Elli	ott	El	MC Test Data
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		-
Emissions Standard(s):	FCC	Class:	-
Immunity Standard(s):	-	Environment:	-

For The

Intel Corporation

Model

533AN-MMW(MMC)

Date of Last Test: 4/24/2008

6	Elliott	EM	EMC Test Data		
Client:	Intel Corporation	Job Number:	J70976		
Model	533AN-MMW(MMC)	T-Log Number:	T71133		
Model.	333AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11b Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 19 °C

Rel. Humidity: 43 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11b	1	25. 0	16. 8	Band Edge radiated	FCC Part 15.209 /	49.4 dBuV/m @ 2389.3
Tu	Chain A	2412MHz	23. 0	10. 0	field strength	15.247(c)	MHz (-4.6dB)
1b	802.11b	11	25 .5	16. 8	Band Edge radiated	FCC Part 15.209 /	48.7 dBuV/m @ 2484.7
ID	Chain A	2462MHz	20.0	10. 0	field strength	15.247(c)	MHz (-5.3dB)
2a	802.11b	1	25. 0	17. 4	Band Edge radiated	FCC Part 15.209 /	49.7 dBuV/m @ 2389.2
Zd	Chain B	2412MHz	23. 0	17.4	field strength	15.247(c)	MHz (-4.3dB)
2b	802.11b	11	26. 0	17. 7	Band Edge radiated	FCC Part 15.209 /	51.5 dBuV/m @ 2488.2
20	Chain B	2462MHz	20. 0	17.7	field strength	15.247(c)	MHz (-2.5dB)
3a	802.11b	1	23. 0	16. 5	Band Edge radiated	FCC Part 15.209 /	51.9 dBuV/m @
Sd	Chain C	2412MHz	23. 0	10. 3	field strength	15.247(c)	2386.2 MHz (-2.1dB)
2h	802.11b	11	24 5	16. 9	Band Edge radiated	FCC Part 15.209 /	51.1 dBuV/m @ 2488.2
3b	Chain C	2462MHz	24. 5	10. 9	field strength	15.247(c)	MHz (-2.9dB)

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain A

Date of Test: 3/27/2008 Test Engineer: Peter Sales

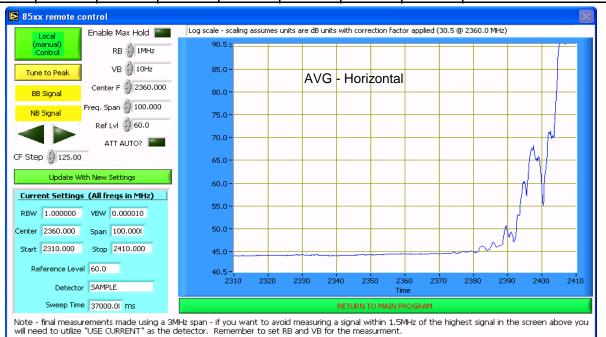
Test Location: Fremont Chamber #5

Run #1a: Low Channel @ 2412 MHz

Power Setting: 25.0 Average power: 16.8 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2410.590	101.4	V	-	-	AVG	202	1.0	RB = 1MHz, VB = 10Hz
2410.590	104.4	V	-	-	PK	202	1.0	RB = VB = 1MHz
2412.650	106.3	Н	-	•	AVG	253	1.0	RB = 1MHz, VB = 10Hz
2412.650	109.3	Н	-	-	PK	253	1.0	RB = VB = 1MHz



Plot of band edge, average measurement ... for reference only

	EII							Jah Mumhari	170074
Client:	Intel Corpora	ation	Job Number:						
Model:	533AN-MM\	N(MMC)						Log Number:	
							Acco	unt Manager:	Dean Eriksen
	Robert Paxr	man							
Standard:	FCC							Class:	N/A
	Signal Field	Strength						_	
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2389.000	59.4	Н	74.0	-14.6	PK	251	1.0	GC: 25.0 ,	
2389.250	49.4	Н	54.0	-4.6	AVG	251	1.0		AP: 16.8
2389.270	54.5	Н	54.0	0.5	AVG	251	1.0	GC: 25.5	
2389.370	58.8	Н	74.0	-15.2	PK	251	1.0	GC: 24.5,	
2389.160	46.4	Н	54.0	-7.6	AVG	251	1.0	GC: 24.5,	
Po	igh Channel ower Setting: tal Signal Fie	25.5	Ave	rage power:	16.8 es measured	(for reference in 1 MHz, ar			in 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
	dBμV/m 102.6	v/h V	Limit 54.0	Margin 48.6	Pk/QP/Avg AVG	degrees 241	meters 1.3	RB = 1MHz	, VB = 10Hz
MHz								RB = 1MHz RB = VB = 1	
MHz 2464.770	102.6	V	54.0	48.6	AVG	241	1.3		100kHz
MHz 2464.770 2464.770	102.6 105.6	V V	54.0 74.0	48.6 31.6	AVG PK	241 241	1.3 1.3	RB = VB = 1	100kHz , VB = 10Hz
MHz 2464.770 2464.770 2462.940 2462.940	102.6 105.6 105.2	V V H	54.0 74.0 54.0 74.0	48.6 31.6 51.2 34.1	AVG PK AVG	241 241 241	1.3 1.3 1.5	RB = VB = 1 RB = 1MHz	100kHz , VB = 10Hz
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency	102.6 105.6 105.2 108.1	V V H H Strength	54.0 74.0 54.0 74.0	48.6 31.6 51.2	AVG PK AVG PK	241 241 241	1.3 1.3 1.5	RB = VB = 1 RB = 1MHz	100kHz , VB = 10Hz
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m	V V H H Strength	54.0 74.0 54.0 74.0 15.209 Limit	48.6 31.6 51.2 34.1 / 15.247 Margin	AVG PK AVG PK Detector Pk/QP/Avg	241 241 241 241 241 Azimuth degrees	1.3 1.3 1.5 1.5 Height meters	RB = VB = 1 RB = 1MHz RB = VB = 1	100kHz , VB = 10Hz 100kHz
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320	102.6 105.6 105.2 108.1 Signal Field Level dB _µ V/m 59.4	V V H H Strength Pol V/h V	54.0 74.0 54.0 74.0 15.209 Limit 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6	AVG PK AVG PK Detector Pk/QP/Avg PK	241 241 241 241 241 Azimuth degrees 241	1.3 1.3 1.5 1.5 1.5 Height meters 1.3	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5	100kHz , VB = 10Hz 100kHz AP : 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8	V V H H Strength Pol V/h V	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2	AVG PK AVG PK Detector Pk/QP/Avg PK AVG	241 241 241 241 241 Azimuth degrees 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.3	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 ,	100kHz , VB = 10Hz 100kHz AP : 16.8 AP : 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2484.690	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7	V V H H Strength Pol v/h V V H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG	241 241 241 241 Azimuth degrees 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.3	RB = VB = 1 RB = 1MHz RB = VB = 1 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 ,	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2484.690 2485.260	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6	V V H H Strength Pol V/h V V H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK	241 241 241 241 Azimuth degrees 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.5 1.5	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 ,	100kHz , VB = 10Hz 100kHz AP : 16.8 AP : 16.8
MHz 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120	102.6 105.6 105.2 108.1 Signal Field Level dBµV/m 59.4 46.8 48.7 59.6 62.4	V V H H Strength Pol V/h V V H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG AVG PK PK	241 241 241 241 241 Azimuth degrees 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.3 1.5 1.5	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 25.5 ,	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120 2484.740	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6 62.4 54.9	V V H H Strength Pol V/h V H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0 54.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6 0.9	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK AVG AVG AVG PK AVG	241 241 241 241 Azimuth degrees 241 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.3 1.5 1.5	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 26 GC: 26	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120 2484.740 2485.410	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6 62.4 54.9	V V H H Strength Pol V/h V H H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0 54.0 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6 0.9 -16.3	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK AVG PK AVG PK AVG	241 241 241 241 241 Azimuth degrees 241 241 241 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.5 1.5 1.5 1.5 1.5 1.0	RB = VB = RB = 1MHz RB = VB = Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 26 , GC: 26 ,	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120 2484.740	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6 62.4 54.9	V V H H Strength Pol V/h V H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0 54.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6 0.9	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK AVG AVG AVG PK AVG	241 241 241 241 Azimuth degrees 241 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.3 1.5 1.5	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 26 GC: 26	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120 2485.410 2484.520	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6 62.4 54.9 57.7 45.5	V V H H Strength Pol v/h V H H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0 74.0 54.0 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6 0.9 -16.3 -8.5	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK AVG PK AVG AVG PK AVG AVG	241 241 241 241 241 Azimuth degrees 241 241 241 241 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.5 1.5 1.5 1.5 1.5 1.0 1.0	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 26 , GC: 26 , GC: 25.0 , GC: 25.0 ,	AP: 16.8 AP: 16.8 AP: 16.8
MHz 2464.770 2464.770 2462.940 2462.940 Band Edge Frequency MHz 2484.320 2484.680 2485.260 2485.120 2484.740 2485.410	102.6 105.6 105.2 108.1 Signal Field Level dBμV/m 59.4 46.8 48.7 59.6 62.4 54.9 57.7 45.5	V V H H Strength Pol v/h V H H H H H	54.0 74.0 54.0 74.0 15.209 Limit 74.0 54.0 74.0 74.0 74.0 54.0 74.0	48.6 31.6 51.2 34.1 / 15.247 Margin -14.6 -7.2 -5.3 -14.4 -11.6 0.9 -16.3 -8.5	AVG PK AVG PK Detector Pk/QP/Avg PK AVG AVG PK AVG PK AVG PK AVG	241 241 241 241 241 Azimuth degrees 241 241 241 241 241 241 241 241	1.3 1.5 1.5 1.5 Height meters 1.3 1.5 1.5 1.5 1.5 1.5 1.0 1.0	RB = VB = 7 RB = 1MHz RB = VB = 7 Comments GC: 25.5 , GC: 25.5 , GC: 25.5 , GC: 26 , GC: 26 , GC: 25.0 , GC: 25.0 ,	AP: 16.8 AP: 16.8 AP: 16.8

Elliott Client: Intel Corporation

EMC Test Data

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Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain B

Date of Test: 3/28/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 5

Run #2a: Low Channel @ 2412 MHz

Power Setting: 24.5 Average power: 16.7 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2410.900	107.6	Н	-	-	AVG	157	1.0	RB = 1MHz, VB = 10Hz
2410.900	110.7	Н	-	-	PK	157	1.0	RB = VB = 1MHz
2412.660	101.9	V	-	-	AVG	78	1.0	RB = 1MHz, VB = 10Hz
2412.660	104.8	V	-	-	PK	78	1.0	RB = VB = 1MHz
Band Edge	Signal Field	Strength						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
Frequency MHz	Level dB _µ V/m	Pol v/h	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg		Height meters	Comments
								Comments GC: 25 , AP : 17.4
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
MHz 2389.340	dBμV/m 60.5	v/h H	Limit 74.0	Margin -13.5	Pk/QP/Avg PK	degrees 156	meters 1.0	GC: 25 , AP : 17.4
MHz 2389.340 2389.160	dBμV/m 60.5 49.7	v/h H H	Limit 74.0 54.0	Margin -13.5 -4.3	Pk/QP/Avg PK AVG	degrees 156 156	meters 1.0 1.0	GC: 25 , AP : 17.4 GC: 25 , AP : 17.4

AVG

158

1.0

GC: 25.5, AP: 18.1

Run #2b: High Channel @ 2462 MHz

55.1

Н

2389.190

Power Setting: 25 Average power: 16.5 (for reference purposes)

54.0

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz
Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments

MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2463.010	101.1	V	-	•	AVG	85	1.0	RB = 1MHz, VB = 10Hz
2463.010	104.0	V	-	•	PK	85	1.0	RB = VB = 1MHz
2462.950	107.2	Н	-	•	AVG	103	1.0	RB = 1MHz, VB = 10Hz
2462.950	110.0	Н	-	•	PK	103	1.0	RB = VB = 1MHz
Band Edge	Signal Field	Strength						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2488.090	61.9	Н	74.0	-12.1	PK	113	1.0	GC: 26, AP: 17.7
2488.150	51.5	Н	54.0	-2.5	AVG	115	1.0	GC: 26, AP: 17.7
2487.820	45.4	V	54.0	-8.6	AVG	88	1.0	GC: 25, AP: 16.5
2488.060	47.8	Н	54.0	-6.2	AVG	115	1.0	GC: 25, AP: 16.5

Note 2: Results for information only - used to determine highest power level at which devices complies.

Elliott

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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain C

Date of Test: 3/28/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 5

Run #3a: Low Channel @ 2412 MHz

Power Setting: 23 Average power: 16.5 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2412.880	99.1	V	-	•	AVG	178	1.0	RB = 1MHz, VB = 10Hz
2412.880	102.1	V	-	-	PK	178	1.0	RB = VB = 1MHz
2411.060	110.5	Н	-	-	AVG	120	1.0	RB = 1MHz, VB = 10Hz
2411.060	113.3	Н	-	-	PK	120	1.0	RB = VB = 1MHz
Band Edge	Signal Field	Strength						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
N 41 1		,			D1 10 D14			

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2386.020	62.6	Н	74.0	-11.4	PK	119	1.0	GC: 23, AP: 16.5
2386.160	51.9	Н	54.0	-2.1	AVG	118	1.0	GC: 23, AP: 16.5

Run #3b: High Channel @ 2462 MHz

Power Setting: 24 Average power: 16.5 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2460.640	99.1	V	-	-	AVG	297	1.0	RB = 1MHz, VB = 10Hz
2460.640	102.1	V	-	-	PK	297	1.0	RB = VB = 1MHz
2460.650	108.5	Н	-	-	AVG	119	1.0	RB = 1MHz, VB = 10Hz
2460.650	111.5	Н	-	-	PK	119	1.0	RB = VB = 1MHz
Dand Edge	Cianal Field	l Ctromoth						

Band Edge Signal Field Strength

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2488.890	60.9	Н	74.0	-13.1	PK	123	1.0	GC: 24.5, AP: 16.9
2488.240	51.1	Н	54.0	-2.9	AVG	121	1.0	GC: 24.5, AP: 16.9
2488.090	59.2	Н	74.0	-14.8	PK	135	1.0	GC: 24, AP: 16.5
2487.890	49.4	Н	54.0	-4.6	AVG	123	1.0	GC: 24, AP: 16.5

Note 2: Results for information only - used to determine highest power level at which devices complies.

	Elliott	EMC Test Data			
Client:	Intel Corporation	Job Number:	J70976		
Model	533AN-MMW(MMC)	T-Log Number:	T71133		
Model.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11b Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

Rel. Humidity: 34 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

6	Elliott	EMO	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wouei.	333AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11b				Radiated Emissions,	FCC Part 15.209 /	48.8dBµV/m @
Та	Chain A	1 (2412)	24. 5	16. 7	1 - 26 GHz	15.247(c)	9647.9MHz (-5.2dB)
1b	802.11b				Radiated Emissions,	FCC Part 15.209 /	49.9dBµV/m @
10	Chain A	6 (2437)	24. 5	16. 6	1 - 26 GHz	15.247(c)	4874.0MHz (-4.1dB)
1c	802.11b	11 (2462)			Radiated Emissions,	FCC Part 15.209 /	51.6dBµV/m @
IC .	Chain A	11 (2402)	25. 0	16. 5	1 - 26 GHz	15.247(c)	9847.9MHz (-2.4dB)
22	802.11b				Radiated Emissions,	FCC Part 15.209 /	57.8dBµV/m @
2a	Chain B	1 (2412)	24. 0	16. 5	1 - 26 GHz	15.247(c)	9647.9MHz (-16.2dB)
2b	802.11b				Radiated Emissions,	FCC Part 15.209 /	46.9dBµV/m @
20	Chain B	6 (2437)	24. 5	16. 5	1 - 26 GHz	15.247(c)	4874.0MHz (-7.1dB)
2c	802.11b	11 (2462)			Radiated Emissions,	FCC Part 15.209 /	47.8dBµV/m @
20	Chain B	11 (2402)	25. 0	16. 7	1 - 26 GHz	15.247(c)	4924.0MHz (-6.2dB)
3a	802.11b				Radiated Emissions,	FCC Part 15.209 /	48.6dBµV/m @
Ja	Chain C	1 (2412)	23. 0	16. 7	1 - 26 GHz	15.247(c)	9648.1MHz (-5.4dB)
3b	802.11b				Radiated Emissions,	FCC Part 15.209 /	48.3dBµV/m @
30	Chain C	6 (2437)	23. 0	16. 5	1 - 26 GHz	15.247(c)	9748.0MHz (-5.7dB)
3c	802.11b	11 (2462)			Radiated Emissions,	FCC Part 15.209 /	50.9dBµV/m @
30	Chain C	11 (2402)	23. 5	16. 5	1 - 26 GHz	15.247(c)	9848.0MHz (-3.1dB)

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wouer.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11b Chain A

Run # 1a: Low Channel @ 2412 MHz

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2412.520	107.5	Н	-	-	Pk	206	1.0	RB = VB = 100kHz
2411.490	101.6	V	-	-	Pk	271	1.0	RB = VB = 100kHz

				_
Fι	undamental emission level @ 3m in 100kHz RBW:	102.2	dBμV/m	
	Limit for emissions outside of restricted bands:	72.2	dBμV/m	Li

72.2 dB_µV/m Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1748.120	34.9	V	54.0	-19.1	AVG	297	1.5	Note 2
3994.070	34.6	V	54.0	-19.4	AVG	284	1.5	
6431.960	46.3	V	54.0	-7.7	AVG	165	1.5	Note 2
9647.890	48.8	٧	54.0	-5.2	AVG	205	1.5	Note 2
1748.120	55.3	V	74.0	-18.7	PK	297	1.5	Note 2
3994.070	54.7	V	74.0	-19.3	PK	284	1.5	
6431.960	50.1	V	74.0	-23.9	PK	165	1.5	Note 2
9647.890	53.5	V	54.0	-20.5	PK	205	1.5	Note 2

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
NOIC 1.	level of the fundamental and measured in 100kHz.
	Tarent and the second

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Chain A 802.11b Channel @ 2412 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0 20.0-1000 2000 3000 4000 5000 7000 8000 9000 10000 6000 Frequency (MHz) Chain A 802.11b Channel @ 2412 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0 10000 11000 12000 13000 14000 15000 16000 17000 18000 Frequency (MHz)

4	EII	<u>iot</u>	<u>:t_</u>					EMO	C Test Data
	Intel Corporat							Job Number:	J70976
Madal		- (A AN A O)					T-Log Number: T711		T71133
Modei:	533AN-MMW	/(MMC)					Accol	unt Manager:	Dean Eriksen
Contact:	Robert Paxma	ian						-	
Standard:	FCC							Class:	N/A
	Center Chani tal Signal Fiel Level				es measured Detector	in 1 MHz, an Azimuth	nd peak valu Height	e measured i	n 100kHz
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2437.860	102.2	V	-	-	Pk	271	1.0	RB = VB = 1	100kHz
2437.770	103.7	Н	-	-	Pk	271	1.0	RB = VB = 1	100kHz
			tside of restri	icieu barius.	12.2	dBμV/m	Limit is -300	apc (Olvili bov	ver measurement)
							'		ver measurement)
Frequency	Level	Pol	15.209 /	/ 15.247	Detector	Azimuth	Height	Comments	ver measurement)
Frequency MHz	Level dBµV/m	Pol v/h	15.209 / Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	ver measurement)
Frequency MHz 1497.660	Level dBµV/m 34.9	Pol v/h H	15.209 / Limit 54.0	/ 15.247 Margin -17.1	Detector Pk/QP/Avg AVG	Azimuth degrees 248	Height meters 1.0		ver measurement)
Frequency MHz 1497.660 3995.750	Level dBµV/m	Pol v/h	15.209 / Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610	Level dBμV/m 34.9 35.8	Pol v/h H H V	15.209 / Limit 54.0 54.0	/ 15.247	Detector Pk/QP/Avg AVG AVG	Azimuth degrees 248 255	Height meters 1.0 1.0	Comments	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990	Level dBµV/m 34.9 35.8 49.9 47.0 55.1	Pol v/h H H	15.209 / Limit 54.0 54.0 54.0	/ 15.247 Margin -17.1 -18.2 -4.1	Detector Pk/QP/Avg AVG AVG AVG AVG AVG AVG	Azimuth degrees 248 255 167	Height meters 1.0 1.0 1.0	Comments Note 2	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610 9747.990 1497.660	Level dBµV/m 34.9 35.8 49.9 47.0 55.1 52.1	Pol v/h H H V V	15.209 / Limit 54.0 54.0 54.0 54.0 72.2 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9	Detector Pk/QP/Avg AVG AVG AVG AVG AVG AVG AVG AVG AVG	Azimuth degrees 248 255 167 180 166 248	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Comments Note 2 Note 2	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610 9747.990 1497.660 3995.750	Level dBµV/m 34.9 35.8 49.9 47.0 55.1 52.1 58.7	Pol v/h H H V V V H H H	15.209 / Limit 54.0 54.0 54.0 54.0 72.2 74.0 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9 -15.3	Detector Pk/QP/Avg AVG	Azimuth degrees 248 255 167 180 166 248 255	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.5 1.0	Note 2 Note 2 Note 2 Note 2 Note 2 Note 2	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610 9747.990 1497.660 3995.750 4873.990	Level dB _µ V/m 34.9 35.8 49.9 47.0 55.1 52.1 58.7 52.3	Pol v/h H H V V V H H H V	15.209 / Limit 54.0 54.0 54.0 54.0 72.2 74.0 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9 -15.3 -21.7	Detector Pk/QP/Avg AVG AVG AVG AVG AVG AVG PK PK	Azimuth degrees 248 255 167 180 166 248 255 167	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.5 1.0 1.0	Note 2	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610 9747.990 1497.660 3995.750 4873.990 6498.610	Level dBµV/m 34.9 35.8 49.9 47.0 55.1 52.1 58.7 52.3 50.4	Pol v/h H H V V V H H H V V V V V V V V V V V	15.209 / Limit 54.0 54.0 54.0 54.0 72.2 74.0 74.0 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9 -15.3 -21.7 -23.6	Detector Pk/QP/Avg AVG AVG AVG AVG AVG PK PK PK PK	Azimuth degrees 248 255 167 180 166 248 255 167 180	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.5 1.0 1.0 1.0 1.0	Note 2	ver measurement)
Frequency MHz 1497.660 3995.750 4873.990 6498.610 9747.990 1497.660 3995.750 4873.990	Level dB _µ V/m 34.9 35.8 49.9 47.0 55.1 52.1 58.7 52.3	Pol v/h H H V V V H H H V	15.209 / Limit 54.0 54.0 54.0 54.0 72.2 74.0 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9 -15.3 -21.7	Detector Pk/QP/Avg AVG AVG AVG AVG AVG AVG PK PK	Azimuth degrees 248 255 167 180 166 248 255 167	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.5 1.0 1.0	Note 2	ver measurement)
1497.660 3995.750 4873.990 6498.610 9747.990 1497.660 3995.750 4873.990 6498.610 9747.990	Level dBµV/m 34.9 35.8 49.9 47.0 55.1 52.1 58.7 52.3 50.4 57.2	Pol v/h H H V V V H H H V V V V V V V V V V V	15.209 / Limit 54.0 54.0 54.0 74.0 74.0 74.0 74.0 74.0 74.0	/ 15.247 Margin -17.1 -18.2 -4.1 -7.0 -18.6 -21.9 -15.3 -21.7 -23.6 -16.8	Detector Pk/QP/Avg AVG AVG AVG AVG AVG AVG PK	Azimuth degrees 248 255 167 180 166 248 255 167 180 166	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.5 1.0 1.0 1.0 1.5	Note 2	s set 30dB below the

EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Chain A 802.11b Channel @ 2437 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0 20.0 1000 2000 4000 6000 7000 8000 9000 10000 3000 5000 Frequency (MHz) 802,11b Channel @ 2437 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0 20.0 - 1, , 10000 11000 12000 13000 14000 15000 16000 17000 18000

Frequency (MHz)

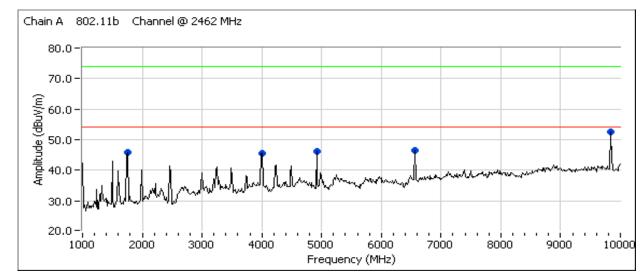
Elliott EMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run # 1C: High Channel @ 2462 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Detector Azimuth Height Frequency Level Pol Comments Pk/QP/Ava MHz dBuV/m v/h Limit Margin degrees meters 2460.990 102.3 ٧ 1.0 RB = VB = 100kHzPk 208 RB = VB = 100kHzPk 2463.030 105.3 Н 205 1.0 Fundamental emission level @ 3m in 100kHz RBW: 102.2 dBμV/m Limit for emissions outside of restricted bands: 72.2 dB_uV/m Limit is -30dBc (UNII power measurement) Spurious Emissions 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments Pk/QP/Avg MHz v/h Limit Margin degrees meters dBuV/m 1747.420 34.5 ٧ 54.0 -19.5 **AVG** 298 1.0 Note 2 3996.790 33.8 ٧ 54.0 -20.2 AVG 286 1.5 4923.970 AVG 46.3 Н 54.0 -7.7 243 1.5 6565.290 47.6 ٧ 54.0 -6.4 AVG 153 1.0 Note 2 9847.910 51.6 ٧ 54.0 -2.4 **AVG** 190 1.0 Note 2 PK 298 1747.420 54.7 ٧ 74.0 -19.31.0 Note 2 3996.790 54.0 ٧ 74.0 -20.0 PK 286 1.5 4923.970 50.0 Н 74.0 -24.0 PΚ 243 1.5 6565.290 51.3 ٧ 74.0 -22.7PΚ 153 1.0 Note 2 9847.910 55.7 V 74.0 -18.3 PK 190 1.0 Note 2 For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the Note 1: level of the fundamental and measured in 100kHz.

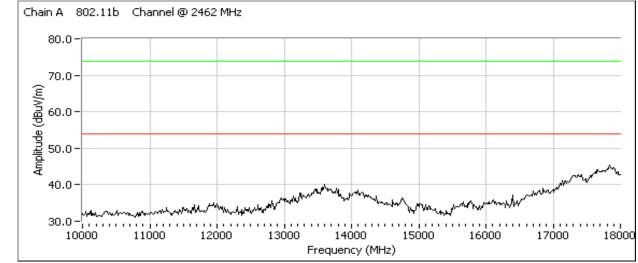
Note 2:

Signal is not in a restricted band but the more stringent restricted band limit was used.

EMC Test Data

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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A







Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain B

Run # 2a : Low Channel @ 2412 MHz

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2410.500	99.2	V	-	-	Pk	80	1.0	RB = VB = 100kHz
2411.480	106.2	Н	-	-	Pk	112	1.0	RB = VB = 100kHz

Fundamental emission level @ 3m in 100kl	Hz RBW:	102.2	dBµV/m	٦
Limit for emissions outside of restricte	ed bands:	72.2	dBuV/m	٦L

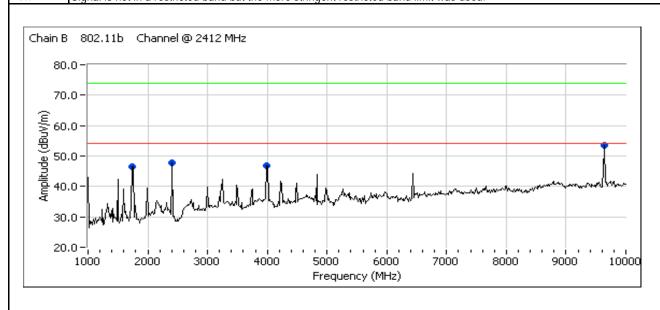
Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
1748.190	34.8	V	54.0	-19.2	AVG	297	1.0	Note 2			
3986.500	34.7	V	54.0	-19.3	AVG	284	1.5				
9647.920	55.3	V	72.2	-16.9	AVG	178	2.0	Note 2			
1748.190	54.4	V	74.0	-19.6	PK	297	1.0	Note 2			
3986.500	55.4	V	74.0	-18.6	PK	284	1.5				
9647.920	57.8	V	74.0	-16.2	PK	178	2.0	Note 2			

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.



EMC Test Data

$\overline{}$			
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wouei.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 2b : Center Channel @ 2437 MHz

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2436.000	99.8	V	-	-	Pk	212	1.0	RB = VB = 100kHz
2435.500	108.1	Н	-	-	Pk	110	1.0	RB = VB = 100kHz

Fundamental emission level @ 3m in 100kHz RBW:	99.8	dBμV/m
Limit for emissions outside of restricted bands:	69.8	dBμV/m

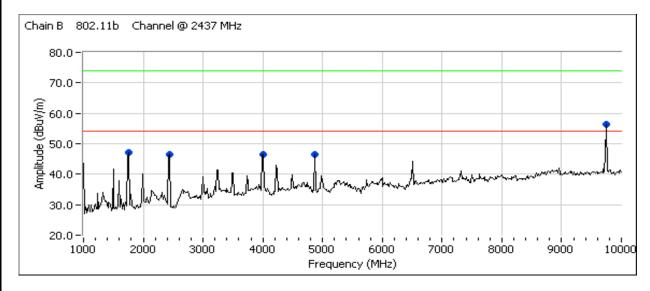
Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1747.270	35.1	V	54.0	-18.9	AVG	297	1.5	Note 2
3993.680	35.2	V	54.0	-18.8	AVG	283	1.5	
4873.950	46.9	٧	54.0	-7.1	AVG	144	2.0	
9747.880	55.3	V	69.8	-14.5	AVG	178	1.5	Note 2
1747.270	55.4	V	74.0	-18.6	PK	297	1.5	Note 2
3993.680	56.2	V	74.0	-17.8	PK	283	1.5	
4873.950	50.0	V	74.0	-24.0	PK	144	2.0	
9747.880	57.9	V	74.0	-16.1	PK	178	1.5	Note 2

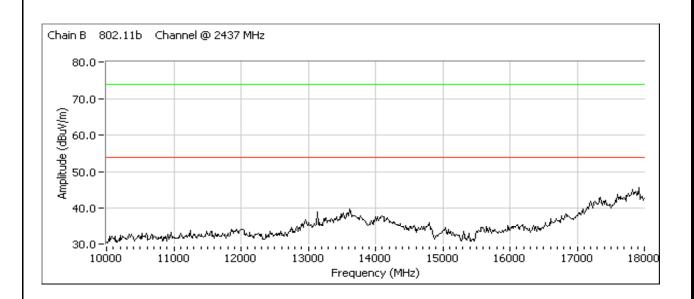
For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the Note 1: level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used





Client:	Intel Corporation	Job Number:	J70976
Madali	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	333AN-ININIVV(ININIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A



Elliott FMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run # 2c: High Channel @ 2462 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments $dB\mu V/m$ Limit Pk/QP/Avq degrees MHz v/h Margin meters 2461.020 101.4 V Pk 171 1.0 RB = VB = 100kHz2463.500 112 108.0 Н Pk 1.0 RB = VB = 100kHzFundamental emission level @ 3m in 100kHz RBW: 101.4 dB_uV/m Limit for emissions outside of restricted bands: 71.4 dB_µV/m Limit is -30dBc (UNII power measurement) Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Pk/QP/Avq MHz $dB\mu V/m$ v/h Limit Margin degrees meters 1747.710 31.8 ٧ 54.0 -22.2**AVG** 325 1.0 Note 2 ٧ 3996.920 35.0 54.0 -19.0 AVG 285 1.5 ٧ 4924.020 47.8 54.0 -6.2 AVG 144 2.0 54.0 124 6565.290 45.4 ٧ -8.6 **AVG** 1.0 Note 2 9847.880 56.9 ٧ 71.4 -14.5 **AVG** 160 2.0 Note 2 1747.710 48.9 ٧ 74.0 -25.1 PΚ 325 1.0 Note 2 ٧ PK 3996.920 55.8 74.0 -18.2285 1.5 4924.020 50.6 ٧ 74.0 -23.4 PΚ 144 2.0 6565.290 49.9 ٧ 74.0 -24.1 PΚ 124 1.0 Note 2 PK 9847.880 59.1 ٧ 74.0 -14.9160 2.0 Note 2 For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the Note 1: level of the fundamental and measured in 100kHz Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used Chain B 802,11b Channel @ 2462 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0 20.0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Frequency (MHz)



Client:	Intel Corporation	Job Number:	J70976
Madali	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain C

Run # 3a: Low Channel @ 2412 MHz

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2413.030	99.2	V	-	-	Pk	52	1.0	RB = VB = 100kHz			
2412.530	107.7	Н	-	-	Pk	110	1.0	RB = VB = 100kHz			

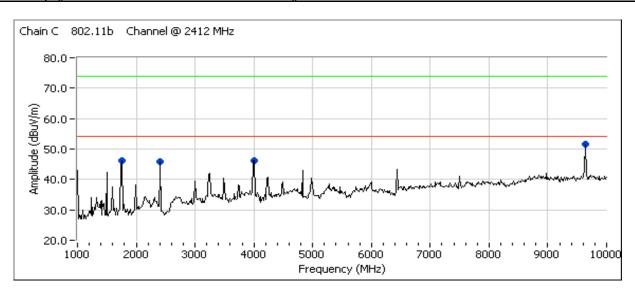
Fundamental emission level @ 3m in 100kHz RBW:	102.2 dBμV/m]
Limit for emissions outside of restricted bands:	72.2 dBμV/m	Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1745.340	32.8	V	54.0	-21.2	AVG	289	1.0	Note 2
3997.250	35.0	V	54.0	-19.0	AVG	288	1.5	
9648.060	48.6	V	54.0	-5.4	AVG	160	2.0	Note 2
1745.340	51.8	V	74.0	-22.2	PK	289	1.0	Note 2
3997.250	56.3	V	74.0	-17.7	PK	288	1.5	
9648.060	53.2	V	74.0	-20.8	PK	160	2.0	Note 2

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used

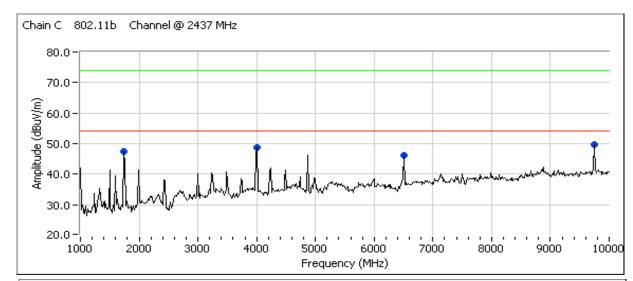


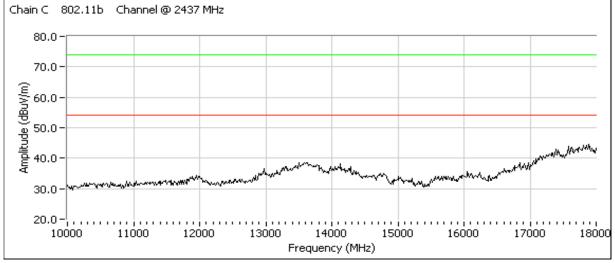
	Intel Corpora						Job Number: J70976		
Model	533AN-MMV	N/NANAC)					T-	Log Number:	T71133
Model.	DODAIN-IVIIVIV	V(IVIIVIC)					Acco	unt Manager:	Dean Eriksen
Contact:	Robert Paxn	nan							
Standard:	FCC					Class:	N/A		
Run # 3b :	Center Cha	nnel @ 243	7 MHz				1		
Fundament	tal Signal Fie	eld Strength	: Peak and a	verage valu	es measured	in 1 MHz, ar	nd peak valu	ie measured i	n 100kHz
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2436.520	99.4	V	-	-	Pk	89	1.0	RB = VB = 1	
2436.470	107.0	Н	-	-	Pk	103	1.0	RB = VB = 1	100kHz
	un damantal a	mission laur	.l @ 2m in 10	MULLA DDW.		ID VII	1		
F	undamental e		tside of restr			dBμV/m dBμV/m	limitic 20	dBc (HMH no	ver measurement)
Spurious E		211113310113 00	iside di Testi	icieu parius.	-30	авµу/т	LIIIIII 15 -300	ubc (Olvii pov	wei measurement)
Frequency	Level	Pol	15.209	15 247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
1747.830	35.0	V	54.0	-19.0	AVG	296	1.5	Note 2	
3996.740	34.7	V	54.0	-19.3	AVG	284	1.5		
6498.640	45.9	V	54.0	-8.1	AVG	185	1.5	Note 2	
9747.980	48.3	V	54.0	-5.7	AVG	188	1.5	Note 2	
1747.830	54.9	V	74.0	-19.1	PK	296	1.5	Note 2	
3996.740	55.8	V	74.0	-18.2	PK	284	1.5		
6498.640	50.2	V	74.0	-23.8	PK	185	1.5	Note 2	
9747.980	53.0	V	74.0	-21.0	PK	188	1.5	Note 2	
Noto 1.	For amissis	o la rootrioto	d banda tha	limit of 1 F O	00 waa waad	For all other	r amicalana	the limit was	a a at 20dD b alaw th
Note 1: Note 2:					ngent restricte			, the limit was	s set 30dB below th
vote z.	Signal is not	III a restricte	eu pariu put t	ne more sun	igent restricte	eu Danu IIIIIII	was useu.		

