ADDENDUM TO FC02-008

FOR THE

ACCESS POINT, 2106

FCC PART 15 SUBPART C SECTIONS 15.407, 15.207 & 15.209
AND
FCC PART 15 SUBPART B SECTIONS 15.107 & 15.109 CLASS B

COMPLIANCE

DATE OF ISSUE: JANUARY 31, 2002

PREPARED FOR:

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Date of test: December 12, 2001 –
January 18, 2002

Report No.: FC02-008A

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CKC Laboratories, Inc. has received Certificates of Accreditation from the following agencies:
A2LA (USA); DATech (Germany); BSMI (Taiwan); Nemko (Norway); and GOST (Russia).
CKC Laboratories, Inc has received test site Registration Acceptance from the following agencies:
FCC (USA); VCCI (Japan); and Industry Canada.
CKC Laboratories, Inc. has received Letters of Acceptance through an MRA for the following agencies:
ACA/NATA (Australia); SABS (South Africa); SWEDAC (Sweden); Radio Communications Agency (RA); HOKLAS (Hong Kong); Bakom (Swiss); BIPT (Belgium); Denmark Telestyrelsen; RvA (Netherlands); SEE (Luxembourg) SITTEL (Bolivia); and UKAS (UK).

ADMINISTRATIVE INFORMATION

DATE OF TEST:	December 12, 2001 - January 18, 2002
DATE OF RECEIPT:	December 12, 2001
PURPOSE OF TEST:	To demonstrate the compliance of the Access Point, 2106 with the requirements for FCC Part 15 Subpart C Sections 15.407, 15.207 & 15.209 and FCC Part 15 Subpart B Sections 15.107 & 15.109 Class B Devices. Addendum A added a new table 3 for EIRP readings and revised Peak Excursion plots.
TEST METHOD:	ANSI C63.4 (1992) and ITU-R 55/1
MANUFACTURER:	Intermec Technologies 6001 36th Avenue West WA, 98203-9280
REPRESENTATIVE:	Carl Kursat Turk
TEST LOCATION:	CKC Laboratories, Inc. 5473A Clouds Rest Mariposa, CA 95338

SUMMARY OF RESULTS

As received, the Intermec Technologies Access Point, 2106 was found to be fully compliant with the following standards and specifications:

United States

- FCC Part 15 Subpart C Sections 15.407, 15.207 and 15.209
- FCC Part 15 Subpart B Section 15.107 and 15.109 Class B
- ANSI C63.4 (1992) method

Canada

RSS-210 using:

- FCC Part 15 Subpart C Sections 15.407, 15.207 and 15.209
- FCC Part 15 Subpart B Section 15.107 and 15.109 Class B
- ANSI C63.4 (1992) and ITU-R 55/1 methods

Industry of Canada File No. IC 3082-D

The results in this report apply only to the items tested, as identified herein.

MODIFICATIONS REQUIRED FOR COMPLIANCE

The transmitter portion of the PCB must have a RF shield. See photo at right that shows the shield (largest block in photo) used during testing.

APPROVALS

QUALITY ASSURANCE:

Dennis Ward, Quality Manager

TEST PERSONNEL:

Chuck Kendall, EMC/Lab Manager

Randy Clark, EMC Engineer

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

Access point (UNII) is a fixed simplex transceiver to be used in business, industrial and office applications. The EUT tested by CKC Laboratories was a production unit.

EUT Operating Frequency

The EUT was operating at 5187.0 – 5327.5 MHz.

15.203 Antenna Requirements

The antenna is an integral part of the EUT and is non-removable; therefore the EUT complies with Section 15.203 of the FCC rules.

15.33 FREQUENCY RANGE TESTED

15.107 Conducted Emissions:	450kHz – 30MHz
15.109 Radiated Emissions:	30MHz – 25GHz
15.207 Conducted Emissions:	450kHz – 30MHz
15.209/15.407 Radiated Emissions:	20MHz – 40GHz

15.205 RESTRICTED BANDS

Any spurious emission coming from the EUT was investigated to determine if any portion lies inside the restricted band. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with Section 15.209. The fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of Section 15.205 of the FCC rules.

EQUIPMENT UNDER TEST

Access Point

Manuf:	Intermec Technologies
Model:	2106
Serial:	DAT 11
FCC ID:	HN22106 (pending)

Power Supply

Manuf:	ELPAC Power Systems
Model:	3303
Serial:	000003
FCC ID:	DoC

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Power Supply

Manuf:	Intermec Technologies
Model:	871-219-030
Serial:	C991100058A
FCC ID:	DoC

Power Supply

Manuf:	Panasonic
Model:	CF-AA1256 M3
Serial:	971016859B
FCC ID:	DoC

Laptop Computer

Manuf:	Panasonic
Model:	CF-35
Serial:	7HKSA02247
FCC ID:	DoC

Terminal

Manuf:	Intermec Technologies
Model:	6642
Serial:	4263798
FCC ID:	DoC

REPORT OF MEASUREMENTS

The following tables report the worst case emissions levels recorded during the tests performed on the Access Point, 2106. All readings taken were peak readings unless otherwise stated. The data sheets from which the emissions tables were compiled are contained in Appendix C.

Table 1: 15.407(a)(1)&(2) Peak Output Power (ERP)

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
5187.000	97.9	34.0	-30.9	11.7	10.0	122.7	124.0	-1.3	V
5247.000	99.0	34.1	-31.1	11.6	10.0	123.6	124.0	-0.4	V
5327.500	99.8	34.2	-31.2	11.5	10.0	124.3	131.0	-6.7	V

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart C Section 15.407(a)(1)&(2)
Test Distance: 3 Meters

NOTES: V = Vertical Polarization

COMMENTS: 2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Frequency range tested: fundamental. Bandwidths used: RBW 1MHz - VBW 300kHz.

Table 2: 15.209/15.407(b)(5) Six Highest Radiated Emission Levels: 20-1000 MHz									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
49.920	38.7	9.8	-27.4	1.7	10.0	32.8	40.0	-7.2	V-2
87.562	39.0	9.1	-27.4	2.2	10.0	32.9	40.0	-7.1	V-2
125.084	37.7	14.4	-27.4	2.7	10.0	37.4	43.5	-6.1	H-2
367.558	33.9	16.5	-27.4	5.1	10.0	38.1	46.0	-7.9	V-2
625.096	31.6	19.7	-28.5	7.0	10.0	39.8	46.0	-6.2	V-2
630.085	31.8	19.7	-28.5	7.0	10.0	40.0	46.0	-6.0	H-2

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart C Sections15.407(b)(5)/15.209
Test Distance: 10 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization
2 = Configuration

COMMENTS: 2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. The EUT was tested in the following 2 configurations:

Configuration 1 = Frequency Range Tested: 20-1000 MHz. Receive antenna placed in both vertical and horizontal polarity. No emissions found in the frequency range of 20-30 MHz.

Configuration 2 = Test distance correction factor used in accordance with FCC 15.31. Frequency Range Tested: 30-1000 MHz.

Required modifications: The transmitter portion of the PCB must have a RF shield.

Table 3: 15.407(b)(1)&(2) Six Highest ERIP Emission Levels: 1-40GHz				
Freq (MHz)	EIRP in dBm/MHz	Spec Limit dBm/MHz	Pass/Fail	Notes
10360.0	-35.8	-27	Pass	Configuration- 1
10360.0	-31.5	-27	Pass	Configuration- 1
10360.0	-42.8	-27	Pass	Configuration- 1
10399.9	-37.9	-27	Pass	Configuration- 1
10481.0	-33.7	-27	Pass	Configuration- 1
10481.0	-56.5	-27	Pass	Configuration- 1

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart C Sections 15.407(b)(1)&(2)

COMMENTS: Channels 1, 36 & 48. Frequency 5.18, 5.24 & 5.32 GHz. All readings taken in a 1 MHz BW. Calculations: Power calculated from P = (E*D)^2/30G, where G is the numeric gain of the transmit over isotropic. 2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity.
Configuration 1 = Lower limit represents 15.209. Frequency Ranges Tested: 1-18GHz highest readings are all coming from the 1-18GHz. Bandwidths Used: RBW 1MHz - VBW 1MHz. Test distance of 3 meters.
Configuration 2 = Frequency Ranges Tested: 18-40GHz. Bandwidths Used: RBW 1MHz - VBW 1MHz. Test distance of 1 meter.

Table 4: 15.209/15.407(b)(1)&(2) Six Highest Radiated Emission Levels: 1-40GHz									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
4256.200	36.0	32.0	-32.0	10.4		46.4	54.0	-7.6	VA-1
5150.000	37.0	33.9	-30.8	11.8		51.9	54.0	-2.1	VA-1
5350.000	39.4	34.2	-31.3	11.4		53.7	54.0	-0.3	VA-1
4256.200	36.0	32.0	-32.0	10.4		46.4	54.0	-7.6	V-1
10640.500	35.5	32.3	-34.9	17.2		50.1	54.0	-3.9	VA-1
10640.750	36.0	32.4	-34.9	17.2		50.7	54.0	-3.3	VA-1

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart C Sections 15.209/15.407(b)(1)&(2)

NOTES: H = Horizontal Polarization
V = Vertical Polarization
A = Average Reading
1 = Configuration 1

COMMENTS: 2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity.

Configuration 1 = Lower limit represents 15.209. Frequency Ranges Tested: 1-18GHz highest readings are all coming from the 1-18GHz. Bandwidths Used: RBW 1MHz - VBW 1MHz. Test distance of 3 meters.

Configuration 2 = Frequency Ranges Tested: 18-40GHz. Bandwidths Used: RBW 1MHz - VBW 1MHz. Test distance of 1 meter.

Table 5: 15.207 Six Highest Conducted Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Lisn dB		Cable dB		CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
1.273263	43.2	0.3		0.1		43.6	48.0	-4.4	W
1.405400	43.5	0.3		0.1		43.9	48.0	-4.1	B
2.390450	43.4	0.3		0.2		43.9	48.0	-4.1	B
2.462090	43.0	0.4		0.2		43.6	48.0	-4.4	W
2.671040	42.8	0.4		0.2		43.4	48.0	-4.6	W
5.840937	42.5	1.1		0.3		43.9	48.0	-4.1	W

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart C Section 15.207

NOTES: B = Black Lead
W = White Lead

COMMENTS: 2106 is transmitting on the highest channel (worst case). The support equipment is located outside of the test shed. Frequency Range Tested: 450kHz - 30MHz.

Table 6: 15.107 Six Highest Conducted Emission Levels: Receiver Verification									
FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Lisn dB	dB	Cable dB	dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
1.829270	42.9	0.3		0.2		43.4	48.0	-4.6	W
1.900910	42.7	0.3		0.2		43.2	48.0	-4.8	W
1.972550	42.8	0.3		0.2		43.3	48.0	-4.7	W
2.468060	42.5	0.4		0.2		43.1	48.0	-4.9	W
2.539700	42.9	0.4		0.2		43.5	48.0	-4.5	W
6.170800	42.3	1.0		0.3		43.6	48.0	-4.4	BQ

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart B Section 15.107 Class B

NOTES: Q = Quasi Peak Reading
B = Black Lead
W = White Lead

COMMENTS: 2106 is set to receive mode. The support equipment is located outside of the test shed. Frequency Range Tested: 450kHz - 30MHz.

Table 7: 15.109 Six Highest Radiated Emission Levels: Receiver Verification									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
50.540	46.7	11.5	-27.1	1.3		32.4	40.0	-7.6	VQ-1
51.200	49.2	11.4	-27.1	1.3		34.8	40.0	-5.2	VQ-1
54.330	47.3	10.9	-27.1	1.4		32.5	40.0	-7.5	VQ-1
69.688	50.1	8.1	-27.1	1.6		32.7	40.0	-7.3	V-1
76.650	50.6	7.2	-27.0	1.7		32.5	40.0	-7.5	V-1
77.252	53.2	7.1	-27.0	1.7		35.0	40.0	-5.0	VQ-1

Test Method: ANSI C63.4 (1992)
Spec Limit: FCC Part 15 Subpart B Section 15.109 Class B
Test Distance: 3 Meters

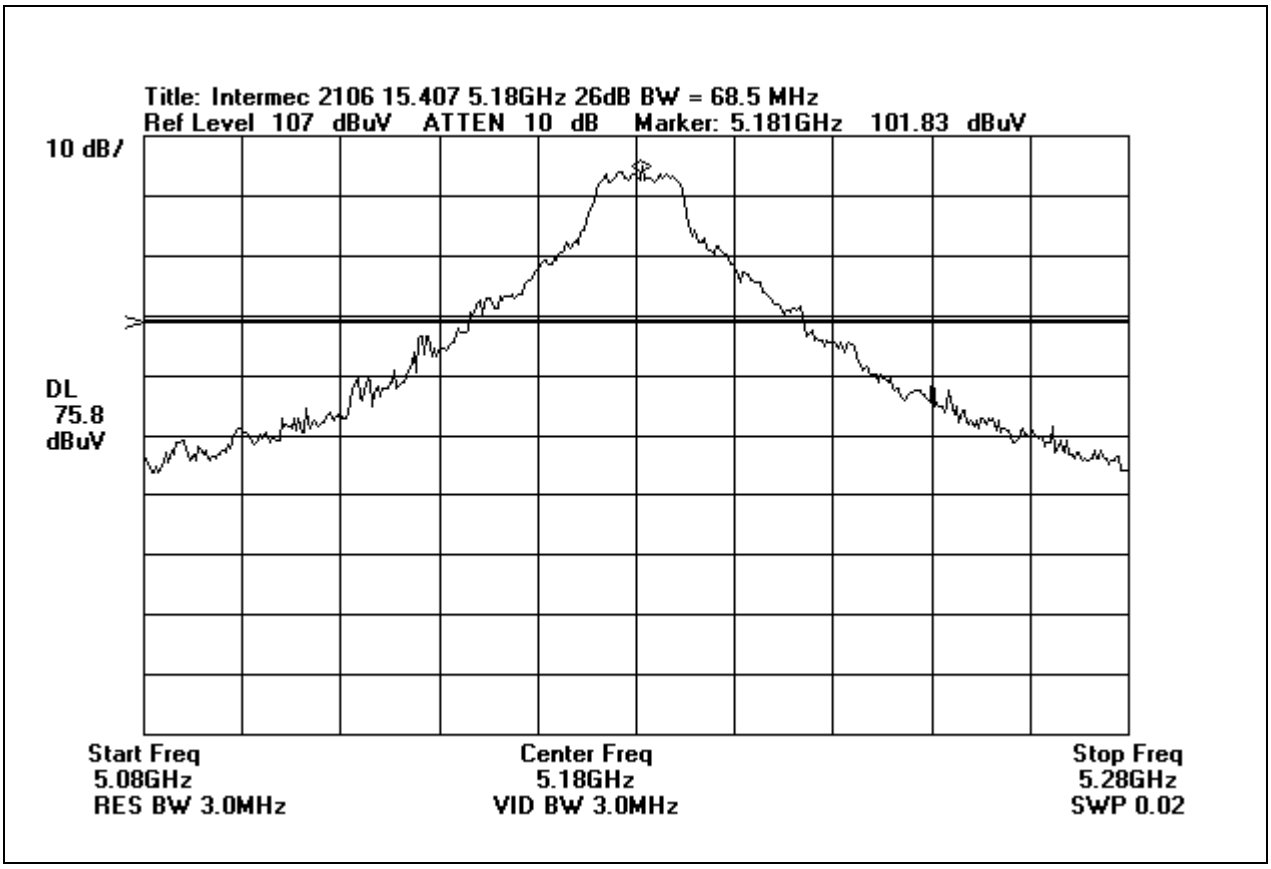
NOTES: Q = Quasi Peak Reading
V = Vertical Polarization
1 = Configuration 1

COMMENTS: 2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to receive mode. Tested in vertical and horizontal polarity.
Configuration 1 = Frequency Range Tested: 30-1000 MHz.
Configuration 2 = Frequency Range Tested: 1-25 GHz. No emissions were found in this frequency range.

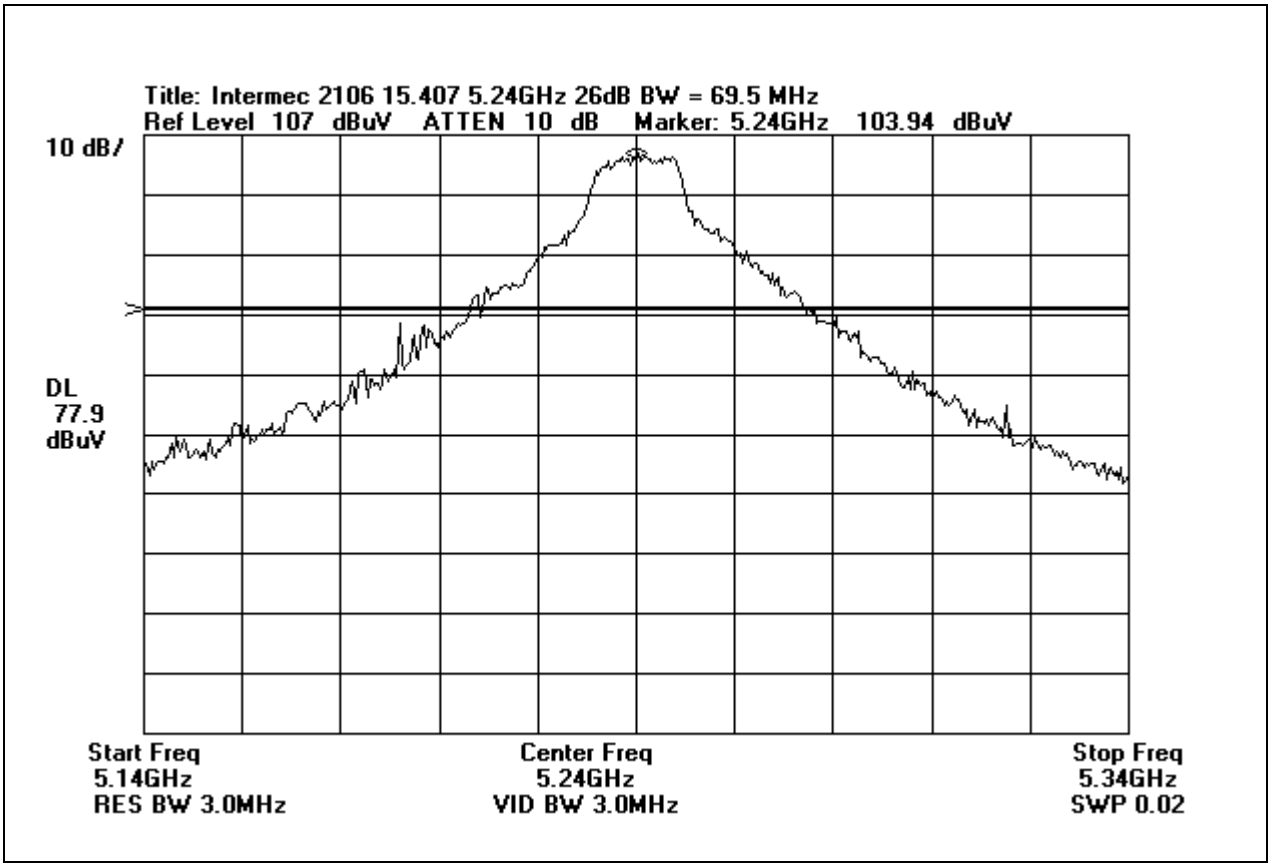
15.407(a)(1) OCCUUPIED BANDWIDTH SUMMARY

Frequency	Occupied Bandwidth
5.18 GHz	68.5 MHz
5.24 GHz	69.5 MHz
5.32 GHz	80.5 MHz

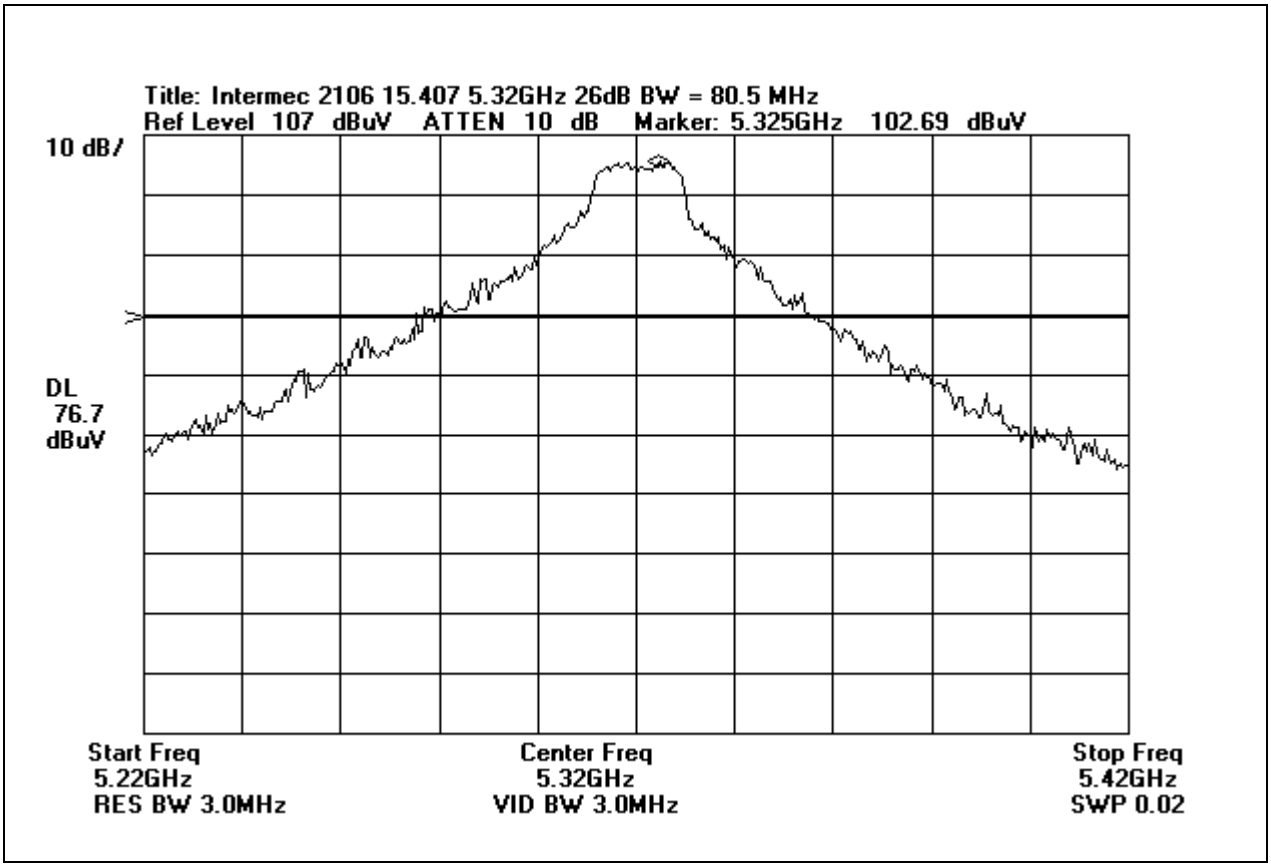
15.407(a)(1) BANDWIDTH PLOTS - 5.18GHz



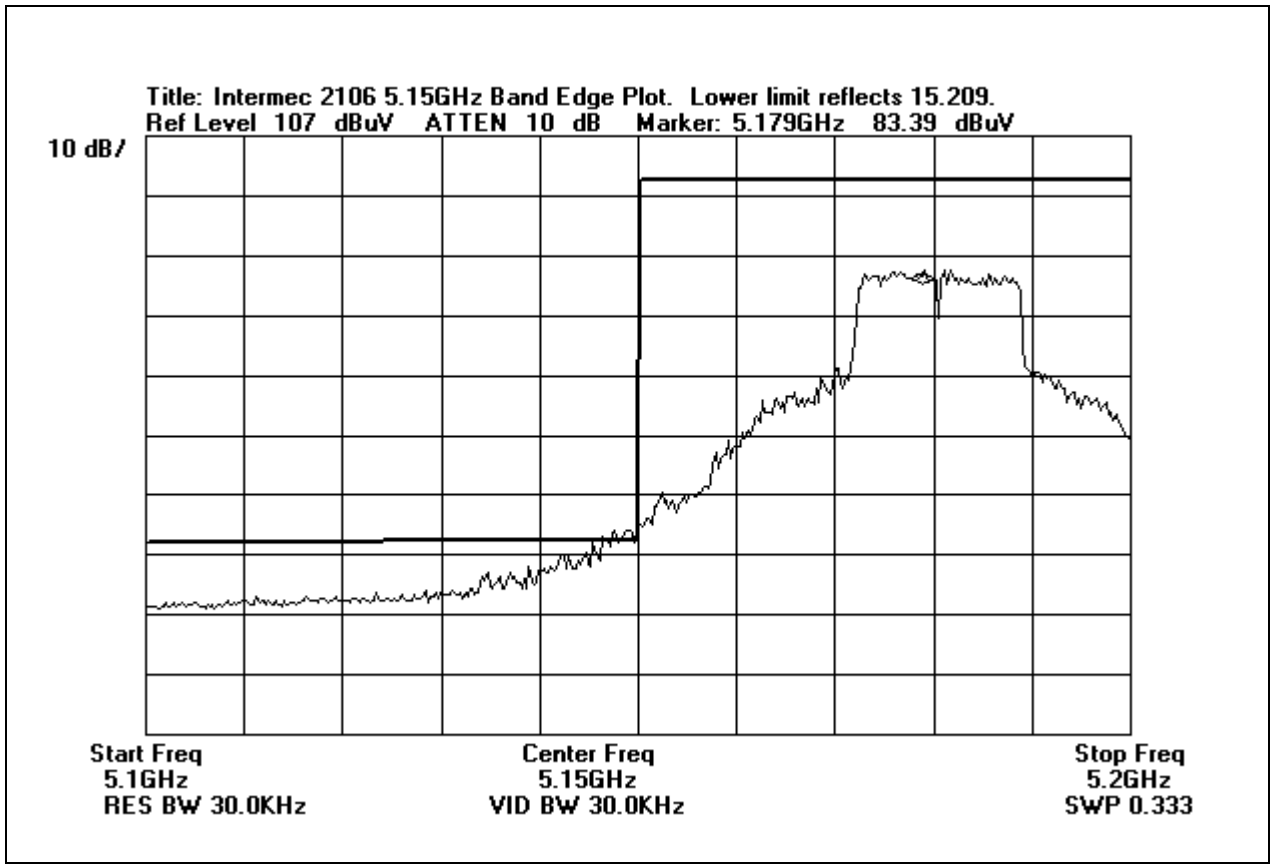
15.407(a)(1) BANDWIDTH PLOTS - 5.24GHz



15.407(a)(1) BANDWIDTH PLOTS - 5.32GHz

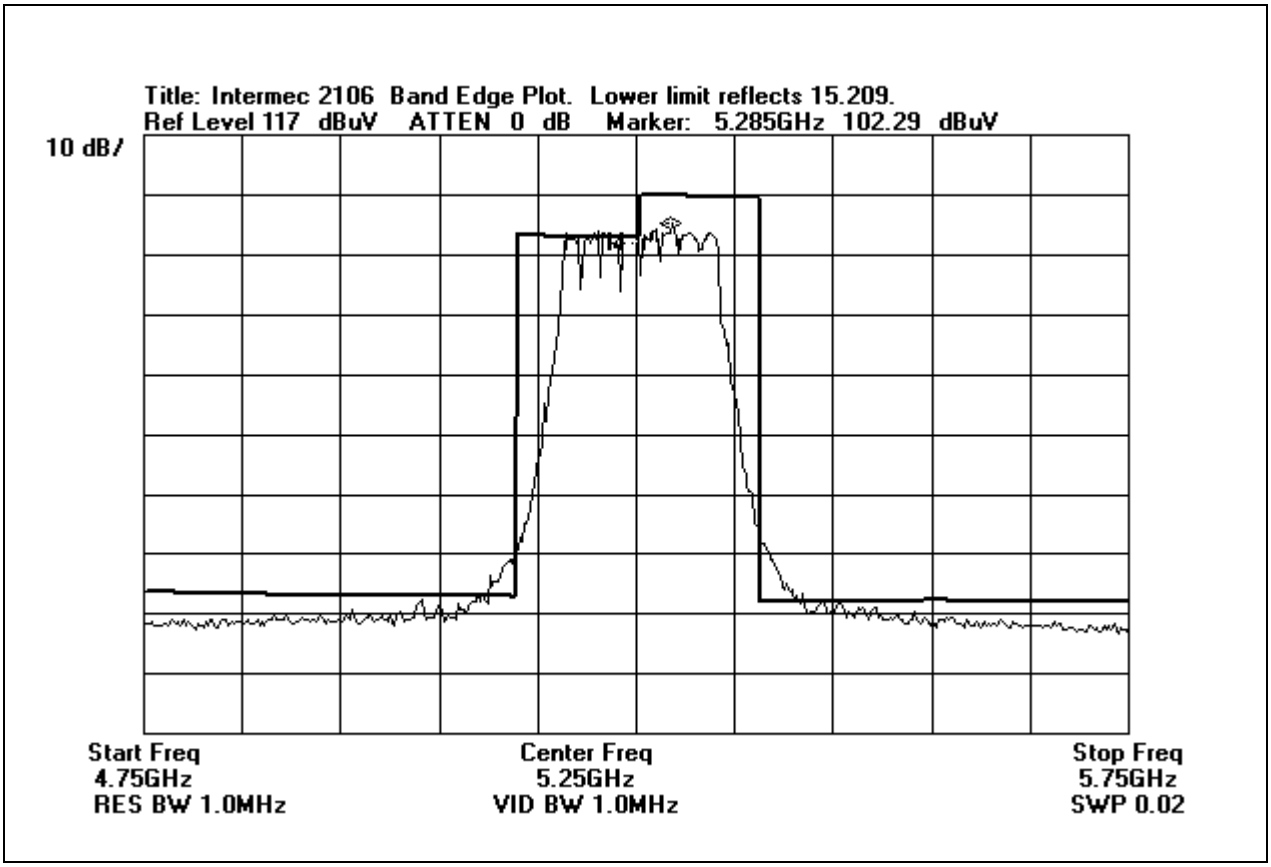


15.209/15.247(b) BANDEDGE - 5.15GHz



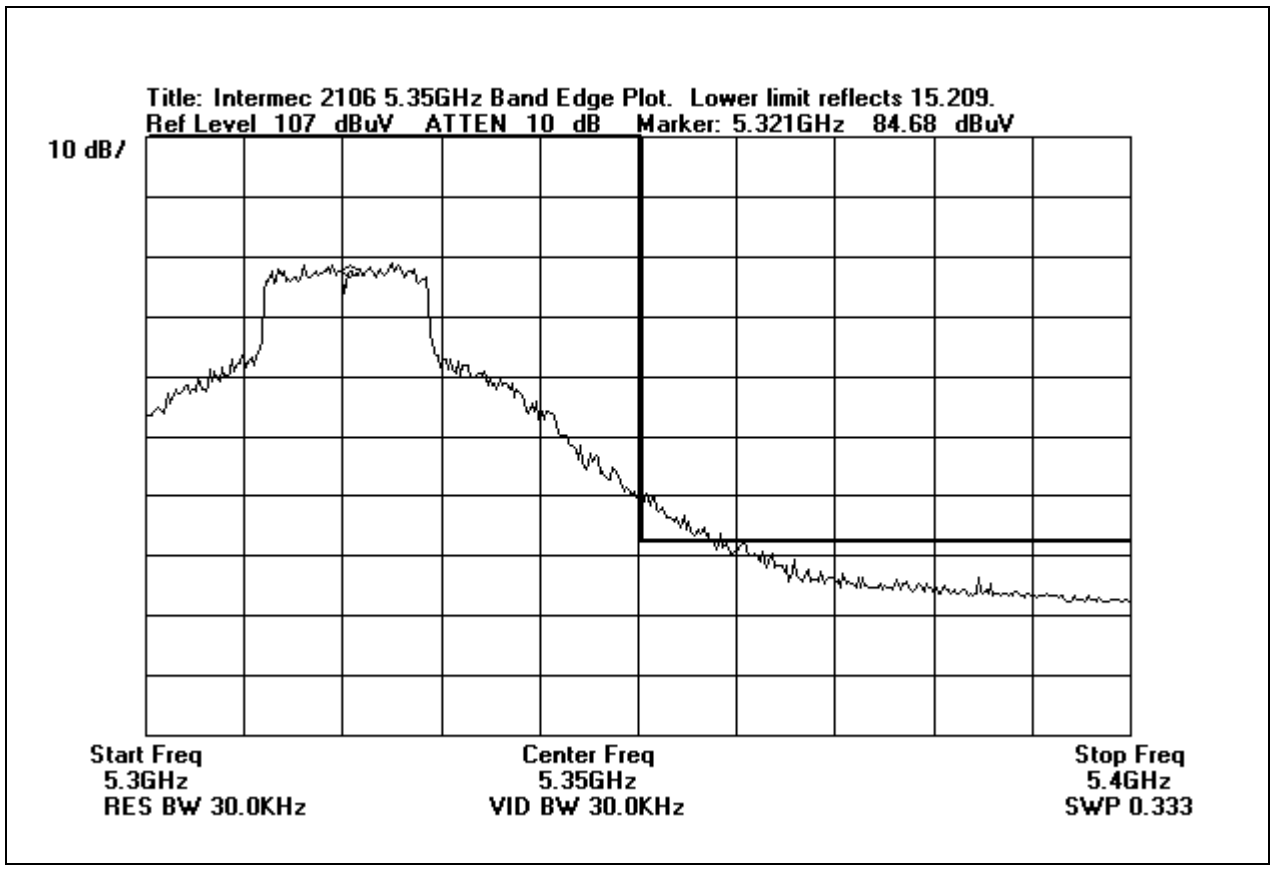
Note: Band Edge plots shown at 30kHz, actual measurements taken at 1MHz. See appropriate data sheets in Appendix C for compliance at the band edges.

15.209/15.247(b) BANDEDGE - 250%



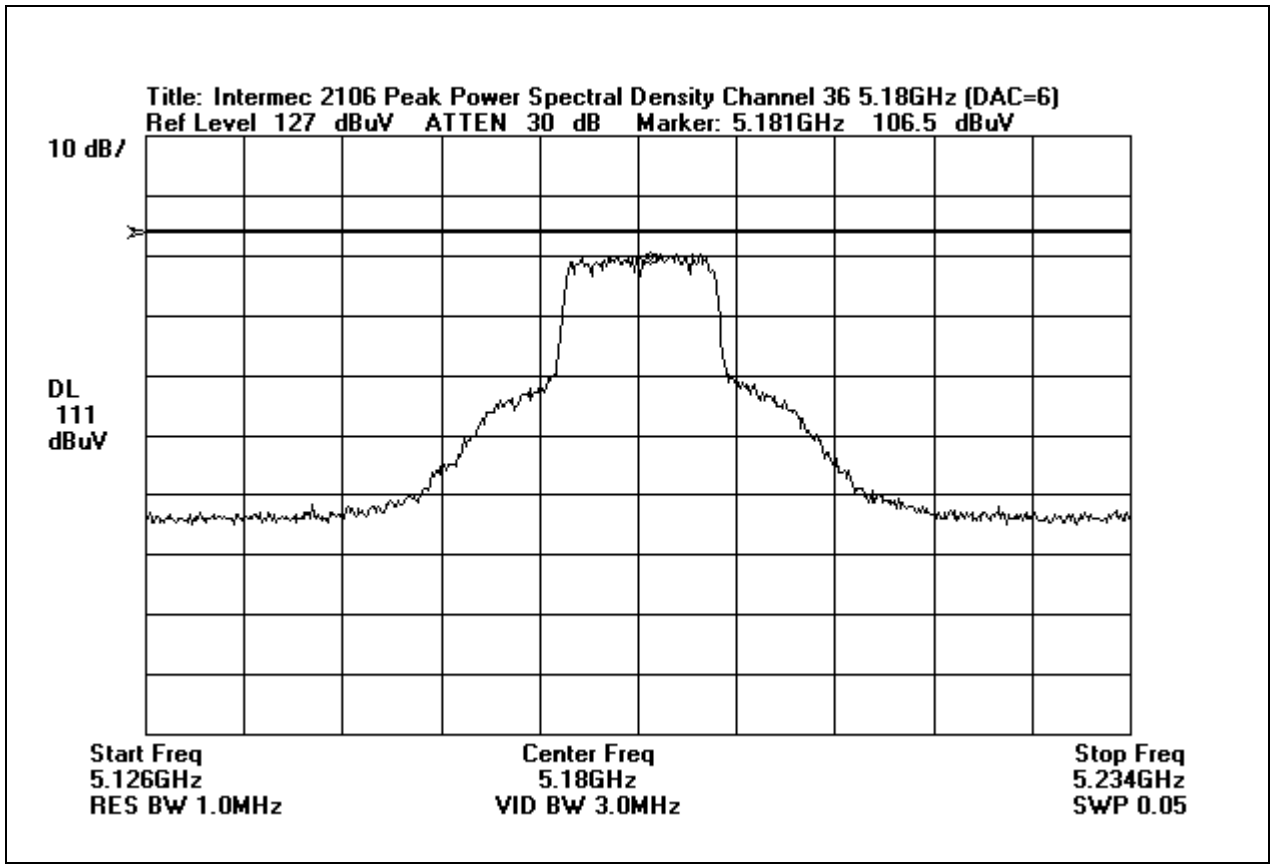
Note: Band Edge plots shown at 30kHz, actual measurements taken at 1MHz. See appropriate data sheets in Appendix C for compliance at the band edges.

15.209/15.247(b) BANDEDGE - 5.35GHz

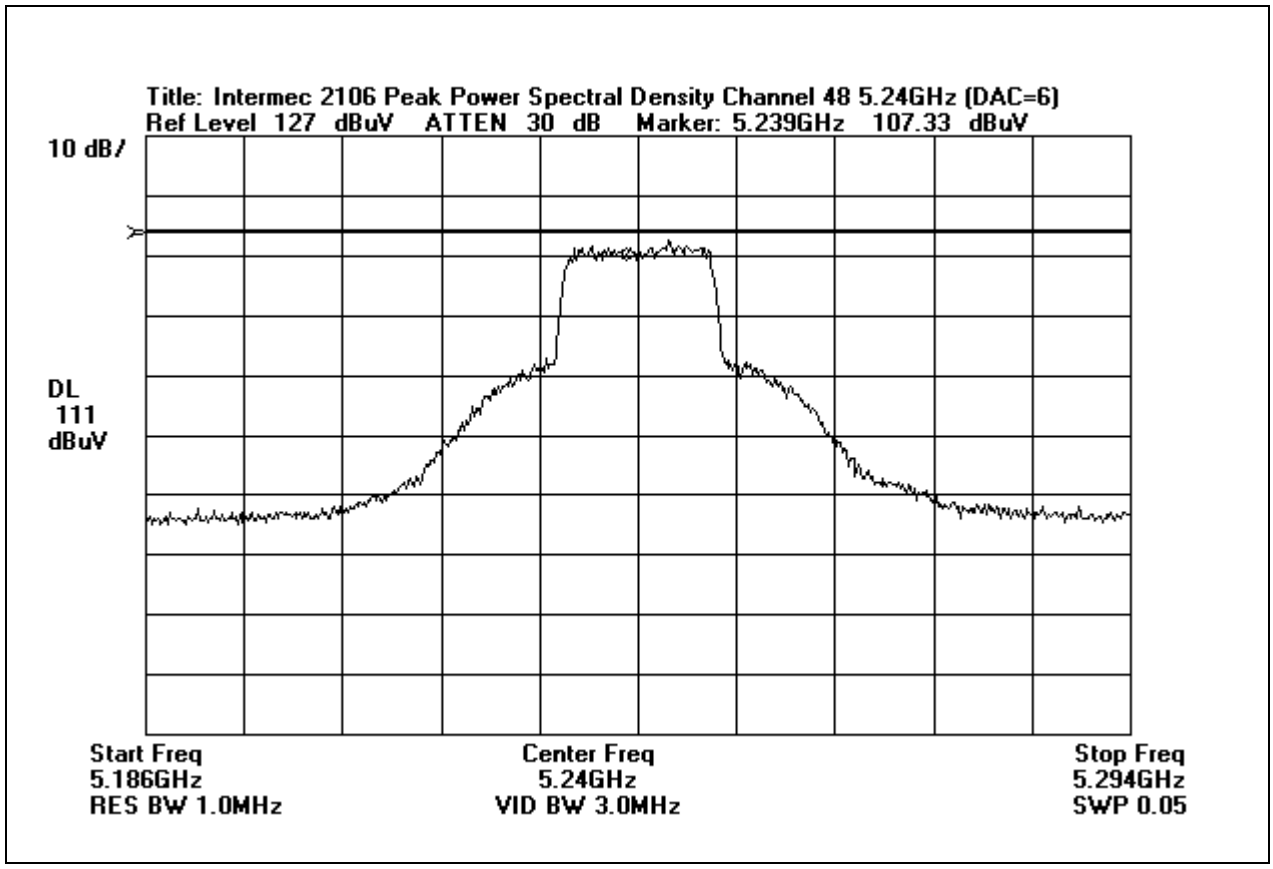


Note: Band Edge plots shown at 30kHz, actual measurements taken at 1MHz. See appropriate data sheets in Appendix C for compliance at the band edges.

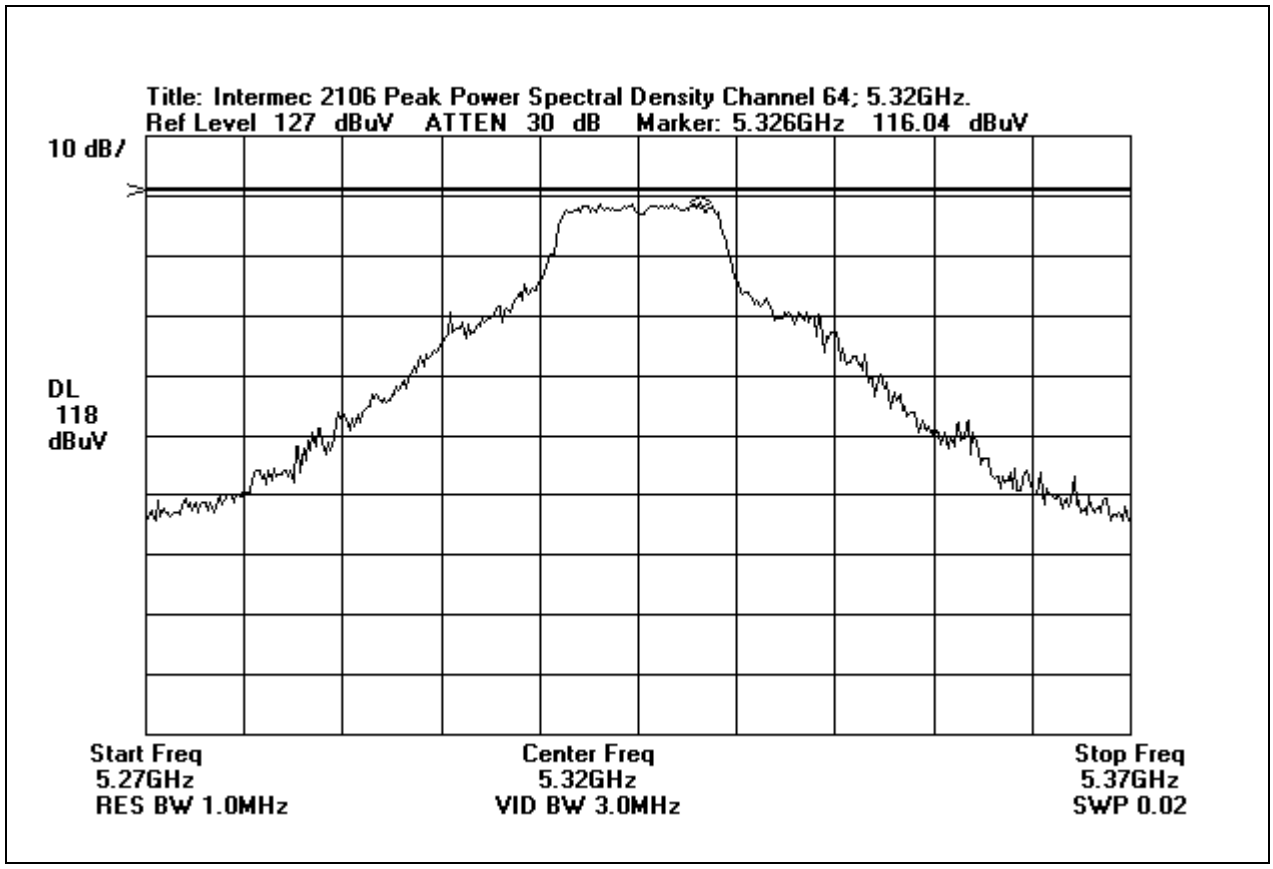
15.407(a)(5) Peak Power Spectral Density - 5.18GHz



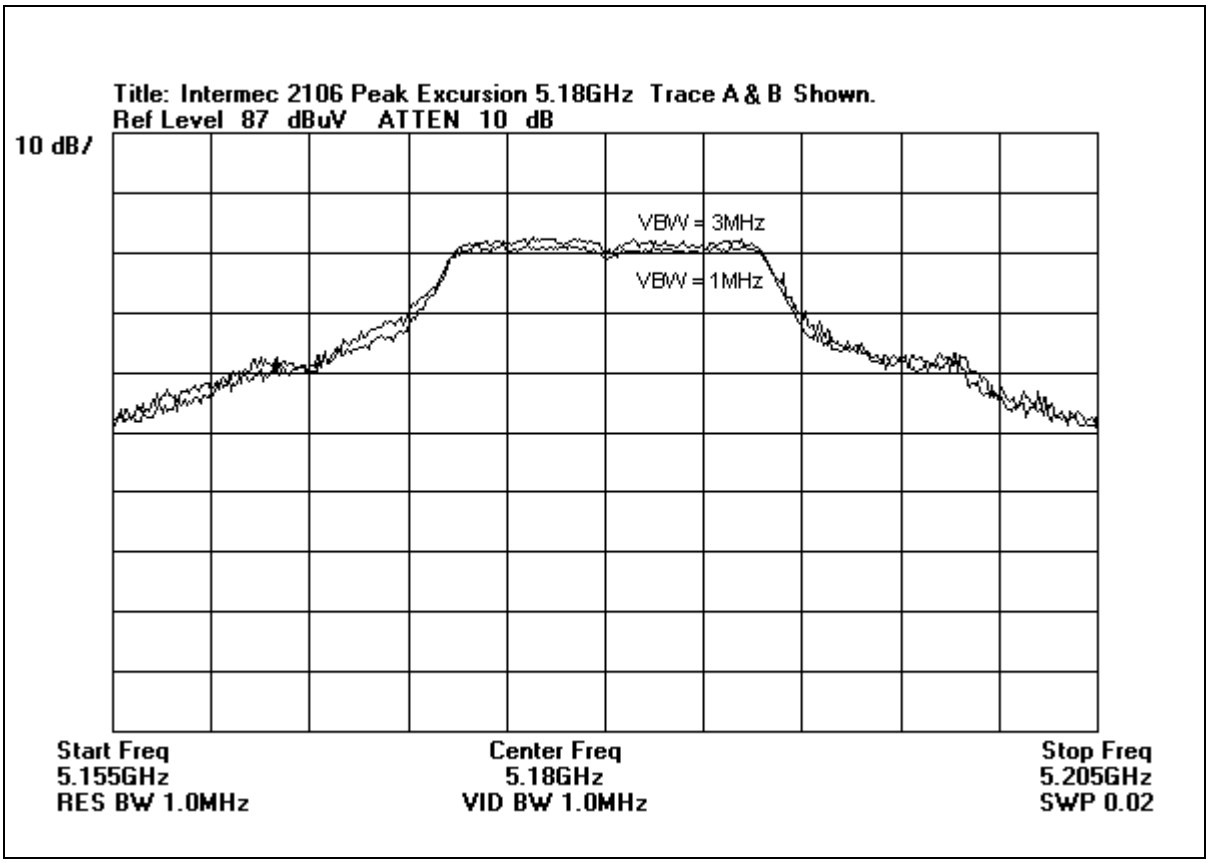
15.407(a)(5) Peak Power Spectral Density - 5.24GHz



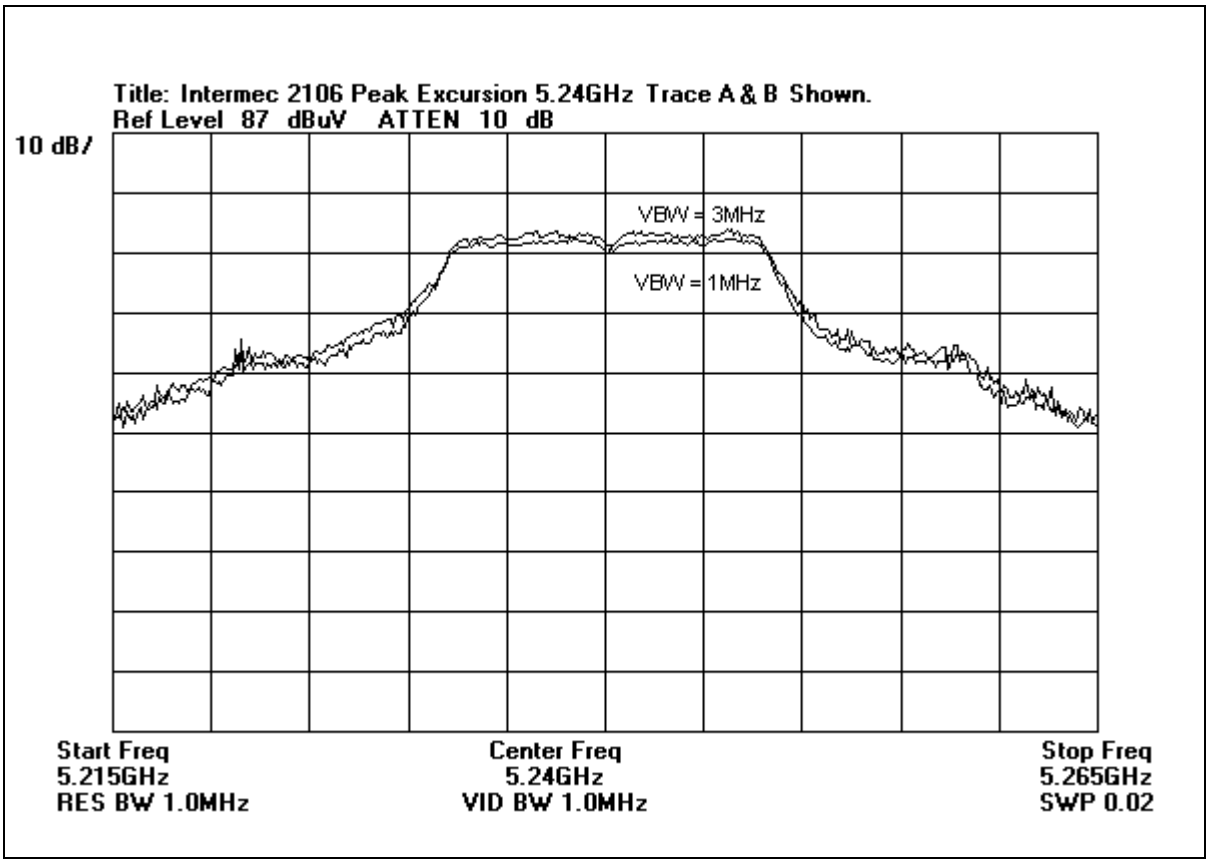
15.407(a)(5) Peak Power Spectral Density - 5.34GHz



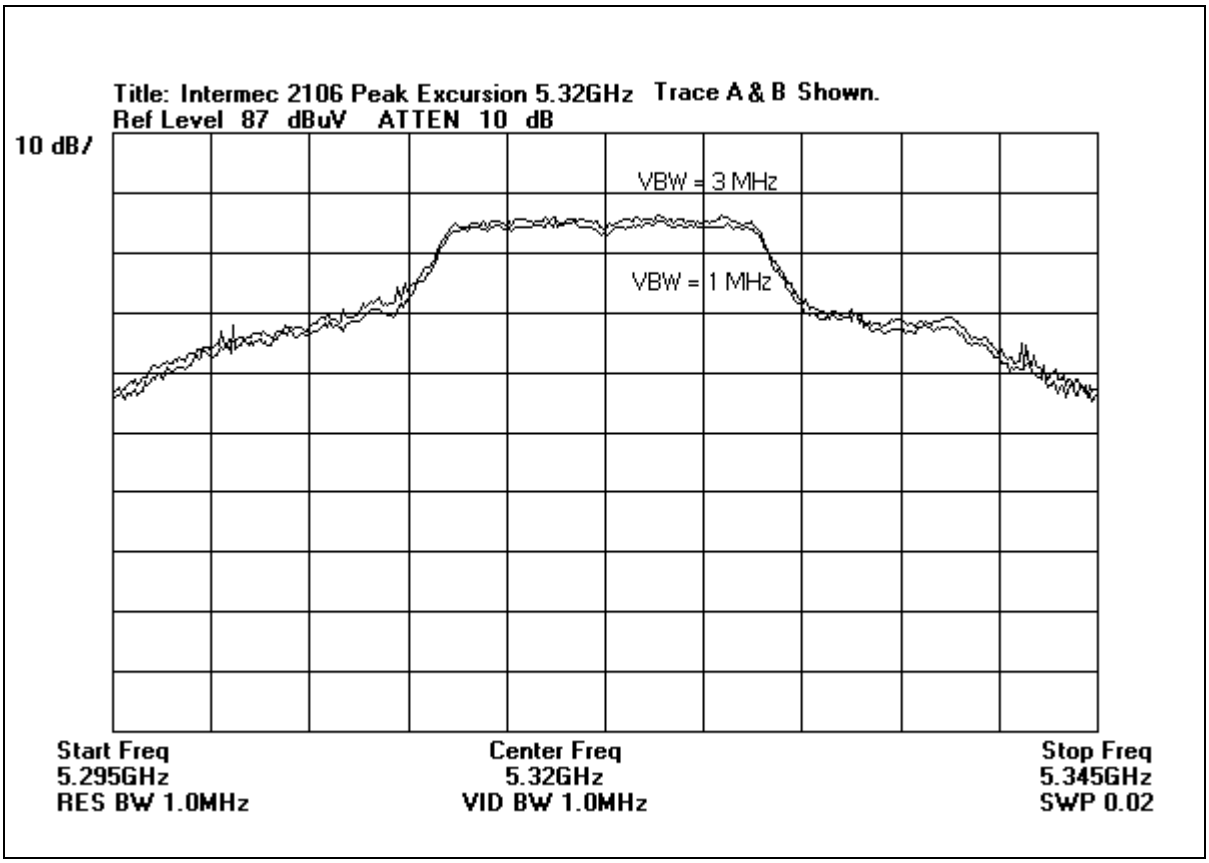
15.407(a)(6) PEAK EXCURSION RATIO - 5.18GHz



15.407(a)(6) PEAK EXCURSION RATIO - 5.24GHz



15.407(a)(6) PEAK EXCURSION RATIO - 5.32GHz



15.407(g) Frequency Stability

Customer:	Intermec
WO:	78067
Model:	2106
FCC Part:	2.1055 / 15.407(g)
Test Engineer:	Randal Clark

Ambient Temperature:	66	18.9 ºC
Relative Humidity:	50	%
Authorized Band:	5150 - 5350	MHz
CH1 Operating Frequency in MHz:	5180.00	
CH2 Operating Frequency in MHz:	5240.00	
CH3 Operating Frequency in MHz:	5320.00	
CH1 Frequency Limit in Hz:	30000000	**Must remain within authorized band.**
CH2 Frequency Limit in Hz:	30000000	**Must remain within authorized band.**
CH3 Frequency Limit in Hz:	30000000	**Must remain within authorized band.**
Nominal Operating Voltage:	120.00	VAC
85% of Nominal (V-)	102.00	VAC
115% of Nominal (V+)	138.00	VAC

Maximum Positive Deviation:	425000.00	Hz
Maximum Negative Deviation:	-100000.00	Hz

Temperature Stability

Channel 1

	Frequency MHz	Frequency Error Hz	Pass/Fail
-30º	5180.150000	150000	PASS
-20ºC	5180.050000	50000	PASS
-10ºC	5180.113000	113000	PASS
0ºC	5180.313000	313000	PASS
+10ºC	5180.125000	125000	PASS
+20ºC	5180.300000	300000	PASS
+30ºC	5180.213000	213000	PASS
+40ºC	5180.038000	38000	PASS
+50ºC	5180.425000	425000	PASS

Channel 2

	Frequency MHz	Frequency Error Hz	Pass/Fail
-30º	5240.125000	125000	PASS
-20ºC	5240.150000	150000	PASS
-10ºC	5240.313000	313000	PASS
0ºC	5240.000000	0	PASS
+10ºC	5240.113000	113000	PASS
+20ºC	5240.138000	138000	PASS
+30ºC	5240.225000	225000	PASS
+40ºC	5240.238000	238000	PASS
+50ºC	5240.225000	225000	PASS

Channel 3			
	Frequency MHz	Frequency Error Hz	Pass/Fail
-30º	5320.288000	288000	PASS
-20ºC	5320.200000	200000	PASS
-10ºC	5320.050000	50000	PASS
0ºC	5319.975000	-25000	PASS
+10ºC	5320.250000	250000	PASS
+20ºC	5320.013000	13000	PASS
+30ºC	5320.213000	213000	PASS
+40ºC	5320.350000	350000	PASS
+50ºC	5320.088000	88000	PASS

Voltage Variations

Ambient Temperature is 18.9 ºC

Channel 1			
Voltage	Frequency MHz	Frequency Error Hz	Pass/Fail
102.0	5179.900000	-100000	PASS
120.0	5180.288000	288000	PASS
138.0	5180.113000	113000	PASS

Channel 2			
Voltage	Frequency MHz	Frequency Error Hz	Pass/Fail
102.0	5239.963000	-37000	PASS
120.0	5240.075000	75000	PASS
138.0	5239.975000	-25000	PASS

Channel 3			
Voltage	Frequency MHz	Frequency Error Hz	Pass/Fail
102.0	5320.200000	200000	PASS
120.0	5320.213000	213000	PASS
138.0	5320.088000	88000	PASS

MEASUREMENT UNCERTAINTY

Associated with data in this report is a ± 4dB measurement uncertainty.

TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

EUT SETUP

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the photographs in Appendix A. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables. The corrected data was then compared to the applicable emission limits to determine compliance.

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available I/O ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. I/O cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected. All excessive interconnecting cable was bundled in 30-40 centimeter lengths.

The radiated and conducted emissions data of the Access Point, 2106, was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in Table A.

Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula in Table A. This reading was then compared to the applicable specification limit to determine compliance.

TABLE A: SAMPLE CALCULATIONS

	Meter reading	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Appendix B were used to collect both the radiated and conducted emissions data for the Access Point, 2106. For radiated measurements below 30 MHz, the magnetic loop antenna was used. For radiated measurements below 300 MHz, the biconical antenna was used. For frequencies from 300 to 1000 MHz, the log periodic antenna was used. The horn antenna was used for frequencies above 1000 MHz. Conducted emissions tests required the use of the FCC type LISNs.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. For conducted emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. A 10 dB external attenuator was also used during conducted tests, with internal offset correction in the analyzer. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dBµV, and a vertical scale of 10 dB per division.

FCC SECTION 15.35:
TABLE B: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE

TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	450 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	20 MHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	40 GHz	1 MHz
PPSD	Fundamental	Fundamental	1 MHz, 3 MHz
PEAK POWER	Fundamental	Fundamental	300 kHz, 1 MHz

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the Tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the six highest readings, this is indicated as a "Q" or an "A" in the appropriate table. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data for the Access Point, 2106.

Peak

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

EUT TESTING

Radiated Emissions

The EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements below 30 MHz, the magnetic loop antenna was used. The frequency range of 30 MHz to 88 MHz was scanned with the biconical antenna located about 1.5 meter above the ground plane in the vertical configuration. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. The frequency range of 100 to 300 MHz was then scanned in the same manner using the biconical antenna and the peaks recorded. Lastly, a scan of the FM band from 88 to 110 MHz was made, using a reduced resolution bandwidth and frequency span. The biconical antenna was changed to the horizontal polarity and the above steps were repeated. After changing to the log periodic antenna in the horizontal configuration, the frequency range of 300 to 1000 MHz was scanned. The log periodic antenna was changed to the vertical polarity and the frequency range of 300 to 1000 MHz was again scanned. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

A thorough scan of all frequencies was made manually using a small frequency span, rotating the turntable as needed. The test engineer maximized the readings with respect to the table rotation, antenna height, and configuration of EUT. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor. Photographs showing the final worst case configuration of the EUT are contained in Appendix A.

Mains Conducted Emissions

During conducted emissions testing, the EUT was located on a wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

The vertical metal plane used for conducted emissions was grounded to the earth. Power to the EUT was provided through a LISN. The LISN was grounded to the ground plane. All other objects were kept a minimum of 80 cm away from the EUT during the conducted test.

For conducted emissions testing, a 30 to 50 second sweep time was used for automated measurements in the frequency bands of 450 kHz to 1.705 MHz, 1.705 MHz to 3 MHz, and 3 MHz to 30 MHz. All readings within 20 dB of the limit were recorded. At frequencies where the recorded emissions were close to the limit, further investigation was performed manually at a slower sweep rate.

Peak Power Spectral Density

Peak Power Spectral Density is measured as follows. The 2106 is connected directly to the analyzer using a peak detector. Suitable attenuation was used to protect the analyzer from overload. The RBW was set to 1MHz. The VBW needed was (emission BW)/30 which calculates to 80.5/30=2.68MHz. Therefore, 3MHz VBW was used. The detector function was set to sample with the number of samples set to 100.

Peak Excursion of the Modulation Envelope

The peak excursion of the modulation envelope was measured using the following procedure. First, the span was set to incorporate the fundamental and sidebands. Using RBW=1MHz, VBW=3MHz one trace (Trace A) was captured on the analyzer. Then, using RBW=1MHz, VBW=1MHz, a second trace (Trace B) was captured. These two traces were then subtracted (A-B) and displayed on the analyzer. The display line was set to 13dB (the limit) and the highest point within any 1 MHz band was checked against the limit. This plot was also captured. All three plots are shown for comparison.

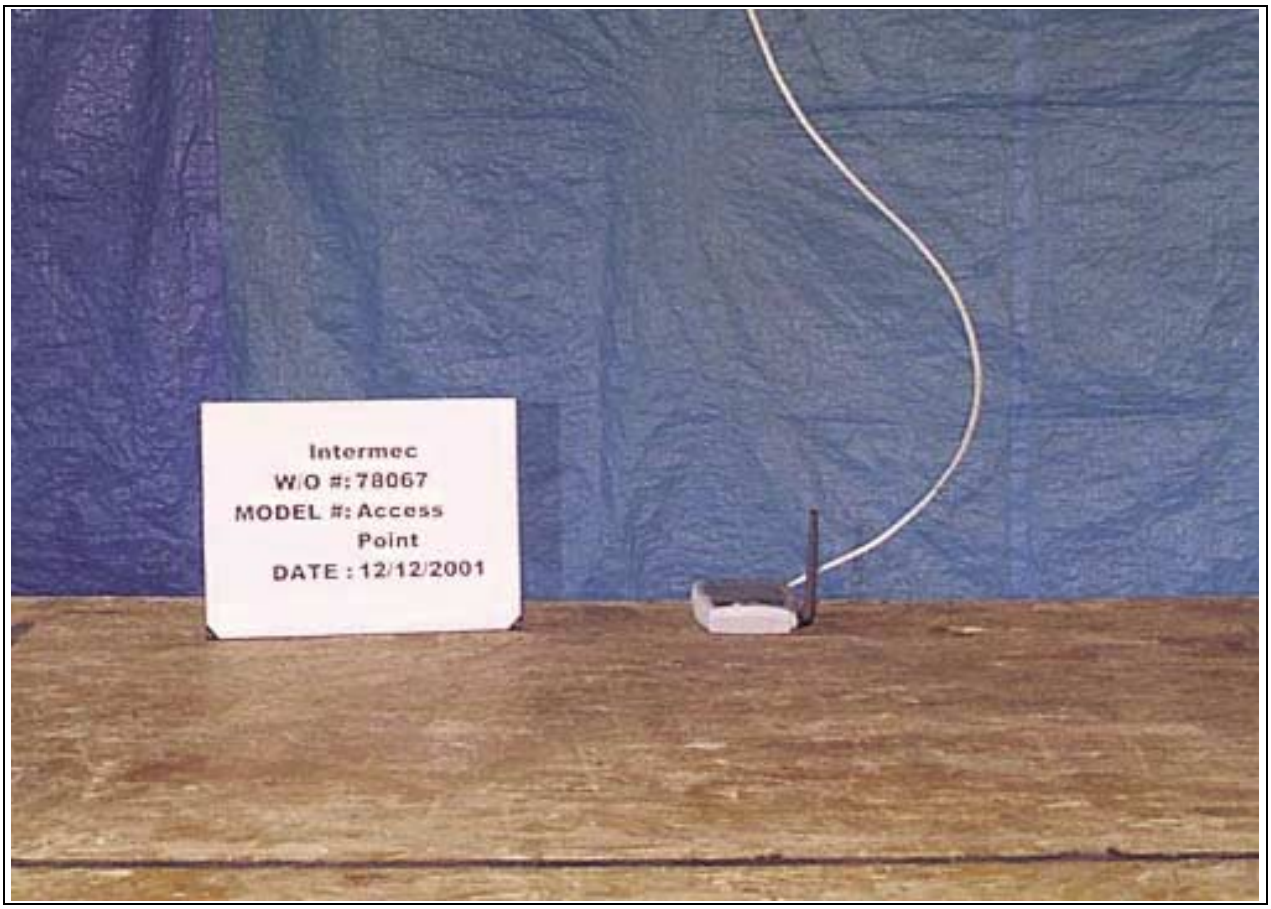
Peak Power Output

Using the peak function of the analyzer, peak power was measured suing the following settings: RBW=1MHz, VBW=(emissions BW)/2π30 which calculates to 80.5/2π30=427kHz. Therefore, 300 kHz VBW was chosen.

APPENDIX A

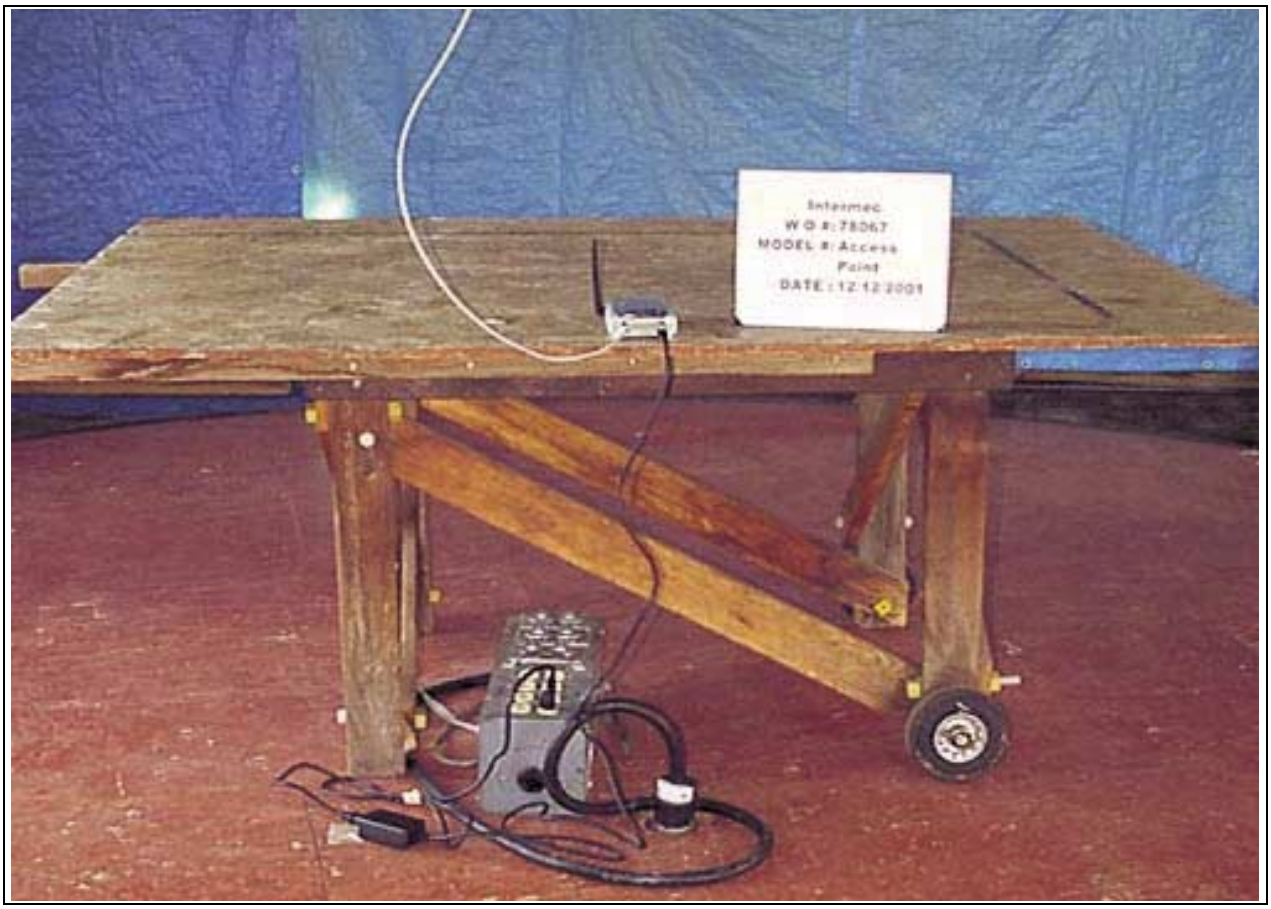
TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Front View

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Side View

PHOTOGRAPH SHOWING TEMPERATURE TESTING

Temperature Testing

APPENDIX B

TEST EQUIPMENT LIST

Test Equipment used for all 1-40GHz Emissions, Peak Transmit Power, Peak Excursion and OBW

Preamp	HP	8449B	3008A00301	02010	10/19/01	10/19/02
8.2 GHz High Pass Filter	HP	84300-80039	3643A00026	01417	10/17/01	10/17/02
Antenna, Horn 1-18GHz	EMCO	3115	9307-4085	00656	2/28/01	2/28/02
Antenna, Horn 18-26GHz	HP	84125-80008	942126-003	01413	7/9/01	7/9/02
Antenna, Horn 26-40GHz	HP	RA28-K-F-4B-C	951559-008	01414	5/22/01	5/22/02
Cable #2 (2')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Cable #4 (50')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Cable #7 (25')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Spectrum Analyzer	HP	8564E	3623A00539	01406	12/12/01	12/12/02
Spectrum Analyzer	HP	8596E	3346A00209	00784	7/6/01	7/6/02

Test Equipment Used for Conducted Emissions: 15.207 and 15.107

Equipment	*Manufacturer*	*Model #*	*Serial #*	*Asset #*	*Cal Date*	*Cal Due*
LISN Set	Solar	8028-50-TS-24-BNC	814493, 474	02056	5/22/01	5/22/02
Spectrum Analyzer	HP	8596E	3346A00209	00784	7/6/01	7/6/02

Test equipment used for 15.109 30-1000

Equipment	*Manufacturer*	*Model #*	*Serial #*	*Asset #*	*Cal Date*	*Cal Due*
3/10 Meter Cable	Andrews	Hardline	N/A	N/A	11/19/01	11/19/02
Antenna, Bicon	A&H	SAS-200/542	156	00225	12/06/01	12/6/02
Antenna, Log	A&H	SAS-200/510	154	01330	05/07/01	5/7/02
Preamp	HP	8447D	1937A02604	00099	03/29/01	3/29/02
QPA	HP	85650A	2043A00202	02430	11/21/01	11/21/02
S/A Display	HP	85662A	2816A15964	P00708	11/21/01	11/21/02
S/A RF Section	HP	8567A	2727A00473	P00709	11/21/01	11/21/02

Test Equipment used for 15.209<30MHz

Equipment	*Manufacturer*	*Model #*	*Serial #*	*Asset #*	*Cal Date*	*Cal Due*
3/10 Meter Cable	Andrews	Hardline	N/A	N/A	11/19/01	11/19/02
Magnetic Loop	EMCO	6502	1074	00226	5/31/01	5/31/02
Spectrum Analyzer	HP	8596E	3346A00209	00784	7/6/01	7/6/02

Frequency Stability Equipment

Equipment	*Manufacturer*	*Model #*	*Serial #*	*Asset #*	*Cal Date*	*Cal Due*
Power Stat	Superior Electric	126	N/A	02037	03/29/01	3/29/02
Temp Chamber	Thermotron	S-1.2 MiniMax	11899	01879	3/29/2001	3/29/02
Thermometer	Omega	HH-26K	T-202884	02242	7/26/01	7/26/02
Spectrum Analyzer	HP	8596E	3346A00209	00784	7/6/01	7/6/02

APPENDIX C

MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.407/ 15.209**
Work Order #: **78067** Date: 01/09/2002
Test Type: **Maximized Emissions** Time: 15:21:04
Equipment: **Access Point** Sequence#: 1
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Frequency range tested: Fundamental. Bandwidths used: RBW 1MHz - VBW 300kHz.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	Amp Cable dB	Horn dB	Cable dB	Cable dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	5247.000M	99.0	-31.1 +3.4	+34.1	+0.8	+7.4	+10.0	123.6	124.0	-1.3	Vert
2	5187.000M	97.9	-30.9 +3.5	+34.0	+0.8	+7.4	+10.0	122.7	124.0	-0.4	Vert
3	5327.500M	99.8	-31.2 +3.4	+34.2	+0.7	+7.4	+10.0	124.3	131.0	-6.7	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.209**
Work Order #: **78067** Date: 12/19/2001
Test Type: **Maximized Emissions** Time: 11:20:50
Equipment: **Access Point** Sequence#: 10
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Frequency Range Tested: 20-30 MHz. Receive antenna placed in both vertical and horizontal polarity. No EUT emissions found in this frequency range.

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	Loop	Cable	15.31		Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa CA, 95338 • (209) 966-5240

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.407 / 15.209**
Work Order #: **78067** Date: 12/14/2001
Test Type: **Maximized Emissions** Time: 16:44:37
Equipment: **Access Point** Sequence#: 2
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Test distance correction factor used in accordance with FCC 15.31. Frequency Range Tested: 30-1000 MHz.

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq MHz	Rdng dBµV	Pream dB	Bicon dB	Log dB	Cable dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	630.085M	31.8	-28.5	+0.0	+19.7	+7.0	+10.0	40.0	46.0	-6.0	Horiz
2	125.084M	37.7	-27.4	+14.4	+0.0	+2.7	+10.0	37.4	43.5	-6.1	Horiz
3	625.096M	31.6	-28.5	+0.0	+19.7	+7.0	+10.0	39.8	46.0	-6.2	Vert
4	87.562M	39.0	-27.4	+9.1	+0.0	+2.2	+10.0	32.9	40.0	-7.1	Vert
5	49.920M	38.7	-27.4	+9.8	+0.0	+1.7	+10.0	32.8	40.0	-7.2	Vert
6	367.558M	33.9	-27.4	+0.0	+16.5	+5.1	+10.0	38.1	46.0	-7.9	Vert
7	75.072M	39.6	-27.4	+7.1	+0.0	+2.1	+10.0	31.4	40.0	-8.6	Horiz
8	165.977M	33.2	-27.2	+15.7	+0.0	+3.1	+10.0	34.8	43.5	-8.7	Vert
9	49.224M	36.9	-27.4	+10.0	+0.0	+1.7	+10.0	31.2	40.0	-8.8	Vert
10	50.517M	37.2	-27.4	+9.6	+0.0	+1.7	+10.0	31.1	40.0	-8.9	Vert

11	367.571M	32.9	-27.4	+0.0	+16.5	+5.1	+10.0	37.1	46.0	-8.9	Horiz
12	400.075M	31.0	-27.7	+0.0	+17.6	+5.4	+10.0	36.3	46.0	-9.7	Horiz
13	75.074M	37.9	-27.4	+7.1	+0.0	+2.1	+10.0	29.7	40.0	-10.3	Vert
14	500.079M	30.3	-28.2	+0.0	+17.1	+6.0	+10.0	35.2	46.0	-10.8	Horiz
15	250.090M	31.8	-27.0	+16.2	+0.0	+3.9	+10.0	34.9	46.0	-11.1	Vert
16	69.769M	37.5	-27.4	+6.3	+0.0	+2.0	+10.0	28.4	40.0	-11.6	Vert
17	300.092M	32.0	-27.0	+0.0	+13.9	+4.6	+10.0	33.5	46.0	-12.5	Horiz
18	125.087M	30.3	-27.4	+14.4	+0.0	+2.7	+10.0	30.0	43.5	-13.5	Vert
19	315.064M	29.8	-27.1	+0.0	+14.5	+4.7	+10.0	31.9	46.0	-14.1	Horiz
20	315.090M	28.4	-27.1	+0.0	+14.5	+4.7	+10.0	30.5	46.0	-15.5	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.407 / 15.209**
Work Order #: **78067** Date: 12/28/2001
Test Type: **Maximized Emissions** Time: 11:12:06
Equipment: **Access Point** Sequence#: 4
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Lower limit represents 15.209. Frequency Range Tested: 1 - 18 GHz Bandwidths Used: RBW 1MHz - VBW 1MHz.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	Amp Cable dB	Horn Filte dB	Cable Cable dB	Cable dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	5350.000M Ave	39.4	-31.3 +3.3	+34.2 +0.0	+0.7 +0.0	+7.4	+0.0	53.7	54.0 Band Edge	-0.3	Vert
^	5350.000M	53.1	-31.3 +3.3	+34.2 +0.0	+0.7 +0.0	+7.4	+0.0	67.4	54.0	+13.4	Vert
3	5150.000M Ave	37.0	-30.8 +3.5	+33.9 +0.0	+0.9 +0.0	+7.4	+0.0	51.9	54.0 Band Edge	-2.1	Vert
^	5150.000M	50.3	-30.8 +3.5	+33.9 +0.0	+0.9 +0.0	+7.4	+0.0	65.2	54.0	+11.2	Vert
5	10640.750 M Ave	36.0	-34.9 +5.2	+32.4 +0.0	+0.9 +0.0	+11.1	+0.0	50.7	54.0	-3.3	Vert
^	10640.750 M	51.8	-34.9 +5.2	+32.4 +0.0	+0.9 +0.0	+11.1	+0.0	66.5	54.0	+12.5	Vert
^	10640.750 M	49.0	-34.9 +5.2	+32.4 +0.0	+0.0 +2.2	+11.1	+0.0	65.0	54.0 RX LNA OFF - Shielded	+11.0	Vert
8	10640.500 M Ave	35.5	-34.9 +5.2	+32.3 +0.0	+0.9 +0.0	+11.1	+0.0	50.1	54.0 RX LNA OFF -	-3.9	Vert

									Shielded		
9	10360.000 M	45.0	-34.8 +4.7	+37.1 +0.0	+1.0 +0.0	+10.4	+0.0	63.4	70.0	-6.6	Horiz
10	4256.200M Ave	36.0	-32.0 +2.6	+32.0 +0.0	+0.8 +0.0	+7.0	+0.0	46.4	54.0	-7.6	Vert
^	4256.200M	44.9	-32.0 +2.6	+32.0 +0.0	+0.8 +0.0	+7.0	+0.0	55.3	54.0	+1.3	Vert
12	10399.920 M	42.8	-34.9 +4.8	+37.1 -0.1	+1.0 +0.0	+10.6	+0.0	61.3	70.0	-8.7	Horiz
13	4192.250M Ave	34.8	-32.0 +2.6	+31.9 +0.0	+0.7 +0.0	+6.9	+0.0	44.9	54.0	-9.1	Vert
^	4192.300M	45.7	-32.0 +2.6	+31.9 +0.0	+0.7 +0.0	+6.9	+0.0	55.8	54.0	+1.8	Vert
15	10640.080 M	44.3	-34.9 +5.2	+32.3 +0.0	+0.9 +0.0	+11.1	+0.0	58.9	70.0	-11.1	Horiz
16	4143.875M Ave	32.4	-32.0 +2.5	+32.0 +0.0	+0.7 +0.0	+6.9	+0.0	42.5	54.0	-11.5	Vert
^	4143.880M	44.9	-32.0 +2.5	+32.0 +0.0	+0.7 +0.0	+6.9	+0.0	55.0	54.0	+1.0	Vert
18	10360.000 M Ave	38.0	-34.8 +4.7	+37.1 +0.0	+1.0 +0.0	+10.4	+0.0	56.4	70.0	-13.6	Vert
^	10360.000 M	49.3	-34.8 +4.7	+37.1 +0.0	+1.0 +0.0	+10.4	+0.0	67.7	70.0	-2.3	Vert
20	10481.000 M Ave	25.9	-35.0 +4.8	+34.9 -0.1	+1.1 +0.0	+11.1	+0.0	42.7	70.0	-27.3	Vert
^	10481.000 M	48.7	-35.0 +4.8	+34.9 -0.1	+1.1 +0.0	+11.1	+0.0	65.5	70.0	-4.5	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.407(b)(1)&(2)**
Work Order #: **78067** Date: 12/17/2001
Test Type: **Maximized Emissions** Time: 12:12:06
Equipment: **Access Point** Sequence#: 3
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to transmit on the low, middle and high channel. Tested in vertical and horizontal polarity. Frequency Range Tested: 18 - 40GHz Bandwidths Used: RBW 1MHz - VBW 1MHz.

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	Amp dB	Horn dB	Horn dB	Filte dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	26199.330 M	53.3	-33.5	+40.4	+0.0	+0.9	+0.0	61.1	80.0	-18.9	Vert
2	25905.330 M	50.7	-33.2	+40.5	+0.0	+0.0	+0.0	58.0	80.0	-22.0	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.207**
Work Order #: **78067** Date: 01/18/2002
Test Type: **Conducted Emissions** Time: 14:47:54
Equipment: **Access Point** Sequence#: 9
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

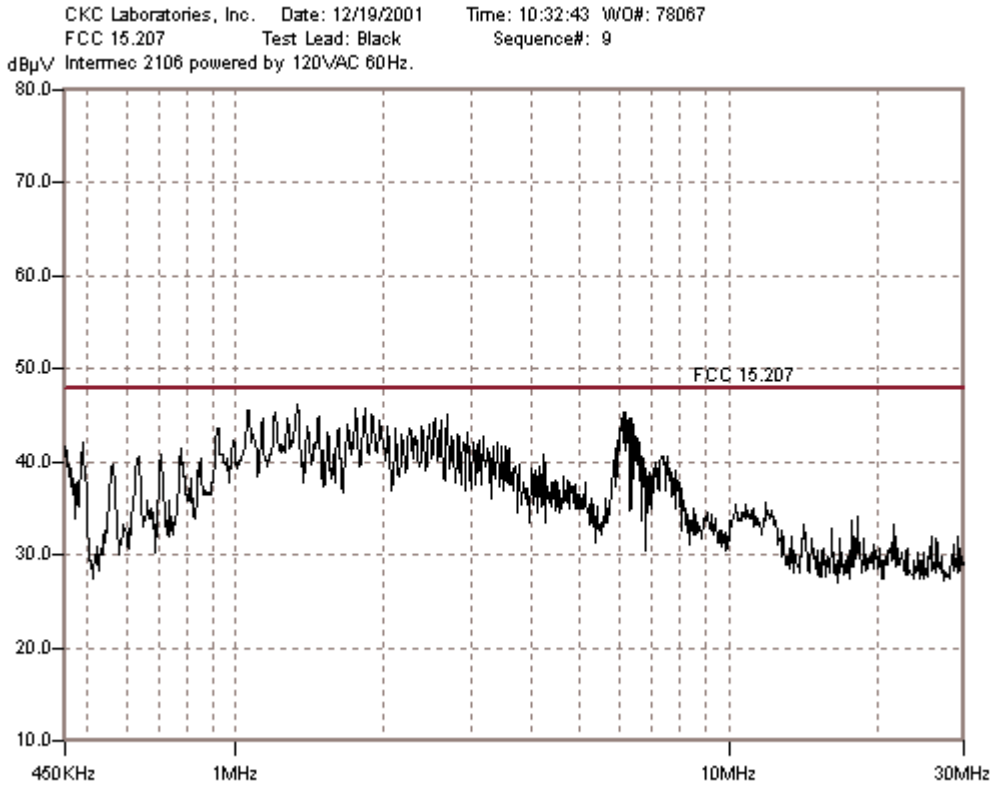
Test Conditions / Notes:

2106 is transmitting on the highest channel (worst case). The support equipment is located outside of the test shed. Frequency Range Tested: 450kHz - 30MHz.

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	LISN dB	dB	Cable dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.390M	43.4	+0.3		+0.2		+0.0	43.9	48.0	-4.1	Black
2	1.405M	43.5	+0.3		+0.1		+0.0	43.9	48.0	-4.1	Black
3 QP	1.350M	40.1	+0.3		+0.1		+0.0	40.5	48.0	-7.5	Black
^	1.350M	45.7	+0.3		+0.1		+0.0	46.1	48.0	-1.9	Black
5 QP	1.070M	40.0	+0.3		+0.1		+0.0	40.4	48.0	-7.6	Black
^	1.060M	45.2	+0.3		+0.1		+0.0	45.6	48.0	-2.4	Black
7 QP	1.210M	39.2	+0.3		+0.1		+0.0	39.6	48.0	-8.4	Black
^	1.200M	44.9	+0.3		+0.1		+0.0	45.3	48.0	-2.7	Black
9 QP	1.495M	38.6	+0.3		+0.1		+0.0	39.0	48.0	-9.0	Black
^	1.495M	44.5	+0.3		+0.1		+0.0	44.9	48.0	-3.1	Black
11 QP	1.847M	38.0	+0.3		+0.2		+0.0	38.5	48.0	-9.5	Black

^	1.847M	45.3	+0.3	+0.2	+0.0	45.8	48.0	-2.2	Black
13	1.764M QP	37.6	+0.3	+0.2	+0.0	38.1	48.0	-9.9	Black
^	1.764M	45.3	+0.3	+0.2	+0.0	45.8	48.0	-2.2	Black
15	1.909M QP	37.5	+0.3	+0.2	+0.0	38.0	48.0	-10.0	Black
^	1.909M	44.4	+0.3	+0.2	+0.0	44.9	48.0	-3.1	Black
17	2.474M QP	36.4	+1.0	+0.3	+0.0	37.7	48.0	-10.3	Black
^	2.474M	43.5	+0.4	+0.2	+0.0	44.1	48.0	-3.9	Black
19	2.557M QP	37.0	+0.4	+0.2	+0.0	37.6	48.0	-10.4	Black
^	2.557M	44.0	+0.4	+0.2	+0.0	44.6	48.0	-3.4	Black
21	1.989M QP	36.8	+0.3	+0.2	+0.0	37.3	48.0	-10.7	Black
^	1.989M	44.0	+0.3	+0.2	+0.0	44.5	48.0	-3.5	Black
23	2.702M QP	36.0	+0.4	+0.2	+0.0	36.6	48.0	-11.4	Black
^	2.702M	44.4	+0.4	+0.2	+0.0	45.0	48.0	-3.0	Black
25	2.628M QP	35.5	+0.4	+0.2	+0.0	36.1	48.0	-12.0	Black
^	2.628M	43.9	+0.4	+0.2	+0.0	44.5	48.0	-3.5	Black
27	6.192M QP	33.7	+1.0	+0.3	+0.0	35.0	48.0	-13.0	Black
^	6.182M	44.0	+1.0	+0.3	+0.0	45.3	48.0	-2.7	Black
29	6.131M QP	33.3	+1.0	+0.3	+0.0	34.6	48.0	-13.4	Black
^	6.131M	44.0	+1.0	+0.3	+0.0	45.3	48.0	-2.7	Black
31	1.692M QP	32.3	+1.0	+0.3	+0.0	33.6	48.0	-14.4	Black
^	1.692M	43.6	+0.3	+0.2	+0.0	44.1	48.0	-3.9	Black


CKC Laboratories, Inc. Date: 12/19/2001 Time: 10:32:43 WO#: 78067
FCC 15.207 Test Lead: Black Sequence#: 9
dBµV Intermec 2106 powered by 120VAC 60Hz.
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
FCC 15.207
450KHz
1MHz
10MHz
30MHz

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.207**
Work Order #: **78067** Date: 12/19/2001
Test Type: **Conducted Emissions** Time: 10:46:34
Equipment: **Access Point** Sequence#: 8
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is transmitting on the highest channel (worst case). The support equipment is located outside of the test shed.
Frequency Range Tested: 450kHz - 30MHz.

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV		LISN dB	Cable dB		Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	5.841M	42.5		+1.1	+0.3		+0.0	43.9	48.0	-4.1	White
2	2.462M	43.0		+0.4	+0.2		+0.0	43.6	48.0	-4.4	White
3	1.273M	43.2		+0.3	+0.1		+0.0	43.6	48.0	-4.4	White
4	2.761M	42.8		+0.4	+0.2		+0.0	43.4	48.0	-4.6	White
5	2.671M	42.8		+0.4	+0.2		+0.0	43.4	48.0	-4.6	White
6 QP	6.308M	38.0		+1.9	+0.3		+0.0	40.2	48.0	-7.8	White
^	6.308M	43.6		+2.0	+0.3		+0.0	45.9	48.0	-2.1	White
8 QP	6.255M	37.9		+1.8	+0.3		+0.0	40.0	48.0	-8.0	White
^	6.255M	44.6		+1.8	+0.3		+0.0	46.7	48.0	-1.3	White
10 QP	6.145M	38.3		+1.4	+0.3		+0.0	40.0	48.0	-8.0	White
^	6.145M	46.1		+1.5	+0.3		+0.0	47.9	48.0	-0.1	White

12 QP	1.347M	39.2	+0.3	+0.1	+0.0	39.6	48.0	-8.4	White
^	1.347M	44.4	+0.3	+0.1	+0.0	44.8	48.0	-3.2	White
14 QP	1.077M	38.9	+0.3	+0.1	+0.0	39.3	48.0	-8.7	White
^	1.077M	43.9	+0.3	+0.1	+0.0	44.3	48.0	-3.7	White
16 QP	6.088M	37.7	+1.3	+0.3	+0.0	39.3	48.0	-8.7	White
^	6.088M	45.1	+1.4	+0.3	+0.0	46.8	48.0	-1.2	White
18 QP	1.212M	38.4	+0.3	+0.1	+0.0	38.8	48.0	-9.2	White
^	1.212M	45.0	+0.3	+0.1	+0.0	45.4	48.0	-2.6	White
20 QP	6.418M	36.2	+2.3	+0.3	+0.0	38.8	48.0	-9.2	White
^	6.418M	42.0	+2.3	+0.3	+0.0	44.6	48.0	-3.4	White
22 QP	6.370M	36.4	+2.1	+0.3	+0.0	38.8	48.0	-9.2	White
^	6.370M	42.8	+2.2	+0.3	+0.0	45.3	48.0	-2.7	White
24 QP	2.540M	37.8	+0.4	+0.2	+0.0	38.4	48.0	-9.6	White
^	2.534M	43.5	+0.4	+0.2	+0.0	44.1	48.0	-3.9	White
26 QP	6.033M	36.6	+1.1	+0.3	+0.0	38.0	48.0	-10.0	White
^	6.033M	45.6	+1.2	+0.3	+0.0	47.1	48.0	-0.9	White
28 QP	1.775M	37.4	+0.3	+0.2	+0.0	37.9	48.0	-10.1	White
^	1.775M	43.0	+0.3	+0.2	+0.0	43.5	48.0	-4.5	White
30 QP	1.490M	37.2	+0.3	+0.1	+0.0	37.6	48.0	-10.4	White
^	1.490M	43.8	+0.3	+0.1	+0.0	44.2	48.0	-3.8	White
32 QP	5.980M	35.5	+1.0	+0.3	+0.0	36.8	48.0	-11.2	White
^	5.980M	44.9	+1.0	+0.3	+0.0	46.2	48.0	-1.8	White
34 QP	5.930M	33.8	+1.1	+0.3	+0.0	35.2	48.0	-12.8	White
^	5.930M	42.4	+1.1	+0.3	+0.0	43.8	48.0	-4.2	White


CKC Laboratories, Inc. Date: 12/18/2001 Time: 8:06:20 PM WO#: 78067
FCC 15.207 Test Lead: White Sequence#: 8
dBµV Intermec 2106 powered by 120VAC 60Hz.
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
FCC 15.207
450KHz
1MHz
10MHz
30MHz

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.107 Class B**
Work Order #: **78067** Date: 12/18/2001
Test Type: **Conducted Emissions** Time: 20:00:35
Equipment: **Access Point** Sequence#: 6
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set to receive mode. The support equipment is located outside of the test shed. Frequency Range Tested: 450kHz - 30MHz.

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	LISN dB	dB	Cable dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1 QP	6.171M	42.3	+1.0		+0.3		+0.0	43.6	48.0	-4.4	Black
^	6.171M	43.8	+1.0		+0.3		+0.0	45.1	48.0	-2.9	Black
3 QP	1.095M	42.7	+0.3		+0.1		+0.0	43.1	48.0	-4.9	Black
^	1.095M	45.0	+0.3		+0.1		+0.0	45.4	48.0	-2.6	Black
5 QP	1.481M	42.1	+0.3		+0.1		+0.0	42.5	48.0	-5.5	Black
^	1.477M	46.2	+0.3		+0.1		+0.0	46.6	48.0	-1.4	Black
7 QP	1.200M	42.1	+0.3		+0.1		+0.0	42.5	48.0	-5.5	Black
^	1.200M	47.0	+0.3		+0.1		+0.0	47.4	48.0	-0.6	Black
9 QP	6.227M	41.1	+1.0		+0.3		+0.0	42.4	48.0	-5.6	Black
^	6.227M	45.0	+1.0		+0.3		+0.0	46.3	48.0	-1.7	Black
11 QP	6.281M	41.0	+1.0		+0.3		+0.0	42.3	48.0	-5.7	Black

^	6.281M	44.3	+1.0	+0.3	+0.0	45.6	48.0	-2.4	Black
13	6.333M QP	40.9	+1.0	+0.3	+0.0	42.2	48.0	-5.8	Black
^	6.333M	46.7	+1.0	+0.3	+0.0	48.0	48.0	+0.0	Black
15	1.064M QP	41.2	+0.3	+0.1	+0.0	41.6	48.0	-6.4	Black
^	1.064M	47.0	+0.3	+0.1	+0.0	47.4	48.0	-0.6	Black
17	6.065M QP	40.3	+1.0	+0.3	+0.0	41.6	48.0	-6.4	Black
^	6.063M	44.5	+1.0	+0.3	+0.0	45.8	48.0	-2.2	Black
19	6.441M QP	39.4	+1.0	+0.3	+0.0	40.7	48.0	-7.3	Black
^	6.438M	43.5	+1.0	+0.3	+0.0	44.8	48.0	-3.2	Black
21	1.346M QP	40.1	+0.3	+0.1	+0.0	40.5	48.0	-7.5	Black
^	1.346M	45.3	+0.3	+0.1	+0.0	45.7	48.0	-2.3	Black
23	1.841M QP	39.5	+0.3	+0.2	+0.0	40.0	48.0	-8.0	Black
^	1.841M	44.8	+0.3	+0.2	+0.0	45.3	48.0	-2.7	Black
25	1.095M QP	39.1	+0.3	+0.1	+0.0	39.5	48.0	-8.5	Black
26	1.135M QP	38.7	+0.3	+0.1	+0.0	39.1	48.0	-8.9	Black
^	1.135M	45.5	+0.3	+0.1	+0.0	45.9	48.0	-2.1	Black
28	1.982M QP	38.4	+0.3	+0.2	+0.0	38.9	48.0	-9.1	Black
^	1.982M	44.7	+0.3	+0.2	+0.0	45.2	48.0	-2.8	Black
30	2.046M QP	38.0	+0.3	+0.2	+0.0	38.5	48.0	-9.5	Black
^	2.044M	44.4	+0.3	+0.2	+0.0	44.9	48.0	-3.1	Black
32	7.425M QP	36.4	+1.4	+0.2	+0.0	38.0	48.0	-10.0	Black
^	7.428M	43.6	+1.4	+0.2	+0.0	45.2	48.0	-2.8	Black
34	9.429M	34.3	+3.5	+0.2	+0.0	38.0	48.0	-10.0	Black

35 QP	1.628M	36.9	+0.3	+0.2	+0.0	37.4	48.0	-10.6	Black
^	1.628M	44.7	+0.3	+0.1	+0.0	45.1	48.0	-2.9	Black
37 QP	987.002k	36.6	+0.4	+0.1	+0.0	37.1	48.0	-10.9	Black
^	987.002k	44.9	+0.3	+0.1	+0.0	45.3	48.0	-2.7	Black

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **FCC 15.107 Class B**
Work Order #: **78067** Date: 12/19/2001
Test Type: **Conducted Emissions** Time: 10:17:23
Equipment: **Access Point** Sequence#: 7
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

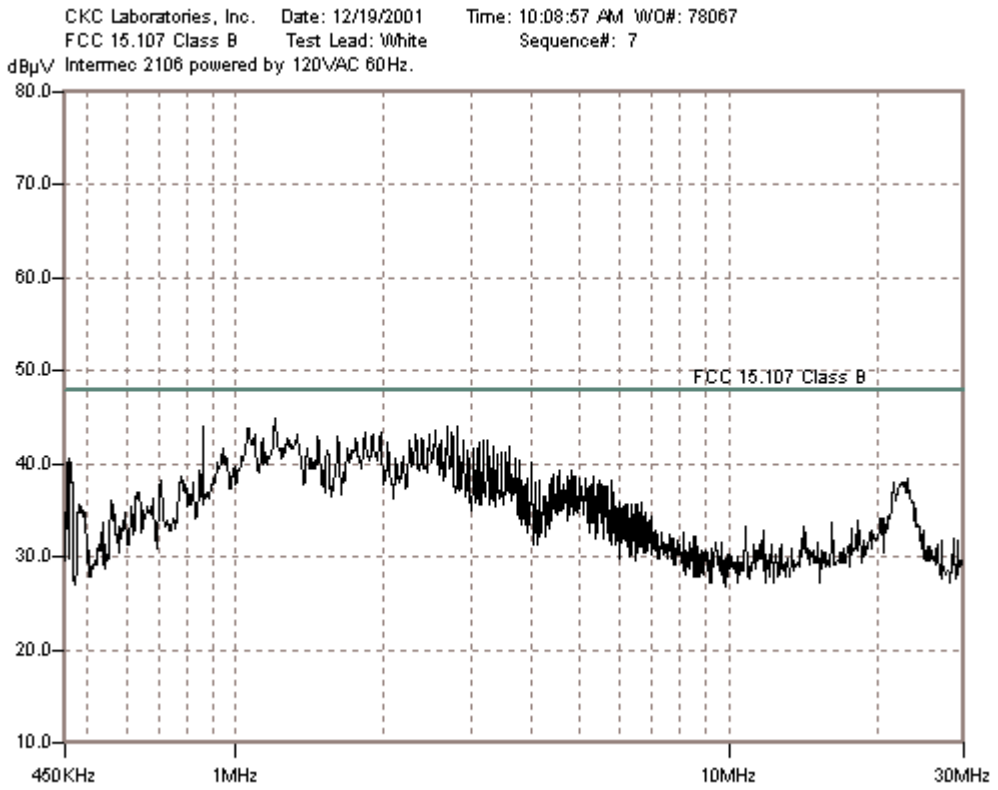
Test Conditions / Notes:

2106 is set to receive mode. The support equipment is located outside of the test shed. Frequency Range Tested: 450kHz - 30MHz.

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV		LISN dB	Cable dB		Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.540M	42.9		+0.4	+0.2		+0.0	43.5	48.0	-4.5	White
2	1.829M	42.9		+0.3	+0.2		+0.0	43.4	48.0	-4.6	White
3	1.973M	42.8		+0.3	+0.2		+0.0	43.3	48.0	-4.7	White
4	1.901M	42.7		+0.3	+0.2		+0.0	43.2	48.0	-4.8	White
5	2.468M	42.5		+0.4	+0.2		+0.0	43.1	48.0	-4.9	White
6	2.325M	42.6		+0.3	+0.2		+0.0	43.1	48.0	-4.9	White
7	1.328M	42.7		+0.3	+0.1		+0.0	43.1	48.0	-4.9	White
8	1.091M	42.7		+0.3	+0.1		+0.0	43.1	48.0	-4.9	White
9	1.614M	42.5		+0.3	+0.2		+0.0	43.0	48.0	-5.0	White
10	1.471M	42.5		+0.3	+0.1		+0.0	42.9	48.0	-5.1	White
11	2.396M	42.3		+0.3	+0.2		+0.0	42.8	48.0	-5.2	White

12	1.277M	42.4	+0.3	+0.1	+0.0	42.8	48.0	-5.2	White
13	1.133M	42.4	+0.3	+0.1	+0.0	42.8	48.0	-5.2	White
14	1.758M	42.2	+0.3	+0.2	+0.0	42.7	48.0	-5.3	White
15 QP	1.206M	40.3	+0.3	+0.1	+0.0	40.7	48.0	-7.3	White
^	1.204M	44.4	+0.3	+0.1	+0.0	44.8	48.0	-3.2	White
17 QP	1.063M	40.0	+0.3	+0.1	+0.0	40.4	48.0	-7.6	White
^	1.058M	43.5	+0.3	+0.1	+0.0	43.9	48.0	-4.1	White
19 QP	2.822M	39.7	+0.4	+0.2	+0.0	40.3	48.0	-7.7	White
^	2.826M	43.4	+0.4	+0.2	+0.0	44.0	48.0	-4.0	White
21	942.000k	39.4	+0.4	+0.1	+0.0	39.9	48.0	-8.1	White
22 QP	2.756M	39.2	+0.4	+0.2	+0.0	39.8	48.0	-8.2	White
^	2.755M	42.8	+0.4	+0.2	+0.0	43.4	48.0	-4.6	White
24 QP	2.684M	38.4	+0.4	+0.2	+0.0	39.0	48.0	-9.0	White
^	2.683M	43.4	+0.4	+0.2	+0.0	44.0	48.0	-4.0	White


CKC Laboratories, Inc. Date: 12/19/2001 Time: 10:08:57 AM WO#: 78067
FCC 15.107 Class B Test Lead: White Sequence#: 7
dBµV Intermec 2106 powered by 120VAC 60Hz.
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
FCC 15.107 Class B
450KHz
1MHz
10MHz
30MHz

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **15.109 CLASS B**
Work Order #: **78067** Date: 12/19/2001
Test Type: **Maximized Emissions** Time: 16:46:13
Equipment: **Access Point** Sequence#: 11
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to receive mode. Tested in vertical and horizontal polarity. Frequency Range Tested: 30-1000 MHz.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	Amp dB	Bicon dB	Log 1 dB	Cable dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	77.252M QP	53.2	-27.0	+7.1	+0.0	+1.7	+0.0	35.0	40.0	-5.0	Vert
^	77.300M	56.6	-27.0	+7.1	+0.0	+1.7	+0.0	38.4	40.0	-1.6	Vert
3	51.200M QP	49.2	-27.1	+11.4	+0.0	+1.3	+0.0	34.8	40.0	-5.2	Vert
^	51.130M	53.0	-27.1	+11.4	+0.0	+1.3	+0.0	38.6	40.0	-1.4	Vert
5	69.688M	50.1	-27.1	+8.1	+0.0	+1.6	+0.0	32.7	40.0	-7.3	Vert
6	76.650M	50.6	-27.0	+7.2	+0.0	+1.7	+0.0	32.5	40.0	-7.5	Vert
7	54.330M QP	47.3	-27.1	+10.9	+0.0	+1.4	+0.0	32.5	40.0	-7.5	Vert
^	54.300M	52.7	-27.1	+10.9	+0.0	+1.4	+0.0	37.9	40.0	-2.1	Vert
9	50.540M QP	46.7	-27.1	+11.5	+0.0	+1.3	+0.0	32.4	40.0	-7.6	Vert
^	50.480M	52.6	-27.1	+11.5	+0.0	+1.3	+0.0	38.3	40.0	-1.7	Vert

11	51.920M QP	46.8	-27.1	+11.3	+0.0	+1.3	+0.0	32.3	40.0	-7.7	Vert
^	51.880M	50.9	-27.1	+11.3	+0.0	+1.3	+0.0	36.4	40.0	-3.6	Vert
13	69.112M	49.4	-27.1	+8.2	+0.0	+1.6	+0.0	32.1	40.0	-7.9	Vert
14	74.600M	50.0	-27.1	+7.4	+0.0	+1.7	+0.0	32.0	40.0	-8.0	Vert
15	47.100M QP	46.5	-27.1	+11.2	+0.0	+1.3	+0.0	31.9	40.0	-8.1	Vert
^	47.130M	50.8	-27.1	+11.2	+0.0	+1.3	+0.0	36.2	40.0	-3.8	Vert
17	73.260M	49.6	-27.1	+7.6	+0.0	+1.7	+0.0	31.8	40.0	-8.2	Vert
18	68.395M	48.7	-27.1	+8.3	+0.0	+1.6	+0.0	31.5	40.0	-8.5	Vert
19	125.000M	44.6	-27.0	+14.4	+0.0	+2.2	+0.0	34.2	43.5	-9.3	Vert
20	71.110M	47.3	-27.1	+7.9	+0.0	+1.6	+0.0	29.7	40.0	-10.3	Vert
21	69.966M	47.1	-27.1	+8.0	+0.0	+1.6	+0.0	29.6	40.0	-10.4	Vert
22	70.220M	46.9	-27.1	+8.0	+0.0	+1.6	+0.0	29.4	40.0	-10.6	Vert
23	69.402M	46.3	-27.1	+8.1	+0.0	+1.6	+0.0	28.9	40.0	-11.1	Vert
24	70.502M	44.6	-27.1	+7.9	+0.0	+1.6	+0.0	27.0	40.0	-13.0	Vert
25	137.810M	40.8	-26.9	+13.4	+0.0	+2.3	+0.0	29.6	43.5	-13.9	Vert
26	625.005M	34.1	-27.9	+0.0	+19.8	+5.7	+0.0	31.7	46.0	-14.3	Vert
27	138.440M	40.0	-26.9	+13.3	+0.0	+2.3	+0.0	28.7	43.5	-14.8	Vert
28	139.260M	39.0	-26.9	+13.3	+0.0	+2.3	+0.0	27.7	43.5	-15.8	Vert
29	74.610M	42.0	-27.1	+7.4	+0.0	+1.7	+0.0	24.0	40.0	-16.0	Horiz
30	148.190M	38.8	-26.8	+13.0	+0.0	+2.4	+0.0	27.4	43.5	-16.1	Horiz
31	74.530M	41.8	-27.1	+7.4	+0.0	+1.7	+0.0	23.8	40.0	-16.2	Horiz
32	73.960M	41.1	-27.1	+7.5	+0.0	+1.7	+0.0	23.2	40.0	-16.8	Horiz
33	141.280M	38.1	-26.9	+13.2	+0.0	+2.3	+0.0	26.7	43.5	-16.8	Vert
34	79.270M	41.4	-27.0	+6.9	+0.0	+1.8	+0.0	23.1	40.0	-16.9	Horiz
35	143.370M	37.8	-26.8	+13.1	+0.0	+2.4	+0.0	26.5	43.5	-17.0	Vert
36	73.830M	40.5	-27.1	+7.5	+0.0	+1.7	+0.0	22.6	40.0	-17.4	Horiz

37	34.660M	37.5	-27.2	+11.0	+0.0	+1.2	+0.0	22.5	40.0	-17.5	Horiz
38	112.875M	37.2	-27.0	+13.6	+0.0	+2.1	+0.0	25.9	43.5	-17.6	Horiz
39	75.210M	40.3	-27.0	+7.4	+0.0	+1.7	+0.0	22.4	40.0	-17.6	Horiz
40	77.930M	40.5	-27.0	+7.0	+0.0	+1.8	+0.0	22.3	40.0	-17.7	Horiz
41	69.740M	39.5	-27.1	+8.0	+0.0	+1.6	+0.0	22.0	40.0	-18.0	Horiz
42	575.026M	31.2	-27.9	+0.0	+19.0	+5.3	+0.0	27.6	46.0	-18.4	Vert
43	143.280M	36.6	-26.9	+13.1	+0.0	+2.3	+0.0	25.1	43.5	-18.4	Horiz
44	145.320M	36.3	-26.8	+13.1	+0.0	+2.4	+0.0	25.0	43.5	-18.5	Horiz
45	114.260M	35.7	-27.0	+13.7	+0.0	+2.1	+0.0	24.5	43.5	-19.0	Horiz
46	111.575M	36.0	-27.1	+13.5	+0.0	+2.1	+0.0	24.5	43.5	-19.0	Horiz
47	110.805M	35.7	-27.1	+13.5	+0.0	+2.1	+0.0	24.2	43.5	-19.3	Horiz
48	149.984M	35.6	-26.8	+13.0	+0.0	+2.4	+0.0	24.2	43.5	-19.3	Vert
49	37.430M	35.5	-27.2	+11.1	+0.0	+1.2	+0.0	20.6	40.0	-19.4	Horiz
50	146.700M	35.3	-26.8	+13.1	+0.0	+2.4	+0.0	24.0	43.5	-19.5	Horiz
51	72.410M	37.9	-27.1	+7.7	+0.0	+1.7	+0.0	20.2	40.0	-19.8	Horiz
52	76.610M	38.3	-27.0	+7.2	+0.0	+1.7	+0.0	20.2	40.0	-19.8	Horiz
53	36.890M	35.0	-27.2	+11.0	+0.0	+1.2	+0.0	20.0	40.0	-20.0	Horiz
54	40.140M	34.5	-27.2	+11.1	+0.0	+1.2	+0.0	19.6	40.0	-20.4	Horiz
55	68.940M	36.5	-27.1	+8.2	+0.0	+1.6	+0.0	19.2	40.0	-20.8	Horiz
56	249.995M	31.6	-26.6	+15.7	+0.0	+3.2	+0.0	23.9	46.0	-22.1	Vert
57	225.005M	30.5	-26.5	+16.8	+0.0	+3.1	+0.0	23.9	46.0	-22.1	Vert
58	399.988M	29.9	-27.1	+0.0	+15.7	+4.3	+0.0	22.8	46.0	-23.2	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338 • 800-500-4362

Customer: **Intermec Technologies Corp.**
Specification: **15.109 CLASS B**
Work Order #: **78067** Date: 12/19/2001
Test Type: **Maximized Emissions** Time: 17:22:52
Equipment: **Access Point** Sequence#: 12
Manufacturer: Intermec Tested By: Randal Clark
Model: 2106
S/N: DAT II

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Access Point*	Intermec	2106	DAT II
Power Supply	ELPAC Power Systems	3303	000003

Support Devices:

Function	Manufacturer	Model #	S/N
Terminal	Intermec	6642	4263798
Power Supply	Intermec	871-219-030	C991100058A
Power Supply	Panasonic	CF-AA1256 M3	971016859B
Laptop Computer	Panasonic	CF-35	7HKSA02247

Test Conditions / Notes:

2106 is set upon an 80cm high wooden turntable on the OATS. The support equipment is located outside of the test shed. Transmitter is set to receive mode. Tested in vertical and horizontal polarity. Frequency Range Tested: 1-25 GHz. No emissions were found in this frequency range.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	Amp Cable	Horn	Cable	Cable	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant