

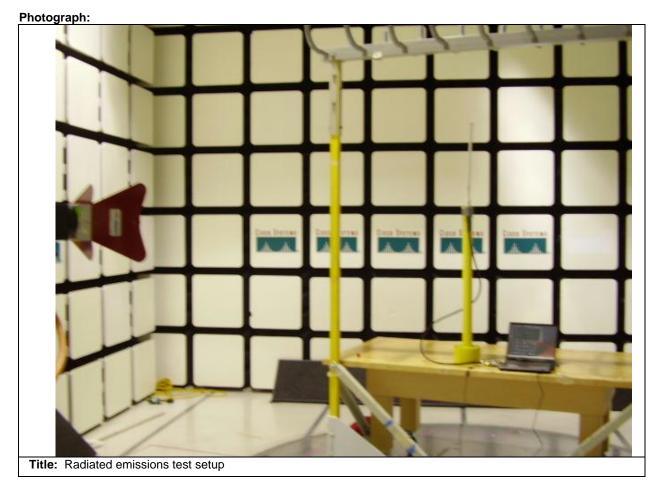
# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 14dbi patch antenna at channel 5825 Ave

🔆 Agilent						Trace
EMiSoft Vasona: EMi Ref 96.99 dBµV	Emission Soft #Atten 0 dE			Mkr4 17.4 44.64		<b>Trace</b> 2 3
<sup>*Peak</sup> Marker <sup>Log</sup> 10 <b>17.48000</b> <sup>dB/</sup> 44.64 d		z				Clear Write
	Mi		<u>,</u>		<u></u>	Max Hold
54.0 dBµV #LgAv						Min Hold
Start 1.00 GHz #Res BW 1 MHz		≢VBW 1 kHz	Sweep 1	^ Stop 18.0 3.26 s (1604	pts)	View
Marker Trace 1 (1) 2 (1) 3 (1) 4 (1)	Type Freq Freq Freq Freq	X Axis 5.83 GHz 5.11 GHz 11.65 GHz 17.48 GHz		Amplitu 43.51 dB 53.54 dB 44.98 dB 44.64 dB	μV μV μV	Blank
File Operation Sta			agued			<b>More</b> 1 of 2
File Operation Stat	tus, H:\SCR	ENZ35.GIF file	saved			

Page No: 1 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

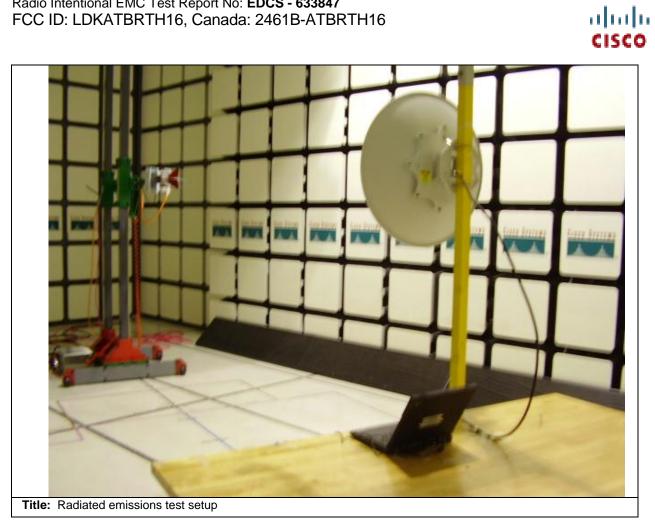


uluulu cisco

### Comments on the above Photograph:

No further comments

Page No: 2 of 52



### Comments on the above Photograph:

No further comments

Page No: 3 of 52



### Comments on the above Photograph:

No further comments

Page No: 4 of 52

cisco

Physical Test arrangement Photograph:



## Comments on the above Photograph:

No further comments

Page No: 5 of 52

The Ratiated emissions test setup.

սիսիս

### Comments on the above Photograph:

No further comments

Page No: 6 of 52



սիսի

## Comments on the above Photograph:

No further comments

Page No: 7 of 52

### **Radiated emissions**

Test Number:	29607 <b>Spec</b>	I <b>D:</b> 647		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Radiated Spurious Emissions	Enclosure	в	30MHz - 26.5GHz	CFR47 Part 15.109CFR47 Part 15.247, RSS-210, LP0002 HKTA1039
Operating Mode	Mode: 1, Conti	nuous transmit	mode	
Power Input	5, DC (+/-20%)			
Overall Result	Pass			
Comments		ciated noise fro	om the PC no signal	d by the extender card drawing out all the bus s were related to the operation of the
Deviation	There were no c	leviations from	the specification	

System Number	Description	Samples	System under test	Support equipment
1	EUT	S01	K	
2	Support equipment	S02, S03 and S04		Z
3	Omni antenna test setup	S01 and S05	$\square$	
5	Sector antenna test setup	S01 and S07	R	

Subtest Number: 2960	7 - 1 Subtest Date: 03-Dec-2007
Engineer	Donald Foster
Lab Information	Building P, 10m Anechoic
Subtest Results	
Subtest Title	N/A
Subtest Result	Pass
Highest Frequency	N/A
Lowest Frequency	N/A
Comments on the above Test Results	17dbi sector antenna results

### **Graphical Test Results**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

# There were no emissions above 18GHz. To record

Page No: 8 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5745 Ave

EMiSoft Va: Ref 90 dBj		Emission So #Atten Ø				5.11 GHz 6 dB <b>µ</b> V	
Peak							
.og .Ø #B/		1					Next Pk Right
2	nrker	And and and	3	Jammer	anter and the second	o-oranta.u	Next Pk Left
1Ma	I KEL						
-5. LgAv - 5	110000 0.66 d	0000 GI BµV	lz				Min Search
-5.1	110000 0.66 d <sup>0 GHz</sup> <sup>MHz</sup>		<b>Hz</b> ≢VBW 1 kHz	Sweep 13		17 GHz 04 pts)	
LgAv 5. Center 9.5 Res BW 1 Marker	110000 0.66 d 0 GHz MHz Trace	ВµУ <sub>Туре</sub>	#VBW 1 kHz X Axis		3.26 s (16 Ampli	04 pts) tude	
LgAv 5. Center 9.5 Res BW 1	110000 0.66 d <sup>0 GHz</sup> <sup>MHz</sup>	₿µV	#VBW 1 kHz		8.26 s (16	04 pts) tude dBµV dBµV dBµV	

Page No: 9 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5745 Peak

Ref 90	t Vasona: EMi ) dB <b>µ</b> V	i Emission #Atten				.07 GHz ∂ dB <b>µ</b> V	Next Peak
#Peak							
Log 10 dB/	-2						Next Pk Right
		ANNI I	hand wards and a stand		and the second second second	within	
	www.anenanter	en and a start of the	hand the second state of t				Next Pk Left
	Marker						
	5.07000	NANA	GH-				
#LgAv							Min Search
		upho					
	r 9.50 GHz 3W 1 MHz		#VBW 1 M⊦	lz Sweep	Span 34.09 ms (160	17 GHz 04 pts)	Pk-Pk Search
Mark		Type		Axis	Amplit		
1 2	(1) (1)	Freq Freq		07 GHz 39 GHz	61.06 c 51.80 c		
							Mkr→CF
						-	
							More 1 of 2
2	ŭ						

Page No: 10 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.

# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5785 Ave

		' 17 Nov 2					Peak Search
Ref 90 dB		Emission S #Atten Ø				5.11 GHz 0.86 dB <b>µ</b> V	Next Peak
#Peak Log							
10 dB/							Next Pk Right
2 • •	arker	- And -	3 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mundum	www.www.		Next Pk Left
-5.		0000 GI IBµV	lz				Min Search
Center 9.5 #Res BW 1			#VBW 1 kHz	z Swee	^ Sp p 13.26 s (	an 17 GHz 1604 pts)	Pk-Pk Search
Marker 1	Trace (1)	Type Freq	X A 5 1	xis 1 GHz		plitude 86 dBµV	
2 3 4		Freq Freq Freq	1.3 7.7	9 GHz 1 GHz 8 GHz	36.8 42.1	39 dBµV .2 dBµV 95 dBµV	Mkr → CF
4							More
							1 of 2

Page No: 11 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5785 Peak

	1:14:29 17				Marker
EMiSoft Vaso Ref 90 dBµV #Peak □	na: EMi Emiss / #At	ion Software ten 0 dB		Mkr2 1.39 GHz 51.93 dB <b>µ</b> V	Select Marker
Log 10 dB/ -2	1	4		*	Normal
	menenderanderan	Mansana and the second	and the second	and the second	Delta
	кег 9000000 93 dBµl				
Center 9.50 #Res BW 1 M		#VBW 1	MHz Sweep	Span 17 GHz 34.09 ms (1604 pts)	<b>Span Pair</b> Span Center
1	(1) F	ype req req	X Axis 5.10 GHz 1.39 GHz	Amplitude 60.30 dBµV 51.93 dBµV	
2 3 4	(1) F	req req	5.38 GHz 5.78 GHz	52.83 dBµV 53.81 dBµV 53.81 dBµV	Off
					More 1 of 2
	COLUMN TWO IS NOT THE OWNER OF THE OWNER OF THE OWNER.	A:\SCREN025	THE R. P. LEWIS CO., LANSING MICH.		

Page No: 12 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5825 Peak

	nt 11:27:59						Marker
Ref 90 dl	′asona: EMi B <b>µ</b> V	Emission #Atten				5.83 GHz ).12 dB <b>µ</b> V	Select Marker
#Peak							
Log   10		1					Manmal
dB/ -2		<b>0</b> 3 <b>0</b> 4					Normal
Ŷ		/ <b>/</b> //			Same charter	we the work the work	
A.L.	- Asternal many weeks	mould my me	mannam	A Martine and a second s			Delta
							Deita
1000	larker_						
-5	.83000	0000	iHz				Delta Pair
#LgAv - I	50.12 c	BuU +					(Tracking Ref) Ref ∆
	1					47.00	
Center 9.						an 17 GHz	Span Pair
#Res BW :			#VBW 1 MH:		34.09 ms (	construction of a second s	Span <u>Center</u>
Marker 1	Trace (1)	Type Freq		ixis 18 GHz		plitude 2 dBµV	
2 3	(1)	Freq		9 GHz	51.0	i3 dBµV	
3	(1) (1)	Freq Freq		1 GHz 3 GHz		2 dBµV 2 dBµV	Off
	252	TTEQ	5.0	0 0112	50.1	2 UUDV	4
							More
							1 of 2
File One	ration Sta	tus. A·\\	SCREN026.GIF	file save	d		
THE OPE		cuoy mi v	JONEHOZO, VII	THE SUVE	<u> </u>		

Page No: 13 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 17dbi sector antenna at channel 5825 Ave

Aglient	12:02:12	17 Nov 2	007				Peak Search
EMiSoft Vas Ref 90 dB <b>i</b> #Peak I		Emission So #Atten 0			Mkr1 5.11 53.01 d	1	Next Peak
Log 10 dB/						_*_ *	Next Pk Right
L.	2 orl/or		and an the second		known war and		Next Pk Left
- Ma	rker						A
-5.2 #LgAv - 5	3.01 d	0000 Gł BµV	lz				Min Search
#LgAv - <b>5</b> . Center 9.5 #Res BW 1	110000 3.01 d <sup>0 GHz</sup> <sup>MHz</sup>	BµV —	#VBW 1 kHz	Sweep 13.	Span 17 26 s (1604 p	ots)	Min Search Pk-Pk Search
- <b>5.:</b> #LgAv - <b>5</b> Center 9.5	110000 3.01 d			2 2 2		ots) ; ; ;	

Page No: 14 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

Subtest Number: 2960	)7 - 2	Subtest Date: 03-Dec-2007
Engineer	Donald Foster	
Lab Information	Building P, 10m Anechoic	
Subtest Results		
Subtest Title	N/A	
Subtest Result	Pass	
Highest Frequency	N/A	
Lowest Frequency	N/A	
Comments on the above Test Results	No further comments	

## **Graphical Test Results**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

Page No: 15 of 52



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5745 Peak

🔆 Agilent	: 10:37:20	22 Nov 2	007				Trace
Ref 90 dB		Emission So #Atten 0			Mkr1 5. 50.87	75 GHz dB <b>µ</b> V	Trace
ŧPeak						*	<u>2</u> 3
10 18/ -2-		4-1-		3			Clear Write
Ŷ		ANY	hardenter	way and an alway of the	Warning the second s		
	Martin Contraction of the local data	and the Withour	New York Contraction of the Cont				Max Hold
Ma	arker						nux noiu
		1000 GI	łz				M: 11-1-1
ŧLgAv − <b>5</b>	0.87 d	BµV —					Min Hold
Center 9.5	0 GHz				 Span 1	7 GHz	
ŧRes BW 1			#VBW 1 MHz	Sweep 3	4.09 ms (160		View
Marker 1	Trace (1)	Type Freq	X Axis 5.75 G	u <b>-</b> 1	Amplitu 50.87 dB		
2	(1)	Freq	1.39 G		50.07 df		
3 4	(1)	Freq	11.49 6		58.59 di		Blank
4	(1)	Freq	5.13 6	Hz	53.43 dł	3μV	
							More 1 of 2
File Opera	ation Stat	tus, A:\S(	CREN078.GIF fi	le saved			
			6mbps and 16db			-	

Page No: 16 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.

# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5745 Ave



Page No: 17 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5785 Peak

Agricity 10.4	12:21 22 Nov	/ 2007				Trace
EMiSoft Vasona: Ref 90 dB <b>µ</b> V	EMi Emission #Atten			Mkr3 5. 54.61	46 GHz dB <b>µ</b> V ₁	Trace
#Peak						<u> </u>
10 dB/	4 \$31					Clear Write
		mmmmm	www.			
All and a second						Max Hold
Marke 5.460 *LgAv _ <b>54.6</b> _	000000	GHz				Min Hold
Center 9.50 GH #Res BW 1 MHz	Z	∗VBW 1 M	Hz Sweep	Span 1 34.09 ms (160		View
#Res BW 1 MHz Marker Tra	ce Type	Х	Axis	) 34.09 ms (160 Amplitu	4 pts) de	View
#Res BW 1 MHz	ce Type ) Freq ) Freq ) Freq	X 5 1 5		34.09 ms (160	4 pts) de pV vV pV	View Blank

Page No: 18 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5785 Ave

		22 Nov 2007			Trace
		Emission Softwa	res	Mkr2 7.71 GHz	Troop
Ref 90 dB	₽V	#Atten 0 dB		43.79 dBµV 💡	Trace
#Peak					<u>2</u> 3
Log 🗕					
10 🕅					
dB/					Clear Write
ad/		4 () 2			
		01 2			
		Mig 9		man	
	10.000	dans wow www	www.		Max Hold
MM.					
	arker				
7	710000	0000 GHz-			
100000					Min Hold
#LgHv ⊢ Z	13.79 d	RNA +			
Center 9.5				Span 17 GHz	
#Res BW 1	MHz	#V	BW 1 kHz 🛛 Sw	eep 13.26 s (1604 pts)	View
Marker	Trace	Type	X Axis	Amplitude	
	(1)	Freq	5.78 GHz	42.70 dBµV	
1	/15	Freq	7.71 GHz	43.79 dBµV	
1 2	(1)				Blank
2 3	(1)	Freq	5.44 GHz	47.13 dBµV	DIAIIK
1 2 3 4	(1) (1) (1)	Freq Freq	5.44 GHz 5.13 GHz	47.13 dBµV 53.64 dBµV	Dialik
2 3	(1)				
2 3	(1)				
2 3	(1)				More
2 3	(1)				More
2 3 4	(1) (1)	Freq		53.64 dBµV	

Page No: 19 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5825 Peak

AND REALING	nt 11:21:4		<ol> <li>Stronger (1)</li> </ol>						Trace
EMiSoft \ Ref 90 d	/asona: EMi ⊯∪		ı Softwaı ı 0 dB	(e)				.44 GHz 5 dB <b>µ</b> V	Trace
#Peak		#HILE					JJ.2.		<u>2</u> 3
Log									1212
10 -						0			
105 2		41			3				Clear Write
dB/ ⊨2									
		14	math starter	Mannam	har way and a second	Here here here	A VICE T		
	and a second second	Profession and							Max Hold
									nax noiu
	larker_							-	
	5.44000	nana	GHZ						
									Min Hold
#LgHv -	55.25 (	arha .							
Center 9	50 642						Span	17 GHz	
#Res BW			][]بر	3W 1 MHz	Sugar	- 24 00	) ms (160		View
Marker		T		Z AX X Ax		J 34.03			416.0
narker 1	(1)	Type Fre			as I GHz		Amplit 55.25 d		
	$\langle 1 \rangle$	Fre			GHz		52.86 d		
2 3	(1)	Fre			GHz		58.41 d	IBμV	Blank
4	(1)	Fre	1	5.13	GHz		57.45 d	IBμV	
								11	Maria
									<b>More</b> 1 of 2
			CODEN						
File Ope	eration Sta	atus, A:	<b>\SCREN</b>	082.GIF	file save	ed			

Page No: 20 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

# Radiated emissions 1-18GHz at 36mbps and 16dbm for the 7.5dbi Omni antenna at channel 5825 Ave

AND	.1:05:26 22 M	Vov 2007				Trace
Ref 90 dB <b>µ</b> V	na: EMi Emissi / #Att		e>		Mkr1 5.4 45.77	
#Peak						
10 dB/	4			3		Clear Writ
Mar	kor (	Minum	www.www.		unnannan	Max Hol
5.4	40000000 .77 dBµV					- Min Hol
#Res BW 1 M	GHz		W 1 kHz	Sweep 1	Span 17 13.26 s (1604	2-22-20 C
#Res BW 1 M Marker 1	GHz Hz Trace Ty (1) Fr	+VB pe eq	X Axis 5.44 GHz	2	13.26 s (1604 Amplituc 45.77 dBµ	pts) Vie le NU
Section Contraction Contraction	GHZ Hz Trace Ty (1) Fr (1) Fr (1) Fr	#VB	X Axis	2 2 2	13.26 s (1604 Amplitud	pts) Vie V V Blan
#Res BW 1 M Marker 1 2 3	GHZ Hz Trace Ty (1) Fr (1) Fr (1) Fr (1) Fr	#VB eq eq	X Axis 5.44 GHz 1.39 GHz 11.65 GHz	2 2 2	L3.26 s (1604 Amplitud 45.77 dBµ 37.94 dBµ 47.44 dBµ	pts) Vie V V Blan

Page No: 21 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



# Radiated emissions 1-18GHz in Recieve mode Peak

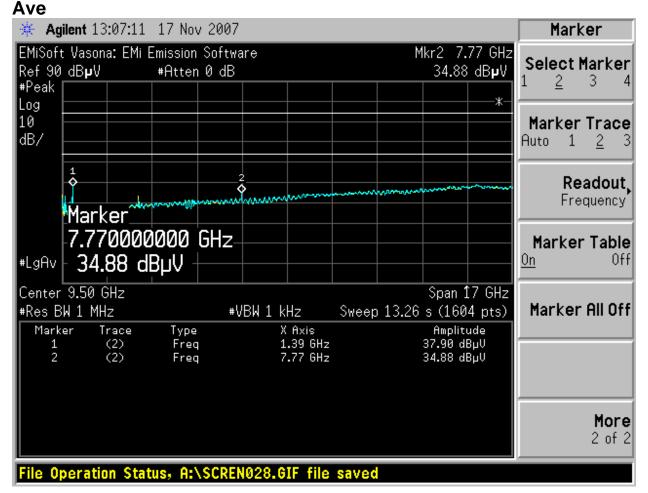
🔆 Agilent 13:19:32 17 N	ov 2007	Marker
	on Software Mkr2 1.1 en 0 dB 49.46	Soloot Morkor
#Peak Log		-*-
10 dB/ 21		Normal
the second constrained and the second	je in man man and a second a s	Delta
Marker		
-1.100000000	GHz	Delta Pair
*LgAv 49.46 dBµV		(Tracking Ref) Ref <u>▲</u>
Center 9.50 GHz #Res BW 1 MHz	Span 17 #VBW 1 MHz Sweep 34.09 ms (1604	Noan Pairi
Marker Trace Typ 1 (1) Fre		de en
2 (1) Fre		
		More 1 of 2
File Operation Status, A	:\SCREN029.GIF file saved	

Page No: 22 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.