Elliott Client: Intel Cornoration

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wodei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard	FCC	Class.	N/A





Elliott FMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run # 3c: High Channel @ 2462 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments $dB\mu V/m$ Limit Pk/QP/Avq degrees MHz v/h Margin meters 2460.500 99.8 V Pk 61 1.0 RB = VB = 100kHzRB = VB = 100kHz2461.000 106.6 Н Pk 103 1.0 Fundamental emission level @ 3m in 100kHz RBW: 102.2 dB_uV/m Limit for emissions outside of restricted bands: 72.2 dB_µV/m Limit is -30dBc (UNII power measurement) Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Pk/QP/Avg MHz $dB\mu V/m$ v/h Limit Margin degrees meters 1747.280 31.9 ٧ 54.0 -22.1 **AVG** 324 1.0 Note 2 ٧ 3996.610 34.2 54.0 -19.8 AVG 290 1.5 ٧ 4923.880 45.5 54.0 -8.5 AVG 170 2.0 167 9847.960 50.9 ٧ 54.0 -3.1 **AVG** 1.5 Note 2 1747.280 51.2 ٧ 74.0 -22.8 PK 324 1.0 Note 2 3996.610 54.2 ٧ 74.0 -19.8 PΚ 290 1.5 ٧ PK 2.0 4923.880 48.9 74.0 -25.1 170 9847.960 54.6 V 74.0 -19.4 PΚ 167 1.5 Note 2 For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the Note 1: Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used. Chain C 802,11b Channel @ 2462 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 40.0

2000

3000

4000

20.0-

Frequency (MHz)

6000

7000

8000

9000

5000

10000

	Elliott	EMC Test Data				
Client:	Intel Corporation	Job Number:	J70976			
Model	533AN-MMW(MMC)	T-Log Number:	T71133			
iviouei.	533AN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen			
Contact:	Robert Paxman					
Standard:	FCC	Class:	N/A			

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11g Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C Rel. Humidity: 55 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11g	1	24.5	12.9	Band Edge radiated	FCC Part 15.209 /	72.3dBµV/m @
Та	Chain A	2412MHz	24.0	12.9	field strength	15.247(c)	2389.3MHz (-1.7dB)
1b	802.11g	11	28.0	15.8	Band Edge radiated	FCC Part 15.209 /	52.1dBµV/m @
ID	Chain A	2462MHz	20.0	10.0	field strength	15.247(c)	2510.8MHz (-1.9dB)
20	802.11g	1	28.5	16.4	Band Edge radiated	FCC Part 15.209 /	52.8dBµV/m @
2a	Chain B	2412MHz	26.5	10.4	field strength	15.247(c)	2361.4MHz (-1.2dB)
2b	802.11g	11	26.0	14.5	Band Edge radiated	FCC Part 15.209 /	72.9 dBuV/m @ 2483.6
20	Chain B	2462MHz	20.0	14.5	field strength	15.247(c)	MHz (-1.1dB)
3a	802.11g	1	22.5	12.3	Band Edge radiated	FCC Part 15.209 /	72.2 dBuV/m @
38	Chain C	2412MHz	22.5	12.3	field strength	15.247(c)	2389.9MHz (-1.8dB)
2h	802.11g	11	24.5	13.5	Band Edge radiated	FCC Part 15.209 /	72.6 dBuV/m @ 2483.8
Kn -	Chain C	2462MHz	24.5	13.5	field strength	15.247(c)	MHz (-1.4dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain A

Date of Test: 3/25/2008

Test Engineer: Suhaila Khushzad

Test Location: FT Chamber # 4

Run #1a: Low Channel @ 2412 MHz

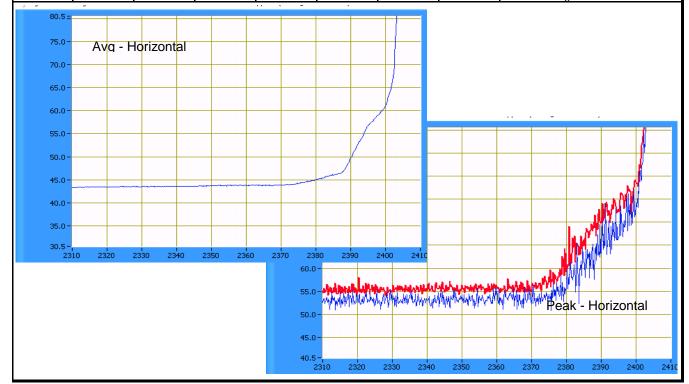
Power Setting: 24.5 Average power: 12.9 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

	3							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2409.330	100.6	Н	-	-	AVG	250	1.1	GC: 24.5, Avg Power: 12.9
2409.330	110.0	Н	-	-	PK	250	1.1	GC: 24.5, Avg Power: 12.9
2414.830	94.4	V	-	-	AVG	261	1.0	GC: 24.5, Avg Power: 12.9
2414.830	102.8	V	_	_	PK	261	1.0	GC: 24.5. Avg Power: 12.9

Band Edge Signal Field Strength

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.250	72.3	Н	74.0	-1.7	Pk	250	1.1	GC: 24.5, Avg Power: 12.9
2389.960	49.9	Н	54.0	-4.1	Avg	250	1.1	GC: 24.5, Avg Power: 12.9
2389.890	45.9	V	54.0	-8.1	Avg	261	1.0	GC: 24.5, Avg Power: 12.9
2389.880	65.4	V	74.0	-8.6	Pk	261	1.0	GC: 24.5, Avg Power: 12.9



6	Ell	lio	tt					EM	C Test Data	
	Intel Corporation Job Number: J70976									
Madal		A // \			T-	Log Number:	T71133			
Modei:	533AN-MMV	N(IVIIVIC)		Accou	unt Manager:	Dean Eriksen				
Contact:	Robert Paxn	nan								
Standard:								Class:	N/A	
Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain A Run #1b: High Channel @ 2462 MHz Power Setting: 28 Average power: 15.8 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz										
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	II IUUKHZ	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg		meters	Odminono		
2460.720	106.2	Н	-	-	AVG	243	1.0	GC: 28, Avg	Power: 15.8	
2460.720	114.2	Н			PK	243	1.0		Power: 15.8	
2463.310	105.8	V	-	-	AVG	246	1.0		Power: 15.8	
2463.310	114.4	V	-	-	PK	246	1.0	GC: 28, Avg	Power: 15.8	
	Signal Field				• 1					
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2509.790	51.0	V	54.0	-3.0	AVG	204	1.0		vg Power: 16.4	
2509.790	64.4	V	74.0	-9.6	PK	204	1.0		vg Power: 16.4	
2510.770	52.1	Н	54.0	-1.9	AVG	247	1.0		Power: 15.8	
2510.770	67.0	Н	74.0	-7.0	PK	247	1.0	GC: 28, Avg	J Power: 15.8	



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain B

Run #2a: Low Channel @ 2412 MHz

Date of Test: 3/26/2008 Test Engineer: Joseph Cadigal Test Location: FT Chamber # 5

Power Setting: 28.5 Average power: 16.4 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2413.340	99.3	V	-	-	AVG	50	1.0	GC: 28.5, Avg Power: 16.4		
2413.340	107.3	V	-	-	PK	50	1.0	GC: 28.5, Avg Power: 16.4		
2413.290	105.6	Н	-	-	AVG	102	1.0	GC: 28.5, Avg Power: 16.4		
2413.290	114.0	Н	-	-	PK	102	1.0	GC: 28.5, Avg Power: 16.4		

Band Edge Signal Field Strength

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2361.370	52.8	Н	54.0	-1.2	AVG	107	1.0	GC: 28.5, Avg Power: 16.4
2361.370	69.8	Н	74.0	-4.2	PK	107	1.0	GC: 28.5, Avg Power: 16.4
2361.450	50.7	V	54.0	-3.3	AVG	78	1.0	GC: 28.5, Avg Power: 16.4
2361.450	65.1	V	74.0	-8.9	PK	78	1.0	GC: 28.5, Avg Power: 16.4

Run #2b: High Channel @ 2462 MHz

Date of Test: 3/26/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 3

Power Setting: 26 Average power: 14.5 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency Level Pol 1 15 209 / 15 247 Detector Azimuth Height Comments

Trequency	LC A C I	FUI	13.207	1 13.241	Detector	AZIIIIUIII	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2460.500	97.7	V	-	-	AVG	55	1.0	RB = 1MHz, VB = 10Hz	
2460.500	105.9	V	-	-	PK	55	1.0	RB = VB = 1MHz	
2460.520	104.2	Н	-	-	AVG	99	1.0	RB = 1MHz, VB = 10Hz	
2460.520	112.4	Н	-	-	PK	99	1.0	RB = VB = 1MHz	
Band Edge	Band Edge Signal Field Strength								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2483.610	72.9	- 11	740	1 1	DI	7	4.0		
_ 1001010	12.9	Н	74.0	-1.1	PK	97	1.0	GC: 26, Avg Power: 14.5	
2483.600	50.6	H	74.0 54.0	-1.1	AVG	97	1.0	GC: 26, Avg Power: 14.5 GC: 26, Avg Power: 14.5	
2483.600	50.6	Н	54.0	-3.4	AVG	98	1.0	GC: 26, Avg Power: 14.5	

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain C

Date of Test: 3/26/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 3

Run #3a: Low Channel @ 2412 MHz

Power Setting: 22.5 Average power: 12.3 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2410.730	104.5	Н	-	-	AVG	110	1.0	RB = 1MHz, VB = 10Hz	
2410.730	112.6	Н	-	-	PK	110	1.0	RB = VB = 1MHz	
2413.080	96.0	V	-	-	AVG	65	1.0	RB = 1MHz, VB = 10Hz	
2413.080	104.6	V	-	-	PK	65	1.0	RB = VB = 1MHz	
Band Edge	Band Edge Signal Field Strength								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Heiaht	Comments	

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2389.880	72.2	Н	74.0	-1.8	PK	113	1.0	GC: 22.5,	Avg Power: 12.3
2389.860	49.3	Н	54.0	-4.7	AVG	109	1.0	GC: 22.5,	Avg Power: 12.3
2389.870	65.4	V	74.0	-8.6	PK	77	1.0	GC: 22.5,	Avg Power: 12.3
2389.860	45.2	V	54.0	-8.8	AVG	74	1.0	GC: 22.5,	Avg Power: 12.3

Run #3b: High Channel @ 2462 MHz

Power Setting: 24.5 Average power: 14.1 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz
Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments

Trequency	LCVCI	1 01	13.207	1 13.271	Detector	AZIIIIUIII	Height	Confinents	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg		meters		
2460.600	104.5	Н	-	-	PKAVGenti	cai ₁₁₆	1.0	RB = 1MHz, VB = 10Hz	
2460.600	112.7	Н	-	-	PK	116	1.0	RB = VB = 1MHz	
2460.510	96.0	V	-	-	AVG	73	1.0	RB = 1MHz, VB = 10Hz	
2460.510	103.8	V	-	-	PK	73	1.0	RB = VB = 1MHz	
Band Edge	Band Edge Signal Field Strength								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2483.800	72.6	Η	74.0	-1.4	??	110	1.0	GC: 24.5, Avg Power: 13.5	
2483.500	48.3	Η	54.0	-5.7	??	108	1.0	GC: 24.5, Avg Power: 13.5	
2483.680	62.9	V	74.0	-11.1	??	79	1.0	GC: 24.5, Avg Power: 13.5	
2483.600	44.6	V	54.0	-9.4	??	79	1.0	GC: 24.5, Avg Power: 13.5	

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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11g Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20.1 °C

Rel. Humidity: 43 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11g Chain A	1 (2412) 6 (2437) 11 (2462)	27.5 27.5 28	16.3 16.2 16.2	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	43.4dBµV/m @ 6498.6MHz (-10.6dB)
2	802.11g Chain B	1 (2412) 6 (2437) 11 (2462)	27.5 27.5 28	16.4 16.2 16.4	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	46.3dBµV/m @ 6565.4MHz (-7.7dB)
3	802.11g Chain C	1 (2412) 6 (2437) 11 (2462)	27 28 27	16.4 16.4 16.4	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	42.7dBµV/m @ 6498.6MHz (-11.3dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11g Chain A

Date of Test: 3/27/2008
Test Engineer: Joseph Cadigal
Test Location: FT Chamber # 3

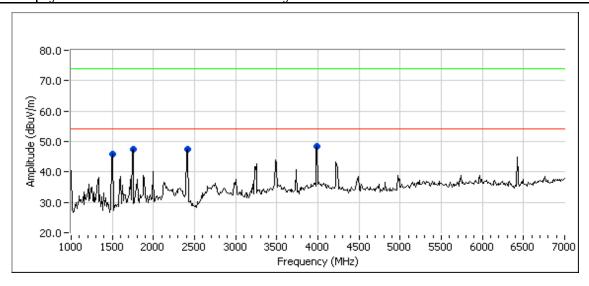
Run #1a: Low Channel @ 2412 MHz

GP = 27.5 AP = 16.3 Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.910	37.0	Н	54.0	-17.0	AVG	179	1.0	
1747.840	34.5	V	54.0	-19.5	AVG	68	1.0	Note 2
3996.350	34.9	V	54.0	-19.1	AVG	104	1.3	
9629.650	37.3	٧	54.0	-16.7	AVG	158	1.9	Note 2
1497.910	52.0	Н	74.0	-22.0	PK	179	1.0	
1747.840	53.8	V	74.0	-20.2	PK	68	1.0	Note 2
3996.350	55.5	V	74.0	-18.5	PK	104	1.3	
9629.650	51.5	V	74.0	-22.5	PK	158	1.9	Note 2

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

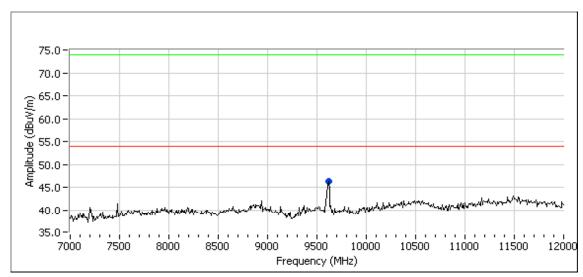
Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

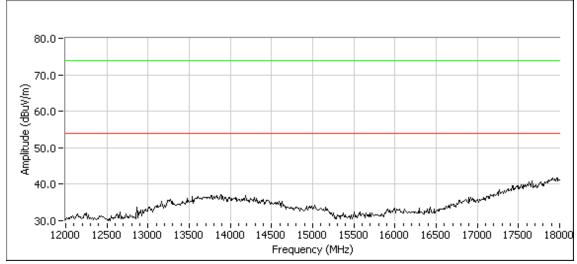


EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIIVI (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1a: Low Channel @ 2412 MHz





EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1b: Center Channel @ 2437 MHz

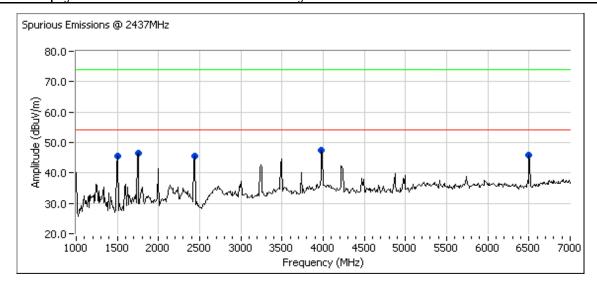
GP = 27.5 AP = 16.2

Spurious Emissions

	Pulled Linesiene								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1498.210	37.3	Н	54.0	-16.7	AVG	177	1.0		
1747.420	32.7	V	54.0	-21.3	AVG	180	2.2	Note 2	
3983.000	34.4	Н	54.0	-19.6	AVG	148	2.2		
6498.630	43.4	٧	54.0	-10.6	AVG	209	1.9	Note 2	
9704.670	34.7	V	54.0	-19.3	AVG	171	1.9	Note 2	
1498.210	52.3	Н	74.0	-21.7	PK	177	1.0		
1747.420	51.3	V	74.0	-22.7	PK	180	2.2	Note 2	
3983.000	55.4	Н	74.0	-18.6	PK	148	2.2		
6498.630	48.0	V	74.0	-26.0	PK	209	1.9	Note 2	
9704.670	46.1	V	74.0	-27.9	PK	171	1.9	Note 2	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

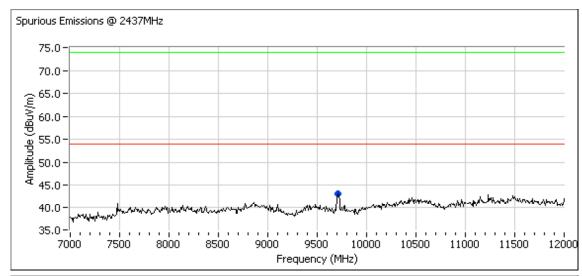
Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

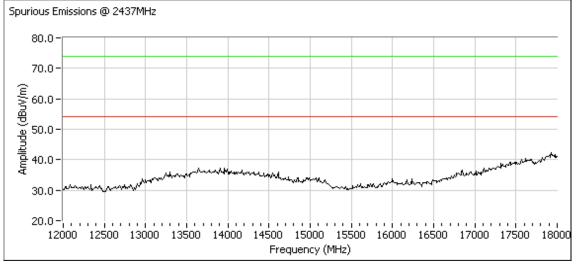




Client:	Intel Corporation	Job Number:	J70976
	-	T-Log Number:	T71133
Model:	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1b: Center Channel @ 2437 MHz







Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1c: High Channel @ 2462 MHz

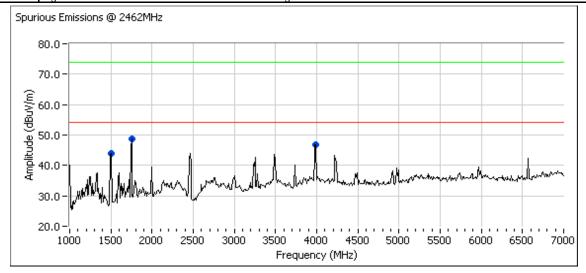
GP = 28 AP = 16.2

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.800	28.1	Н	54.0	-25.9	AVG	178	1.0	
1747.900	27.3	V	54.0	-26.7	AVG	109	1.0	Note 2
3982.930	24.5	V	54.0	-29.5	AVG	103	1.3	
9807.030	25.5	V	54.0	-28.5	AVG	176	1.3	Note 2
1497.800	43.5	Н	74.0	-30.5	PK	178	1.0	
1747.900	46.1	V	74.0	-27.9	PK	109	1.0	Note 2
3982.930	44.1	V	74.0	-29.9	PK	103	1.3	
9807.030	37.4	V	74.0	-36.6	PK	176	1.3	Note 2

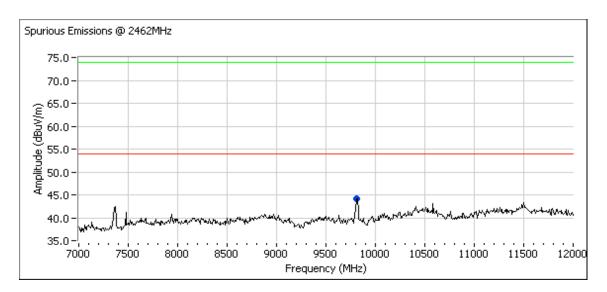
Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

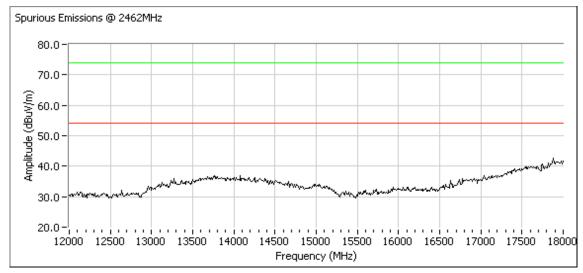
Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used





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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	SSAN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A







Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11g Chain B

Date of Test: 3/27/2008

Test Engineer: Joseph Cadigal

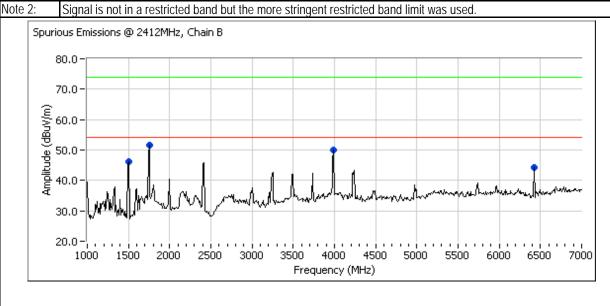
Test Location: FT Chamber # 3

Run #2a: Low Channel @ 2412 MHz

GP = 27.5 AP = 16.4 Spurious Emissions

1113310113							
Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
28.3	Н	54.0	-25.7	AVG	179	1.0	
29.1	V	54.0	-24.9	AVG	179	1.3	Note 2
25.0	V	54.0	-29.0	AVG	143	1.3	
33.8	٧	54.0	-20.2	AVG	230	1.6	Note 2
28.2	V	54.0	-25.8	AVG	188	1.9	Note 2
25.2	V	54.0	-28.8	AVG	192	2.2	Note 2
43.5	Н	74.0	-30.5	PK	179	1.0	
48.0	V	74.0	-26.0	PK	179	1.3	Note 2
44.7	V	74.0	-29.3	PK	143	1.3	
39.0	V	74.0	-35.0	PK	230	1.6	Note 2
45.6	V	74.0	-28.4	PK	188	1.9	Note 2
36.3	V	74.0	-37.7	PK	192	2.2	Note 2
	Level dBµV/m 28.3 29.1 25.0 33.8 28.2 25.2 43.5 48.0 44.7 39.0 45.6	Level Pol dBμV/m v/h 28.3 H 29.1 V 25.0 V 33.8 V 28.2 V 25.2 V 43.5 H 48.0 V 44.7 V 39.0 V 45.6 V	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Level Pol 15.209 / 15.247 dBμV/m v/h Limit Margin 28.3 H 54.0 -25.7 29.1 V 54.0 -24.9 25.0 V 54.0 -29.0 33.8 V 54.0 -29.0 28.2 V 54.0 -25.8 25.2 V 54.0 -28.8 43.5 H 74.0 -30.5 48.0 V 74.0 -26.0 44.7 V 74.0 -29.3 39.0 V 74.0 -35.0 45.6 V 74.0 -28.4	Level Pol 15.209 / 15.247 Detector dBμV/m v/h Limit Margin Pk/QP/Avg 28.3 H 54.0 -25.7 AVG 29.1 V 54.0 -24.9 AVG 25.0 V 54.0 -29.0 AVG 33.8 V 54.0 -29.2 AVG 28.2 V 54.0 -25.8 AVG 25.2 V 54.0 -28.8 AVG 43.5 H 74.0 -30.5 PK 48.0 V 74.0 -26.0 PK 44.7 V 74.0 -29.3 PK 39.0 V 74.0 -35.0 PK 45.6 V 74.0 -28.4 PK	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

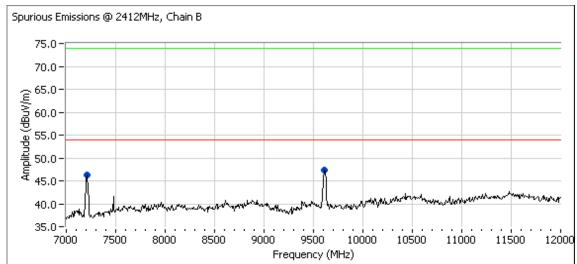
Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

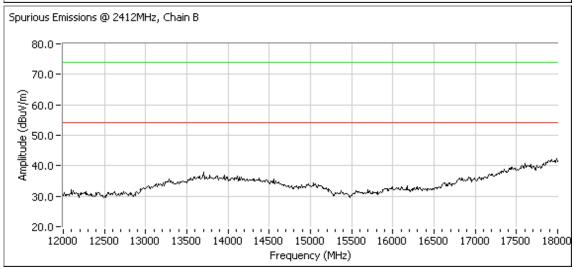


EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
	333AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2a: Low Channel @ 2412 MHz







Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

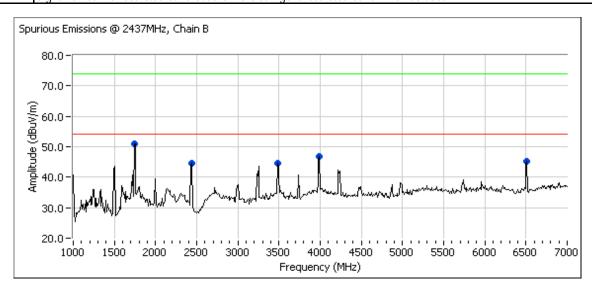
Run #2b: Center Channel @ 2437 MHz

GP = 27.5 AP = 16.2 Spurious Emissions

1113310113							
Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
38.6	V	54.0	-15.4	AVG	104	1.0	Note 2
34.4	V	54.0	-19.6	AVG	156	1.0	Note 2
34.6	Н	54.0	-19.4	AVG	141	2.2	
40.7	V	54.0	-13.3	AVG	216	1.6	Note 2
33.5	V	54.0	-20.5	AVG	180	1.9	
35.1	V	54.0	-18.9	AVG	205	1.6	Note 2
59.2	V	74.0	-14.8	PK	104	1.0	Note 2
53.3	V	74.0	-20.7	PK	156	1.0	Note 2
55.5	Н	74.0	-18.5	PK	141	2.2	
46.3	V	74.0	-27.7	PK	216	1.6	Note 2
46.3	V	74.0	-27.7	PK	180	1.9	
46.7	V	74.0	-27.3	PK	205	1.6	Note 2
	Level dBµV/m 38.6 34.4 34.6 40.7 33.5 35.1 59.2 53.3 55.5 46.3 46.3	Level Pol dBμV/m v/h 38.6 V 34.4 V 34.6 H 40.7 V 33.5 V 35.1 V 59.2 V 53.3 V 55.5 H 46.3 V 46.3 V	Level Pol 15.209 dBμV/m v/h Limit 38.6 V 54.0 34.4 V 54.0 34.6 H 54.0 40.7 V 54.0 33.5 V 54.0 35.1 V 54.0 59.2 V 74.0 53.3 V 74.0 55.5 H 74.0 46.3 V 74.0 46.3 V 74.0	Level Pol 15.209 / 15.247 dBμV/m v/h Limit Margin 38.6 V 54.0 -15.4 34.4 V 54.0 -19.6 34.6 H 54.0 -19.4 40.7 V 54.0 -20.5 33.5 V 54.0 -20.5 35.1 V 54.0 -18.9 59.2 V 74.0 -14.8 53.3 V 74.0 -20.7 55.5 H 74.0 -18.5 46.3 V 74.0 -27.7 46.3 V 74.0 -27.7	Level Pol 15.209 / 15.247 Detector dBμV/m v/h Limit Margin Pk/QP/Avg 38.6 V 54.0 -15.4 AVG 34.4 V 54.0 -19.6 AVG 34.6 H 54.0 -19.4 AVG 40.7 V 54.0 -13.3 AVG 33.5 V 54.0 -20.5 AVG 35.1 V 54.0 -18.9 AVG 59.2 V 74.0 -14.8 PK 53.3 V 74.0 -20.7 PK 55.5 H 74.0 -18.5 PK 46.3 V 74.0 -27.7 PK 46.3 V 74.0 -27.7 PK	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

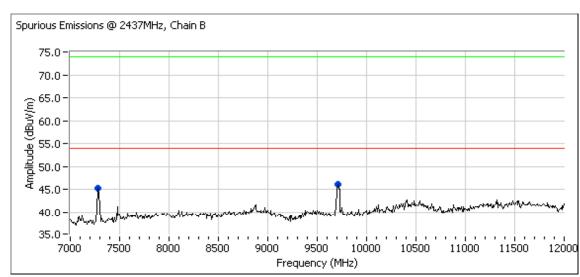


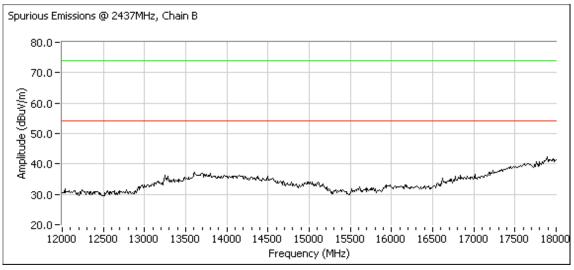
Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2b: Center Channel @ 2437 MHz







Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

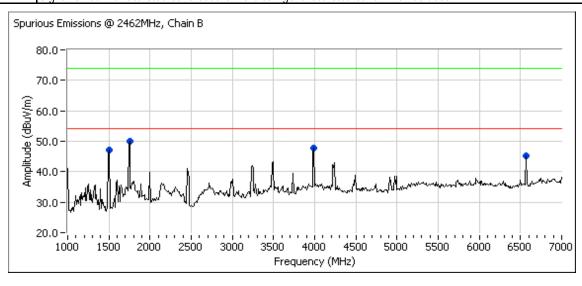
Run #2c: High Channel @ 2462 MHz

GP = 28 AP = 16.4 Spurious Emissions

Spurious Ei	1112210112							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1498.140	38.6	Н	54.0	-15.4	AVG	173	1.0	
1747.440	39.1	V	54.0	-14.9	AVG	178	1.3	Note 2
3997.340	34.3	Н	54.0	-19.7	AVG	135	2.2	
6565.410	46.3	V	54.0	-7.7	AVG	218	1.6	Note 2
7369.710	36.2	V	54.0	-17.8	AVG	200	1.6	
9830.090	38.0	V	54.0	-16.0	AVG	199	1.9	Note 2
1498.140	54.1	Н	74.0	-19.9	PK	173	1.0	
1747.440	57.9	V	74.0	-16.1	PK	178	1.3	Note 2
3997.340	54.3	Н	74.0	-19.7	PK	135	2.2	
6565.410	49.9	V	74.0	-24.1	PK	218	1.6	Note 2
7369.710	54.5	V	74.0	-19.5	PK	200	1.6	
9830.090	52.4	V	74.0	-21.6	PK	199	1.9	Note 2
								·

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

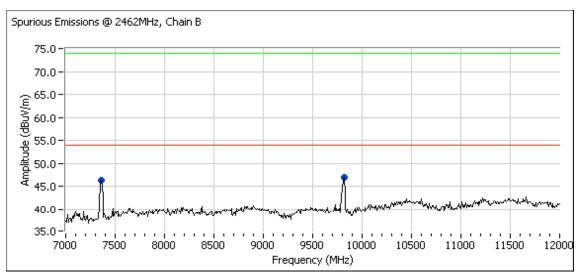
Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

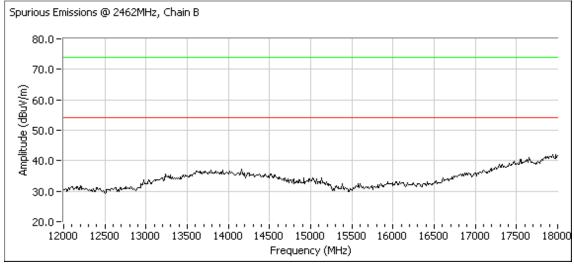




Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2c: High Channel @ 2462 MHz







Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11g Chain C

Run #3a: Low Channel @ 2412 MHz

GP = 27 AP = 16.4 Spurious Emissions

oparious Ei	1110010110							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1747.840	20.6	V	54.0	-33.4	AVG	182	1.3	
2409.970	35.9	Н	54.0	-18.1	AVG	112	1.0	
3982.860	23.8	V	54.0	-30.2	AVG	92	1.3	
7500.080	31.4	V	54.0	-22.6	AVG	141	1.0	
8328.680	27.5	V	54.0	-26.5	AVG	157	1.3	
1747.840	42.4	V	74.0	-31.6	PK	182	1.3	
2409.970	44.4	Н	74.0	-29.6	PK	112	1.0	
3982.860	43.7	V	74.0	-30.3	PK	92	1.3	
7500.080	40.8	V	74.0	-33.2	PK	141	1.0	
8328.680	39.1	V	74.0	-34.9	PK	157	1.3	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.

Run #3b: Center Channel @ 2437 MHz

GP = 27.5 AP = 16.3 Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1747.100	33.7	V	54.0	-20.3	AVG	176	1.3	Note 2
3983.130	33.8	Н	54.0	-20.2	AVG	140	1.9	
3986.460	34.1	Н	54.0	-19.9	AVG	140	1.9	
6498.600	42.7	V	54.0	-11.3	AVG	237	1.0	Note 2
7501.550	38.5	V	54.0	-15.5	AVG	98	1.0	
1747.100	55.9	V	74.0	-18.1	PK	176	1.3	Note 2
2430.410	55.6	Н	74.0	-18.4	PK	108	1.0	
3983.130	56.6	Η	74.0	-17.4	PK	140	1.9	
3986.460	56.1	Η	74.0	-17.9	PK	140	1.9	
6498.600	48.1	V	74.0	-25.9	PK	237	1.0	Note 2
7501.550	50.0	V	74.0	-24.0	PK	98	1.0	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei:		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3c: High Channel @ 2462 MHz

Date of Test: 3/27/2008
Test Engineer: Joseph Cadigal
Test Location: FT Chamber # 3

GP = 27 AP = 16.4 Spurious Emissions

Parious Entresions								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.700	27.5	Н	54.0	-26.5	AVG	184	1.0	
1747.920	28.9	V	54.0	-25.1	AVG	102	1.0	Note 2
2454.860	32.6	Н	54.0	-21.4	AVG	119	1.0	
3983.070	24.7	Н	54.0	-29.3	AVG	116	1.3	Note 2
9818.120	25.4	V	54.0	-28.6	AVG	194	1.6	
1497.700	43.0	Н	74.0	-31.0	PK	184	1.0	Note 2
1747.920	49.3	V	74.0	-24.7	PK	102	1.0	
2454.860	40.8	Η	74.0	-33.2	PK	119	1.0	
3983.070	44.9	Н	74.0	-29.1	PK	116	1.3	
9818.120	37.0	V	74.0	-37.0	PK	194	1.6	Note 2
1	·	·			·			·

INote 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.
Nota 2.	Signal is not in a restricted hand but the more stringent restricted hand limit was used

6	Elliott	EMO	C Test Data
	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11n20 Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 19.4 °C

Rel. Humidity: 43 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11n20 Chain A	1 2412MHz	23.5	13.2	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	71.9dBµV/m @ 2388.6MHz (-2.1dB)
1b	802.11n20 Chain A	11 2462MHz	25.5	13.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.9dBµV/m @ 2485.1MHz (-1.1dB)
2a	802.11n20 Chain B	1 2412MHz	23.5	12.3	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.2dBµV/m @ 2389.9MHz (-1.8dB)
2b	802.11n20 Chain B	11 2462MHz	25.5	14.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	71.8dBµV/m @ 2483.8MHz (-2.2dB)
3a	802.11n20 Chain C	1 2412MHz	22.5	12.8	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.4dBµV/m @ 2389.8MHz (-1.6dB)
3b	802.11n20 Chain C	11 2462MHz	24.5	14.1	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	71.9dBµV/m @ 2485.0MHz (-2.1dB)
4a	802.11n20 Chain A+B	1 2412MHz	26, 26	13.9, 14	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	53.0dBµV/m @ 2389.9MHz (-1.0dB)
4b	802.11n20 Chain A+B	11 2462MHz	26, 26	13.3, 13.5	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	70.9dBµV/m @ 2484.1MHz (-3.1dB)
5a	802.11n20 Chain A+C	1 2412MHz	24, 24.5	11.1, 13	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	53.0dBµV/m @ 2389.9MHz (-1.0dB)
5b	802.11n20 Chain A+C	11 2462MHz	26.5, 25.5	13.6, 13.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.0dBµV/m @ 2483.5MHz (-2.0dB)

C	Elliott
Client:	Intel Corporation
Model:	533AN-MMW(MMC)

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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
6a	802.11n20	1	25, 24	12.2, 12.4	Band Edge radiated	FCC Part 15.209 /	52.7dBµV/m @
0a	Chain B+C	2412MHz	25, 24	12.2, 12.4	field strength	15.247(c)	2390.0MHz (-1.3dB)
6b	802.11n20	11	26.5, 25.5	13.8, 13.6	Band Edge radiated	FCC Part 15.209 /	69.9dBµV/m @
OD	Chain B+C	2462MHz	20.5, 25.5	13.0, 13.0	field strength	15.247(c)	2484.6MHz (-4.1dB)
7a	802.11n20	1	25, 25.5,	12, 12,	Band Edge radiated	FCC Part 15.209 /	50.4dBµV/m @
7 a	A+B+C	2412MHz	24.5	12.2	field strength	15.247(c)	2390.0MHz (-3.6dB)
7b	802.11n20	11	26, 26, 25	12.2, 12.4,	Band Edge radiated	FCC Part 15.209 /	46.6dBµV/m @
70	A+B+C	2462MHz	20, 20, 23	12.1	field strength	15.247(c)	2483.5MHz (-7.4dB)

Modifications Made During Testing No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A

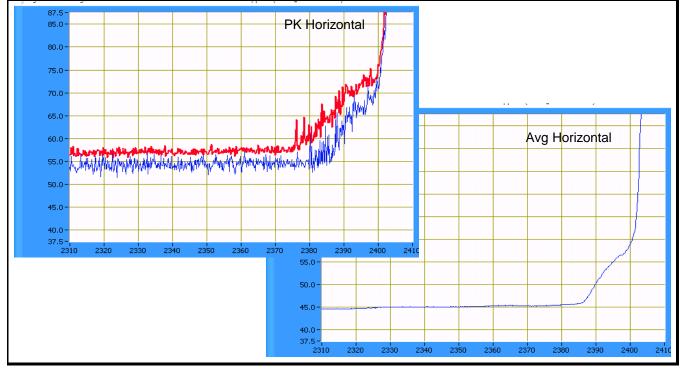
Date of Test: 3/21/2008
Test Engineer: Rafael Varelas
Test Location: FT Chamber #3
Run #1a: Low Channel @ 2412 MHz

Power Setting: 23.5 Average power: 13.2 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2415.630	99.6	Н	-	-	AVG	244	1.0	GC:23.5, Avg Power:13.2			
2415.630	108.7	Н	-	-	PK	244	1.0	GC:23.5, Avg Power:13.2			
2413.360	94.7	V	-	-	AVG	265	1.0	GC:23.5, Avg Power:13.2			
2413.360	102.9	V	-	-	PK	265	1.0	GC:23.5, Avg Power:13.2			

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
Setting for Passing Data : 23.5		ta : 23.5						
2388.570	71.9	Н	74.0	-2.1	PK	244	1.0	GC:23.5, Avg Power:13.2
2389.940	50.9	Н	54.0	-3.1	Avg	244	1.0	GC:23.5, Avg Power:13.2
2389.920	47.9	V	54.0	-6.1	Avg	265	1.0	GC:23.5, Avg Power:13.2
2387.170	66.4	V	74.0	-7.6	PK	265	1.0	GC:23.5, Avg Power:13.2



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A Run #1b: High Channel @ 2462 MHz Power Setting: Average power: 13.9 (for reference purposes) 25.5 Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m Limit Pk/QP/Avg meters v/h Margin degrees 2454.230 100.7 1.0 GC:25.5, Avg Power: 13.9 Н AVG 249 2454.230 108.7 Н PK 249 1.0 GC:25.5, Avg Power: 13.9 Band Edge Signal Field Strength 15.209 / 15.247 Pol Azimuth Frequency Level Detector Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Ava degrees meters GC:25.5, Avg Power: 13.9 2485.090 72.9 Н 74.0 -1.1 PK 249 1.0 50.0 2483.500 Н 54.0 -4.0 Avg 249 1.0 GC:25.5, Avg Power: 13.9 ٧ PΚ 2483.520 67.7 74.0 -6.3 269 1.0 GC:25.5, Avg Power: 13.9 ٧ 54.0 GC:25.5, Avg Power: 13.9 2483.540 47.4 -6.6 Avg 269 1.0 85.0 PK Horizontal 80.0 75.0 70.0 65.0 Marie de la companie 55.0 50.0 45.0 Avg Horizontal 40.0 75.0 70.0 60.0 55.0 50.0 2470 2510



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain B

Date of Test: 3/21/2008 Test Engineer: Rafael Varelas Test Location: FT Chamber #3

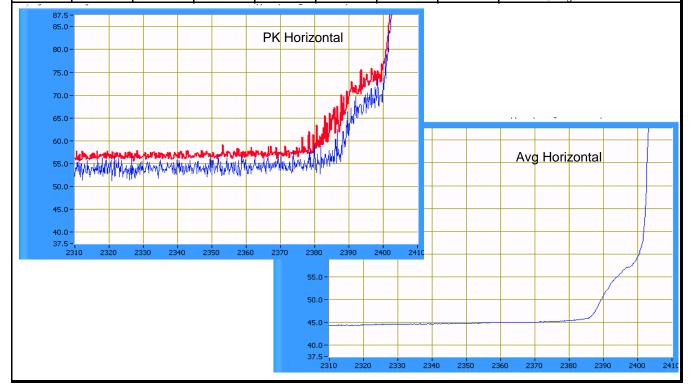
Run #2a: Low Channel @ 2412 MHz

Power Setting: 23.5 Average power: 12.3 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2417.230	100.2	Н	-	•	AVG	154	1.2	G.C: 23.5, Avg Power: 12.3			
2417.230	109.9	Н	-	•	PK	154	1.2	G.C: 23.5, Avg Power: 12.3			

Duna Eage Signar Field Strength												
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments				
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters					
Setting for	Passing Dat	a : 23.5										
2389.900	72.2	Н	74.0	-1.8	PK	154	1.2	G.C: 23.5, Avg Power: 12.3				
2389.980	51.3	Н	54.0	-2.7	Avg	154	1.2	G.C: 23.5, Avg Power: 12.3				
2389.940	47.9	V	54.0	-6.1	Avg	25	1.0	G.C: 23.5, Avg Power: 12.3				
2389.420	67.7	V	74.0	-6.3	PK	25	1.0	G.C: 23.5, Avg Power: 12.3				



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #2b: High Channel @ 2462 MHz Power Setting: Average power: 25.5 14.0 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2454.930 Н AVG 113 1.7 G.C: 25.5, Avg Power: 14.0 100.0 2454.930 108.5 Н PK 1.7 G.C: 25.5, Avg Power: 14.0 113 --2454.430 94.3 ٧ AVG 48 1.0 G.C: 25.5, Avg Power: 14.0 ٧ G.C: 25.5, Avg Power: 14.0 102.2 48 2454.430 PΚ 1.0 Band Edge Signal Field Strength Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Pk/QP/Avg MHz $dB\mu V/m$ v/h Limit Margin degrees meters 2483.830 71.8 Н 74.0 -2.2 PΚ 113 1.7 G.C: 25.5, Avg Power: 14.0 54.0 G.C: 25.5, Avg Power: 14.0 2483.500 50.4 Н -3.6 Avg 113 1.7 74.0 -9.0 PK 48 G.C: 25.5, Avg Power: 14.0 2485.320 65.0 ٧ 1.0 ٧ 54.0 48 1.0 G.C: 25.5, Avg Power: 14.0 2483.500 47.8 -6.2 Avg 85.0 PK Horizontal 80.0 75.0 70.0 65.0 87.9 55.0 85.0 Avg Horizontal 80.0 45.0 75.0 70.0 65.0 60.0 55.0 50.0 45.0 40.0 37.9 2470 2480 2490 2510 2520 2540 2460 2500 2530 2550

Elliott

EMC Test Data

V			
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
wouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain C

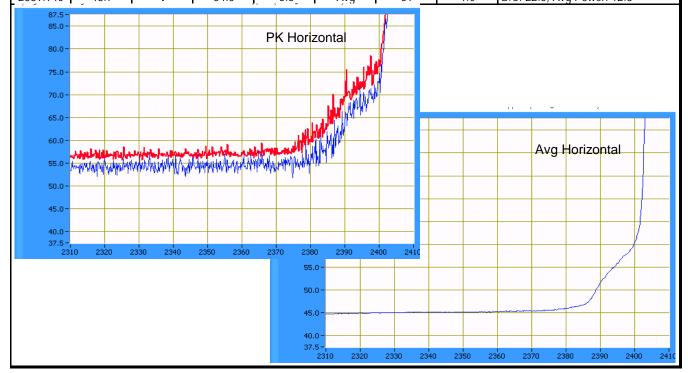
Date of Test: 3/21/2008
Test Engineer: Rafael Varelas
Test Location: FT Chamber #3
Run #3a: Low Channel @ 2412 MHz

Power Setting: 22.5 Average power: 12.8 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments				
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters					
2419.300	101.0	Н	-	-	AVG	132	1.7	G.C: 22.5, Avg Power: 12.8				
2419.300	109.1	Н	-	-	PK	132	1.7	G.C: 22.5, Avg Power: 12.8				
2419.470	95.6	V	-	-	AVG	61	1.0	G.C: 22.5, Avg Power: 12.8				
2419.470	103.8	V	-	-	PK	61	1.0	G.C: 22.5, Avg Power: 12.8				

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
Setting for	Passing Dat	a : 22.5									
2389.800	72.4	Н	74.0	-1.6	PK	132	1.7	G.C: 22.5, Avg Power: 12.8			
2389.990	52.0	Н	54.0	-2.0	Avg	132	1.7	G.C: 22.5, Avg Power: 12.8			
2388.100	70.1	V	74.0	-3.9	PK	61	1.0	G.C: 22.5, Avg Power: 12.8			
2389.940	48.7	V	54.0	-5.3	Avg	61	1.0	G.C: 22.5, Avg Power: 12.8			



