Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Emissions Spec:	FCC Part 15 B and E, RSS-210	Class:	B
Immunity Spec:	N/A	Environment:	-

EMC Test Data

For The

Intel Corporation

Model

WPCI5000

Client:	Intel Corporation	Job Number:	J45863
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		Proj Eng:	Mark Briggs
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Emissions Spec:	FCC Part 15 B and E, RSS-210	Class:	B
Immunity Spec:	N/A	Environment:	-

EUT INFORMATION

General Description

The EUT is a UNII PCI card which is designed to be used in PC computer to provide wireless network access. Normally, the EUT would be table-top. The EUT was treated as table-top equipment during testing to simulate the end user environment. EUT received it's voltage from the PC host.

Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
Intel	WPCI5000	PCI Card	N/A	DoC
Intel	WM3A5000	Mini PCI card	N/A	J30WM3A5000

Antenna

The EUT uses the following external antennas:

Manufacturer	Model	Description	Serial Number	Antenna Gain (dBi)
FoxxCon	FX01A88-00	Omnidirectional antenna	-	2

The antenna connector used is non-standard antenna reverse threat connector to meet the requirements of FCC Part 15.203 and RSS-210.

EUT Enclosure

The EUT does not contain an enclosure. It relies on the host system shield. It measures approximately 1 cm wide by 20 cm deep by 5 cm high.

Modification History

Mod. #	Test	Date	Modification
1			

Elliott

EMC Test Data

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Immunity Spec:	N/A	Environment:	-

Test Configuration #1

Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
Compaq	3563V5	Desktop PC	N/A	CNT75MDEBV5
Logitech	M-C34	Mouse	LZB83058088	DZL211146
Dell	SK-1000RE	Keyboard	GYUR105K	M950529070
GEM	DD-556AA	Monitor	H79DD-556	BDK008B0023
HP	2225C+	Printer	3028S76892	DS16XU2225
Robotics	Pilot 1000	PDA	604819965702	MQ90001

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
None	-	-	-	-

EUT Interface Ports

		Cable(s)		
EUT Port	Connected To	Description	Shielded or Unshielded	Length(m)
Reverse SMA	Antenna	N/A	N/A	N/A

HOST Interface Ports

		Cable(s)		
HOST Port	Connected To	Description	Shielded or Unshielded	Length(m)
Mouse	Desktop	PS/2	Shielded	1.4
Keyboard	Desktop	PS/2	Shielded	1.3
VGA	Desktop	D-Sub 15	Shielded	1.5
Printer	Desktop	Parallel	Shielded	2
Palm Pilot	Desktop	Com1	Shielded	1.5

EUT Operation During Emissions Testing (Digital Testing)

Radio was set to transmitt continously. H-pattern software used to exercise the printer, serial, and display ports.

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Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

FCC Part 15 Subpart E Tests: Normal Mode

Test Specifics

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:	1/19/2001	Config. Used:	2
Test Engineer:	Jmartinez	Config Change:	N/A
Test Location:	SVOATS# 4	Host Unit Voltage	120Vac, 60Hz

General Test Configuration

The EUT was located on the turntable for radiated spurious emissions testing.
For radiated emissions testing the measurement antenna was located 3 meters from the EUT unless stated otherwise.
When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 8.9°C
Rel. Humidity: 89%

Summary of Results: Turbo Mode

Run #	Test Performed	Limit	Result	Comments
1	Output Power (5.15 - 5.25GHz band)	15.407(a) (1)	Pass	16.9 dBm
1	Output Power (5.25 - 5.35GHz band)	15.407(a) (2)	Pass	21.0 dBm
2	Power Spectral Density (5.15 - 5.25GHz)	15.407(a) (1)	Pass	-2.3 dBm/MHz
2	Power Spectral Density (5.25-5.35GHz)	15.407(a) (2)	Pass	1.70 dBm/MHz
3	26dB Bandwidth	15.407	Pass	27.33 - 38.1 MHz
3	20 dB Bandwidth	RSS 210	Pass	17.33 - 22.5 MHz
4	Peak Excursion Envelope	15.407(a) (6)	Pass	7.42 - 7.75 dB
5	Antenna Conducted - Out of Band Spurious	15.407(b)	Pass	> -27 dBm

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Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

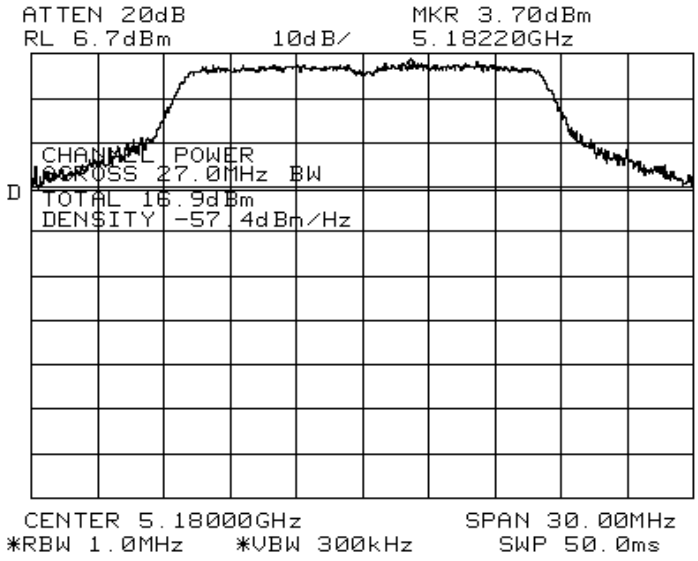
No deviations were made from the requirements of the standard.

Run #1: Output Power

Antenna Gain: 2 dBi

Power (dBm)	Frequency (MHz)	VBW (kHz)	26-dB EBW	Measured Power (dBm)	FCC Limit (dBm) (note 3)
13	5180	145	27.33	16.9	17.0
15	5260	202	38.10	21.0	24.0
13	5320	175	33.00	19.2	24.0

Note 1:	Measured using spectrum analyzer's power measurement function (RBW = 1MHz, VBW = (Note 2)) which summed the power over the occupied bandwidth (26dB bandwidth).
Note 2:	VBW was determine by the following formulas: EBW/2*pi*30 or 1/2*pi*T, whichever gives the largest VBW.



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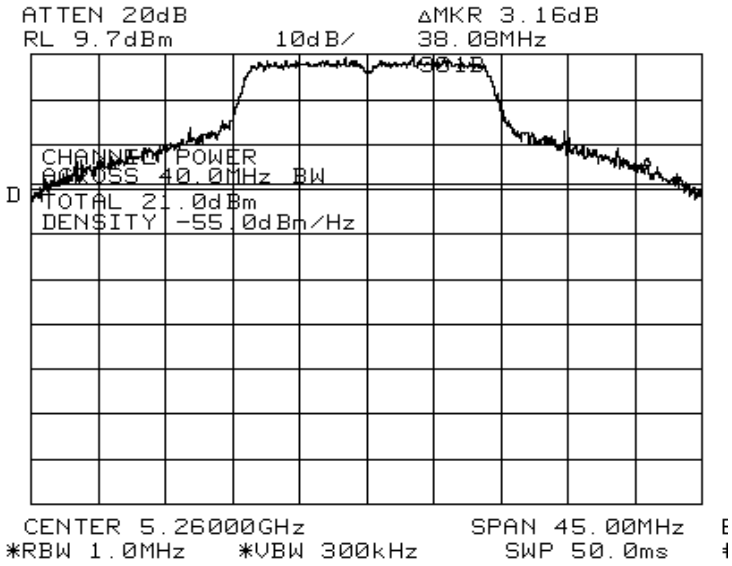
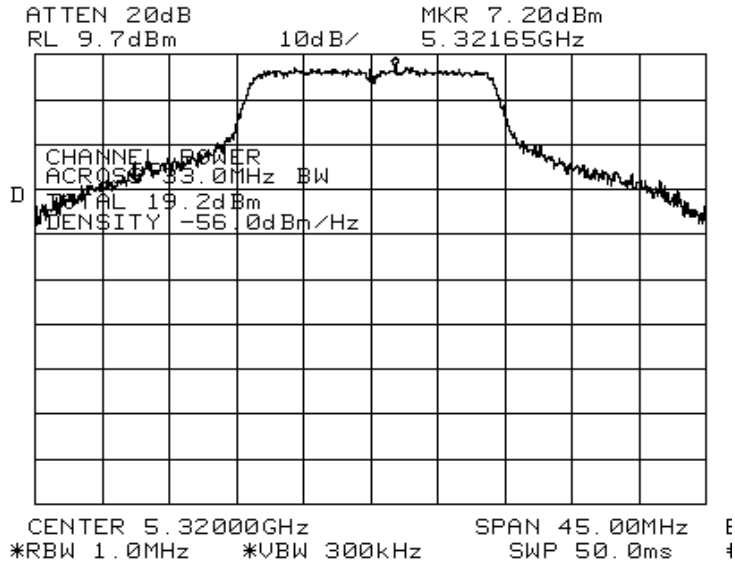
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B





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Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #2: Power Spectral Density

Antenna Gain: 2 dBi

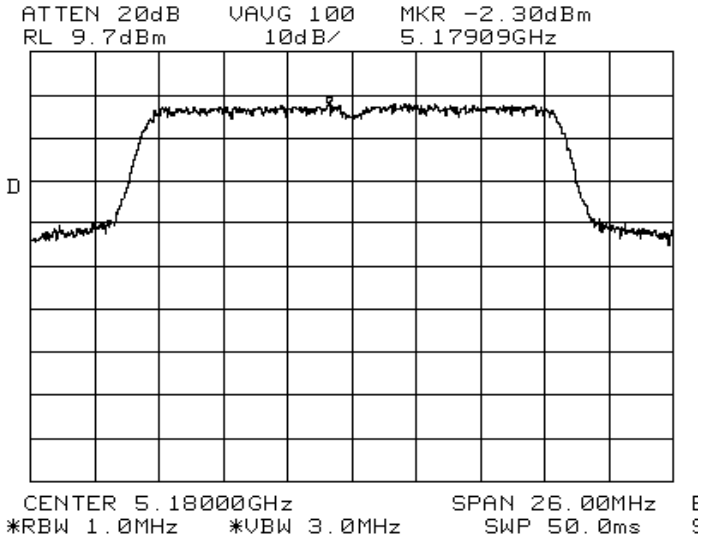
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	FCC Limit (dBm) note 2	Peak Power Spectral Density (dBm)	
low	5180	-2.30	4.0	6.7	Note 1
mid	5260	1.70	11.0	10.70	Note 1
high	5320	0.20	11.0	8.87	Note 1

Note 1:	The above measurements were made using RBW = 1MHz, VBW = 3MHz, video averaging on. To demonstrate compliance with RSS 210, the peak PSD was also measured using RBW= VBW=1MHz, video averaging off during the peak excursion measurements (run #4). The peak PSD (meausred with RBW=VBW=1MHz) of 9.33 **dBm** did not exceed the maximum permitted average PSD of 10dBm (5.15 to 5.25 GHz band) or 11dBm (5.25-5.35GHz band) so no restriction is placed on the output power or average PSD with respect to RSS 210.
Note 2:	RSS 210 limit is 10dBm/MHz in the 5.15 to 5.25 GHz band, 6dB higher than the FCC limit.

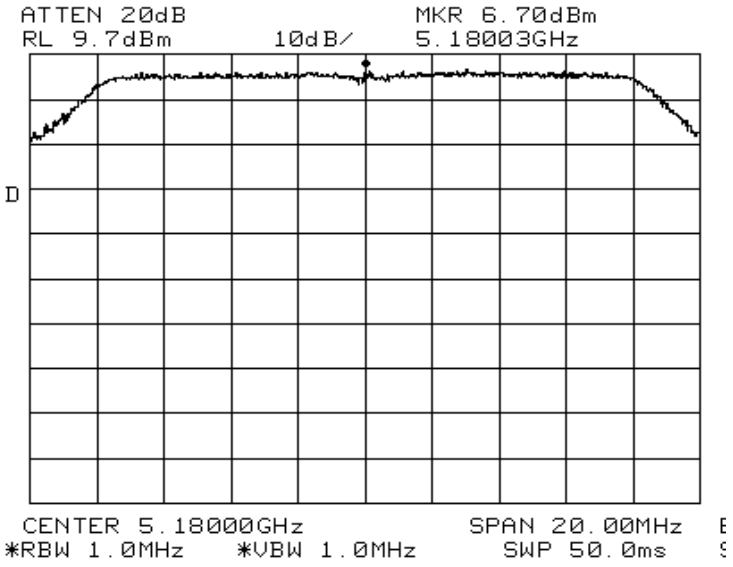
Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Plots Showing Power Spectral Density (RBW = 1MHz, VBW = 3 MHz, video averaging ON)

FCC Power Density

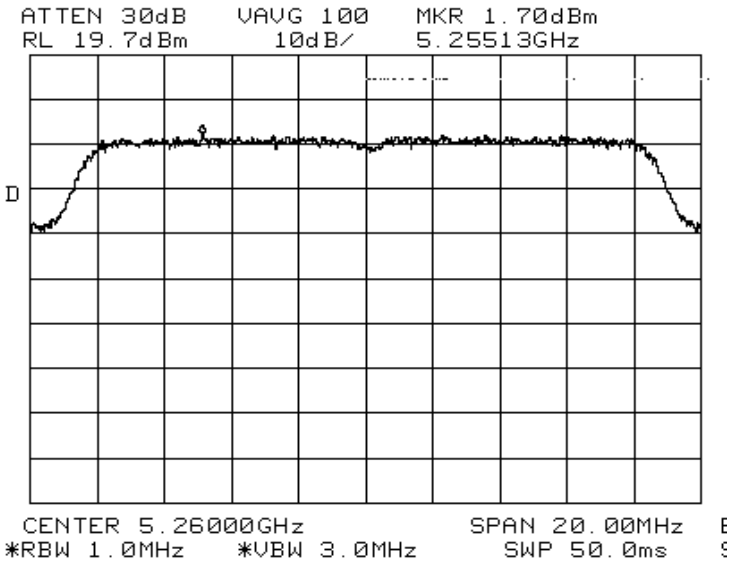


Canada Power Density

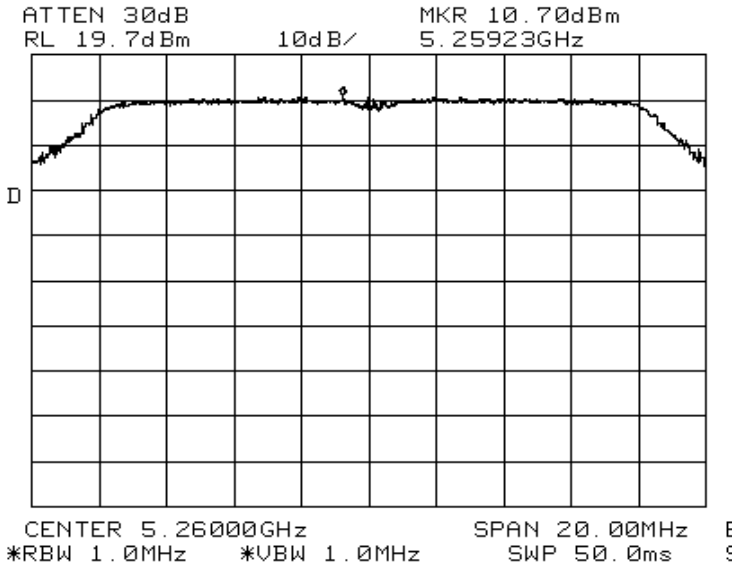


Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

FCC Power Density



Canada Power Density



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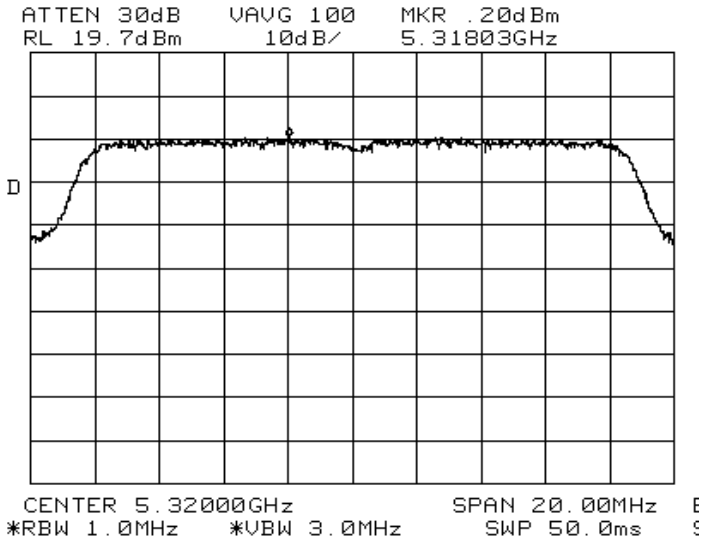
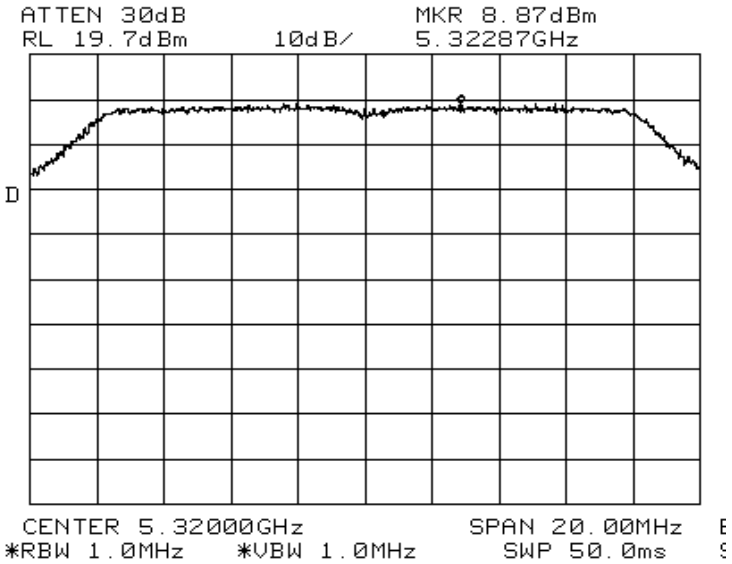
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

FCC Power Density



Canada Power Density



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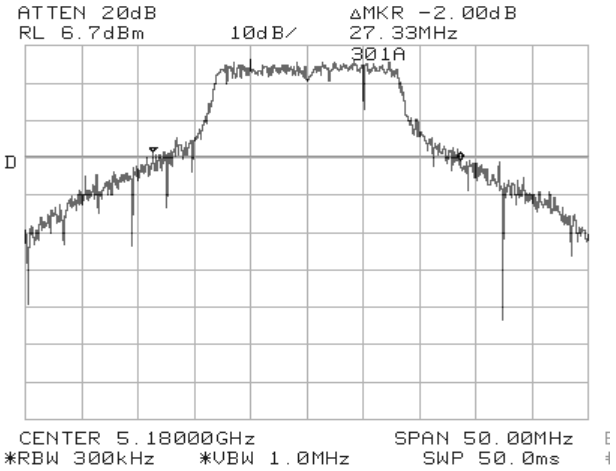
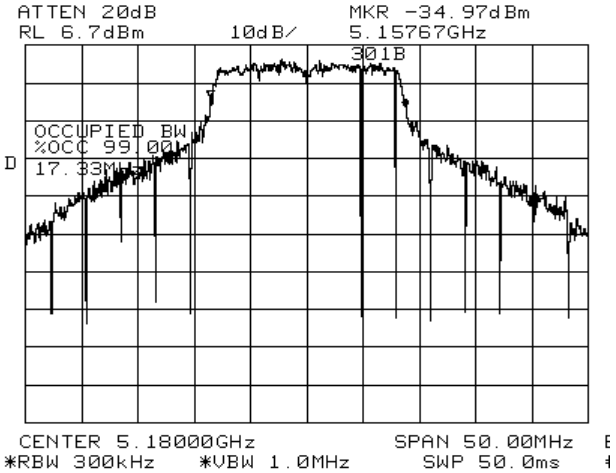
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #3: Signal Bandwidth

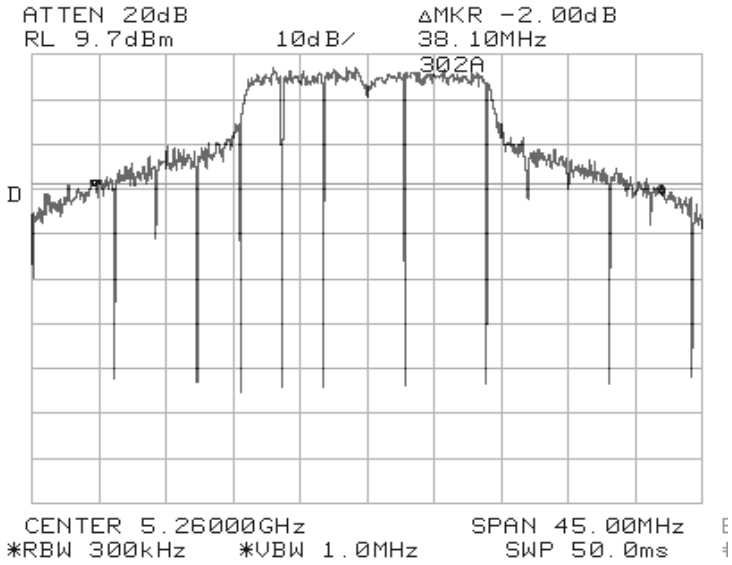
Channel	Frequency (MHz)	Resolution Bandwidth	26 dB Signal Bandwidth (MHz)	20 dB Signal Bandwidth (MHz)	Graph reference #
low	5180	300 kHz	27.33	17.33	301A and 301B
mid	5260	300 kHz	38.10	22.50	302A and 302B
high	5320	300 kHz	33.00	18.38	303A and 303B

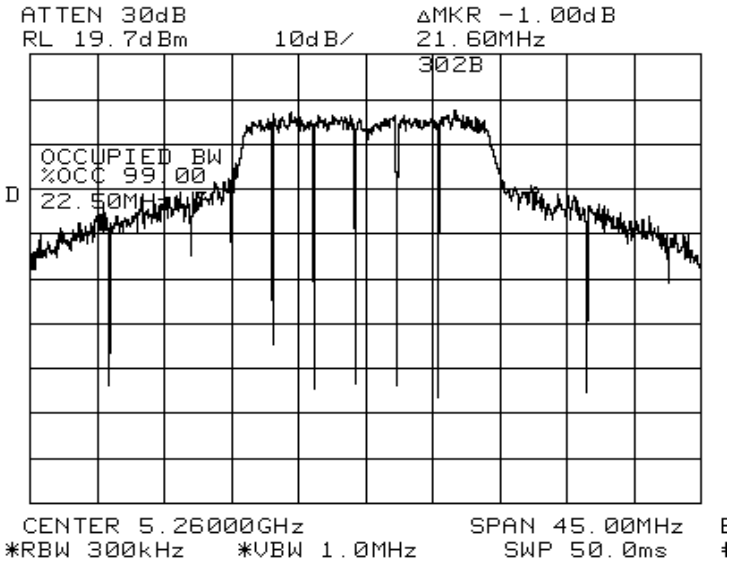
Plots Showing Signal Bandwidth





Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B





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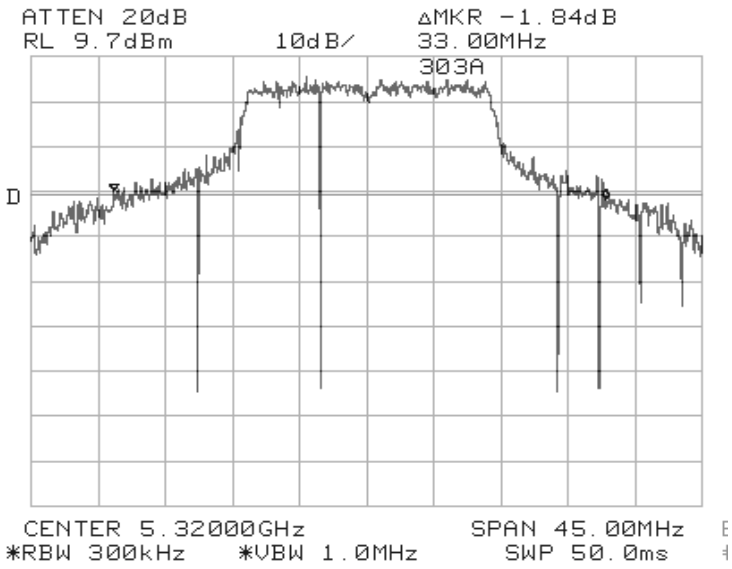

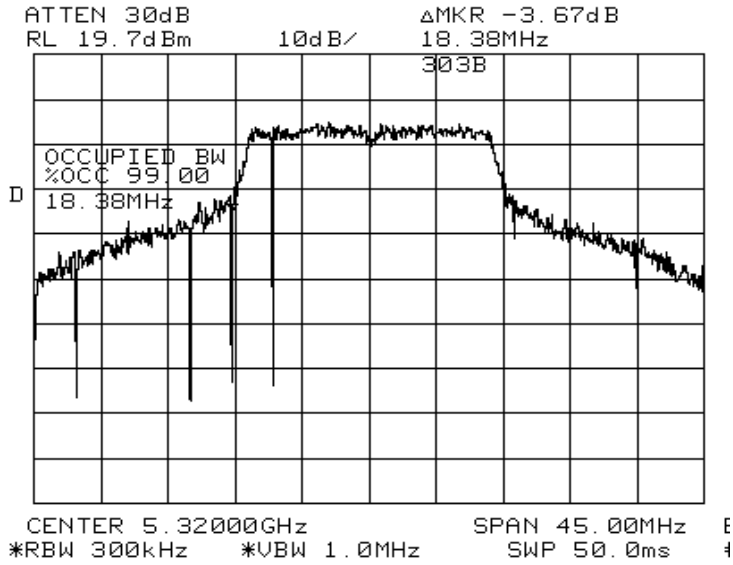

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		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

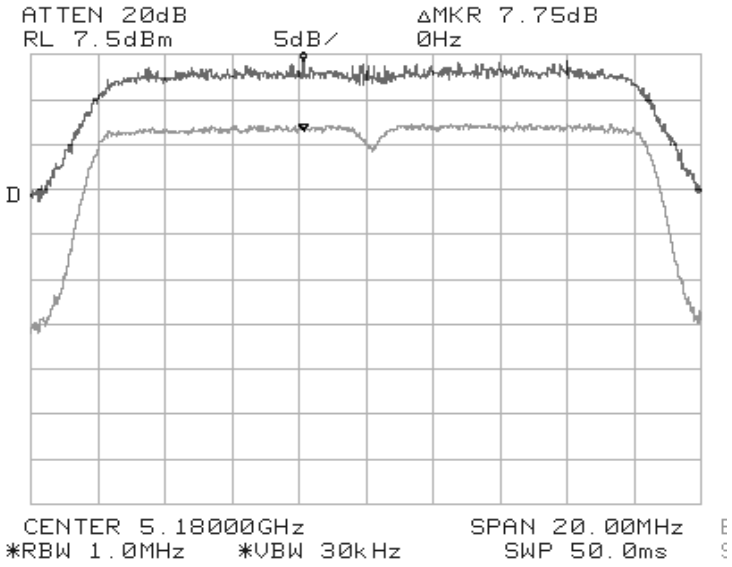
Run #4: Peak Excursion Measurement

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

Low Channel; Peak Excursion = 7.75 dB



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Contact:	Robert Paxman		
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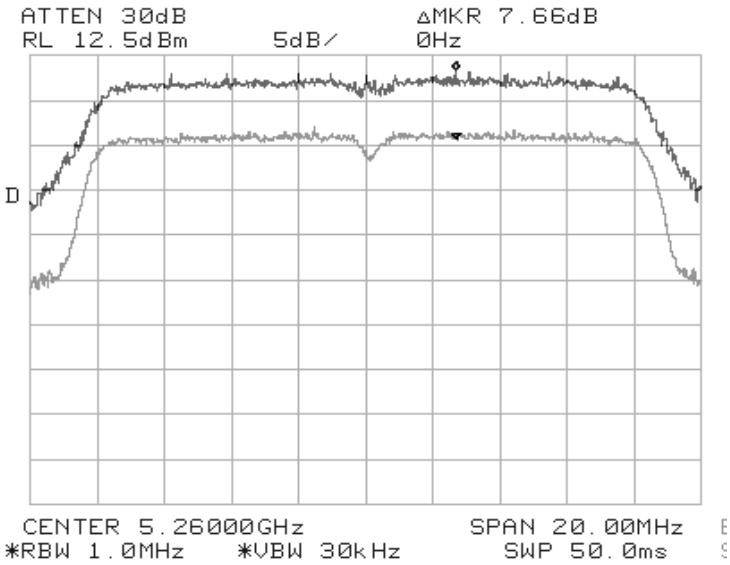
Middle Channel; Peak Excursion = 7.66 dB



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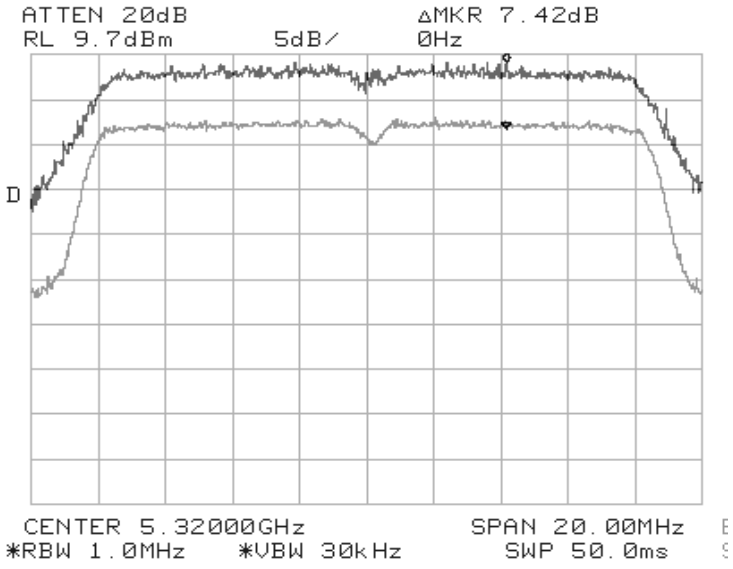
High Channel; Peak Excursion = 7.42 dB



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Run #5: Out Of Band Spurious Emissions - Antenna Conducted

The EIRP limit is -27dBm/MHz for all out of band signals that do not fall in restricted bands. A limit of -27 dBm was, therefore, used for signals not in restricted bands and close to the intentional band within 100 MHz of the upper and lower band edges. For signals removed from the band edge by more than 100MHz, radiated measurements were made (refer to run #6) if the signal amplitude exceeded -37dBm.

Channel	Frequency (MHz)	Frequency Range	Highest Spurious Signal	Graph reference #
low	5180	30 - 1000 MHz	Note 4	501
		1 to 5.15 GHz	3103 (Note 2), 4140 (Note 1)	502
		5.25 to 10 GHz	6208 (Note 2)	503
		10 GHz to 20 GHz	10350 (Note 3), 15530 (Note 1)	504
		20 GHz to 40 GHz	None	505
mid	5260	30 - 1000 MHz	Note 4	506
		1 to 5.25 GHz	3160 (Note 2), 4209 (Note 1)	507
		5.35 to 10 GHz	6311 (Note2)	508
		10 GHz to 20 GHz	10520 (Note 1), 15780 (Note 3)	509
		20 GHz to 40 GHz	None	510
high	5320	30 - 1000 MHz	Note 4	511
		1 to 5.30 GHz	3193 (Note 2), 4254 (Note 1)	512
		5.34 to 10 GHz	6381 (Note 2)	513
		10 GHz to 20 GHz	10630 (Note 1), 15950 (Note 1)	514
		20 GHz to 40 GHz	None	515

Note 1:	Signal is in a restricted band. Refer to run #6 for field strength measurements.
Note 2:	Signal is not in restricted band. Limit is -27dBm eirp. As the signal strength is significantly lower than -27dBm no field strength measurements required.
Note 3:	Signal is not in restricted band. Limit is -27dBm eirp. Although the signal strength is significantly lower than -27dBm field strength measurements were made (refer to run #6)
Note 4:	All spurious signals in this frequency band measured during digital device radiated emissions test.

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
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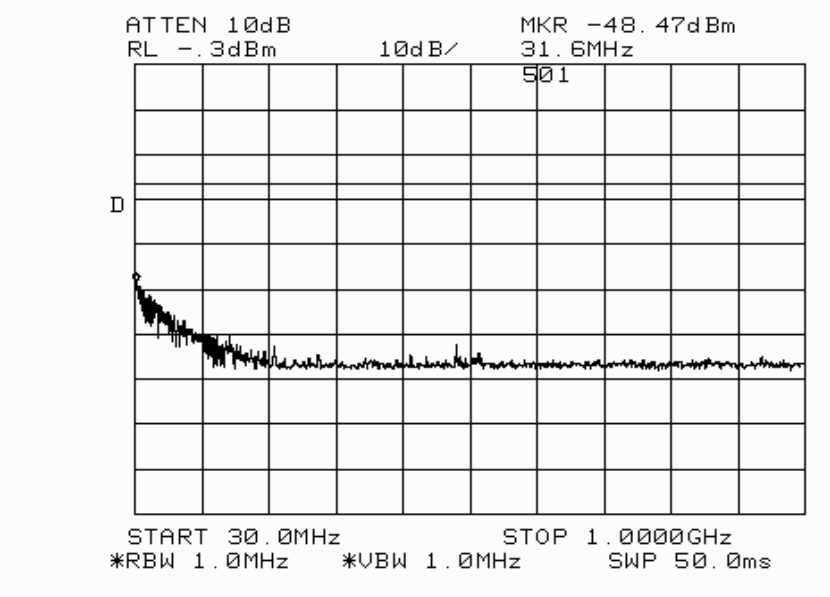
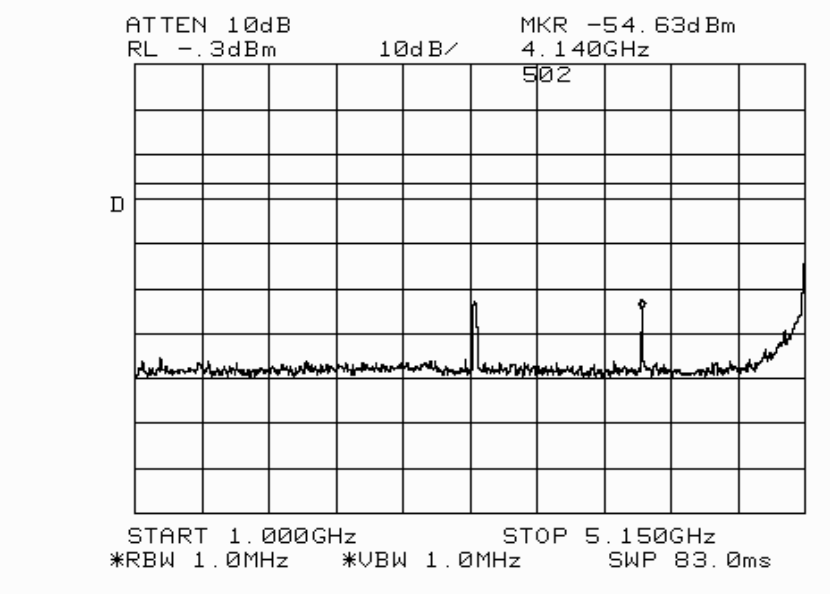
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

EUT operating at 5.18 GHz:





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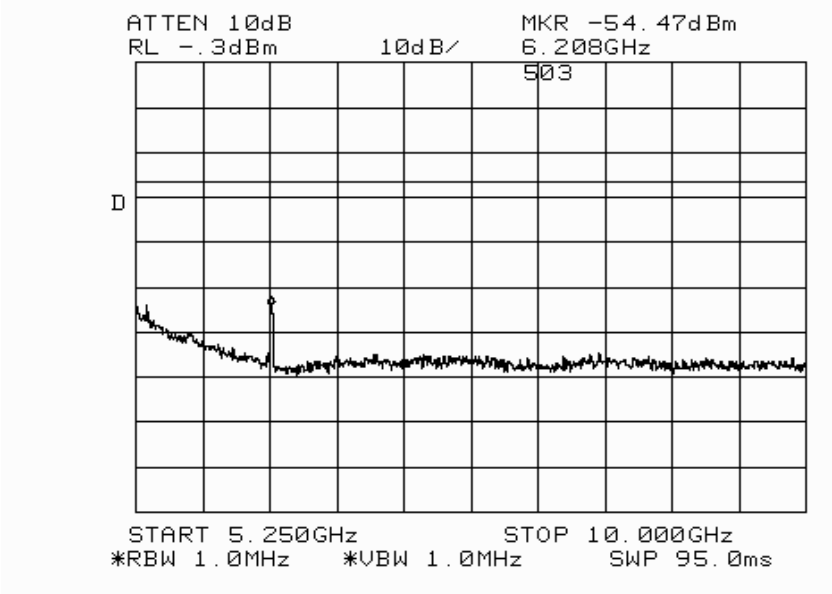