# Radiated emissions 1-18GHz Recieve mode



Subtest Number: 29607	7 - 3 Subtest Date: 17-Dec-2007
Engineer	Donald Foster
Lab Information	Building P, 10m Anechoic
Subtest Results	
Subtest Title	30-1000MHz.
Subtest Result	Pass
Highest Frequency	1000.0

Page No: 23 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

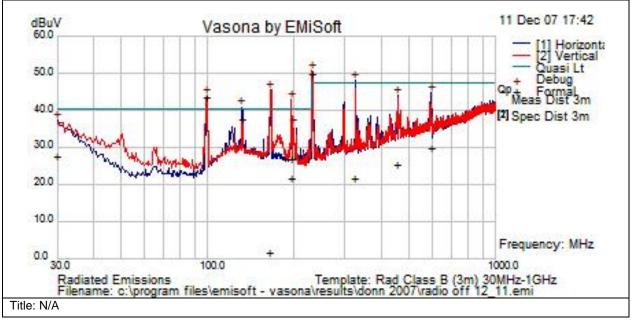
Lowest Frequency	30.0
Comments on the above Test Results	No further comments

#### **Graphical Test Results**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements Note:

Due to the test jig arcitecture the internal signals from the PC were drawn out throught the PCI slot which the test jig uses. The first scan is of the PC and test jig with the radio not running and the second scan shows how the PC noise is increased when the power to the radio in turned on. All the freqs. Shown are related to the PC and not the radio.

### Radio not installed in the laptop



#### Test Results Table

10011100												
Frequency	Raw	Cable	AF dB	Level	Measureme	Pol	Hgt	Azt	Limit	Margin	Pass /Fail	Comments
MHz	dBuV	Loss		dBuV	nt Type		cm	Deg	dBuV	dB		
164.407	37.9	1.4	11.9	50.2	Qp	V	193	360	40.5	9.7	Fai	
99.828	30.6	1.1	10.2	41.8	Qp	V	120	291	40.5	1.3	Fai	
230.128	35.5	1.6	11.1	48.2	Qp	V	234	275	47.5	0.7	Fai	
195.403	6.6	1.5	12	20	Qp	V	185	0	40.5	-20.5	Pass	
326.414	4.1	1.9	13.9	19.9	Qp	Н	208	333	47.5	-27.6	Pass	
131.521	21	1.2	13.8	36	Qp	H	224	1	40.5	-4.5	Pass	

Subtest Number: 29607	7 - 4 Subtest Date: 17-Dec-2007	
Engineer	Donald Foster	
Lab Information	Building P, 10m Anechoic	

### Page No: 24 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

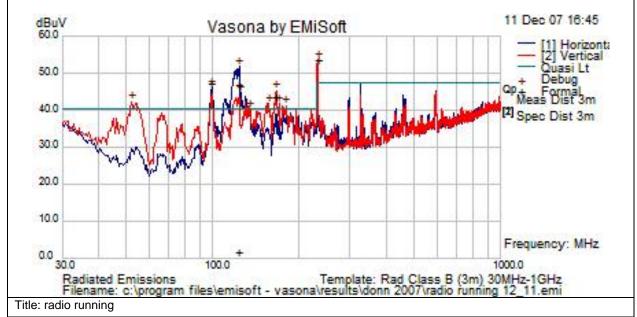
version.

Subtest Results						
Subtest Title	30-1000MHz.					
Subtest Result	Pass					
Highest Frequency	1000.0					
Lowest Frequency	30.0					
Comments on the above Test Results	No further comments					

.......

### **Graphical Test Results**

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



### Radio running in the laptop

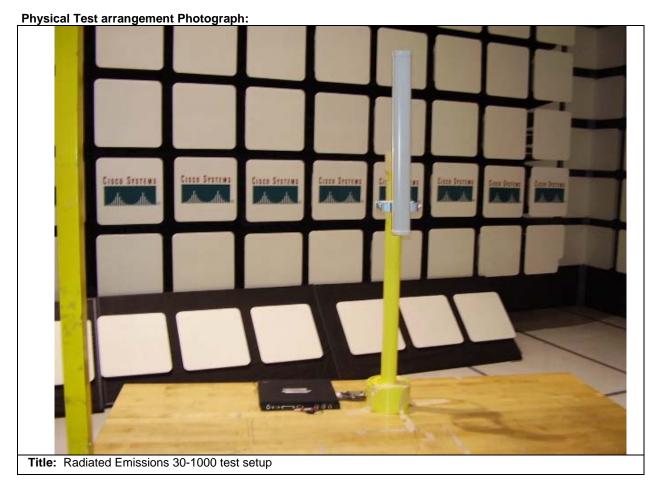
### **Test Results Table**

Frequency MHz		Cable Loss	-		Measureme nt Type		5			Margin dB	Pass /Fail	Comments
123.726	30.1	1.2	14	45.2	Qp	Н	199	361	40.5	4.7	Fail	
232.826	38.9	1.6	11.3	51.8	Qp	V	218	0	47.5	4.3	Fail	
99.762	34.2	1.1	10.1	45.4	Qp	Н	161	320	40.5	4.9	Fail	
166.282	28.5	1.4	11.8	41.8	Qp	V	146	360	40.5	1.3	Fail	

Page No: 25 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



սիսիս

### Comments on the above Photograph:

No further comments

Page No: 26 of 52

uluulu cisco

Title: Radiated emissions test setup 7.5dbi Omni

### Comments on the above Photograph:

No further comments

Page No: 27 of 52



## Comments on the above Photograph:

No further comments

Page No: 28 of 52



uluulu cisco

# Comments on the above Photograph:

No further comments

Page No: 29 of 52



# Photographs of the EUT

Radio Module Top



Page No: 30 of 52

cisco

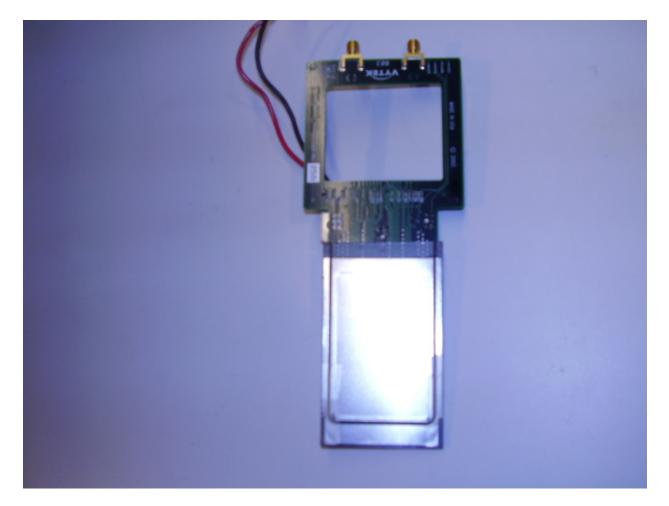
## Radio Module Bottom



Page No: 31 of 52

uhuhu cisco

Test Jig



Page No: 32 of 52



Test Jig



Page No: 33 of 52



## Appendix B: Abbreviation Key and Definitions

The following table defines abbreviations used within this test report.

Abbreviation	Description	Abbreviation	Description
EMC	Electro Magnetic Compatibility	°F	Degrees Fahrenheit
EMI	Electro Magnetic Interference	°C	Degrees Celsius
EUT	Equipment Under Test	Temp	Temperature
ITE	Information Technology Equipment	S/N	Serial Number
ТАР	Test Assessment Schedule	Qty	Quantity
ESD	Electro Static Discharge	emf	Electromotive force
EFT	Electric Fast Transient	RMS	Root mean square
EDCS	Engineering Document Control System	Qp	Quasi Peak
Config	Configuration	Av	Average
CIS#	Cisco Number (unique identification number for Cisco test equipment)	Pk	Peak
Cal	Calibration	kHz	Kilohertz (1x10 <sup>3</sup> )
EN	European Norm	MHz	MegaHertz (1x10 <sup>6</sup> )
IEC	International Electro technical Commission	GHz	Gigahertz (1x10 <sup>9</sup> )
CISPR	International Special Committee on Radio Interference	Н	Horizontal
CDN	Coupling/Decoupling Network	V	Vertical
LISN	Line Impedance Stabilization Network	dB	decibel
PE	Protective Earth	V	Volt
GND	Ground	kV	Kilovolt (1x10 <sup>3</sup> )
L1	Line 1	μV	Microvolt (1x10 <sup>-6</sup> )
L2	Line2	A	Amp
L3	Line 3	μA	Micro Amp (1x10 <sup>-6</sup> )
DC	Direct Current	mS	Milli Second (1x10 <sup>-3</sup> )
RAW	Uncorrected measurement value, as indicated by the measuring device	μS	Micro Second (1x10 <sup>-6</sup> )
RF	Radio Frequency	μS	Micro Second (1x10 <sup>-6</sup> )
SLCE	Signal Line Conducted Emissions	m	Meter
Meas dist	Measurement distance	Spec dist	Specification distance
N/A or NA	Not Applicable	SL	Signal Line (or Telecom Line)
Р	Power Line	L	Live Line
Ν	Neutral Line	R	Return
S	Supply	AC	Alternating Current

Page No: 34 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

Page No: 35 of 52



## Appendix C: Scope of Accreditation (A2LA certificate number1178-01)

The scope of accreditation of Cisco Systems, Inc. can be found on the A2LA web page at:

### http://www.a2la.org/scopepdf/1178-01.pdf

# Summary of accredited radio testing capabilities:

EMC/EMI

San Jose, CA, Building P:	LP0002: 2004 RRL no.2005-25
San Jose, CA, Building N:	LP0002: 2004 RRL no.2005-25
San Jose, CA, Building I:	LP0002: 2004 RRL no. 2005-25
San Jose, CA, Building B:	LP0002: 2004 (conducted measurements only) RRL no.2005-25 (conducted measurement only)

Page No: 36 of 52



## Appendix D: Test Equipment Used to perform the test

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due	Test Number(s)
001435	HP/ 34401A	Multimeter	08-SEP-07	08-SEP-08	[29596]
004883	EMC Test Systems/ 3115	Double Ridged Guide Horn Antenna	15-MAY-07	15-MAY-08	[29607]
005691	Miteq/ NSP1800-25-S1	Broadband Preamplifier (1- 18GHz)	09-OCT-07	09-OCT-08	[29607], [29612], [29621]
020975	Micro-Coax/ UFB311A-0-1344- 520520	RF Coaxial Cable, to 18GHz, 134.4 in	16-MAR-07	16-MAR-08	[29607]
021116	Micro-Coax/ UFB311A-0-3540- 520520	RF Coaxial Cable, to 18GHz, 354 in	16-MAR-07	16-MAR-08	[29607]
021117	Micro-Coax/ UFB311A-0-2484- 520520	RF Coaxial Cable, to 18GHz, 248.4 in	19-AUG-07	19-AUG-08	[29612], [29621]
024905	Agilent/ E4440A	Precision Spectrum Analyzer	14-FEB-07	14-FEB-08	[29612], [29621]
030442	Micro-Coax/ UFB311A-0-4800- 520520	RF Coaxial Cable, to 18GHz, 480 In.	16-MAR-07	16-MAR-08	[29604]
030559	Micro-Coax/ UFB311A-1-0950- 504504	RF Coaxial Cable, to 18GHz, 95 in	16-MAR-07	16-MAR-08	[29604], [29607]
030564	Micro-Coax/ UFB311A-1-0950- 504504	RF Coaxial Cable, to 18GHz, 95 in	19-AUG-07	19-AUG-08	[29612], [29621]
030652	Sunol Sciences/ JB1	Combination Antenna, 30MHz-2GHz	16-JUL-07	16-JUL-08	[29607]
032544	ETS-Lindgren/ 3117	Double Ridged Waveguide Horn Antenna	11-JUL-07	11-JUL-08	[29604]
032671	Cisco/ TH0118	Mast Mount Preamplifier Array, 1-18GHz	08-OCT-07	08-OCT-08	[29604]
033988	Agilent/ E4446A	PSA Spectrum Analyzer	07-NOV-07	07-NOV-08	[29596], [29598], [29599], [29602], [29647]
034189	Micro-Tronics/ BRC50704-02	Notch Filter, SB:5.470- 5.725GHz, to 12GHz	16-JUL-07	16-JUL-08	[29607], [29621]
034974	Midwest Microwave/ ATT-0640-20-29M- 02	Attenuator, 20dB, DC-40GHz	14-MAY-07	14-MAY-08	[29604], [29612]
035038	Micro-Tronics/ BRC50703-02	Notch Filter, SB:5.150- 5.350GHz, to 11GHz	16-JUL-07	16-JUL-08	[29607], [29621]

Page No: 37 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



				1	1
035097	Micro-Coax/	RF Coaxial Cable, to 40 GHz,	07-MAR-07	07-MAR-08	[29596],
	UFA147A-0-0180-	18 in			[29598],
	110200				[29599],
					[29602],
					[29604],
					[29612],
					[29621]
037228	Micro-Tronics/	Notch Filter, SB:5.725-	07-MAR-07	07-MAR-08	[29607],
	BRC50705	5.875GHz, to 12 GHz			[29621]
040503	Agilent/HP/	Precision Spectrum Analyzer	18-MAR-07	18-MAR-08	[29604],
	E4440A				[29607],
					[29621]
040523	Rohde & Schwarz/	EMI Test Receiver	01-JUN-07	01-JUN-08	[29607]
	ESCI				
040547	Megaphase/	RF N Type cable 9KHz to	13-JUL-07	13-JUL-08	[29607]
	F230-NKNK-320	18GHz			
041202	ETS-Lindgren/	Double Ridged Horn Antenna	03-JUL-07	03-JUL-08	[29612],
	3117	-			[29621]

Page No: 38 of 52

#### Software used in the tests

#### **A:Vasona File Version**

Vasona File Version	Used in Subtests
5.028	[29607 - 3, 29607 - 4]

#### **B:Other Software Used**

Software Name	Version	Vendor	Description	Start Date	End Date
ECAT - BurstWare	4.23	Thermo Keytek	EFT/Burst Test Software	01-JAN-2000	Current
ECAT - PQFWare	2.1.3	Thermo Keytek	Voltage Dips and Interrupts Test Software	01-JAN-1997	Current
ECAT - SurgeWar e	4.23	Thermo Keytek	Surge Test Software	01-JAN-2000	Current
ECAT - SurgeWar e	5.30	Thermo Keytek	Voltage Protection Coordination Software	04-FEB-2004	Current
HFTS	B.00.01	Agilent Technologies	Harmonics/Flic ker Test System Software	02-JUL-2001	Current
CTS	3.0.19	California Instruments	Harmonics/Flic ker Test System Software	26-APR-2004	Current
CEWare32	4.00	Thermo Keytek	EMC Pro surge, EFT/B, VDI, Mag Immunity test software.	21-JUL-2004	Current

Page No: 39 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

#### **Appendix E:** Test Procedures

Test procedures are summarized below

6dB Bandwidth	EDCS # - 422115
26dB Bandwidth	EDCS # - 422115
Average Output Power	EDCS # - 422117
Co-Located Transmitter	EDCS # - 422118
Conducted Spurious Test	EDCS # - 422119
Peak Transmit Power Measurement	EDCS # - 422123
Power Spectral Density	EDCS # - 422113
Peak Excursion Test	EDCS # - 422121
Radiated Band Edge	EDCS # - 422124
Radiated Spurious Test	EDCS # - 422125
Extreme Test Condition	EDCS # - 450056
Equivalent Isotropic Radiated Power	EDCS # - 450047
Frequency Tolerance	EDCS # - 462996
Power per MHz	EDCS # - 463000

Page No: 40 of 52



Appendix F: Test Assessment Plan(TAP)

## **EMC** Test Plan

# EMC-4637 Code Name: Beartooth part 15.247 only

# Systems to be Tested: C3205WMIC-A-K9

## **Cisco Systems**

EMC Laboratory 170 West Tasman Drive San Jose, CA 95134

> Revision 3.0 Date 03-Dec-2007 Author Donald Foster TAP Template Revision Number 27

Page No: 41 of 52



#### Overview

This test plan is to detail the requirements for FCC radio certification of the WMIC module which will be used in the various 3200 series mobile routers. Testing will be conducted according to the procedures for the 5745-5825 band only and UNI I and II will be covered in a separate report.

#### Product Description

The C3205WMIC-A-K9 is a standalone A radio module that is installed in the 3200 series mobile router. The end user can stack several of these radios into a single chassis and build a poit to point to point network with association to both client and Master devices.

#### This EMC testing is intended to cover:

- Radio Intentional.
- Comments : N/A

#### Testing will be performed:

Internally. Cisco testing facility.

#### **Specific Test Laboratory Requirements**

Ensure that the Test Laboratory meets the following requirements (where appropriate)

BSMI (Taiwan)	Designated laboratory
Australia,New Zealand,Singapore	ISO Guide 17025 accredited laboratory [ie NVLAP, A2LA] or equivalent
USA DOC Process	NVLAP, A2LA (Note: The DOC process is for Class B PC peripherals only.)
VCCI (Japan)	VCCI Listed laboratory
Customer requirements (e.g.GR1089)	Customer recognized Laboratory

Page No: 42 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.

Equipment Type	Requirements	
	Emissions	Immunity
Telecommunication Network Equipment	47 CFR Part 15: 2006 CISPR22: 2005 EN55022: 2006 KN 22: 2005 EN61000-3-2: 2000 + A1 + A2 EN61000-3-3: 1995 + A1 EN300386: V1.3.3 : 2005 ICES-003 Issue 4 : 2004 VCCI: V-3/2006.04	EN300386: V1.3.3 : 2005 EN50082-1: 1992 EN50082-1: 1997 EN61000-6-1: 2001
Cable Equipment	47 CFR Part 15: 2006 CISPR22: 2005 EN55022: 2006 KN 22: 2005 EN61000-3-2: 2000 + A1 + A2 EN61000-3-3: 1995 + A1 EN300386: V1.3.3 : 2005 ICES-003 Issue 4 : 2004 VCCI: V-3/2006.04	EN300386: V1.3.3 : 2005 CISPR24: 1997 + A1+ A2 EN55024: 1998 + A1+ A2 EN50082-1: 1992 EN50082-1: 1997 EN61000-6-1: 2001
ITE/TTE/LAN Equipment	47 CFR Part 15: 2006 CISPR22: 2005 EN55022: 2006 KN 22: 2005 EN61000-3-2: 2000 + A1 + A2 EN61000-3-3: 1995 + A1 ICES-003 Issue 4 : 2004 VCCI: V-3/2006.04	CISPR24: 1997 + A1+ A2 EN55024: 1998 + A1+ A2 EN50082-1: 1992 EN50082-1: 1997 EN61000-6-1: 2001
Medical Devices Equipment	47 CFR Part 15: 2006 CISPR22: 2005 EN55022: 2006 EN61000-3-2: 2000 + A1 + A2 EN61000-3-3: 1995 + A1 ICES-003 Issue 4 : 2004 VCCI: V-3/2006.04 EN60601-1-2:2001	CISPR24: 1997 + A1+ A2 EN55024: 1998 + A1+ A2 EN50082-1: 1992 EN50082-1: 1997 EN61000-6-1: 2001 EN60601-1-2:2001
Radio (EMC)	CISPR22: 2005 EN55022: 2006 EN61000-3-2: 2000 EN61000-3-3: 1995 + A1	EN301 489-1 v1.4.1: 2002-08 EN301 489-17 v1.2.1: 2002-09 EN61000-6-1: 2001 EN50082-1: 1992 EN50082-1: 1997

սիսիս

#### Equipment Classification (see EDCS-5770)

Page No: 43 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

$\mathbf{u}$	աիս
CI	sco

Radio Intentional	EN300328 RSS-210 47CFR15 EN301893 LP0002 RRL No.2005-25 AS/NZS 4268 ARIB STD-T33 ARIB STD-T66 ARIB STD-T71
Central Office Equipment [USA Only]	GR1089: Issue 4: June 2006 Applicable only if product requires NEBS compliance.

#### **Emissions Classification**

• Class B (e.g. non- central office, domestic)

#### **Immunity Classification**

Country Requirements (normal levels)

#### **Power/ Interface Details**

DC	Indoor Cables
RF Port	Indoor Cables

#### Chassis

• Desktop (Table Top)

#### Information for Test Personnel

Type of Emission	OFDM		
Frequency Range	5725MHz to 5850MHz		
Power Rating	*AIR-ANT5175V-N 7.5dbi omni 16/23.5dbmAir-ant 5180V-N 7.5dbi omni 16/23.5dbmAIR-ANT5160V-R 6dbi omni 16/23dbm*AIR-ANT5114P-N 14dbi patch 16/30dbmAIR- ANT5195P-R 9.5dbi patch 16/25.5dbmAIR-ANT5170P-R 7dbi patch 16/23dbm*AIR-ANT5117S-N 17dbi sector 16/33dbmAIR-ANT58G10SSA-N 9.5dbi sector 16/25.5dbm		
Maximum Conducted Power Rating Allowed	16dbm		
List Temperature	+5.0 V 0.4 amps 2.0 W ISA and PCI connectors +3.3 V 1.7 amps 5.6 W PCI connectors		
Eut Description	This is a 5Ghz modular radio which is incorporated into the 3200		

#### Page No: 44 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date



	series mobile router
Tune up Procedures	ART instructions

#### Applicable Specifications testing required

#### **Conducted emissions**

Spec Id	Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
462	CFR47 Part 15.247b3 (LP0002 4.7.2)	RF Ports	N/A	5725MHz - 5850MHz	Peak Output Power: 1wattAlso complies with HKTA1039
652	Conducte d Spurious Emissions	RF Ports	N/A	30MHz - xGHz	Also complies with RSS 210, LP0002, HKTA1039
651	CFR47 Part 15.247(a)	RF Ports	N/A	2400MHz - 5850MHz	26dB Bandwidth also complies wiht RSS 210, LP0002, HKTA1039
800	CFR47 Part 15.247(a)( 2)	RF Ports	В	5725MHz - 5850MHz	6dB Bandwidth also complies with LP0002, RSS210, HKTA1039
477	CFR47 Part 15.247a3 (LP0002 3.10.6.2.2, RSS210)	RF Ports	N/A	5725MHz - 5850MHz	Power Spectral DensityAlso complies with HKTA1039

#### **Radiated emissions**

Spec Id	Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
648	Restricted Bandedge Measurem ents	Enclosure	В	2.4GHz - 5.825GHz	CFR47 Part 15.205,CFR47 Part 15.209,LP002, RSS210HKTA1039
647	Radiated Spurious Emissions	Enclosure	В	30MHz - 26.5GHz	CFR47 Part 15.109CFR47 Part 15.247, RSS-210, LP0002 HKTA1039

#### **Customer Additional Specifications**

N/A

Applicable Specifications testing not required

Page No: 45 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



#### Conducted emissions

Spec Id	Basic Standard	Applied to	Class	Freq Range	Test Details / Comments	Justification
663	EN 300 893 clause 4.3.2.1 Power density	RF Ports	N/A	5150MHz - 5725MHz	The power density when configured to operateat the highest stated power level shall notexceed the levels given in table 2 overnormal and extreme test conditions.	1
662	EN 300 893 clause 4.3.2 RF output power and TPC	RF Ports	N/A	5150MHz - 5725MHz	The RF output power when configured shall notexceed the levels given in table 2 & 3 overnormal and extreme test conditions.	1
661	EN 300 893 clause 4.2 Carrier frequencie s	RF Ports	N/A	5150MHz - 5725MHz	The actual carrier centre frequency for anygiven channel given in table 1 shall bemaintained within the range fc A?20ppm over normal and extreme test conditions.	1
660	EN 300- 328 clause 4.3.1 Effective radiated power	RF Ports	N/A	2.4GHz - 2.4835GHz	The effective radiated power shall be equalto or less than 20dBm (100 mW) e.i.r.p overnormal and extreme test conditions.	1
463	CFR47 Part 15.247b3 (LP0002 3.10.1.2)	RF Ports	N/A	2400MHz - 2483.5MHz	Peak Output Power: 1WattAlso complies with HKTA1039	2
659	EN 300- 328 clause 4.3.2 Maximum spectral power density	RF Ports	N/A	2.4GHz - 2.4835GHz	For modulation other than FHSS, the maximumspectral power density shall belimited to -20 dBW (10 mW) per MHz e.i.r.p.	1
658	EN 300- 328 clause 4.3.3 Frequency Range	RF Ports	N/A	2.4GHz - 2.4835GHz	For all equipment the frequency range shalllie within the band 2.4 GHz to 2.4835 GHz (fL> 2.4 GHz and fH < 2.4835 GHz). Normal andExtreme conditions apply.	1
657	EN 300- 328 clause 4.3.5 Receiver	RF Ports	B & N/A	30MHz - 12.75GHz	802.11b,g	1

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.

$ \mathbf{u} $	nı h
CI	ISCO

	Emissions					
654	EN 300- 328 clause 4.3.4 Transmitte r Spurious Emissions	RF Ports	B & N/A	30MHz - 12.75GHz	802.11b,g	1
653	CFR47 Part 15.247a3 (LP0002 3.10.6.2.2, RSS210)	RF Ports	N/A	2400MHz - 2483.5MHz	Power Spectral Density, Also complies withHKTA1039	2
650	CFR47 Part 15.247(a)( 2)	RF Ports	N/A	2400MHz - 2483.5MHz	6dB Bandwidth, aslo complies with RSS 210, LP0002, HKTA1039	2
649	CFR47 Part 15.407(a)	RF Ports	N/A	5150MHz - 5725MHz	Peak Excursion also complies with LP0002, RSS 210, HKTA1039	2
805	DSPR (Japan) - Out-band Leakage Power	RF Ports	N/A	5150MHz - 5350MHz	DSPR(Japan) - 802.11a	1
804	DSPR (Japan) - Adjacent Channel Power	RF Ports	N/A	5150MHz - 5350MHz	DSPR (Japan)- 802.11A	1
803	DSPR (Japan) - Receiver Spurious Emissions	RF Ports	N/A	10MHz - 8GHz	DSPR (Japan) - 802.11b,g Rx mode	1
964	RRL no.2007- 20 Rx Spurious Emissions	RF Ports	N/A	2400MHz - 5825MHz	Strength of radio waves additionally emittedfrom the receiving equipment (Article 9.1 ofregulations) -54dBmW	1
963	RRL no.2007- 22 Tx Unwanted Emissions	RF Ports	N/A	2400MHz - 5825MHz	2.4GHz - Unwanted emission: less than -30dBmwhen measured using 100kHz of decompositionbandwidth. 5GHz - the frequency under table 1 should beless than -27dBm/MHz	1
801	DSPR (Japan) - Transmiter Spurious Emissions	RF Ports	N/A	5MHz - 15.75GHz	DSPR(Japan) - 802.11A Tx mode	1
962	RRL no.2007- 22	RF Ports	N/A	2400MHz - 5825MHz	Occupied Bandwidth: 26MHz	1

Page No: 47 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



	Occupied					
960	Bandwidth RRL no.2007- 22 Frequency	RF Ports	N/A	2400MHz - 5825MHz	Frequency tolerance (kHz): 50ppm	1
959	Tolerance RRL no.2007- 22 Power Density	RF Ports	N/A	2400MHz - 5825MHz	Power Density: WAS1 limit 2.5mW/MHz, WAS2limit 10mW/MHz, WAS3 limit 10mW/MHz.	1
892	EN 300 893 clause 4.3.2 Occupied Channel Bandwidth	RF Ports	N/A	5150- 5725MHz	The occupied channel bandwidth shall bebetween 80% to 100% of the declared nominalchannel bandwidth.	1
674	DSPR (Japan) - Transmiter Spurious Emissions	RF Ports	N/A	10MHz - 8GHz	DSPR(Japan) 2400MHz- 2483.5MHz	1
673	DSPR(Jap an)- Channel Power	RF Ports	N/A	2400MHz - 5350MHz	DSPR(Japan)	1
672	DSPR(Jap an)-Total Output Power	RF Ports	N/A	2400MHz - 5350MHz	DSPR(Japan)	1
478	CFR47 Part 15.407a (LP0002 4.7.2, RSS210)	RF Ports	N/A	5150MHz - 5725MHz	Peak Transmit Power (LP0002 limit 17dBm or formula from 5250- 5350MHz), Also complieswith HKTA1039	2
671	DSPR (Japan) - Spread Band Width	RF Ports	N/A	2400MHz - 2483.5MHz	DSPR-(Japan) 802.11b,g	1
670	DSPR(Jap an)- Occupied Bandwidth	RF Ports	N/A	2400MHz - 5350MHz	DSPR(Japan)- 802.11a,b,g	1
474	CFR47 Part 15.407a (LP0002 4.7.2, RSS210)	RF Ports	N/A	5150MHz - 5725MHz	Peak Power Spectral Density (LP0002 limit 4dBm from 5250- 5350MHz)Also complies withHKTA1039	2
669	DSPR(Jap an) - Frequency	RF Ports	N/A	2400MHz - 5350MHz	DSPR (Japan)- 802.11a,b,g	1

Page No: 48 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



	Tolerance					
667	EN 300 893 clause 4.5.2 Receiver spurious emissions	RF Ports	N/A	30MHz - 26.5GHz	The spurious emissions of the receiver shallnot exceed the limits given in table 5.	1
666	EN 300 893 clause 4.4.2 Transmitte r unwanted emissions within 5GHz bands	RF Ports	N/A	5150MHz - 5725MHz	The average level of the transmitted spectrumwithin the 5 GHz RLAN bands shall not exceedthe limits given in figure 2.	1
664	EN 300 893 clause 4.4.1 Transmitte r unwanted emissions outside 5GHz bands	RF Ports	N/A	30MHz - 26.5GHz	The level of unwanted emission shall notexceed the limits given in table 4.	1

#### **Radiated emissions**

Spec Id	Basic Standard	Applied to	Class	Freq Range	Test Details / Comments	Justification
656	EN 300- 328 clause 4.3.5 Receiver Spurious Emissions	Enclosure	N/A	30MHz - 12.75GHz	802.11b,g	1
655	EN 300- 328 clause 4.3.4 Transmitte r Spurious Emissions	Enclosure	N/A	30MHz - 12.75GHz	802.11b,g	1
441	Co- Located Transmitte rs	Enclosure	N/A	1GHz- 1.0GHz	Compliance based upon meeting the emission levels for radiated spurious emissions as stated in RSS-210, FCC part 15.209 and	1

Page No: 49 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date

version.



966	Radiated Spurious Emissions	Enclosure	N/A	30MHz - 40GHz	HKTA1039. CISPR limits are not applicable for this test CFR47 Part 15.109, CFR47 Part 15.407, RSS-210, LP0002 HKTA1039	2
965	Radiated Spurious Emissions	Enclosure	N/A	30MHz - 40GHz	CFR47 Part 15.109, CFR47 Part 15.407, RSS-210, LP0002 HKTA1039	2
668	EN 300 893 clause 4.5.2 Receiver spurious emissions	Enclosure	N/A	30MHz - 26.5GHz	The spurious emissions of the receiver shallnot exceed the limits given in table 5.	1
860	Restricted Bandedge Measurem ents	Enclosure	N/A	2.4GHz - 5.825GHz	CFR47 Part 15.205,CFR47 Part 15.209,LP002, RSS210HKTA1039	2
665	EN 300 893 clause 4.4.1 Transmitte r unwanted emissions outside 5GHz bands	Enclosure	N/A	30MHz - 26.5GHz	The level of unwanted emission shall notexceed the limits given in table 4.	1

#### Justification(s)

1. The testing will cover only the requirements for 5GHz A bband radio for market in the USA.

2. Testing will be preformed to the rules for the band 5725-5850 only

#### Test configuration description:

The system will be configured as a standalone radio and will be running the ART diag to put the transmitter into continuous transmit mode.

Page No: 50 of 52

Test Configuration Diagram: Radio in the extender card

ոլուր

#### Justification of the worst case test configuration and mode of operation:

This configuration meets the requirements for testing to the applicable countries

#### Cabling Details and Block Diagram (Mandatory for VCCI and Korea)

Cable Letter	Connection	Manufacturer	Length	Shield	Remarks
А	Antenna port			Yes	

Page No: 51 of 52

This document is uncontrolled. Please refer to the electronic copy within EDCS for the most up to date version.

#### Copper Interfaces

Ref	Connecti on	Туре	Shielded	Indoor/ Outdoor	CE	CI	EFT/B	Surge	Dips
A	Antenna port	RF Ports	Yes	Indoor	Yes	N/A	N/A	N/A	N/A

Legend

Indoor	Interface which is not intended to be directly connected to a cable that will leave the building e.g. Ethernet, RS232
Outdoor	Interfaces that can be directly connected to lines that leave the building e.g. POTS, DSL

Justifications For Not Testing An Interface

Page No: 52 of 52