9. Frequency Stability

9.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010

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.

9.2. Test Setup



9.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

9.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

9.5. Uncertainty

± 150 Hz

9.6. Test Result of Frequency Stability

Product	:	Tablet PC MC-C5 / MC-F5
Test Item	:	Frequency Stability
Test Site	:	Temperature Chamber
Test Mode	:	Carrier Wave (for 802.11a/n-20MHz Channel) (Beginning)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (20) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (50) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
	Vnom (120)V	52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (-20) °C		64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

- Product : Tablet PC MC-C5 / MC-F5
- Test Item : Frequency Stability

Test Site : Temperature Chamber

Test Mode : Carrier Wave (for 802.11a/n-20MHz Channel) (AFTER 2mins)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (20) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (50) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
	Vnom (120)V	52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (-20) °C		64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

- Product : Tablet PC MC-C5 / MC-F5
- Test Item : Frequency Stability
- Test Site : Temperature Chamber

Test Mode : Carrier Wave (for 802.11a/n-20MHz Channel) (AFTER 5mins)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (20) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (50) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
	Vnom (120)V	52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (-20) °C		64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

- Product : Tablet PC MC-C5 / MC-F5
- Test Item : Frequency Stability
- Test Site : Temperature Chamber

Test Mode : Carrier Wave (for 802.11a/n-20MHz Channel) (AFTER 10mins)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (20) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
		52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (50) °C	Vnom (120)V	64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.00	5180.0100	-0.01
		44	5220.00	5220.0100	-0.01
		48	5240.00	5240.0090	-0.01
	Vnom (120)V	52	5260.00	5260.0085	-0.01
		60	5300.00	5300.0100	-0.01
		62	5310.00	5310.0100	-0.01
Tnom (-20) °C		64	5320.00	5320.0100	-0.01
		100	5500.00	5500.0100	-0.01
		102	5510.00	5510.0100	-0.01
		118	5590.00	5590.0100	-0.01
		120	5600.00	5600.0100	-0.01
		134	5670.00	5670.0100	-0.01
		140	5700.00	5700.0095	-0.01

10. Dynamic Frequency Selection (DFS) Standard Requirement

10.1. Standard Requirement

FCC Part 15.407:

U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30dBm. A TPC mechanism is not required for systems with an E.I.R.P. of less than 500mW.

10.2. UNII Device Description

The UUT operates in the following band:

- 1. 5250-5350 MHz
- 2. 5470-5725 MHz

The UUT is a Client Device that does not have radar detection capability and ad-hoc function. The highest gain antenna assembly utilized with the EUT has a maximum gain of 1.85dBi in 5GHz frequency band. The 50-ohm Tx/Rx antenna port is connected to the test system to perform conducted tests. TPC is not required since the maximum EIRP is less than 500mW (27dBm).

The UUT utilizes 802.11a/b/g/n IP based architecture. Two nominal channel bandwidths, 20 MHz and 40MHz are implemented.

WLAN traffic is generated by streaming the video file "TestFile.mp2" from the Master device to the Slave device in full motion video mode using the media player with the V2.61 Codec package.

The master device is a 3Com 802.11a/b/g/n Access Point. The 3Com Access Point FCC ID : O9C-WL605.

The UUT is a client device without radar detection therefore the interference threshold level is not required.

10.3. Test Equipment

Dynamic Frequency Selection (DFS) / SR-7

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Signal Analyzer	Agilent	N9010A	MY48030495	Apr, 23, 2010
Vector Signal Generator	Agilent	E4438C	MY49070137	Apr, 02, 2010

Instrument	Manufacturer	Type No.	Serial No
Splitter/Combiner (Qty: 2)	Mini-Circuits	ZFRSC-123-S+	SN331000910
ATT (Qty: 2)	Mini-Circuits	15542	30912
ATT (Qty: 2)	Mini-Circuits	15542	30909
Aironet Access Point	3 Com	WL-605	N/A
PC	Dell	OPTIPLEX 960	W724KA01
RF Cable (Qty: 4)	GORE	C86	N/A

Software	Manufacturer	Function					
Agilent Signal Studio for	A 11 /						
Pulse Building V1.3.13.0	Agilent	Radar Signal Generation Software					
Agilent DFS_TEST	A 11 /						
V1.0.0.73	Agilent	Radar Signal Generation Software					
Media Player Classic v6.4.8.6	Gabest.org	Multimedia Player					

10.4. Test Setup



10.5. Limits

According to §15.407(h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

Applicability of DFS requirements prior to use of a channel

	Operational Mo	Operational Mode										
Requirement	Master	Client (with radar detection)	Client (without radar detection)									
Non-Occupancy Period	Yes	Yes	Yes									
DFS Detection Threshold	Yes	Yes	Not Required									
Channel Availability Check Time	Yes	Not Required	Not Required									
Uniform Spreading	Yes	Not Required	Not Required									
U-NII Detection Bandwidth	Yes	Yes	Not Required									

Applicability of DFS requirements during normal operation

	Operational Mode									
Requirement	Mastar	Client (with radar	Client (without radar							
	Waster	detection)	detection)							
DFS Detection	Vas	Var	Not Dogwing d							
Threshold	res	res	Inot Kequiled							
Channel Closing	Vac	Vac	Vac							
Transmission Time	ies	105	Yes							
Channel Move Time	Yes	Yes	Yes							
U-NII Detection	X.	X	Not us and							
Bandwidth	Yes	res	Not required							

Interference Threshold value, Master or Client incorporating In-Service Monitoring

· · · · · · · · · · · · · · · · · · ·							
Maximum Transmit Power	Value (see note)						
≥200 milliwatt	-64 dBm						
< 200 milliwatt	-62 dBm						
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.							
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test							

transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

DFS Response requirement values

Parameter	Value
Non-Occupancy Period	30 Minutes
Channel Availability Check Time	60 Seconds
Channel Move Time	10 Seconds
	200 milliseconds + approx. 60 milliseconds over
Channel Closing Transmission Time	remaining 10 seconds period
	(See Notes 1 and 2)

Note1: The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows:

For the short pulse radar test signals this instant is the end of the burst.

For the frequency hopping radar test signal, this instant is the end of the last radar burst generated For the long pulse radar test signal this instant is the end of the 12 seconds period defining the radar transmission.

Note 2: The channel closing transmission time is comprised of 200 milliseconds starting at the beginning of the channel move time plus any additional intermittent control signals required facilitating channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

				Minimum							
Radar Type	Pulse Width	DDI (usec)	Dulses	Percentage of	Minimum						
	$(\mu \sec)$	$FKI(\mu Sec)$	ruises	Successful	Trials						
				Detection							
1	1	1428	18	60%	30						
2	1-5	150-230	23-29	60%	30						
3	6-10	200-500	16-18	60%	30						
4	11-20	200-500	12-16	60%	30						
Aggregate (ra	Aggregate (radar types 1-4)80%120										

Short Pulse Radar Test Waveforms

A minimum of 30 unique waveforms is required for each of the short pulse radar type 2 through 4. For short pulse radar type 1, then same waveform is used a minimum of 30 times. If more than 30 waveforms are used for short pulse radar type 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. The aggregate is the average of the percentage of successful detections of short pulse radar type 1-4.

Long Pulse Radar Test Signal

Radar Waveform	Bursts	Pulses Per Burst	Pulse Width $(\mu \sec)$	Chirp Width (MHz)	PRI (µsec)	Minimum Percentage of Successful Detection	Minimum Trials
5	8-20	1-3	50-100	5-20	1000-2000	80%	30

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the long pulse radar test signal. If more than 30 waveforms are used for the long pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

Frequency Hopping Radar Test Signal

Radar	Pulse	PRI	Hopping	Pulses Per	Hopping	Minimum	Minimum
Waveform	Width	$(\mu \sec)$	Sequence	Нор	Rate (kHz)	Percentage	Trials
	(μsec)		Length			of	
			(msec)			Successful	
						Detection	
6	1	333	300	9	.333	70%	30

For the frequency hopping radar type, the same burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence.