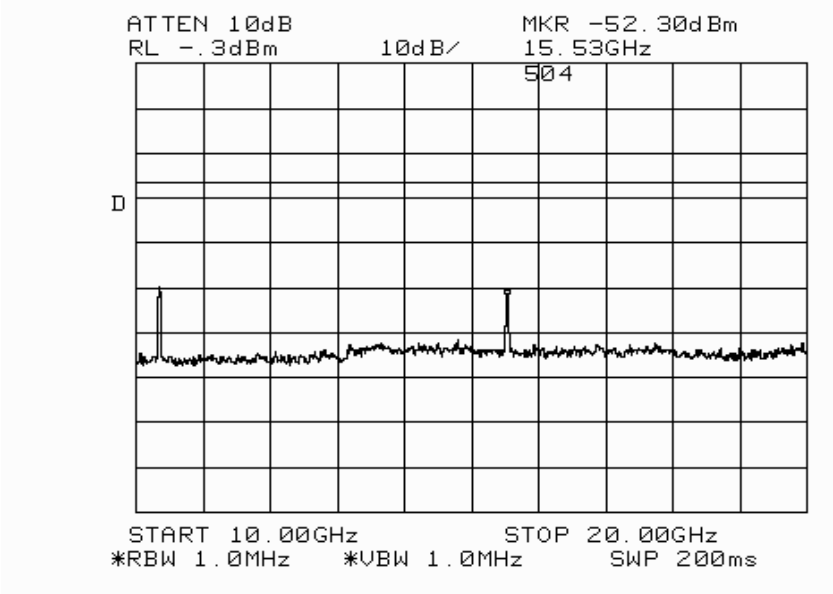

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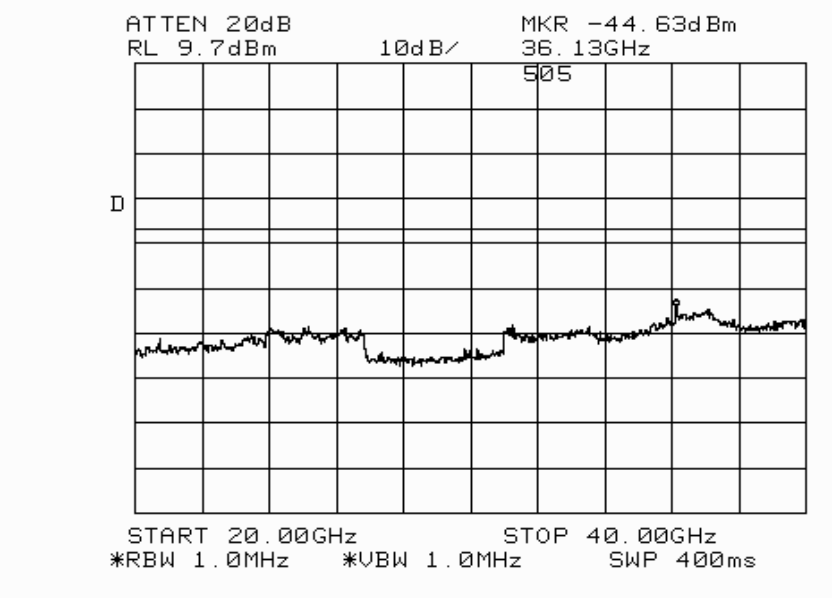
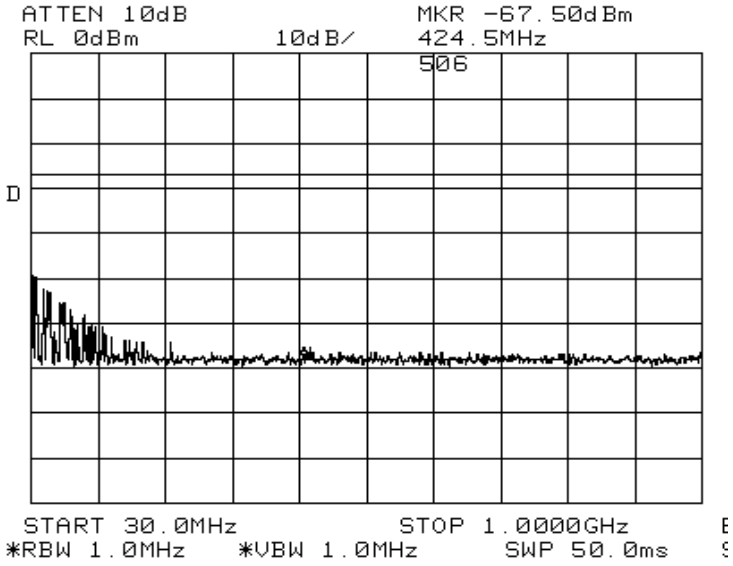


EUT operating at 5.26GHz:



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Model:	WPCI5000	T-Log Number:	T45876
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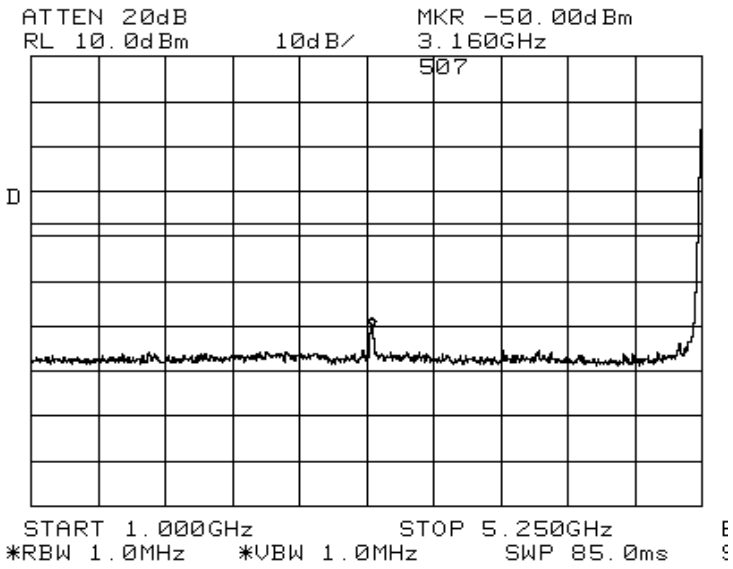
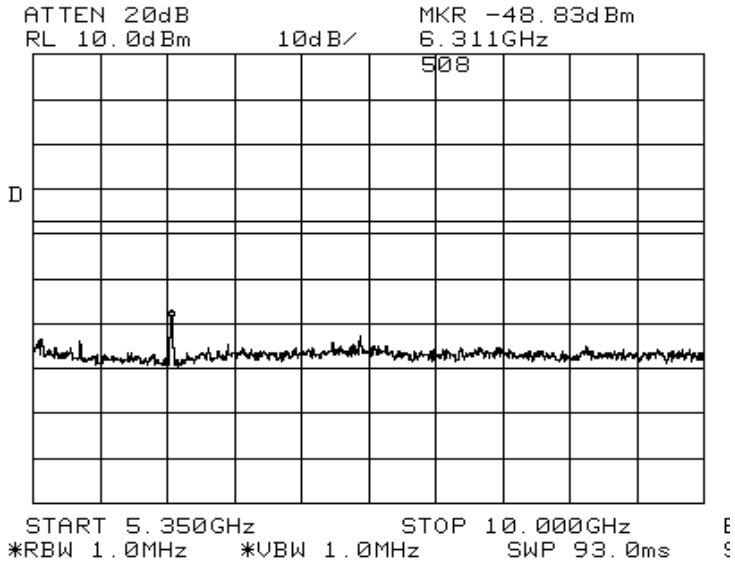
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B





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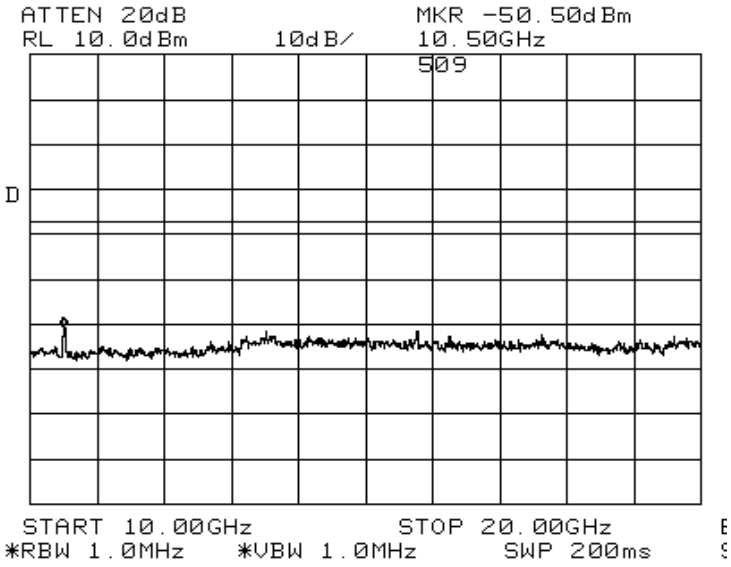

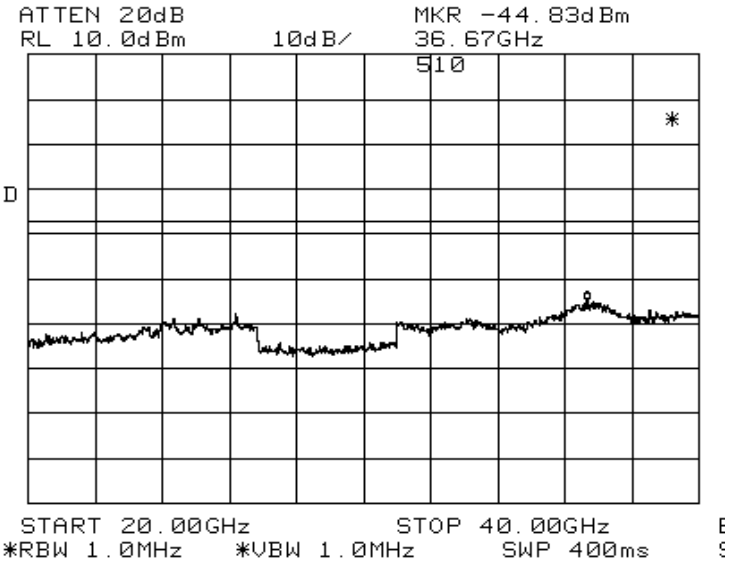

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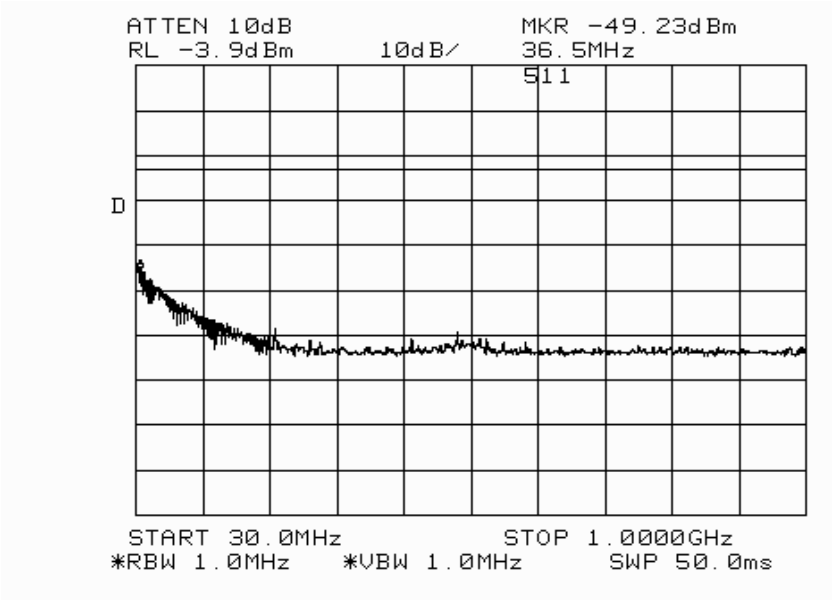
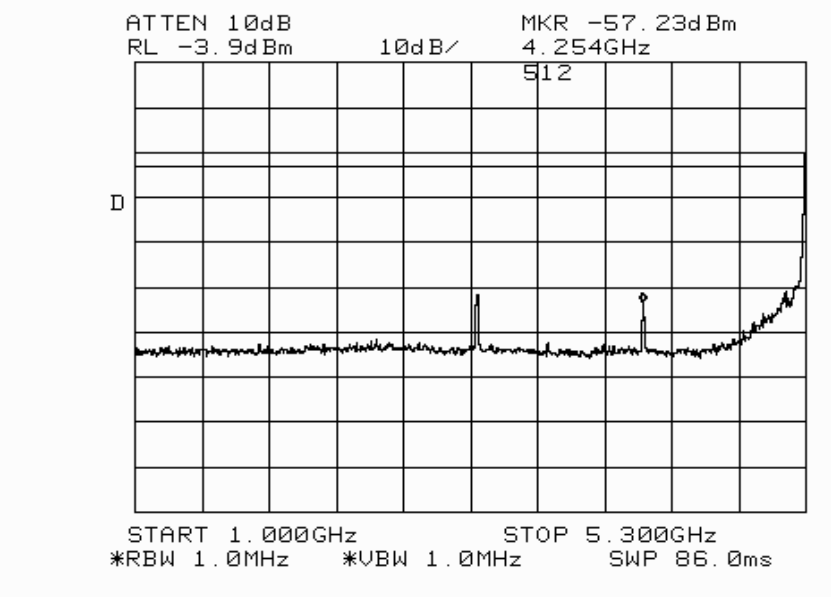
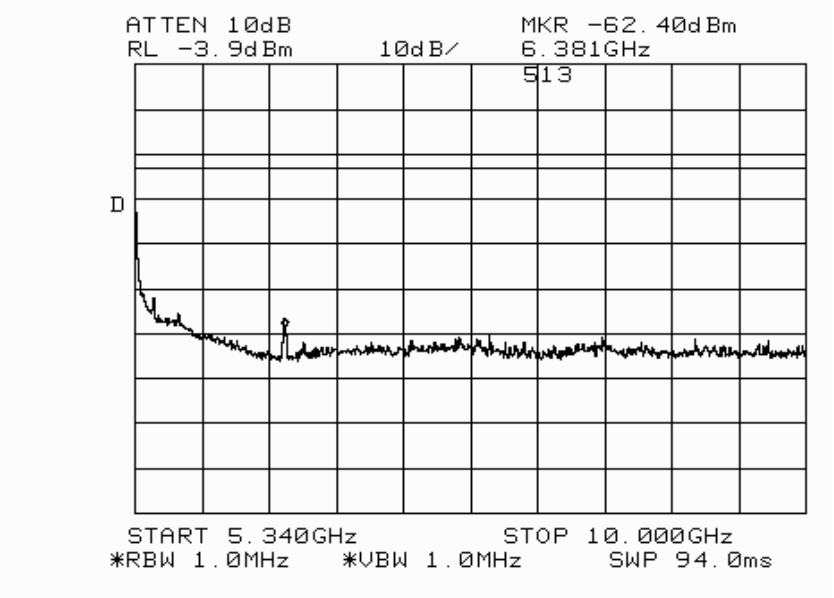
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

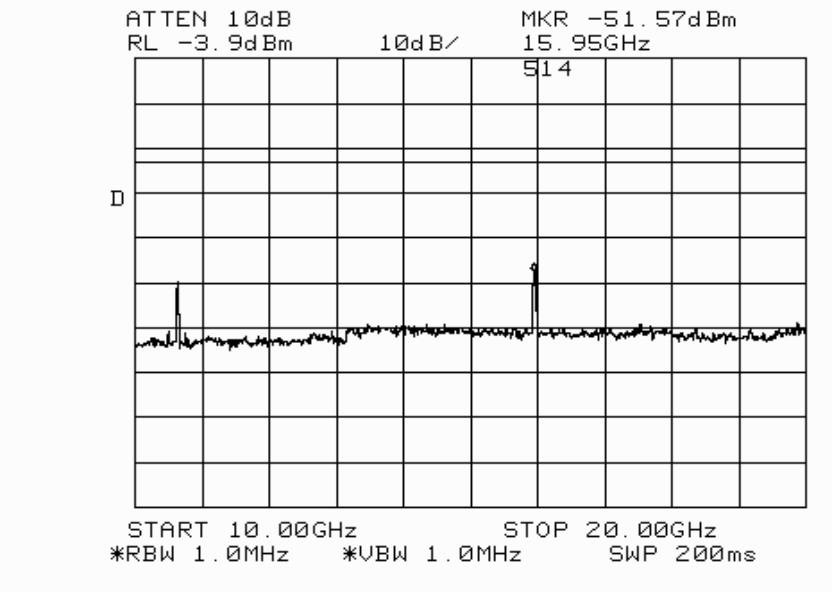
EUT operating at 5.32GHz:



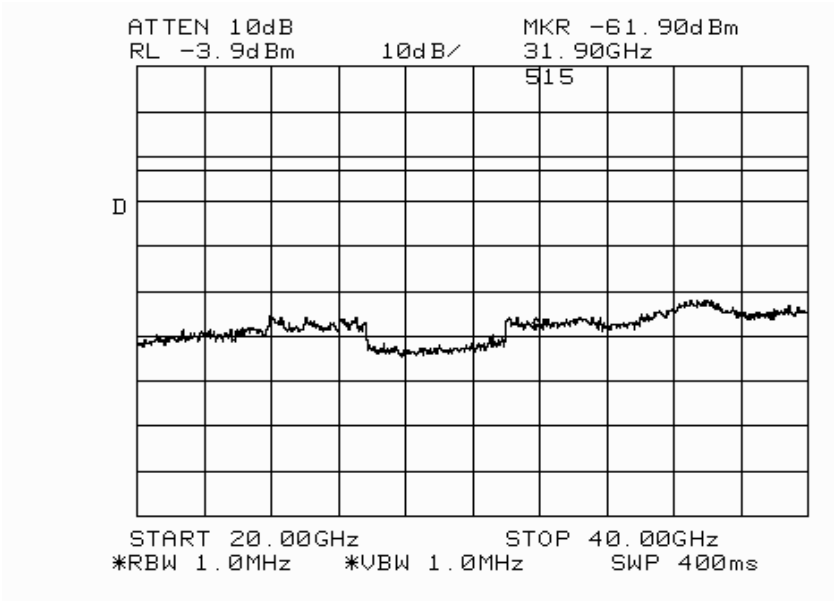


Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B





Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B



Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

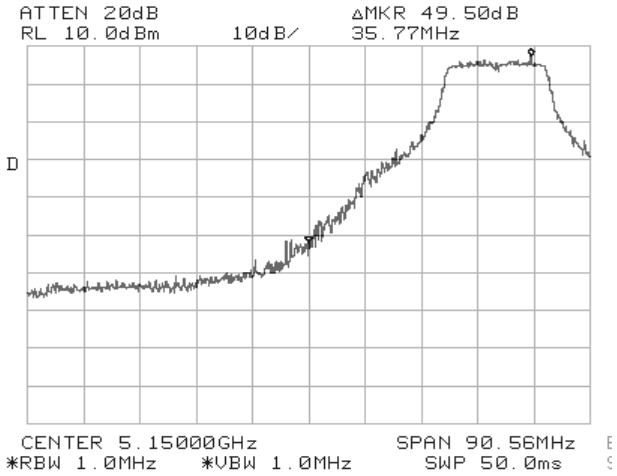
Band Edge Measurements:

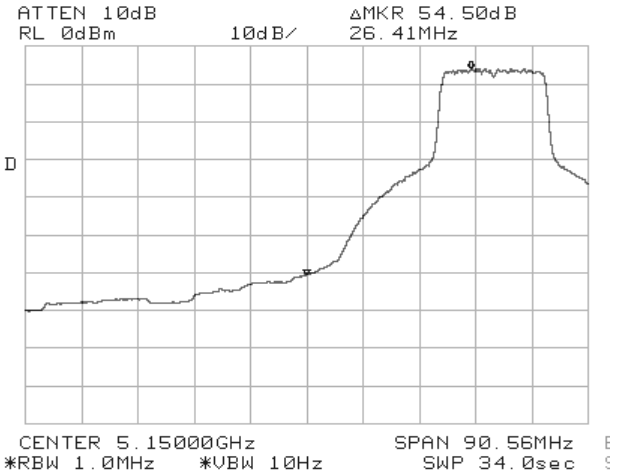
For signals in the restricted bands immediately above and below the 5.15 to 5.35 GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was then applied to the average and peak field strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

5.15 GHz band edge, EUT operating on the lowest channel

The highest signal within 50 MHz of the 5.15 GHz band was -49.50 dBc (Peak) / -54.50 dBc (Average)

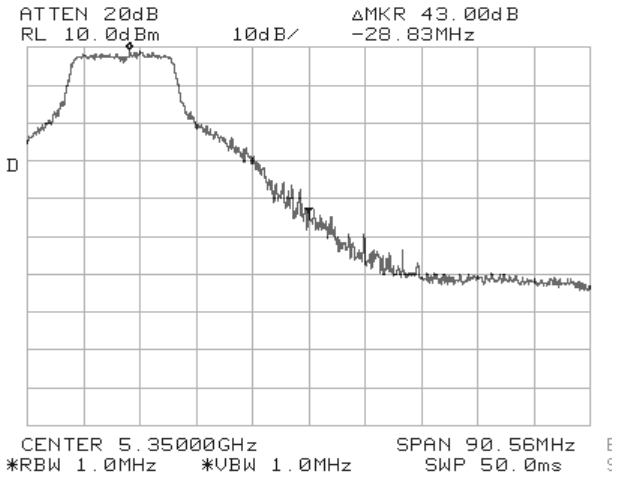


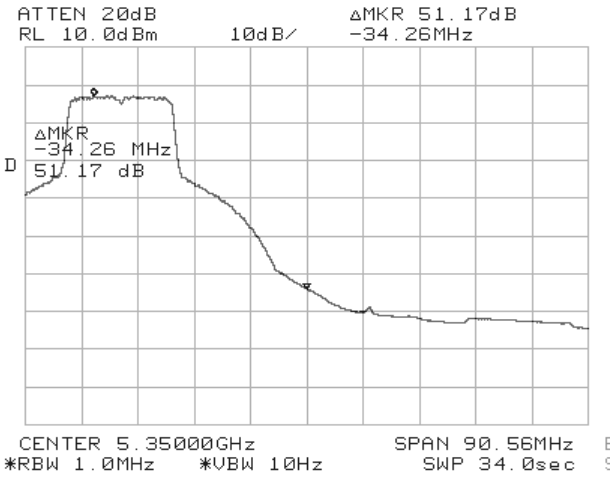


Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

5.35 GHz band edge EUT operating on the highest channel:

The highest signal in the 5.35 to 5.46 GHz band was -43.00 dBc (Peak) / -51.17 dBc (Average)





Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

FCC Part 15 Subpart E Tests

Test Specifics

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:	1/18/2001	Config. Used:	1
Test Engineer:	Jmartinez	Config Change:	None
Test Location:	SVOATS# 4	Host Unit Voltage	120Vac, 60Hz

General Test Configuration

The EUT was located on the turntable for radiated spurious emissions testing.

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

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected

Ambient Conditions:

Temperature: 11°C

Rel. Humidity: 80%

Summary of Results

Run #	Test Performed	Limit	Result	Comments
6a - 6b	RE, 1000 - 40000 MHz - Spurious Emissions	15.407(b)(6)	Pass	Refer to run

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:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #6a: Radiated Spurious Emissions, 1000 - 16,000 MHz

Limit for emissions in restricted bands:	54dBuV/m (Average)	74dBuV/m (Peak)
Limit for emissions outside of restricted bands:	EIRP < -27dBm/MHz	(68dBuV/m)

Fundamental signal measurements (to calculate the band edge field strengths):

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5179.815	109.3	V	-	-	Pk	238	1.0	Peak reading, peak limit
5181.072	99.4	V	-	-	Avg	238	1.0	Average reading, average limit
5179.947	104.2	H	-	-	Pk	0	0.0	Peak reading, peak limit
5181.313	94.8	H	-	-	Avg	0	0.0	Average reading, average limit
5320.010	113.1	V	-	-	Pk	0	0.0	Peak reading, peak limit
5321.202	103.9	V	-	-	Avg	0	0.0	Average reading, average limit
5320.757	106.2	H	-	-	Pk	250	1.1	Peak reading, peak limit
5321.074	98.5	H	-	-	Avg	250	1.1	Average reading, average limit

Band Edge Field Strength Calculations

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5150.0	59.8	v	74.0	-14.2	Pk	-	-	Note 1
5150.0	44.9	v	54.0	-9.1	Avg	-	-	Note 1
5150.0	54.7	h	74.0	-19.3	Pk	-	-	Note 1
5150.0	40.3	h	54.0	-13.7	Avg	-	-	Note 1
5350.0	70.1	v	74.0	-3.9	Pk	-	-	Note 2
5350.0	52.7	v	54.0	-1.3	Avg	-	-	Note 2
5350.0	63.2	h	74.0	-10.8	Pk	-	-	Note 2
5350.0	47.3	h	54.0	-6.7	Avg	-	-	Note 2

Note 1:	EUT operating on the lowest channel available in the 5.15 - 5.25 MHz band. Signal level calculated using the relative measurements in run #5 (-49.50 dBc for peak and -54.50 dBc for average) applied to the highest peak and average field strength measurements of the fundamental signal level.
Note 2:	EUT operating on highest channel available in the 5.25 - 5.35 MHz band. Signal level calculated using the relative measurements in run #5 (-43.00 dBc for peak and -51.17 dBc for average) applied to the highest peak and average field strength measurements of the fundamental signal level.

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #6b: Radiated Spurious Emissions, 1000 - 40000 MHz

EUT On Highest Channel Available (5.32 GHz) (15 dBm on all frequencies. Testing with amp MINI-PCI card.)
With AP mini pci card.

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4256.0	42.2	v	74.0	-31.9	Pk	240	1.6	
4256.0	39.3	v	54.0	-14.7	Avg	240	1.6	
4256.0	40.7	h	74.0	-33.3	Pk	220	1.1	
4256.0	38.1	h	54.0	-15.9	Avg	220	1.1	
6384.0	43.6	v	68.3	-24.7	Note 3	135	1.0	
6384.0	38.9	h	68.3	-29.4	Note 3	335	2.0	
15960.0	68.3	h	74.0	-5.7	Pk	163	1.2	
15960.0	49.3	h	54.0	-4.7	Avg	163	1.2	
15960.0	61.6	v	74.0	-12.4	Pk	11	1.2	
15960.0	44.7	v	54.0	-9.3	Avg	11	1.2	
10640.0	56.4	v	74.0	-17.6	Pk	220	1.2	
10640.0	43.7	v	54.0	-10.3	Avg	220	1.2	
10640.0	55.8	h	74.0	-18.3	Pk	210	1.0	
10640.0	42.0	h	54.0	-12.0	Avg	210	1.0	

EUT On Lowest Channel Available (5.18 GHz)

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4144.0	43.2	v	74.0	-30.9	Pk	199	1.1	
4144.0	41.6	v	54.0	-12.4	Avg	199	1.1	
4144.0	41.0	h	74.0	-33.0	Pk	124	1.1	
4144.0	38.3	h	54.0	-15.7	Avg	124	1.1	
6216.0	53.5	h	68.3	-14.8	Note 3	295	1.0	
6216.0	60.9	v	68.3	-7.4	Note 3	180	1.1	
10360.0	48.5	v	68.3	-19.8	Note 3	0	1.1	
15540.0	55.3	v	74.0	-18.7	Pk	33	1.2	
15540.0	41.0	v	54.0	-13.0	Avg	33	1.2	
10360.0	50.2	h	68.3	-18.1	Note 3	222	1.1	
15540.0	61.2	h	74.0	-12.8	Pk	220	1.2	
15540.0	42.4	h	54.0	-11.6	Avg	220	1.2	

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

EUT On Center Channel (5.26 GHz)

Frequency	Level	Pol	15.209 / 15.407		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4208.0	41.9	v	74.0	-32.1	Pk	245	1.4	
4208.0	40.3	v	54.0	-13.7	Avg	245	1.4	
4208.0	41.8	h	74.0	-32.2	Pk	335	1.0	
4208.0	38.6	h	54.0	-15.4	Avg	335	1.0	
6312.0	48.8	v	68.3	-19.5	Note 3	217	1.0	
6312.0	44.7	h	68.3	-23.6	Note 3	202	1.1	
10520.0	48.6	v	68.3	-19.7	Note 3	12	1.1	
15780.0	60.4	v	74.0	-13.6	Pk	43	1.1	
15780.0	47.5	v	54.0	-6.5	Avg	43	1.1	
10520.0	46.7	h	68.3	-21.6	Note 3	0	1.0	
15780.0	65.8	h	74.0	-8.2	Pk	230	1.1	
15780.0	50.0	h	54.0	-4.0	Avg	230	1.1	

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Conducted Emissions - Power Ports

Test Specifics

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: 1/25/2002
Test Engineer: Rafael
Test Location: SVOATS #3

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

General Test Configuration

For tabletop equipment, the host system was located on a wooden table, 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 approximately 30 meters away from the test area, with all I/O connections routed overhead.

Ambient Conditions:

Temperature: 10°C
Rel. Humidity: 74%

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power 120V/60Hz	EN55022 B	Pass	-3.06dB @ .219MHz

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:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz

Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.219	49.8	Neutral	52.9	-3.1	Average	
0.219	49.2	Line	52.9	-3.7	Average	
0.343	42.4	Neutral	49.1	-6.7	Average	
0.343	42.3	Line	49.1	-6.8	Average	
0.219	49.8	Neutral	62.9	-13.1	QP	
0.219	49.2	Line	62.9	-13.7	QP	
22.860	35.3	Line	50.0	-14.7	Average	
22.860	34.8	Neutral	50.0	-15.2	Average	
0.343	42.4	Neutral	59.1	-16.7	QP	
0.343	42.3	Line	59.1	-16.8	QP	
22.860	35.3	Line	60.0	-24.7	QP	
22.860	34.8	Neutral	60.0	-25.2	QP	

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Radiated Emissions

Test Specifics

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: 1/26/2002
Test Engineer: Rafael
Test Location: SVOATS #3

Config. Used: 1
Config Change:
EUT Voltage: 120V/60Hz

General Test Configuration

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

On the OATS, the measurement antenna was located 10 meters from the EUT for the measurement range 30 - 1000 MHz.

Note, **preliminary** testing indicates that the emissions were maximized by orientation of the EUT and elevation of the measurement antenna. **Maximized** testing indicated that the emissions were maximized by orientation of the EUT, elevation of the measurement antenna, and manipulation of the EUT's interface cables.

Ambient Conditions:

Temperature: 10°C
Rel. Humidity: 74%

Summary of Results

Run #	Test Performed	Limit	Result	Margin
2	RE, 30 - 1000MHz - Maximized Emissions	EN55022 B	Pass	-3.1dB @ 797.25MHz

Modifications Made During Testing:

Modifications Made are mention on each run.

Deviations From The Standard

No deviations were made from the requirements of the standard.

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J45863
Model:	WPCI5000	T-Log Number:	T45876
		Proj Eng:	Mark Briggs
Contact:	Robert Paxman		
Spec:	FCC Part 15 B and E, RSS-210	Class:	B

Run #1: Pre-liminary scan, 30-1000 MHz
With antenna on tower Vertical

Frequency	Level	Pol	EN55022 B		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
730.770		h	37.0	-37.0	QP			
730.770	37.2	v	37.0	0.2	QP			Signal Sub.
597.905	33.1	h	37.0	-3.9	QP	35	1.3	Chassis very sensitive
797.250	33.9	h	37.0	-3.1	QP	125	1.0	
631.160	30.1	h	37.0	-6.9	QP	180	1.0	
797.250	32.3	v	37.0	-4.7	QP	140	1.4	
applied gasket to ffront side both left and right								
730.770	31.5	v	37.0	-5.5	QP	300	1.4	Signal Sub.
730.770	29.1	v	37.0	-7.9	QP	125	1.0	Signal Sub.

Run #2: Maximized Readings From Run #1

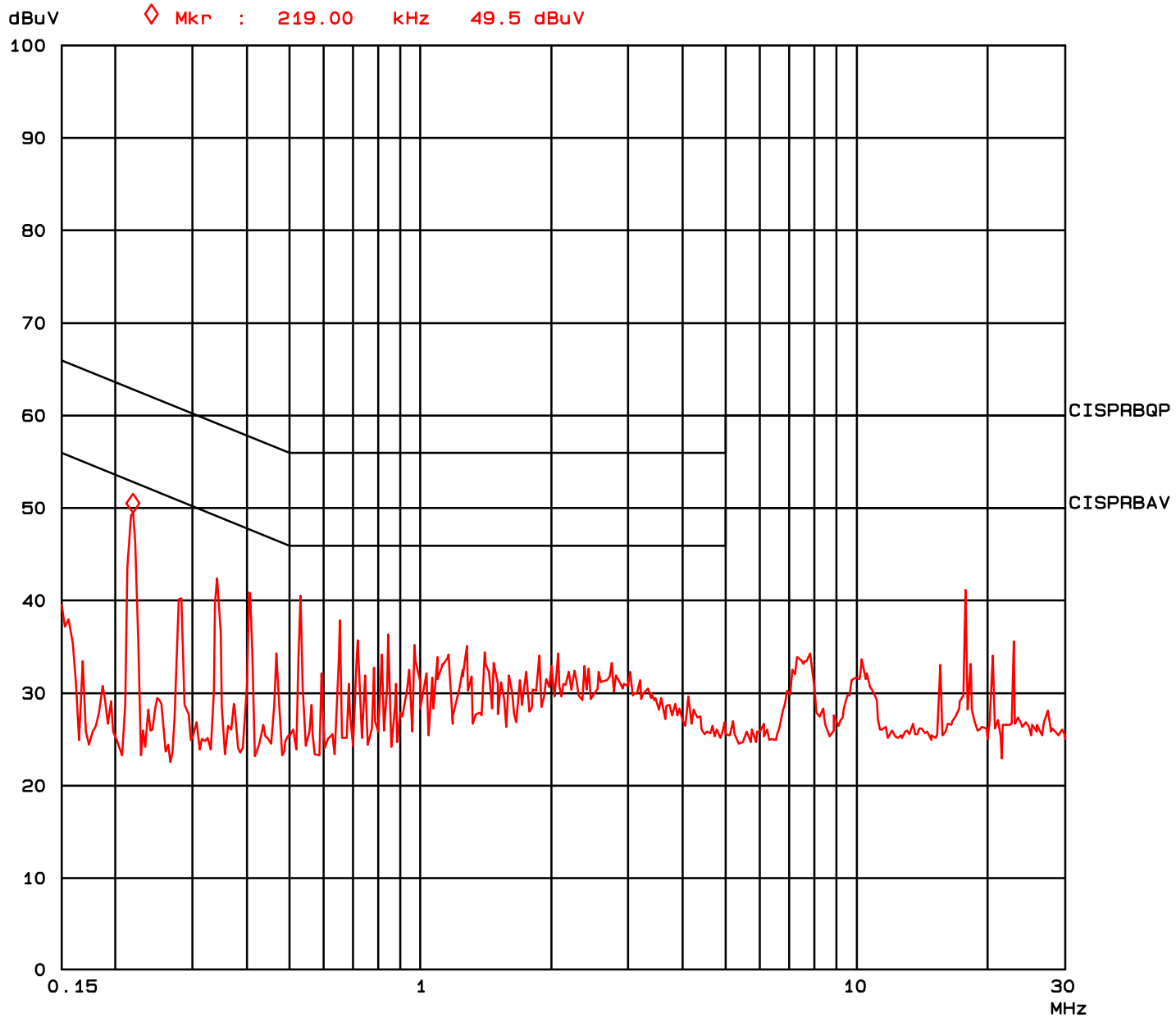
Frequency	Level	Pol	EN55022 B		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
797.250	33.9	h	37.0	-3.1	QP	125	1.0	
597.905	33.1	h	37.0	-3.9	QP	35	1.3	Chassis very sensitive
797.250	32.3	v	37.0	-4.7	QP	140	1.4	
730.770	31.5	v	37.0	-5.5	QP	300	1.4	Signal Sub.
631.160	30.1	h	37.0	-6.9	QP	180	1.0	
730.770	29.1	v	37.0	-7.9	QP	125	1.0	Signal Sub.

Note 1:	Add note here
Note 2:	

Elliott Laboratories
Conducted Emissions

25. Jan 02 21:11

Operator: Rafael varelas
Comment: Intel Corporation
WM3A5000 w/ PCI cardin Desktop
T45876, J45836
[ ] Line [X] Neutral
E=EUT, A=Ambient
120V/60Hz



Elliott Laboratories
Conducted Emissions

25. Jan 02 21:32

Operator: Rafael varelas
Comment: Intel Corporation
WM3A5000 w/ PCI cardin Desktop
T45876, J45836
[X] Line [ ] Neutral
E=EUT, A=Ambient
120V/60Hz