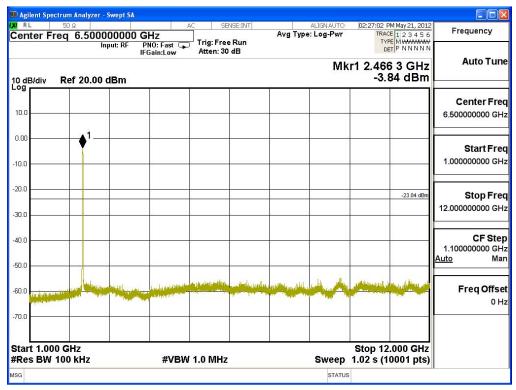
Agilent Spectrum Analyzer - Swept SA				
RL 50 Ω Center Freq 18.5000000 Input: RF	PNO: Fast 😱 Trig: Free Run	ALIGNAUTO Avg Type: Log-Pwr	02:20:40 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWANNAN DET P N N N N N	Frequency
10 dB/div Ref 20.00 dBm	IFGain:Low Atten: 30 dB	Mkr	1 23.759 8 GHz -47.65 dBm	Auto Tune
10.0				Center Free 18.500000000 GH
0.00				Start Fre 12.000000000 GH
30.0			-23.26 dBm	Stop Fre 25.000000000 GH
40.0			and the second s	CF Ste 1.300000000 G⊦ <u>Auto</u> Ma
414				Freq Offs o 0 ۲
70.0 Start 12.000 GHz #Res BW 100 kHz	#VBW 1.0 MHz	Sween	Stop 25.000 GHz 1.20 s (10001 pts)	
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Channel 11 (2462MHz) 30MHz -25GHz-Chain B



								- Swept SA	trum Analyze	
Frequency	2:27:39 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE M WWWWWW DET P N N N N N		ALIGN AU ype: Log-P	A] Trig: Fre	Z 10: Fast 🕞	nput: RF	^{50 Ω} eq 515.0	XI RL Center F
Auto Tune	313.178 MHz -58.63 dBm	1kr1	N		dB	Atten: 30	Gain:Low		Ref 20.0	10 dB/div
Center Free 515.000000 MH										10.0
Start Free 30.000000 MH										-10.0
Stop Fre 1.000000000 GH	-23.84 dBm									30.0
CF Ste 97.000000 MH Auto Ma										40.0
Freq Offse	i de seguine de la characterista de la companya de La companya de la comp		। पहुंचु देख्य किन्द्रा भाषता	10000		alaa ahaa ahaana a		d))))alquura fastaria	engen ting tipung bilang at ting at	
0 H							1	and the second se	inserver der Henrickendels	70.0
	op 1.0000 GHz ms (10001 pts)		Sweep			1.0 MHz	#VBW			Start 30.0 #Res BW
		ATUS	ST					saved	lmage.png>	ısg 🗼 File

Frequency	02:28:15 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	ALIGNAUTO e: Log-Pwr	Avg Typ]		0000000 Input: RF F		enter F
Auto Tun	24.625 6 GHz -47.66 dBm	Mkr1		 			Ref 20.00	0 dB/div
Center Fre 18.50000000 GF								10.0
Start Fre 12.000000000 GF								10.0
Stop Fre 25.00000000 G	-23.84 dBm							20.0
CF Ste 1.300000000 GI <u>Auto</u> Mi					13			0.0
Freq Offs							the states	0.0
	Stop 25.000 GHz 1.20 s (10001 pts)			1.0 MHz	<i></i>		000 GHz 100 kHz	

Product	:	802.11bgn Module
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit - 802.11n-40BW_27Mbps(2.4G Band)

Channel 01 (2422MHz) 30MHz -25GHz-Chain A

	000000 GHz	AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	02:34:04 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWW	Frequency
10 dB/div Ref 20.00	IFGain:Low	Atten: 30 dB	MI	r1 2.438 8 GHz -7.25 dBm	Auto Tun
10.0					Center Fre 6.500000000 GH
0.00 1					Start Fre 1.000000000 GF
0.0				-27.25 dBm	Stop Fr 12.00000000 G
0.0					CF Ste 1.10000000 G <u>Auto</u> M
		Alexandra da A	and and the second s		Freq Offs 01
Start 1.000 GHz Res BW 100 kHz	#VBV	/ 1.0 MHz	Sweep	Stop 12.000 GHz 1.02 s (10001 pts)	