Elliott EMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #3b: High Channel @ 2462 MHz Power Setting: Average power: 24.5 14.1 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2469.530 Н AVG G.C: 24.5, Avg Power: 14.1 100.9 103 1.1 2469.530 109.3 Н PK 103 G.C: 24.5, Avg Power: 14.1 1.1 --2455.130 96.1 ٧ AVG 62 1.0 G.C: 24.5, Avg Power: 14.1 ٧ 2455.130 104.6 PΚ 62 1.0 G.C: 24.5, Avg Power: 14.1 Band Edge Signal Field Strength Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 2484.960 71.9 Н 74.0 -2.1 PΚ 103 G.C: 24.5, Avg Power: 14.1 1.1 54.0 2483.500 50.8 Н -3.2 Avg 103 1.1 G.C: 24.5, Avg Power: 14.1 74.0 G.C: 24.5, Avg Power: 14.1 2485.280 68.4 ٧ -5.6 PΚ 62 1.0 ٧ 54.0 -5.4 1.0 G.C: 24.5, Avg Power: 14.1 2483.500 48.6 62 Avg 85.0 PK Horizontal 80.0 75.0 70.0 65.0 60.0 55.0 50.0 45.0 Avg Horizontal 40.0 2510 2460 2470 2480 2490 2500 2530 2540 70.0 60.0 55.0 50.0 45.0 40.0 37.9 2540 2480 2490 2510 2470 2500

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 4: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+B

Date of Test: 3/30/2008
Test Engineer: Suhaila Khushzad
Test Location: Chamber # 4

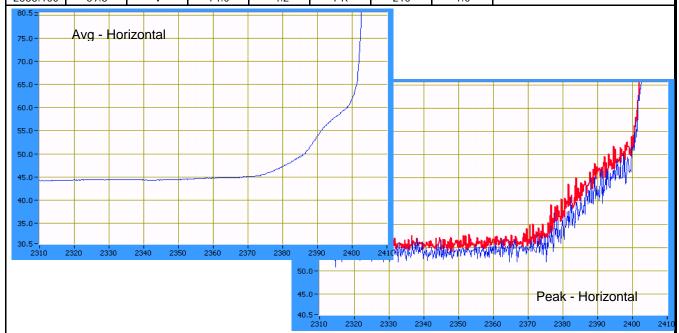
Run #4a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	ain B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
26.0 13.9 26.0 14									

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2415.330	99.5	Н	-	-	AVG	240	1.0	
2415.330	109.6	Н	-	-	PK	240	1.0	
2419.330	97.0	V	-	-	AVG	215	1.0	
2419.330	107.0	V	-	-	PK	215	1.0	

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.930	53.0	Н	54.0	-1.0	AVG	240	1.0	
2389.890	71.5	Н	74.0	-2.5	PK	240	1.0	
2389.910	50.4	V	54.0	-3.6	AVG	215	1.0	
2388.100	69.8	V	74.0	-4.2	PK	215	1.0	



Elliott EMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run # 4: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+B Run #4b: High Channel @ 2462 MHz Power Setting and average measurement (for reference) Chain C Chain A Chain B Setting Avg Setting Avg Setting Avg 26.0 13.3 26.0 13.5 Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 2467.500 101.0 Н AVG 249 1.0 2467.500 111.3 Н PK 249 1.0 AVG 2470.750 95.2 ٧ 65 1.0 ٧ 2470.750 105.3 PK 65 1.0 _ Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Heiaht Comments v/h Limit Pk/QP/Avg degrees MHz dB_uV/m Margin meters 2484.050 70.9 Н 74.0 -3.1 PK 249 1.0 2483.500 50.6 Н 54.0 -3.4 AVG 249 1.0 2483.510 47.5 ٧ 54.0 -6.5 AVG 1.0 65 2484.940 68.5 V 74.0 -5.5 PK 65 1.0 Avg - Horizontal 75.0 70.0 65.0 60.0 55.0 Peak - Horizontal 50.0 80.0 45.0 40.0 70.0 35.0 31.0 24652470 2480 2490 2500 2510 60.0 MACA MANAGERA PROPERTY AND THE STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET,

2480

2490

2500

2510

2520

55.0· 50.0·

41.0 -24652470

2540

Elliott

EMC Test Data

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Client:	Intel Corporation	Job Number:	J70976
Madalı	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #5: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+C

Date of Test: 3/30/2008

Test Engineer: Suhaila Khushzad Test Location: Chamber # 4

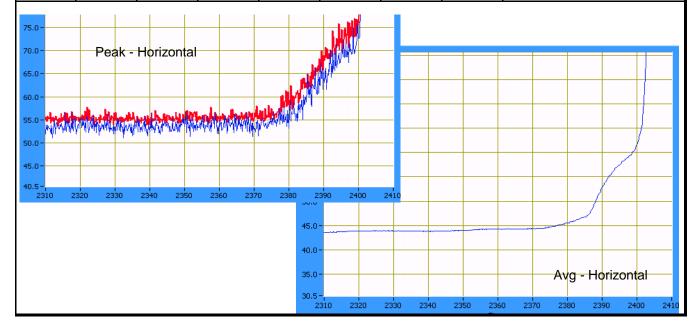
Run #5a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	ain A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
24.0	24.0 11.1 24.5 13.0								

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2413.300	101.4	Н	-	-	AVG	249	1.0	
2413.300	111.4	Н	-	-	PK	249	1.0	
2415.750	94.0	V	-	-	AVG	237	1.0	
2415.750	104.8	V	-	-	PK	237	1.0	

Dalla Lago	Paria Eage Digital Floid Strongth										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2389.940	53.0	Н	54.0	-1.0	AVG	249	1.0				
2389.520	71.4	Н	74.0	-2.6	PK	249	1.0				
2389.920	46.7	V	54.0	-7.3	AVG	237	1.0				
2389.330	60.9	V	74.0	-13.1	PK	237	1.0				



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #5b: High Channel @ 2462 MHz Power Setting and average measurement (for reference) Chain A Chain B Chain C Setting Setting Setting Avg Avg Avg 26.5 13.6 25.5 13.4 Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Azimuth Height Comments Frequency Level Pol Detector MHz Pk/QP/Avg meters $dB\mu V/m$ v/h Limit Margin degrees 2470.670 102.8 Н **AVG** 247 1.0 2470.670 112.2 Н PK 247 1.0 2466.080 95.4 ٧ AVG 222 1.0 105.5 ٧ 2466.080 PΚ 222 1.0 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Ava degrees meters 2483.530 52.0 Н 54.0 -2.0 AVG 247 1.0 2485.460 71.8 Н 74.0 -2.2 PK 247 1.0 2483.500 48.3 ٧ 54.0 -5.7 AVG 222 1.0 ٧ 2483.950 68.8 74.0 -5.2 PK 222 1.0 Peak - Horizontal 85.0 80.0 75.0 65.0 60.0 Avg - Horizontal 75.0 50.0 65.0 60.0 41.0-4652470 2480 2490 2500 2510 55.0 50.0 40.0 35.0



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #6: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain B+C

Date of Test: 3/30/2008
Test Engineer: Suhaila Khushzad
Test Location: Chamber # 4

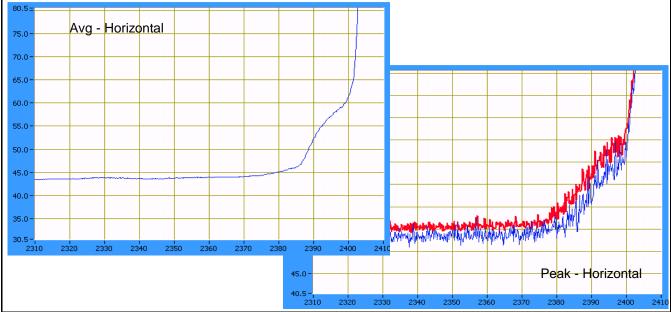
Run #6a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
25.0 12.2 24.0 12.4									

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

i diladilicit	andamental eighar read etterigin. I eak and average values measarea in 1 minz, and peak value measarea in 100kmz										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2411.430	100.4	Н	-	-	AVG	107	1.0				
2411.430	111.1	Н	-	-	PK	107	1.0				
2415.500	95.9	V	-	-	AVG	61	1.1				
2415.500	106.2	V	-	-	PK	61	1.1				

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.990	52.7	Н	54.0	-1.3	AVG	107	1.0	
2389.910	68.8	Н	74.0	-5.2	PK	107	1.0	
2389.980	48.2	V	54.0	-5.8	AVG	61	1.1	
2389.890	64.5	V	74.0	-9.5	PK	61	1.1	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #6: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain B+C

Date of Test: 4/9/2008

Test Engineer: Suhaila Khushzad Test Location: FT Chamber #3

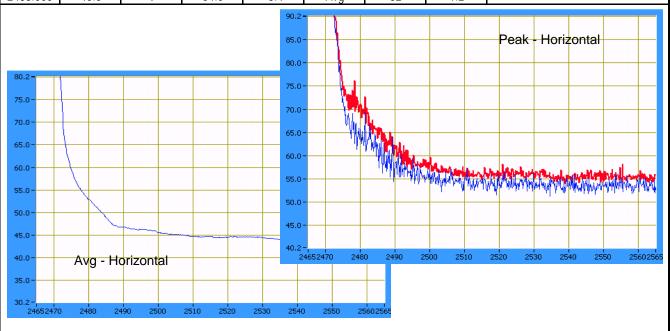
Run #6b: High Channel @ 2462 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	in B	Chain C					
Setting	Setting Avg		Avg	Setting	Avg				
		26.5	13.8	25.5	13.6				

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2468.170	102.5	Н	-	-	AVG	107	1.0	RB = 1MHz, VB = 10Hz
2468.170	112.6	Н	-	-	PK	107	1.0	RB = VB = 1MHz
2467.920	95.7	V	-	•	AVG	52	1.2	RB = 1MHz, VB = 10Hz
2467.920	106.1	V	-	-	PK	52	1.2	RB = VB = 1MHz

Frequency	Level	Pol	15.209	15.209 / 15.247		Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2484.610	69.9	Н	74.0	-4.1	Pk	107	1.0	
2483.510	49.6	Н	54.0	-4.4	Avg	107	1.0	
2484.650	63.0	V	74.0	-11.0	Pk	52	1.2	
2483.500	45.6	V	54.0	-8.4	Avg	52	1.2	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #7: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+B+C

Date of Test: 4/9/2008

Test Engineer: Suhaila Khushzad Test Location: FT Chamber #3

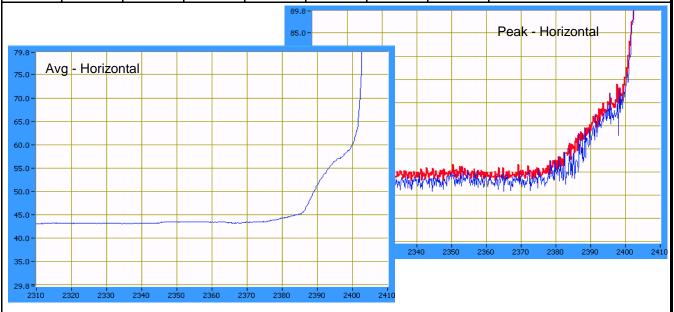
Run #7a: Low Channel @ 2412 MHz

Po	Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C						
Setting	Avg	Setting	Avg	Setting	Avg					
25	12	25.5	12	24.5	12.2					

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

	- united to grant to a vital girl to a varia a votage value of mode and an interest pour value mode and in the analysis and										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2413.170	98.4	Н	-	-	AVG	100	1.1	RB = 1MHz, VB = 10Hz			
2413.170	109.2	Н	-	-	PK	100	1.1	RB = VB = 1MHz			
2409.500	93.8	V	-	-	AVG	64	1.0	RB = 1MHz, VB = 10Hz			
2409.500	103.9	V	-	-	PK	64	1.0	RB = VB = 1MHz			

zana zage	orginal i lolo	. • • g						
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.980	50.4	Н	54.0	-3.6	Avg	100	1.1	
2389.600	66.5	Н	74.0	-7.5	Pk	100	1.1	
2389.970	46.9	V	54.0	-7.1	Avg	64	1.0	
2388.850	62.6	V	74.0	-11.4	Pk	64	1.0	



C	EII	io	tt					EMO	C Test Data
	Intel Corpora							Job Number:	J70976
Model:	533AN-MMV	N/NANAC)					T-Log Number: T71133		
Miouci.	333AIN-MIMM	iv (iviiviC)					Accou	unt Manager:	Dean Eriksen
Contact:	Robert Paxn	nan							
Standard:	FCC							Class:	N/A
Run #7: Ra Run #7b: H	igh Channel	@ 2462 MH	Z	-	rating Mode: nt (for referen		MHz Chani	nel) - Chain <i>i</i>	A+B+C
	Cha			nin B	Cha				
	Setting	Avg	Setting	Avg	Setting	Avg			
	26	12.2	26	12.4	25	12.1			
					es measured			1	n 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2469.420	100.3	Н	-	-	AVG	105	1.0	RB = 1MHz	
2469.420	111.1	Н	-	-	PK	105	1.0	RB = VB = 1	
2466.830	95.2	V	-	-	AVG	66	1.2	RB = 1MHz	
2466.830	106.4	V	-	-	PK	66	1.2	RB = VB = 1	MHz
	Signal Field						·	T	
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2483.510	46.6	Н	54.0	-7.4	Avg	105	1.0		
2483.880	62.0	Н	74.0	-12.0	Pk	105	1.0		

Avg

Pk

66

66

1.2

1.2

-8.9

-13.8

54.0

74.0

45.1

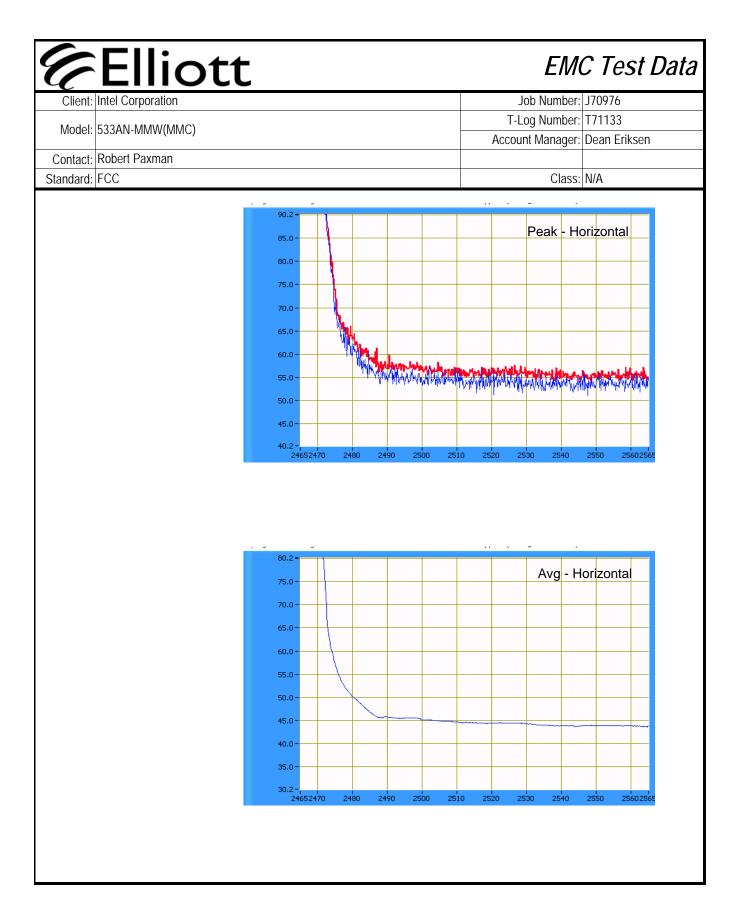
60.2

2483.500

2485.730

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	Elliott	EMC Test Data				
Client:	Intel Corporation	Job Number:	J70976			
Model	533AN-MMW(MMC)	T-Log Number:	T71133			
Model.		Account Manager:	Dean Eriksen			
Contact:	Robert Paxman					
Standard:	FCC	Class:	N/A			

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11n20 Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Date of Test: 4/1/2008 Test Engineer: Ben Jing Config Change: None Host Unit Voltage 120V/60Hz Test Location: Chamber # 5

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

> Rel. Humidity: 34 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Summary of Results

Run #	Mode	Channel	Power Measured Setting Power		Test Performed	Limit	Result / Margin
1	Chain A Chain B Chain C	6 (2437)	28.0 27.5 26.5	16.5 dBm	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	41.2dBµV/m @ 1497.9MHz (-12.8dB)
2	802.11n20 Chains A+B+C	1 (2412) 6 (2437) 11 (2462)	Power set to single chain settings from run 1, 2 and 3		Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	44.8dBµV/m @ 9746.8MHz (-9.2dB)
-	802.11n20	Dual Chain r	modes (A+B,	A+C, B+C)	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	Covered by tests on chains A+B+C

	<u>Elli</u>	Ot						E /V/	C Test Da
	Intel Corpora							Job Number:	J70976
							T-	Log Number:	T71133
Model:	533AN-MMV	N(MMC)					Acco	unt Manager:	Dean Eriksen
Contact:	Robert Paxn	nan							
Standard:	FCC					Class:	N/A		
Run #1: Ra	adiated Spur	ious Emiss	ions, 1000 -	26000 MHz.	Operating M	lode: 802.11	n 20MHz C	Chain A	
Run #1a: C	Center Chanr								
	Pov	wer Setting a			nt (for referen				
		in A		ain B	Cha	in C			
	Setting	Avg	Setting	Avg	Setting	Avg			
	28.0	16.6		1	400111				
	tal Signal Fie			e measured / 15.247	in 100kHz Detector	\7imuth	Hoight	Commonto	
Frequency MHz	Level dBµV/m	Pol v/h	Limit		Pk/QP/Avg	Azimuth	Height	Comments	
2438.290	101.4	V/II V	LIIIIII	Margin	Pk/QP/Avg	degrees 277	meters 1.0	RB = VB = 1	100kUz
2438.300	101.4	H	_	-	Pk	213	1.0	RB = VB =	
Spurious E		11	-	-	ΓK	213	1.0	ND - VD -	TOURTIZ
Frequency		Pol	15 209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
1497.920	41.2	V	54.0	-12.8	AVG	105	1.0		
3986.320	34.3	V	54.0	-19.7	AVG	292	1.0		
1497.920	57.2	V	74.0	-16.8	PK	105	1.0		
1744.270	52.5	V	73.6	-21.1	PK	294	1.5	Note 2	
3986.320	54.3	V	74.0	-19.7	PK	292	1.0		
6498.620	49.3	V	73.6	-24.3	PK	217	1.0	Note 2	
Run #1b: C	Center Chani					, ,			
					nt (for referen				
		in A		ain B	Cha				
	Setting	Avg	Setting	Avg	Setting	Avg			
F	La L C'ann a L E'a	LI Character	27.5						
_	tal Signal Fie			/ 15.247	Detector	Azimuth	Height	Comments	
Frequency MHz	Level dBµV/m	Pol v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
2435.700	98.6	V	<u> </u>	iviai yii i	Pk	74	1.0	RB = VB = 1	100kHz
2435.700	106.8	H	-	-	Pk	112	1.0	RB = VB =	
Spurious E		''	1	1	I I K	112	1.0	10-10-	I JUNI IZ
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz	48.0	Н	76.8	-28.8	PK	290	1.5	Note 2	
6498.540	50.2	V	76.8	-26.6	PK	134	1.0	Note 2	
		V	76.8	-26.1	PK	219	1.0	Note 2	
6498.540	50.7	V				22	1.0	Moto 2	
6498.540 6498.550		H	76.8	-27.2	PK	33	1.0	Note 2	
6498.540 6498.550 6498.560	50.7 49.6	Н		•					
6498.540 6498.550 6498.560	50.7 49.6	H ns in restricte	ed bands, the	e limit of 15.2	09 was used.				s set 30dB below the

Client:	Intel Corpora	ation			Job Number:	J70976			
Model.	533AN-MMV	W(MMC)			Log Number:				
							Acco	unt Manager:	Dean Eriksen
	Robert Paxm	nan							
Standard:								Class:	N/A
Run #1c:(Center Chann				1 /5	<u>, </u>			
					nt (for referend Cha				
	Cha Setting	Avg	Setting	in B Avg	Setting				
	Setting	Avy	Setting	Avy	26.5	Avg 16.5			
					20.0				
undamen	tal Signal Fie	eld Strength	: Peak value	e measured	in 100kHz				
Frequency	1	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2438.310	99.5	V	-	-	Pk	58	1.0	RB = VB = 1	
2438.280	106.3	Н	-	-	Pk	114	1.0	RB = VB = 1	100kHz
Spurious E			45.000	145.047	15			lo .	
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h V	Limit	Margin	Pk/QP/Avg	degrees	meters		
1494.810 3983.560	39.0 35.2	V	54.0 54.0	- 15.0 -18.8	AVG AVG	105 286	1.0 1.5		
1494.810	56.5	V	74.0	-10.6	PK	105	1.0		
1747.280	54.7	V	76.3	-21.6	PK	328	1.0	Note 2	
3983.560	56.9	V	74.0	-17.1	PK	286	1.5	NOIC Z	
6498.650	48.7	V	76.3	-27.6	PK	240	1.0	Note 2	
Note 1:	For emission level of the for Signal is not	undamental	and measure			For all othe	r emissions	s, the limit was	s set 30dB below

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	333AIN-INIINININIO)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11n 20MHz Chains A+B+C

These tests run at a power setting equal to the highest single-chain settings to cover all possible dual- and triple-chain operating modes.

Run #2a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)								
Cha	ain A	Cha	in B	Chain C				
Setting	Setting Avg		Avg	Setting	Avg			
29.5	29.5 16.5		16.5	29.5	16.5			

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2413.320	110.8	Н	-	-	Pk	111	1.0	RB = VB = 100kHz	
2410.760	104.4	V	-	•	Pk	79	1.0	RB = VB = 100kHz	
Spurious Emissions									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1744.620	37.2	V	54.0	-16.8	AVG	77	1.5	Note 2	
7233.500	41.4	V	54.0	-12.6	AVG	136	2.0	Note 2	
9650.190	42.2	٧	54.0	-11.8	AVG	177	1.5	Note 2	
1744.620	59.8	V	74.0	-14.2	PK	77	1.5	Note 2	
7233.500	57.7	V	74.0	-16.3	PK	136	2.0	Note 2	
9650.190	54.2	V	74.0	-19.8	PK	177	1.5	Note 2	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
Note 1.	level of the fundamental and measured in 100kHz.
Note 2:	Signal is not in a restricted band but the more stringent restricted band limit was used.



~			
Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2b: Center Channel @ 2437 MHz

Power Setting and average measurement (for reference)								
Cha	ain A	Cha	nin B	Chain C				
Setting	Avg	Setting	Avg	Setting	Avg			
30.0 16.5		30.5	16.6	29.5	16.6			

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

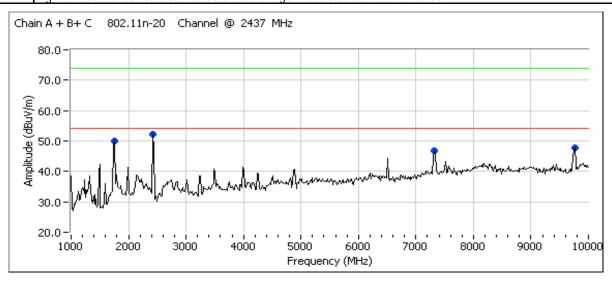
Frequency	Level	Pol	15.209 / 15.247 Limit Margin		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h			Pk/QP/Avg	degrees	meters	
2438.330	105.2	V	-	-	Pk	64	1.0	RB = VB = 100kHz
2438.040	104.5	Н	-	-	Pk	44	1.0	RB = VB = 100kHz

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
1747.970	36.3	V	54.0	-17.7	AVG	81	1.5	Note 2		
7311.050	38.7	V	54.0	-15.3	AVG	179	1.5			
9746.750	44.8	V	54.0	-9.2	AVG	181	2.0	Note 2		
1747.970	59.2	V	74.0	-14.8	PK	81	1.5	Note 2		
7311.050	53.1	V	74.0	-20.9	PK	179	1.5			
9746.750	56.7	V	74.0	-17.3	PK	181	2.0	Note 2		

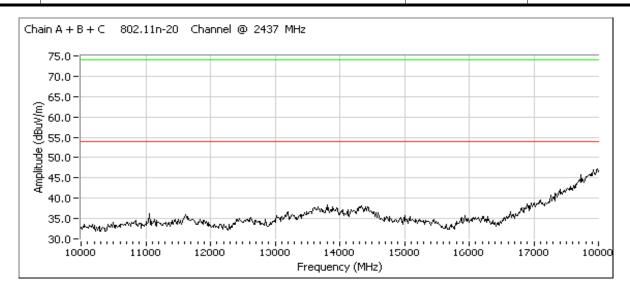
Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

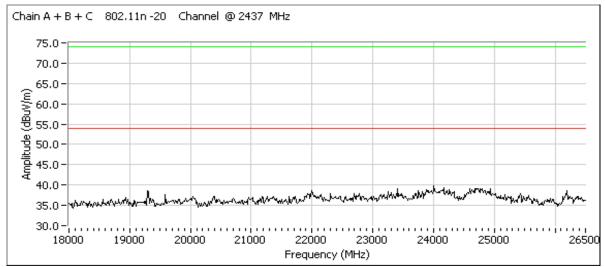
Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used.





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	333AN-ININIVV(ININIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A





Client:	Elli : Intel Corpora							Job Number:	J70976
Madal	. E22ANI NANAN	A//NANAC)					T-Log Number		T71133
wouer:	: 533AN-MMV	N(ININC)			Acco	unt Manager:	Dean Eriksen		
Contact	: Robert Paxn	nan							
Standard:								Class:	N/A
Run #2c: H	ligh Channel	@ 2462 MH	Z				1		
			and average		nt (for referen				
	Cha	in A	Cha	ain B	Cha	in C			
	Setting	Avg	Setting	Avg	Setting	Avg			
	30.5	16.5	31.0	16.6	30.0	16.5			
	tal Class - LE'	alal Characteris	Deels			: 1 NALL	المناهمة الما		- 1001.11-
	tal Signal Fie			iverage valu / 15.247		in 1 MHz, ar Azimuth			n iuukhz
Frequency MHz	Level dB _µ V/m	Pol v/h	Limit	Margin	Detector Pk/QP/Avg	degrees	Height meters	Comments	
2460.740	105.5	V	LIIIII	iviaryiri	Pk	79	1.0	RB = VB = 1	NUF H
2463.300	110.4	Н	_	-	Pk	118	1.0	RB = VB = 1	
	Emissions				I K	110	1.0	ND - VD -	OOKITZ
Frequency	1 1	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1744.410	36.7	V	54.0	-17.3	AVG	79	1.5	Note 2	
7408.540	36.2	V	54.0	-17.8	AVG	151	1.5		
1744.410	58.7	V	74.0	-15.3	PK	79	1.5	Note 2	
7408.540	51.0	V	74.0	-23.0	PK	151	1.5		
	Te			" " CAE C	200			11 11 11	100 ID 1 1
Note 1:						For all othe	er emissions	s, the limit was	set 30dB below the
	level of the fundamental and measured in 100kHz. Signal is not in a restricted band but the more stringent restricted band limit was used.								
lote 2:			10 0200 DHI I	ne more sur	ndeni resincie	an nann iimii	was useu.		

	Elliott	EMC Test Data			
	Intel Corporation	Job Number:	J70976		
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133		
Model.	333AIN-INIINININIO)	Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11n40 Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 19 °C

Rel. Humidity: 44 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

C	Elli	ot	t			EM	C Test Data		
	Intel Corpora					Job Number: J70976			
						T-Log Number	: T71133		
Model:	533AN-MMV	N(MMC)				Account Manager			
Contact:	Robert Paxn	nan				<u> </u>			
Standard:	FCC					Class	: N/A		
	of Result	S					-		
Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin		
1a	802.11n40 Chain A	1 2422MHz	23.0	12.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.1dBµV/m @ 2390.0MHz (-1.9dB)		
1b	802.11n40 Chain A	11 2452MHz	25.0	13.7	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.6dBµV/m @ 2485.1MHz (-1.4dB)		
2a	802.11n40 Chain B	1 2422MHz	23.5	12.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.5dBµV/m @ 2389.8MHz (-1.5dB)		
2b	802.11n40 Chain B	11 2452MHz	25.5	14.3	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.2dBµV/m @ 2483.5MHz (-1.8dB)		
3a	802.11n40 Chain C	1 2422MHz	21.0	11.5	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.7dBµV/m @ 2389.9MHz (-1.3dB)		
3b	802.11n40 Chain C	11 2452MHz	24.0	13.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.6dBµV/m @ 2485.6MHz (-1.4dB)		
4a	802.11n40 Chain A+B	1 2422MHz	A: 23.5 B: 23.5	A: 11.3 B: 11.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.1dBµV/m @ 2389.7MHz (-1.9dB)		
4b	802.11n40 Chain A+B	11 2452MHz	A: 26.0 B: 26.5	A: 13.8 B: 14.1	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	53.0dBµV/m @ 2484.9MHz (-1.0dB)		
5a	802.11n40 Chain A+C	1	A: 24.5 C: 22.5	A: 12.1 C: 11.8	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.7dBµV/m @ 2389.7MHz (-1.3dB)		
5b	802.11n40 Chain A+C	11 2452MHz	A: 26.5 C: 25.5	A: 13.9 C: 14.1	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.3dBµV/m @ 2485.6MHz (-1.7dB)		
6a	802.11n40 Chain B+C	1 2422MHz	B: 23.5 C: 21.0	B: 11.1 C: 10.2	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.7dBµV/m @ 2388.2MHz (-1.3dB)		
6b	802.11n40 Chain B+C	11 2452MHz	B: 25.5 C: 24.5	B: 13.5 C: 13.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.4 dBuV/m @ 2485. MHz (-1.6dB)		
7a	802.11n40 A+B+C	1 2422MHz	A: 23.0 B: 22.5 C: 21.0	A: 10.2 B: 10.1 C: 10.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.5dBµV/m @ 2386.8MHz (-1.5dB)		
7b	802.11n40 A+B+C	11 2452MHz	A: 26.0 B: 26.0 C: 25.5	A: 12.8 B: 12.8 C: 12.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.5dBµV/m @ 2483.5MHz (-1.5dB)		



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A

Date of Test: 3/24/2008 Test Engineer: Suhaila Khushzad Test Location: Chamber # 5

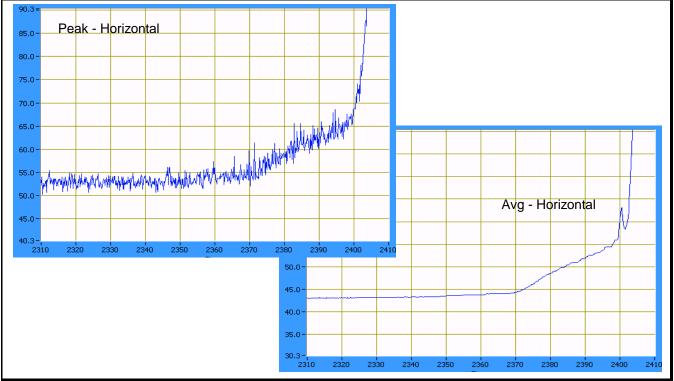
Run #1a: Low Channel @ 2422 MHz

Power Setting: 23 Average power: 12 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level 15.209 / 15.247 Azimuth Height Comments Pol Detector MHz dBμV/m v/h Limit Margin Pk/QP/Avq degrees meters

2420.540 GC: 23, Avg Power: 12 94.6 Н AVG 252 1.0 2420.540 103.0 Н PK 252 1.0 GC: 23, Avg Power: 12 GC: 23, Avg Power: 12 2437.870 ٧ AVG 91.0 176 1.3 GC: 23, Avg Power: 12 99.6 ٧ 2437.870 PK 176 1.3 --

- white - wight to significant the string in									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2389.970	52.1	Н	54.0	-1.9	Avg	252	1.0	GC: 23, Avg Power: 12	
2387.920	70.1	Н	74.0	-3.9	Pk	252	1.0	GC: 23, Avg Power: 12	
2389.640	47.4	V	54.0	-6.6	Avg	176	1.3	GC: 23, Avg Power: 12	
2387.570	64.1	V	74.0	-9.9	Pk	176	1.3	GC: 23, Avg Power: 12	



Elliott FMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A Run #1b: High Channel @ 2452 MHz Power Setting: Average power: 25 13.7 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments degrees MHz dBμV/m v/h Limit Pk/QP/Avg meters Margin 2436.670 99.9 1.0 GC: 27.5, Avg Power: 16.5 Н AVG 250 -2436.670 108.7 Н PK 250 1.0 GC: 27.5, Avg Power: 16.6 AVG 2436.370 98.1 Н 250 1.0 GC: 25, Avg Power: 13.7 PK GC: 25, Avg Power: 13.7 2436.370 107.0 Н 250 1.0 -2468.000 93.4 ٧ AVG 241 1.5 GC: 25, Avg Power: 13.7 101.7 ٧ PK GC: 25, Avg Power: 13.7 2468.000 241 1.5 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Ava degrees meters 2485.050 GC: 25, Avg Power: 13.7 72.6 Н 74.0 -1.4 250 1.0 Pk GC: 25, Avg Power: 13.7 2483.510 51.3 Н 54.0 -2.7 Avg 250 1.0 2484.770 70.6 ٧ 74.0 -3.4 241 1.5 GC: 25, Avg Power: 13.7 Avg 2483.530 ٧ 54.0 -5.2 Pk 1.5 GC: 25, Avg Power: 13.7 48.8 241 Peak - Horizontal 85.0 80.0 75.0 65.0 75.0 55.0 70.0 50.0 65.0 45.0 60.0 40.6-2500 55.0 50.0 Avg -Horizontal 45.0 40.0 35.0

2510

30.6

Elliott

EMC Test Data

\sim			
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain B

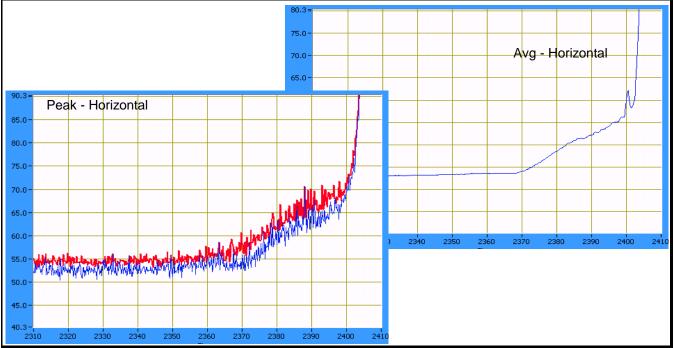
Date of Test: 3/24/2008 Test Engineer: Suhaila Khushzad Test Location: Chamber # 5 Run #2a: Low Channel @ 2422 MHz

Power Setting: 23.5 Average power:

12.6 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2406.400	97.9	Н	-	-	AVG	107	1.0	GC: 27, Avg Power: 16.6
2406.400	106.9	Н	-	-	PK	107	1.0	GC: 27, Avg Power: 16.6
2423.090	92.1	Н	-	-	AVG	107	1.0	GC: 23.5, Avg Power: 12.6
2423.090	100.5	Η	-	-	PK	107	1.0	GC: 23.5, Avg Power: 12.6
2437.730	91.0	V	-	-	AVG	50	1.0	GC: 23.5, Avg Power: 12.6
2437.730	99.4	V	-	-	PK	50	1.0	GC: 23.5, Avg Power: 12.6

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.770	52.5	Н	54.0	-1.5	Avg	107	1.0	GC: 23.5, Avg Power: 12.6
2388.170	71.4	Н	74.0	-2.6	Pk	107	1.0	GC: 23.5, Avg Power: 12.6
2389.840	48.5	V	54.0	-5.5	Avg	50	1.0	GC: 23.5, Avg Power: 12.6
2388.270	66.4	V	74.0	-7.6	Pk	50	1.0	GC: 23.5, Avg Power: 12.6



Elliott FMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain B Run #2b: High Channel @ 2452 MHz Power Setting: Average power: 25.5 14.3 (for reference purposes) Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m Limit Pk/QP/Avg degrees meters v/h Margin 2436.500 1.0 GC: 25.5, Avg Power: 14.3 97.1 Н AVG 112 -2436.500 106.2 Н PK 112 1.0 GC: 25.5, Avg Power: 14.3 ٧ 53 2440.330 92.6 AVG 1.0 GC: 25.5, Avg Power: 14.3 ٧ PK 2440.330 101.7 53 1.0 GC: 25.5, Avg Power: 14.3 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz dBuV/m v/h Limit Margin Pk/QP/Avq degrees meters Setting for Passing Data: 25.5 2483.500 52.2 Н 54.0 -1.8 Avg 112 1.0 GC: 25.5, Avg Power: 14.3 74.0 -1.0 Pk 112 1.0 GC: 25.5, Avg Power: 14.3 2485.770 73.0 Н 2483.500 47.0 ٧ 54.0 -7.0 Avg 53 1.0 GC: 25.5, Avg Power: 14.3 2484.400 66.4 ٧ 74.0 -7.6 Pk 53 1.0 GC: 25.5, Avg Power: 14.3 Peak - Horizontal 85.0 80.0 75.0 70.0 65.0 60.0 55.0 70.0 45.0 65.0 24652470 2500 2510 2480 2520 60.0 55.0 50.0 45.0 Avg - Horizontal 35.0

2510



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain C

Date of Test: 3/24/2008
Test Engineer: Suhaila Khushzad
Test Location: Chamber # 5
Run #3a: Low Channel @ 2422 MHz

Power Setting: 21 Average power: 11.5 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

- under order of the order of t									
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2423.500	94.1	Н	-	-	AVG	113	1.0	GC: 21, Avg Power: 11.5	
2423.500	102.4	Н	-	-	PK	113	1.0	GC: 21, Avg Power: 11.5	
2405.750	88.7	V	-	-	AVG	54	1.0	GC: 21, Avg Power: 11.5	
2405.750	97.5	V	-	-	PK	54	1.0	GC: 21, Avg Power: 11.5	

Band Edge Signal Field Strength

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.860	52.7	Н	54.0	-1.3	Avg	113	1.0	GC: 21, Avg Power: 11.5
2388.030	70.7	Н	74.0	-3.3	Pk	113	1.0	GC: 21, Avg Power: 11.5
2389.810	46.6	V	54.0	-7.4	Avg	54	1.0	GC: 21, Avg Power: 11.5
2388.720	61.8	V	74.0	-12.2	Pk	54	1.0	GC: 21, Avg Power: 11.5

Run #3b: High Channel @ 2452 MHz

Power Setting: 24 Average power: 13.9 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2436.250	99.3	Н	-	•	AVG	117	1.0	GC: 24, Avg Power: 13.9			
2436.250	107.7	Н	-	•	PK	117	1.0	GC: 24, Avg Power: 13.9			
2436.500	90.7	V	-	•	AVG	91	1.0	GC: 24, Avg Power: 13.9			
2436.500	99.1	V	-	•	PK	91	1.0	GC: 24, Avg Power: 13.9			
Band Edge	Band Edge Signal Field Strength										
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2485.640	72.6	Н	74.0	-1.4	Pk	117	1.0	GC: 24, Avg Power: 13.9			
2483.640	51.1	Н	54.0	-2.9	Avg	117	1.0	GC: 24, Avg Power: 13.9			
2483.510	45.9	V	54.0	-8.1	Avg	91	1.0	GC: 24, Avg Power: 13.9			
2485.340	64.7	V	74.0	-9.3	Pk	91	1.0	GC: 24, Avg Power: 13.9			

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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
woder.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #4: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A+B

Date of Test: 4/21/2008 Test Engineer: Ben Jing Test Location: Chamber # 4

Run #4a: Low Channel @ 2422 MHz

Po ⁻	Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
23.5	11.3	23.5	11.4						

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2423.410	94.6	Н	-	-	AVG	115	1.0	RB = 1MHz, VB = 10Hz		
2423.410	105.7	Н	-	-	PK	115	1.0	RB = VB = 1MHz		
Band Edge Signal Field Strength										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Heiaht	Comments		

	- 3							
Frequency	Level	Pol	15.209	15.209 / 15.247		Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.700	52.1	Н	54.0	-1.9	AVG	111	1.0	
2389.720	67.3	Н	74.0	-6.7	PK	111	1.0	
2389.750	66.2	V	74.0	-7.8	PK	206	1.0	
2389.710	51.7	V	54.0	-2.3	AVG	206	1.0	
	· ·	· ·	· ·	·	· ·	·	· ·	

Run #4b: High Channel @ 2452 MHz

Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Chain C				
Setting	Avg	Setting	Avg	Setting	Avg			
26.0	13.8	26.5	14 1					

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	15.209 / 15.247		Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Detector Pk/QP/Avg	degrees	meters	
2450.560	94.5	Н	-	-	AVG	116	1.0	RB = 1MHz, VB = 10Hz
2450.560	104.6	Н	-	-	PK	116	1.0	RB = VB = 1MHz
Band Edge	Signal Field	d Strength						
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBu\//m	v/h	l imit	Margin	Pk/OP/Ava	dearees	meters	

riequency	Level	FUI	13.207	13.2077 13.247		AZIIIIUIII	neigni	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2484.880	53.0	Н	54.0	-1.0	AVG	115	1.0	
2485.490	72.2	Н	74.0	-1.8	PK	115	1.0	
2483.610	65.4	V	74.0	-8.6	PK	84	1.0	
2483.420	47.6	V	54.0	-6.4	AVG	64	1.0	

6	Elli	ot	t					EMO	C Test Da
	Intel Corpora		_					Job Number:	J70976
							T-	Log Number:	T71133
Modei:	533AN-MMV	N(MMC)					Acco	unt Manager:	Dean Eriksen
Contact:	Robert Paxn	nan						-	
Standard:	FCC							Class:	N/A
Run #5: Ra	diated Spur	ious Emissi	ons, Band E	Edges. Oper	ating Mode:	802.11n (40	MHz Chan	nel) - Chain A	A+C
	ow Channel	@ 2422 MH	Z					,	
					nt (for referen				
	Cha			nin B	Cha				
	Setting	Avg	Setting	Avg	Setting	Avg			
	24.5	12.1			22.5	11.8			
					es measured				n 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	DD 1MH-	VD 4011-
2420.900	94.1	H	-	-	AVG	128	1.0	RB = 1MHz	
2420.900	104.0	Н	-	-	PK	128	1.0	RB = VB = 1	
2420.530	83.0	V	-	-	AVG	64	1.0	RB = 1MHz	
2420.530	93.5	V	-	-	PK	64	1.0	RB = VB = 1	IMHZ
Rand Edge	Signal Field	l Strenath							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2389.720	52.7	Н	54.0	-1.3	AVG	119	1.0		
2389.750	70.5	Н	74.0	-3.5	PK	114	1.0		
2389.760	62.0	V	74.0	-12.0	PK	72	1.0		
2389.700	45.8	V	54.0	-8.2	AVG	70	1.0		
Run #5b: Hi		wer Setting a	ind average		nt (for referen				
		in A		ain B	Cha				
	Setting	Avg	Setting	Avg	Setting	Avg			
	26.5	13.9	n li sind a		25.5	14.1	-1	· · · · · d :	100111-
					es measured				n 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	DD 1MU-	VD 1011-
2450.700	96.3	H	-	-	AVG	118	1.0	RB = 1MHz	
2450.700	106.5	H Ctrongth	-	-	PK	118	1.0	RB = VB = 1	IMHZ
	Signal Field		15 200	115 217	Detector	^ =: muth	Halaht	Commonto	
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	

dBμV/m

72.3

49.1

67.4

45.2

v/h

Н

Н

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Limit

74.0

54.0

74.0

54.0

MHz

2485.570

2484.420

2484.380

2484.380

Pk/QP/Avg

PK

AVG

PK

AVG

degrees

134

126

67

62

meters

1.0

1.0

1.0

1.0

Margin

-1.7

-4.9

-6.6

-8.8

6	<u>Elli</u>	ot	t					EMO	C Test Dat
	Intel Corpora							Job Number:	J70976
Madal		A //N AN A C \	-	-	-		T-	Log Number:	T71133
Woder	533AN-MMV	V(IVIIVIC)					Accol	unt Manager:	Dean Eriksen
Contact:	Robert Paxm	nan							
Standard:	FCC						<u> </u>	Class:	N/A
Run #6: Ra	diated Spur	ious Emissi	ons, Band F	dges. Oper	rating Mode:	802.11n (40	MHz Chan	nel) - Chain	B+C
	ow Channel	@ 2422 MH	Z					•	
					nt (for referen				
	Cha			nin B	Cha				
	Setting	Avg	Setting	Avg	Setting	Avg			
			23.5	11.1	21.0	10.2			
					es measured				n 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	22 4141-	::5 4011
2423.480	96.2	Н	-	-	AVG	117	1.0	RB = 1MHz	
2423.480	106.6	Н	-	-	PK	117	1.0	RB = VB = 1	
2423.220	89.5	V	-	-	AVG	66	1.0	RB = 1MHz	
2423.220	99.7	-	-	-	PK	66	1.0	RB = VB = 1	IMHZ
	Signal Field		15 200	115 247	Detector	^ =:muth	Halaht	Commonto	
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz 2388.240	dBμV/m 52.7	v/h H	Limit 54.0	Margin 1 2	Pk/QP/Avg	degrees	meters 1.0	+	_
2388.240	68.8	H	54.0 74.0	-1.3 -5.2	AVG PK	113 111	1.0	1	
2388.230	68.8	V	74.0	-5.2 -9.7	PK PK	64	1.0	1	
2388.530	64.3 47.6	V	54.0	-9.7 -6.4	AVG	62	1.0	+	
	igh Channel		z	measuremer	nt (for referen	re)		•	
		in A		ain B	Cha				
	Setting		Setting		Setting				
		, 9	25.5	13.5	24.5	13.6			
Fundament	al Signal Fie	eld Strength			es measured		id peak valu	e measured i	in 100kHz
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2450.760	99.6	Н	-	-	AVG	115	1.0	RB = 1MHz	, VB = 10Hz
2450.760	110.2	Н	-	-	PK	115	1.0	RB = VB = 1	
2450.560	93.0	V	-	-	AVG	63	1.0	RB = 1MHz	, VB = 10Hz
2450.560	103.0	V	-	-	PK	63	1.0	RB = VB = 1	IMHz
Band Edge	Signal Field	Strength							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
	ID 1//	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz	dBμV/m			iviargin		acgrees	11101010		
MHz 2484.520 2485.570	dBμV/m 51.7 72.4	H H	54.0 74.0	-2.3 -1.6	AVG PK	114 110	1.0		

65.1

47.5

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74.0

54.0

-8.9

-6.5

2484.320

2484.540

PK

AVG

58

68

1.0

1.0

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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #7: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A+B+C Run #7a: Low Channel @ 2422 MHz

Power Setting and average measurement (for reference)						ce)	
	Cha	nin A	Cha	nin B	Chain C		
	Setting	Avg	Setting	Avg	Setting	Avg	
	23.0	10.2	22.5	10.1	21.0	10.0	

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2423.120	96.4	Н	-	-	AVG	115	1.0	RB = 1MHz, VB = 10Hz
2423.120	108.0	Н	-	-	PK	115	1.0	RB = VB = 1MHz
2420.610	90.0	V	-	-	AVG	181	1.0	RB = 1MHz, VB = 10Hz
2420.610	100.6	V	-	-	PK	181	1.0	RB = VB = 1MHz
Band Edge	Signal Field	l Strength						
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2386.810	52.5	Н	54.0	-1.5	AVG	109	1.0	

PK

PK

AVG

117

182

186

1.0

1.0

1.0

Run #7b: High Channel @ 2452 MHz

67.8

65.2

48.8

Н

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2386.650

2389.860

2389.800

 3						
Po	wer Setting a	and average i	measuremen	it (for reference)		
Cha	ain A	Cha	in B	Chain C		
Setting Avg		Setting Avg		Setting	Avg	
26.0	12.8	26.0	12.8	25.5	12.9	

-6.2

-8.8

-5.2

74.0

74.0

54.0

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2450.540	97.5	Н	-	-	AVG	116	1.0	RB = 1MHz, VB = 10Hz
2450.540	108.6	Н	-	-	PK	116	1.0	RB = VB = 1MHz
2450.950	92.0	V	-	-	AVG	63	1.0	RB = 1MHz, VB = 10Hz
2450.950	102.7	V	-	-	PK	63	1.0	RB = VB = 1MHz
Band Edge	Signal Field	l Strength						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.500	52.5	Н	54.0	-1.5	AVG	108	1.0	
2483.660	69.0	Н	74.0	-5.0	PK	116	1.0	
2483.620	62.9	V	74.0	-11.1	PK	57	1.0	

49.0

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54.0

-5.0

2483.600

AVG

59

1.0

	Elliott
Client:	Intel Corporation

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11n 40MHz Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 4/2/2008 Config. Used: 1 Config Change: None Test Engineer: Ben Jing Test Location: Chamber # 5 Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C 33 %

Rel. Humidity:

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11n40 Chains A+B+C	3 (2422) 6 (2437) 9 (2452)		16.5dBm per chain	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	41.8dBµV/m @ 7274.6MHz (-12.2dB)

Measurements made to demonstrate that 802.11n 20-MHz mode had higher emissions than the n-40MHz mode.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

C	Elliott
Client:	Intel Corporation
Model:	533AN-MMW(MMC)

Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26,000 MHz. Operating Mode: 802.11n 40MHz Chain A+B+C at Max power Run #1a: Low Channel @ 2422 MHz

Po ⁻	Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Cha	in C				
Setting	Avg	Setting	Avg	Setting	Avg				
29. 5	16. 5	30. 0	16. 5	28. 5	16. 5				

<--- highest power setting for single channel

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2422.670	97.8	V	-	-	Pk	86	1.0	RB = VB = 100kHz
2422.640	104.9	Н	-	-	Pk	119	1.0	RB = VB = 100kHz

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1744.210	36.0	V	54.0	-18.0	AVG	316	1.0	
7274.600	41.8	٧	54.0	-12.2	AVG	151	1.5	
9687.990	41.2	V	54.0	-12.8	AVG	118	1.5	Note 2
1744.210	56.0	V	74.0	-18.0	PK	316	1.0	
7274.600	55.4	V	74.0	-18.6	PK	151	1.5	
9687.990	53.8	V	74.0	-20.2	PK	118	1.5	Note 2

Noto 1	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
Note 1:	level of the fundamental and measured in 100kHz.
Note 2:	Signal is not in a restricted band but the more stringent restricted band limit was used.

Elliott FMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #1b: Center Channel @ 2437 MHz Power Setting and average measurement (for reference) Chain A Chain B Chain C Setting Setting Setting Avg Avg Avg 30.0 16. 5 30.0 16.6 29.0 16. 6 <--- highest power setting for single channel Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Height Frequency Level Pol Detector Azimuth Comments Pk/QP/Avg MHz $dB\mu V/m$ v/h Limit Margin degrees meters 2437.670 RB = VB = 100kHz105.6 Н Pk 116 1.0 RB = VB = 100kHz 2436.020 98.2 ٧ Pk 70 1.0 Fundamental emission level @ 3m in 100kHz RBW: dBμV/m Limit for emissions outside of restricted bands -30 dBuV/m Limit is -30dBc (UNII power measurement) Spurious Emissions 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz v/h Limit Margin Pk/QP/Avg degrees dBuV/m meters 1748.760 37.3 ٧ 54.0 -16.7 **AVG** 17 1.0 7306.410 39.9 ٧ 54.0 -14.1 AVG 148 1.0 9750.390 2.0 39.9 ٧ 54.0 -14.1 AVG 166 Note 2 1748.760 58.2 ٧ 74.0 -15.8 PK 17 1.0 7306.410 54.1 ٧ 74.0 -19.9 PK 148 1.0 9750.390 PK 52.5 ٧ 74.0 -21.5 166 2.0 Note 2 For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the Note 1: level of the fundamental and measured in 100kHz. Note 2: Signal is not in a restricted band but the more stringent restricted band limit was used. Chain A + B + C 802.11n-40 Channel @ 2437 MHz 80.0 70.0 Amplitude (dBuV/m) 60.0 50.0 30.0

2000

3000

4000

20.0 - , 1000

Frequency (MHz)

6000

7000

8000

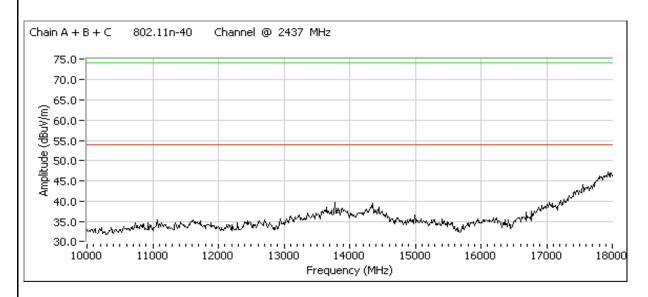
5000

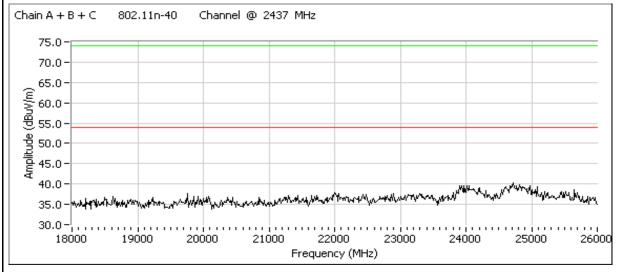
10000

9000



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A





	EII		LL						C Test Dat
Client:	Intel Corpora	ation						Job Number:	
Model·	533AN-MMW	W(MMC)				Log Number:			
		, ,		Acco	unt Manager:	Dean Eriksen			
Contact:	Robert Paxman								
Standard:	FCC							Class:	N/A
Run #1c: Hi		wer Setting a	and average i		nt (for referen				
	Chai			ain B	Cha	in C			
	Setting	Avg	Setting	Avg	Setting	Avg			
ļ	30. 5	16. 6	30.0	16. 6	29. 5	16. 6	< highest	power setting	g for single channel
undament Frequency		eld Strength Pol		average value / 15.247	es measured Detector	in 1 MHz, ar Azimuth	nd peak valu Height	e measured i	n 100kHz
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
2452.920	98.9	V	-	- Iviai giri	Pk	68	1.0	RB = VB = 1	100kHz
2450.770	104.1	Н	-	-	Pk	118	1.0	RB = VB = 1	
	undamental e	mission leve	ا @ 3m in 10	JUNHA BBW.	·	dBμV/m		1	
			itside of restr			dBμV/m	I imit is -300	dBc (UNII pov	ver measurement)
Spurious E						αυμνι		455 (5 F.	101
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1743.980	35.3	V	54.0	-18.7	AVG	49	1.0		
7361.280	41.3	V	54.0	-12.7	AVG	146	1.0		
9810.570	39.4	V	54.0	-14.6	AVG	149	2.0	Note 2	
1743.980	53.9	V	74.0	-20.1	PK	49	1.0		
7361.280	54.5	V	74.0	-19.5	PK	146	1.0		
9810.570	51.9	V	74.0	-22.1	PK	149	2.0	Note 2	

Note 2:

Signal is not in a restricted band but the more stringent restricted band limit was used.

6	Elliott	EMO	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 5725 - 5850 MHz) Radiated Spurious Emissions 802.11a Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Date of Test: 4/2/2008 Config Change: -Test Engineer: Ben Jing

Test Location: Chamber # 4 Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

> Rel. Humidity: 33 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11a Chain A	5745 MHz 5785 MHz 5825 MHz	26.0 26.0 26.5	16.7 16.6 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	51.3dBµV/m @ 11571.7MHz (-2.7dB)
2	802.11a Chain B	5745 MHz 5785 MHz 5825 MHz	25.0 25.5 26.0	16.6 16.6 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	49.6dBµV/m @ 11650.6MHz (-4.4dB)
3	802.11a Chain C	5745 MHz 5785 MHz 5825 MHz	25.5 26.0 26.5	16.6 16.7 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	46.9dBµV/m @ 11649.7MHz (-7.1dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Intel Corpora	ation						Job Number:	J70976
Model:	533AN-MMV	N(NANAC)			T-	Log Number:	T71133		
				Account Manager: Dean Eriksen					
Contact:	Robert Paxn	nan							
Standard:	FCC							Class:	N/A
un #1a: L undamen	ow Channel tal Signal Fie	@ 5745 MH eld Strength	lz n: Peak and a	average value		in 1 MHz, ar	nd peak valu	ue measured i	n 100kHz
Frequency		Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz 5743.740	dBμV/m 99.9	v/h V	Limit	Margin	Pk/QP/Avg Pk	degrees 144	meters 1.0	RB = VB = 1	100kHz
5743.750	93.1	H	-	-	Pk	258	1.0	RB = VB = 1	
			1						
F	undamental e	emission leve	el @ 3m in 10	OOkHz RBW:	99.9	dBμV/m]		
		emissions ou	utside of restr	ricted bands:		dBμV/m	Limit is -30	dBc (UNII pov	ver measurement)
							-		
Spurious E	missions								
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
Frequency MHz	Level dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
Frequency MHz 11481.330	Level dBµV/m 48.3	v/h V	Limit 54.0	Margin -5.7	Pk/QP/Avg AVG	degrees 141	meters 1.0	Comments	
Frequency MHz 11481.330 11481.330	Level dBμV/m 48.3 60.5	v/h V V	Limit 54.0 74.0	Margin -5.7 -13.5	Pk/QP/Avg AVG PK	degrees 141 141	meters 1.0 1.0		
Frequency MHz 11481.330 11481.330 1747.270	Level dBµV/m 48.3 60.5 59.1	v/h V V	Limit 54.0 74.0 69.9	Margin -5.7 -13.5 -10.8	Pk/QP/Avg AVG PK PK	degrees 141 141 360	meters 1.0 1.0 1.0	Note 2	
Frequency MHz 11481.330 11481.330 1747.270 1498.210	Level dBµV/m 48.3 60.5 59.1 32.2	v/h V V V	Limit 54.0 74.0 69.9 54.0	-5.7 -13.5 -10.8 -21.8	Pk/QP/Avg AVG PK PK AVG	degrees 141 141 360 115	meters 1.0 1.0 1.0 1.0		
Frequency MHz 11481.330 11481.330 1747.270 1498.210 1498.210	Level dBµV/m 48.3 60.5 59.1 32.2 50.1	v/h V V V V	Limit 54.0 74.0 69.9 54.0 74.0	Margin -5.7 -13.5 -10.8 -21.8 -23.9	Pk/QP/Avg AVG PK PK AVG PK	degrees 141 141 360 115 115	meters 1.0 1.0 1.0 1.0 1.0 1.0	Note 2	
Frequency MHz 11481.330 11481.330 1747.270 1498.210 1498.210	Level dBµV/m 48.3 60.5 59.1 32.2	v/h V V V	Limit 54.0 74.0 69.9 54.0	-5.7 -13.5 -10.8 -21.8	Pk/QP/Avg AVG PK PK AVG	degrees 141 141 360 115	meters 1.0 1.0 1.0 1.0		
Frequency MHz 11481.330 1747.270 1498.210 1498.210 7659.900 Note 1:	Level dBµV/m 48.3 60.5 59.1 32.2 50.1 47.6	v/h V V V V V V ons in restricte	Limit 54.0 74.0 69.9 54.0 74.0 69.9 ed bands, the	Margin -5.7 -13.5 -10.8 -21.8 -23.9 -22.3	PK/QP/Avg AVG PK PK AVG PK AVG PK PK O9 was used.	degrees 141 141 360 115 115	meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Note 2	s set 30dB below t



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number: T71133	
Model.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1b: Center Channel @ 5785 MHz

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5786.250	99.4	V	-	-	Pk	148	1.0	RB = VB = 100kHz
5786.290	94.0	Н	-	-	Pk	264	1.0	RB = VB = 100kHz

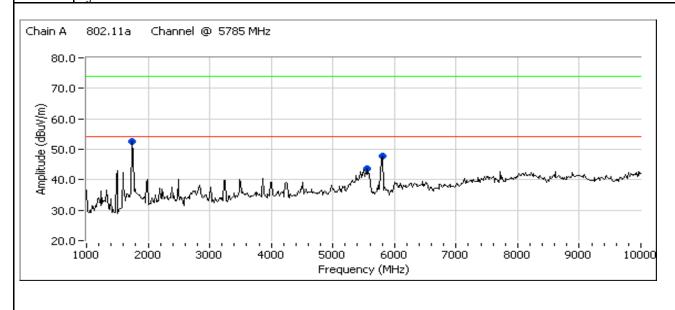
Fundamental emission level @ 3m in 100kHz RBW:	99.4	dBμV/m	
Limit for emissions outside of restricted bands:	69.4	dBμV/m	Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
11571.720	51.3	V	54.0	-2.7	AVG	195	1.0	
11571.720	63.3	V	74.0	-10.7	PK	195	1.0	
1743.460	59.1	V	69.4	-10.3	PK	0	1.0	Note 2
5578.410	51.9	V	69.4	-17.5	PK	163	1.5	Note 2

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

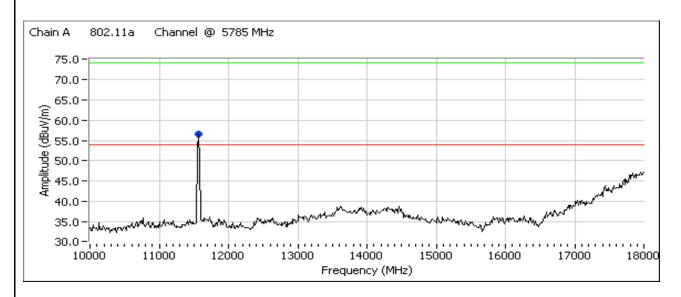
Note 2: Signal is not in a restricted band.

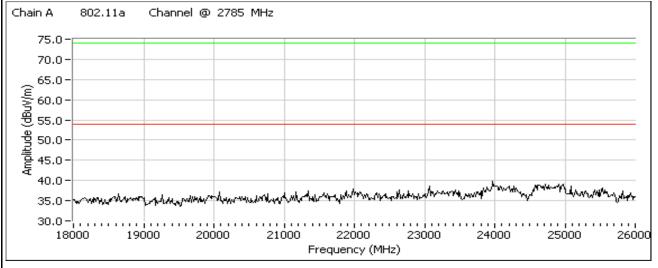


Elliott

EMC Test Data

~			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A





	axman nel @ 5825 MHz Field Strength: Pe	15.209 / 15.247 Limit Mary	7 Detector	Azimuth	Account Accoun	Class:	Dean Eriksen N/A
Contact: Robert F Standard: FCC Run #1c: High Char undamental Signa Frequency Level MHz dBµV// 5826.270 99.8 5823.750 94.0 Fundamen Limit purious Emissions Frequency Level	axman nel @ 5825 MHz Field Strength: Pe Pol N V/h H al emission level @	15.209 / 15.247 Limit Mary	7 Detector gin Pk/QP/Avg Pk	Azimuth degrees	Account Accoun	unt Manager: Class: ue measured i	Dean Eriksen N/A
Standard: FCC Run #1c: High Char Frequency Level MHz dBµV/ 5826.270 99.8 5823.750 94.0 Fundamen Limit Spurious Emissions Frequency Level	nel @ 5825 MHz Field Strength: Pe Pol N V/h H al emission level @	15.209 / 15.247 Limit Mary	7 Detector gin Pk/QP/Avg Pk	Azimuth degrees	Height meters	ie measured i	<u>'</u>
Run #1c: High Char Fundamental Signa Frequency Level MHz dBµV/ 5826.270 99.8 5823.750 94.0 Fundamen Limit Spurious Emissions Frequency Level	Pol Pol V/h V H H All emission level @	15.209 / 15.247 Limit Mary	7 Detector gin Pk/QP/Avg Pk	Azimuth degrees	Height meters	ie measured i	<u>'</u>
Fundamental Signa Frequency Level MHz dBμV// 5826.270 99.8 5823.750 94.0 Fundamen Limit Spurious Emissions Frequency Level	Pol Pol V/h V H H All emission level @	15.209 / 15.247 Limit Mary	7 Detector gin Pk/QP/Avg Pk	Azimuth degrees	Height meters		in 100kHz
Frequency Level MHz dBμV// 5826.270 99.8 5823.750 94.0 Fundamen Limit purious Emissions Frequency Level	Pol v/h V H H all emission level @	15.209 / 15.247 Limit Mary	7 Detector gin Pk/QP/Avg Pk	Azimuth degrees	Height meters		in 100kHz
MHz dBμV/l 5826.270 99.8 5823.750 94.0 Fundamen Limit cpurious Emissions	n v/h V H H al emission level @	Limit Març	gin Pk/QP/Avg	degrees	meters	Comments	
5826.270 99.8 5823.750 94.0 Fundamen Limit purious Emissions requency Level	V H al emission level @		Pk				
Fundamen Limit purious Emissions requency Level	H al emission level @	l		145		 	
Fundamen Limit purious Emissions requency Level	al emission level @	l	PK PK	0/4	1.0	RB = VB = 1	
Limit Durious Emissions requency Level		3m in 100kHz F		261	1.0	RB = VB = 1	100kHz
Limit purious Emissions requency Level		JIII III TUUKITZ I	RBW: 99.8	dD. M/m	İ		
ourious Emissions requency Level	or emissions outside	a of restricted ha		dBμV/m dBμV/m	Limitic 200	dBc (HMH now	wer measurement)
requency Level		e of restricted be	ilius. 07.0	υσμν/ΙΙΙ	LIIIII IS -300	and (Olvii bos	vei measurement)
requency Level							
		15.209 / 15.247	7 Detector	Azimuth	Height	Comments	
		Limit Marg			meters		
1641.420 49.5	V	54.0 -4.		156	1.0		
1641.420 62.3	V	74.0 -11		156	1.0		
743.280 59.4	V	69.8 -10	.4 PK	24	1.0	Note 2	
5578.060 48.5		69.8 -21	.3 PK	143	1.0	Note 2	
ote 2: Signal is	not in a restricted b	and.					

Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	Olicili.	Intel Corpora							Job Number:	J70976
Contact: Robert Paxman Raccount Manager Dean Eriksen	Model	ESSANI MANAN	A//NANAC)					T-	Log Number:	T71133
Standard FCC Class: N/A	woder:	333AIN-IVIIVIN	N(INIINIC)					Acco	unt Manager:	Dean Eriksen
Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain B	Contact:	Robert Paxr	man							
Run #2a: Low Channel @ 5745 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz	Standard:	FCC							Class:	N/A
Run #2a: Low Channel @ 5745 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz	Run #2: Ra	diated Spur	ious Emissi	ons, 1000 -	18000 MHz.	Operating M	lode: 802.1	1a Chain B		1
Frequency Level Pol 15.209 / 15.247 Delector Azimuth Height Comments	Run #2a: L	ow Channel	@ 5745 MH	Z						
MHz dBμV/m v/h Limit Margin Pk/OP/Avg degrees meters 5743.720 102.4 V - - Pk 167 1.0 RB = VB = 100kHz 5746.250 94.2 H - - Pk 174 1.0 RB = VB = 100kHz Fundamental emission level @ 3m in 100kHz RBW: 102.4 dBμV/m 1.0 RB = VB = 100kHz Fundamental emission level @ 3m in 100kHz RBW: 102.4 dBμV/m Limit for emissions outside of restricted bands: 72.4 dBμV/m Limit for emissions outside of restricted bands: 102.4 dBμV/m Limit is -30dBc (UNII power measurement bands) Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Comments Half Bull Min Vin Limit Margin Pk/OP/Avg degrees meters 1.0 note 2 Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Comments Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Limit fo	Fundament									in 100kHz
The first of t				15.209					Comments	
Fundamental emission level @ 3m in 100kHz RBW:		_		Limit	Margin	,				
Fundamental emission level @ 3m in 100kHz RBW: 102.4 dB _μ V/m Limit for emissions outside of restricted bands: 72.4 dB _μ V/m Limit is -30dBc (UNII power measurement specification of the properties of t				-	-					
Limit for emissions outside of restricted bands: 72.4 dBμV/m	5746.250	94.2	Н	-	-	Pk	174	1.0	RB = VB = 1	100kHz
Limit for emissions outside of restricted bands: 72.4 dBμV/m		undamental (mission love	al @ 2m in 10	JUKH2 DB/V/·	102 /	dD.,\//~	1		
Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments								l imit is ₋2∩	dBc (HNII nov	Ner measurement)
Frequency Level Pol 15.209 / 15.247 Detector Azimuth degrees Height meters Comments MHz dBμV/m v/h Limit Margin Pk/OP/Avg degrees meters 766.0.040 46.7 V 54.0 -7.3 AVG 117 1.0 1743.810 59.3 V 72.4 -13.1 PK 23 1.0 note 2 11484.250 55.6 V 74.0 -18.4 PK 171 1.0 7660.040 51.5 V 74.0 -22.5 PK 117 1.0 Run #2b: Center Channel @ 5785 MHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμ/m v/h Limit Margin Pk/OP/Avg degrees meters 5786.290 101.1 V - - Pk 219 1.0 RB = VB = 100kHz Frequency Level Pol Taxon In Interpretation of the missions of the mission soutside of restricted bands: <td< td=""><td>Spurious F</td><td></td><td>GITH 3 310 H 3 UU</td><td>isiac di 163li</td><td>icica parias.</td><td>12.4</td><td>υρμν/ΙΙΙ</td><td>Trillin 12 -200</td><td>משכ למואוו אמו</td><td>wei measuremem)</td></td<>	Spurious F		GITH 3 310 H 3 UU	isiac di 163li	icica parias.	12.4	υρμν/ΙΙΙ	Trillin 12 -200	משכ למואוו אמו	wei measuremem)
MHz dB _μ V/m v/h Limit Margin Pk/QP/Avg degrees meters 7660.040 46.7 V 54.0 -7.3 AVG 117 1.0 11484.250 43.6 V 54.0 -10.4 AVG 171 1.0 1743.810 59.3 V 72.4 -13.1 PK 23 1.0 note 2 11484.250 55.6 V 74.0 -18.4 PK 171 1.0 7660.040 51.5 V 74.0 -22.5 PK 117 1.0 Run #2b: Center Channel @ 5785 MHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dB _μ V/m v/h Limit Margin Pk/QP/Avg degrees meters 5786.290 101.1 V - - Pk 219 1.0 RB = VB = 100kHz Frequency Limit for emission level @ 3m in 100kHz RBW: 101.1 dB _μ V/m Limit for emissions outside of restricted bands: 71.1 dB _μ V/m Limit is -30dBc (UNII power measurement MHz </td <td>•</td> <td></td> <td>Pol</td> <td>15.209</td> <td>/ 15.247</td> <td>Detector</td> <td>Azimuth</td> <td>Heiaht</td> <td>Comments</td> <td></td>	•		Pol	15.209	/ 15.247	Detector	Azimuth	Heiaht	Comments	
7660.040					Ī					
11484.250						9				
1743.810 59.3			V							
11484.250 55.6			V						note 2	
Run #2b: Center Channel @ 5785 MHz			1.7							
Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 5786.290 101.1 V - - Pk 219 1.0 RB = VB = 100kHz Fundamental emission level @ 3m in 100kHz RBW: 101.1 dBμV/m Limit for emissions outside of restricted bands: 71.1 dBμV/m Limit is -30dBc (UNII power measurement Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0		55.6	V	/4.0	-18.4	PK	171	1.0		
Fundamental emission level @ 3m in 100kHz RBW: 101.1 dBμV/m Limit for emissions outside of restricted bands: 71.1 dBμV/m Limit is -30dBc (UNII power measurement Spurious Emissions	11484.250									
Fundamental emission level @ 3m in 100kHz RBW: 101.1 dBμV/m Limit for emissions outside of restricted bands: 71.1 dBμV/m Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m V/h Limit Margin Pk/QP/Avg degrees meters 771.3.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: (Fundament Frequency MHz	51.5 Center Channal Signal Fid Level dBμV/m	V nel @ 5785 I eld Strength Pol v/h	74.0 MHz : Peak and a 15.209	-22.5 verage value / 15.247	PK es measured Detector Pk/QP/Avg	in 1 MHz, and Azimuth degrees	1.0 nd peak valu Height meters	Comments	
Limit for emissions outside of restricted bands: 71.1 dBμV/m Limit is -30dBc (UNII power measurement Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290	51.5 Center Channal Signal Fid Level dBµV/m 101.1	V nel @ 5785 l eld Strength Pol v/h V	74.0 MHz : Peak and a 15.209 Limit -	-22.5 verage value / 15.247 Margin -	PK es measured Detector Pk/QP/Avg Pk	in 1 MHz, an Azimuth degrees 219	1.0 nd peak valu Height meters 1.0	Comments RB = VB =	100kHz
Limit for emissions outside of restricted bands: 71.1 dBμV/m Limit is -30dBc (UNII power measurement support of the power measurement suppor	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290	51.5 Center Channal Signal Fid Level dBµV/m 101.1	V nel @ 5785 l eld Strength Pol v/h V	74.0 MHz : Peak and a 15.209 Limit -	-22.5 verage value / 15.247 Margin -	PK es measured Detector Pk/QP/Avg Pk	in 1 MHz, an Azimuth degrees 219	1.0 nd peak valu Height meters 1.0	Comments RB = VB =	100kHz
Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730	51.5 Center Change al Signal Field Level dBµV/m 101.1 93.7	V nel @ 5785 I eld Strength Pol v/h V H	74.0 MHz : Peak and a 15.209 Limit	-22.5 Everage value / 15.247 Margin - -	PK es measured Detector Pk/QP/Avg Pk Pk	in 1 MHz, an Azimuth degrees 219 175	1.0 nd peak valu Height meters 1.0	Comments RB = VB =	100kHz
MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730	51.5 Center Channal Signal Fie Level dBμV/m 101.1 93.7	V nel @ 5785 I eld Strength Pol v/h V H	74.0 MHz : Peak and a	-22.5 verage value / 15.247 Margin D0kHz RBW:	PK es measured Detector Pk/QP/Avg Pk Pk	in 1 MHz, and Azimuth degrees 219 175 dBµV/m	nd peak value Height meters 1.0 1.0	RB = VB = RB = R	100kHz 100kHz
MHz dBμV/m v/h Limit Margin Pk/QP/Avg degrees meters 7713.380 44.6 V 54.0 -9.4 AVG 160 1.0 11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730	51.5 Center Changal Signal Fie Level dBμV/m 101.1 93.7 undamental € Limit for €	V nel @ 5785 I eld Strength Pol v/h V H	74.0 MHz : Peak and a	-22.5 verage value / 15.247 Margin D0kHz RBW:	PK es measured Detector Pk/QP/Avg Pk Pk	in 1 MHz, and Azimuth degrees 219 175 dBµV/m	nd peak value Height meters 1.0 1.0	RB = VB = RB = R	100kHz 100kHz
11570.290 43.7 V 54.0 -10.3 AVG 85 1.0 11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730 Fi	51.5 Center Changal Signal Figure Level dBμV/m 101.1 93.7 undamental educations in the company of the company	V nel @ 5785 I eld Strength Pol v/h V H emission leve	74.0 MHz : Peak and a 15.209 Limit - - el @ 3m in 10 tside of restr	-22.5 Everage value 7 15.247 Margin 00kHz RBW: icted bands:	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1	in 1 MHz, an Azimuth degrees 219 175 dBµV/m dBµV/m	nd peak value Height meters 1.0 1.0	RB = VB = 1 RB = VB = 1	100kHz 100kHz
11570.290 56.6 V 74.0 -17.4 PK 85 1.0 1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	Run #2b: CFundament Frequency MHz 5786.290 5783.730 Frequency Frequency Frequency	51.5 Center Change Level dBμV/m 101.1 93.7 undamental e Limit for e missions Level	V nel @ 5785 I eld Strength Pol v/h V H emission leve emissions ou Pol v/h	74.0 MHz : Peak and a	-22.5 verage value / 15.247 Margin 00kHz RBW: icted bands:	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1	in 1 MHz, an Azimuth degrees 219 175 dBµV/m dBµV/m	nd peak value Height meters 1.0 1.0 Limit is -300	RB = VB = 1 RB = VB = 1	100kHz 100kHz
1744.230 56.0 V 71.1 -15.1 PK 8 1.5 note 2 7713.380 49.5 V 74.0 -24.5 PK 160 1.0	Run #2b: (Fundament Frequency MHz 5786.290 5783.730 Frequency MHz	51.5 Center Change Level dBμV/m 101.1 93.7 undamental e Limit for e missions Level dBμV/m	V nel @ 5785 I eld Strength Pol v/h V H emission level emissions ou Pol v/h V	74.0 MHz : Peak and a 15.209 Limit el @ 3m in 10 tside of restr	-22.5 Everage value / 15.247 Margin - - OokHz RBW: icted bands: / 15.247 Margin	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG	in 1 MHz, and Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160	nd peak value Height meters 1.0 1.0 Limit is -300 Height meters	RB = VB = 1 RB = VB = 1	100kHz 100kHz
7713.380 49.5 V 74.0 -24.5 PK 160 1.0	Run #2b: CFundament Frequency MHz 5786.290 5783.730 Frequency MHz Frequency MHz 7713.380	51.5 Center Changal Signal Field Level dBμV/m 101.1 93.7 undamental elementation Limit for elementation signal Level dBμV/m 44.6	V nel @ 5785 I eld Strength Pol v/h V H emission leve emissions ou Pol v/h V	74.0 VIHz : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0	-22.5 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -9.4	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG AVG	in 1 MHz, and Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0	RB = VB = 1 RB = VB = 1	100kHz 100kHz
	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730 Findament Spurious E Frequency MHz 7713.380 11570.290	51.5 Center Change Level dBμV/m 101.1 93.7 undamental e Limit for e missions Level dBμV/m 44.6 43.7 56.6	V nel @ 5785 I eld Strength Pol v/h V H emission leve emissions ou Pol v/h V	74.0 MHz : Peak and a	-22.5 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -9.4 -10.3 -17.4	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG AVG PK	in 1 MHz, an Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160 85 85	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 1.0	Comments RB = VB = 1 RB = VB = 1 dBc (UNII por	100kHz 100kHz
	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730 Fi Spurious E Frequency MHz 7713.380 11570.290 1744.230	51.5 Center Change al Signal Field Level dBμV/m 101.1 93.7 undamental elementsions Level dBμV/m 44.6 43.7 56.6 56.0	V nel @ 5785 I eld Strength Pol v/h V H emission leve emissions ou Pol v/h V V	74.0 MHz : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0 71.1	-22.5 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -9.4 -10.3 -17.4 -15.1	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG AVG PK PK PK	in 1 MHz, and Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160 85 85 85 8	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 1.0 1.0	Comments RB = VB = 1 RB = VB = 1 dBc (UNII por	100kHz 100kHz
	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730 Fi Spurious E Frequency MHz 7713.380 11570.290 1744.230	51.5 Center Change al Signal Field Level dBμV/m 101.1 93.7 undamental elementsions Level dBμV/m 44.6 43.7 56.6 56.0	V nel @ 5785 I eld Strength Pol v/h V H emission level emissions ou Pol v/h V V V	74.0 MHz : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0 71.1	-22.5 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -9.4 -10.3 -17.4 -15.1	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG AVG PK PK PK	in 1 MHz, and Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160 85 85 85 8	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 1.0 1.0	Comments RB = VB = 1 RB = VB = 1 dBc (UNII por	100kHz 100kHz
level of the fundamental and measured in 100kHz.	11484.250 7660.040 Run #2b: C Fundament Frequency MHz 5786.290 5783.730 Fi Spurious E Frequency MHz 7713.380 11570.290 1744.230	51.5 Center Changal Signal Field Level dBµV/m 101.1 93.7 undamental elementsions Level dBµV/m 44.6 43.7 56.6 56.0 49.5	Pol v/h V Pol v/h V Pol v/h V V V V V V V V V V V V V V V V V V V	74.0 MHz : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 54.0 74.0 71.1 74.0 ed bands, the	-22.5 Everage value / 15.247 Margin OOKHz RBW: icted bands: / 15.247 Margin -9.4 -10.3 -17.4 -15.1 -24.5	PK es measured Detector Pk/QP/Avg Pk Pk 101.1 71.1 Detector Pk/QP/Avg AVG AVG PK PK PK PK PK O9 was used	in 1 MHz, and Azimuth degrees 219 175 dBµV/m dBµV/m Azimuth degrees 160 85 85 85 8 160	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 1.0 1.0 1.0 1.0	RB = VB = 1 RB = VB = 2 dBc (UNII por Comments note 2	100kHz 100kHz

Client:	Intel Corpora							Job Number:	J70976
Madal	E22ANI NANAVA	//NANAC)					T-	Log Number:	T71133
woder:	533AN-MMV	/(IVIIVIC)					Accou	unt Manager:	Dean Eriksen
Contact:	Robert Paxm	ian							
Standard:	FCC							Class:	N/A
Run #2c: H	igh Channel	@ 5825 MH:	Z						
	tal Signal Fie	: Peak and a	in 1 MHz, ar	nd peak valu	e measured i	in 100kHz			
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5826.280	95.8	Н	-	-	Pk	173	1.0	RB = VB = 1	
5826.270	99.9	V	-	-	Pk	219	1.0	RB = VB = 1	100kHz
	undomontal o	mission laus	l@ 2m in 10	JUMP DOM:	00.0	AD M	1		
F	undamental e	mission ieve missions ou				dBμV/m	Limitic 20	NDa (LINIII na	Nor moscuromont
	LIIIII IOI E	11112210112 0U	iside di Testi	icieu parius:	09.9	dBμV/m	LIIIIII IS -300	трс (піліі þ0/	wer measurement)
Spurious E	missions								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Johnnon	
11650.630	49.6	V	54.0	-4.4	AVG	244	1.0		
11650.630	61.6	V	74.0	-12.4	PK	244	1.0		
1743.810	58.7	V	69.9	-11.2	PK	5	1.0	Note 2	
7766.640	49.5	V	69.9	-20.4	PK	118	1.0	Note 2	
Note 1:						For all other	er emissions	, the limit was	s set 30dB below the
	level of the fu			ed in 100kHz					
Note 2:	Signal is not	in a restricte	d band.						_
VOIC Z.									
VOIC Z.									
NOIC Z.									
NOIC Z.									
vote 2.									
voic Z.									
vote 2.									
Wite Z.									
vote 2.									
vote 2.									
Wite Z.									
Wite Z.									
Wite Z.									
NOTE Z.									
NOTE Z.									
Note 2.									

Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71133 Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Date of Test: 4/3/2008 Test Engineer: Ben Jing Test Location: Chamber # 3 Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain C Run #3a: Low Channel @ 5745 MHz Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments v/h Limit Pk/QP/Avg degrees meters MHzdBµV/m Margin 5746.260 101.6 ٧ Pk 189 1.0 RB = VB = 100kHz5746.270 98.9 Н Pk RB = VB = 100kHz96 1.0 Fundamental emission level @ 3m in 100kHz RBW: 101.6 dBuV/m Limit for emissions outside of restricted bands: 71.6 dBuV/m Limit is -30dBc (UNII power measurement) Spurious Emissions Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Limit Margin Pk/QP/Ava MHz dBuV/m v/h degrees meters 11490.170 44.8 ٧ 54.0 -9.2 AVG 232 1.0

PK

PK

PK

287

232

229

1.5

1.0

1.0

Note 2

Note 2

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71.6

74.0

71.6

-13.5

-17.0

-18.5

58.1

57.0

53.1

1747.660

11490.170

3484.920

Client:		io							T
Ollotti	Intel Corpora	ation						Job Number:	
Model.	533AN-MMV	N(MMC)						Log Number:	
							Acco	unt Manager:	Dean Eriksen
	Robert Paxn	nan							
Standard:	FCC							Class:	N/A
Run #3b: (Center Chani	nel @ 5785 l	ИНz						
undamen	tal Signal Fie	eld Strength					nd peak valu	ie measured i	n 100kHz
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5786.250	100.4	V	-	-	Pk	191	1.0	RB = VB = 1	
5783.730	97.9	Н	-	-	Pk	97	1.0	RB = VB = 1	100kHz
			.1 @ 2 ! 10	MILL DDW	100.4	15. 17	Ī		
<u></u>	undamental e					dBμV/m	Limit to 00	-ID - /! IN!!!	
	Limit for 6	emissions ou	isiae of restr	icted bands:	/0.4	dBμV/m	Limit is -300	aRc (ANII bor	ver measurement)
Spurious F	missions								
Spurious E Frequency	Level	Pol	15 200	/ 15.247	Detector	Azimuth	Height	Comments	
MHz		v/h	Limit		Pk/QP/Avg			Comments	
11569.830	dBμV/m 44.5	V	54.0	Margin -9.5	AVG	degrees 234	meters		
1748.060	57.1	H	70.4	-9.5	PK	329	1.0 1.5	Note 2	
1748.000		V	70.4				1.0	Note 2	
115/0 020									
	56.1 49.6			-17.9 -20.8	PK PK	234		Note 2	
3487.730	49.6	V	70.4	-20.8	PK PK	234	1.0	Note 2	
3487.730 Run #3c: H	49.6 igh Channel	V @ 5825 MH	70.4 z : Peak and a	-20.8	PK	231	1.0	Note 2 ne measured if Comments	n 100kHz
3487.730 Run #3c: H Fundamen	49.6 igh Channel tal Signal Fie	V @ 5825 MH eld Strength	70.4 z : Peak and a	-20.8 verage value	PK es measured	231 in 1 MHz, ar	1.0 nd peak valu	ne measured i	n 100kHz
3487.730 Run #3c: H Fundamen	49.6 igh Channel tal Signal Fie	V @ 5825 MH eld Strength Pol	70.4 z : Peak and a 15.209	-20.8 verage value / 15.247	PK es measured Detector	231 in 1 MHz, ar Azimuth	1.0 nd peak valu Height	ne measured i	
3487.730 Run #3c: H Fundamen Frequency MHz	49.6 igh Channel tal Signal Fie Level dBμV/m	V @ 5825 MH eld Strength Pol v/h	70.4 z : Peak and a 15.209 Limit	-20.8 verage value / 15.247	PK es measured Detector Pk/QP/Avg	231 in 1 MHz, ar Azimuth degrees	1.0 nd peak valu Height meters	e measured i Comments	100kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7	V @ 5825 MH eld Strength Pol v/h V H	70.4 z : Peak and a 15.209 Limit -	-20.8 overage value / 15.247 Margin - -	PK es measured Detector Pk/QP/Avg Pk Pk	in 1 MHz, ar Azimuth degrees 196 99	1.0 nd peak valu Height meters 1.0	ne measured i Comments RB = VB = 1	100kHz
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7	V @ 5825 MH eld Strength Pol v/h V H	70.4 z : Peak and a	-20.8 verage value / 15.247 Margin D0kHz RBW:	PK es measured Detector Pk/QP/Avg Pk Pk 99.9	in 1 MHz, ar Azimuth degrees 196 99 dBµV/m	1.0 nd peak valu Height meters 1.0 1.0	e measured i Comments RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7	V @ 5825 MH eld Strength Pol v/h V H	70.4 z : Peak and a	-20.8 verage value / 15.247 Margin D0kHz RBW:	PK es measured Detector Pk/QP/Avg Pk Pk 99.9	in 1 MHz, ar Azimuth degrees 196 99	1.0 nd peak valu Height meters 1.0 1.0	e measured i Comments RB = VB = 1 RB = VB = 1	100kHz
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental e	V @ 5825 MH eld Strength Pol v/h V H	70.4 z : Peak and a	-20.8 verage value / 15.247 Margin D0kHz RBW:	PK es measured Detector Pk/QP/Avg Pk Pk 99.9	in 1 MHz, ar Azimuth degrees 196 99 dBµV/m	1.0 nd peak valu Height meters 1.0 1.0	e measured i Comments RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental e Limit for e	V @ 5825 MH eld Strength Pol v/h V H emission leve	z: Peak and a 15.209 Limit el @ 3m in 10 tside of restr	-20.8 Verage value / 15.247 Margin OOKHz RBW: icted bands:	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9	231 in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m	1.0 nd peak value Height meters 1.0 1.0 Limit is -300	RB = VB = 1 RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental € Limit for € missions Level	V @ 5825 MH eld Strength Pol v/h V H emission leveemissions ou	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr	-20.8 verage value / 15.247 Margin 00kHz RBW: icted bands:	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9	231 in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m	1.0 nd peak value Height meters 1.0 1.0 Limit is -300	e measured i Comments RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental e Limit for e missions Level dBμV/m	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou	z: Peak and a 15.209 Limit el @ 3m in 10 tside of restr	-20.8 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg	in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m Azimuth degrees	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters	RB = VB = 1 RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
Run #3c: H Fundamen: Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental ε Limit for ε missions Level dBμV/m 46.9	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0	-20.8 Verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -7.1	PK Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG	in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m dBμV/m	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0	RB = VB = 1 RB = VB = 1 RB = VB = 1	I 00kHz I 00kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690 11649.690	49.6 igh Channel tal Signal Fie Level dBµV/m 99.9 98.7 undamental e Limit for e missions Level dBµV/m 46.9 58.8	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou Pol v/h V	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0	-20.8 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -7.1 -15.2	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG PK	in 1 MHz, ar Azimuth degrees 196 99 dBµV/m dBµV/m Azimuth degrees 232 232	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0	RB = VB = 1	I 00kHz I 00kHz
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690 1747.110	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental e Limit for e missions Level dBμV/m 46.9 58.8 56.8	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou Pol v/h V V H	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0 69.9	-20.8 Verage value / 15.247 Margin	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG PK PK	in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m Azimuth degrees 232 232 312	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 2.0	RB = VB = 1 RB = VB = 1 RB = VB = 1 Comments Comments Note 2	I 00kHz I 00kHz
Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690 11649.690	49.6 igh Channel tal Signal Fie Level dBµV/m 99.9 98.7 undamental e Limit for e missions Level dBµV/m 46.9 58.8	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou Pol v/h V	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0	-20.8 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -7.1 -15.2	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG PK	in 1 MHz, ar Azimuth degrees 196 99 dBµV/m dBµV/m Azimuth degrees 232 232	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0	RB = VB = 1	I 00kHz I 00kHz
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690 1747.110	49.6 igh Channel tal Signal Fiel Level dBμV/m 99.9 98.7 undamental € Limit for € Limit for € Limit for € Level dBμV/m 46.9 58.8 56.8 49.0	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou Pol v/h V V H V V	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0 69.9 69.9	-20.8 Verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -7.1 -15.2 -13.1 -20.9	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG PK PK PK	in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m dBμV/m 4zimuth degrees 232 232 312 232	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 2.0 1.0	RB = VB = 7 RB = VB = 7 RB = VB = 7 Comments Comments Note 2 Note 2	100kHz 100kHz wer measurement)
3487.730 Run #3c: H Fundamen Frequency MHz 5826.230 5823.750 F Spurious E Frequency MHz 11649.690 1747.110	49.6 igh Channel tal Signal Fie Level dBμV/m 99.9 98.7 undamental e Limit for e missions Level dBμV/m 46.9 58.8 56.8 49.0	V @ 5825 MH eld Strength Pol v/h V H emission level emissions ou Pol v/h V V H V V V H V	70.4 z : Peak and a 15.209 Limit el @ 3m in 10 tside of restr 15.209 Limit 54.0 74.0 69.9 69.9 ed bands, the	-20.8 verage value / 15.247 Margin 00kHz RBW: icted bands: / 15.247 Margin -7.1 -15.2 -13.1 -20.9	PK es measured Detector Pk/QP/Avg Pk Pk 99.9 69.9 Detector Pk/QP/Avg AVG PK PK PK PK PK O9 was used.	in 1 MHz, ar Azimuth degrees 196 99 dBμV/m dBμV/m dBμV/m 4zimuth degrees 232 232 312 232	1.0 nd peak value Height meters 1.0 1.0 Limit is -300 Height meters 1.0 1.0 2.0 1.0	RB = VB = 7 RB = VB = 7 RB = VB = 7 Comments Comments Note 2 Note 2	I 00kHz I 00kHz

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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 5725 - 5850 MHz) Radiated Spurious Emissions 802.11n20 Ethertronics Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Date of Test: 4/3/2008 Config Change: None Test Engineer: Ben Jing Host Unit Voltage 120V/60Hz Test Location: Chamber # 3

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

> Rel. Humidity: 33 %

Summary of Results

Note - emissions from 18-40GHz covered by testing all three chains transmitting at highest power.

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
4	802.11n20 Chain A+B+C	5745 MHz 5785 MHz 5825 MHz			Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	52.7dBµV/m @ 11649.1MHz (-1.3dB)
-	802.11n20 Chain A	5745 MHz 5785 MHz 5825 MHz			Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	By measuring triple- chain mode at full power we also cover
-	802.11n20	Dual Chain r	nodes (A+B,	A+C, B+C)	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	single- and dual-chain modes.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11n 20MHz Chains A+B+C

These tests run at a power setting equal to the highest single-chain settings to cover all possible dual- and triple-chain operating modes.

Run #1a: Low Channel @ 5745 MHz

Po ¹	Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Cha	in C				
Setting	Avg	Setting	Avg	Setting	Avg				
31. 5	16.5	30.5	16.5	31.0	16.6				

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5746.290	104.2	V	-	-	Pk	207	1.0	RB = VB = 100kHz
5746.310	101.1	Н	-	-	Pk	250	1.0	RB = VB = 100kHz

Fundamental emission level @ 3m in 100kHz RBW:	104.2 dBμV/m	
Limit for emissions outside of restricted bands:	74.2 dBµV/m	Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
11489.860	51.1	٧	54.0	-2.9	AVG	236	1.0	
1748.070	58.0	Н	74.2	-16.2	PK	248	1.0	note 2
11489.860	61.6	V	74.0	-12.4	PK	236	1.0	

Note 1: level of the fundamental and measured	1111 OF 13.207 Was used.	. Fui all utilei ettiissiutis, tile ili	mit was set 30dB below the
	in 100kHz.		
Note 2: Signal is not in a restricted band.			



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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1b: Center Channel @ 5785 MHz

Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Chain C				
Setting	Avg	Setting	Avg	Setting	Avg			
32. 0	16.6	31.0	16.6	31.5	16.6			

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

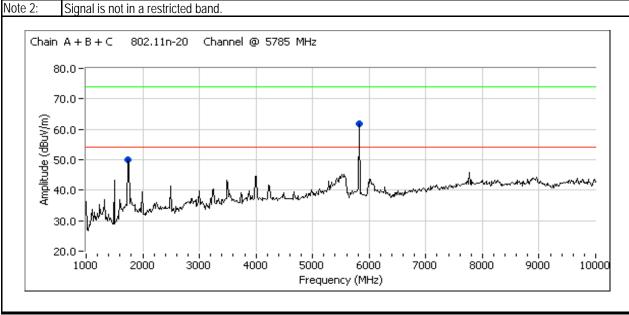
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5783.750	106.9	V	-	-	Pk	200	1.0	RB = VB = 100kHz
5783.750	100.2	Н	-	-	Pk	100	1.0	RB = VB = 100kHz

Fundamental emission level @ 3m in 100kHz RBW:	106.9	dBμV/m	
Limit for emissions outside of restricted bands:	76.9	dBμV/m	Limit is -30dBc (UNII power measurement)

Spurious Emissions

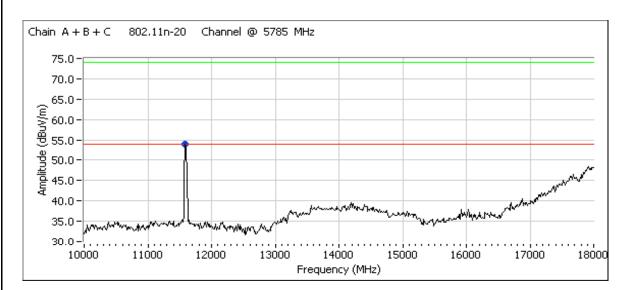
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
11570.260	51.2	٧	54.0	-2.8	AVG	161	1.0	
1744.260	57.8	Н	76.9	-19.1	PK	301	1.0	
11570.260	62.4	V	74.0	-11.6	PK	161	1.0	

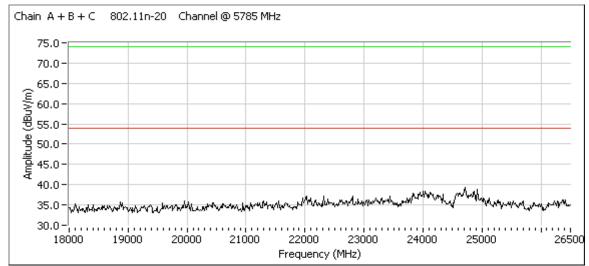
Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

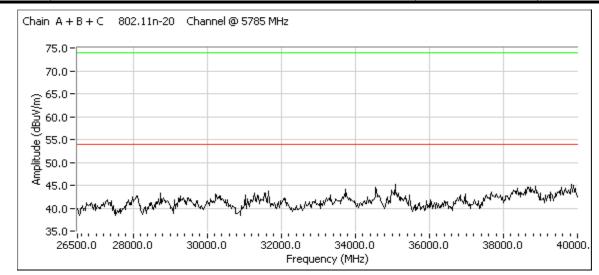




Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Modol	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A



Run #1c: High Channel @ 5825 MHz

Power Setting and average measurement (for reference)									
Cha	ain A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
32. 5	16.6	31.0	16.5	32.0	16.6				

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5826.270	105.8	Н	-	-	Pk	255	1.0	RB = VB = 100kHz
5826.290	109.7	V	-	-	Pk	202	1.0	RB = VB = 100kHz

Fundamental emission level @ 3m in 100kHz RBW: 109.7 $dB_{\mu}V/m$ Limit for emissions outside of restricted bands: 79.7 $dB_{\mu}V/m$ Limit is -30dBc (UNII power measurement)

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
3996.480	35.6	V	54.0	-18.4	AVG	295	2.0	
11649.050	52.7	V	54.0	-1.3	AVG	231	1.0	
1747.390	57.8	Н	74.0	-16.2	PK	243	1.0	note 2
3996.480	53.6	V	74.0	-20.4	PK	295	2.0	
11649.050	63.3	V	74.0	-10.7	PK	231	1.0	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band.

	Elliott	EM	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		

RSS 210 Receiver Spurious Emissions - Ethertronics Antenna

Class: N/A

Test Specific Details

Standard: FCC

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the

specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 15-25 °C

Rel. Humidity: 35-55 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	Chain A RX	2437 MHz	,	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	45.9dBµV/m @ 6498.7MHz (-8.1dB)
1b	Chain A RX	5785 MHz	,	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	45.7dBµV/m @ 7713.4MHz (-8.3dB)
2a	Chain B RX	2437 MHz	-	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	45.5dBµV/m @ 6498.6MHz (-8.5dB)
2b	Chain B RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	46.5dBµV/m @ 7713.4MHz (-7.5dB)
3a	Chain C RX	2437 MHz	-	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	43.6dBµV/m @ 6498.6MHz (-10.4dB)
3b	Chain C RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	45.0dBµV/m @ 7713.4MHz (-9.0dB)
4a	Chain A+B+C RX	2437 MHz		-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	43.8dBµV/m @ 7500.1MHz (-10.2dB)
4b	Chain A+B+C RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	50.1dBµV/m @ 7713.3MHz (-3.9dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviodei:	333AN-ININIVV(ININIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

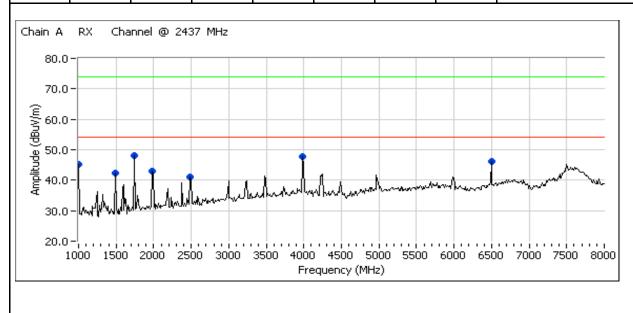
Run # 1: Chain A Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Date of Test: 4/24/2008 Config. Used: 1
Test Engineer: Ben Jing Config Change: None

Test Location: FT Chamber # 3 EUT Voltage: Powered From Host System

Run # 1a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain A

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1498.180	30.8	V	54.0	-23.2	AVG	358	1.5	
1748.310	32.0	V	54.0	-22.0	AVG	15	1.0	
1996.780	34.3	V	54.0	-19.7	AVG	246	1.0	
2497.430	30.1	Н	54.0	-23.9	AVG	302	2.0	
3996.420	33.2	V	54.0	-20.8	AVG	263	1.5	
6498.680	45.9	٧	54.0	-8.1	AVG	199	1.5	
1498.180	46.2	V	74.0	-27.8	PK	358	1.5	
1748.310	53.1	V	74.0	-20.9	PK	15	1.0	
1996.780	50.4	V	74.0	-23.6	PK	246	1.0	
2497.430	50.1	Н	74.0	-23.9	PK	302	2.0	
3996.420	54.2	V	74.0	-19.8	PK	263	1.5	
6498.680	49.9	V	74.0	-24.1	PK	199	1.5	

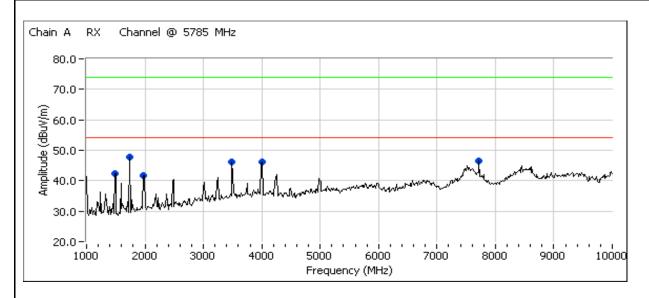




Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviodei:		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 1b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain A

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.740	33.1	V	54.0	-20.9	AVG	0	1.0	
1747.260	31.1	V	54.0	-22.9	AVG	23	1.0	
1996.820	33.4	V	54.0	-20.6	AVG	246	1.0	
3495.310	31.8	V	54.0	-22.2	AVG	232	1.0	
3995.470	33.3	Н	54.0	-20.7	AVG	281	1.5	
7713.370	45.7	V	54.0	-8.3	AVG	112	1.5	
11569.980	36.5	V	54.0	-17.5	AVG	130	1.0	
1497.740	47.2	V	74.0	-26.8	PK	0	1.0	
1747.260	51.8	V	74.0	-22.2	PK	23	1.0	
1996.820	49.7	V	74.0	-24.3	PK	246	1.0	
3495.310	52.5	V	74.0	-21.5	PK	232	1.0	
3995.470	53.8	Н	74.0	-20.2	PK	281	1.5	
7713.370	51.5	V	74.0	-22.5	PK	112	1.5	
11569.980	43.0	V	74.0	-31.0	PK	130	1.0	



Scan from 10-18GHz not included as no signals observed

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Chain B Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #2a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain B

rtair # Ear It	tan #2an tix tradition obtained Emissions, 1000 7000 mile: trooping at 2 for mile; onam B							
Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.650	31.9	Н	54.0	-22.1	AVG	154	1.5	
1748.070	33.4	V	54.0	-20.6	AVG	241	1.5	
1996.950	33.9	V	54.0	-20.1	AVG	247	1.0	
3495.340	31.5	V	54.0	-22.5	AVG	232	1.0	
3986.350	33.4	V	54.0	-20.6	AVG	266	1.0	
6498.610	45.5	٧	54.0	-8.5	AVG	231	1.0	
1497.650	46.4	Н	74.0	-27.6	PK	154	1.5	
1748.070	55.6	V	74.0	-18.4	PK	241	1.5	
1996.950	49.7	V	74.0	-24.3	PK	247	1.0	
3495.340	53.6	V	74.0	-20.4	PK	232	1.0	
3986.350	54.3	V	74.0	-19.7	PK	266	1.0	
6498.610	49.4	V	74.0	-24.6	PK	231	1.0	

Run #2b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain B

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.590	32.6	V	54.0	-21.4	AVG	14	1.0	
1747.150	32.7	V	54.0	-21.3	AVG	237	1.5	
3485.760	31.9	V	54.0	-22.1	AVG	233	1.0	
3992.720	32.4	Н	54.0	-21.6	AVG	221	1.5	
4243.330	31.5	V	54.0	-22.5	AVG	280	1.5	
7713.390	46.5	V	54.0	-7.5	AVG	231	1.0	
11569.980	41.7	V	54.0	-12.3	AVG	178	1.0	
1497.590	47.9	V	74.0	-26.1	PK	14	1.0	
1747.150	54.8	V	74.0	-19.2	PK	237	1.5	
3485.760	54.0	V	74.0	-20.0	PK	233	1.0	
3992.720	52.0	Н	74.0	-22.0	PK	221	1.5	
4243.330	49.5	V	74.0	-24.5	PK	280	1.5	
7713.390	52.6	V	74.0	-21.4	PK	231	1.0	
11569.980	45.8	V	74.0	-28.2	PK	178	1.0	



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
iviodei:	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Chain C Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #3a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1747.330	31.8	V	54.0	-22.2	AVG	230	1.0	
2491.920	29.2	V	54.0	-24.8	AVG	246	1.0	
3497.300	31.9	V	54.0	-22.1	AVG	232	1.0	
3985.340	32.9	V	54.0	-21.1	AVG	258	1.0	
6498.630	43.6	٧	54.0	-10.4	AVG	198	1.5	
7500.080	42.2	V	54.0	-11.8	AVG	100	1.5	
1747.330	52.6	V	74.0	-21.4	PK	230	1.0	
2491.920	48.2	V	74.0	-25.8	PK	246	1.0	
3497.300	53.2	V	74.0	-20.8	PK	232	1.0	
3985.340	53.0	V	74.0	-21.0	PK	258	1.0	
6498.630	49.0	V	74.0	-25.0	PK	198	1.5	
7500.080	50.8	V	74.0	-23.2	PK	100	1.5	

Date of Test: 4/28/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 4

Run #3b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.700	31.6	V	54.0	-22.4	AVG	42	1.0	
1747.980	33.5	V	54.0	-20.5	AVG	245	1.5	
2490.520	30.3	V	54.0	-23.7	AVG	252	1.0	
3994.440	33.0	Н	54.0	-21.0	AVG	256	1.5	
7713.390	45.0	٧	54.0	-9.0	AVG	112	1.0	
11569.980	41.5	V	54.0	-12.5	AVG	219	1.0	
1497.700	48.0	٧	74.0	-26.0	PK	42	1.0	
1747.980	54.7	٧	74.0	-19.3	PK	245	1.5	
2490.520	50.5	V	74.0	-23.5	PK	252	1.0	
3994.440	52.2	Н	74.0	-21.8	PK	256	1.5	
7713.390	51.5	V	74.0	-22.5	PK	112	1.0	
11569.980	45.7	V	74.0	-28.3	PK	219	1.0	



\sim			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
Model.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #4: Chain A+B+C Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #4a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain A+B+C

Itali # 4a. Ita	t itaalatea s	parious En	113310113, 100	7500 WII	IZ. INCCCIVCI	ut 2-137 WII 12	-, Onam A	Dio
Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.600	31.8	Н	54.0	-22.2	AVG	285	1.0	
1746.930	33.5	V	54.0	-20.5	AVG	222	1.0	
2497.990	29.8	V	54.0	-24.2	AVG	258	1.5	
3236.920	31.8	V	54.0	-22.2	AVG	193	1.0	
3993.230	33.0	Н	54.0	-21.0	AVG	261	1.5	
7500.100	43.8	V	54.0	-10.2	AVG	245	1.5	
1497.600	49.0	Н	74.0	-25.0	PK	285	1.0	
1746.930	54.1	V	74.0	-19.9	PK	222	1.0	
2497.990	48.1	V	74.0	-25.9	PK	258	1.5	
3236.920	49.6	V	74.0	-24.4	PK	193	1.0	
3993.230	52.2	Н	74.0	-21.8	PK	261	1.5	
7500.100	51.6	V	74.0	-22.4	PK	245	1.5	
	·				·	·	•	·

Run #4b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain A+B+C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.950	32.3	V	54.0	-21.7	AVG	71	1.3	
1746.940	33.4	V	54.0	-20.6	AVG	213	1.0	
3237.050	31.5	V	54.0	-22.5	AVG	177	1.0	
3990.100	32.9	V	54.0	-21.1	AVG	267	1.3	
7713.320	50.1	V	54.0	-3.9	AVG	134	1.3	
11569.960	43.3	V	54.0	-10.7	AVG	222	1.0	
1497.950	48.7	V	74.0	-25.3	PK	71	1.3	
1746.940	53.9	V	74.0	-20.1	PK	213	1.0	
3237.050	48.3	V	74.0	-25.7	PK	177	1.0	
3990.100	53.0	V	74.0	-21.0	PK	267	1.3	
7713.320	54.1	V	74.0	-19.9	PK	134	1.3	
11569.960	46.7	V	74.0	-27.3	PK	222	1.0	

Elli	ott	EMC Test Data				
Client:	Intel Corporation	Job Number:	J70976			
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge			
		Account Manager:	Dean Eriksen			
Contact:	Robert Paxman		-			
Emissions Standard(s):	FCC	Class:	-			
Immunity Standard(s):	-	Environment:	-			

EMC Test Data DTS Radiated Emissions, Universe Antenna

For The

Intel Corporation

Model

533AN-MMW(MMC)

Date of Last Test: 6/16/2008

	Elliott	EMC Test Data			
Client:	Intel Corporation	Job Number:	J70976		
Modol:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge		
iviouei.		Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11b Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 19 °C

Rel. Humidity: 43 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11b	1	24.0	16. 8	Band Edge radiated	FCC Part 15.209 /	49.4dBµV/m @
	Chain A	2412MHz			field strength	15.247(c)	2389.3MHz (-4.6dB)
1b	802.11b	11	24.0	16. 8	Band Edge radiated	FCC Part 15.209 /	43.9dBµV/m @
10	Chain A	2462MHz	24.0	10. 0	field strength	15.247(c)	2440.9MHz (-10.1dB)
2a	802.11b	1	25. 0	17. 4	Band Edge radiated	FCC Part 15.209 /	44.5dBµV/m @
Za	Chain B	2412MHz	25. 0	17.4	field strength	15.247(c)	2389.4MHz (-9.5dB)
2b	802.11b	11	26. 0	17. 7	Band Edge radiated	FCC Part 15.209 /	46.6 dBuV/m @ 2484.7
20	Chain B	2462MHz	20. 0	17.7	field strength	15.247(c)	MHz (-7.4dB)
20	802.11b	1	22.0	1/ E	Band Edge radiated	FCC Part 15.209 /	47.4dBµV/m @
3a	Chain C	2412MHz	23. 0	16. 5	field strength	15.247(c)	2389.2MHz (-6.6dB)
2h	802.11b	11	24 5	16. 9	Band Edge radiated	FCC Part 15.209 /	47.2 dBuV/m @ 2487.8
3b	Chain C	2462MHz	24. 5	10. 9	field strength	15.247(c)	MHz (-6.8dB)

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain A

Sample ID: 0016EA02D660 Date of Test: 6/13/2008 Test Engineer: Peter Sales

Test Location: Fremont Chamber #4

Run #1a: Low Channel @ 2412 MHz

Power Setting: 24.0 Average power: 16.8 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2408.100	93.2	V	74.0	19.2	PK	312	2.2	RB = VB = 100kHz		
2408.370	96.3	Н	74.0	22.3	PK	76	1.0	RB = VB = 100kHz		
Band Edge	Band Edge Signal Field Strength									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2389.050	58.9	V	74.0	-15.1	PK	313	2.2			
2389.300	47.9	V	54.0	-6.1	AVG	313	2.2			
2389.690	58.9	Н	74.0	-15.1	PK	76	1.0			
2389.270	49.4	Н	54.0	-4.6	AVG	76	1.0			

Elliott Run #1b: High Channel @ 2462 MHz Power Setting: 24.0 Fundamental Signal Field Strength: Peak value measured in 100kHz Band Edge Signal Field Strength

EMC Test Data

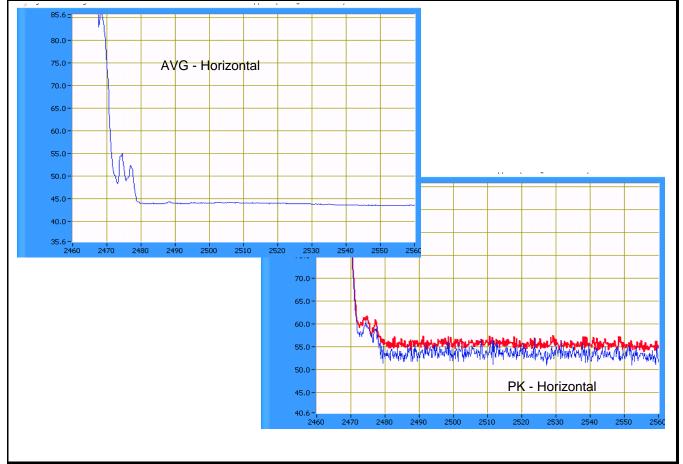
Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Average power:

16.8 (for reference purposes)

. amaamone	Turidamontal Orginal From Carongam Foak Value mousured in Fooking									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2463.210	97.1	Н	74.0	23.1	PK	63	1.8	RB = VB = 100kHz		
2464.920	96.3	V	74.0	22.3	PK	360	1.0	RB = VB = 100kHz		

Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2441.110	56.3	Н	74.0	-17.7	PK	60	1.8				
2440.920	43.9	Н	54.0	-10.1	AVG	60	1.8				
2441.370	56.5	V	74.0	-17.5	PK	360	1.0				
2440.810	43.9	V	54.0	-10.1	AVG	360	1.0				





Client:	Intel Corporation	Job Number:	J70976
Madali	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain B

Sample ID: 0016EA02D660 Date of Test: 6/14/2008 Test Engineer: Peter Sales

Test Location: Fremont Chamber #4

Run #2a: Low Channel @ 2412 MHz

Power Setting: 25.0 Average power: 17.4 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2412.670	97.6	Н	-	-	PK	238	1.0	RB = VB = 100kHz
2409.270	95.9	V	-	-	PK	314	1.0	RB = VB = 100kHz

Band Edge Signal Field Strength

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.440	56.4	V	74.0	-17.6	PK	314	1.0	
2389.440	44.4	V	54.0	-9.6	AVG	314	1.0	
2389.690	56.2	Н	74.0	-17.8	PK	236	1.0	
2389.430	44.5	Н	54.0	-9.5	AVG	239	1.0	



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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Sample ID: 0016EA02D660 Date of Test: 6/14/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber #4

Run #2b: High Channel @ 2462 MHz

Power Setting: 26.0 Average power: 17.7 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2460.500	97.6	V	-	-	PK	137	1.0	RB = VB = 100kHz
2463.060	97.6	Н	-	-	PK	264	1.0	RB = VB = 100kHz

Band Edge Signal Field Strength

Dana Lage	Sund Eage Signal Field Strength										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2484.900	45.3	V	54.0	-8.7	AVG	140	1.0				
2484.710	58.0	V	74.0	-16.0	PK	135	1.0				
2484.650	46.6	Н	54.0	-7.4	AVG	260	1.0				
2484.730	58.3	Н	74.0	-15.7	PK	261	1.0				





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11b - Chain C

Sample ID: 0016EA02D660 Date of Test: 6/14/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber #4

Run #3a: Low Channel @ 2412 MHz

Power Setting: 23. 0 Average power: 16.5 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2413.030	95.7	V	-	-	PK	163	1.1	RB = VB = 100kHz
2413.020	100.0	Н	-	-	PK	221	1.0	RB = VB = 100kHz

Dana Lage	Olgital I lolo	1 Ou ongui						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.200	47.4	Η	54.0	-6.6	AVG	219	1.0	
2389.570	57.6	Н	74.0	-16.4	PK	219	1.0	
2389.170	44.9	V	54.0	-9.1	AVG	162	1.0	
2388.750	57.1	V	74.0	-16.9	PK	160	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

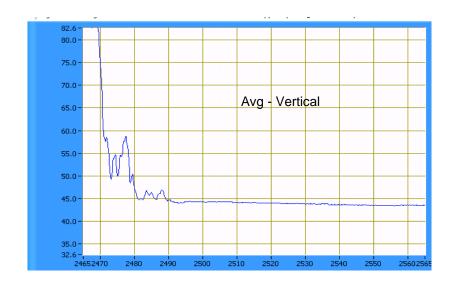
Run #3b: High Channel @ 2462 MHz

Power Setting: 24. 5 Average power: 16.9 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

i diladilici	undamental Signal Field Strength: Feak value measured in 100kHz									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2462.530	95.9	V	-	-	PK	164	1.0	RB = VB = 100kHz		
2461.030	95.9	Н	-	-	PK	258	1.0	RB = VB = 100kHz		

Dana Lage	olgilai i icia	i ou ongui						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2487.850	47.0	Н	54.0	-7.0	AVG	257	1.0	
2487.820	58.8	Н	74.0	-15.2	PK	256	1.0	
2487.790	47.2	V	54.0	-6.8	AVG	160	1.0	
2487.980	59.0	V	74.0	-15.0	PK	184	1.0	



	Elliott	EM	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
wouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11b Universe Antenna

Test Specific Details

Standard: FCC

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Config Change: None Host Unit Voltage 3.3V DC Class: N/A

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

Rel. Humidity: 34 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

	Elliott	EMC Test	EMC Test Data		
Client:	Intel Corporation	Job Number: J70976			
Model	533AN-MMW(MMC)	T-Log Number: T71851 Band	Edge		
Model.	333AIN-IVIIVIVV (IVIIVIC)	Account Manager: Dean Eriksen			
Contact:	Robert Paxman				
Standard:	FCC	Class: N/A			

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11b	1 (2412)	24.5	16.7	Radiated Emissions,	FCC Part 15.209 /	31.7dBµV/m @
	Chain A	, , ,			1 - 26 GHz	15.247(c)	1000.1MHz (-22.3dB)
1b	802.11b	6 (2437)	24.5	16.6	Radiated Emissions,	FCC Part 15.209 /	38.3dBµV/m @
110	Chain A	0 (2 107)	21.0	10.0	1 - 26 GHz	15.247(c)	4874.0MHz (-15.7dB)
1c	802.11b	11 (2462)	25.0	16.5	Radiated Emissions,	FCC Part 15.209 /	47.4dBµV/m @
I C	Chain A	11 (2402)	23.0	10.3	1 - 26 GHz	15.247(c)	4924.0MHz (-6.6dB)
20	802.11b	1 (2/12)	24.0	1/Г	Radiated Emissions,	FCC Part 15.209 /	36.4dBµV/m @
2a	Chain B	1 (2412)	24.0	16.5	1 - 26 GHz	15.247(c)	1494.6MHz (-17.6dB)
nh.	802.11b	/ (2427)	24.5	1/Г	Radiated Emissions,	FCC Part 15.209 /	39.1dBµV/m @
2b	Chain B	6 (2437)	24.5	16.5	1 - 26 GHz	15.247(c)	4873.9MHz (-14.9dB)
20	802.11b	11 (24/2)	25.0	16.7	Radiated Emissions,	FCC Part 15.209 /	36.5dBµV/m @
2c	Chain B	11 (2462)	25.0	10.7	1 - 26 GHz	15.247(c)	1494.2MHz (-17.5dB)
20	802.11b	1 (2/12)	22.0	14 7	Radiated Emissions,	FCC Part 15.209 /	32.9dBµV/m @
3a	Chain C	1 (2412)	23.0	16.7	1 - 26 GHz	15.247(c)	1494.5MHz (-21.1dB)
26	802.11b	/ (2427)	22.0	1/ Г	Radiated Emissions,	FCC Part 15.209 /	32.5dBµV/m @
3b	Chain C	6 (2437)	23.0	16.5	1 - 26 GHz	15.247(c)	1493.8MHz (-21.5dB)
20	802.11b	11 (24/2)	22.5	1/Г	Radiated Emissions,	FCC Part 15.209 /	46.1 dBuV/m @ 4924.0
3c	Chain C	11 (2462)	23.5	16.5	1 - 26 GHz	15.247(c)	MHz (-7.9dB)



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11b Chain A

Sample tested: 0016EA02D660

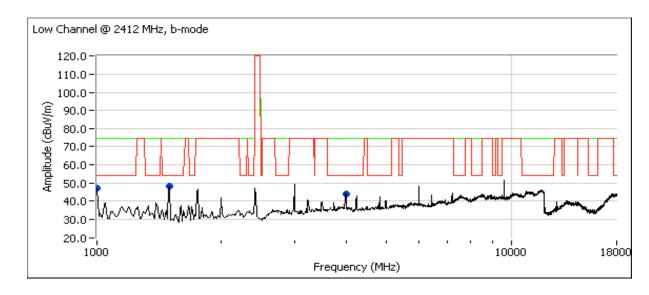
Date of Test: 6/16/2008 Test Engineer: Suhaila Khushzad Test Location: Chamber # 5

Config Change: None

Config. Used: 1

Host Unit Voltage 120V/60Hz (EUT 3.3V DC)

Run # 1a: Low Channel @ 2412 MHz



Spurious Emissions

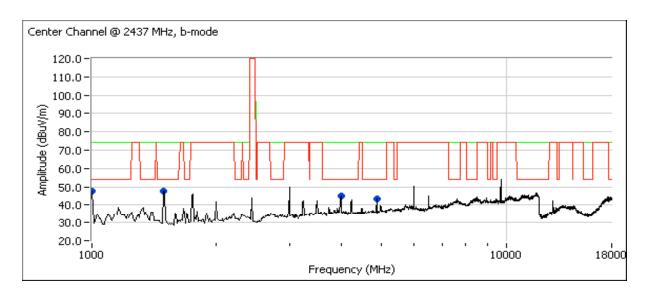
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.110	31.7	٧	54.0	-22.3	AVG	135	1.0	
1494.480	30.1	Н	54.0	-23.9	AVG	159	1.0	
3994.770	25.3	Н	54.0	-28.7	AVG	142	1.6	
1000.110	47.7	V	74.0	-26.3	PK	135	1.0	
1494.480	50.3	Н	74.0	-23.7	PK	159	1.0	
3994.770	46.1	Н	74.0	-27.9	PK	142	1.6	

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model		T-Log Number:	T71851 Band Edge
wiodei:	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11b Chain A Run # 1b : Center Channel @ 2437 MHz



Spurious Emissions

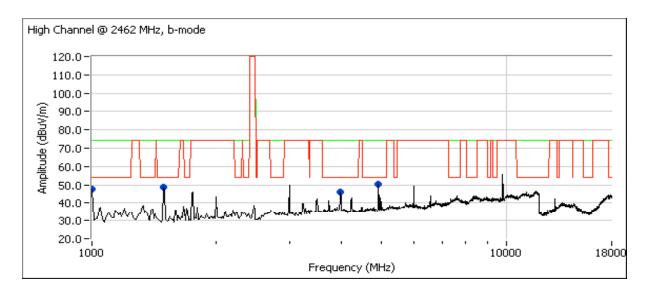
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
999.963	25.5	V	54.0	-28.5	AVG	166	1.0	
1494.210	37.7	Н	54.0	-16.3	AVG	159	1.0	
3981.540	33.8	Н	54.0	-20.2	AVG	174	1.3	
4874.020	38.3	V	54.0	-15.7	AVG	202	1.0	
999.963	40.5	V	74.0	-33.5	PK	166	1.0	
1494.210	55.0	Н	74.0	-19.0	PK	159	1.0	
3981.540	50.9	Н	74.0	-23.1	PK	174	1.3	
4874.020	46.0	V	74.0	-28.0	PK	202	1.0	

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Madal		T-Log Number:	T71851 Band Edge
wiodei:	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11b Chain A Run # 1c : High Channel @ 2462 MHz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
999.991	24.9	V	54.0	-29.1	AVG	167	1.0	
1494.810	37.5	Н	54.0	-16.5	AVG	165	1.0	
3983.900	34.5	V	54.0	-19.5	AVG	142	1.0	
4923.960	47.4	٧	54.0	-6.6	AVG	155	1.3	
999.991	37.5	V	74.0	-36.5	PK	167	1.0	
1494.810	54.4	Н	74.0	-19.6	PK	165	1.0	
3983.900	51.1	V	74.0	-22.9	PK	142	1.0	
4923.960	51.1	V	74.0	-22.9	PK	155	1.3	
	·	·	· ·	· ·	· ·	·	·	



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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain B

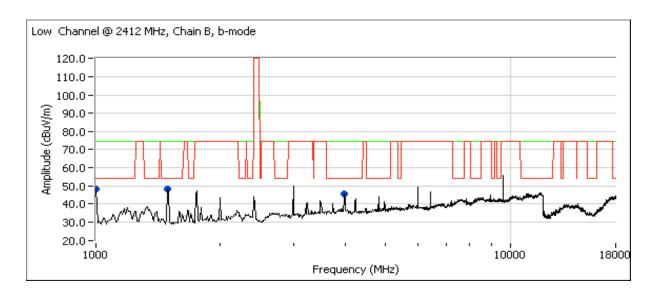
Sample tested: 0016EA02D660

Date of Test: 6/16/2008
Test Engineer: Suhaila Khushzad
Test Location: Chamber # 5

Host Unit Voltage 120V/60Hz (EUT 3.3V DC)

Config. Used: 1 Config Change: None

Run # 2a: Low Channel @ 2412 MHz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.000	26.6	V	54.0	-27.4	AVG	163	1.0	
1494.570	36.4	Н	54.0	-17.6	AVG	164	1.0	
3984.990	34.4	Н	54.0	-19.6	AVG	145	1.6	
1000.000	39.4	V	74.0	-34.6	PK	163	1.0	
1494.570	53.9	Н	74.0	-20.1	PK	164	1.0	
3984.990	51.7	Н	74.0	-22.3	PK	145	1.6	

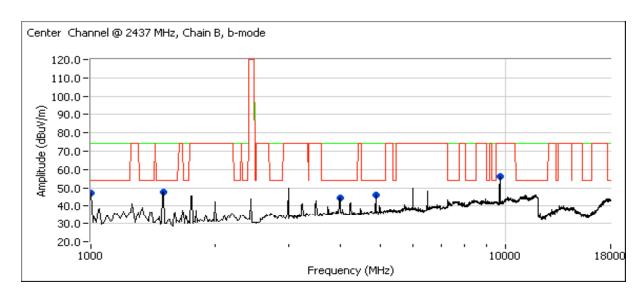
Elliott

EMC Test Data

\sim			
Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain B

Run # 2b : Center Channel @ 2437 MHz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.000	19.0	Н	54.0	-35.0	AVG	76	1.0	
1497.180	31.0	Н	54.0	-23.0	AVG	156	1.0	
3984.440	25.0	Н	54.0	-29.0	AVG	146	1.6	
4873.940	39.1	٧	54.0	-14.9	AVG	157	1.6	
9747.820	44.4	V	74.0	-29.6	AVG	157	1.9	
1000.000	34.5	Н	74.0	-39.5	PK	76	1.0	
1497.180	50.3	Н	74.0	-23.7	PK	156	1.0	
3984.440	43.4	Н	74.0	-30.6	PK	146	1.6	
4873.940	42.2	V	74.0	-31.8	PK	157	1.6	
9747.820	47.5	V	74.0	-26.5	PK	157	1.9	

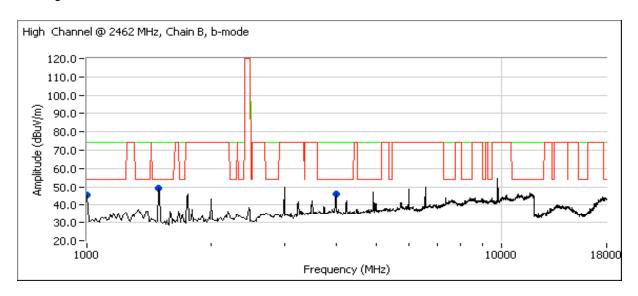
Elliott

EMC Test Data

\sim			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain B

Run # 2c : High Channel @ 2462 MHz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
999.953	29.8	V	54.0	-24.2	AVG	132	1.1	
1494.220	36.5	Н	54.0	-17.5	AVG	161	1.0	
3985.090	34.7	Н	54.0	-19.3	AVG	145	1.6	
999.953	45.0	V	74.0	-29.0	PK	132	1.1	
1494.220	54.0	Н	74.0	-20.0	PK	161	1.0	
3985.090	52.2	Н	74.0	-21.8	PK	145	1.6	
	•	·	·	· · · · · · · · · · · · · · · · · · ·	•	•	·	

Note 1:



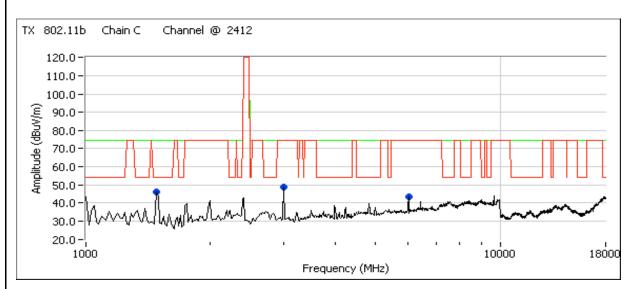
\sim			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b Chain C

Sample tested: 0016EA02D660

Date of Test: 6/17/2008 Config. Used: 1
Test Engineer: Ben Jing Config Change: None
Test Location: Chamber # 4 Host Unit Voltage 120V/60Hz (EUT 3.3V DC)

Run #3a: Low Channel @ 2412 MHz



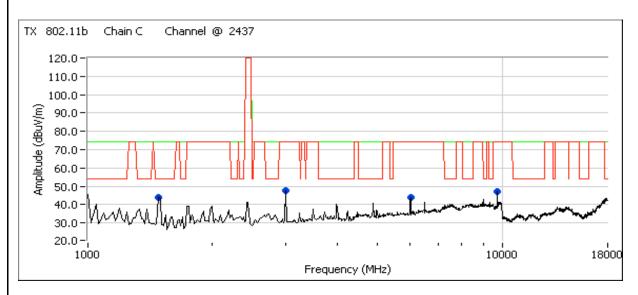
Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.450	32.9	V	54.0	-21.1	AVG	92	1.0	
3000.410	47.9	V	74.0	-26.1	AVG	271	1.0	
6000.810	43.8	V	74.0	-30.2	AVG	110	1.0	
1494.450	50.5	V	74.0	-23.5	PK	92	1.0	
3000.410	51.4	V	74.0	-22.6	PK	271	1.0	
6000.810	48.0	V	74.0	-26.0	PK	110	1.0	



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3b: Center Channel @ 2437 MHz



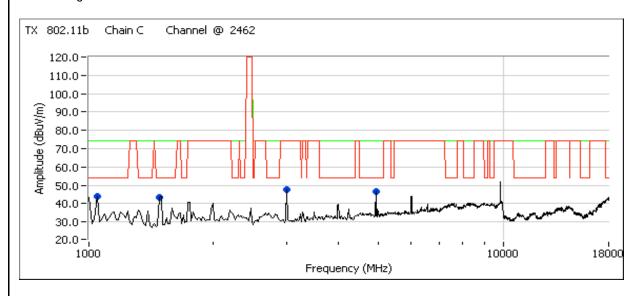
Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1493.840	32.5	٧	54.0	-21.5	AVG	93	1.0	
3000.310	48.1	V	74.0	-25.9	AVG	273	1.0	
6000.690	44.5	V	74.0	-29.5	AVG	108	1.0	
9748.010	46.5	V	74.0	-27.5	AVG	189	1.6	
1493.840	50.8	V	74.0	-23.2	PK	93	1.0	
3000.310	51.7	V	74.0	-22.3	PK	273	1.0	
6000.690	48.2	V	74.0	-25.8	PK	108	1.0	
9748.010	50.5	V	74.0	-23.5	PK	189	1.6	



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3c: High Channel @ 2462 MHz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1055.995	28.7	Н	54.0	-25.3	AVG	193	1.0	
1498.380	31.9	V	54.0	-22.1	AVG	91	1.0	
4924.030	46.1	٧	54.0	-7.9	AVG	165	1.3	
1055.995	39.5	Н	74.0	-34.5	PK	193	1.0	
1498.380	49.9	V	74.0	-24.1	PK	91	1.0	
4924.030	48.6	V	74.0	-25.4	PK	165	1.3	

	Elliott	EMC Test Data		
	Intel Corporation	Job Number:	J70976	
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge	
Model.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen	
Contact:	Robert Paxman			

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11g Universe Antenna

Class: N/A

Test Specific Details

Standard: FCC

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C Rel. Humidity: 55 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11g Chain A	1 2412MHz	24.5	12.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.3 dBuV/m @ 2389.8 MHz (-1.7dB)
1b	802.11g Chain A	11 2462MHz	27.0	15.8	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	73.0 dBuV/m @ 2483.7 MHz (-1.0dB)
2a	802.11g Chain B	1 2412MHz	28.0	16.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	48.7dBµV/m @ 2389.8MHz (-5.3dB)
2b	802.11g Chain B	11 2462MHz	26.0	14.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	46.4dBµV/m @ 2483.5MHz (-7.6dB)
3a	802.11g Chain C	1 2412MHz	23.0	12.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	45.2dBµV/m @ 2389.9MHz (-8.8dB)
3b	802.11g Chain C	11 2462MHz	24.5	13.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	46.758.9 @ 2483.62483.9 (-7.3dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain A

Sample ID: 0016EA02D660 Date of Test: 6/14/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber #4

Run #1a: Low Channel @ 2412 MHz

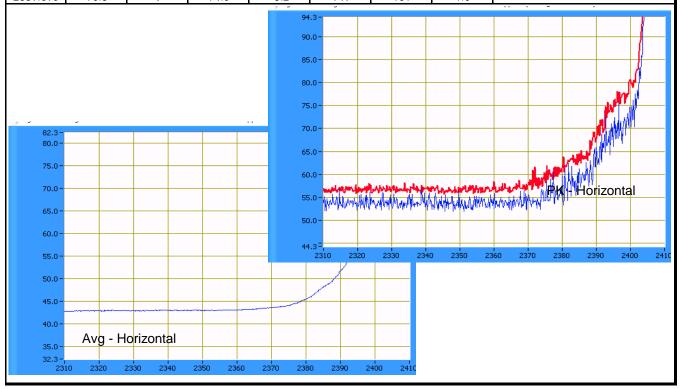
Power Setting: 24. 5 Average power: 12.9 (for reference purposes)

Fundamental Signal Field Strength: Peak and average values measured in 1 MHz, and peak value measured in 100kHz

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2413.300	94.0	V	-	-	PK	169	1.0	RB = VB = 100kHz
2410.750	95.3	Н	-	-	PK	210	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.890	51.9	Н	54.0	-2.1	AVG	212	1.0	
2389.840	72.3	Н	74.0	-1.7	PK	211	1.0	
2391.270	50.5	V	54.0	-3.5	AVG	158	1.0	
2389.690	70.8	V	74.0	-3.2	PK	161	1.0	



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #1b: High Channel @ 2462 MHz Power Setting: 27. 0 Average power: 15.8 (for reference purposes) Fundamental Signal Field Strength: Peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2463.310 RB = VB = 100kHz٧ PK 195 96.5 1.0 2460.780 97.3 Н PK 207 1.0 RB = VB = 100kHzBand Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2483.610 52.2 Н 54.0 -1.8 **AVG** 210 1.2 Note 1 2483.680 73.0 Н 74.0 -1.0 PK 208 1.2 Note 1 ٧ 54.0 -3.9 2483.630 50.1 AVG 196 1.0 Note 1 ٧ 74.0 2483.700 69.2 -4.8 PΚ 195 1.0 Note 1 Passing Setting GC = 27.0, AP = 15.8 dBm Note 1 Target GC = 28.0, AP = 15.8 dBm; 80.0 75.0 Avg - Horizontal 70.0 65.0 60.0 55.0 50.0 45.0 PK - Horizontal 35.0 32.6 -24652470 2480 2500 2510 2490 2530 65.0

2490

2510

2520

2500

2480

55.0

256025

2540

2550



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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain B

Sample ID: 0016EA02D660 Date of Test: 6/14/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber #4

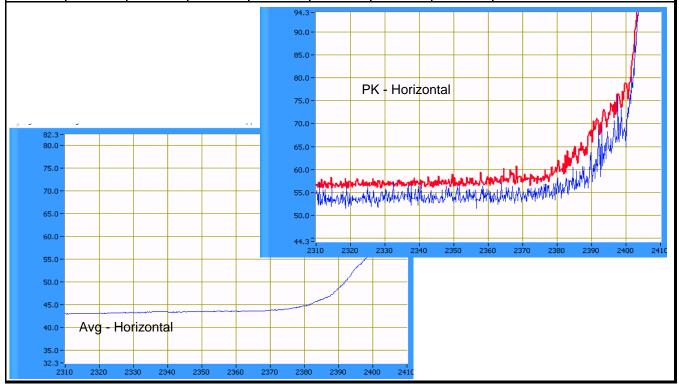
Run #2a: Low Channel @ 2412 MHz

Power Setting: 28.0 Average power: 16.4 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

	and an orginal riola of original roak raids measured in rocking										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2410.740	94.0	V	-	-	PK	228	1.0	RB = VB = 100kHz			
2410.770	96.6	Н	-	-	PK	239	1.0	RB = VB = 100kHz			

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.830	48.7	Н	54.0	-5.3	AVG	240	1.0	Note 1
2389.860	66.3	Н	74.0	-7.7	PK	236	1.0	Note 1
2389.720	47.4	V	54.0	-6.6	AVG	226	1.0	Note 1
2389.790	65.9	V	74.0	-8.1	PK	228	1.0	Note 1



Elliott

EMC Test Data

\sim			
Client:	Intel Corporation	Job Number:	J70976
Modol	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2b: High Channel @ 2462 MHz

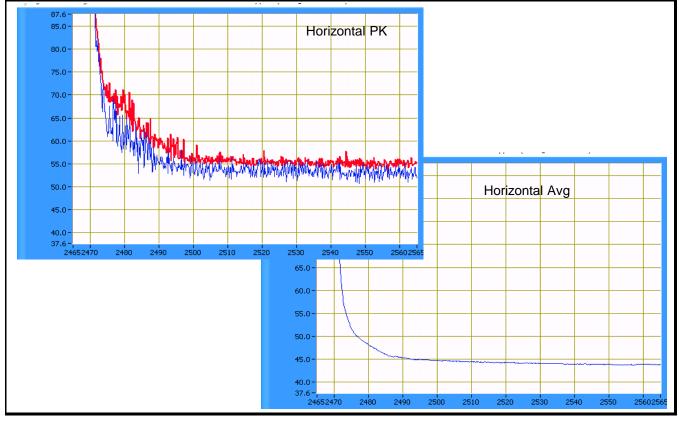
Sample ID: 0016EA02D660
Date of Test: 6/16/2008
Test Engineer: Rafael Varelas
Test Location: Fremont Chamber #4

Power Setting: 26 Average power: 14.6 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Ľ	diddinental Signal Field Strength. Feak value measured in 100km2								
	Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
	MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
	2454.600	91.8	V	74.0	17.8	PK	179	1.0	RB = VB = 100kHz
ſ	2469.770	93.2	Н	74.0	19.2	PK	270	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.510	46.3	V	54.0	-7.7	Avg	179	1.0	
2483.860	65.1	V	74.0	-8.9	PK	179	1.0	
2483.500	46.4	Н	54.0	-7.6	Avg	270	1.0	
2484.720	66.4	Н	74.0	-7.6	PK	270	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11g - Chain C

Sample ID: 0016EA02D660 Date of Test: 6/16/2008 Test Engineer: Rafael Varelas Test Location: Fremont Chamber #4

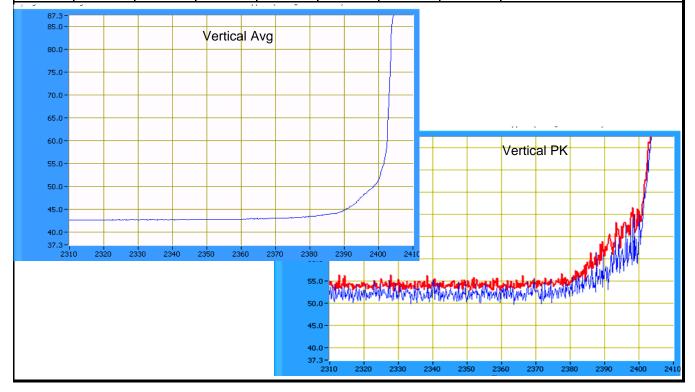
Run #3a: Low Channel @ 2412 MHz

Power Setting: 23 Average power: 12.4 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247 Limit Margin		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h			Pk/QP/Avg	degrees	meters	
2408.370	92.0	V	-	-	PK	137	1.1	RB = VB = 100kHz
2405.830	90.2	Н	-	-	PK	188	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.870	45.2	V	54.0	-8.8	Avg	137	1.1	
2389.990	63.5	V	74.0	-10.5	PK	137	1.1	
2389.750	44.4	Н	54.0	-9.6	Avg	188	1.0	
2388.370	62.1	Н	74.0	-11.9	PK	188	1.0	



Elliott Run #3b: High Channel @ 2462 MHz Power Setting: 24.5 Band Edge Signal Field Strength

EMC Test Data

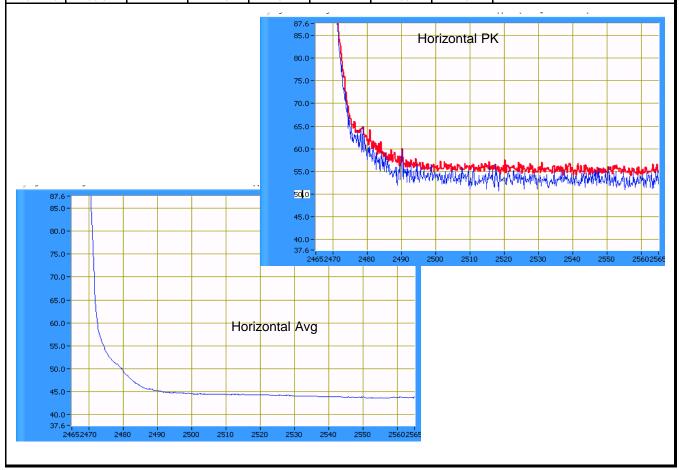
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	333AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Average power: 13.6 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

i unuament	diddinental Signal Field Strength. Feak value measured in 190km2								
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2468.530	92.6	V	-	-	PK	210	1.0	RB = VB = 100kHz	
2468.270	94.4	Н	-	-	PK	250	1.6	RB = VB = 100kHz	

zana zago orginar i iota ottorigini									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2483.500	45.4	V	54.0	-8.6	Avg	210	1.0		
2483.900	58.9	V	74.0	-15.1	PK	210	1.0		
2483.580	46.7	Н	54.0	-7.3	Avg	250	1.5		
2484.470	60.3	Н	74.0	-13.7	PK	250	1.5		



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	333AIN-INIINININIO)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11g Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20.1 °C

Rel. Humidity: 43 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11g Chain A	1 (2412) 6 (2437) 11 (2462)	27.5 27.5 28	16.3 16.2 16.2	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	Testing with the ethertronics antenna showed that 802.11b
2	802.11g Chain B	1 (2412) 6 (2437) 11 (2462)	27.5 27.5 28	16.4 16.2 16.4	Radiated Emissions, 1 - 26 GHz		mode had higher emissions than 802.11g
3	802.11g Chain C	1 (2412) 6 (2437) 11 (2462)	27 28 27	16.4 16.4 16.4	Radiated Emissions, 1 - 26 GHz		mode. 802.11b results cover both legacy modes.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

	Elliott	EMO	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11n20MHz Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 22 °C

Rel. Humidity: 36 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Test Performed Limit	
1a	802.11n20 Chain A	1 2412MHz	22.0	11.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.6dBµV/m @ 2389.6MHz (-1.4dB)
1b	802.11n20 Chain A	11 2462MHz	25.0	13.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	50.0 dBuV/m @ 2483.6 MHz (-4.0dB)
2a	802.11n20 Chain B	1 2412MHz	23.5	12.3	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	48.6dBµV/m @ 2389.6MHz (-5.4dB)
2b	802.11n20 Chain B	11 2462MHz	25.5	14.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	49.6 dBuV/m @ 2483.6 MHz (-4.4dB)
3a	802.11n20 Chain C	1 2412MHz	23.5	12.8	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	72.9dBµV/m @ 2389.6MHz (-1.1dB)
3b	802.11n20 Chain C	11 2462MHz	24.5	14.1	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.1dBµV/m @ 2483.6MHz (-1.9dB)
4a	802.11n20 Chain A+B		25.5, 25.5	13.0, 12.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.4dBµV/m @ 2390.0MHz (-2.6dB)
4b	802.11n20 Chain A+B	11 2462MHz	25.5, 26.5	13.3, 13.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	48.9dBµV/m @ 2483.9MHz (-5.1dB)
5a	802.11n20 Chain A+C		23.5, 25.0	11.1, 13	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	47.9dBµV/m @ 2389.6MHz (-6.1dB)
5b	802.11n20 Chain A+C		26, 26	13.8, 14.2	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	48.5dBµV/m @ 2484.8MHz (-5.5dB)

	EII	io	tt			EMO	C Test Data			
		Intel Corporation Job Number: J70976								
Madali	533AN-MM\	\/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				T-Log Number:	T71851 Band Edge			
Model.	333AIN-IVIIVI	rv (iviiviC)				Account Manager:	Dean Eriksen			
Contact:	Robert Paxr	Robert Paxman								
Standard:	FCC					Class: N/A				
Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin			
6a	802.11n20	1	25, 24	12.2, 12.4	Band Edge radiated	FCC Part 15.209 /	45.4dBµV/m @			
0a	Chain B+C	2412MHz	25, 24	12.2, 12.4	field strength	15.247(c)	2389.9MHz (-8.6dB)			
6b	802.11n20	11	26.5, 25.5	13.8, 13.6	Band Edge radiated	FCC Part 15.209 /	47.4dBµV/m @			
Ob	Chain B+C	2462MHz		13.0, 13.0	field strength	15.247(c)	2441.4MHz (-6.6dB)			
7a	802.11n20	1	25, 25.5,	12, 12,	Band Edge radiated	FCC Part 15.209 /	47.5dBµV/m @			
7 a	A+B+C	2412MHz	24.5	12.2	field strength	15.247(c)	2390.0MHz(-6.5dB)			
7b	802.11n20	11	26, 26, 25	12.2, 12.4,	Band Edge radiated	FCC Part 15.209 /	47.1dBµV/m @			
7.0	A+B+C	2462MHz	20, 20, 23	12 1	field strenath	15 247(c)	2441 4MHz (-6 9dB)			

field strength

15.247(c)

2441.4MHz (-6.9dB)

12.1

Modifications Made During Testing

No modifications were made to the EUT during testing

A+B+C 2462MHz

Deviations From The Standard

No deviations were made from the requirements of the standard.

Sample ID:

Date of Test: 6/11/2008 Test Engineer: Ben Jing Test Location: FT Chamber # 4



\sim			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Sample ID: 0016EA02D660
Date of Test: 6/11/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 4

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A

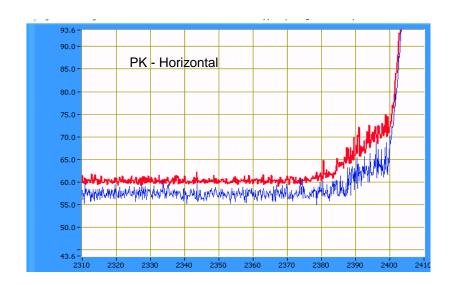
Run #1a: Low Channel @ 2412 MHz

Power Setting: 22. 0 Average power: 11.4 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

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Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2410.730	94.4	V	-	-	PK	163	1.0	RB = VB = 100kHz
2410.720	96.0	Н	-	-	PK	245	1.0	RB = VB = 100kHz

	<u> </u>	- · · · · · · · · · · · · · · · · · · ·						
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.620	72.6	Н	74.0	-1.4	PK	247	1.0	
2389.690	50.1	Н	54.0	-3.9	AVG	245	1.0	
2389.630	65.3	V	74.0	-8.7	PK	162	1.0	
2389.600	48.9	V	54.0	-5.1	AVG	164	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder:	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

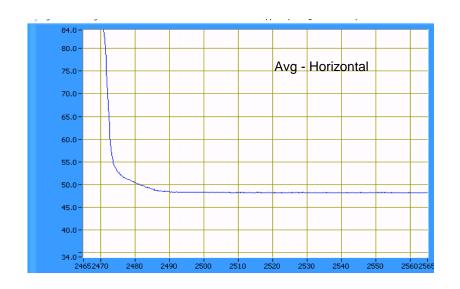
Run #1b: High Channel @ 2462 MHz

Power Setting: 25. 0 Average power: 13.9 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments				
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters					
2463.310	94.4	V	-	-	PK	162	1.0	RB = VB = 100kHz				
2463.290	94.6	Н	-	-	PK	209	1.0	RB = VB = 100kHz				
	01 1 51 1											

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2483.740	65.0	Н	74.0	-9.0	PK	209	1.0				
2483.600	50.0	Н	54.0	-4.0	AVG	234	1.0				
2483.730	63.7	V	74.0	-10.3	PK	164	1.0				
2483.600	49.0	V	54.0	-5.0	AVG	165	1.0				





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain B

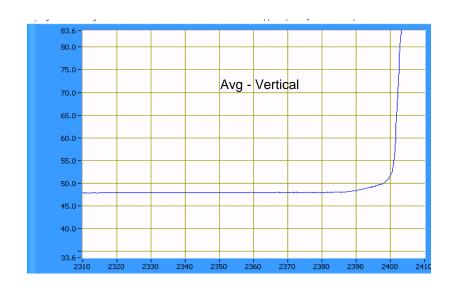
Run #2a: Low Channel @ 2412 MHz

Power Setting: 23. 5 Average power: 12.3 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2413.300	91.5	V	-	-	PK	129	1.0	RB = VB = 100kHz
2413.280	89.9	Н	-	-	PK	277	1.0	RB = VB = 100kHz

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.640	48.6	V	54.0	-5.4	AVG	130	1.0	
2389.780	62.1	V	74.0	-11.9	PK	130	1.0	
2389.680	60.6	Н	74.0	-13.4	PK	321	1.0	
2389.600	48.2	Н	54.0	-5.8	AVG	267	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder:	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

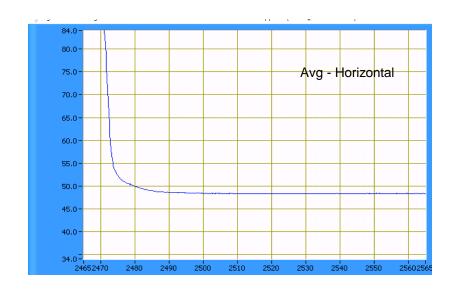
Run #2b: High Channel @ 2462 MHz

Power Setting: 25. 5 Average power: 14.0 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

i diladilicit	diddinental Signal Field Strength: Feak value measared in 100km2											
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments				
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters					
2463.290	92.3	V	-	-	PK	132	1.0	RB = VB = 100kHz				
2461.020	92.7	Н	-	-	PK	236	1.0	RB = VB = 100kHz				

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Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments				
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters					
2483.600	68.6	Н	74.0	-5.4	PK	216	1.0					
2483.600	49.6	Н	54.0	-4.4	AVG	214	1.0					
2483.760	64.5	V	74.0	-9.5	PK	130	1.0					
2483.600	49.0	V	54.0	-5.0	AVG	130	1.0					



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain C Run #3a: Low Channel @ 2412 MHz Power Setting: Average power: 23.5 12.8 (for reference purposes) Fundamental Signal Field Strength: Peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments Pk/QP/Avg MHz dBμV/m Limit Margin v/h degrees meters 2413.310 ٧ 74.0 18.4 1.0 RB = VB = 100kHz 92.4 PΚ 218 2410.760 93.3 Н 74.0 19.3 PK 112 1.0 RB = VB = 100kHzBand Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Azimuth Detector Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Ava degrees meters 2389.640 PK 72.9 Н 74.0 -1.1 111 1.0 2389.610 50.4 Н 54.0 -3.6 **AVG** 112 1.0 2389.630 ٧ 74.0 PΚ 70.3 -3.7 217 1.0 2389.600 ٧ 54.0 AVG 217 49.7 -4.3 1.0 80.0 Avg - Horizontal 75.0 70.0 65.0 60.0 55.0 50.0 45.0 33.6 2320 2340 2370 80.0 70.0

gantana garangan dikangangan ng palawah digiplah dianatap pahappan salih dikan tapin di pelangan pangangan pen

2350

2340

2360

PK - Horizontal

Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #3b: High Channel @ 2462 MHz Power Setting: Average power: 24. 5 14.1 (for reference purposes) Fundamental Signal Field Strength: Peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2460.720 RB = VB = 100kHz90.7 ٧ PK 172 1.0 2460.760 96.8 Н PK 237 1.0 RB = VB = 100kHz_ Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments Limit Margin Pk/QP/Avg degrees MHz $dB\mu V/m$ v/h meters 2483.600 52.1 Н 54.0 -1.9 AVG 239 1.2 2483.620 74.0 -8.2 PK 65.8 Н 238 1.2 PK 2483.610 62.5 ٧ 74.0 -11.5 172 1.0 ٧ 2483.600 49.3 54.0 -4.7 AVG 176 1.2 PK - Horizontal 85 N 75.0 65.0 ANGINATION OF THE WAS A STATE OF 55.0 50.0 Avg - Horizontal 45.0 - | 24652470 2480 2490 2500 2510 75.0 70.0 60.0 55.0 50.0 45.0 40.0 34.0 = i 24652470 2490 2510 256025 2500 2480



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 4: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+B

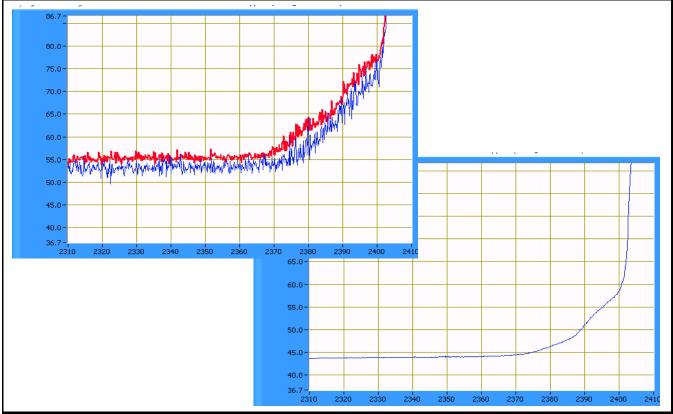
Run #4a: Low Channel @ 2412 MHz

Po	Power Setting and average measurement (for reference)									
Cha	ain A	Cha	ain B	Chain C						
Setting	Avg	Setting	Avg	Setting	Avg					
25.5	13	25.5	12.4							

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2404.630	99.2	Н	-	-	PK	249	1.1	RB = VB = 100kHz
2408.400	96.9	V	-	-	PK	171	1.0	RB = VB = 100kHz

	and any original control and any original										
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2389.870	47.4	Н	54.0	-6.6	Avg	171	1.0				
2389.230	64.5	Н	74.0	-9.5	PK	171	1.0				
2389.970	51.4	Н	54.0	-2.6	Avg	249	1.1				
2389.920	70.3	Н	74.0	-3.7	PK	249	1.1				



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Sample ID: 0016EA02D660 Date of Test: 6/13/2008 Test Engineer: John Caizzi Test Location: FT #4 Run #4b: High Channel @ 2462 MHz Power Setting and average measurement (for reference) Chain A Chain B Chain C Setting Setting Avg Avg Setting Avg 13.3 13.6 25.5 26.5 Fundamental Signal Field Strength: Peak value measured in 100kHz 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 249 RB = VB = 100kHz2467.330 98.1 Н Pk 1.3 94.9 ٧ RB = VB = 100kHz2466.170 Pk 158 1.2 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz Limit Margin Pk/QP/Avg meters $dB\mu V/m$ v/h degrees 2483.850 48.9 Н 54.0 -5.1 AVG 1.3 250 2484.080 47.2 ٧ 54.0 -6.8 AVG 1.2 158 2483.850 65.3 Н 74.0 -8.7 PK 250 1.3 ٧ PK 2484.080 60.9 74.0 -13.1 158 1.2 95.0 90.0 85.0 80.0 75.0 80.0 65.0 70.0

2462 2465

2480

60.0 55.0 50.0

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #5: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+C

Sample ID: 0016EA02D660 Date of Test: 6/13/2008 Test Engineer: John Caizzi Test Location: FT #4

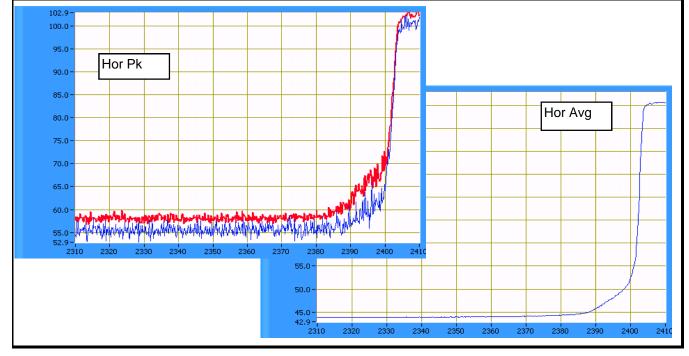
Run #5a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	ain A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
23.5	11.1			25.0	13.0				

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2414.750	94.3	Н			Pk	253	2.1	RB = VB = 100kHz
2406.000	94.4	V			Pk	155	1.1	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.590	47.9	Н	54.0	-6.1	AVG	253	2.1	
2388.130	47.4	V	54.0	-6.6	AVG	155	1.1	
2389.590	64.3	Н	74.0	-9.7	PK	253	2.1	
2388.130	64.0	V	74.0	-10.0	PK	155	1.1	



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #5b: High Channel @ 2462 MHz Power Setting and average measurement (for reference) Chain A Chain B Chain C Setting Setting Setting Avg Avg Avg 26.0 13.8 26.0 14.2 Fundamental Signal Field Strength: Peak value measured in 100kHz 15.209 / 15.247 Azimuth Frequency Level Pol Detector Height Comments Pk/QP/Avg MHz $dB\mu V/m$ v/h Limit Margin degrees meters RB = VB = 100kHz 2470.080 94.6 Н Pk 250 2.0 2467.500 94.5 RB = VB = 100kHz ٧ Pk 1.2 155 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters ٧ 2484.780 48.5 54.0 -5.5 AVG 154 1.2 2484.570 47.1 Н 54.0 -6.9 AVG 250 2.0 -10.4 PΚ 2484.780 63.6 ٧ 74.0 154 1.2 2484.570 61.2 Н 74.0 -12.8 PK 250 2.0 Vert Pk 95.0 90.0 85.0 80.0 75.0 70.0 Happy I was a second of the se 60.0 55.0 75.0 65.0 55.0 Vert Avg 2470 2480 2485 2500 2462 2465 2475 2490

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
wiodei:	533AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #6: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain B+C

Sample ID: 0016EA02D660 Date of Test: 6/13/2008 Test Engineer: Peter Sales

Test Location: Fremont Chamber #4

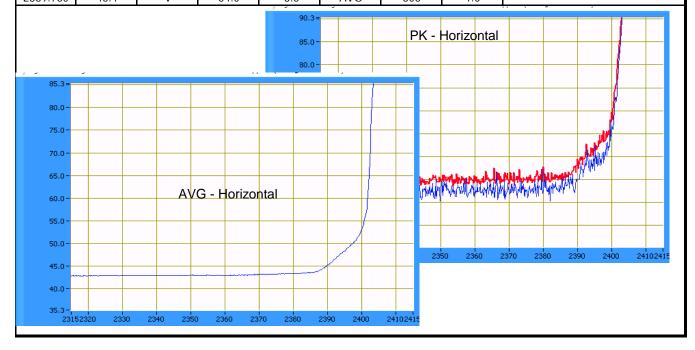
Run #6a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
		25.0	12.2	24.0	12.4				

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2419.730	90.9	V	74.0	16.9	PK	305	1.0	RB = VB = 100kHz		
2407.070	95.0	Н	74.0	21.0	PK	329	1.0	RB = VB = 100kHz		

	3 3							
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2388.940	59.9	Н	74.0	-14.1	PK	329	1.0	
2389.940	45.4	Н	54.0	-8.6	AVG	329	1.0	
2387.670	59.2	V	74.0	-14.8	PK	303	1.0	
2389.760	45.4	V	54.0	-8.6	AVG	306	1.0	



Elliott EMC Test Data Client: Intel Corporation Job Number: J70976 T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #6b: High Channel @ 2462 MHz Power Setting and average measurement (for reference) Chain A Chain B Chain C Setting Setting Setting Avg Avg Avg 26.5 13.8 25.5 13.6 Fundamental Signal Field Strength: Peak value measured in 100kHz 15.209 / 15.247 Azimuth Frequency Level Pol Detector Height Comments Pk/QP/Avg MHz $dB\mu V/m$ v/h Limit Margin degrees meters 2469.800 RB = VB = 100kHz 94.3 ٧ PΚ 34 1.0 94.3 PK 2.5 RB = VB = 100kHz 2460.900 Н 55 Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz dBuV/m v/h Limit Margin Pk/QP/Avq degrees meters ٧ -9.7 2440.900 64.3 74.0 PK 32 1.0 ٧ 54.0 AVG 2441.380 47.4 -6.6 35 1.0 -10.5 PΚ 2.5 2441.480 63.5 Η 74.0 55 2441.360 47.3 Н 54.0 -6.7 **AVG** 55 2.5 90.6 85.0 PK - Vertical 80.0 70.0 65.0 60.0 55.0 50.0 AVG - Vertica 45.0 40.6 2480 2510 2530 2540 65.0 60.0 50.0 45.0 40.0 35.6 -2460 2470 2480 2490 2500 2510 2520 2530 2540



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #7: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (20 MHz Channel) - Chain A+B+C

Sample ID: 0016EA02D660 Date of Test: 6/13/2008 Test Engineer: Peter Sales

Test Location: Fremont Chamber #4

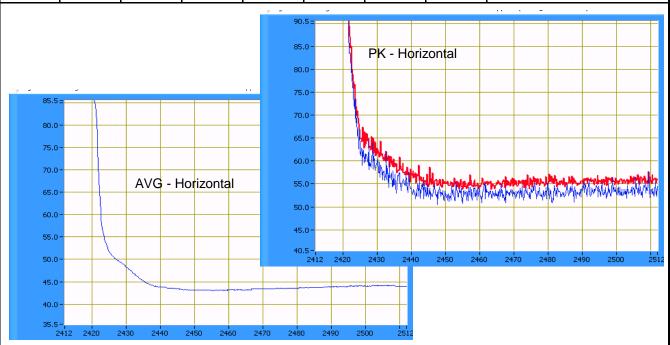
Run #7a: Low Channel @ 2412 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
25.0	12	25.5	12	24.5	12.2				

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2407.070	94.9	V	-	-	PK	308	1.0	RB = VB = 100kHz
2407.100	99.4	Н	-	-	PK	65	1.1	RB = VB = 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.710	61.2	V	74.0	-12.8	PK	309	1.0	
2389.990	46.4	V	54.0	-7.6	AVG	309	1.0	
2389.740	66.9	Н	74.0	-7.1	PK	65	1.1	
2389.970	47.5	Н	54.0	-6.5	AVG	65	1.1	



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Client:	Intel Corpora	ation						Job Number:		
Model:	533AN-MMV	V(MMC)							T71851 Band	Edge
					Acco	unt Manager:	Dean Eriksen			
	Robert Paxn	nan								
Standard:	FCC							Class:	N/A	
ın #7b: Hi	gh Channel						-			
					nt (for referen					
ļ	Cha			ain B		in C				
	Setting	Avg	Setting	Avg	Setting	Avg				
	26.0	12.2	26.0	12.4	25.0	12.1	j			
				e measured i 7 / 15.247		Azimuth	∐ojah t	Comments		
requency MHz	Level dBµV/m	Pol v/h	Limit	Margin	Detector Pk/QP/Avg	degrees	Height meters	Comments		
2463.500	αβμν/m 93.8	V/11	74.0	19.8	PKQPIAVg	uegrees 8	1.0	RB = VB =	100kHz	
2455.830	95.9	v H	74.0	21.9	PK	61	1.0	RB = VB =		
	Signal Field		77.0	21.7	I IX	U I	1.0	1.10 - 10 -	I OUNI IL	
requency	Level	Pol	15.209	7 / 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2441.380	61.2	V	74.0	-12.8	PK	6	1.0			
2441.480	47.0	V	54.0	-7.0	AVG	9	1.0			
2441.370	63.2	Н	74.0	-10.8	PK	61	1.0			
2441.410	47.1	Н	54.0	-6.9	AVG	61	1.0			
				75 70 65	.0-			K - Horizor		
85.6	_			., \55	n- ,	" "III. The half	AN PARTY PARTY	itania piakan jir	MANAGE WAYNAN	Why pry vol
80.0-						<u> </u>				
						+				
75.0-						· 490) 2500 25	510 2520	2530 2540 25	550 2
70.0-		+ +				.190	2000 20	2020	2010 2	
65.0-										
60.0-										
55.0-										
50.0-		$\downarrow \uparrow \uparrow$								
45.0-										
45.0 - 40.0 -		AVG -	Horizontal							

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Clionte	Intal Car	noration	

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11n 20MHz Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 22 °C

Rel. Humidity: 36 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Summary of Results

Note - emissions from 18-26GHz covered by testing all three chains transmitting at highest power.

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	Chain A Chain B Chain C	6 (2437)	28.0 27.5 26.5	16.5 dBm	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	Covered by 802.11b mode as worst case in single chain mode
		2412 MHz	A: 30.5 B: 30.5 C: 29.5	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	33.5dBµV/m @ 1498.4MHz (-20.5dB)
2a,b,c	802.11n20 Chains A+B+C	2437 MHz		A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	40.0dBμV/m @ 7309.0MHz (-14.0dB)
		2462 MHz		A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	44.5dBµV/m @ 7392.0MHz (-9.5dB)
-	802.11n20	Dual Chain r	modes (A+B,	A+C, B+C)	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	Covered by tests on chains A+B+C

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11n 20MHz, Single Chain

Covered by measurements on 802.11b mode which represents the worst-case mode

Also covered by tests on triple-chain with all three chains operation at the higher single-chain power setting.

Run #2: Radiated Spurious Emissions, 1000 - 26000 MHz. Operating Mode: 802.11n 20MHz Chains A+B+C

These tests run at a power setting equal to the highest single-chain settings to cover all possible dual- and triple-chain operating modes.

Sample tested: 0016EA02D660

Date of Test: 6/17/2008
Test Engineer: Ben Jing
Test Location: Chamber # 4

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

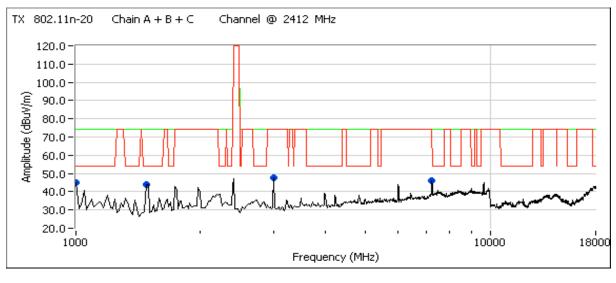
Run #2a: Low Channel @ 2412 MHz

Po ⁻	Power Setting and average measurement (for reference)								
Cha	nin A	Cha	in C						
Setting	Avg	Setting	Avg	Setting	Avg				
30. 5 16.5 30. 5 16.5 29. 5 16.5									

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1498.400	33.5	V	54.0	-20.5	AVG	69	1.0	
1498.400	51.9	V	74.0	-22.1	PK	69	1.0	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz (level =99.4dBuV/m, limit = 69.4dBuV/m).





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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

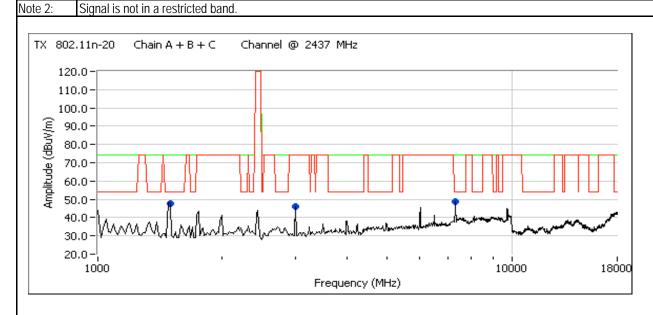
Run #2b: Center Channel @ 2437 MHz

Power Setting and average measurement (for reference)									
Chain A Chain B				Cha	in C				
Setting	Avg	Setting	Avg	Setting	Avg				
31. 0	16.5	31.0	16.5	30. 0	16.5				

Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1493.940	33.2	V	54.0	-20.8	AVG	67	1.0	
7308.990	40.0	٧	54.0	-14.0	AVG	229	1.6	
1493.940	54.0	V	74.0	-20.0	PK	67	1.0	
7308.990	52.0	V	74.0	-22.0	PK	229	1.6	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2c: High Channel @ 2462 MHz

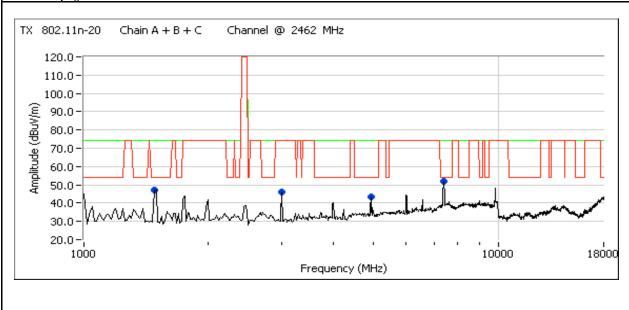
Power Setting and average measurement (for reference)								
Chain A Chain B				Cha	in C			
Setting	Avg	Setting	Avg	Setting	Avg			
31. 5	16.5	31. 5	16.5					

Spurious Emissions

opariodo Emissionis								
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1493.950	33.1	V	54.0	-20.9	AVG	68	1.0	
4924.210	34.8	V	54.0	-19.2	AVG	165	1.3	
7391.960	44.5	٧	54.0	-9.5	AVG	194	1.3	
1493.950	54.4	V	74.0	-19.6	PK	68	1.0	
3000.330	51.2	٧	65.9	-14.7	PK	271	1.0	Note 2
4924.210	46.7	V	74.0	-27.3	PK	165	1.3	
7391.960	60.4	V	74.0	-13.6	PK	194	1.3	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz (fundamental was 95.9dBuV/m, limit = 65.9dBuV/m).

Note 2: Signal is not in a restricted band.



6	Elliott	EM	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woden.	333AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard	FCC.	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Band Edge Field Strength 802.11n40MHz Universe Antenna

Test Specific Details

 $\label{eq:objective} \begin{tabular}{ll} \textbf{Objective:} & The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above. \end{tabular}$

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 19 °C

Rel. Humidity: 44 %

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

	<u>Elli</u>	ot	t			EM	C Test Data		
	Intel Corpora					Job Number: J70976			
Model:	533AN-MMV	N(NANAC)				T-Log Number:	T71851 Band Edge		
						Account Manager:	Dean Eriksen		
	Robert Paxn	nan							
Standard:						Class:	N/A		
ummary	of Result	S							
Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin		
1a	802.11n40 Chain A	1 2422MHz	22.0	12.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	50.9dBµV/m @ 2390.8MHz (-3.1dE		
1b	802.11n40 Chain A	11 2452MHz	24.5	13.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.3dBµV/m @ 2485.7MHz (-2.7dE		
2a	802.11n40 Chain B	1 2422MHz	23.0	12.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.1dBµV/m @ 2389.1MHz (-2.9dE		
2b	802.11n40 Chain B	11 2452MHz	25.5	14.3	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	50.2 dBuV/m @ 248 MHz (-3.8dB)		
3a	802.11n40 Chain C	1 2422MHz	21.0	11.5	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	49.0 dBuV/m @ 238 MHz (-5.0dB)		
3b	802.11n40 Chain C	11 2452MHz	24.0	13.9	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.6 dBuV/m @ 248 MHz (-2.4dB)		
4a	802.11n40 Chain A+B	1 2422MHz	A: 22.5 B: 23.5	A: 11.3 B: 11.4	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	50.1 dBuV/m @ 238 MHz (-3.9dB)		
4b	802.11n40 Chain A+B	11 2452MHz	A: 25.5 B: 26.5	A: 13.8 B: 14.1	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.0 dBuV/m @ 248 MHz (-3.0dB)		
5a	802.11n40 Chain A+C	1 2422MHz	A: 23.0 C: 22.5	A: 11.8 C: 11.8	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.9dBµV/m @ 2388.6MHz (-1.1dE		
5b	802.11n40 Chain A+C	11 2452MHz	A: 25.0 C: 24.5	A: 13.4 C: 13.2	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.8dBµV/m @ 2483.6MHz (-1.2dI		
6a	802.11n40 Chain B+C	1 2422MHz	B : 23.5 C : 21.0	B: 11.1 C: 10.2	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.2 dBuV/m @ 238 MHz (-2.8dB)		
6b	802.11n40 Chain B+C	11 2452MHz	B: 25.5 C: 24.5	B: 13.5 C: 13.6	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	53.1 dBuV/m @ 2483.6 MHz (-0.9d		
7a	802.11n40 A+B+C	1 2422MHz	A: 22.5 B: 23.0 C: 22.0	A: 10.2 B: 10.1 C: 10.0	Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	51.9 dBuV /m @ 2389.7 MHz (-2.1d		
7b	7b 802.11n40 11 A : 24.5 A : 11.7 Band Edg		Band Edge radiated field strength	FCC Part 15.209 / 15.247(c)	52.9dBµV/m @ 2483.6MHz (-1.1df				



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	333AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A

Sample ID: 0016EA02D660 Date of Test: 6/9/2008 Test Engineer: John Caizzi Test Location: FT Chamber #4

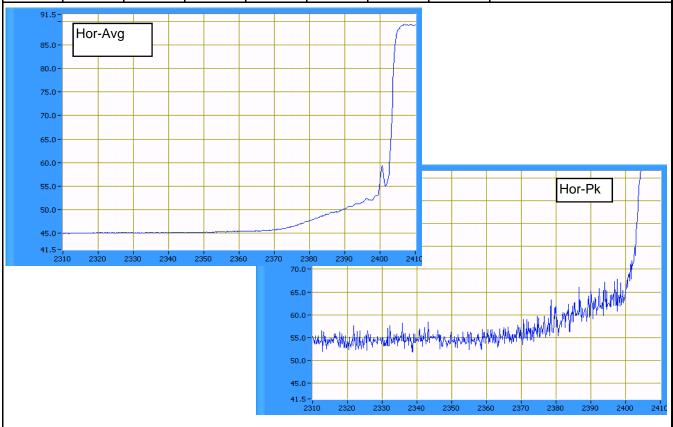
Run #1a: Low Channel @ 2422 MHz

Power Setting: 22 Average power: 12.2 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2407.330	89.5	V	120.0	-30.5	PK	324	1.0	RB = VB = 100kHz
2437.500	92.2	Н	120.0	-27.8	PK	64	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2390.790	50.9	Н	54.0	-3.1	Avg	64	1.0	
2386.050	69.7	Н	74.0	-4.3	Pk	64	1.0	



Elliott Client: Intel Corporation

EMC Test Data

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Client:	Intel Corporation	Job Number:	J70976							
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge							
Model.	555AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen							
Contact:	Robert Paxman									
Standard:	FCC	Class:	N/A							

Sample ID: 0016EA02D660
Date of Test: 6/9/2008
Test Engineer: Peter Salse
Test Location: FT Chamber #4

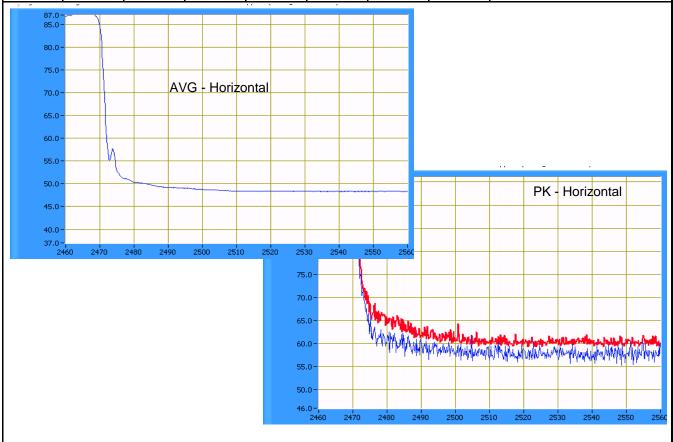
Run #1b: High Channel @ 2452 MHz

Power Setting: 24.5 Average power: 13.9 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Tundamental Signal Field Strength: Feak value measured in 100km2									
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2440.800	89.6	V	-	-	PK	141	1.0	RB = VB = 100kHz	
2437.000	91.3	Н	-	-	PK	212	2.3	RB = VB = 100kHz	

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2485.740	51.3	Н	54.0	-2.7	AVG	212	2.3	
2485.740	66.5	Н	74.0	-7.5	PK	212	2.3	





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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain B

Sample ID: 0016EA02D660 Date of Test: 6/10/2008 Test Engineer: Peter Sales

Test Location: Fremont Chamber #3

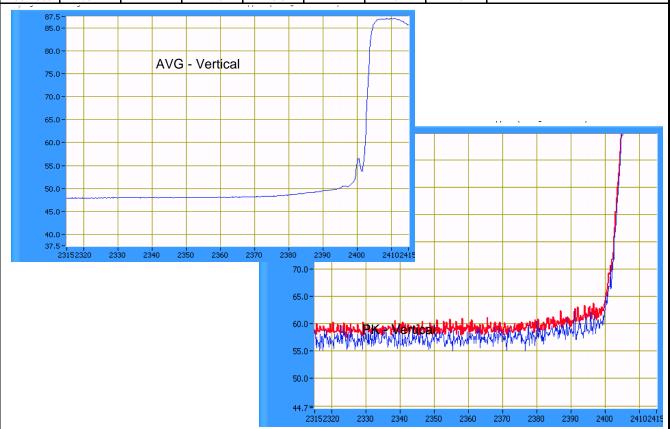
Run #2a: Low Channel @ 2422 MHz

Power Setting: 23.0 Average power: 12.8 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2431.000	88.6	Н	-	-	PK	238	1.0	RB = VB = 100kHz
2410.800	91.1	V	-	-	PK	167	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.060	51.1	V	54.0	-2.9	AVG	167	1.0	
2389.060	63.2	V	74.0	-10.8	PK	167	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2b: High Channel @ 2452 MHz

Sample ID: 0016EA02D660 Date of Test: 6/9/2008 Test Engineer: Ben Jing

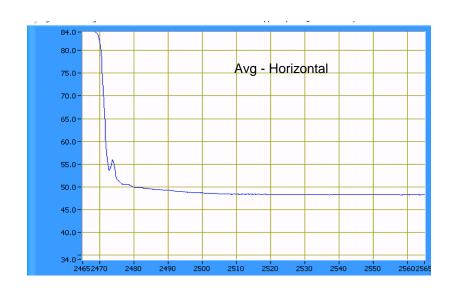
Test Location: Fremont Chamber #3

Power Setting: 25.5 Average power: 14.3 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

i unuament	didamental Signal Fleid Strength. Fleak value measured in 100km2										
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments			
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters				
2453.050	88.0	Н	-	-	PK	236	1.0	RB = VB = 100kHz			
2453.030	85.3	V	-	-	PK	162	1.0	RB = VB = 100kHz			
Band Edge Signal Field Strength											
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Heiaht	Comments			

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.790	61.0	V	74.0	-13.0	PK	172	2.3	
2483.550	50.0	V	54.0	-4.0	AVG	162	2.3	
2483.560	50.2	Н	54.0	-3.8	AVG	236	1.0	
2483.650	63.1	Н	74.0	-10.9	PK	242	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain C

Sample ID: 0016EA02D660 Date of Test: 6/9/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber #3

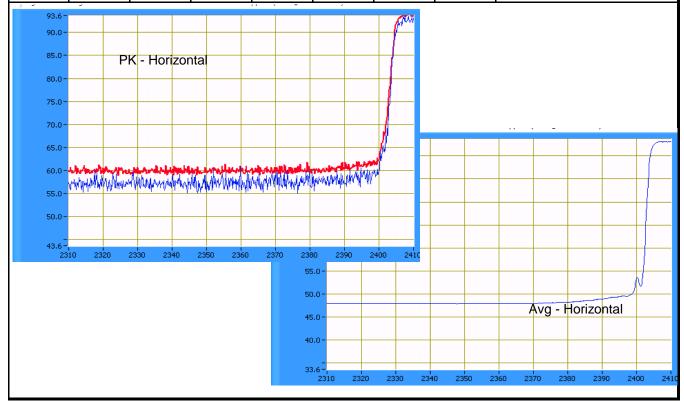
Run #3a: Low Channel @ 2422 MHz

Power Setting: 21.0 Average power: 11.5 (for reference purposes)

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2423.070	83.9	V	-	-	PK	209	1.0	RB = VB = 100kHz		
2423.070	82.1	Н	-	-	PK	140	1.0	RB = VB = 100kHz		

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.860	62.3	Н	74.0	-11.7	PK	143	1.1	
2389.700	49.0	Н	54.0	-5.0	AVG	141	1.1	
2389.760	62.2	V	74.0	-11.8	PK	215	1.1	
2389.700	48.4	V	54.0	-5.6	AVG	251	1.1	



Elliott EMC Test Data Job Number: J70976 Client: Intel Corporation T-Log Number: T71851 Band Edge Model: 533AN-MMW(MMC) Account Manager: Dean Eriksen Contact: Robert Paxman Standard: FCC Class: N/A Run #3b: High Channel @ 2452 MHz Power Setting: Average power: 13.9 (for reference purposes) 24.0 Fundamental Signal Field Strength: Peak value measured in 100kHz Frequency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avq degrees meters 2453.280 RB = VB = 100kHz٧ PK 214 86.2 1.0 2453.050 Н PK 1.0 RB = VB = 100kHz87.2 243 -Band Edge Signal Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments Pk/QP/Avg v/h Limit Margin degrees MHz $dB\mu V/m$ meters 2483.670 64.1 Н 74.0 -9.9 PΚ 245 1.0 2483.600 54.0 -2.4 AVG 1.0 51.6 Н 246 2483.600 50.6 ٧ 54.0 -3.4 **AVG** 215 1.0 ٧ 74.0 PK 2483.600 63.2 -10.8 218 1.0 80.0 75.0 Avg - Horizontal 70.0 65.0 60.0 55.0 50.0 45.0 40.0 PK - Horizontal 34.0 24652470 2480 2490 2500 2510 2530 2540 2560256 2550 75.0 65.0 60.0 55.0 2490 2500 2510 2520 2530



Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder.	555AIN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #4: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A+B

Sample ID: 0016EA02D660 Date of Test: 6/9/2008

Test Leasting Formula Characters

Test Location: Fremont Chamber #3

Run #4a: Low Channel @ 2422 MHz

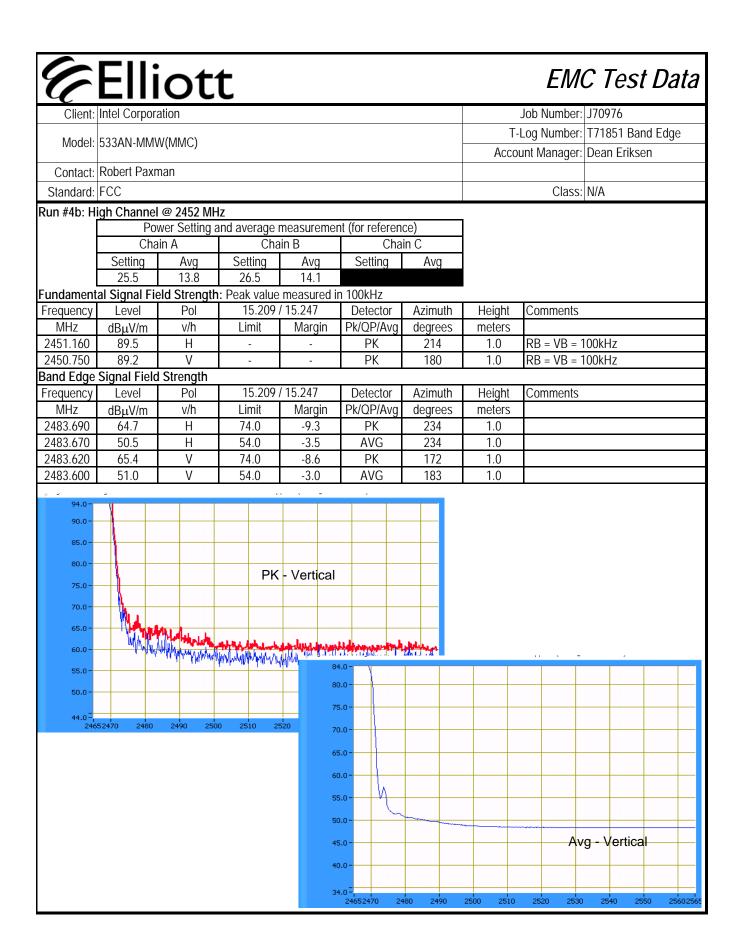
Power Setting and average measurement (for reference)									
Cha	nin A	Cha	in B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
22.5 11.3 23.5 11.4									

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2423.290	89.0	Н	-	-	PK	251	1.0	RB = VB = 100kHz
2420.740	86.8	V	-	•	PK	166	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.830	64.2	Н	74.0	-9.8	PK	252	1.1	
2389.700	50.1	Н	54.0	-3.9	AVG	237	1.1	
2389.890	62.6	V	74.0	-11.4	PK	166	1.1	
2389.880	49.1	V	54.0	-4.9	AVG	168	1.1	







Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #5: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A+C

Sample ID:

Date of Test: 6/10/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber # 5

Run #5a: Low Channel @ 2422 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
23.0	22.5	11.8							

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2423.300	89.9	V	-	-	PK	134	1.0	RB = VB = 100kHz		
2420.560	93.3	Н	-	-	PK	246	1.2	RB = VB = 100kHz		

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2388.610	52.9	Н	54.0	-1.1	AVG	236	1.2	
2389.290	70.1	Н	74.0	-3.9	PK	243	1.3	
2389.380	64.4	V	74.0	-9.6	PK	137	1.0	
2389.340	50.1	V	54.0	-3.9	AVG	137	1.0	



Elliott Run #5b: High Channel @ 2452 MHz Band Edge Signal Field Strength

EMC Test Data

Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
woder.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Chain C				
Setting	Avg	Setting	Avg	Setting	Avg			
25.0 13.4 24.5 13.2								

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2453.330	89.7	V	-	-	PK	140	1.0	RB = VB = 100kHz
2453.270	94.5	Н	-	-	PK	242	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.550	52.8	Н	54.0	-1.2	AVG	243	1.0	
2483.830	67.6	Н	74.0	-6.4	PK	239	1.0	
2484.500	63.5	V	74.0	-10.5	PK	136	1.0	
2483.550	50.7	V	54.0	-3.3	AVG	134	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	333AN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #6: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain B+C

Sample ID: 0016EA02D660 Date of Test: 6/10/2008 Test Engineer: Ben Jing

Test Location: Fremont Chamber # 5

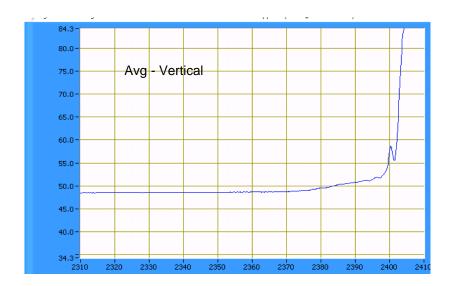
Run #6a: Low Channel @ 2422 MHz

Power Setting and average measurement (for reference)									
Cha	ain A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
23.5 11.1 21.0 10.2									

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2423.320	89.3	V	-	-	PK	207	1.0	RB = VB = 100kHz	
2420.760	89.4	Н	-	•	PK	239	1.0	RB = VB = 100kHz	
Band Edge Signal Field Strength									
Frequency	Level	P∩l	15 209	/ 15 247	Detector	∆zimuth	Heinht	Comments	

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.740	64.6	Н	74.0	-9.4	PK	239	1.0	
2389.720	50.9	Н	54.0	-3.1	AVG	238	1.0	
2389.850	64.4	V	74.0	-9.6	PK	201	1.1	
2389.780	51.2	V	54.0	-2.8	AVG	209	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

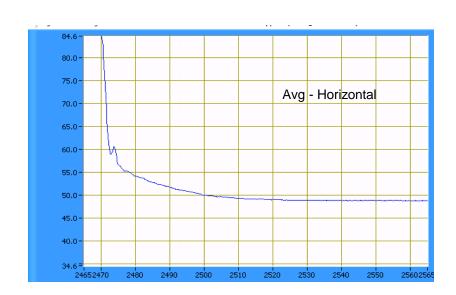
Run #6b: High Channel @ 2452 MHz

Power Setting and average measurement (for reference)									
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
25.5 13.5 24.5 13.6									

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2450.730	88.5	V	-	-	PK	238	1.0	RB = VB = 100kHz
2453.300	92.4	Н	-	-	PK	234	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.610	66.0	Н	74.0	-8.0	PK	232	1.0	
2483.610	53.1	Н	54.0	-0.9	AVG	241	1.0	
2483.600	50.9	V	54.0	-3.1	AVG	232	1.0	
2483.680	63.2	V	74.0	-10.8	PK	272	1.0	





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Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #7: Radiated Spurious Emissions, Band Edges. Operating Mode: 802.11n (40 MHz Channel) - Chain A+B+C Run #7a: Low Channel @ 2422 MHz

Power Setting and average measurement (for reference)								
Cha	ain A	Chain C						
Setting	Avg	Setting	Avg	Setting	Avg			
22.5 10.2 23.0 10.1 22.0 10.0								

Fundamental Signal Field Strength: Peak value measured in 100kHz

i diladilicit	and americal Signal Freid Strength: Feak value measured in 100km2									
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2423.050	90.9	V	-	-	PK	205	1.0	RB = VB = 100kHz		
2422.920	90.4	Н	-	-	PK	252	1.0	RB = VB = 100kHz		

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.710	50.9	V	54.0	-3.1	AVG	193	1.0	
2389.770	65.9	V	74.0	-8.1	PK	193	1.1	
2389.700	51.9	Н	54.0	-2.1	AVG	251	1.0	
2389.710	68.0	Н	74.0	-6.0	PK	253	1.0	





Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

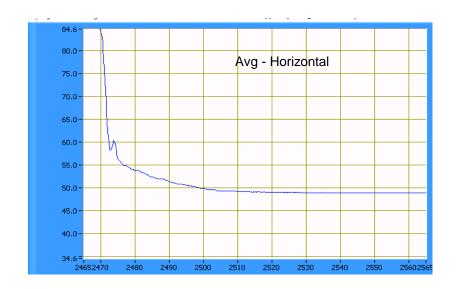
Run #7b: High Channel @ 2452 MHz

Po	Power Setting and average measurement (for reference)								
Cha	nin A	Cha	nin B	Chain C					
Setting	Avg	Setting	Avg	Setting	Avg				
24.5	24.5 11.7 25.5 11.7 24.5 11.6								

Fundamental Signal Field Strength: Peak value measured in 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2450.750	89.6	V	-	-	PK	141	1.0	RB = VB = 100kHz
2451.400	93.1	Н	-	-	PK	225	1.0	RB = VB = 100kHz

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.600	52.9	Н	54.0	-1.1	AVG	245	1.0	
2483.640	66.1	Н	74.0	-7.9	PK	244	1.0	
2483.620	50.3	V	54.0	-3.7	AVG	136	1.0	
2483.620	62.9	V	74.0	-11.1	PK	135	1.0	



Client:	Intel Corporation	Job Number:	J70976
Madal		T-Log Number:	T71851 Band Edge
wiodei:	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 2400 - 2483.5 MHz) Radiated Spurious Emissions 802.11n 40MHz Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Sample tested: 0016EA02D660

Config. Used: 1 Date of Test: 6/17/2008 Test Engineer: Ben Jing Config Change: None Test Location: Chamber # 4 Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: 22 °C Temperature:

> Rel. Humidity: 36 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11n40 Chains A+B+C	2437 MHz	B: 30.5	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	46.0 dBuV/m @ 7300.6 MHz (-8.0dB)

Measurements made to demonstrate that 802.11n 40-MHz mode emissions are not significantly different to 802.11n 20Mhz mode.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



\sim			
Client:	Intel Corporation	Job Number:	J70976
Modol	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 26,000 MHz. Operating Mode: 802.11n 40MHz Chain A+B+C at Max power Center Channel @ 2437 MHz

Power Setting and average measurement (for reference)							
Cha	ain A	Cha	nin B	Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		
30. 5	16. 5	30. 5	16. 6	29. 5	16. 6		

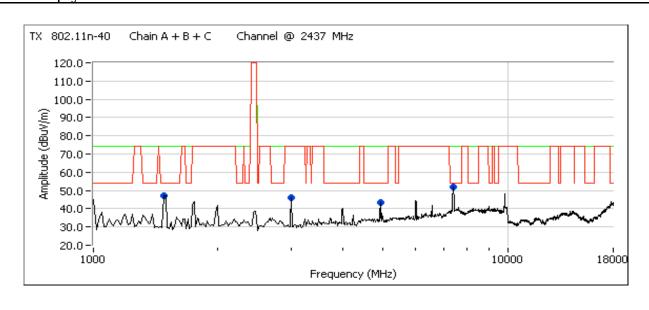
<--- highest power setting for single channel

Spurious Emissions

opanious Li	1110010110							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.410	37.1	V	54.0	-16.9	AVG	82	1.0	
1747.970	33.0	V	74.0	-41.0	AVG	87	1.0	Note 2
3995.560	30.9	V	54.0	-23.1	AVG	81	1.0	
7300.560	46.0	٧	54.0	-8.0	AVG	159	1.0	
1494.410	60.7	V	74.0	-13.3	PK	82	1.0	
1747.970	56.0	V	74.0	-18.0	PK	87	1.0	Note 2
3995.560	54.5	V	74.0	-19.5	PK	81	1.0	
7300.560	58.8	V	74.0	-15.2	PK	159	1.0	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band.



	Elliott	EMC Test Data			
Client:	Intel Corporation	Job Number:	J70976		
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge		
Model.		Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

RSS 210 and FCC 15.247 (DTS, 5725 - 5850 MHz) Radiated Spurious Emissions 802.11a Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Date of Test: 6/18/2008 Test Engineer: Suhaila Khushzad Config Change: -

Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

> Rel. Humidity: 33 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	802.11a Chain A	5745 MHz 5785 MHz 5825 MHz	26.0 26.0 26.5	16.7 16.6 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	50.3dBµV/m @ 11490.9MHz (-3.7dB)
2	802.11a Chain B	5745 MHz 5785 MHz 5825 MHz	25.0 25.5 26.0	16.6 16.6 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	46.4dBµV/m @ 11650.1MHz (-7.6dB)
3	802.11a Chain C	5745 MHz 5785 MHz 5825 MHz	25.5 26.0 26.5	16.6 16.7 16.7	Radiated Emissions, 1 - 26 GHz	FCC Part 15.209 / 15.247(c)	43.5dBµV/m @ 7713.3MHz (-10.5dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



\sim			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain A

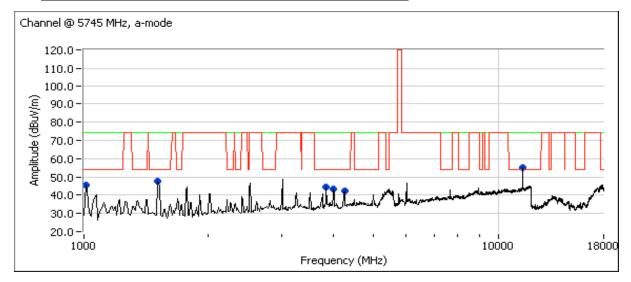
Run #1a: Low Channel @ 5745 MHz

Sample tested: 0016EA02D660

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Suhaila Khushzad Config Change: None
Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	nin A	Cha	nin B	Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		
26.0	16.7						

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.019	36.2	Н	54.0	-17.8	AVG	161	1.3	
1498.780	35.1	Н	54.0	-18.9	AVG	160	1.0	
3829.870	43.2	V	54.0	-10.8	AVG	179	1.0	
3995.020	32.9	V	54.0	-21.1	AVG	133	1.0	
4249.130	31.6	V	54.0	-22.4	AVG	87	1.0	
11490.920	50.3	V	54.0	-3.7	AVG	228	1.3	
1000.019	49.7	Н	74.0	-24.3	PK	161	1.3	
1498.780	52.3	Н	74.0	-21.7	PK	160	1.0	
3829.870	50.8	V	74.0	-23.2	PK	179	1.0	
3995.020	51.1	V	74.0	-22.9	PK	133	1.0	
4249.130	48.8	V	74.0	-25.2	PK	87	1.0	
11490.920	61.7	V	74.0	-12.3	PK	228	1.3	



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain A

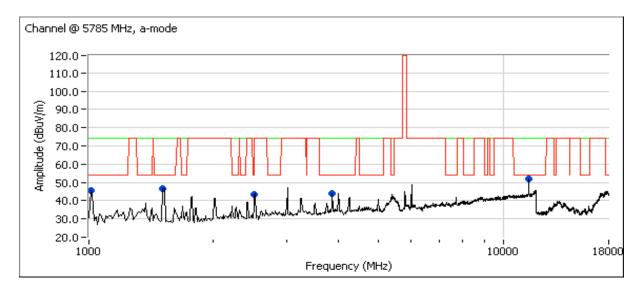
Run #1b: Center Channel @ 5785 MHz

Sample tested: 0016EA02D660

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Suhaila Khushzad Config Change: None
Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	ain A	Cha	ain B	Chain C			
Setting	Setting Avg		Avg	Setting	Avg		
26.0	16.6						

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.003	37.1	Н	54.0	-16.9	AVG	161	1.0	
1498.190	36.9	V	54.0	-17.1	AVG	144	1.0	
2491.190	32.9	V	54.0	-21.1	AVG	151	1.3	
3856.610	43.0	٧	54.0	-11.0	AVG	171	1.0	
11524.880	38.7	Н	54.0	-15.3	AVG	243	1.2	
1000.003	50.4	Н	74.0	-23.6	PK	161	1.0	
1498.190	54.1	V	74.0	-19.9	PK	144	1.0	
2491.190	51.6	V	74.0	-22.4	PK	151	1.3	
3856.610	49.2	V	74.0	-24.8	PK	171	1.0	
11524.880	49.8	Н	74.0	-24.2	PK	243	1.2	



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Client	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model	333AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact	Robert Paxman		
Standard	FCC	Class:	N/A

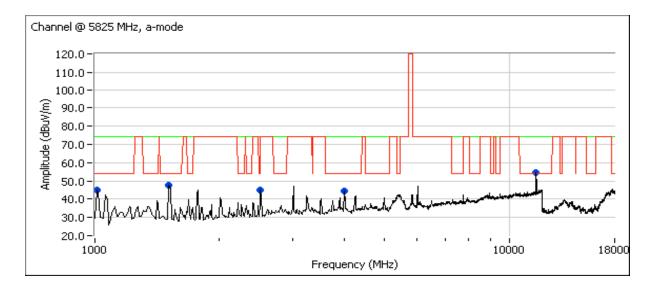
Run #1c: High Channel @ 5825 MHz

Sample tested: 0016EA02D660
Date of Test: 6/18/2008
Test Engineer: Suhaila Khushzad
Test Location: Chamber # 3

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)						
Cha	nin A	Cha	ain B	Chain C		
Setting	Avg	Setting	Avg	Setting	Avg	
26.5	16.7					

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
999.997	26.2	Н	54.0	-27.8	AVG	163	1.0	
1494.280	36.6	V	54.0	-17.4	AVG	147	1.0	
2489.870	32.8	V	54.0	-21.2	AVG	161	1.0	
3997.630	31.8	Н	54.0	-22.2	AVG	143	1.3	
11649.960	45.9	٧	54.0	-8.1	AVG	159	1.6	
999.997	42.1	Η	74.0	-31.9	PK	163	1.0	
1494.280	54.8	V	74.0	-19.2	PK	147	1.0	
2489.870	51.5	V	74.0	-22.5	PK	161	1.0	
3997.630	48.7	Η	74.0	-25.3	PK	143	1.3	
11649.960	57.5	V	74.0	-16.5	PK	159	1.6	



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Client	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model	333AIV-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact	Robert Paxman		
Standard	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain B

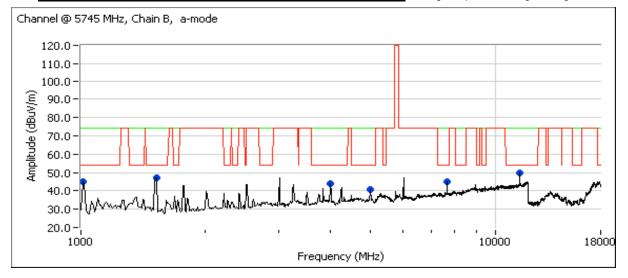
Run #2a: Low Channel @ 5745 MHz

Sample tested: 0016EA02D660

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Suhaila Khushzad Config Change: None
Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	ain A	Cha	nin B	Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.036	36.4	Н	54.0	-17.6	AVG	160	1.0	
1498.210	36.2	V	54.0	-17.8	AVG	148	1.0	
3996.880	31.8	Н	54.0	-22.2	AVG	140	1.3	
4995.880	33.1	V	54.0	-20.9	AVG	160	1.0	
7659.960	44.2	V	54.0	-9.8	AVG	243	1.0	
11490.150	44.4	V	54.0	-9.6	AVG	166	1.2	
1000.036	49.7	Н	74.0	-24.3	PK	160	1.0	
1498.210	54.2	V	74.0	-19.8	PK	148	1.0	
3996.880	48.4	Н	74.0	-25.6	PK	140	1.3	
4995.880	49.6	V	74.0	-24.4	PK	160	1.0	
7659.960	49.7	V	74.0	-24.3	PK	243	1.0	
11490.150	56.7	V	74.0	-17.3	PK	166	1.2	



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
wouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain B

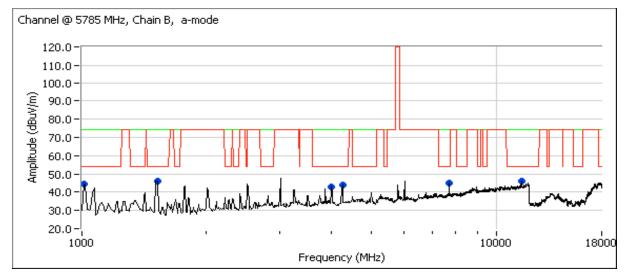
Run #2b: Center Channel @ 5785 MHz

Sample tested: 0016EA02D660

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Suhaila Khushzad Config Change: None
Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Chain A Chain B			nin B	Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.102	35.5	Н	54.0	-18.5	AVG	126	1.0	
1497.450	36.6	V	54.0	-17.4	AVG	170	1.3	
3984.100	32.0	V	54.0	-22.0	AVG	107	1.0	
4245.280	32.2	V	54.0	-21.8	AVG	118	1.0	
7713.310	43.3	V	54.0	-10.7	AVG	246	1.0	
11570.620	43.2	V	54.0	-10.8	AVG	223	1.0	
1000.102	48.1	Н	74.0	-25.9	PK	126	1.0	
1497.450	52.8	V	74.0	-21.2	PK	170	1.3	
3984.100	52.3	V	74.0	-21.7	PK	107	1.0	
4245.280	48.9	V	74.0	-25.1	PK	118	1.0	
7713.310	49.6	V	74.0	-24.4	PK	246	1.0	
11570.620	54.4	V	74.0	-19.6	PK	223	1.0	



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain B

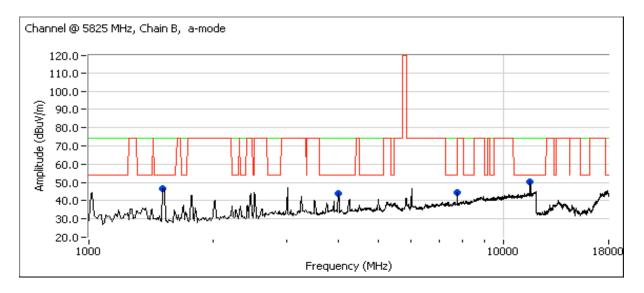
Run #2c: High Channel @ 5825 MHz

Sample tested: 0016EA02D660

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Suhaila Khushzad Config Change: None
Test Location: Chamber # 3 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	nin A	Cha	nin B	Chain C			
Setting	Avg	Setting Avg		Setting	Avg		

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1495.190	36.9	V	54.0	-17.1	AVG	143	1.0	
3985.350	32.2	Н	54.0	-21.8	AVG	134	1.5	
7766.570	42.7	V	74.0	-31.3	AVG	160	1.0	
11650.050	46.4	٧	54.0	-7.6	AVG	164	1.4	
1495.190	54.4	V	74.0	-19.6	PK	143	1.0	
3985.350	49.2	Н	74.0	-24.8	PK	134	1.5	
7766.570	48.6	V	74.0	-25.4	PK	160	1.0	
11650.050	58.8	V	74.0	-15.2	PK	164	1.4	



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11a Chain C

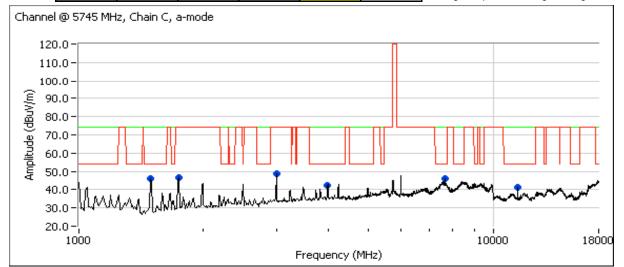
Run #3a: Low Channel @ 5745 MHz

Sample tested:

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Peter Sales Config Change: None
Test Location: Fremont Chamber #4 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)								
Chain A		Cha	ain B	Chain C				
Setting	Avg	Setting	Avg	Setting	Avg			
				25.5	16.7			

<--- highest power setting for single channel



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1496.750	33.8	Н	54.0	-20.2	AVG	327	1.0	
3994.730	32.7	V	54.0	-21.3	AVG	259	1.0	
7659.960	43.4	٧	54.0	-10.6	AVG	356	1.6	
11489.960	35.6	V	54.0	-18.4	AVG	356	1.3	
1749.640	46.4	Н	74.0	-27.6	Peak	331	1.3	Note 2
3000.250	48.7	V	74.0	-25.3	Peak	62	1.0	Note 2
1496.750	54.6	Н	74.0	-19.4	PK	327	1.0	
3994.730	53.2	V	74.0	-20.8	PK	259	1.0	
7659.960	50.7	V	74.0	-23.3	PK	356	1.6	
11489.960	46.4	V	74.0	-27.6	PK	356	1.3	
	-		-	-		-		_

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band.



