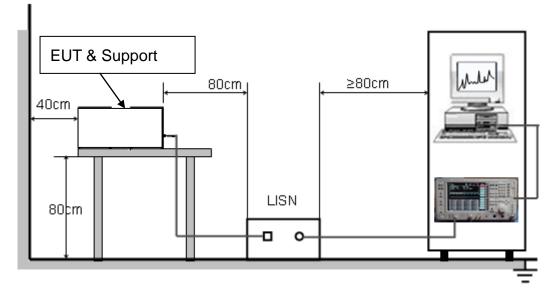
Frequency	Maximum RF Line Voltage			
Frequency	Q.P.( dBuV)	Average( dBuV)		
150kHz~500kHz	66-56	56-46		
500kHz~5MHz	56	46		
5MHz~30MHz	60	50		

Note:

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

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

### **13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST**



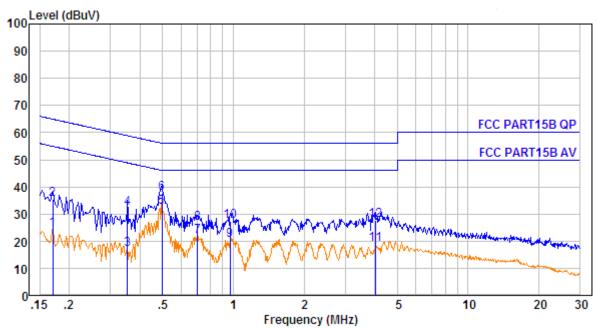
### 13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

- The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipments received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received 120V/60Hzpower by a LISN..
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

#### 13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

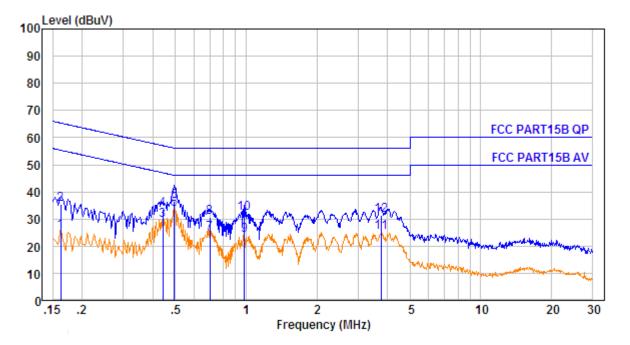


### **13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST**

No.	Freq MHz	Cable Loss dB	AMN Factor dB	Receiver Reading dBuV	Emission Level dBuV	Limit dBuV	O∨er Limit dB	Remark
1.	0.170	10.60	0.60	13.12	24.32	54.94	-30.62	Average
2.	0.170	10.60	0.60	24.12	35.32	64.94	-29.62	QP -
3.	0.354	10.63	0.60	5.86	17.09	48.87	-31.78	Average
4.	0.354	10.63	0.60	20.86	32.09	58.87	-26.78	QP -
5.	0.497	10.65	0.60	21.25	32.50	46.05	-13.55	Average
6.	0.497	10.65	0.60	26.25	37.50	56.05	-18.55	QP
7.	0.705	10.66	0.60	10.43	21.69	46.00	-24.31	Average
8.	0.705	10.66	0.60	15.43	26.69	56.00	-29.31	QP
9.	0.968	10.67	0.60	9.15	20.42	46.00	-25.58	Average
10.	0.968	10.67	0.60	16.15	27.42	56.00	-28.58	QP -
11.	4.027	10.72	0.60	7.45	18.77	46.00	-27.23	Average
12.	4.027	10.72	0.60	16.45	27.77	56.00	-28.23	QP -

**RESULT: PASS** 

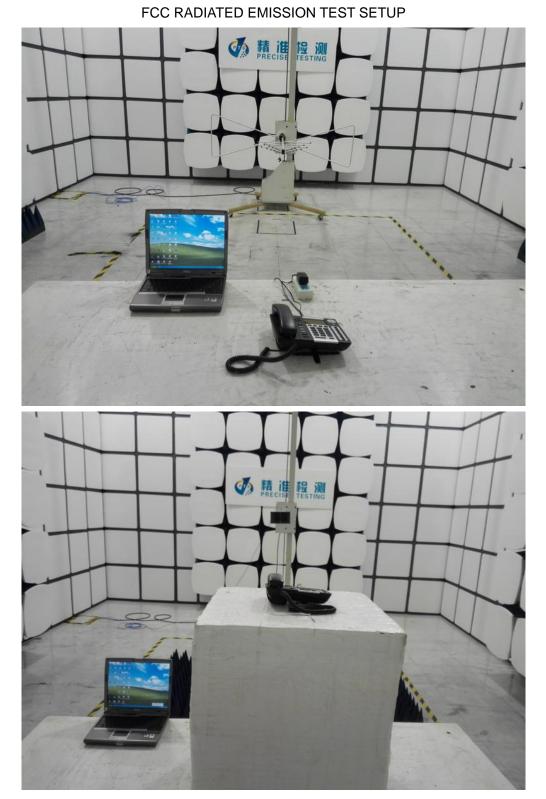
Line Conducted Emission Test Line 1-L



#### Line Conducted Emission Test Line 2-N

No.	Freq MHz	Cable Loss dB	AMN Factor dB	Receiver Reading dBuV	Emission Le∨el dBuV	Limit dBu∨	O∨er Limit dB	Remark
1.	0.162	10.60	0.60	14.35	25.55	55.34	-29.79	Average
2.	0.162	10.60	0.60	24.35	35.55	65.34	-29.79	QP -
3.	0.442	10.64	0.60	18.37	29.61	47.02	-17.41	Average
4.	0.442	10.64	0.60	22.37	33.61	57.02	-23.41	QP -
5.	0.494	10.64	0.60	22.29	33.53	46.10	-12.57	Average
6.	0.494	10.64	0.60	25.29	36.53	56.10	-19.57	QP
7.	0.701	10.66	0.60	13.46	24.72	46.00	-21.28	Average
8.	0.701	10.66	0.60	19.46	30.72	56.00	-25.28	QP
9.	0.984	10.67	0.60	12.85	24.12	46.00	-21.88	Average
10.	0.984	10.67	0.60	20.85	32.12	56.00	-23.88	QP -
11.	3.759	10.72	0.60	13.90	25.22	46.00	-20.78	Average
12.	3.759	10.72	0.60	19.90	31.22	56.00	-24.78	QP -

**RESULT: PASS** 



APPENDIX A: PHOTOGRAPHS OF TEST SETUP



## FCC CONDUCTED EMISSION TEST SETUP



APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT

TOP VIEW OF EUT





BOTTOM VIEW OF EUT

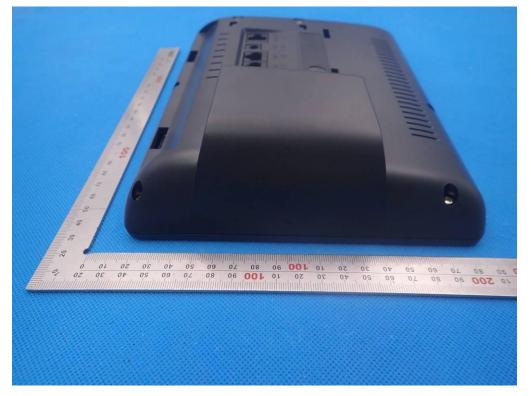
FRONT VIEW OF EUT





BACK VIEW OF EUT

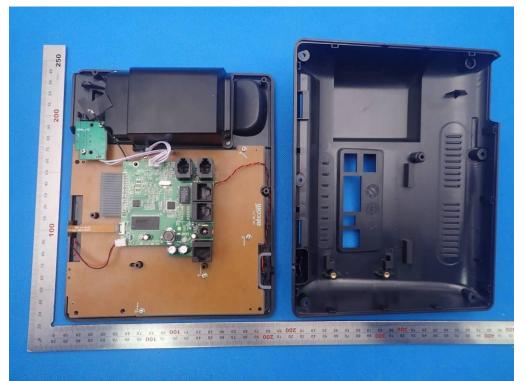
LEFT VIEW OF EUT

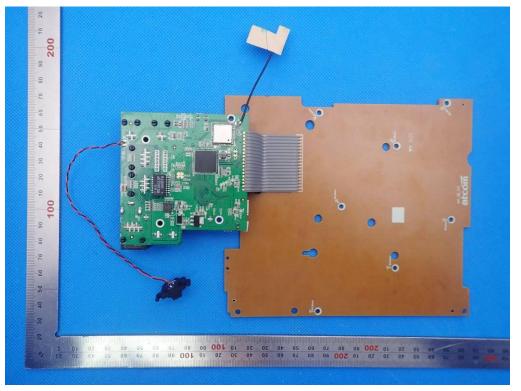




**RIGHT VIEW OF EUT** 

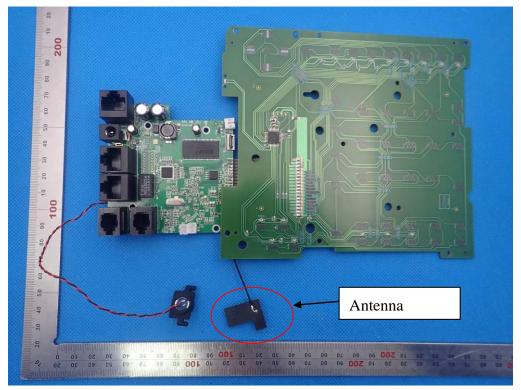
OPEN VIEW OF EUT

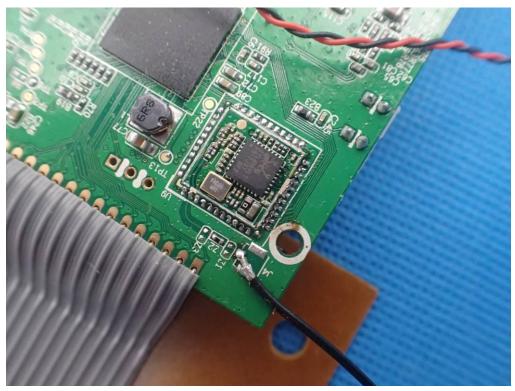




INTERNAL VIEW OF EUT-1

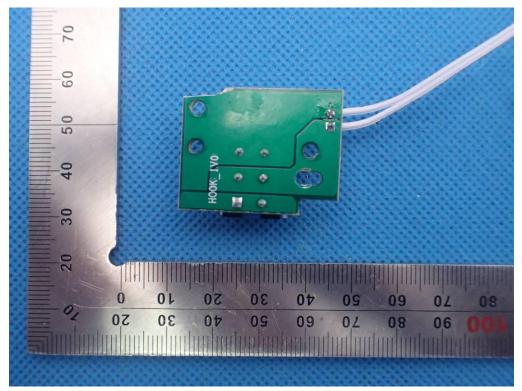
**INTERNAL VIEW OF EUT-2** 

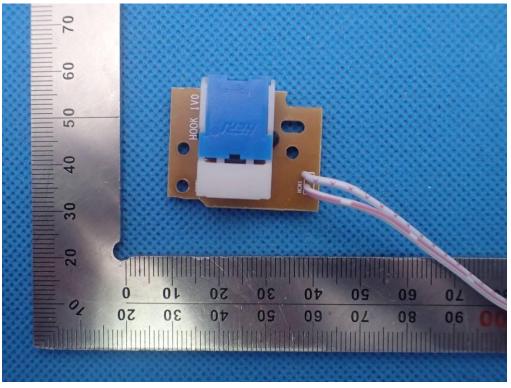




**INTERNAL VIEW OF EUT-3** 

INTERNAL VIEW OF EUT-4





**INTERNAL VIEW OF EUT-5** 

----END OF REPORT----