

<u>5805 MHz</u>

99 % Emission Bandwidth (MHz)	19.575



The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.

Limit

Not specified.



802.11(n) - 5 GHz, 20 MHz BW – Onboard PIFA Antenna

Frequency Band 1

<u>5180 MHz</u>

99 % Emission Bandwidth (MHz)

19.950

🔆 👫 Aç	gilent 1	4:14:11 (Apr 20,2	.012				RT	f –			
Ref 22	2.49 dBm		At	ten 20 d	в				Mk	r2 5.	.189 -31	975 GHz .41 dBm
Peak Log												
10 dB/												Ext Ref
0ffst 17 dB			MAMA	www.	erterrary	how	phandana	wha	ww			
		1								L 12		
V1 S2	www	www.								N N	rwW	Maria
S3 FS AA												
Center #Res B	5.18 GH 8W 30 kHz	Z 2		*	VBW 100	kHz		Sweer	p 34	S .31 m	ipan is (4	30 MHz 01 pts)



<u>5240 MHz</u>

99 % Emission Bandwidth (MHz)	20.025



The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5260 MHz</u>

99 % Emission Bandwidth (MHz)

19.950

🔆 🔆 Aç	jilent 15	5:00:01 A	Apr 20,2	012			I	RΤ		
Ref 21	.77 dBm		At	ten 15 df	3			Mł	r2 5.269 -31	975 GHz .26 dBm
Peak Log										
10 dB/ 011										Ext Ref
Uffst 17 dB			MAMMAN	MMMM/M/M	www	Monte	hanna ann ann ann ann ann ann ann ann an	www.		
		لم مريد							\ \ ↓2 �	
V1 S2	www.Www	msh							han	MMMM
AA										
Center #Res B	5.26 GH 3W 30 kHz	z		#	VBW 100	kHz	3	Sweep 34	Span 4.31 ms (4	30 MHz 01 pts)



5320 MHz

99 % Emission Bandwidth (MHz)	19,950



The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5500 MHz</u>

99 % Emission Bandwidth (MHz)

20.025

∰ Ag	gilent 10	0:01:50 A	Apr 23, 2	012				RΤ		
Ref_21	.56 dBm		At	ten 15 df	3			M	r2 5.509 -32	975 GHz .04 dBm
Peak Log										
10 dB/										Ext Ref
0ffst 17 dB			MAMA	anyaad	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	phpMad	<u>hodosologo</u>	mandalang		
		3/1							4 12 8	
V1 S2 S3 ES	www	www.							hun	WWWWW
ÂÂ										
Center #Res E	5.5 GHz 3W 30 kHz			#	VBW 100 I	kНz		Sweep 34	Span 4.31 ms (4	30 MHz 101 pts)



<u>5600 MHz</u>

99 % Emission Bandwidth (MHz)	20.025
-------------------------------	--------

- <u>N</u>	Agilent 1	.0:13:50 A	Apr 23, 2	012				RT		
Refí	20.27 dBm		At	ten 15 di	В			M	lkr2 5.60% –32	9975 GHz .09 dBm
Peak Log										
10 dB/										Ext Ref
Offst 16.9 dB			MN-1-1-1	whywy	www.y	nhmm	handhan	www.h	4	
		1/1							4	
		nun X							1 North	AAAAAA
V1 S S3 F	2 1 2									0° 44 - 479
A	A									
-										
Cent #Res	er 5.6 GHz BW 30 kH	z		#	VBW 100	kHz		Sweep 3	Spar 4.31 ms (4	1 30 MHz 401 pts)



5700 MHz

99 % Emission Bandwidth (MHz)	20.025



The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5745 MHz</u>

99 % Emission Bandwidth (MHz)

20.025

∰ Ag	gilent 11	L:03:54 A	Apr 23, 2	012				RΤ		
Ref 22	2.44 dBm		Ati	ten 20 df	3			٢	kr2 5.754 –31	4975 GHz .23 dBm
Peak Log										
10 dB/										Ext Ref
Offst 17 dB			MAMMAN	www.	mon	nhrupun	anyanyanya	~~^~ <u>~</u> ~~	<u>л</u>	
		1							1,2 8	
V1 S2 S3 FS	Mahaman	www.							har	www.
ÂÂ										
Center #Res E	• 5.745 G 3W 30 kHz	Hz		#	VBW 100	kHz		Sweep 3	Spar 4.31 ms (4	1 30 MHz 401 pts)



<u>5805 MHz</u>

99 % Emission Bandwidth (MHz)	20.025



The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

Limit

Not specified.



802.11(n) - 5 GHz 40 MHz BW - Onboard PIFA Antenna

Frequency Band 1

<u>5190 MHz</u>

99 % Emission Bandwidth (MHz)

39.500





<u>5230 MHz</u>

99 % Emission Bandwidth (MHz)	39.500
	00.000



The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



<u>5270 MHz</u>

99 % Emission Bandwidth (MHz)

39.750





<u>5310 MHz</u>

99 % Emission Bandwidth (MHz)	39.375



The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



<u>5510 MHz</u>

99 % Emission Bandwidth (MHz)

39.625





<u>5590 MHz</u>

99 % Emission Bandwidth (MHz) 39.875

*	Agilent 1	4:21:42 (RT						
Ref 1	9.05 dBm		At	ten 15 d	В			Mł	kr2 5.610 –35	0000 GHz 6.66 dBm
Peak Log										
10 dB/										Ext Ref
dB		MAM	pp-14-maring	physphysia	mpport	many	hter the second s	alateripana ana ana ana ana ana ana ana ana ana	www.	
		1								2 >
V1 S S3 F	2 5 Wh. M.W.									hum
A	Å									
Cente	er 5.59 GH	z							Spar	1 50 MHz
#Res	BW 30 kHz			#	VBW 100	kHz		Sweep 57	7.18 ms (4	401 pts)



<u>5670 MHz</u>

99 % Emission Bandwidth (MHz)	39.750



The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



<u>5755 MHz</u>

99 % Emission Bandwidth (MHz)

39.625





<u>5795 MHz</u>

99 % Emission Bandwidth (MHz)	39.500



The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

Limit

Not specified.



2.7 PEAK POWER SPECTRAL DENSITY

2.7.1 Specification Reference

FCC CFR 47 Part 15E, Clause 15.407 (a)(5) Industry Canada RSS-210, Clause A9.2

2.7.2 Equipment Under Test and Modification State

Venice 6.5 S/N: RAD 103037 on Test Jig S/N: RAD103234 - Modification State 0

2.7.3 Date of Test

20 April 2012 & 23 April 2012

2.7.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.7.5 Test Procedure

The EUT was transmitted at maximum power via an attenuator and cable connected to the spectrum analyser. The analyser settings were adjusted to display the resultant trace on screen. The resolution bandwidth and video bandwidth were set to 3kHz and 10kHz respectively. The trace was set to Max Hold and the peak of the level was measured.

2.7.6 Environmental Conditions

Ambient Temperature	23.1 - 23.3°C
Relative Humidity	30.8 - 32.2%



2.7.7 Test Results

802.11(a) - Onboard PIFA Antenna

Frequency Band 1

<u>5180 MHz</u>

Peak Power Spectral Density (dBm)	-14.94
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<u>5240 MHz</u>

Peak Power Spectral Density (dBm)	-15.07

莱	Agilent	10:	30:41 F	Apr 20,2	012				R	Т		
Ref ·	-5.61 dE	∃m		F	ltten 5 df	В				Mkr1	5.23406 -15	375 GHz .07 dBm
Peak Log												
10 dB/	V M	\sim	~~~~	~~~~	m	\sim	$\sim \sim \sim$	sh~	\sim	Ŵ	\sim	Ext Ref
0ffst 17.1	t											
dΒ												
V1 S S3 F	52 - S											
Â	IĂ											
Center 5.234 GHz Span 300 k #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pt								300 kHz 01 pts)				

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.



<u>5260 MHz</u>

Peak Power Spectral Density (dBm)

-14.7

莱	₩ Agilent 10:50:44 Apr 20, 2012 R T										
Ref	-4	.55 dBm		A	tten 5 df	3			Mkr1	5.26309 -1	375 GHz 4.7 dBm
Peak Log											
10 dB/		$\sim\sim$	\sim	$\mathcal{N}^{\mathcal{V}}$	\sim	$\sim \sim$	$\sim \sim$	$\sim\sim$	$\sim \sim$	$\sim \sim$	-Ext-Bef
Utts 17 JB	st										
uD											
V1 S3	S2 FS										
	AA										
_			<u> </u>								000.111
ten #Re	ter s B	5.263 G W 3 kHz	HZ		#	VBW 10 k	:Hz		#Sweep	Span 100 s (4	300 kHz 101 pts)



<u>5320 MHz</u>

Peak Power Spectral Density (dBm)	-14.85

* A	gilent 1	.2:44:57	Apr 20,2	012	2					
Ref -!	5.18 dBm		A	ltten 5 df	В			Mkr1	5.32309 –14	300 GHz .85 dBm
Peak Log				1 🛇						
10 dB/	\sim	\bigwedge	w	\sim	\sim	$\sim \sim$	$\sim\sim$	$\sim \sim$	$\sim \sim \sim$	Ext.Ref
0ffst 17.1										
aв										
V1 S2 S3 FS										
AA	l									
_										
Lente #Res [r 5.323 (3W 3 kHz	θHZ		*	•VBW 10 k	:Hz		Span 300 kHz #Sweep 100 s (401 pts)		

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.



<u>5500 MHz</u>

Peak Power Spectral Density (dBm)

-14.5

莱	Αç	jilent 13	3:07:23 A	Apr 20, 2	012				R 1	Г		
Ref	-4	.96 dBm		A	ltten 5 dE	3			Ν	1kr1	5.50624 -1	275 GHz 4.5 dBm
Peak Log	<		1									
10 dB/		$\sqrt{}$	VV	$\sim \sim$	$\sim $	$\sim \sim$	$\sqrt{2}$	$\sim \sim $	\sim	\sim	y~~~~	<u>Ēvt R</u> êr
Utts 17 JR	t					V-						
uD												
V1 S3	S2 ES											
Í	ΑĤ											
Cent #Res	ter s B	5.506 GI W 3 kHz	Hz		#	VBW 10 k	:Hz		#Sw	leep	Span 100 s (4	300 kHz 01 pts)



<u>5600 MHz</u>

Peak Power Spectral Density (dBm)	-17.0
reak rower opectial Density (dBin)	-17.6

🔆 🔆 🗛	gilent 1	3:18:42	Apr 20, 2	012				RT		
Ref -7	7.39 dBm		F	ltten 5 df	3			Mkr1	5.59406	6300 GHz -17 dBm
Peak Log										
10 dB/	\sim	~~~~~	· · · · · ·	vv	\sim	\sim	\sim	~~~~	\sim	Ext Ref
0ffst 16.9 JP										
αD										
V1 S2 S3 FS										
AA										
Lenter #Res E	Center 5.594 GHz Span 300 kHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)									300 kHz 401 pts)



<u>5700 MHz</u>

Peak Power Spectral Density (dBm)	-15.89

- 🔆 🗛	gilent 1	3:31:27 A	Apr 20, 2	012				RT		
Ref -6	6.14 dBm		A	ltten 5 df	В			Mkr1	5.69433 –15	8950 GHz .89 dBm
Peak Log										
10 dB/	~~~	~~~	$\sim\sim$	\sim	$\sim \sim$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\sim	~~~~	\sim	Ext Ref
0Hst 17.1										
ар										
V1 S2 S3 FS										
AA										
_										
Lente #Res E	r 5.694 G 3W 3 kHz	Hz		*	•VBW 10 k	:Hz		#Sweep	Span 100 s (4	300 kHz 01 pts)

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.



<u>5745 MHz</u>

Peak Power Spectral Density (dBm)

-15.96

***	lient	13:46:15	Apr 20,2	012				RT		
Ref -	-5.83 dB	m	A	tten 5 df	В			Mkr	1 5.73902 -15	2700 GHz .96 dBm
Peak Log		1 \$								
10 dB/	\sim	h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~	\sim	\sim	\sim	$\sim\sim$	\sim	Ext Ref
0††st 17 JP										
aD										
V1 S S3 F	2 S									
A	۹ 									
_										
Cente #Res	er 5.739 BW 3 kH	GHZ Z		#	•VBW 10 k	:Hz		#Swee	Span p 100 s (4	300 kHz 401 pts)



<u>5805 MHz</u>

Peak Power Spectral Density (dBm)	-15.23

🔆 🔆 Aç	jilent 10	3:59:48 ।	Apr 20, 2	012			RΤ			
Ref -6	6.1 dBm		F	itten 5 df	3		Mk	r1 5.	80565 -15	5025 GHz .23 dBm
Peak Log										
10 dB/	~~~~	~~~~	~~~	$\sim \sim \sim$	~~~	\sim	mi	~^~	\sim	Êxt Ref
Uffst 17.1 dB										
W1 S2										
S3 FS										
Center	5.806 G	Hz						1-0	Span	300 kHz
#Res B	WI 3 KHZ				VBW 10 K	(HZ	#SWe	ep 10	US (2	ioi pts)

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.

Limit

Frequency Band (MHz)	FCC Limit	IC Limit
5150 to 5250	<4 dBm / 1 MHz	<10 dBm / 1 MHz
5250 to 5350	<11 dBm / 1 MHz	<11 dBm / 1 MHz
5470 to 5725	<11 dBm / 1 MHz	<11 dBm / 1 MHz
5725 to 5825	<17 dBm / 1 MHz	<17 dBm / 1 MHz



802.11(n) - 5 GHz, 20 MHz BW – Onboard PIFA Antenna

Frequency Band 1

<u>5180 MHz</u>

Peak Power Spectral Density (dBm)

-15.61

***	Agilent 1	4:18:05	Apr 20, 2	012				RT		
Ref -	6.3 dBm		A	ltten 5 df	3			Mkr1	5.18120 -15	0000 GHz .61 dBm
Peak Log										
10 dB/	~~~~			~~~~~	$\sim\sim\sim$	$\sim \sim \sim$	~~~~	h		Ext Ref
Offst 17										
αB										
V1 S; S3 E1	2									
Af	Ă									
Cente #Res	er 5.181 (BW 3 kHz	GHz		#	VBW 10 k	:Hz		#Sweep	Span 100 s (4	300 kHz 401 pts)



<u>5240 MHz</u>

Peak Power Spectral Density (dBm)	-15.89

* A	gilent 1	4:51:37	Apr 20, 2	2012				R	Т		
Ref -	5.95 dBm		ſ	Atten 5 dl	3				Mkr1	5.24094 -15	1900 GHz .89 dBm
Peak Log											ļ
10 dB/	~~~~	\sim	·	~~~~	~~~~	~~~~	\sim	~	~~~	$\sim\sim$	Ext Ref
Offst 17.1											
аБ											
V1 S2 S3 E4	2										
Af	Ĩ										
Cente #Res	r 5.241 0 BW 3 kHz	iHz			VBW 10 k	:Hz		#S	weep	Span 100 s (4	300 kHz 01 pts)

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

-16.6



Frequency Band 2

<u>5260 MHz</u>

Peak Power Spectral Density (dBm)



<u>5320 MHz</u>

|--|

莱	Agilent 👘	09:26:36	Apr 23, 2	2012				RT			
Ref ·	-5.49 dBn	ń	F	itten 5 dl	3			Mkr	1 5.32650 -15	6550 GHz .49 dBm	
Peak Log											
10 dB/	~~~~	~~~~	~~~~	$\sim\sim$	~~~~	\sim	$\sim\sim\sim$	~~~	Ext Ref		
0ffst 17.1 ⊿₽	:										
uD											
V1 S S3 F	:2 'S										
A	A										
<u> </u>	E 200									200.111	
cent #Res	er 5.326 BW 3 kHz	GH2 2		+	VBW 10 k	:Hz		5pan 300 kHz #Sweep 100 s (401 pts)			

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5500 MHz</u>

Peak Power Spectral Density (dBm)

-16.30

- MK - A	gilent 1	0:07:18	Apr 23, 2	012				RT				
Ref -	6.29 dBm		F	ltten 5 dl	3			Mkr1	5.50119 -1	9850 GHz 6.3 dBm		
Peak Log										1 8		
10 dB/		\sim	~~~~	~~~~	\sim	~~~~	~~~^	\sim	~~~	Ext Ref		
Uffst 17 dB												
uD												
V1 57 S3 F:												
HF	ł											
_												
Center 5.501 GHz Span 300 k #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pr								300 kHz 101 pts)				



<u>5600 MHz</u>

	17.10
Peak Power Spectral Density (dBm)	-17.46

🔆 🔆 🕂	gilent 1	0:22:54	Apr 23, 2	012				R	Т		
Ref -7	7.87 dBm		A	itten 5 di	В				Mkr1	5.60094 –17	1750 GHz .46 dBm
Peak Log					A =						Ĺ
10 dB/							$\sim \sim$	~	~~~	~~~	Ext Ref
Uffst 16.9 dB											
чD											
V1 S2 S3 FS											
AA											
c .											000.111
∟enter #Res E	3W 3 kHz	HZ		#VBW 10 kHz				5pan 300 KHZ #Sweep 100 s (401 pts)			



<u>5700 MHz</u>

Peak Power Spectral Density (dBm)	-15.96

🔆 🕂 Ag	gilent 1	0:46:47 I	Apr 23, 2	012			l l	RT		
Ref6	6.14 dBm		A	tten 5 df	3			Mkr1	5.69649 –15	9875 GHz .96 dBm
Peak Log								- 4		L.
10 dB/	~~~~			~~~~	~~~~^	~~~~~		~~~~~		Ext Ref
Uffst 17.1 dB										
ab										
U1 ¢2										
\$3 FS										
пп										
Center 5.696 GHz Span 30										300 kHz
#Res E	3W 3 kHz			*	VBW 10 k	:Hz		#Sweep 100 s (401 pts)		

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5745 MHz</u>

Peak Power Spectral Density (dBm)

-15.48

🔆 🔆 🕂	jilent 11	.:09:03 A	Apr 23, 2	012				R	Т		
Ref5	5.57 dBm		Ĥ	tten 5 df	3				Mkr1	5.75156 –15	325 GHz .48 dBm
Peak Log											
10 dB/	~~~~	~~~	$\sim\sim$	\sim	~~~	~~~~	$\sim \sim \sim$		\sim	$\sim \sim \sim$	Ext Ref
Uffst 17 JB											
uD											
V1 S2 S3 FS											
AA											
Center #Res E	5.751 G W 3 kHz	łz		#	VBW 10 k	:Hz		#	Sweep	Span 100 s (4	300 kHz 01 pts)



<u>5805 MHz</u>

Peak Power Spectral Density (dBm)	-16.31

Mkr1 5.80149800 GHz Peak	* A	gilent 1	1:27:18	Apr 23, 2	012				R	Т		
Peak Log 10 dB/ Offst 17.1 dB V1 S2 S3 F3 AA Center 5.801 GHz *Res BW 3 kHz *VBW 10 kHz *Sweep 100 s (401 pts)	Ref -6	6.26 dBm		F	itten 5 dl	3				Mkr1	5.80149 -16	1800 GHz .31 dBm
10 BX Ext Ref 0ffst 17.1 1 17.1 1 1 18 1 1 V1 S2 1 1 S3 FS 1 1 AA 1 1 Center 5.801 GHz *VBW 10 kHz *Sweep 100 s (401 pts)	Peak Log									÷ 0-	•	
Utfst 17.1 dB V1 S2 S3 FS AA Center 5.801 GHz #Res BW 3 kHz *Sweep 100 s (401 pts)	10 dB/	~~~~		~~~~	~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\sim \sim \sim$			~~~	~~~~~	Ext Ref
V1 S2 S3 FS AA Center 5.801 GHz #Res BW 3 kHz *Sweep 100 s (401 pts)	Uffst 17.1 dB											
V1 S2 S3 FS AA Center 5.801 GHz #Res BW 3 kHz *Sweep 100 s (401 pts)												
V1 S2 S3 FS AA Center 5.801 GHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)												
V1 S2 S3 FS AA	111 00											
Center 5.801 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)	\$3 FS											
Center 5.801 GHz Span 300 kHz Sweep 100 s (401 pts)	ПП											
Center 5.801 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)												
#Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)	Cente	Center 5 801 GHz Snan 300 kHz										
	#Res E	3W 3 kHz			#	VBW 10 k	:Hz		#<	Sweep	100 s (4	01 pts)

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

<u>Limit</u>

Frequency Band (MHz)	FCC Limit	IC Limit
5150 to 5250	<4 dBm / 1 MHz	<10 dBm / 1 MHz
5250 to 5350	<11 dBm / 1 MHz	<11 dBm / 1 MHz
5470 to 5725	<11 dBm / 1 MHz	<11 dBm / 1 MHz
5725 to 5825	<17 dBm / 1 MHz	<17 dBm / 1 MHz



802.11(n) - 5 GHz 40 MHz BW - Onboard PIFA Antenna

Frequency Band 1

<u>5190 MHz</u>

Peak Power Spectral Density (dBm)

-17.52

*	Ag	jilent 1	2:48:47	Apr 23, 2	012			R	Т		
Ref	-7	.72 dBm		F	itten 5 dl	В			Mkr1	5.20624 –17	1575 GHz .52 dBm
Pea Log	ik I										
10 dB,	/	$\sim \sim$	~~~~	\sim	~~~	$\sim \sim$	~~~~	\sim	~~~	~~~~	Ext Ref
Uff 17 dB	st										
αD											
V1	S2										
\$3	FS										
Cer #Po	iter	5.206 G	jHz				·U-,		No op	Span	300 kHz
#Re	5 D	WED KHZ				NDM IN K	.82	#2	weep	100 5 (4	ισι pts)



5230 MHz

Peak Power Spectral Density (dBm)	-17.55



The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



<u>5270 MHz</u>

Peak Power Spectral Density (dBm)

-18.01

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Agilent 1	3:30:37	Apr 23, 2	012		RT					
Ref -	-8.17 dBm		A	ltten 5 dE	3			Mkr1	5.26344 –18	1075 GHz .01 dBm	
Peak Log				1							
10 dB/	$\sim$	$\sim \sim \sim$	~~~~	$\sim \sim$	$\sim$	$\sim\sim$	$\sim\sim$	$\sim$		Ext Ref	
0Hst 17											
aD											
V1 S S3 F	2 \$										
A	A										
_											
Cente #Res	ər 5.263 G BW 3 kHz	Hz		#	VBW 10 k	:Hz		#Sweep	Span 100 s (4	300 kHz 401 pts)	



### <u>5310 MHz</u>

Peak Power Spectral Density (dBm)	-18.15

** A	gilent 1	3:45:53 (	Apr 23, 2	012			RT		
Ref -8	3.31 dBm		F	ltten 5 dE	3		Mkr1	5.32434 –18	4650 GHz .15 dBm
Peak Log									
10 dB/	~~~~	$\sim$	$\sim\sim$	$\sim$	$\sim\sim$	~~~~	~~~~	~~~~	Ext Ref
Uffst 17.1 dB									
QD									
U1 <2									
S3 FS									
Center	L r 5.324 G	Hz						Span	300 kHz
#Res E	3W 3 kHz			#	VBW 10 k	Hz	#Sweep	) 100 s (4	401 pts)

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



## <u>5510 MHz</u>

Peak Power Spectral Density (dBm)

-18.45

* A	gilent 1-	4:13:05	Apr 23, 2	012				RT		
Ref -	8.59 dBm		F	ltten 5 dE	3			Mkr1	5.51875 –18	5100 GHz .45 dBm
Peak Log										
10 dB/	~~~~	~~~~	$\sim$	~~~~	$\sim \sim$	$\sim \sim \sim$	u~~~	~~~	~~~~~	Ext Ref
Offst 17										
dB										
V1 S2 S3 F3										
Af	i									
Cente #Res	r 5.519 G BW 3 kH <u>z</u>	Hz		#	VBW 10 k	:Hz		#Sweep	\$pan 100 s_(4	300 kHz 401 pts)



## <u>5590 MHz</u>

Peak Power Spectral Density (dBm)	-18 93
r bait i briti opobliai Bonoity (aBin)	10.00

🔆 🔆 🗛	gilent 1-	4:25:20	Apr 23, 2	, 2012						
Ref -S	).31 dBm		A	tten 5 dl	В			Mkr	1 <b>5.5</b> 8371 –18	1650 GHz .93 dBm
Peak Log										
10 dB/	$\sim\sim$	$\sim\sim$	$\sim$	$\sim\sim$	$\sim \sim$	~~~~	·~~~^\	~~~	m	Ext Ref
Uffst 16.9 dB										
αD										
V1 S2										
S3 FS AA										
Center #Res F	∟ ∙5.584 G גש ג גא≂	Hz			เมRม 10 เ	·H-7		#\$₩66	Span Span	300 kHz 401 pts)
	A S KIZ								<del>, 100 3</del> (,	101 pt3/



### <u>5670 MHz</u>

Peak Power Spectral Density (dBm)	-17.86

** A	gilent 1	4:35:55 (	Apr 23, 2		I	RΤ				
Ref -	8.1 dBm		A	ltten 5 dE	3			Mkr1	. 5.66343 –17	3975 GHz .86 dBm
Peak Log								<u>_</u>		
10 dB/	$\sim$	$\sim$	~~~	$\sim$	$\sim$		$\sim$ $\sim$	$\sim$	$\sim$	[™] ER€\R@P
0ffst 17.1 dB										
aD.										
U1 64	,									
\$3 F										
	1									
Cente	r 5 663 G	 Hz							Snan	300 kHz
#Res	BW 3 kHz			#	VBW 10 k	:Hz		#Sweep	o 100 s (4	401 pts)

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

-17.9



## Frequency Band 4

## <u>5755 MHz</u>

Peak Power Spectral Density (dBm)

 Agilent
 14:55:14
 Apr 23, 2012
 R
 T

 Ref
 -8.6 dBm
 Atten 5 dB
 -17.9 dBm

 Peak
 -17.9 dBm
 -17.9 dBm

 Log
 -17.9 dBm
 -17.9 dBm

 0
 -17.9 dBm
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 AR
 -17.9 dBm
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 AR
 -17.9 dBm
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 0
 -17.9 dBm
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 0
 -17.9 dBm
 -17.9 dBm

 VI
 S2
 -17.9 dBm

 17
 -17
 -17.9 dBm

 17
 -17
 -17.9 dBm

 18
 -17.9 dBm
 -17.9 dBm

 19
 -17
 -17.9 dBm

 10
 -17
 -17.9 dBm

 10
 -17
 -17.9 dBm

 10
 -17
 -17.9 dBm



#### <u>5795 MHz</u>

Peak Power Spectral Density (dBm)	-18.75

- 🔆 🗛	gilent 1	15:06:20	Apr 23, 2	012				RТ	'		
Ref -	8.84 dBm		A	ltten 5 dl	В			М	kr1	5.78871 –18	.500 GHz .75 dBm
Peak Log											
10 dB/	$\sim$	$\sim$	$\sim\sim\sim$	$\sim \sim$	~~~	$\sim$ $\sim$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~	$\sim$	$\sim\sim$	Ext Ref
Uffst 17.1 dB											
uD											
111 07											
\$3 F											
Hr											
Cente	r 5.789 I	 GHz								Span	300 kHz
#Res	BW 3 kHz			+	•VBW 10 k	Hz		#Sw	eep	100 s (4	01 pts)

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

### <u>Limit</u>

Frequency Band (MHz)	FCC Limit	IC Limit		
5150 to 5250	<4 dBm / 1 MHz	<10 dBm / 1 MHz		
5250 to 5350	<11 dBm / 1 MHz	<11 dBm / 1 MHz		
5470 to 5725	<11 dBm / 1 MHz	<11 dBm / 1 MHz		
5725 to 5825	<17 dBm / 1 MHz	<17 dBm / 1 MHz		



## 2.8 RATIO OF THE PEAK EXCURSION OF THE MODULATION ENVELOPE

### 2.8.1 Specification Reference

FCC CFR 47 Part 15E, Industry Canada RSS-210 and Industry Canada RSS-GEN, Clause 15.407 (a)(6)

### 2.8.2 Equipment Under Test and Modification State

Venice 6.5 S/N: RAD 103037 on Test Jig S/N: RAD103234 - Modification State 0

### 2.8.3 Date of Test

20 April 2012, 23 April 2012 & 30 April 2012

### 2.8.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

#### 2.8.5 Test Procedure

The EUT was transmitted at maximum power via an attenuator and cable connected to the spectrum analyser. The analyser settings were adjusted to display the resultant trace on screen. The resolution bandwidth and video bandwidth were set to 1MHz and 1MHz respectively. The trace was set to Max Hold and the peak excursion of the modulation envelope was measured. The ratio of this measurement to the maximum conducted output power was measured.

## 2.8.6 Environmental Conditions

Ambient Temperature	23.1 - 24.2°C
Relative Humidity	30.8 - 32.2%



### 2.8.7 Test Results

802.11(a) - Onboard PIFA Antenna

Frequency Band 1

5180 MHz

Ratio (dB)	10.18

<u>5240 MHz</u>

Ratio (dB)	9.97

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.

Frequency Band 2

<u>5260 MHz</u>

Ratio (dB)	10.38

5320 MHz

|--|

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.

Frequency Band 3

<u>5500 MHz</u>

Ratio (dB)	10.46
------------	-------

<u>5600 MHz</u>

Ratio (dB) 10.21

5700 MHz

	Ratio (dB) 8	8.69
--	--------------	------

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.



<u>5745 MHz</u>

Ratio (dB)

8.59

<u>5805 MHz</u>

Ratio (dB) 8.02

The test was performed on the worst case data rate for 802.11(a) modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 54Mbps.

<u>Limit</u>

Not specified.

802.11(n) - 5 GHz, 20 MHz BW - Onboard PIFA Antenna

Frequency Band 1

<u>5180 MHz</u>

Ratio (dB)

<u>5240 MHz</u>

Ratio (dB)	9.25

9.38

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

Frequency Band 2

5260 MHz

Ratio (dB) -9.42

<u>5320 MHz</u>

Ratio (dB)

9.48

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.



<u>5500 MHz</u>

Ratio (dB)

<u>5600 MHz</u>

Ratio (dB)

<u>5700 MHz</u>

|--|

9.4

9.14

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

Frequency Band 4

5745 MHz

Ratio (dB) 8.3

5805 MHz

Ratio (dB) 8.03

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 21.70 Mbps.

Limit

Not specified.



## 802.11(n) - 5 GHz 40 MHz BW - Onboard PIFA Antenna

Frequency Band 1

<u>5190 MHz</u>

Ratio (dB)

5230 MHz

Ratio (dB)	9.74

10.04

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

Frequency Band 2

<u>5270 MHz</u>

|--|

<u>5310 MHz</u>

|--|

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.



<u>5510 MHz</u>

Ratio (dB)

10.39

9.92

<u>5590 MHz</u>

Ratio (dB)

<u>5670 MHz</u>

Ratio (dB)	8.88

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

Frequency Band 4

<u>5755 MHz</u>

Ratio (dB) 8.89

<u>5795 MHz</u>

Ratio (dB) 8.18

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW modulation. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 135Mbps.

Limit

Not specified.



**SECTION 3** 

# **TEST EQUIPMENT USED**

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## 3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.1 – AC Line Conduct	ted Emissions				
LISN (1 Phase)	Chase	MN 2050	336	12	23-Mar-2013
Transient Limiter	Hewlett Packard	11947A	1032	12	22-Jun-2012
Screened Room (5)	Rainford	Rainford	1545	36	3-Feb-2014
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	29-Sep-2012
7m Armoured RF Cable	SSI Cable Corp.	1501-13-13-7m WA(-)	3600	-	TU
Section 2.2 - Maximum Output	Power				
Peak Power Analyser	Hewlett Packard	8990A	107	12	10-Feb-2013
Climatic Chamber	Votsch	VT4002	161	-	O/P Mon
Antenna (Double Ridge Guide, 1GHz-18GHz)	EMCO	3115	234	12	8-Dec-2012
Antenna (Double Ridge Guide, 1GHz-18GHz)	EMCO	3115	235	12	14-Nov-2012
Dual programable power supply	Thurlby	T-1000	418	-	TU
Power Splitter	Weinschel	1506A	606	12	19-Dec-2012
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Screened Room (5)	Rainford	Rainford	1545	36	3-Feb-2014
Signal Generator (1GHz to 40GHz)	Rohde & Schwarz	SMR40	1589	12	11-Nov-2012
Mast Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Power Sensor	Hewlett Packard	84812A	2743	-	TU
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
Signal Generator (10MHz to 40GHz)	Rohde & Schwarz	SMR40	3171	12	22-Aug-2012
Thermocouple Thermometer	Fluke	51	3172	12	23-Jul-2012
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	29-Sep-2012
7m Armoured RF Cable	SSI Cable Corp.	1501-13-13-7m WA(-)	3600	-	ΤU
'3.5mm' - '3.5mm' RF Cable (1m)	Rhophase	3PS-1803-1000- 3PS	3697	12	27-Jan-2013
'3.5mm' - '3.5mm' RF Cable (2m)	Rhophase	3PS-1803-2000- 3PS	3703	-	TU
9m RF Cable (N Type)	Rhophase	NPS-2303-9000- NPS	3791	12	26-Aug-2012
Tilt Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	TU
Mast Controller	maturo Gmbh	NCD	3917	-	TU
DC - 12.4 GHz 10 dB Attenuator	Suhner	6810.17.A	3965	12	24-Jun-2012
P-Series Power Meter	Agilent	N1911A	3981	12	12-Sep-2012
50 MHz-18 GHz Wideband Power Sensor	Agilent	N1921A	3983	12	12-Sep-2012



Instrument	Manufacturer	Type No.	TE NO.	Calibration	Calibration Due
				Period	
Castian 0.0 Undesizable Emi	alan Limita			(monuns)	
Section 2.3 – Undesirable Emis		120 5	101	1	O/D Mon
Antonno (Double Bidge Quide)	Fameli Lipk Migrotok Ltd		191	-	0/P 1000
Antenna (Double Ridge Guide)		AIVI160HA-K-102	230	24	13-Sep-2013
	ENICO	3115	235	12	14-INOV-2012
Dual Power Supply Linit	Thurlby	PI 320	288	_	ТП
Dual programable power	Thurlby	T_1000	/18		TU
supply	manby	1-1000	410		10
Filter (High Pass)	Lorch	SHP7-7000-SR	566	12	20-Feb-2013
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Spectrum Analyser	Hewlett Packard	F4407B	1154	12	28-Jun-2012
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Antenna (Double Ridge	Q-Par Angus Ltd	QSH 180K	1511	24	2-Aug-2012
Guide)	J		-		
Pre-Amplifier	Phase One	PS04-0086	1533	12	20-Sep-2012
Pre-Amplifier	Phase One	PSO4-0087	1534	12	26-Sep-2012
Screened Room (5)	Rainford	Rainford	1545	36	3-Feb-2014
Signal Generator (1GHz to	Rohde & Schwarz	SMR40	1589	12	11-Nov-2012
40GHz)					
Mast Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Test Receiver	Rohde & Schwarz	ESIB40	1934	12	25-Oct-2012
DC Power Supply Unit	Farnell	LT30-2	2116	-	TU
Cable (2m, SMA-SMA)	Reynolds	262-0248-2000	2400	-	TU
High Pass Filter (4GHz)	RLC Electronics	F-100-4000-5-R	2773	12	20-Sep-2012
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
Antenna (Bilog)	Chase	CBL6143	2904	24	12-May-2013
Attenuator (20dB, 20W)	Weinschel	1	3032	12	TU
Signal Generator (10MHz to	Rohde & Schwarz	SMR40	3171	12	22-Aug-2012
EMI Tost Possivor	Pobdo & Schwarz	ESUIAO	3506	12	20 Son 2012
Signal Analysor	Ronde & Schwarz	ES040	3500	12	29-Sep-2012
3 GHz High Pass Filter	K&L Microwaye	11SH10-	3552	12	21-Apr-2012
5 Onz might assi men	Roc Microwave	3000/X18000-O/O	0002	12	14-Api-2012
'2.92mm' - '2.92mm' RF Cable	Rhophase	KPS-1503-2000-	3694	-	TU
(2m)		KPS			
'2.92mm' - '2.92mm' RF Cable	Rhophase	KPS-1503-2000-	3695	-	TU
(2m)		KPS			
'3.5mm' - '3.5mm' RF Cable	Rhophase	3PS-1803-1000-	3697	12	27-Jan-2013
(1m)		3PS			
'3.5mm' - '3.5mm' RF Cable	Rhophase	3PS-1803-2000-	3703	-	TU
(2m)		3PS			
9m RF Cable (N Type)	Rhophase	NPS-2303-9000-	3791	12	26-Aug-2012
	and the Original	NPS TAM 4 0 D	0040		
LIII Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	
			3917	-	1U 24 lun 2012
Attonuator	Summer	0010.17.A	3905		24-Jun-2012
Low Noise Amplifier	Wright Technologies	ADS04 0095	2060	10	9 Jul 2012
Low Noise Amplitter	wright rechnologies	AP304-0085	2909	12	o-Jui-2012



			-	-	
Instrument	Manufacturer	Type No.	TE No.	Calibration	Calibration Due
				Period	
				(months)	
Section 2.4 - Frequency Stabil	ity	17.000			0.011
Climatic Chamber	Votsch	V14002	161	-	O/P Mon
Dual programable power	Ihurlby	I-1000	418	-	10
supply		15004		10	40.5.0040
Power Splitter	Weinschel	1506A	606	12	19-Dec-2012
Power Supply Unit	Farnell	D3021	609	-	O/P Mon
Spectrum Analyser	Hewlett Packard	E4407B	1154	12	28-Jun-2012
Rubidium Standard	Ronde & Schwarz	XRSM	1316	12	13-Sep-2012
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
Thermocouple Thermometer	Fluke	51	3172	12	23-Jul-2012
'3.5mm' - '3.5mm' RF Cable (1m)	Rhophase	3PS-1803-1000- 3PS	3697	12	27-Jan-2013
DC - 12.4 GHz 10 dB	Suhner	6810.17.A	3965	12	24-Jun-2012
Attenuator					
Section 2.5 – 26 dB Bandwidth	)				
Dual programable power	Thurlby	T-1000	418	-	TU
supply					
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Spectrum Analyser	Hewlett Packard	E4407B	1154	12	28-Jun-2012
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
'3.5mm' - '3.5mm' RF Cable	Rhophase	3PS-1803-1000-	3697	12	27-Jan-2013
(1m)		3PS			
DC - 12.4 GHz 10 dB	Suhner	6810.17.A	3965	12	24-Jun-2012
Attenuator					
Section 2.6 – 99% Bandwidth					
Dual programable power	Thurlby	T-1000	418	-	TU
supply					
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Spectrum Analyser	Hewlett Packard	E4407B	1154	12	28-Jun-2012
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
'3.5mm' - '3.5mm' RF Cable (1m)	Rhophase	3PS-1803-1000- 3PS	3697	12	27-Jan-2013
DC - 12 4 GHz 10 dB	Suhner	6810 17 A	3965	12	24-Jun-2012
Attenuator	Camilor	0010.11.1	0000		21 0011 2012
Section 2 7- Peak Power Spectral Density					
Dual programable power	Thurlby	T-1000	418	-	ти
supply	i nano y	1 1000	110		10
Power Splitter	Weinschel	1506A	606	12	19-Dec-2012
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Spectrum Analyser	Hewlett Packard	F4407B	1154	12	28-Jun-2012
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Hvarometer	Rotronic	I-1000	2891	12	3-May-2012
'3.5mm' - '3.5mm' RF Cable	Rhophase	3PS-1803-1000-	3697	12	27-Jan-2013
(1m)		3PS			
DC - 12.4 GHz 10 dB	Suhner	6810.17.A	3965	12	24-Jun-2012
Attenuator					

## Product Service



Instrument	Manufacturer	Type No.	TE No.	Calibration	Calibration Due
				Period	
				(months)	
Section 2.8 - Ratio of the Peak	Excursion of the Modul	ation Envelope			
Climatic Chamber	Votsch	VT4002	161	-	O/P Mon
Dual programable power	Thurlby	T-1000	418	-	TU
supply	-				
Power Splitter	Weinschel	1506A	606	12	19-Dec-2012
Power Supply Unit	Farnell	D302T	609	-	O/P Mon
Rubidium Standard	Rohde & Schwarz	XRSM	1316	12	13-Sep-2012
Hygrometer	Rotronic	I-1000	2891	12	3-May-2012
Thermocouple Thermometer	Fluke	51	3172	12	23-Jul-2012
'3.5mm' - '3.5mm' RF Cable	Rhophase	3PS-1803-1000-	3697	12	27-Jan-2013
(1m)	-	3PS			
DC - 12.4 GHz 10 dB	Suhner	6810.17.A	3965	12	24-Jun-2012
Attenuator					
P-Series Power Meter	Agilent	N1911A	3981	12	12-Sep-2012
50 MHz-18 GHz Wideband	Agilent	N1921A	3983	12	12-Sep-2012
Power Sensor	-				

TU – Traceability Unscheduled O/P MON – Output Monitored with Calibrated Equipment



## 3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	MU
Power Limits	Conducted: ± 0.70 dB Radiated: 30MHz to 1GHz: ± 5.1 dB Radiated: 1GHz to 40GHz: ± 6.3 dB
Undesirable Emission Limits	Conducted: ± 3.454 dB Radiated: ± 3.08 dB
AC Line Conducted Emissions	± 3.2 dB
Frequency Stability	± 90.32 Hz
26 dB Bandwidth	± 5.72 kHz
99 % Emission Bandwidth	± 5.72 kHz
Peak Power Spectral Density	± 3.0 dB
Ratio of the Peak Excursion of the Modulation Envelope	± 0.70 dB



**SECTION 4** 

# ACCREDITATION, DISCLAIMERS AND COPYRIGHT



## 4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).

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