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# **FCC Test Report**

# Report No.: AGC01628180407FE05

FCC ID	: BRWDX6R
APPLICATION PURPOSE	: Original Equipment
PRODUCT DESIGNATION	: DX6R
BRAND NAME	: Spektrum
MODEL NAME	: DX6R
CLIENT	: Horizon Hobby, LLC
DATE OF ISSUE	: May 28, 2018
STANDARD(S) TEST PROCEDURE(S)	: FCC Part 15.247
REPORT VERSION	: V1.0

# Attestation of Global Compliance (Shenzhen) Co., Ltd

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### **REPORT REVISE RECORD**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0		May 28, 2018	Valid	Initial Release

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# **1. VERIFICATION OF CONFORMITY**

The state of the s	
Applicant	Horizon Hobby, LLC
Address	4105 Fieldstone Road, Champaign, IL 61822, USA
Manufacturer	Horizon Hobby, LLC
Address	4105 Fieldstone Road, Champaign, IL 61822, USA
Product Designation	DX6R
Brand Name	Spektrum
Test Model	DX6R
Date of test	May 21, 2018 to May 28, 2018
Deviation	None
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BGN/RF
Ma and	

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) 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.

Tested By

Max Zhan

Max Zhang(Zhang Yi)

May 28, 2018

Reviewed By

BONPL Nie

Bart Xie(Xie Xiaobin)

May 28, 2018

Approved By

-owesto en

Forrest Lei(Lei Yonggang) Authorized Officer

May 28, 2018

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## 2. GENERAL INFORMATION 2.1. PRODUCT DESCRIPTION

The EUT is designed as "DX6R". It is designed by way of utilizing the DSSS and OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

<b>Operation Frequency</b>	2.412 GHz~2.462GHz
Output Power	IEEE 802.11b:15.61dBm; IEEE 802.11g:10.57dBm; IEEE 802.11n(20):10.44dBm;
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(BPSK/QPSK/16-QAM/64-QAM)
Number of channels	11 A The second se
Hardware Version	UH1-SOM-DX12-REV03
Software Version	2.02.06.
Antenna Designation	Internal antenna
Antenna Gain	1.5dBi
Power Supply	DC 6V by battery or DC 5V by adapter

# 2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
E The action of the attended o	CC - 1 CC	2412 MHZ
SGC in	2	2417 MHZ
	A The area of the	2422 MHZ
Son F decand company 6 #	Enderstand CGC	2427 MHZ
CC CC	5	2432 MHZ
2400~2483.5MHZ	<b>6</b>	2437 MHZ
The the second	a the sound of the second of t	2442 MHZ
The Contract of Strength of St	6 86 8	2447 MHZ
NOC NO	9	2452 MHZ
	10	2457 MHZ
Et and Company		2462 MHZ

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

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#### 2.3. IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R NBF	R	NBPSC		BPS	NDBPS		rate(I	ata Mbps) nsGl
Index					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz	
0	1	BPSK	1/2	1 55	52	108	26	54	6.5	13.5	
1	10 Thisnes	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	0	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	Taken of C	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	

Symbol	Explanation
NSS	Number of spatial streams
R M F Come	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: BRWDX6R** 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.

#### 2.6. SPECIAL ACCESSORIES

Refer to section 5.2.

# 2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

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# **3. MEASUREMENT UNCERTAINTY**

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in

- measurement" (GUM) published by CISPR and ANSI.
- Uncertainty of Conducted Emission,  $Uc = \pm 3.2 dB$
- Uncertainty of Radiated Emission below 1GHz, Uc =  $\pm 3.9$  dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.8 dB

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# 4. DESCRIPTION OF TEST MODES

405		$20^{\circ} \times 6^{\circ}$	
NO.		TEST MODE DESCRIPTION	
Hall The	T He deres	Low channel TX	
2	En allowed Come	Middle channel TX	
3		High channel TX	malare Color Color
4		Normal operating	C
Transmit Transmit	t by 802.11n (20MHz) w	rate (6/9/12/18/24/36/48/54) vith Date rate (6.5/13/19.5/26/39/52/58.5/65)	F. M. M. M. C. F. Martin and
Transmit Transmit Transmit	t by 802.11g with Date r t by 802.11n (20MHz) w	rate (1/2/5.5/11) rate (6/9/12/18/24/36/48/54)	ACC MARKEN

#### 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.

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# 5. SYSTEM TEST CONFIGURATION

# 5.1. CONFIGURATION OF EUT SYSTEM

Radiated Emission Configure :

# EUT

Conducted Emission Configure :

EUT	The the	Support
	3	

# 5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
J.C	DX6R	DX6R	BRWDX6R	EUT
2	Adapter	SF12-050200UX	DC5V/2A	Marketed

# 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

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# 6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd		
Location	1-2F., Bldg.2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District B112-B113, Bldg.12, Baoan Bldg Materials Center, No.1 of Xixiang Inner Ring Road, Baoan District, Shenzhen 518012		
NVLAP LAB CODE	600153-0		
Designation Number	CN5028		
FCC Test Firm Registration Number	682566		
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by National Voluntary Laboratory Accreditation program, NVLAP Code 600153-0		

### TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	SPI 💡	101206	Jun.20, 2017	Jun.19, 2018
LISN	R&S	ESH2-Z5	100086	Aug.21, 2017	Aug.20, 2018

## **TEST EQUIPMENT OF RADIATED EMISSION TEST**

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun.20, 2017	Jun.19, 2018
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec.08, 2017	Dec.07, 2018
Power sensor	Aglient	U2021XA	MY54110007	Sep.21, 2017	Sep.20, 2018
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.20, 2017	Sep.19, 2018
preamplifier	ChengYi	EMC184045SE	980508	Sep.15, 2017	Sep.14, 2018
Active loop antenna (9K-30MHz)	A.H.	SAS-562B	N/A	Mar.01, 2018	Feb.28, 2020
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May.18, 2017	May.17, 2019
Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-205	Jun.20, 2017	Jun.19, 2018
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.28, 2017	Sep.27, 2018

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# 7. OUTPUT POWER

# 7.1. MEASUREMENT PROCEDURE

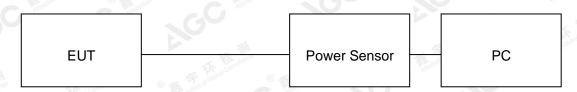
For average power test:

- 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 ANSI C63.10 (2013) for compliance to FCC 47CFR 15.247 requirements.

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

# AVERAGE POWER SETUP



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#### 7.3. LIMITS AND MEASUREMENT RESULT

TEST ITEM	OUTPUT POWER	SC	SCC -	NO.
TEST MODE	802.11b with data rate 1			The the and

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	15.24	30	Pass
2.437	15.61	30	Pass
2.462	15.22	30	Pass

TEST ITEM	OUTPUT POWER	The The companies	a the Francisco Company of the
TEST MODE	802.11g with data rate 6	G Mentionet Co	

	equency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
431	2.412	10.31	30	Pass
The store of coloral Co	2.437	10.57	30	Pass
Attest	2.462	10.16	30	Pass

TEST ITEM	OUTPUT POWER	S	
TEST MODE	802.11n 20 with data rate 6.5		The the compliance

Frequency (GHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	10.44	30	Pass
2.437	10.26	30	Pass
2.462	10.37	30	Pass

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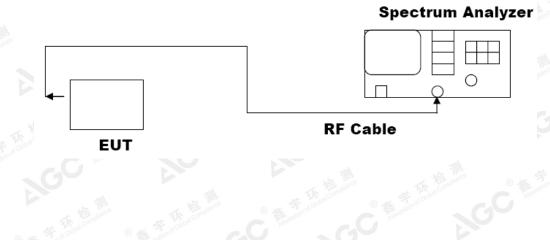
# 8.6 DB BANDWIDTH

#### **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 $\ge$ 3×RBW.
- 4. Set SPA Trace 1 Max hold, then View.

**Note:** The EUT was tested according to ANSI C63.10 (2013) for compliance to FCC 47CFR 15.247 requirements.

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



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#### **8.3. LIMITS AND MEASUREMENT RESULTS**

TEST ITEM	6DB BANDWIDTH	C Allesation of Give	C Allostation of Globa	C Atestation of
TEST MODE	802.11b with data rate 11			0

#### LIMITS AND MEASUREMENT RESULT

Annlinghla Limita		Applicable Limits	
Applicable Limits	Test Data	(MHz)	Criteria
60	Low Channel	8.541	PASS
>500KHZ	Middle Channel	9.039	PASS
C The station of Global CC C	High Channel	8.568	PASS

TEST ITE	Μ	6DB BANDWIDTH	F a Gunal Compliance	C Avestation of Con	CG These	NO
TEST MO	DE	802.11g with data	rate 54			the second s

	LIMITS AND MEASU	REMENT RESULT	
Analiaah la Limita		Applicable Limits	
Applicable Limits	Test Data	(MHz)	Criteria
NOU	Low Channel	16.30	PASS
>500KHZ	Middle Channel	16.01	PASS
C Francisco Constru	High Channel	16.27	PASS

TEST ITEM	6DB BANDWIDTH	C Attestational	SCO	No.
TEST MODE	802.11n 20 with data rate 65	, CC		The state

	1117-0		
	LIMITS AND MEASU	IREMENT RESULT	
Angliachte Limite		Applicable Limits	
Applicable Limits	Test Data	a (MHz)	Criteria
	Low Channel	17.55	PASS
>500KHZ	Middle Channel	17.54	PASS
adva compart	High Channel	17.55	PASS

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

TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



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# TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

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

STATUS



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Keysight Spectrum Analyzer - Occup							
enter Freq 2.437000		SENSE:INT Center Freq: 2.4 Trig: Free Run #Atten: 30 dB	37000000 GHz Avg Hold	ALIGN AUTO	Radio Ste Radio De	d: None wice: BTS	Frequency
dB/div Ref 20.00	dBm			Mk		064 GHz 345 dBm	
10 1.0 00	1-	manhaner porte	where a large have	America .			<b>Center Fre</b> 2.437000000 GH
1.0					Mar Marsh	hhmme	
0							
enter 2.437 GHz Res BW 100 kHz		#VBW 3	00 kHz			an 30 MHz 3.733 ms	CF Ste 3.000000 Mi
Occupied Bandw	vidth 16.506 N		I Power	17.	7 dBm		Auto Ma Freq Offs
Transmit Freq Erro			OBW Pow		9.00 %		01
x dB Bandwidth	16.01	MHz x dE		-6	.00 dB		
3				STATU	-		

# TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

#### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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# 802.11n (20) TEST RESULT

### TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

Center Freq: 2.412000000 GHz Trig: Free Run Avg|Hol #Atten: 30 dB Frequency Radio Std: None Center Freq 2.412000000 GHz Avg|Hold:>10/10 #IFGain:Low Radio Device: BTS 2.40567 GHz -0.36998 dBm Mkr1 Ref 10.00 dBm 0 dB **Center Freq** 2.412000000 GHz mMn MAAN Span 30 MHz Sweep 3.733 ms Center 2.412 GHz #Res BW 100 kHz CF Step 3.000000 MHz #VBW 300 kHz Ma Auto 17.0 dBm **Total Power Occupied Bandwidth** 17.708 MHz **Freq Offset** 0 Hz -84.593 kHz % of OBW Power 99.00 % Transmit Freq Error x dB Bandwidth 17.55 MHz x dB -6.00 dB

#### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



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Keysight Spectr	rum Analyzer - Occupied BV	/							7   ×
enter Fre	RF 50Ω AC eq 2.462000000	GHz #IFGain:Low		: 2.462000000 G un Avg	ALIGN AUTO Hz  Hold:>10/10	Radio St	d: None wice: BTS	Frequen	сy
0 d <u>B/div</u>	Ref 20.00 dBn	n			M		564 GHz )93 dBm		
og 0.0 .00		1-	anartan pr	Mmmgalm	wwwww.			<b>Center</b> 2.46200000	
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enter 2.4 Res BW 1			#VBW	300 kHz			an 30 MHz 3.733 ms	CF 3.00000	Ste 0 M⊦
Occupi	ied Bandwidt	h	Т	otal Powe	r 17	.1 dBm		<u>Auto</u>	Ma
	17	7.712 MI	Ηz					FreqC	Offse
Transmi	it Freq Error	-96.421	(Hz %	of OBW F	ower 9	99.00 %			0 H
x dB Ba	ndwidth	17.55 N	lHz x	dB	-	6.00 dB			

STATUS

# TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

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# 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 ANSI C63.10 (2013) 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 MEAS	SUREMENT RESULT	
Annlinghla Limita	Measurement Re	sult
Applicable Limits	Test Data	Criteria
In any 100 KHz Bandwidth Outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency	At least -30dBc than the limit Specified on the BOTTOM Channel	PASS
power that is produce by the intentional radiator shall be at least 30 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 -30dBc than the limit Specified on the TOP Channel	PASS

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# Peak Search Avg Type: Log-Pwi Avg|Hold:>100/100 MHz Trig: Free Run Atten: 30 dB PNO: Fast IFGain:Low **Next Pea** Mkr1 999.97 MH -59.102 dBm Ref 20.00 dBm I0 dB/div Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→RefLvi More 1 of 2 Start 0.0300 GHz #Res BW 100 kHz Stop 1.0000 GHz Sweep 94.00 ms (30000 pts) #VBW 300 kHz Marker 1 2.396919897330 GHz PNO: Fast IFGain:Low Avg Type: Log-Pwr Avg|Hold:>100/100 Peak Search 34 Trig: Free Run Atten: 30 dB TYP DE Next Peak Mkr1 2.396 92 GHz -34.137 dBm Ref 20.00 dBm 10 dB/div Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→RefLv More Start 1.0000 GHz #Res BW 100 kHz 1 of 2 Stop 2.4000 GHz 134.0 ms (30000 pts) #VBW 300 kHz Sweep

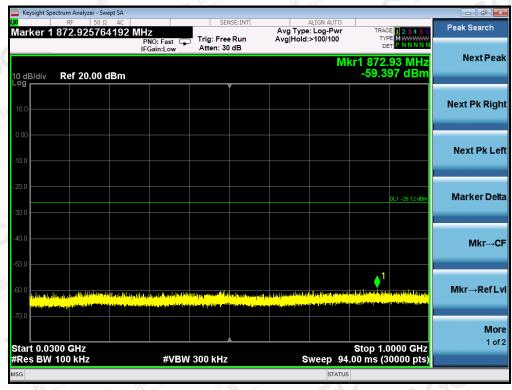
## TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11b FOR MODULATION IN LOW CHANNEL

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Keysight Spectr	um Analyzer - Swept SA RF 50 Ω AC	1	SENSE:IN	-	ALIGN AUTO		
Marker 1 2	4.997748274			Avg Ty	pe: Log-Pwr d:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW	Peak Search
10 dB/div	Ref 20.00 dBm	PNO: Fast 🕞 IFGain:Low	Atten: 30 dB			24.997 7 GHz -38.491 dBm	NextPea
10.0							Next Pk Rig
-10.0							Next Pk L
30.0						DL1 -25.75 dBm	Marker De
40.0							Mkr→
50.0 <mark>4 p. 1 10 (p. 1)</mark> 60.0							Mkr→Refl
70.0	Hz					Stop 25.00 GHz	<b>Мс</b> 1 с
#Res BW 1.	0 MHz	#VBW	/ 3.0 MHz		Sweep 58.	00 ms (30000 pts)	

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



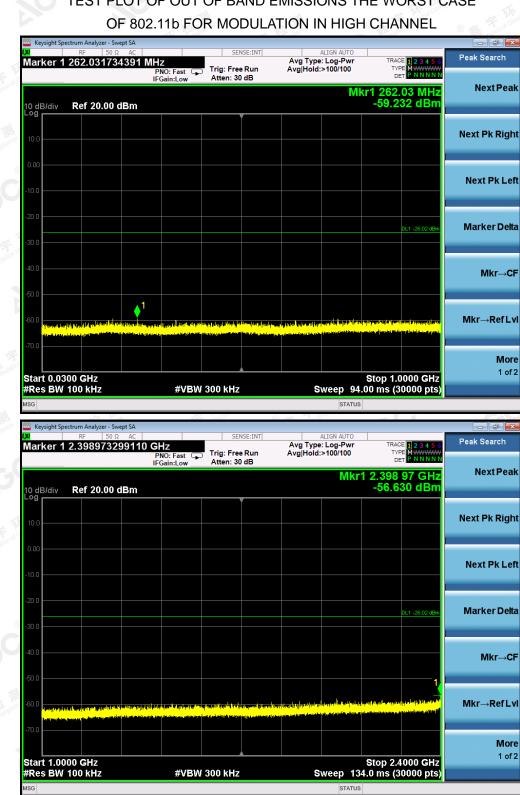
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#### Report No.: AGC01628180407FE05 Page 24 of 69



<mark>x</mark> Marker 1	RF 50 S						ALIGN AUTO e: Log-Pwr i:>100/100		E 1 2 3 4 5 6 E M WWWW	Peak Search
			PNO: Fast 🕞 FGain:Low	Atten: 30		Avginoid		DE	41 GHz	Next Pea
10 dB/div _og	Ref 20.00	dBm						-48.7	71 dBm	
					Ĭ					Next Pk Rig
10.0										
0.00										Next Pk Le
-10.0										
-20.0										MarkerDa
-30.0									DL1 -26.12 dBm	Marker De
-40.0										
									1	Mkr→C
.50.0										
-60.0		an de publican pales Republican para de	(na la transforma da la t				alag pang talan talah dar Pang pang talah dari dari dari dari dari dari dari dari	daa kirila isi ya mayo di sang	and a second and the second	Mkr→RefL
-70.0										
Start 1.000								Stop 2 /	000 GHz	<b>Мо</b> 1 о
Juni 1.000										
			#VBV	/ 300 kHz		S	Sweep 134	.0 ms (3	0000 pts)	
			#VBW	/ 300 kHz		9	Sweep 134 Status	l.0 ms (3	0000 pts)	. 195
ISG			#VBW	_	NSE:INT		Sweep 134	.0 ms (3	0000 pts)	
ISG Keysight Spec	100 kHz ctrum Analyzer - Sv	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	Sweep 134 Status	LO ms (3	0000 pts)	Peak Search
ISG Keysight Spec	100 kHz strum Analyzer - Sv RF 50 S	Ω AC 124904	GHz	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search
Keysight Spec Keysight Spec Marker 1	100 kHz strum Analyzer - Sv RF 50 S	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search
Keysight Spec Keysight Spec Marker 1	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea
10 dB/div	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea
Keysight Spec Marker 1 10 dB/div	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Le
Keysight Spec Marker 1 10 dB/div -09	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig
Keysight Spec Marker 1 10 dB/div -og 10.0	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Le
Keysight Spec Marker 1 10 dB/div	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr i:>100/100	1.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo
Keysight Spec Marker 1 10 dB/div 0 g 10.0	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De
Isg         Isg           Keysight Spec         Isg           Marker 1         Isg           10.0         Isg </td <td>100 kHz trum Analyzer - Sv RF 50 9 24.996247</td> <td>Ω AC 124904</td> <td>GHz PNO: Fast</td> <td>SE</td> <td>NSE:INT</td> <td>Avg Typ</td> <td>Sweep 134 status ALIGN AUTO e: Log-Pwr :&gt;100/100 MIKr1</td> <td>1.0 ms (3</td> <td>0000 pts)</td> <td>Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De</td>	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	1.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De
tsg         mail           Keysight Spec         mail           Marker 1         mail           10.0         db/div           -0.0         db/div           -10.0         db/div           -20.0         db/div           -30.0         db/div           -60.0         db/div           -60.0         db/div	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ Avg Hold	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→0
Keysight Spect           XI           IO dB/div           Og           10.0           0.00           -10.0           -20.0           -30.0	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ Avg Hold	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
Ass         Ass           Keysight Spect         Marker 1           Marker 1         Marker 1           10         dB/div           -00	100 kHz trum Analyzer - Sv RF 50 9 24.996247	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ Avg Hold	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→C
SG         Sec           Keysight Spec         Aarker 1           0         d           0         d           10.0         10.0           10.0           10.0         10.0<	100 kHz	Ω AC 124904	GHz PNO: Fast	SE	NSE:INT	Avg Typ Avg Hold	Sweep 134 status ALIGN AUTO e: Log-Pwr :>100/100 MIKr1	.0 ms (3	0000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→0

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# TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE

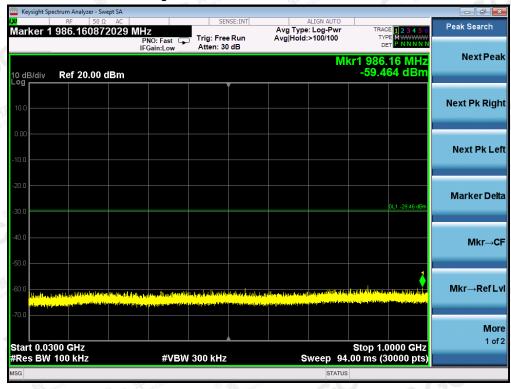
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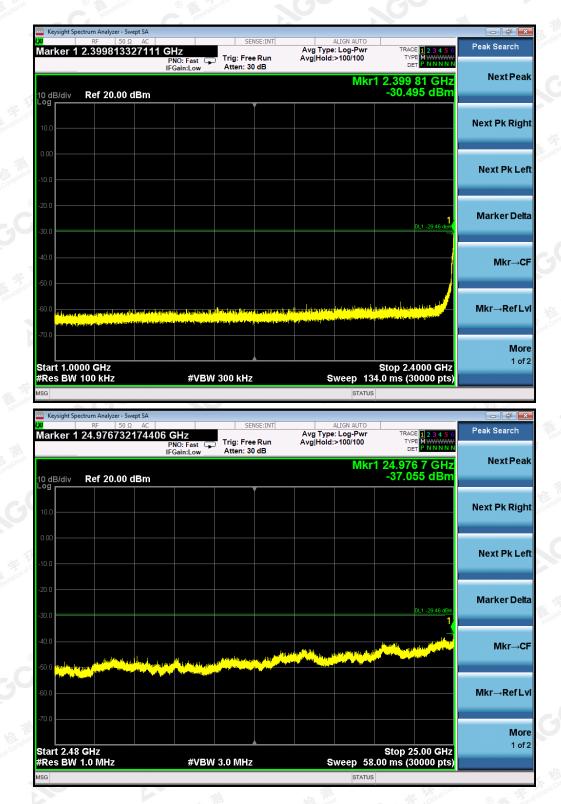
lorkor 1	RF 50 9	CH-	SEI	NSE:INT		ALIGN AUTO e: Log-Pwr	TRAC	123456	Peak Search
larker	24.900473	GHZ PNO: Fast G FGain:Low	Trig: Free Atten: 30		Avg Hold			E M WWWWW	
0 dB/div	Ref 20.00	Guineow				Mkr1	24.965	5 GHz 24 dBm	NextPea
og 10.0									Next Pk Rig
0.00									Next Pk Lo
20.0								DL1 -26.02 dBm	Marker De
40.0						هراهر بحر اهريان	n <mark>ina kaluata</mark>		Mkr→
50.0 <mark>Handstonder</mark> Mansteinen 60.0									Mkr→Refl
70.0									<b>M</b> 0 1 c
itart 2.48 Res BW		#VBV	V 3.0 MHz		s	weep 58.	Stop 2: 00 ms (3)	5.00 GHz 0000 pts)	

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



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Keysight op XI	pectrum Analyzer - Swe RF 50 Ω	AC		SEN	ISE:INT		ALIGN AUTO			
Marker 1	1 421.181706	6057 MH	z	Trig: Free	Run		e: Log-Pwr :>100/100	TR4	ACE 1 2 3 4 5 6 YPE MWWWW	Peak Search
			NO: Fast Gain:Low	Atten: 30		Anginola		[	DET <mark>PINNNNN</mark>	NeutDe
							M	kr1 421	.18 MHz	NextPea
I0 dB/div _og	Ref 20.00 d	Bm						-58.0	667 dBm	
										Next Pk Rig
10.0										NEXTERNING
0.00										
										Next Pk Le
10.0										
20.0										
20.0										Marker De
30.0									DL1 -29.58 dBm	
-40.0										Mkr→C
-50.0										
				<b>♦</b> <sup>1</sup>						
-60.0			o ark ha silalariha						an ang lina at an	Mkr→RefL
-70.0	10.001									
										Мо
Stort 0.01								Stop 1.	.0000 GHz	1 0
	300 GHz									
#Res BW	300 GHz 100 kHz		#VBV	V 300 kHz		S		.00 ms (	30000 pts)	
			#VBV	V 300 kHz		8	status	.00 ms (	30000 pts)	
#Res BW	pectrum Analyzer - Swe		#VBV	- <u>74</u>		92 1	STATUS	.00 ms (	30000 pts)	
#Res BW	100 kHz	AC 7330 G	Hz	SEN	ISE:INT	Avg Type	STATUS	.00 ms (	30000 pts)	Peak Search
#Res BW	100 KHz pectrum Analyzer - Swe RF 50 Ω	AC 97330 G P		SEN	Run	Avg Type	STATUS	.00 ms (	30000 pts) ACE 1 2 3 4 5 6 MPE M WWWWW DET P N N N N N	Peak Search
FRes BW Isg Keysight Sp G Marker 7	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search
Keysight Sj Keysight Sj Marker 7	100 KHz pectrum Analyzer - Swe RF 50 Ω	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts) ACE 123456 YPE M	Peak Search
#Res BW ISG Keysight Sy Marker 1 IO dB/div	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea
FRes BW Isg Keysight Sp Marker 7	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea
#Res BW ISG Keysight Sy Marker 1 IO dB/div	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea
#Res BW ISG Keysight Sj Marker 1 Marker 1 10 dB/div	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig
#Res BW ISG Keysight Si Warker 1 10 dB/div 10 dB/div 10 0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	
#Res BW Issg Keysight Sp Marker 1 0 dB/div 0 0 10.0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig
#Res BW tsg Keysight Sp Marker 1 10.0 10.0 10.0 10.0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo
#Res BW tsg Keysight Sp Marker 1 10.0 10.0 10.0 10.0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo
#Res BW           Iss           Keysight Sy           Marker 1           0 dB/div           0 0 0           0 0 00           0 0 00           0 0 00           0 0 00           0 0 00           0 0 00           30 0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW           Iss           Keysight Sr           Aarker 1           0 dB/div           0 0	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW           Iss           Keysight Sr           Marker 1           10 dB/div           0 00           -09           10.0           -000           <	2 100 kHz 2003 2004 2005	AC 97330 G P IF	Hz NO: Fast G	SEN	Run	Avg Type	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig
#Res BW           Iss           Keysight Sr           Marker 1           10 dB/div           0 00           0 00           10.0           -00           <	I 100 kHz         pectrum Analyzer - Swee         RE       50 Ω         I 2.39691989         Ref 20.00 d	AC   PP   BM	HZ NO: Fast Gain:Low	C PLOS		Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→0
#Res BW           Iss           Keysight Sr           Marker 1           10 dB/div           0 00           0 00           10.0           -00           <	2 100 kHz 2003 2004 2005	AC   PP   BM	HZ NO: Fast Gain:Low	C PLOS		Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW           Keysight Sg           Marker 1           0 dB/div           0 0	I 100 kHz         pectrum Analyzer - Swee         RE       50 Ω         I 2.39691989         Ref 20.00 d	AC   PP   BM	HZ NO: Fast Gain:Low	C PLOS		Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→0
#Res BW           Iss           Keysight S           Marker 1           0 dB/div           0 0           0 0           0 0           0 0           0 0           0 0           0 0           30 0           40 0           50 0           60 0           60 0	I 100 kHz         pectrum Analyzer - Swee         RE       50 Ω         I 2.39691989         Ref 20.00 d	AC   PP   BM	HZ NO: Fast Gain:Low	C PLOS		Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→C Mkr→Ref L
#Res BW           Issa           Marker           Marker           10.0           0.00           20.0           10.0           20.0           40.0           50.0           40.0           50.0 <td>I 100 kHz         pectrum Analyzer - Swee         RE       50 Ω         I 2.39691989         Ref 20.00 d</td> <td>AC   PP   BM</td> <td>HZ NO: Fast Gain:Low</td> <td>C PLOS</td> <td></td> <td></td> <td>STATUS</td> <td>.00 ms (</td> <td>30000 pts)</td> <td>Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→C</td>	I 100 kHz         pectrum Analyzer - Swee         RE       50 Ω         I 2.39691989         Ref 20.00 d	AC   PP   BM	HZ NO: Fast Gain:Low	C PLOS			STATUS	.00 ms (	30000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr→C

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

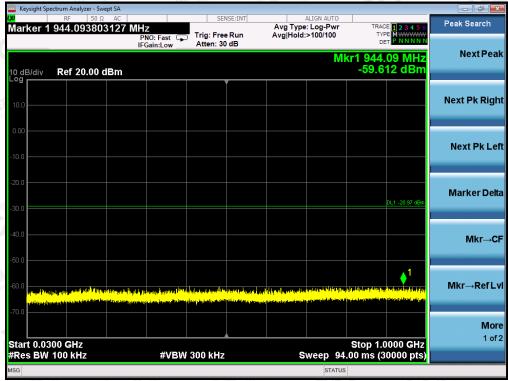
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# TEST PLOT OF OUT OF BAND EMISSIONS THE WORST CASE





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#### Report No.: AGC01628180407FE05 Page 30 of 69



<mark>x</mark> Marker 1	2.393606	455546	PNO: Fast	Trig: Free	Run	Avg Typ Avg Hold	e: Log-Pwr l:>100/100	TY	CE 123456 PE MWWWW	Peak Search
			IFGain:Low	Atten: 30				1 2.393	61 GHz	NextPe
10 dB/div Log	Ref 20.00	dBm						-54.7	97 dBm	
					Í					Next Dis Dis
10.0										Next Pk Rig
0.00										
										Next Pk L
-10.0										
-20.0										
									DL1 -28.97 dBm	Marker De
-30.0										
-40.0										Mkr→
-50.0									1	
-60.0 <b></b>	ante presidente de la companya de la	relia finata di data kana	nunder sie het nie het die		a a served the		terre produced in the balance	ار در در از این آن را از ا مربع از در از این از از ا		Mkr→RefL
-70.0	a shirt a shirt a shirt a	مردفا والشادر وأطلع	(19) in the ball of the second second	Contraction of the life of the life	No. of the part of the					
										Ma
Start 1.00								Stop 2.4		1 0
									4000 GHZ	
#Res BW			#VBW	/ 300 kHz		S	Sweep 13	4.0 ms (3	4000 GH2 80000 pts)	
			#VBW	/ 300 kHz		9	Sweep 13	4.0 ms (3	4000 GH2 80000 pts)	
#Res BW			#VBW	_	NSE:INT			4.0 ms (3	30000 pts)	
#Res BW	<b>100 kHz</b> ctrum Analyzer - S	Ω AC	GHz	SEN Crig: Free	NSE:INT	Avg Typ	STATUS	4.0 ms (3	30000 pts)	
#Res BW	100 kHz ctrum Analyzer - S RF 50	Ω AC 9759992		SEN	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3 TRAC	20000 pts)	
#Res BW ISG Keysight Spe X Marker 1	100 kHz ctrum Analyzer - S RF 50	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	30000 pts)	Peak Search
#Res BW Asg Keysight Spe X Marker 1	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search
#Res BW Asg Keysight Spe X Marker 1	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search
#Res BW Asg Keysight Spe X Marker 1 10 dB/div og 10.0	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe
Keysight Spe XI Warker 1 10 dB/div	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe Next Pk Rig
#Res BW Isg Keysight Spe X Marker 1 10 dB/div -og 10.0	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe
#Res BW           Asg           Seysight Spectrum           Marker 1           10 dB/div           0 00           110 0           110 0	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe Next Pk Rig
Kes BW Keysight Special Marker 1 10 dB/div 0.00	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	23456 PE MUNITER P NONN 23 GHz 54 dBm	Peak Search Next Pe Next Pk Rig
#Res BW           Asg           Seysight Spectrum           Marker 1           10 dB/div           0 00           110 0           110 0	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Li
#Res BW           Asg           Seysight Spectrum           Marker 1           10 dB/div           0 00           110 0           110 0	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Li Marker De
#Res BW           Itsg           Keysight Speck           Marker 1           10 dB/div           00	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100 Mkr	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Li
#Res BW           Asc           keysight Spectrum           Marker 1           10 dB/dlv           -09           10.000           -30.00	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Li Marker De
#Res BW           Asc           Keysight Spectrum           Marker 1           Marker 1           0 dB/div           -00	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100 Mkr	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Li Marker De
#Res BW           Asc           Marker 1           Marker 1           10 dB/div           -0 dB/div	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100 Mkr	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr-4
#Res BW           Asc           Marker 1           Marker 1           10 dB/div           -00 dB/div	100 kHz ctrum Analyzer - 5 RF 50 24.41229	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100 Mkr	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Li Marker De Mkr→Ref L
fRes BW           sc	100 kHz ctrum Analyzer - 5 76 24.41229 Ref 20.00	Ω AC 9759992	GHz PNO: Fast	SEN Crig: Free	NSE:INT	Avg Typ- Avg Hold	ALIGN AUTO e: Log-Pwr I:>100/100 Mkr	4.0 ms (3	2 3 GHz 54 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr-4

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<ul> <li>Keysight Spe</li> </ul>	RF 50 Ω			SEI	NSE:INT		ALIGN AUTO			Peak Search
larker 1	812.29874		Z PNO: Fast ⊂	Trig: Free		Avg Type Avg Hold	e: Log-Pwr :>100/100	1 Y	DE 123456 PE MWWWW	Teak Search
		1	FGain:Low	Atten: 30	) dB					NextPea
0 dB/div	Ref 20.00	dBm					IVIP	-59.4	.30 MHz 19 dBm	
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ni ka <mark>bishina</mark> Mana Jawa Kaza	Conglish Analysis (Balance) Anisata (Analysis)	Alder Martin fills in Alder Andre Friday	nig a haif kana like Ng panadana ang ba	talasiya batka İtlanda ba Mariya yayına başanla ba	den den state den de Tradicionen autoren des por	i di la distanza di la Transferia			Telline and the state	
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tart 0.03					·			Stop 1.	0000 GHz	10
Res BW			#VBV	№ 300 kHz	<u>^</u>	S	sweep 94.	Stop 1.0 00 ms (3	0000 GHz 10000 pts)	
Res BW			#VBV	W 300 kHz	^	8	status	Stop 1.0 00 ms (3	0000 GHz 10000 pts)	
Res BW	100 KHz ectrum Analyzer - Sv		#VBV	. 94		1	STATUS	Stop 1.( 00 ms (3	0000 GHz 0000 pts)	
Res BW	100 KHz ectrum Analyzer - Sv	AC 00000 G	SHz	SE	NSE:INT	Avg Type	STATUS	00 ms (3	20000 pts)	
Res BW	100 kHz ectrum Analyzer - Sv RF 50 S	2 AC		SE	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	20000 pts)	Peak Search
Res BW	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search
Res BW	100 kHz ectrum Analyzer - Sv RF 50 S	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	20000 pts)	
Res BW sg Keysight Spe larker 1	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea
Res BW sg Keysight Spe larker 1	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea
Res BW	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea
Res BW a a a b a b a b a b a b a b a b a b a	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea Next Pk Rig
Res BW a a a b a b a b a b a b a b a b a b a	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search
Res BW sa a keysight Spa a keysight	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW sg Keysight Spe Aarker 1 0 dB/div	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig
Res BW sa a keysight Spa a keysight	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	CE 123456 M WWWWW OO GHZ	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW           SG           Keysight Spectrum           Iarker 1           0 dB/div           99           10.0           20.0           30.0	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW           sa           gas           arker 1           arker 1 </td <td>100 kHz</td> <td>2 AC 00000 G</td> <td>Hz PNO: Fast</td> <td>SEP</td> <td>NSE:INT</td> <td>Avg Type</td> <td>STATUS ALIGN AUTO e: Log-Pwr :&gt;100/100</td> <td>00 ms (3</td> <td>23456 23456 P NNNN 00 GHz 80 dBm</td> <td>Peak Search Next Pea Next Pk Rig Next Pk Le</td>	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW           SG           Keysight Spectrum           Iarker 1           0 dB/div           99           10.0           20.0           30.0	100 kHz	2 AC 00000 G	Hz PNO: Fast	SEP	NSE:INT	Avg Type	STATUS ALIGN AUTO e: Log-Pwr :>100/100	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW ag keysight Spe arker 1 0 dB/div 9 0 dB/div 9 0 d 0 d	100 kHz	2 AC 00000 G	Hz PNO: Fast FGain:Low	Trig: Free Atten: 30	e Run o dB	Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100 MIKr*	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le Marker De
Res BW ag keysight Spe arker 1 0 dB/div 9 0 dB/div 9 0 d 0 d	100 kHz	2 AC 00000 G	Hz PNO: Fast FGain:Low	Trig: Free Atten: 30	e Run o dB	Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100 MIKr*	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le
Res BW ag keysight Spe arker 1 0 dB/div 9 0 dB/div 9 0 d 0 d	100 kHz	2 AC 00000 G	Hz PNO: Fast FGain:Low	Trig: Free Atten: 30	e Run o dB	Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100 MIKr*	00 ms (3	23456 23456 P NNNN 00 GHz 80 dBm	Peak Search Next Pea Next Pk Rig Next Pk Le Marker Del Mkr-C
Res BW George Control Contro	100 kHz	2 AC 00000 G	Hz PNO: Fast FGain:Low	Trig: Free Atten: 30	e Run o dB	Avg Type Avg Hold	ALIGN AUTO E: Log-Pwr :>100/100 MIKr*	00 ms (3	00000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Le Marker De Mkr→C
Res BW G Keysight Spectro G G G G G G G G G G G G G	100 kHz	2 AC 00000 G	SHZ PNO: Fast G FGain:Low	Trig: Free Atten: 30			ALIGN AUTO E: Log-Pwr :>100/100 MIKr*	00 ms (3	60000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De Mkr-o Mkr-o

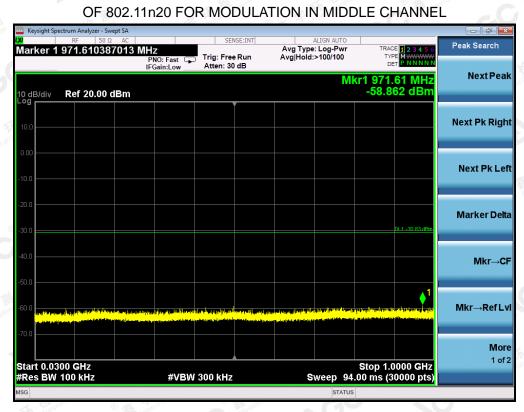
# TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11n20 FOR MODULATION IN LOW CHANNEL

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



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#### Report No.: AGC01628180407FE05 Page 33 of 69



Keysight Sp K	RF 50 Ω			SE		A	ALIGN AUTO	TDA		Peak Search
narker 1	2.39813327	F	NO: Fast 🔾	Trig: Fre			e: Log-Pwr d:>100/100		DE 123456 PE MWWWW ET P NNNNN	
		IF	Gain:Low	Atten: 30	, uD		Mkr		13 GHz	NextPe
I0 dB/div ₋og	Ref 20.00 d	Bm						-53.3	01 dBm	
- <sup>0</sup> g					Ĭ					
10.0										Next Pk Rig
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-10.0										
-20.0										
										Marker De
-30.0									DL1 -30.83 dBm	
-40.0										Mkr→0
									1	WIKI —A
-50.0									<u> </u>	
-60.0	والملحقة ورواري المراجع	an alphologydor	A stated the and state	Contractor Contractor Difference	<mark>durpowicze w New</mark> z	an the second second second		an <mark>ha ti ta tina di k</mark> a	and a low sector betw	Mkr→RefL
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-70.0										Мо
Start 1 00								Stop 2.4		1 0
	00 GHz									
	00 GHz 100 kHz		#VBV	/ 300 kHz		\$	Sweep 13	4.0 ms (3	4000 GH2 80000 pts)	
#Res BW			#VBW	V 300 kHz			Sweep 13	4.0 ms (3	4000 GH2 80000 pts)	
#Res BW	100 kHz ectrum Analyzer - Swej		#VBM	_			STATUS	4.0 ms (3	4000 GH2 80000 pts)	
#Res BW	100 kHz	AC 49502	GHz	SE	NSE:INT	Avg Typ	STATUS	4.0 ms (3	80000 pts)	Peak Search
#Res BW	<b>100 kHz</b> ectrum Analyzer - Swej RF 50 Ω	AC 49502 (		SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts) 23 4 5 6 PE MWWWW ET P NNNNN	Peak Search
#Res BW Isg Keysight Sp Keysight Sp Marker 1	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	
#Res BW MSG Keysight Sp Marker 1 10 dB/div	<b>100 kHz</b> ectrum Analyzer - Swej RF 50 Ω	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) 23 4 5 6 PE MWWWW ET P NNNNN	Peak Search
#Res BW ISG Keysight Sp XI Marker 1 10 dB/div	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search
#Res BW #sg	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea
Keysight Sp Keysight Sp Marker 1 10 dB/div	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea Next Pk Rig
#Res BW #sg	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea
#Res BW Asg Keysight Sp X Marker 1	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea Next Pk Rig
#Res BW Asg Keysight Sp X Marker 1 10 dB/div 000	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea Next Pk Rig
#Res BW Asg Keysight Sp X Marker 1	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts) CE 123456 PE M PET P NN NN N 0 5 GHz	Peak Search Next Pea Next Pk Rig Next Pk Lu
#Res BW           Ass           Keysight Sp           Marker 1           Marker 1           0 dB/div           0 0           .000           .1000           .2000           .3000	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850	AC 149502 ( F IF	GHZ PNO: Fast	SE	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW AsG Keysight Sp X Marker 1 10 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850 Ref 20.00 d	AC   49502 ( F Bm	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3 TRAC TYI D 1 24.98	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu
#Res BW  ASG  Keysiah Sp  Marker 1  Marker 1	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850 Ref 20.00 d	AC 149502 ( F IF	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW           #sig	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850 Ref 20.00 d	AC   49502 ( F Bm	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT e Run D dB	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De Mkr→0
#Res BW  #sg  Keysight Sp  Marker 1  10 dB/div  0 00  -10.0  -20.0  -40.0	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850 Ref 20.00 d	AC   49502 ( F Bm	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT e Run D dB	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
#Res BW           Asc           Marker 1           Marker 1           10 dB/div           -0 0           -0 0           -0 0           -10 0           -10 0           -20 0           -40 0           -50 0           -50 0	100 kHz ectrum Analyzer - Sweg RF 50 Ω 24.9804850 Ref 20.00 d	AC   49502 ( F Bm	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT e Run D dB	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De Mkr→C
#Res BW           Iss           Keysight Sp           Marker 1           10 dB/div           0 0           10 0 </td <td>100 kHz ectrum Analyzer - Swee RF 50 Ω 24.98048500 Ref 20.00 d</td> <td>AC   49502 ( F Bm</td> <td>SHz NO: Fast G Gain:Low</td> <td>) Trig: Fre</td> <td>NSE:INT e Run D dB</td> <td>Avg Typ Avg Hold</td> <td>ALIGN AUTO e: Log-Pwr d:&gt;100/100</td> <td>4.0 ms (3</td> <td>20000 pts)</td> <td>Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→C</td>	100 kHz ectrum Analyzer - Swee RF 50 Ω 24.98048500 Ref 20.00 d	AC   49502 ( F Bm	SHz NO: Fast G Gain:Low	) Trig: Fre	NSE:INT e Run D dB	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→C
#Res BW           Itsg           Keysight Sp           Marker 1           10 dB/div           -0 g           -0 10 0           -0 0	100 kHz ectrum Analyzer - Swee RF 50 Ω 24.98048500 Ref 20.00 d	AC   49502 ( F Bm	CHZ NO: Fast Gain:Low	) Trig: Fre	NSE:INT	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr d:>100/100	4.0 ms (3	20000 pts)	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De Mkr→C

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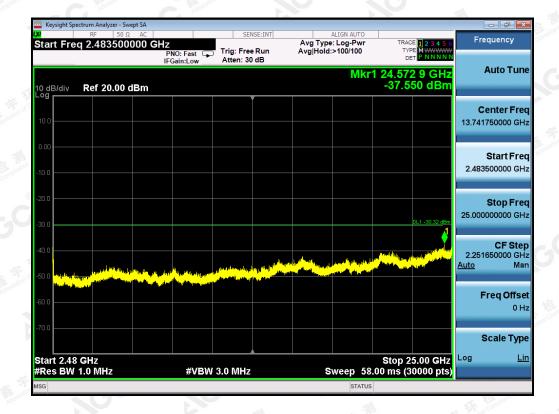
Keysight Spe	ectrum Analyzer - S			0.51		1				
larker 1	RF 50 826.5582		lz		NSE:INT	Avg Type	ALIGN AUTO	TRA	CE 1 2 3 4 5 6	Peak Search
			PNO: Fast 📮 FGain:Low	Trig: Free Atten: 30		Avg Hold:	:>100/100	[		
							M	kr1 826	.56 MHz	Next Pea
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).00										
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										<b>Mo</b> 1 of
tart 0.03	00 GHz							Stop 1	.0000 GHz	10
	400 1-11-		40 (1914	2000 LUL-						
	100 kHz		#VBW	/ 300 kHz		S		· · ·	30000 pts)	
Res BW	100 kHz	-0	#VBW	/ 300 kHz	10	S	STATUS	· · ·	30000 pts)	
5G	100 kHz ectrum Analyzer - S		#VBW	5 5 60%	10		STATUS	· · ·	30000 pts)	- 9
SG Keysight Spe	100 kHz	Ω AC 584219 G	SHz	SEP	NSE:INT	Avg Type	STATUS	TRA	VE 123456	Peak Search
G Keysight Spe	100 KHz ectrum Analyzer - S RF 50 :	Ω AC 584219 G		SEP	NSE:INT		STATUS	TRA		Peak Search
iG Keysight Spe	100 KHz ectrum Analyzer - S RF 50 :	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		
G Keysight Spe arker 1	100 KHz ectrum Analyzer - S RF 50 :	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 1 2 3 4 5 6 PE M	Peak Search
G Keysight Spe	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search NextPea
G Keysight Spe arker 1	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search
G Keysight Spe arker 1	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search NextPea
G Keysight Spe arker 1	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search Next Pea Next Pk Rig
G Keysight Spe arker 1 D dB/div 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search Next Pea Next Pk Rig
G Keysight Spe arker 1 D dB/div 9 0.0 0.0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search NextPea
G Keysight Spectra (Constraint)	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search Next Pea Next Pk Rig Next Pk Lo
G Keysight Spectrum arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig
G Keysight Spectrum arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397		Peak Search Next Pea Next Pk Rig Next Pk Lo
G Keysight Spectrum arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De
G Keysight Spectrum arker 1 0 dB/div 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lo Marker De
G Keysight Spe arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lo Marker De
G Keysight Spectra (Constraint)	100 kHz ectrum Analyzer - S RF 50 2.3975265	Ω AC 584219 G	Hz PNO: Fast	Trig: Free	NSE:INT	Avg Type	STATUS	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lo
G Keysight Spe arker 1 9 dB/div 9 0 0 0 0.0 0 0.0 0 0.0 0 0.0 0	100 kHz ectrum Analyzer - S RF 50 2.3975265	R AC   884219 G dBm	HZ PNO: Fast FGain:Low	Trig: Free Atten: 30	s Run d B	Avg Type Avg Hold	status ALIGN AUTO :: Log-Pwr >100/100 Mkr	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De Mkr-J
G Keysight Spe arker 1 d B/div 9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	100 kHz RF 50 2.3975265 Ref 20.00	R AC   884219 G dBm	HZ PNO: Fast FGain:Low	Trig: Free Atten: 30	s Run d B	Avg Type Avg Hold	status ALIGN AUTO :: Log-Pwr >100/100 Mkr	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr-4
G Keysight Spe arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz RF 50 2.3975265 Ref 20.00	R AC   884219 G dBm	HZ PNO: Fast FGain:Low	Trig: Free Atten: 30	s Run d B	Avg Type Avg Hold	status ALIGN AUTO :: Log-Pwr >100/100 Mkr	TR4 T 1 2.397	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lu Marker De Mkr→C
G Keysight Spe arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz	R AC   884219 G dBm	HZ PNO: Fast FGain:Low	Trig: Free Atten: 30	s Run d B	Avg Type Avg Hold	status ALIGN AUTO :: Log-Pwr >100/100 Mkr	TR4 TT 1 2.397 -56.1	CE 1 2 3 4 5 6 PPE MWWWWWW 53 GHZ 53 dBm 011-30 32 dBm	Peak Search Next Pe Next Pk Rig Next Pk Lu Marker De Mkr→Ref L Mkr→Ref L
G Keysight Spe arker 1 0 dB/div 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 kHz	R AC   84219 G dBm	The second seco	Trig: Free Atten: 30	SUST Protocol	Avg Type Avg Hold:	ALIGN AUTO : Log-Pwr >100/100 Mkr	TR4 Tr 1 2.397 -56.1	CE 123456 PEE NWWWW 53 GHz 153 dBm	Peak Search Next Pea Next Pk Rig Next Pk Lo Marker De

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

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# **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 AVGPSD-1 in the ANSI C63.10 (2013) item 11.10 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 SPECTRAL DENSITY	The Computer	F. Good Complain	® (
TEST MODE	802.11b with data rate 1	C The solution of Con	C Restant	<sup>C</sup> C

Channel No.	Power density (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	0.101	6 8	Pass
Middle Channel	-1.605	8	Pass
High Channel	-0.539	8	Pass

an	TEST ITEM	POWER SPECTRAL DENSITY		
	TEST MODE	802.11g with data rate 6	The Hand	6 the second constant

Channel No.	Power density (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-4.670	8	Pass
Middle Channel	-5.433	8	Pass
High Channel	-4.327	8	Pass

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TEST ITEM	POWER SPECTRAL DENSITY	The Commence	A Completion
TEST MODE	802.11n 20 with data rate 6.5	C Massion of C	C Alestair
the mane in the man	a the second sec		NO
Channel No.	Power density (dBm/20kHz)	Limit (dBm/3kHz)	Result
Low Channel	-5.258	8	Pass
Middle Channel	-6.457	8	Pass
High Channel	-6.075	8	Pass

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# 802.11b TEST RESULT TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



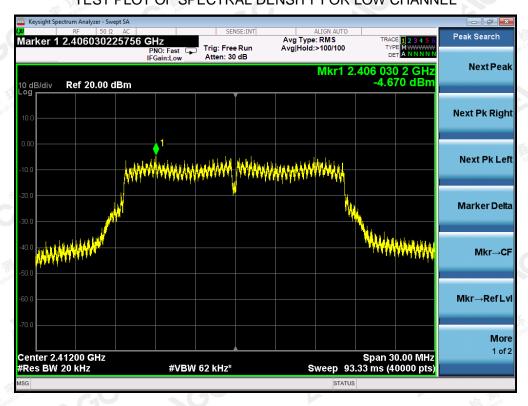
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# TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

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### 802.11g TEST RESULT TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

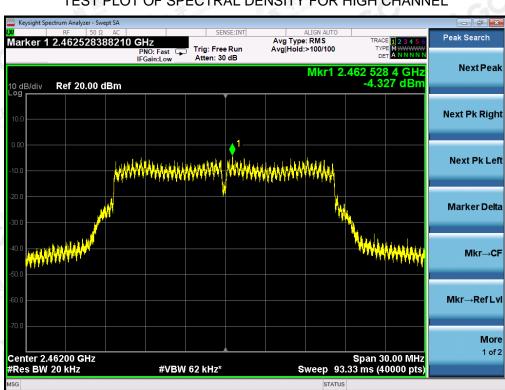


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### TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

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TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

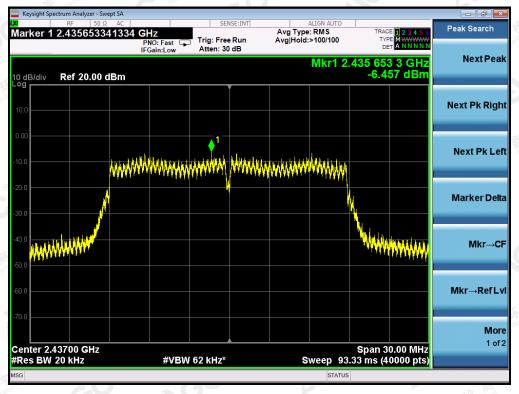
The results showing this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by (ACC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at attraction.



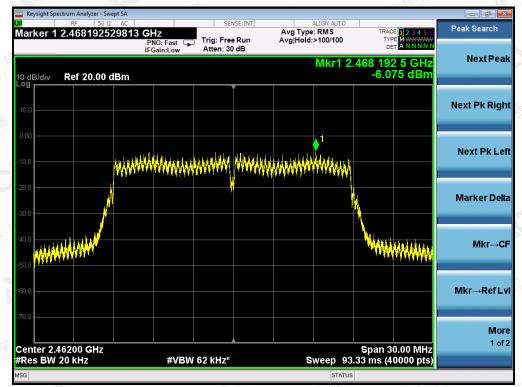
#### Peak Search Avg Type: RMS Avg|Hold:>100/100 Marker 1 2.418191779794 GHz RACE 1 2 3 4 Trig: Free Run Atten: 30 dB PNO: Fast IFGain:Low Next Pea Mkr1 2.418 191 8 GHz -5.258 dBm I0 dB/div Ref 20.00 dBm Next Pk Right Next Pk Left \*\*\*\*\*\*\* Marker Delta Mkr→CF **ALLANDARA** WWWWWWWWWW Mkr→RefLvl More 1 of 2 Center 2.41200 GHz #Res BW 20 kHz Span 30.00 MHz Sweep 93.33 ms (40000 pts) #VBW 62 kHz\*

# 802.11n 20 TEST RESULT TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



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# TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

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### **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 RBW and 3MHz VBW for peak reading. 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.

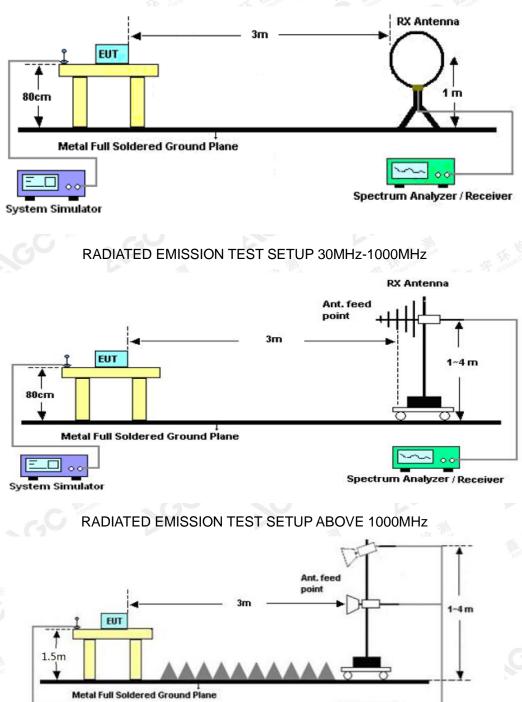
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### 11.2. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz



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Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: agc@agc-cert.com @ 400 089 2118 Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China

trum Analyzer

### **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	A A A A A A A A A A A A A A A A A A A		
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.

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150.0

Pass

32.5

EUT		DX6R		N	lodel Name	1	DX6R		
Temperatur	re	25°C	C The state of the	R	elative Hun	nidity	55.4%		
Pressure		960hPa	GU	Т	est Voltage		Normal V	/oltage	The mainte
Test Mode		802.11b with 2412MHZ	date rate 1	A	ntenna		Horizonta	al the second Globe	
The Com	[dB(µV/m 100 r	)]							<b>O</b>
	oe 👘 🤊								
	80								
	- 折ぎ 70								
	Jana 60								
	50 I								
	40								
	30	. Are ano solo	<u> </u>	<u>9</u> 9	المراجع	a construction of the second			
	20 (and a large state)		Nemple parts				Ø		
	10								
	30	0 50	100	Frequency		500	1000 [MHz]		
Frequency MHz	Polarization	Reading dB(uV)	Factor dB (1/m)	Level dB(uV/m) PK	Limit dB(uV/m) QP	Margin dB	Pass/Fail	Height cm	Angl deg
67.830	₩ <sup>™</sup> H	15.0	15.0	30.0	40.0	10.0	Pass	150.0	106.
167.740	HC	9.3	16.1	25.4	43.5	18.1	Pass	150.0	106.
191.990	Н	10.7	13.7	24.4	43.5	19.1	Pass	200.0	73.2
241.460	H	7.4	16.2	23.6	46.0	22.4	Pass	150.0	32.
614.910	· · · · · · · · · · · · · · · · · · ·	5.5	25.2	30.7	46.0	15.3	Pass	200.0	73.2

# **RADIATED EMISSION BELOW 1GHZ**

**RESULT: PASS** 

Н

5.9

31.0

984.965

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36.9

54.0

17.1

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EUT	D	X6R		Model Name		DX6R	
Temperature	25	5°C	Compliance IN	Relative Humic	lity	55.4%	C Atlestation
Pressure	96	60hPa	C Thestallon of Gobaco	Test Voltage		Normal Voltag	е
Test Mode		02.11b with o 12MHZ	date rate 1	Antenna		Vertical	
	μ V/m)] 100 90 80 70 60 50 40 20 10	M.M	Marine and a second sec				
	₀ E 30	50	100		500	1000 0 5	

	<i>h</i>			Frequency			[MHz]	Altesu	
Frequency MHz	Polarization	Reading dB(uV)	Factor dB (1/m)	Level dB(uV/m) PK	Limit dB(uV/m) QP	Margin dB	Pass/Fail	Height cm	Angle deg
42.610	V	15.8	17.4	33.2	40.0	6.8	Pass	200.0	213.4
67.345	s, V	16.3	15.1	31.4	40.0	8.6	Pass	150.0	289.8
161.920	V	10.9	16.6	27.5	43.5	16.0	Pass	200.0	213.4
191.990	V	13.8	13.7	27.5	43.5	16.0	Pass	100.0	90.2
237.580	V	10.7	16.2	26.9	46.0	19.1	Pass	200.0	284.2
948.105	• V · · · ·	6.3	30.6	36.9	46.0	9.1	Pass	100.0	54.4

### **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.

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal

### **RADIATED EMISSION ABOVE 1GHZ**

		PIL-	. 1160			
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value rype
4824.108	42.51	3.72	46.23	74	-27.77	peak
4824.029	38.79	3.72	42.51	54	-11.49	AVG
7236.039	40.86	8.15	49.01	74	-24.99	peak
7236.103	35.63	8.15	43.78	54	-10.22	AVG
Allestation	B anestation of	Attestati				litre
0						a lance
emark:			lin:	Tr.	Complian	E Stopal Con.
actor = Ante	enna Factor + Ca	able Loss –	Pre-amplifier.	C Alon of Glow	C and a state	ion of
/	10	2 16 GUY		- X 102		

EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical

ng Factor (dB) 3.72 3.72 8.15	Emission Level (dBµV/m) 47.25 41.54 49.89	Limits (dBµV/m) 74 54 74	Margin (dB) -26.75 -12.46	Value Type peak AVG
3.72 3.72	47.25 41.54	74	-26.75 -12.46	peak AVG
3.72	41.54	54	-12.46	AVG
iline -				2)
8.15	49.89	74	04.44	the value .
		14	-24.11	peak
8.15	43.76	54	-10.24	AVG
C . Francisco and Con	Allessi	- C *		
	C Standard		- Cable Loss – Pre-amplifier.	

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# 鑫 宇 环 检 测 Attestation of Global Compliance

#### Report No.: AGC01628180407FE05 Page 49 of 69

EUT	DX6R	Model Name	DX6R
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
4874.026	45.73	3.75	49.48	74	-24.52	peak
4874.051	40.91	3.75	44.66	54 🔬	-9.34	AVG
7311.087	39.68	8.16	47.84	74	-26.16	peak
7311.088	35.74	8.16	43.9	54	-10.1	AVG
Th	Compart The Company	14	Nos Court	stant	Alle	
® tation of Gu	C The stor of Glow	(B) and a station of				
Remark:	Allesu				1000	
-actor = Ante	enna Factor + Ca	ble Loss – F	Pre-amplifier.	1	1 oliance	The Compliant
	And a second sec		• 200	25, 15,		

EUT	DX6R	Model Name	DX6R
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
4874.111	46.81	3.75	50.56	74	-23.44	peak
4874.041	40.73	3.75 🔬	44.48	54	-9.52	AVG
7311.041	39.58	8.16	47.74	74	-26.26	peak
7311.079	34.35	8.16	42.51	54	-11.49	AVG
implian ®		testallo	60 3	6		
emark:				The second	The state of the s	n <sup>ce</sup> ® <u>Æ</u>
actor = Ante	enna Eactor + Ca	ble Loss –	Pre-amplifier	St Come	Clobal C	Atte

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#### 环 检 鑫 测 Attestation of Global Compliance

#### Report No.: AGC01628180407FE05 Page 50 of 69

EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Horizontal

lin	fine .	2 20	104 XC 700,	ly o	Joba.	<ul> <li>Attes</li> </ul>
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4924.038	45.42	3.81	49.23	74	-24.77	peak
4924.065	40.78	3.81	44.59	54 🔬	-9.41	AVG
7386.028	42.56	8.19	50.75	74	-23.25	peak
7386.031	36.71	8.19	44.9	54	-9.1	AVG
TT.	Compart The Com	10 Th	A COUL	stant	Alle	
C allon of Ca	C A yon of Glow	C atation of				
Remark:	Allest				-mili	iller and
actor = Ante	enna Factor + Ca	ble Loss – P	re-amplifier.	1	12 minnee	The Compliance
			115	27 I.S.	700	

EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical

			A Production		100
Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
43.57	3.81	47.38	74	-26.62	peak
38.86	3.81	42.67	54	-11.33	AVG
36.45	8.19	44.64	74	-29.36	peak
31.71	8.19	39.9	54	-14.1	AVG
The Tel plant	F Gubal Comu	C The second Con		ont	
Con Con	estation of	Part and a second se			
	(dBµV) 43.57 38.86 36.45	(dBµV)         (dB)           43.57         3.81           38.86         3.81           36.45         8.19	(dBµV)         (dB)         (dBµV/m)           43.57         3.81         47.38           38.86         3.81         42.67           36.45         8.19         44.64	(dBµV)         (dB)         (dBµV/m)         (dBµV/m)           43.57         3.81         47.38         74           38.86         3.81         42.67         54           36.45         8.19         44.64         74	(dBµV)         (dB)         (dBµV/m)         (dBµV/m)         (dB)           43.57         3.81         47.38         74         -26.62           38.86         3.81         42.67         54         -11.33           36.45         8.19         44.64         74         -29.36

# **RESULT: PASS**

### Note:

Other emissions from 1G to 25 GHz are considered as ambient noise. No recording in the test report. Factor = Antenna Factor + Cable lss - 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.

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# 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.

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### 12.3. TEST RESULT

EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

PK



AV



#### **RESULT: PASS**

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal

ΡK



AV



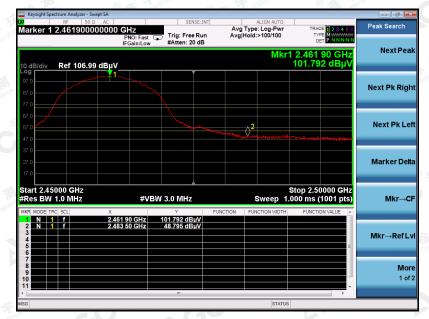
**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Horizontal

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Vertical

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Horizontal

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Vertical

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
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

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
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

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
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	Horizontal

ΡK



AV



**RESULT: PASS** 

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EUT	DX6R	Model Name	DX6R
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

ΡK



AV



**RESULT: PASS** 

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

# 13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

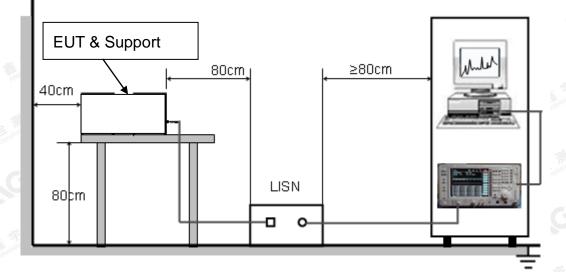
Fromioner	Maximum RF Line Voltage					
Frequency	Q.P.( dBuV)	Average( dBuV)				
150kHz~500kHz	66-56	56-46				
500kHz~5MHz	56	46				
5MHz~30MHz	60 60	50				

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



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### **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 DC5V charging voltage by adapter which received AC120V/60Hz power 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

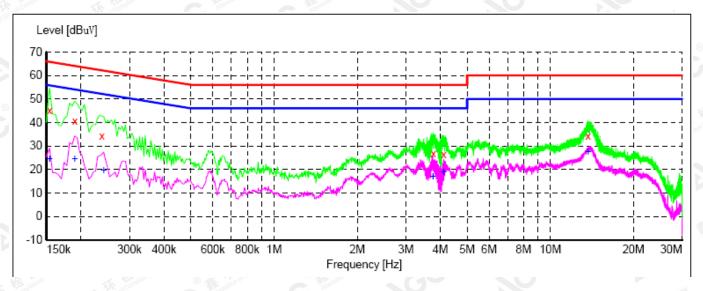
- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used 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.

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

Line Conducted Emission Test Line 1-L

MEASUREMENT	<b>RESULT:</b>	"TEST	fin"
-------------	----------------	-------	------

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.154000 0.190000 0.238000 3.774000 4.110000 13.706000	45.30 40.80 34.30 26.70 26.30 34.40	10.0 10.1 10.1 10.1 10.2 9.7	66 64 56 56 60	20.5 23.2 27.9 29.3 29.7 25.6	QP	L1 L1 L1 L1 L1 L1	FLO FLO FLO FLO FLO FLO

#### MEASUREMENT RESULT: "TEST fin2"

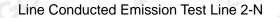
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.154000 0.190000 0.242000 3.758000 4.110000 13.706000	24.60 24.50 19.50 16.90 19.10 27.40	10.0 10.1 10.1 10.1 10.2 9.7	56 54 52 46 50	31.2 29.5 32.5 29.1 26.9 22.6	AV	L1 L1 L1 L1 L1 L1	FLO FLO FLO FLO FLO FLO

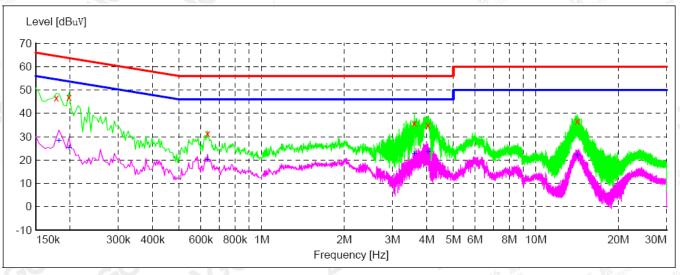
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MEASUREMENT RESULT: "TEST fin"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.178000 0.198000 0.634000 3.606000 4.038000 14.170000	46.80 47.00 31.30 35.80 35.10 36.80	20.3 20.3 19.9 19.8 19.9 20.0	65 64 56 56 56	17.8 16.7 24.7 20.2 20.9 23.2	QP QP QP QP QP QP	N N N N N	FLO FLO FLO FLO FLO FLO

# MEASUREMENT RESULT: "TEST fin2"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.182000	28.20	20.3	54	26.2	AV	N	FLO
0.198000	25.20	20.3	54	28.5	AV	N	FLO
0.634000	20.00	19.9	46	26.0	AV	N	FLO
3.614000	22.70	19.8	46	23.3	AV	N	FLO
4.038000	23.30	19.9	46	22.7	AV	N	FLO
14.170000	21.90	20.0	50	28.1	AV	N	FLO

### RESULT: PASS

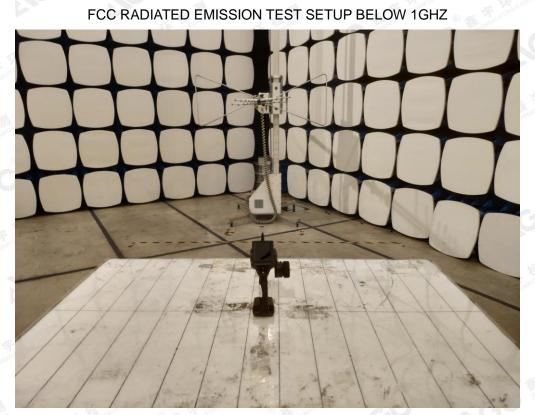
Note: All the test modes had been tested, the mode 1 was the worst case. Only the data of the worst case would be record in this test report.

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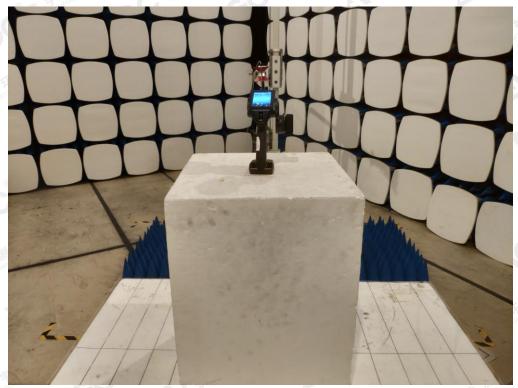


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**APPENDIX A: PHOTOGRAPHS OF TEST SETUP** 

FCC RADIATED EMISSION TEST SETUP ABOVE 1GHZ



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CONDUCTED EMISSION TEST SETUP

----END OF REPORT----

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