RL 50 Ω		AC	SENSE:INT		NAUTO	02:34:40 PM May 21, 2012 TRACE 1 2 3 4 5 6	
enter Freq 5	5 15.000000 N Input: RF	PNO: East	g: Free Run ten: 30 dB	Avg Type: Log	g-Pwr	TYPE MWWWWW DET P N N N N N	
dB/div Ref	20.00 dBm				Mkr1	832.287 MHz -58.58 dBm	
,g							Center Fr
0.0							515.000000 M
00							Start Fr
0.0							30.000000 N
1.0							Stop Fr
0.0	2				_	-27.25 dBm	1.000000000 G
0.0							CF St
0.0							97.000000 N <u>Auto</u> N
						♦ ¹	Freq Off
	regenze feltereret i tie besleigense menne en feltere orderlike besleigense	the anti-filling symplectic course (10) and prove	generation in the second second second	a de la seconda de la compara de la comp	Survey of the second second		
1.0							
art 30.0 MHz Res BW 100 k	Hz	#VBW 1.0	MHz	Swe		Stop 1.0000 GHz .0 ms (10001 pts)	

RL 50 Ω Center Freq 18.50000	RF PNO: Fast 😱 Trig: Free Rur	Avg Type: Log-Pwr	02:35:17 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
0 dB/div Ref 20.00 dBr	IFGain:Low Atten: 30 dB	Mkr	1 23.269 7 GHz -47.98 dBm	Auto Tune
10.0				Center Fre 18.500000000 GH
0.00				Start Fre 12.000000000 G⊦
30.0			-27.25 dBm	Stop Fre 25.000000000 GH
40.0		hat ut		CF Ste 1.30000000 GF <u>Auto</u> Ma
	and the second			Freq Offs 0 F
70.0 Start 12.000 GHz Res BW 100 kHz	#VBW 1.0 MHz	Sween	Stop 25.000 GHz 1.20 s (10001 pts)	

Channel 01 (2422MHz) 30MHz -25GHz-Chain B

Agilent Spectru		vept SA						
Center Fred	^{50 ຊ} q 6.50000			NSE:INT	Avg Type	ALIGNAUTO E: Log-Pwr	02:40:42 PM May 21, 201: TRACE 1 2 3 4 5 6	Frequency
10 dB/div R	Inpu Ref 20.00 dl	nt: RF PNO: Fast ⊂ IFGain:Low 3 M	Trig: Free Atten: 30			Mk	r1 2.433 3 GHz -7.51 dBm	Auto Tune
10.0								Center Free 6.500000000 GH
-10.0	♦ ¹							Start Fre 1.000000000 GH
-20.0							-27.51 dBm	Stop Fre 12.000000000 G⊢
40.0								CF Ste 1.100000000 GH Auto Ma
60.0 114 114 114 114			ini an saidh addin.			and you	Contraction of the second s	Freq Offs
70.0								
Start 1.000 (#Res BW 10		#VB	W 1.0 MHz			Sweep	Stop 12.000 GHz 1.02 s (10001 pts)	
MSG						STATUS		

							- Swept SA	ectrum Analyze	
		ALIGN AUTO e: Log-Pwi	Avg T]	Z NO: Fast 🕞	Input: RF	^{50 Ω} req 515.	Center I
Mkr1 957.805 MHz Auto Tu -57.85 dBm	kr1 s	MI		aD	Atten: 30	Gain:Low		Ref 20.0	10 dB/div
Center Fr 515.00000 M					e 				10.0
Start Fr 30.000000 M									-10.0
-27.51 dBm 1.00000000 G									-20.0
CF St 97.00000 M Auto									-40.0
Freq Offs	ter i terre i te			a agenta da e		ation and statements			-60.0
Stop 1.0000 GHz									-70.0 Start 30.
reep 90.0 ms (10001 pts)					1.0 MHz	#VBW		100 kHz	#Res BW

RL 50 Ω Center Freq 18.50000 Input	AC SENSE:INT 0000 GHZ RF PN0: Fast IFG0: Fast Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr	02:41:54 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dB		Mkr	1 23.139 7 GHz -47.63 dBm	Auto Tun
10.0				Center Fre 18.500000000 G⊢
10.0				Start Fre 12.000000000 GF
0.0			-27.51 dBm	Stop Fr 25.00000000 G
0.0		Added to the	↓1 the tabut the	CF Ste 1.300000000 GF <u>Auto</u> Ma
50.0 				Freq Offs
70.0 itart 12.000 GHz Res BW 100 kHz	#VBW 1.0 MHz	Sweep	Stop 25.000 GHz 1.20 s (10001 pts)	

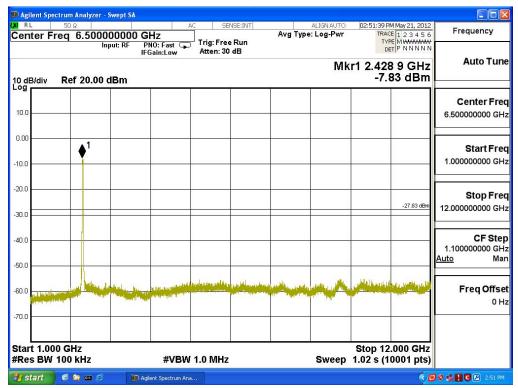
	ectrum Analyzer - Swep	ot SA							
Center F	50 Ω req 6.5000000 Input: 1	RF 🛛 PNO: Fast 😱] Trig: Free Ru	ın	Avg Type	ALIGN AUTO : Log-Pwr	TRAC TYP	M May 21, 2012 E 1 2 3 4 5 6 E MWWWWW T P N N N N N	Frequency
10 dB/div	Ref 20.00 dBr	IFGain:Low	Atten: 30 dB			Mk	r1 2.453	3 1 GHz 58 dBm	Auto Tune
- og 10.0									Center Free 6.50000000 GH
0.00	•1								Start Fre 1.000000000 GH
30.0								-26.59 dBm	Stop Fre 12.000000000 GH
40.0									CF Ste 1.100000000 GH <u>Auto</u> Ma
50.0			and a state of the second s				pilelophy.les		Freq Offse 0 H
70.0									
Start 1.00 #Res BW	00 GHz 100 kHz	#VBW	1.0 MHz			Sweep		.000 GHz 0001 pts)	
ISG						STATUS			

Channel 04 (2437MHz) 30MHz -25GHz-Chain A

enter Freq 515.0000 Input:	RF PNO: Fast 😱	C SENSE:INT Trig: Free Run Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr	02:46:52 PM May 21, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N N N N	Frequency
dB/div Ref 20.00 dB	IFGain:Low	Allen. 30 dB	Mk	r1 446.324 MH -58.83 dBr	z Auto Tur
0.0					Center Fre 515.000000 MH
0.0					Start Fr 30.000000 M
0.0				-26.59 dB	Stop Fr 1.000000000 G
2.0					CF Sto 97.000000 M <u>Auto</u> M
	an fall for the first of the first of the state of the st	nere and the second	H ta bij ta siya saya yang bing baha yang bang bi yang baha ka sina ka sina bing baha yang baha yang baha yang A ta big ta siya yang baha yang		Freq Offs 0
tart 30.0 MHz Res BW 100 kHz		1.0 MHz		Stop 1.0000 GH	

Agilent Spectrum Analyzer - Swept S/				
RL 50 Ω Center Freq 18.5000000 Input: RF	PNO: Fast 😱 Trig: Free Run	ALIGNAUTO Avg Type: Log-Pwr	02:47:28 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P N N N N N	Frequency
10 dB/div Ref 20.00 dBm	IFGain:Low Atten: 30 dB	Mkr	1 23.726 0 GHz -47.55 dBm	Auto Tune
10.0				Center Free 18.500000000 GH
10.0				Start Fre 12.000000000 GH
30.0			-26.59 dBm	Stop Fre 25.000000000 GH
40.0			All Black A	CF Ste 1.300000000 G⊢ <u>Auto</u> Ma
bulu analysis and the				Freq Offse 0 ⊢
70.0 Start 12.000 GHz #Res BW 100 kHz	#VBW 1.0 MHz	Sweep	Stop 25.000 GHz 1.20 s (10001 pts)	
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Channel 04 (2437MHz) 30MHz -25GHz-Chain B



	ctrum Analyzer -	Swept SA								
Center Fi	50 Ω eq 515.00			C SE		Avg Type	ALIGNAUTO : Log-Pwr	TRAC	May 21, 2012 E 1 2 3 4 5 6 E MWWWWW	Frequency
10 dB/div	IFGain:Low Atten: 30 dB Mkr1 957.223 MHz -58.57 dBm									
10.0										Center Freq 515.000000 MHz
-10.0										Start Freq 30.000000 MHz
-20.0									-27.83 dBm	Stop Freq 1.000000000 GHz
-40.0										CF Step 97.000000 MH Auto Mar
-60.0		ana a pina pina ma	ined of protocols from	anna ann ann ann an		a filo vers son filo och da filo da	ayala genişi yeri dir. 1936 yı da başarı da başarı	janadani jang meni		Freq Offset 0 Hz
-70.0 Start 30.0	MHz								0000 GHz	
#Res BW	100 kHz 🧭 😂 🚳 🧭	🗊 Agile	#VBW	1.0 MHz		9	Sweep 9	0.0 ms (1	0001 pts) ¢@) 🕸 🙀 🚺 🗿 🎦 2:52 PM

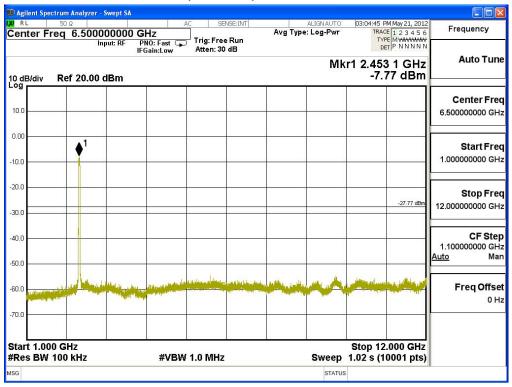
enter Fre		0000000 (nput: RF Pl IF(]		Avg Ty	ALIGN AUTO pe: Log-Pwr	TRAC TY	M May 21, 2012 E 1 2 3 4 5 6 PE M WWWWWW ET P N N N N N	Frequency
0 dB/div	Ref 20.00	dBm		.0	0		Mkr		6 0 GHz 66 dBm	Auto Tun
10.0										Center Fre 18.500000000 GH
0.00										Start Fre 12.00000000 GF
0.0									-27.83 dBm	Stop Fr 25.00000000 G
0.0			hade					↓ ¹	Mandan and	CF Sto 1.300000000 G <u>Auto</u> M
0.0	Land Contract									Freq Offs 0
70.0 tart 12.00 Res BW 1				1.0 MHz					.000 GHz 0001 pts)	

🗊 Agilent Spe	ectrum Analyzer - Swe	pt SA					
Center F	50 Ω req 6.500000 Input:		c SEM] Trig: Free	Run	ALIGNAUTO : Log-Pwr	02:58:19 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWM	Frequency
10 dB/div	Ref 20.00 dB	IFGain:Low	Atten: 30	dB	 Mk	r1 2.447 6 GHz -6.86 dBm	Auto Tune
10.0							Center Freq 6.500000000 GHz
-10.0	• 1						Start Fred 1.000000000 GHz
-20.0						-26.86 dBm	Stop Fred 12.000000000 GH2
-40.0							CF Step 1.100000000 GH: <u>Auto</u> Mar
-60.0			Parajala induga		**	and the second	Freq Offset 0 Hz
-70.0							
Start 1.00 #Res BW		#VBW	1.0 MHz		Sweep	Stop 12.000 GHz 1.02 s (10001 pts)	
MSG					STATUS		

Channel 07 (2452MHz) 30MHz -25GHz-Chain A

RL 50 Ω center Freq 515.00	put: RF PNO: Fa:	AC SENSE	Avg un	ALIGN AUTO	02:58:55 PM M TRACE 1 TYPE M	lay 21, 2012 2 3 4 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency
0 dB/div Ref 20.00	IFGain:Lo	Atten: 30 dE	3	Mkr	1 867.110 -58.88) MHz	Auto Tur
og 10.0							Center Fre 515.000000 MH
10.0							Start Fre 30.000000 Mł
20.0						-26.86 dBm	Stop Fro 1.000000000 GH
0.0						A	CF Ste 97.000000 M uto M
0.0		a ta kata a sa a sa a sa a sa a sa a sa	an an tri ang tang tang tang tang tang tang tang	al stands - statistical all statistics - statistics al tangent - statistical all statistics - statistics	♦ ¹	(1) per per a la contra d (1) per per a la contra d	Freq Offs 0 F
tart 30.0 MHz Res BW 100 kHz		/BW 1.0 MHz		Swoon 0	Stop 1.00		

Agilent Spectrum Analyzer - Swept S				
RL 50 Ω Center Freq 18.5000000 Input: RF	PNO: Fast 😱 Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr	02:59:31 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P N N N N N	Frequency
10 dB/div Ref 20.00 dBm	IFGain:Low Atten: 30 dB	Mkr	1 21.340 5 GHz -47.29 dBm	Auto Tune
10.0				Center Fred 18.500000000 GH:
10.0				Start Fre 12.000000000 GH
-20.0			-26.86 dBm	Stop Fre 25.000000000 GH
40.0		♦ ¹	ubr Hilbin, and	CF Ste 1.300000000 G⊢ <u>Auto</u> Ma
				Freq Offse 0 ⊢
-70.0 Start 12.000 GHz #Res BW 100 kHz	#VBW 1.0 MHz	Sweep	Stop 25.000 GHz 1.20 s (10001 pts)	
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Channel 07 (2452MHz) 30MHz -25GHz-Chain B



		rzer - Swept SA								
RL	50 Ω	. 000000		AC SE	NSE:INT	Δυσ Τ	ALIGNAUT		PM May 21, 2012	
enter F	red pit	5.000000 Input: RF	IVIFIZ PNO: Fast G IFGain:Low	Trig: Free Atten: 30		nrg i	ype. Log4 w	TY	PE MWWWWW ET P N N N N N	
0 dB/div	Ref 20	.00 dBm					М	kr1 883.6 -58.	00 MHz 56 dBm	Auto Tun
- vg										Center Fre
10.0	~									515.000000 MH
0.00										Start Fre
10.0										30.000000 MI
20.0										Stop Fre
						-			-27.77 dBm	1.000000000 GI
30.0										
40.0										CF Ste
										97.000000 M Auto M
50.0										<u>Auto</u> M
					~			•	les area	Eron Offe
	(The second s		WAR Deepeder Die	a attaneg palipenda barri A tena den bir de antenda	and a frently way y	himedalica u	in tradition of the state of th	In the second	a an	Freq Offs
70.0										L
Start 30.0								Stop 1.	0000 GHz	
	100 kHz		#VBV	/ 1.0 MHz			Sweep	90.0 ms (1		
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RL 50 Ω Center Freq 18.50000 Input		SENSE:INT Avg : Free Run en: 30 dB	ALIGNAUTO Type: Log-Pwr	03:05:57 PM May 21, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dB	m		Mkr1	1 23.160 5 GHz -48.07 dBm	Auto Tun
10.0					Center Fre 18.50000000 G⊦
0.0					Start Fre 12.000000000 GF
0.0				-27.77 dBm	Stop Fr 25.000000000 GI
0.0			1 tol - I to - I	∳ ¹	CF Ste 1.300000000 GI <u>Auto</u> M
					Freq Offs 0 I
tart 12.000 GHz Res BW 100 kHz	#VBW 1.0 I	ИНZ	Sweep	Stop 25.000 GHz 1.20 s (10001 pts)	

6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

RF Radiated Measurement:

The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X Horn Antenna		Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2012
	X Pre-Amplifier Pre-Amplifier		QTK	AP-180C / CHM_0906076	Sep., 2011
			MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2012
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2012
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

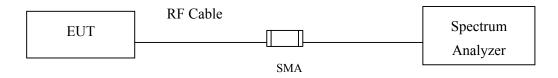
Note:

1. All instruments are calibrated every one year.

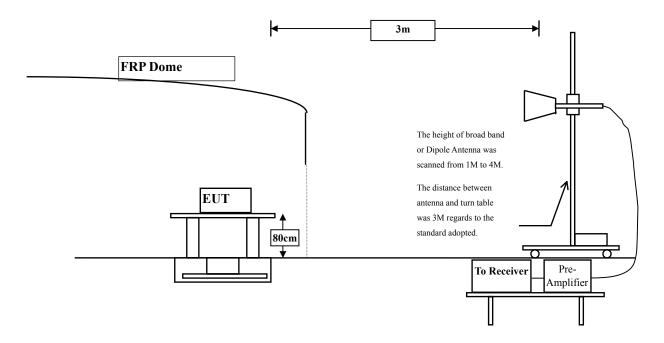
2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Uncertainty

- ± 3.9 dB above 1GHz
- ± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product	:	802.11bgn Module
Test Item	:	Band Edge
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.639	72.58	104.218	Peak
Horizontal	2412	31.639	66	97.638	Average
Vertical	2412	30.95	66.55	97.499	Peak
Vertical	2412	30.95	60.23	91.179	Average

Note: 1:Spectrum Analyzer setting:

```
Peak detector: RBW=1MHz, VBW=1MHz
```

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2389.9	104.218	50.09	54.128	74.000	Peak
Horizontal	2390	97.638	56.73	40.908	54.000	Average
Vertical	2389.9	97.499	50.09	47.409	74.000	Peak
Vertical	2390	91.179	56.73	34.449	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

Agilent Spectrum Analyzer -					
RL 50Ω Center Freq 2.3900	D00000 GHz nput: RF PN0: Fast IFGain:Low]	ALIGNAUTO Avg Type: Log-Pwr	12:00:46 PM May 15, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00	dBm		Mk	r3 2.389 9 GHz -37.55 dBm	Auto Tur
og 10.0 0.00 10.0					Center Fre 2.390000000 GH
0.0 0.0 0.0	Makeya analang ang ang ang ang ang ang ang ang ang	3		and a formation	Start Fre 2.340000000 GF
0.0					Stop Fr 2.440000000 G
enter 2.39000 GHz Res BW 1.0 MHz		1.0 MHz	-	Span 100.0 MHz 500 ms (1001 pts)	CF Ste 10.000000 Mi
KR MODE TRC SCL 1 N 1 f 2 N 1 f 3 N 1 f 4 - - 5 - - 6 - -	× 2.411 8 GHz 2.390 0 GHz 2.389 9 GHz	Y FL 12.54 dBm -38.90 dBm -37.55 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mi Freq Offs 0 I
7 8 9 9 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
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Agilent Spectrum Analyzer -			ducted Dand L	8	
RL 50 Ω Center Freq 2.3900		AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	12:01:27 PM May 15, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
0 dB/div Ref 20.00 (put: RF PNO: Fast G IFGain:Low dBm	Atten: 30 dB	Mk	r2 2.390 0 GHz -49.33 dBm	Auto Tur
00 10.0 0.00					Center Fr 2.390000000 G
20.0		2_~~			Start Fr 2.340000000 G
50.0 50.0 70.0					Stop Fr 2.440000000 G
enter 2.39000 GHz Res BW 1.0 MHz	#VBI	N 10 Hz	Sweep	Span 100.0 MHz 7.80 s (1001 pts)	CF St 10.000000 M
KR MODE TRC SCL 1 N 1 f 2 N 1 f	× 2.411 2 GHz 2.390 0 GHz	7.40 dBm -49.33 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> N
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:	802.11bgn Module
:	Band Edge
:	No.3 OATS
:	Mode 1: Transmit (802.11b 1Mbps)
	:

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	35.694	72.4	108.094	Peak
Horizontal	2462	35.694	66.35	102.044	Average
Vertical	2462	31.29	67.05	98.34	Peak
Vertical	2462	31.29	61.15	92.44	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.6	108.094	50.08	58.014	74.000	Peak
Horizontal	2483.5	102.044	54.52	47.524	54.000	Average
Vertical	2483.6	98.34	50.08	48.26	74.000	Peak
Vertical	2483.5	92.44	54.52	37.92	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

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Product	:	802.11bgn Module
Test Item	:	Band Edge
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.639	74.03	105.668	Peak
Horizontal	2412	31.639	59.68	91.318	Average
Vertical	2412	31.639	70.23	101.868	Peak
Vertical	2412	31.639	56.3	87.938	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2389.9	105.668	33.09	72.578	74.000	Peak
Horizontal	2390	91.318	39.69	51.628	54.000	Average
Vertical	2389.9	101.868	33.09	68.778	74.000	Peak
Vertical	2390	87.938	39.69	48.248	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge

measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

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<u>K</u> RL 50 Ω Center Freq 2.3900		AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	01:35:23 PM May 15, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
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Product	:	802.11bgn Module
Test Item	:	Band Edge
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	32.019	74.74	106.759	Peak
Horizontal	2462	32.019	60.64	92.659	Average
Vertical	2462	31.29	68.8	100.09	Peak
Vertical	2462	32.019	55.08	87.099	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.8	106.759	33.83	72.929	74.000	Peak
Horizontal	2483.5	92.659	42.08	50.579	54.000	Average
Vertical	2483.8	100.09	33.83	66.26	74.000	Peak
Vertical	2483.5	87.099	42.08	45.019	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

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	00000 GHz	AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	01:56:35 PM May 15, 2012 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
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-50.0 -60.0 -70.0					Stop Fred 2.533500000 GH2
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