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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3b: Center Channel @ 5785 MHz

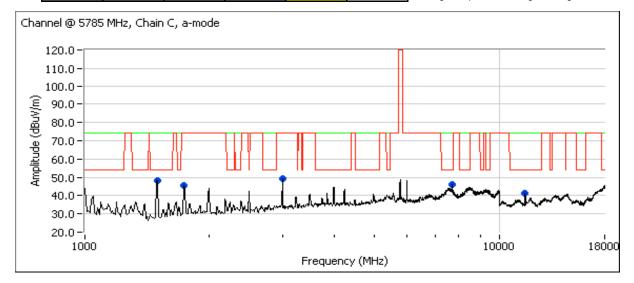
Sample tested:

Date of Test: 6/18/2008
Test Engineer: Peter Sales
Test Location: Fremont Chamber #4

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	Chain A		ain B	Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		
				26.0	16.7		

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.360	32.6	Н	54.0	-21.4	AVG	329	1.0	
7713.300	43.5	٧	54.0	-10.5	AVG	335	1.3	
11569.940	36.5	Н	54.0	-17.5	AVG	64	1.3	
1749.890	45.5	Н	74.0	-28.5	Peak	324	1.3	Note 2
3000.250	49.2	V	74.0	-24.8	Peak	89	1.0	Note 2
1497.360	56.0	Н	74.0	-18.0	PK	329	1.0	
7713.300	50.1	V	74.0	-23.9	PK	335	1.3	
11569.940	48.3	Н	74.0	-25.7	PK	64	1.3	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
NOIC 1.	level of the fundamental and measured in 100kHz.
Note 2:	Signal is not in a restricted band.



Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

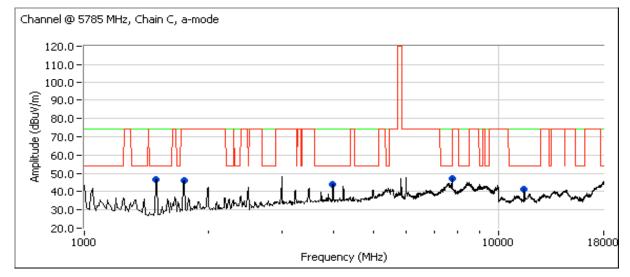
Run #3c: High Channel @ 5785 MHz

Sample tested:

Date of Test: 6/18/2008 Config. Used: 1
Test Engineer: Peter Sales Config Change: None
Test Location: Fremont Chamber #4 Host Unit Voltage 120V/60Hz

Power Setting and average measurement (for reference)							
Cha	nin A	Chain B		Chain C			
Setting	Avg	Setting	Avg	Setting	Avg		
				26.5	16.7		

<--- highest power setting for single channel



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBmV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.430	32.5	Н	54.0	-21.5	AVG	326	1.0	
3992.310	32.6	V	54.0	-21.4	AVG	307	1.0	
11650.300	41.9	Н	54.0	-12.1	AVG	51	1.0	
1743.230	46.3	V	74.0	-27.7	Peak	324	1.3	Note 2
7761.990	47.1	V	74.0	-26.9	Peak	347	1.6	Note 2
1497.430	55.1	Η	74.0	-18.9	PK	326	1.0	
3992.310	52.3	V	74.0	-21.7	PK	307	1.0	
11650.300	53.9	Н	74.0	-20.1	PK	51	1.0	

Note 1:		For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
l	NOIC I.	level of the fundamental and measured in 100kHz.
	Note 2:	Signal is not in a restricted band.

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Client:	Intel Corporation	Job Number:	J70976	
Model:	533AN-MMW(MMC)	T-Log Number:	er: T71851 Band Edge	
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen	
Contact:	Robert Paxman			
Standard:	FCC	Class:	N/A	

RSS 210 and FCC 15.247 (DTS, 5725 - 5850 MHz) Radiated Spurious Emissions 802.11n20MHz Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 6/19/2008 Config. Used: 1 Config Change: None Test Engineer: Peter Sales Host Unit Voltage 120V/60Hz Test Location: Fremont Chamber #5

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

Rel. Humidity: 33 %

Summary of Results

n20 testing covers both n20 and n40 modes

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11n20 Chain A+B+C		A:29.0 B:30.5 C:29.5	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	48.1dBµV/m @ 7660.0MHz (-5.9dB)
1b	802.11n20 Chain A+B+C		A:30.0 B:31.0 C:29.5	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	47.7dBµV/m @ 7713.3MHz (-6.3dB)
1c	802.11n20 Chain A+B+C		A:30.0 B:31.0 C:31.0	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	47.8dBµV/m @ 11649.8MHz (-6.2dB)
-	802.11n20 Chain A, B, C	5745 MHz 5785 MHz 5825 MHz			Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	By measuring triple- chain mode at full power we also cover
-	802.11n20	Dual Chain ı	modes (A+B,	A+C, B+C)	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	single- and dual-chain modes.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

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EMC Test Data

Client:	Intel Corporation	Job Number:	J70976	
Model:	533AN-MMW(MMC)	T-Log Number:	T-Log Number: T71851 Band Edge	
	233AIN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen	
Contact:	Robert Paxman			
Standard:	FCC	Class:	N/A	

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11n 20MHz Chains A+B+C

These tests run at a power setting equal to the highest single-chain settings to cover all possible dual- and triple-chain operating modes.

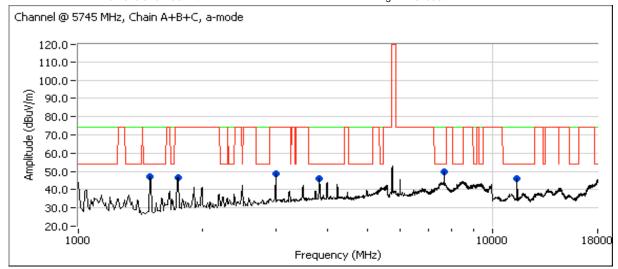
Run #1a: Low Channel @ 5745 MHz

Power Setting and average measurement (for reference)					
Cha	nin A	Cha	nin B	Cha	in C
Setting	Avg	Setting	Avg	Setting	Avg
29.0	16.5	30.5	16.5	29.5	16.6

Sample tested:

Date of Test: 6/18/2008
Test Engineer: Peter Sales
Test Location: Fremont Chamber #4

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz



Spurious Emissions

Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1496.810	32.5	Н	54.0	-21.5	AVG	328	1.0	
3829.960	43.9	V	54.0	-10.1	AVG	317	1.0	
7660.020	48.1	٧	54.0	-5.9	AVG	349	1.6	
11490.030	40.8	Н	54.0	-13.2	AVG	354	1.3	
1496.810	55.6	Н	74.0	-18.4	PK	328	1.0	
3829.960	51.1	V	74.0	-22.9	PK	317	1.0	
7660.020	52.9	V	74.0	-21.1	PK	349	1.6	
11490.030	51.8	Н	74.0	-22.2	PK	354	1.3	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band.



-				
Client:	Intel Corporation	Job Number:	J70976	
Model:	533AN-MMW(MMC)	T-Log Number:	T-Log Number: T71851 Band Edge	
	SAN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen	
Contact:	Robert Paxman			
Standard:	FCC	Class:	N/A	

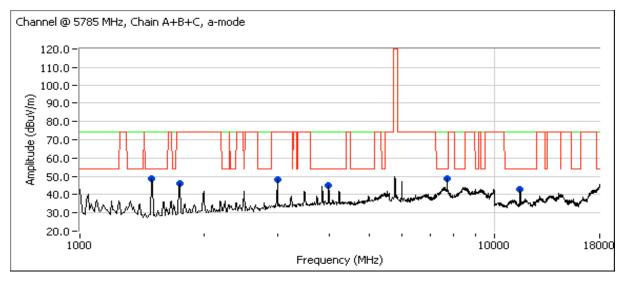
Run #1b: Center Channel @ 5785 MHz

Power Setting and average measurement (for reference)						
Cha	nin A	Cha	nin B	Chain C		
Setting	Avg	Setting	Avg	Setting	Avg	
30.0 16.6		31.0	16.6	29.5	16.6	

Sample tested:

Date of Test: 6/19/2008
Test Engineer: Peter Sales
Test Location: Fremont Chamber #4

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz



Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1496.910	33.4	Н	54.0	-20.6	AVG	328	1.0	
7713.300	47.7	V	54.0	-6.3	AVG	331	1.3	
3998.850	45.1	V	54.0	-8.9	Peak	311	1.0	
11574.780	43.0	V	54.0	-11.0	Peak	298	1.0	
1496.910	55.6	Н	74.0	-18.4	PK	328	1.0	
7713.300	52.5	V	74.0	-21.5	PK	331	1.3	

	INOTE 1.	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
		level of the fundamental and measured in 100kHz.
	Note 2:	Signal is not in a restricted band.

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EMC Test Data

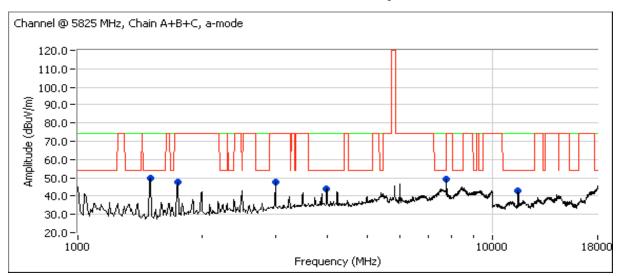
_			
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1c: High Channel @ 5825 MHz

Power Setting and average measurement (for reference)						
Cha	nin A	Cha	nin B	Chain C		
Setting	Avg	Setting	Avg	Setting	Avg	
30.0	16.6	31.0	16.5	31.0	16.6	

Sample tested:

Date of Test: 6/19/2008 Test Engineer: Peter Sales Test Location: Fremont Chamber #4 Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1495.380	33.2	Н	54.0	-20.8	AVG	325	1.0	
3993.050	32.3	V	54.0	-21.7	AVG	310	1.0	
7766.670	48.6	V	74.0	-25.4	AVG	347	1.6	
11649.800	47.8	٧	54.0	-6.2	AVG	27	1.0	
1495.380	56.4	Н	74.0	-17.6	PK	325	1.0	
3993.050	52.2	V	74.0	-21.8	PK	310	1.0	
7766.670	52.9	V	74.0	-21.1	PK	347	1.6	
11649.800	59.2	V	74.0	-14.8	PK	27	1.0	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

Note 2: Signal is not in a restricted band.

Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS, 5725 - 5850 MHz) Radiated Spurious Emissions 802.11n40MHz Universe Antenna

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 20 °C

Rel. Humidity: 33 %

Summary of Results

n20 testing covers both n20 and n40 modes

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	802.11n40 Chain A+B+C		A:29 B:30 C:29	A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	43.4dBµV/m @ 11510.0MHz (-10.6dB)
1b	802.11n40 Chain A+B+C			A: 16.5 B: 16.5 C: 16.5	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	38.7dBµV/m @ 11590.1MHz (-15.3dB)
-	802.11n40 Chain A, B,				Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	By measuring triple- chain mode at full power we also cover
-	802.11n40	Dual Chain ı	modes (A+B,	A+C, B+C)	Radiated Emissions, 1 - 40 GHz	FCC Part 15.209 / 15.247(c)	single- and dual-chain modes.

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
Model.	333AN-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11n 40MHz Chains A+B+C

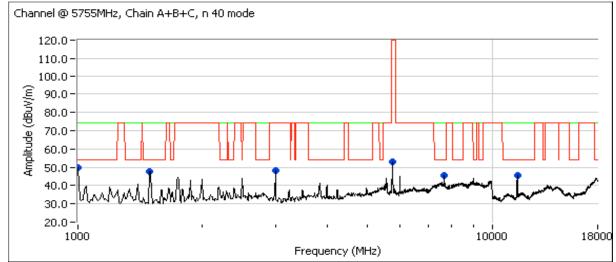
These tests run at a power setting equal to the highest single-chain settings to cover all possible dual- and triple-chain operating modes.

Sample tested: 0016EA02D660
Date of Test: 6/20/2008
Test Engineer: Jospeh Cadigal
Test Location: Chamber # 3

Config. Used: 1 Config Change: None Host Unit Voltage 120V/60Hz

Run #1a: Low Channel @ 5755 MHz

Power Setting and average measurement (for reference)						
Cha	nin A	Cha	nin B	Chain C		
Setting	Avg	Setting	Avg	Setting	Avg	
29.0	16.5	30.0	16.5	29.0	16.5	



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1000.000	20.4	Н	54.0	-33.6	AVG	358	1.0	
1494.990	23.8	Н	54.0	-30.2	AVG	5	1.0	
3000.440	38.5	V	74.0	-35.5	AVG	84	1.3	
7673.370	32.3	V	54.0	-21.7	AVG	359	1.6	
11510.030	43.4	Н	54.0	-10.6	AVG	67	1.6	
1000.000	34.6	Н	74.0	-39.4	PK	358	1.0	
1494.990	45.8	Н	74.0	-28.2	PK	5	1.0	
3000.440	42.1	V	74.0	-31.9	PK	84	1.3	
7673.370	38.7	V	74.0	-35.3	PK	359	1.6	
11510.030	50.6	Н	74.0	-23.4	PK	67	1.6	

Note 1: For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the level of the fundamental and measured in 100kHz.

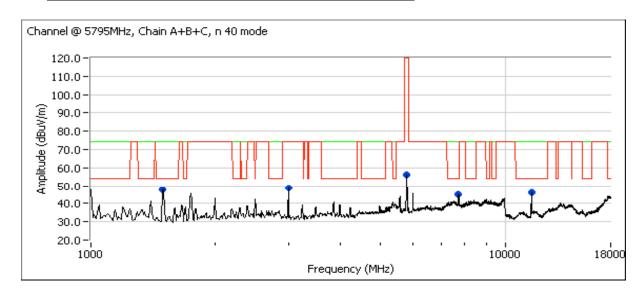
Note 2: Signal is not in a restricted band.



Client:	Intel Corporation	Job Number:	J70976
Madal	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AN-IVIIVIVV (IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1b: High Channel @ 5795 MHz

Power Setting and average measurement (for reference)						
Cha	nin A	Cha	nin B	Chain C		
Setting	Avg	Setting	Avg	Setting	Avg	
30.0	16.5	28.0	16.5	29.0	16.5	



Spurious Emissions

Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.930	23.8	Н	54.0	-30.2	AVG	312	1.3	
3000.340	38.1	V	74.0	-35.9	AVG	94	1.3	
7726.720	33.5	V	54.0	-20.5	AVG	358	1.6	
11590.050	38.7	٧	54.0	-15.3	AVG	309	1.3	
1497.930	44.9	Н	74.0	-29.1	PK	312	1.3	
3000.340	41.9	V	74.0	-32.1	PK	94	1.3	
7726.720	39.1	V	74.0	-34.9	PK	358	1.6	
11590.050	45.0	V	74.0	-29.0	PK	309	1.3	

	IIVIOTA I:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set 30dB below the
		level of the fundamental and measured in 100kHz.
	NI-1- O	Clausel is used in a manufacted bound

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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Radiated Spurious Emissions

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions: Temperature: 15-25 °C

Rel. Humidity: 35-55 %

Summary of Results

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1a	Chain A RX	2437 MHz	,	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	47.2dBµV/m @ 3000.41MHz (-6.8dB)
1b	Chain A RX	5785 MHz	,	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	47.8dBµV/m @ 3000.42MHz (-6.2dB)
2a	Chain B RX	2437 MHz	-	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	47.8dBµV/m @ 3000.41MHz (-6.2dB)
2b	Chain B RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	48.1dBµV/m @ 3000.31MHz (-5.9dB)
3a	Chain C RX	2437 MHz	-	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	48.3dBµV/m @ 3000.41MHz (-5.7dB)
3b	Chain C RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	47.7dBµV/m @ 3000.41MHz (-6.3dB)
4a	Chain A+B+C RX	2437 MHz	-	-	Radiated Emissions, 1 - 8GHz	RSS 210 / RSS GEN	48.3dBµV/m @ 3000.41MHz (-5.7dB)
4b	Chain A+B+C RX	5785 MHz	-	-	Radiated Emissions, 1 - 18GHz	RSS 210 / RSS GEN	48dBµV/m @ 3000.41MHz (-6.0dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

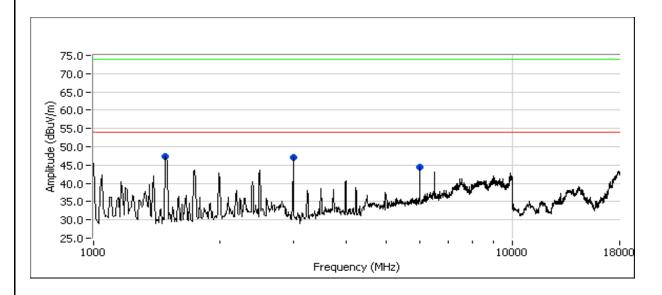


Client:	Intel Corporation	Job Number:	J70976
Model:	E 22 A N MANA// MAC)	T-Log Number:	T71851 Band Edge
	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 1: Chain A Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run # 1a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain A

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.750	32.6	V	54.0	-21.4	AVG	183	1.0	
3000.400	47.2	Н	54.0	-6.8	AVG	169	1.0	
5995.830	44.3	V	54.0	-9.7	Peak	273	2.0	Pk measurement, avg limit
1494.750	53.0	V	74.0	-21.0	PK	183	1.0	
3000.400	51.4	Н	74.0	-22.6	PK	169	1.0	

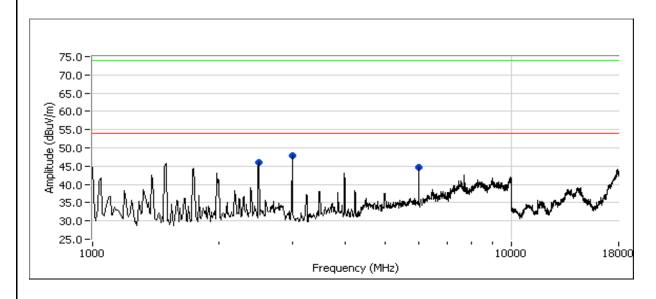




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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run # 1b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain A

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2490.610	30.3	Н	54.0	-23.7	AVG	144	1.0	
3000.410	47.8	٧	54.0	-6.2	AVG	259	1.3	
5995.830	44.6	V	54.0	-9.4	Peak	96	1.0	Pk measurement, avg limit
2490.610	50.9	Н	74.0	-23.1	PK	144	1.0	
3000.410	51.2	V	74.0	-22.8	PK	259	1.3	



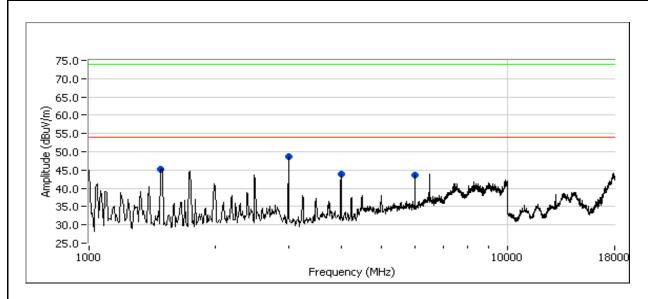


Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2: Chain B Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #2a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain B

10	rest Eocution. Chambel # 4								
Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1497.790	32.8	V	54.0	-21.2	AVG	252	1.3		
3000.400	47.8	٧	54.0	-6.2	AVG	259	1.3		
3997.500	43.8	V	54.0	-10.2	Peak	128	1.0	Pk measurement, avg limit	
5995.830	43.6	V	54.0	-10.4	Peak	98	1.0	Pk measurement, avg limit	
1497.790	49.6	V	74.0	-24.4	PK	252	1.3		
3000.400	51.1	V	74.0	-22.9	PK	259	1.3		

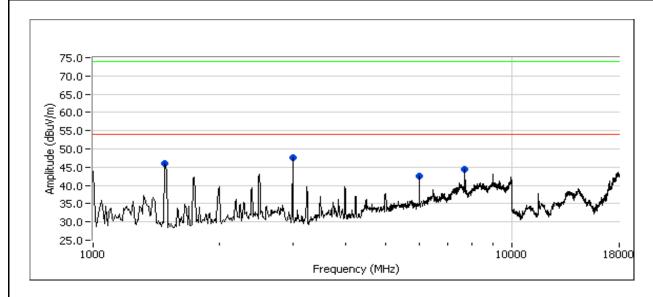




Client:	Intel Corporation	Job Number:	J70976
Model:	E 22 A N MANA// MAC)	T-Log Number:	T71851 Band Edge
	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #2b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain B

			•					
Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.410	33.6	Н	54.0	-20.4	AVG	163	1.0	
3000.340	48.1	٧	54.0	-5.9	AVG	262	1.3	
5995.830	42.5	V	54.0	-11.5	Peak	263	1.3	Pk measurement, avg limit
7713.330	44.4	V	54.0	-9.6	Peak	255	1.6	Pk measurement, avg limit
1494.410	53.6	Н	74.0	-20.4	PK	163	1.0	
3000.340	51.6	V	74.0	-22.4	PK	262	1.3	



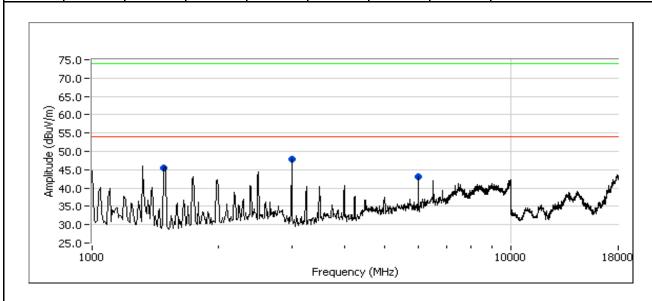


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Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3: Chain C Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #3a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.200	33.8	Н	54.0	-20.2	AVG	164	1.0	
3000.440	48.3	٧	54.0	-5.7	AVG	261	1.3	
5995.830	43.1	V	54.0	-10.9	Peak	103	1.3	Pk measurement, avg limit
1494.200	53.9	Н	74.0	-20.1	PK	164	1.0	
3000.440	51.4	V	74.0	-22.6	PK	261	1.3	

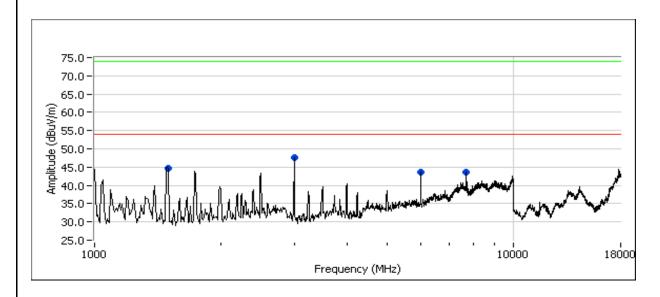




Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #3b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain C

1.0	on Location.	Chamber #	т					
Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1497.560	32.2	V	54.0	-21.8	AVG	182	1.6	
3000.360	47.7	٧	54.0	-6.3	AVG	261	1.3	
5995.830	43.6	V	54.0	-10.4	Peak	106	1.3	Pk measurement, avg limit
7713.330	43.5	V	54.0	-10.5	Peak	253	1.6	Pk measurement, avg limit
1497.560	51.8	V	74.0	-22.2	PK	182	1.6	
3000.360	50.8	V	74.0	-23.2	PK	261	1.3	



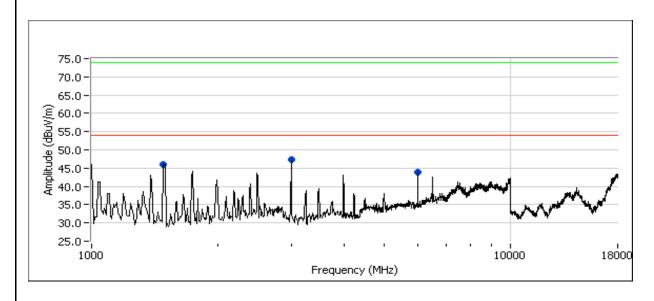


Client:	Intel Corporation	Job Number:	J70976
Madal	E 22 A N MANA// MAC)	T-Log Number:	T71851 Band Edge
wiodei:	533AN-MMW(MMC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #4: Chain A+B+C Rx Radiated Spurious Emissions, 1000 - 18000 MHz

Run #4a: Rx Radiated Spurious Emissions, 1000 - 7500 MHz. Receiver at 2437 MHz, Chain A+B+C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1494.670	33.9	Н	54.0	-20.1	AVG	168	1.0	
3000.350	48.3	٧	54.0	-5.7	AVG	258	1.3	
5995.830	43.8	V	54.0	-10.2	Peak	105	1.3	Pk measurement, avg limit
1494.670	53.5	Н	74.0	-20.5	PK	168	1.0	
3000.350	51.8	V	74.0	-22.2	PK	258	1.3	

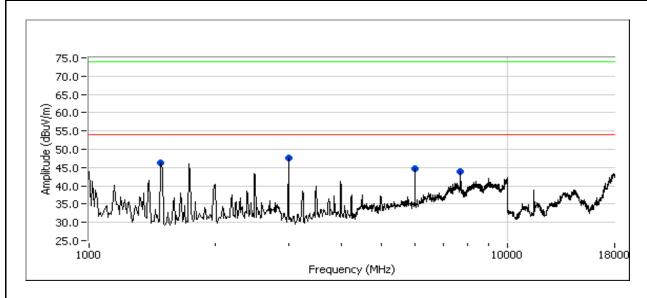




Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71851 Band Edge
iviouei.	555AIV-IVIIVIVV(IVIIVIC)	Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #4b: Rx Radiated Spurious Emissions, 1000 - 18000 MHz. Receiver at 5785 MHz, Chain A+B+C

Frequency	Level	Pol	RSS	GEN	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1498.200	33.1	Н	54.0	-20.9	AVG	162	1.0	
3000.370	48.0	٧	54.0	-6.0	AVG	257	1.3	
5995.830	44.8	V	54.0	-9.2	Peak	95	1.0	Pk measurement, avg limit
7713.330	43.9	V	54.0	-10.1	Peak	252	1.6	Pk measurement, avg limit
1498.200	52.9	Н	74.0	-21.1	PK	162	1.0	
3000.370	51.4	V	74.0	-22.6	PK	257	1.3	



Elli	ott	El	MC Test Data
Client:	Intel Corporation	Job Number:	J70976
Model:	533AN-MMW(MMC)	T-Log Number:	T71133
		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		-
Emissions Standard(s):	FCC	Class:	-
Immunity Standard(s):	-	Environment:	-

For The

Intel Corporation

Model

533AN-MMW(MMC)

Date of Last Test: 5/5/2008

6	Elliott	EMO	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Model	533AN-MMW(MMC)	T-Log Number:	T71133
woden.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Conducted Emissions

(Elliott Laboratories Fremont Facility, Semi-Anechoic Chamber)

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the

specification listed above.

Date of Test: 5/5/2008 Config. Used: 1
Test Engineer: Ben Jing Config Change: None
Test Location: Fremont Chamber #4 EUT Voltage: 120V/60Hz

General Test Configuration

For tabletop equipment, the EUT and host system was located on a wooden table inside the semi-anechoic chamber, 40 cm from a vertical coupling plane and 80cm from the LISN. A second LISN was used for all local support equipment. Remote support equipment was located outside of the semi-anechoic chamber. Any cables running to remote support equipment where routed through metal conduit and when possible passed through a ferrite clamp upon exiting the chamber.

Ambient Conditions: Temperature: 21 °C

Rel. Humidity: 36 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1 (DTS)	CE, AC Power, 120V/60Hz	FCC 15.207 / RSS GEN	Pass	47.4dBµV @ 0.522MHz
1 (013)	CL, AC F0Wei, 120 7/00/12		газз	(-8.6dB)
2 (UNII)	CE, AC Power,120V/60Hz	FCC 15.207 / RSS GEN	Dace	47.4dBµV @ 0.524MHz
2 (01111)	CE, AC FOWEI, 1207/00HZ		Pass	(-8.6dB)

Modifications Made During Testing

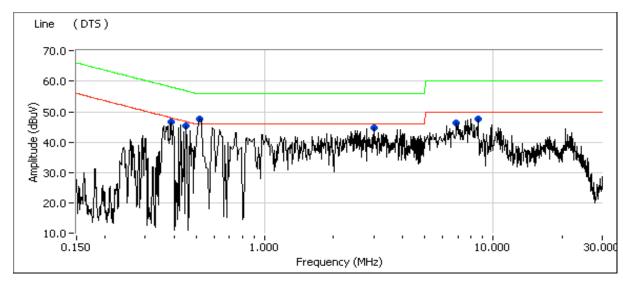
No modifications were made to the EUT during testing

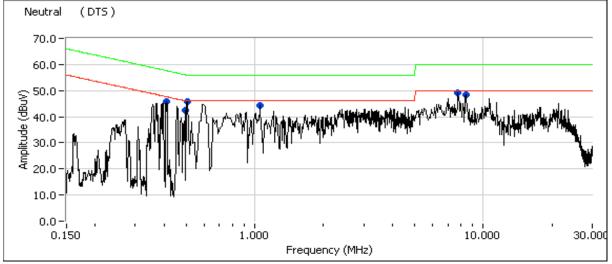
Deviations From The Standard

No deviations were made from the requirements of the standard.

	Elliott	EMO	C Test Data
Client:	Intel Corporation	Job Number:	J70976
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133
iviouei.		Account Manager:	Dean Eriksen
Contact:	Robert Paxman		
Standard:	FCC	Class:	N/A

Run #1: DTS AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz Target power; All chains active.

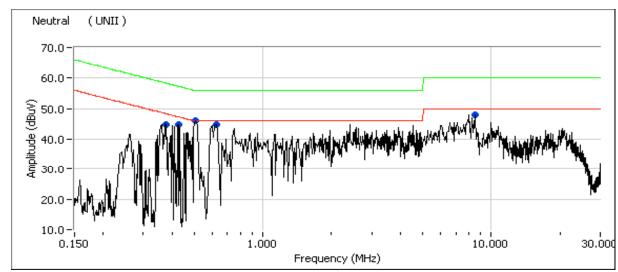


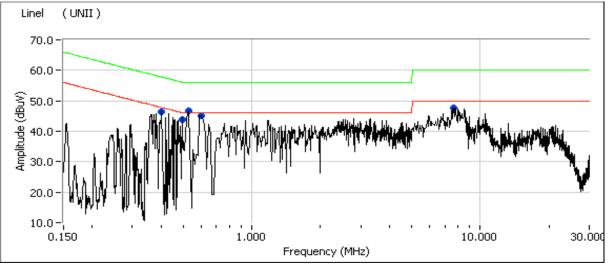


	ΕII	iot	t				EM	C Test Dat
	Intel Corpor						Job Number:	J70976
							T-Log Number:	T71133
Model:	533AN-MM\	W(MMC)					Account Manager:	
Contact:	Robert Paxr	man					<u> </u>	
Standard:	FCC						Class:	N/A
		nas canture	d during nre	-scan (neak	readings v	s. average lii		
Frequency	Level	AC	FCC 1		Detector	Comments	iiiy	
MHz	dΒμV	Line	Limit	Margin	QP/Ave	Comments		
0.524	47.8	Line	46.0	1.8	Peak			
0.522	45.9	Neutral	46.0	-0.1	Peak			
7.733	49.1	Neutral	50.0	-0.9	Peak			
3.013	44.7	Line	46.0	-1.3	Peak			
0.389	46.6	Line	48.1	-1.5	Peak			
0.450	45.3	Line	46.9	-1.6	Peak			
1.047	44.4	Neutral	46.0	-1.6	Peak			
0.413	45.9	Neutral	47.6	-1.0	Peak			
8.393	48.3	Neutral	50.0	-1.7	Peak			
8.500	47.8	Line	50.0	-2.2	Peak			
6.918	46.4	Line	50.0	-3.6	Peak			
0.497	40.4	Neutral	46.1	-3.7	Peak			
		verage readi		-3.1	Peak			
	Level	AC	FCC 1	IE 207	Detector	Comments		
Frequency MHz		Line	Limit		QP/Ave	Comments		
0.522	dBμV 47.4	Neutral	56.0	Margin -8.6	QP/Ave QP			
0.524	46.8	Line	56.0	-0.0 -9.2	QP QP			
0.324	44.9		56.9	-12.0	QP QP			
		Line		-12.0	QP QP			
0.497	43.9	Neutral	56.0 58.1		QP QP			
0.389	44.5	Line		-13.6				
0.413	42.5	Neutral	57.6	-15.1	QP			
1.047	40.7	Neutral	56.0	-15.3	QP			
3.013	38.0	Line	56.0	-18.0	QP			
8.500	41.4	Line	60.0	-18.6	QP			
0.522	27.0	Neutral	46.0	-19.0	AVG			
8.393	40.9	Neutral	60.0	-19.1	QP			
0.497	26.5	Neutral	46.0	-19.5	AVG			
8.500	30.3	Line	50.0	-19.7	AVG			
7.733	40.2	Neutral	60.0	-19.8	QP			
8.393	29.9	Neutral	50.0	-20.1	AVG			
6.918	39.7	Line	60.0	-20.3	QP			
3.013	25.3	Line	46.0	-20.7	AVG			
0.524	25.0	Line	46.0	-21.0	AVG			
7.733	29.0	Neutral	50.0	-21.0	AVG			
0.389	27.0	Line	48.1	-21.1	AVG			
1.047	23.9	Neutral	46.0	-22.1	AVG			
0.450	24.2	Line	46.9	-22.7	AVG			
6.918	27.0	Line	50.0	-23.0	AVG			
0.413	19.8	Neutral	47.6	-27.8	AVG			

6	Elliott	EMC Test Data			
Client:	Intel Corporation	Job Number:	J70976		
Modol:	533AN-MMW(MMC)	T-Log Number:	T71133		
Model.		Account Manager:	Dean Eriksen		
Contact:	Robert Paxman				
Standard:	FCC	Class:	N/A		

Run #2: UNII AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz Target power; All chains active.





	<u>L</u> II	iot	<u></u>					C Test
	Intel Corpor						Job Number:	J70976
Model:	533AN-MM	W(MMC)					T-Log Number:	T71133
		, ,					Account Manager:	Dean Eriksen
Contact:	Robert Paxi	man						
Standard:							Class:	N/A
reliminary	peak readi	ngs capture	d during pre	e-scan (peak	readings v	s. average limi	t)	
requency	Level	AC	FCC 1	15.207	Detector	Comments		
MHz	dΒμV	Line	Limit	Margin	QP/Ave			
0.524	46.7	Line	46.0	0.7	Peak			
0.500	46.1	Neutral	46.0	0.1	Peak			
0.592	45.0	Line	46.0	-1.0	Peak			
0.624	44.9	Neutral	46.0	-1.1	Peak			
0.403	46.4	Line	47.8	-1.4	Peak			
8.516	48.0	Neutral	50.0	-2.0	Peak			
0.499	43.9	Line	46.0	-2.1	Peak			
7.668	47.7	Line	50.0	-2.3	Peak			
0.427	44.9	Neutral	47.3	-2.4	Peak			
					1)001/			
0.375	44.9	Neutral	48.4	-3.5	Peak	1		
nal quasi requency		verage readi	ings	15.207	Detector	Comments		
nal quasi requency MHz	-peak and a Level dBµV	verage read AC Line	ings FCC 1 Limit	15.207 Margin	Detector QP/Ave	Comments		
nal quasi requency MHz 0.524	-peak and a Level dBμV 47.4	verage readi AC Line Line	ings FCC 1 Limit 56.0	15.207 Margin -8.6	Detector QP/Ave QP	Comments		
nal quasi requency MHz 0.524 0.499	-peak and a Level dBμV 47.4 45.5	verage read AC Line Line Line	ings FCC 2 Limit 56.0 56.0	15.207 Margin -8.6 -10.5	Detector QP/Ave QP QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500	-peak and a Level dBμV 47.4 45.5 45.2	verage readi AC Line Line Line Neutral	FCC 5 Limit 56.0 56.0 56.0	15.207 Margin -8.6 -10.5 -10.8	Detector QP/Ave QP QP QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624	-peak and a Level dBμV 47.4 45.5 45.2 43.4	verage readi AC Line Line Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0	15.207 Margin -8.6 -10.5 -10.8 -12.6	Detector QP/Ave QP QP QP QP	Comments		
mal quasi requency MHz 0.524 0.499 0.500 0.624 0.375	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7	verage readi AC Line Line Line Neutral Neutral Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 56.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7	Detector QP/Ave QP QP QP QP QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7	verage readi AC Line Line Line Neutral Neutral Neutral Neutral Line	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1	Detector QP/Ave QP QP QP QP QP QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8	verage readi AC Line Line Line Neutral Neutral Neutral Line Line Line	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2	Detector QP/Ave QP QP QP QP QP QP QP QP QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0	verage readi AC Line Line Line Neutral Neutral Neutral Line Line Line Neutral	FCC Limit 56.0 56.0 56.0 57.8 56.0 57.3	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3	Detector QP/Ave QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6	verage readi AC Line Line Line Neutral Neutral Neutral Line Line Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4	Detector QP/Ave QP AVG	Comments		
mal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3	verage readi AC Line Line Line Neutral Neutral Neutral Line Line Line Neutral Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1	Detector QP/Ave QP QP QP QP QP QP QP QP AVG AVG	Comments		
mal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3 41.0	verage readi AC Line Line Neutral Neutral Neutral Line Line Line Neutral Neutral Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 56.0 57.8 56.0 57.3 46.0 48.4 60.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0	Detector QP/Ave QP QP QP QP QP QP QP QP AVG AVG QP	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3 41.0 26.9	verage readi AC Line Line Line Neutral Neutral Line Line Neutral Line Neutral Neutral Neutral Neutral Neutral Neutral Neutral Neutral	FCC Limit 56.0 56.0 56.0 56.0 57.8 56.0 57.3 46.0 48.4 60.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1	Detector QP/Ave QP QP QP QP QP QP QP AVG AVG	Comments		
inal quasi frequency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7	verage readi AC Line Line Line Neutral Neutral Line Line Line Neutral Line Neutral Line Neutral Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3	Detector QP/Ave QP QP QP QP QP QP QP QP QP AVG AVG AVG AVG	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7 26.6	verage readi AC Line Line Line Neutral Neutral Line Line Neutral Line Neutral Line Neutral Line Neutral Line Neutral Neutral Neutral Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3 -19.4	Detector QP/Ave QP QP QP QP QP QP QP AVG AVG AVG AVG AVG AVG	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524 0.624 0.499	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 43.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7 26.6 26.6	verage readi AC Line Line Line Neutral Neutral Line Line Neutral Line Neutral Line Neutral Line Neutral Line Neutral Neutral Neutral Neutral Line Neutral Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3 -19.4	Detector QP/Ave QP QP QP QP QP QP QP QP AVG AVG AVG AVG AVG AVG AVG	Comments		
nal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524 0.624 0.499 7.668	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7 26.6 26.6 40.3	verage readi AC Line Line Line Neutral Neutral Line Line Neutral Line Line Neutral Line Line	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3 -19.4 -19.7	Detector QP/Ave QP QP QP QP QP QP QP QP AVG AVG AVG AVG AVG AVG AVG AVG	Comments		
inal quasi requency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524 0.624 0.499 7.668 8.516	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7 26.6 40.3 29.8	verage readi AC Line Line Line Neutral Neutral Line Line Neutral	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0 46.0 46.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3 -19.4 -19.4 -19.7	Detector QP/Ave QP QP QP QP QP QP QP QP QP AVG	Comments		
inal quasi Frequency MHz 0.524 0.499 0.500 0.624 0.375 0.403 0.592 0.427 0.592 0.375 8.516 0.500 0.524 0.624 0.499 7.668	-peak and a Level dBμV 47.4 45.5 45.2 43.4 44.7 41.8 41.0 28.6 30.3 41.0 26.9 26.7 26.6 26.6 40.3	verage readi AC Line Line Line Neutral Neutral Line Line Neutral Line Line Neutral Line Line	FCC 2 Limit 56.0 56.0 56.0 56.0 58.4 57.8 56.0 57.3 46.0 48.4 60.0 46.0 46.0	15.207 Margin -8.6 -10.5 -10.8 -12.6 -13.7 -14.1 -14.2 -16.3 -17.4 -18.1 -19.0 -19.1 -19.3 -19.4 -19.7	Detector QP/Ave QP QP QP QP QP QP QP QP AVG AVG AVG AVG AVG AVG AVG AVG	Comments		