10.6. Radar Waveform Calibration

The following equipment setup was used to calibrate the conducted radar waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were replace 500hm terminal from master and client device and no transmissions by either the master or client device. The spectrum analyzer was switched to the zero span (time domain) at the frequency of the radar waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3MHz and 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -62dBm due to the interference threshold level is not required.

Conducted Calibration Setup



10.7. Radar Waveform Calibration Result

🗊 Agilent Spe	ectrum Analyzer - Swept S	A							
Marker 1	^{50 Ω} 24.2614 ms	Α	Trig Dela	vse:INT y: -20.00 ms	Avg Type	ALIGNAUTO Log-Pwr	10:33:44 A TRAC	M Apr 28, 2010	Trace/Det
10 dB/div	Ref Offset -32 dB Ref -32.00 dBm	PNO: Fast 😱 IFGain:Low	Atten: 10	dB			Mkr1 24 -60.3	4.26 ms 26 dBm	Select Trace
-42.0			2					*	Clear Write
-52.0									
-62.0		++ ↓ ¹	+++++	+++++				TRIG LVL	Trace Average
-72.0									Mayliald
-82.0			w	aiting for	trigger				Max Hold
-92.0	n je vije u jezer je stanova je je je na svoje ljužava se stanova se stanova se stanova se stanova se stanova s	alan ya ali ali ali ali ali ali ali ali ali al	a ni la despoi den si la ma	langa melingaki juga me	and the Discussion	in had not see the stand		u a bial na binta a para a sa par pana	Min Hold
-112									View/Blank View
Center 5.	300000000 GHz	VBM	3.0 MHz			Sween 7	5 20 ms (ipan 0 Hz 8001 nts)	More 1 of 3
MSG	// IIIIE					STATUS	5		

Radar Type 1 Calibration Plot (5300MHz)

Radar Type 1 Calibration Plot (5510MHz)

D Ag	ilent Spe	ectrum Anal	yzer - Sw	ept SA																				
Mar	ker 1	^{50 Ω}	38 ms	;		_		_	AC	Trig	J D	SEI ela	NSE:	INT 20.0	00 n	ns	Avg	Туре	ALIGN AU : Log-Pi	NTO Wr	10:36:52 TR		Apr 28, 2010	Peak Search
10 d	B/div	Ref Offs Ref -33	Inpu set -32 c 2.00 d	t: RF dB Bm	PN IFG	i0: I iain	Fast :Lov	v v	2	Att	en:	10	dB								Mkr1 2 -62	DET F	40 ms dBm	 Next Peak
-42.0																							*	Next Right
-52.0 -62.0					•	1										+							TRIG LVL	Next Left
-72.0 -82.0												w	 aiti	ing	j fc	 	trigg	er						Marker Delta
-92.0 -102	Lide <u>nte in</u> d Alternijiotee	h ta tra final da ser a tra final d Tra final da ser a tra final da ser	usian la la su constantina	an a	ų.	1 J.	a ling a ling		L LAL				1 k a ti-				Nalila Jaki	(dinas) Tiripin	nek) szenegyűdet. Az ter telepesete	undul Inter	l-land, sida, a tilta maarin sida a tilta		U INI, see to farst de al	Mkr→CF
-112			-																· · ·	_	500			Mkr→RefLvl
Cen	iter 5. BW 3	5100000 3.0 MHz	100 GH	lz			VE	sw	3.0	D IV	1H:	z						5	Sweep	7:	5.20 ms	Spa (80	an 0 Hz 101 pts)	More 1 of 2
MSG																			ST	ATUS				

		<u></u>				35		Swept SA	rum Analyzer -	Agilent Spe
Peak Search	MApr 27, 2010	02:50:34 P TRAC	LIGNAUTO	Avg Typ	NSE:INT	AC SE	/		50 Ω 9.85600 s	arker 1
Next Pea	9.856 s 29 dBm	Mkr1 -68.2			e Run) dB	≓ Trig: Free #Atten: 10	IO: Fast ↔ ain:Low	put: RF PI IFC 2 dB dBm	In Ref Offset -3 Ref -32.00	0 dB/div
Next Righ										42.0
Next Le				▲ 1						62.0
Marker Delf										72.0
Mkr→C		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	↓ _● ↓₽↓₽−4γ≈ţµq(), ₄ 2, ₄ 0,	74.14.44/,4-1444	rijanist _{in pl} anis					92.0 •••••••••
Mkr→RefL										-112
Mor 1 of	pan 0 Hz 1001 pts)	S 16.00 s (Sweep			3.0 MHz	VBW :	GHz)))))))))))))))))))	Center 5.3 Res BW 3
			STATUS							SG

Plot of WLAN Traffic at 5300MHz-20BW

Plot of WLAN Traffic at 5510MHz-40BW



10.8. Channel Move Time and Channel Closing Transmission Time

10.8.1 Test Procedure

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time and Channel Move Time.

The steps below define the procedure to determine the above mentioned parameters when a radar burst with a level -62dBm is generated on the operating channel of the U-NII device.

A U-NII device operating as a Client device will associate with the Master device at 5300MHz for 20MHz channel bandwidth and 5510MHz channel bandwidth.

During the in-service monitoring detection probability and channel moving tests the system was configured with a streaming video file from the master device (sourced by the PC connected to the master device via an Ethernet interface) to the client device. The streamed file was the "FCC" test file and the client device was using Media Player Classic as required by FCC Part 15 Subpart E.

Observe the transmissions of the EUT at the end of the radar burst on the operating channel for duration greater than 10 seconds. Measure and record the transmissions from the spectrum analyzer during the observation time (Channel Move Time). Compare the channel move time and channel closing transmission time results to the limits defined in the DFS Response requirement values table.

10.8.2 Test Requirement

Parameter	Value
Channel Move Time	10 Seconds
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10
	seconds period

10.8.3 Uncertainty

± 1ms.

10.8.4 Test Result of Channel Move Time and Channel Closing Transmission Time

Product	:	Tablet PC MC-C5 / MC-F5
Test Item	:	Channel Move Time and Channel Closing Transmission Time Test
Radar Type	:	Type 1
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps)

Channel Move Time for Radar Test Type 1 at 5300MHz



Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Channel Closing Transmission Time for Radar Test Type 1 at 5300 MHz



Test Item	Limit	Results
Channel Closing Transmission	200 milliseconds + approx. 60 milliseconds	Pass
	over remaining 10 seconds period	

The results showed that after radar signal injected the channel transmission closing time less than 200 milliseconds and an aggregate of no more than 60 milliseconds.

Product	:	Tablet PC MC-C5 / MC-F5
Test Item	:	Channel Move Time and Channel Closing Transmission Time Test
Radar Type	:	Type 1
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 13Mbps)

Channel Move Time for Radar Test Type 1 at 5510MHz



Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Channel Closing Transmission Time for Radar Test Type 1 at 5510 MHz



Test Item	Limit	Results
Channel Closing Transmission	200 milliseconds + approx. 60 milliseconds	Pass
	over remaining 10 seconds period	

The results showed that after radar signal injected the channel transmission closing time less than 200 milliseconds and an aggregate of no more than 60 milliseconds.

10.9 Non-Occupancy Period

10.9.1 Test Procedur

Measure the EUT for more than 30 minutes following the channel close/move time to verify that the UUT does not resume any transmissions on this channel.

10.9.2 Test Requirement

Parameter	Value
Non-Occupancy Period	30 Minutes

10.9.3 Uncertainty

± 1ms.

10.9.4 Test Result of Non-Occupancy Period

Product	:	Tablet PC MC-C5 / MC-F5
Test Item	:	Non-Occupancy Period
Radar Type	:	Type 1
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps)

30 Minute Non-Occupancy Period at 5300 MHz

	ilent S	Spect	rum	Analy	zer -	Swept	SA																	
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Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

Product	:	Tablet PC MC-C5 / MC-F5
Test Item	:	Non-Occupancy Period
Radar Type	:	Type 1
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 13Mbps)

30 Minute Non-Occupancy Period at 5510 MHz

🗊 Agilent Spo	D Agilent Spectrum Analyzer - Swept SA													
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Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

11 EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs