

Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:

Low (Channel 1)

Mid (Channel 7)

High (Channel 11)

Operating Modes Investigated:

802.11(b)

802.11(g)

Antennas Investigated:

Corner Reflector 071122

Yagi 063365

Omni 065349

Omni 066147

Diversity 071121

Corner Reflector 071122

Flat Panel 067263

Data Rates Investigated:

6 Mbit

11 Mbit

36 Mbit

54 Mbit

Output Power Setting(s) Investigated:

Maximum

Power Input Settings Investigated:

120VAC, 60Hz

Frequency Range Investigated

Start Frequency

30 MHz

Stop Frequency

26 GHz

Software\Firmware Applied During Test

Exercise software

CTxRx

Version

1.4.1

Description

The software transmitted 802.11(g) and 802.11(b) modulation in low, mid, and high channels.

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
Mini-PCI to CardBus Extender	TDK	Rev. 2	ICMB-68FYGC-0M03
802.11(b) and 802.11(g) radio	Intermec Technologies Corporation	802MIG2	N/A
Receive antenna	N/A	Omni 066147	N/A
Laptop	Dell	PPL	0009321C-12800-8B6-0901
Power Adapter 1	Dell	PA-2	85391
Transmit antenna	Mobile Mark	Corner Reflector 071122	SCR14-5250I
Transmit antenna	CushCraft	Yagi 063365	PC2415
Transmit antenna	N/A	Omni 065349	N/A
Transmit antenna	N/A	Omni 066147	N/A
Transmit antenna	N/A	Diversity 071121	N/A
Transmit antenna	Xertex Technologies	Flat Panel 067263	100805
Power Adapter 2	Radio Shack	273-1695	N/A

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Coax	Yes	0.15	No	802.11(b) and 802.11(g) radio	Receive antenna
Coax adapter cable	Yes	1.4	No	802.11(b) and 802.11(g) radio	Transmit antenna
DC Leads	PA	1.6	Yes	Laptop	Power Adapter 1
AC Power	No	1.6	No	Power Adapter 1	AC Mains
DC Leads	PA	1.8	No	802.11(b) and 802.11(g) radio	Power Adapter 2

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Measurement Equipment

Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	01/07/2003	12 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	01/07/2003	12 mo
Antenna, Horn	EMCO	3115	AHC	08/12/2002	12 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APJ	01/06/2003	12 mo
Antenna, Biconilog	EMCO	3141	AXE	12/31/2001	36 mo
Pre-Amplifier	Amplifier Research	LN1000A	APS	01/06/2003	12 mo
Antenna, Horn	EMCO	3160-08	AHK	06/20/2003	12 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	07/09/2002	12 mo
Antenna, Horn	EMCO	3160-09	AHG	01/15/2000	39 mo
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	01/17/2000	39 mo
High Pass Filter	RLC Electronics	F-100-4000-5-R (HPF>4GHz up to	HFF	05/01/2003	12 mo

Test Description

Requirement: The field strength of any spurious emissions or modulation products that fall in a restricted band, as defined in 47 CFR 15.205, is measured. The peak level must comply with the limits specified in 47 CFR 15.35(b). The average level (taken with a 10Hz VBW) must comply with the limits specified in 15.209.

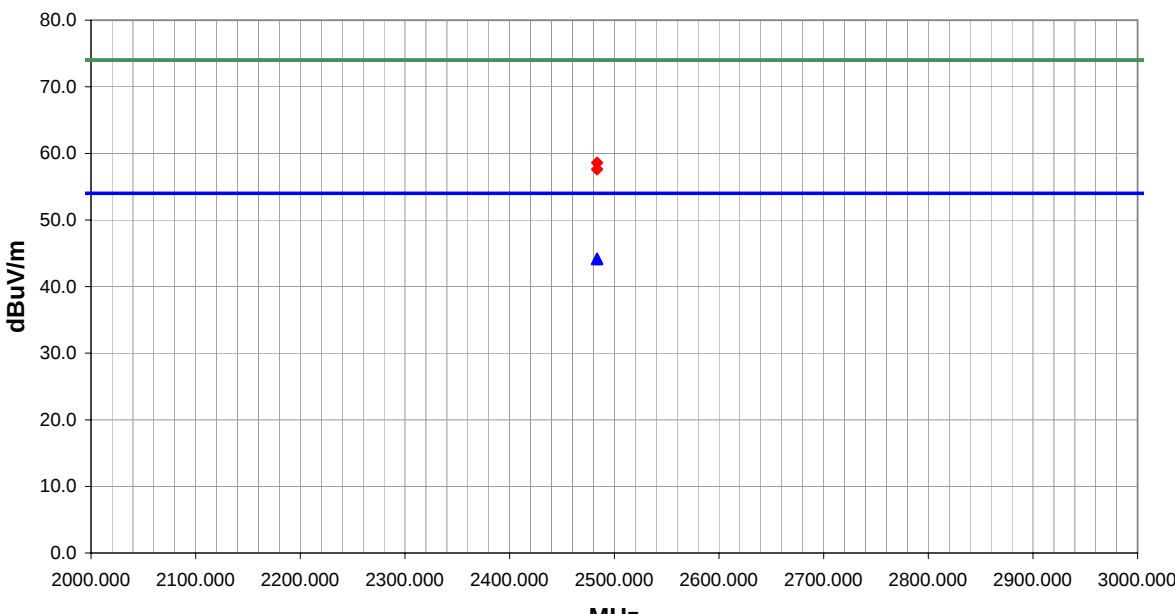
Configuration: The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.4:1992). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

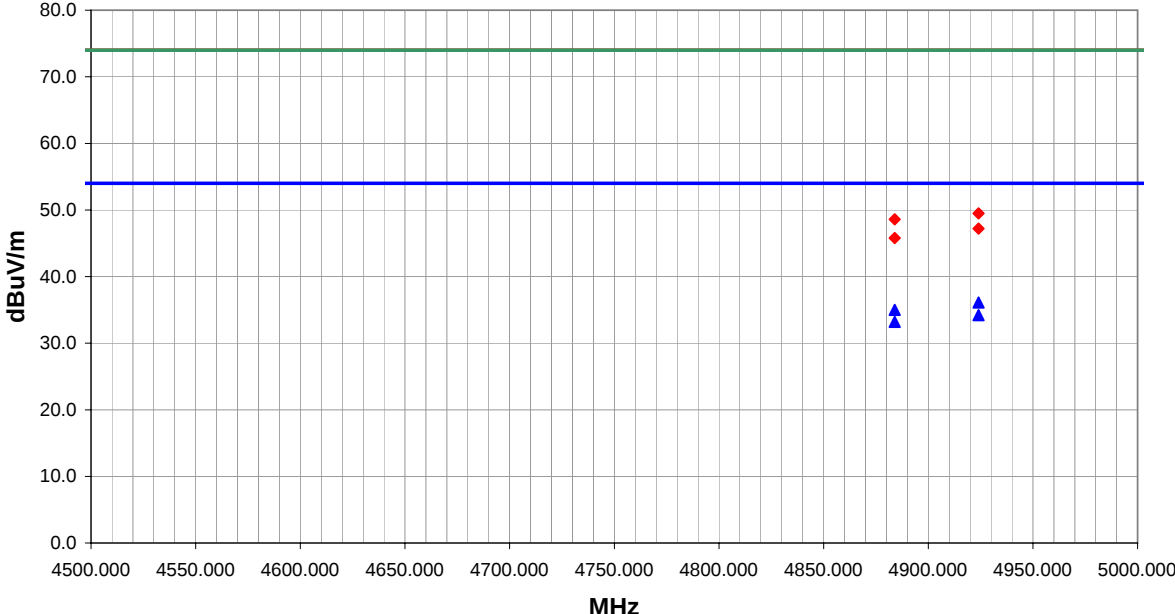
Bandwidths Used for Measurements

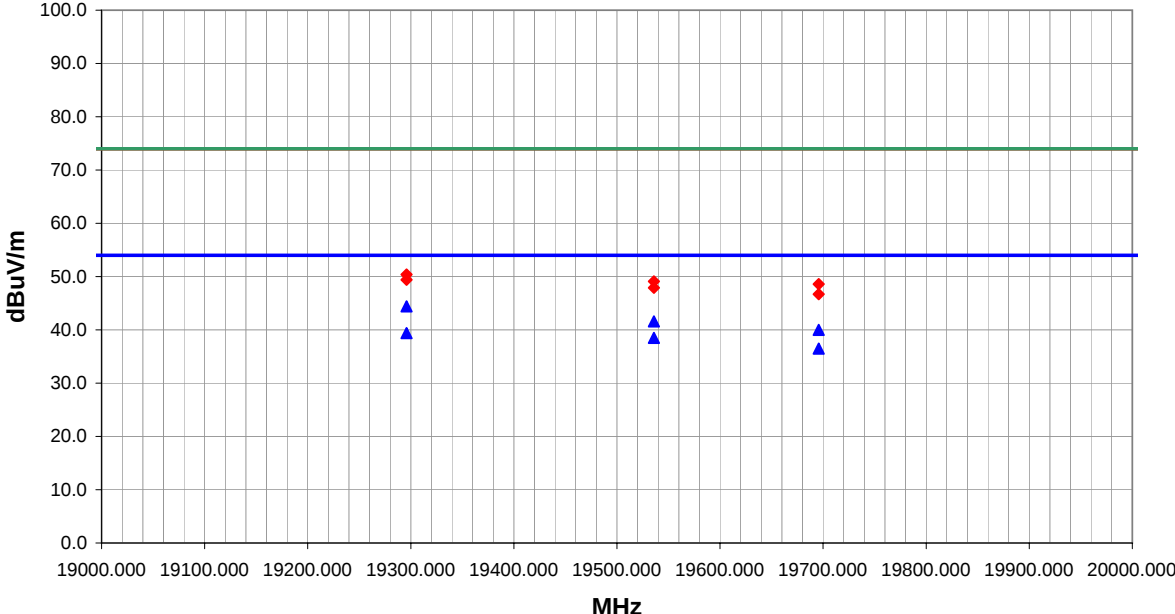
Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 – 0.15	1.0	0.2	0.2
0.15 – 30.0	10.0	9.0	9.0
30.0 – 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0
<i>Measurements were made using the bandwidths and detectors specified. No video filter was used.</i>			

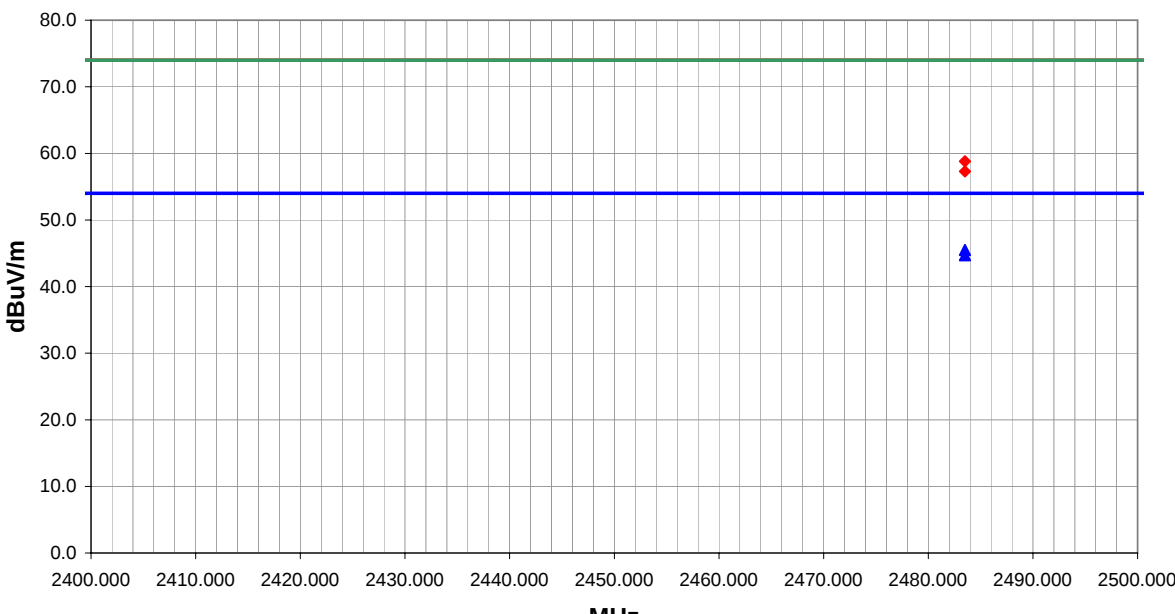
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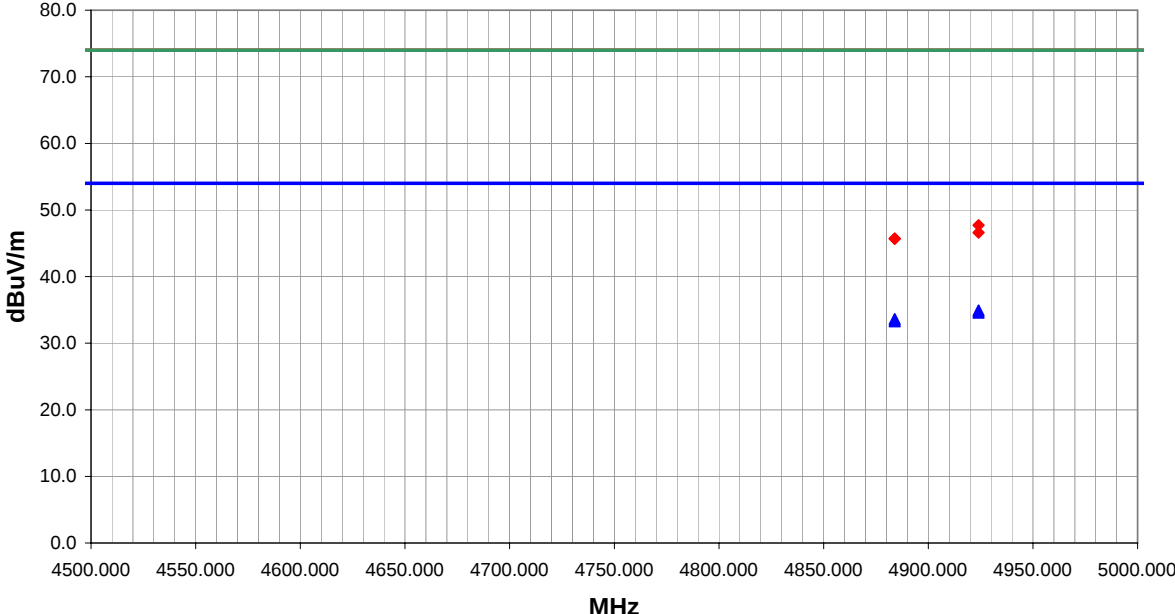


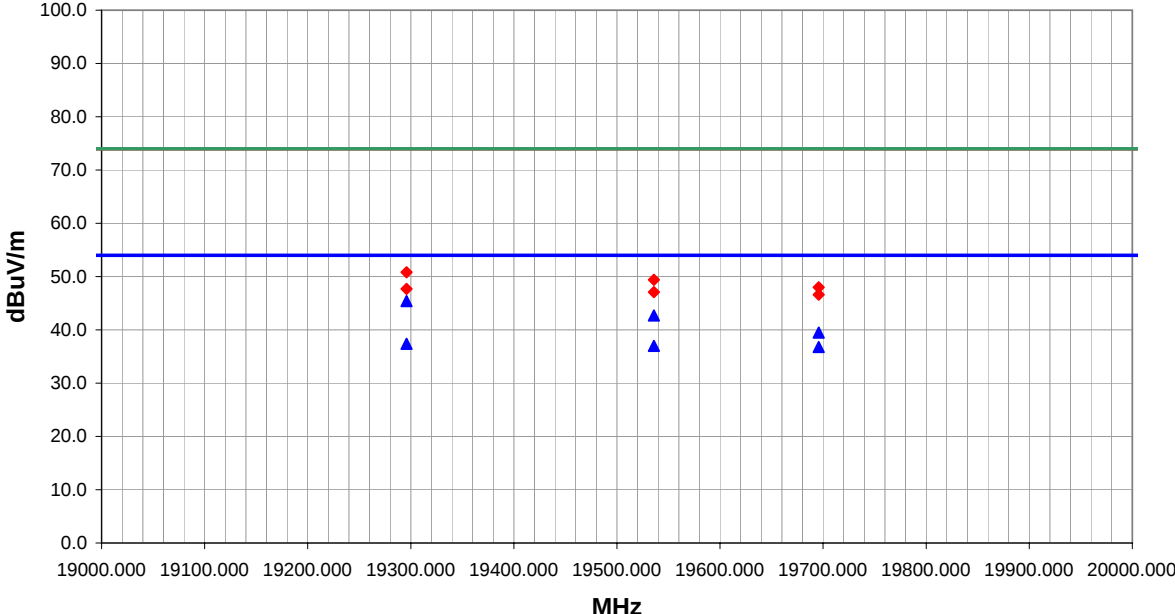
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										6					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	27.2	1.0	70.0	2.7	3.0	16.0	V-Horn	AV	0.0	44.2	54.0	-9.8			
2483.500	27.1	1.0	172.0	1.3	3.0	16.0	H-Horn	AV	0.0	44.1	54.0	-9.9			
2483.500	41.6	1.0	70.0	2.7	3.0	16.0	V-Horn	PK	0.0	58.6	74.0	-15.4			
2483.500	40.6	1.0	172.0	1.3	3.0	16.0	H-Horn	PK	0.0	57.6	74.0	-16.4			

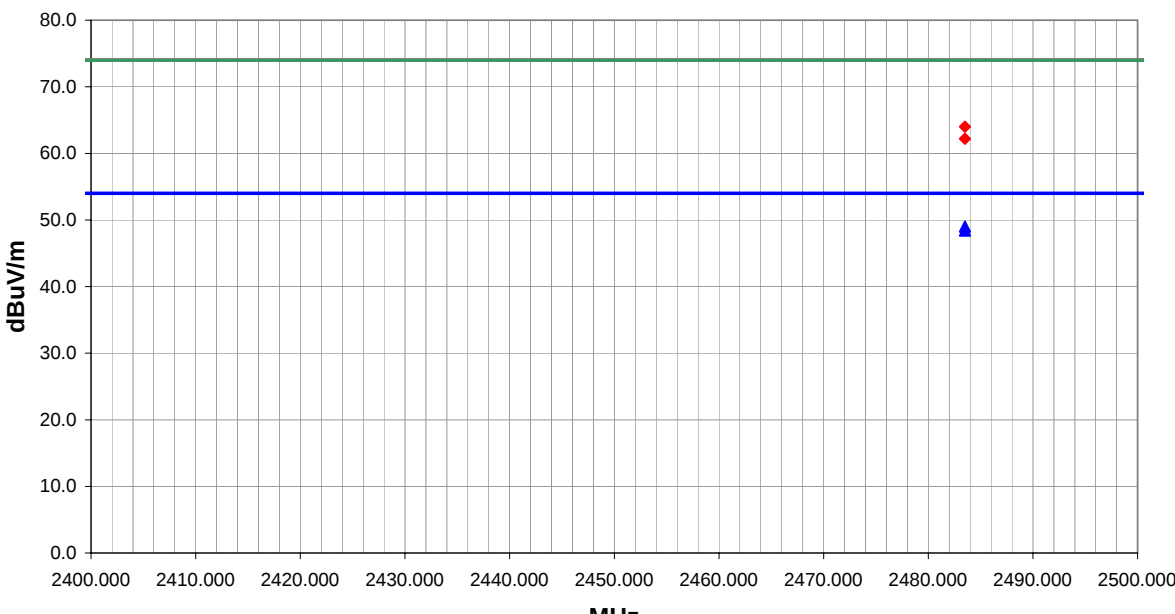
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/11/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										26					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	29.9	6.2	276.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.1	54.0	-17.9			
4883.949	28.8	6.2	278.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0			
4923.995	28.0	6.2	249.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.2	54.0	-19.8			
4883.949	27.0	6.2	256.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.2	54.0	-20.8			
4923.995	43.3	6.2	276.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.5	74.0	-24.5			
4883.949	42.4	6.2	278.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.6	74.0	-25.4			
4923.995	41.0	6.2	249.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.2	74.0	-26.8			
4883.949	39.6	6.2	256.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.8	74.0	-28.2			

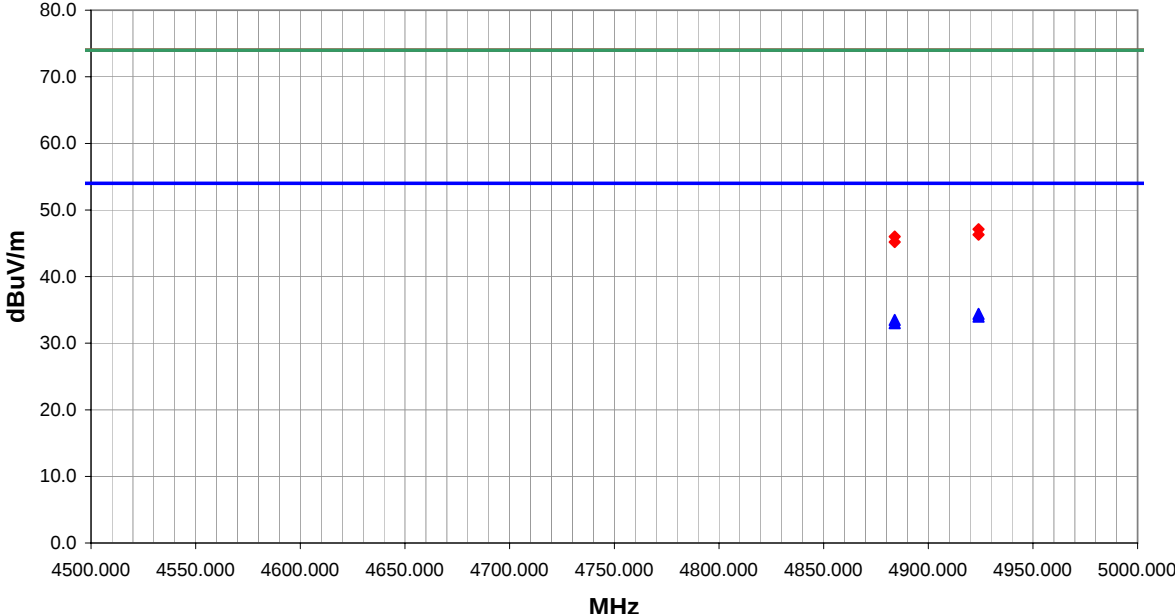
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EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										48					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	36.2	8.2	220.0	1.0	3.0	0.0	V-High Horr	AV	0.0	44.4	54.0	-9.6			
19535.820	33.1	8.5	24.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.6	54.0	-12.4			
19695.820	31.3	8.7	348.0	1.0	3.0	0.0	V-High Horr	AV	0.0	40.0	54.0	-14.0			
19295.820	31.2	8.2	293.0	1.0	3.0	0.0	I-High Horr	AV	0.0	39.4	54.0	-14.6			
19535.820	30.0	8.5	234.0	1.0	3.0	0.0	I-High Horr	AV	0.0	38.5	54.0	-15.5			
19695.820	27.8	8.7	72.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.5	54.0	-17.5			
19295.820	42.2	8.2	220.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6			
19295.820	41.2	8.2	293.0	1.0	3.0	0.0	I-High Horr	PK	0.0	49.4	74.0	-24.6			
19535.820	40.6	8.5	24.0	1.0	3.0	0.0	V-High Horr	PK	0.0	49.1	74.0	-24.9			
19695.820	39.9	8.7	348.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.6	74.0	-25.4			
19535.820	39.4	8.5	234.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.9	74.0	-26.1			
19695.820	38.0	8.7	72.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.7	74.0	-27.3			

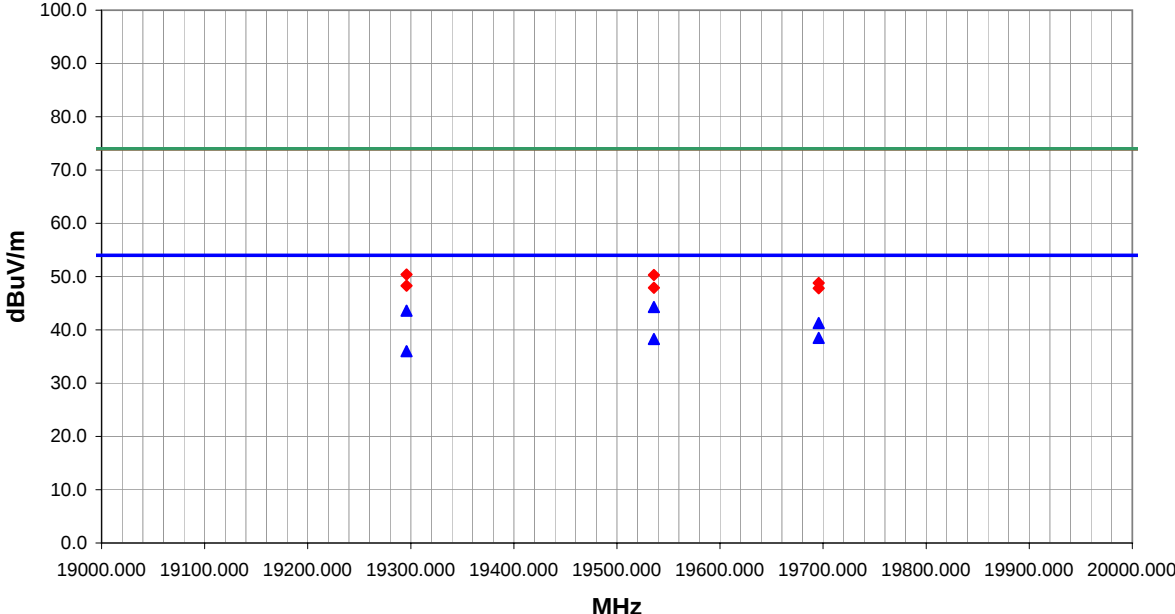
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EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										7					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	28.5	1.0	299.0	1.3	3.0	16.0	H-Horn	AV	0.0	45.5	54.0	-8.5			
2483.500	27.7	1.0	92.0	1.2	3.0	16.0	V-Horn	AV	0.0	44.7	54.0	-9.3			
2483.500	41.8	1.0	299.0	1.3	3.0	16.0	H-Horn	PK	0.0	58.8	74.0	-15.2			
2483.500	40.3	1.0	92.0	1.2	3.0	16.0	V-Horn	PK	0.0	57.3	74.0	-16.7			

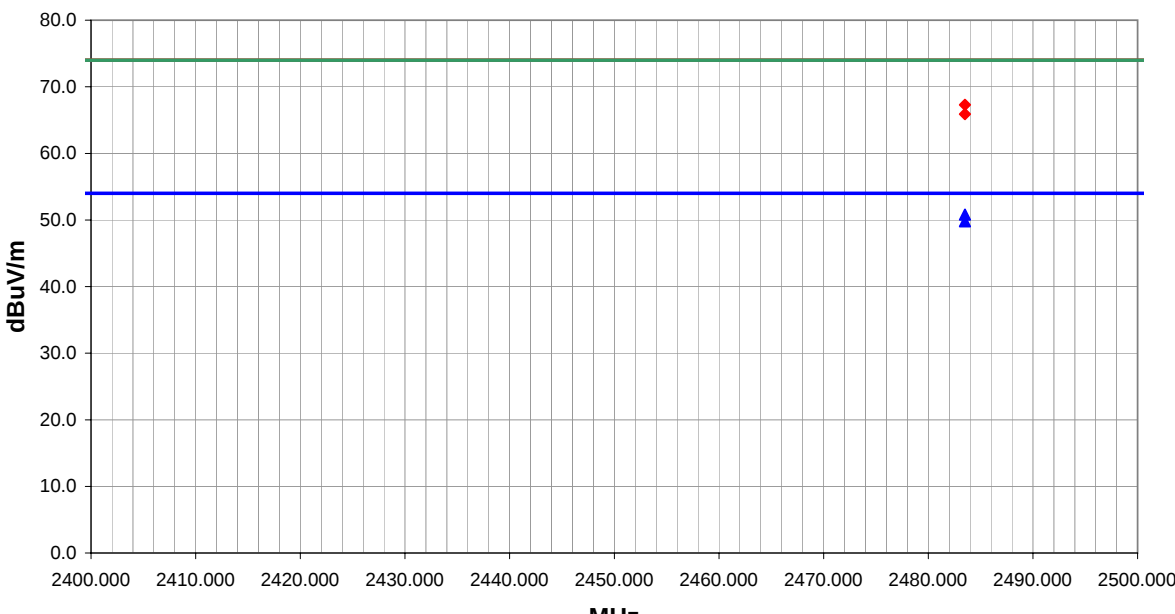
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EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/11/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										28					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	28.7	6.2	274.0	1.8	3.0	0.0	H-Horn	AV	0.0	34.9	54.0	-19.1			
4923.995	28.4	6.2	279.0	1.4	3.0	0.0	V-Horn	AV	0.0	34.6	54.0	-19.4			
4883.949	27.4	6.2	191.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.6	54.0	-20.4			
4883.949	27.1	6.2	251.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.3	54.0	-20.7			
4923.995	41.5	6.2	274.0	1.8	3.0	0.0	H-Horn	PK	0.0	47.7	74.0	-26.3			
4923.995	40.4	6.2	279.0	1.4	3.0	0.0	V-Horn	PK	0.0	46.6	74.0	-27.4			
4883.949	39.5	6.2	191.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.7	74.0	-28.3			
4883.949	39.5	6.2	251.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.7	74.0	-28.3			

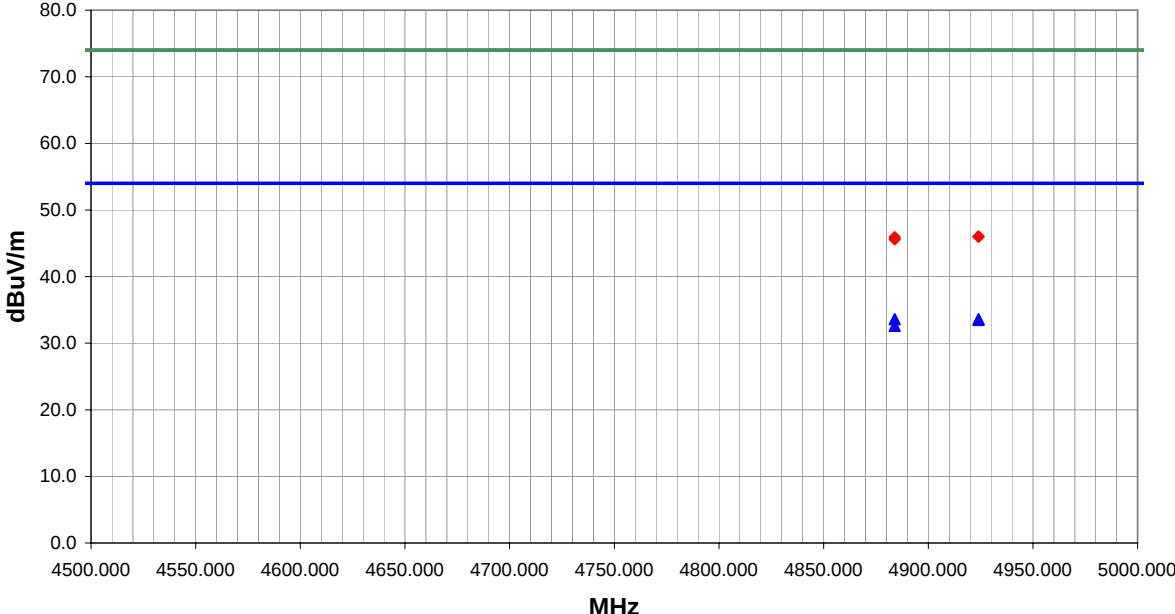
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EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										49					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	37.2	8.2	32.0	1.3	3.0	0.0	V-High Horr	AV	0.0	45.4	54.0	-8.6			
19535.820	34.2	8.5	220.0	1.1	3.0	0.0	V-High Horr	AV	0.0	42.7	54.0	-11.3			
19695.820	30.8	8.7	31.0	1.0	3.0	0.0	V-High Horr	AV	0.0	39.5	54.0	-14.5			
19295.820	29.2	8.2	224.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.4	54.0	-16.6			
19535.820	28.5	8.5	74.0	1.1	3.0	0.0	I-High Horr	AV	0.0	37.0	54.0	-17.0			
19695.820	28.1	8.7	71.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.8	54.0	-17.2			
19295.820	42.6	8.2	32.0	1.3	3.0	0.0	V-High Horr	PK	0.0	50.8	74.0	-23.2			
19535.820	40.9	8.5	220.0	1.1	3.0	0.0	V-High Horr	PK	0.0	49.4	74.0	-24.6			
19695.820	39.3	8.7	31.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.0	74.0	-26.0			
19295.820	39.5	8.2	224.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.7	74.0	-26.3			
19535.820	38.6	8.5	74.0	1.1	3.0	0.0	I-High Horr	PK	0.0	47.1	74.0	-26.9			
19695.820	37.9	8.7	71.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.6	74.0	-27.4			

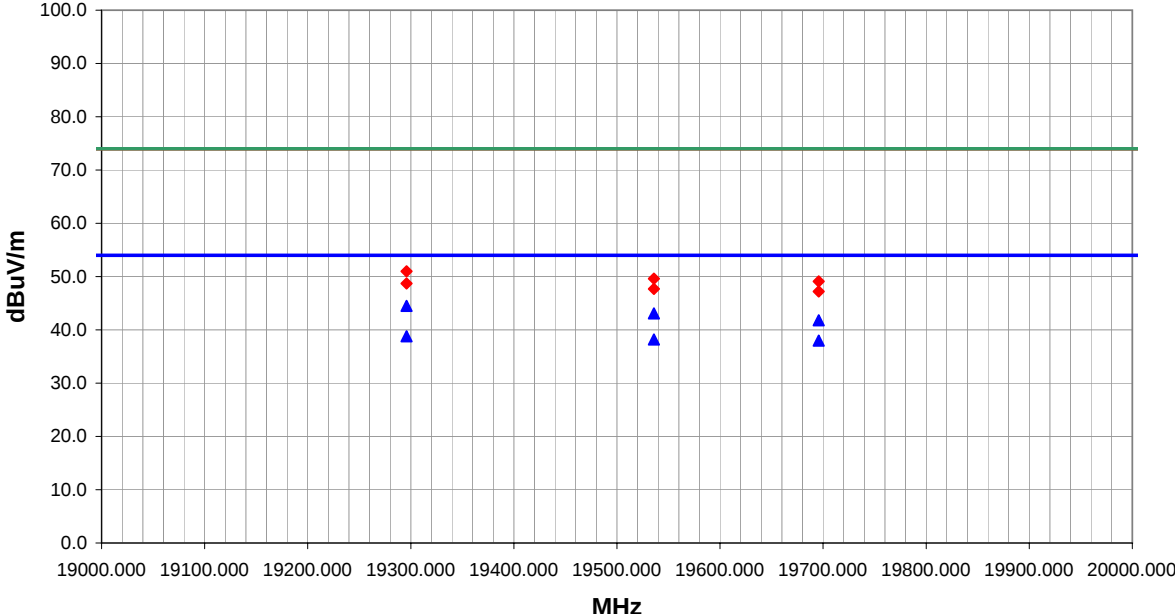
NORTHWEST EMC										OATS DATA SHEET				REV d/3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										10					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	32.0	1.0	136.0	1.6	3.0	16.0	V-Horn	AV	0.0	49.0	54.0	-5.0			
2483.500	31.4	1.0	216.0	1.3	3.0	16.0	H-Horn	AV	0.0	48.4	54.0	-5.6			
2483.500	47.0	1.0	136.0	1.6	3.0	16.0	V-Horn	PK	0.0	64.0	74.0	-10.0			
2483.500	45.2	1.0	216.0	1.3	3.0	16.0	H-Horn	PK	0.0	62.2	74.0	-11.8			

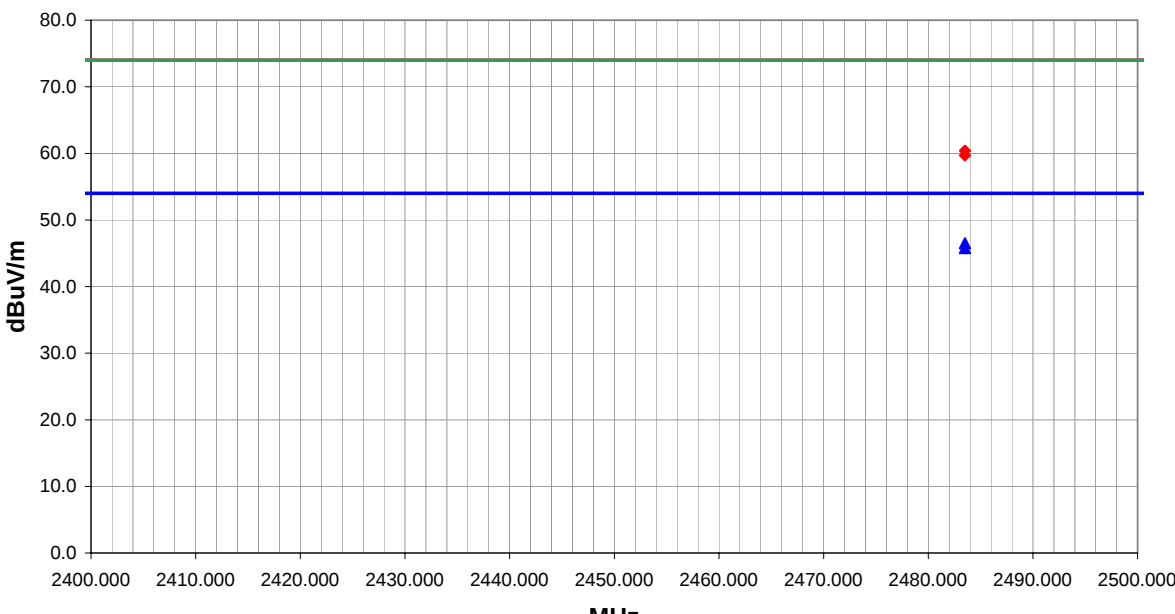
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio										Work Order: inmc0086					
Serial Number: none										Date: 07/11/03					
Customer: Intermec Technologies Corporation										Temperature: 75					
Attendees:										Humidity: 41%					
Cust. Ref. No.:										Barometric Pressure: 29.96					
Tested by: Dan Haas						Power: 120VAC/60Hz		Job Site: EV01							
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)										Year: 2001					
Method: ANSI C63.4										Year: 1992					
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS												Run #			
Pass												30			
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	28.2	6.2	189.0	1.1	3.0	0.0	H-Horn	AV	0.0	34.4	54.0	-19.6			
4923.995	27.8	6.2	281.0	1.4	3.0	0.0	V-Horn	AV	0.0	34.0	54.0	-20.0			
4883.949	27.3	6.2	328.0	1.3	3.0	0.0	H-Horn	AV	0.0	33.5	54.0	-20.5			
4883.949	26.8	6.2	93.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.0	54.0	-21.0			
4923.995	40.9	6.2	189.0	1.1	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9			
4923.995	40.1	6.2	281.0	1.4	3.0	0.0	V-Horn	PK	0.0	46.3	74.0	-27.7			
4883.949	39.8	6.2	93.0	1.2	3.0	0.0	V-Horn	PK	0.0	46.0	74.0	-28.0			
4883.949	39.0	6.2	328.0	1.3	3.0	0.0	H-Horn	PK	0.0	45.2	74.0	-28.8			

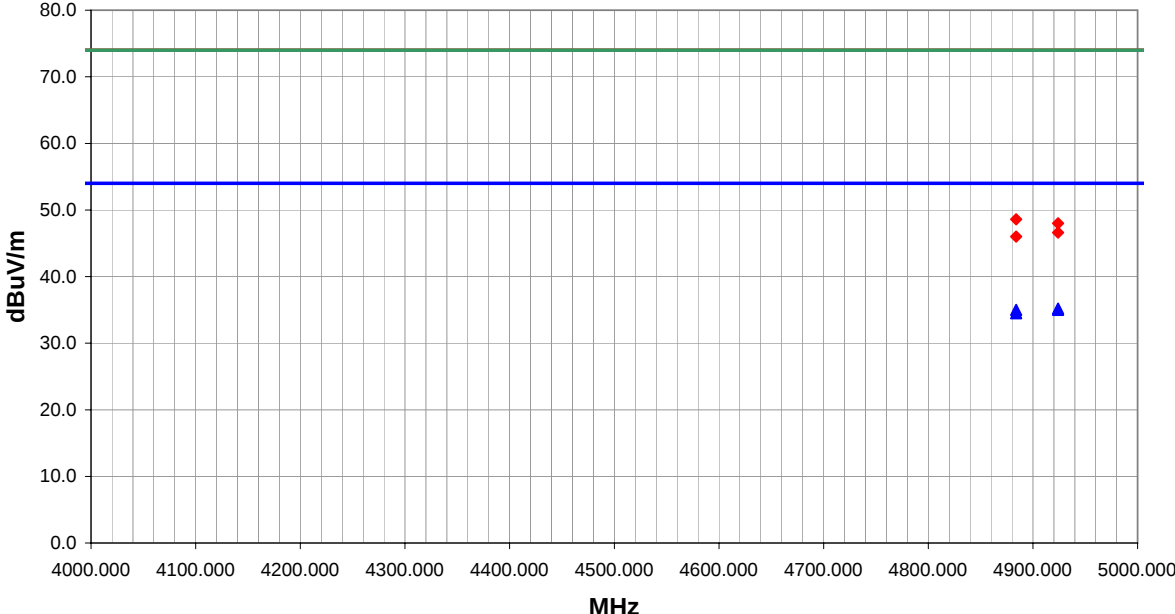
NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.12									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										54					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19535.820	35.8	8.5	348.0	1.4	3.0	0.0	V-High Horr	AV	0.0	44.3	54.0	-9.7			
19295.820	35.4	8.2	351.0	1.4	3.0	0.0	V-High Horr	AV	0.0	43.6	54.0	-10.4			
19695.820	32.6	8.7	13.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.3	54.0	-12.7			
19695.820	29.8	8.7	313.0	1.4	3.0	0.0	I-High Horr	AV	0.0	38.5	54.0	-15.5			
19535.820	29.8	8.5	345.0	1.2	3.0	0.0	I-High Horr	AV	0.0	38.3	54.0	-15.7			
19295.820	27.8	8.2	341.0	1.2	3.0	0.0	I-High Horr	AV	0.0	36.0	54.0	-18.0			
19295.820	42.2	8.2	351.0	1.4	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6			
19535.820	41.8	8.5	348.0	1.4	3.0	0.0	V-High Horr	PK	0.0	50.3	74.0	-23.7			
19695.820	40.1	8.7	13.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.8	74.0	-25.2			
19295.820	40.1	8.2	341.0	1.2	3.0	0.0	I-High Horr	PK	0.0	48.3	74.0	-25.7			
19535.820	39.4	8.5	345.0	1.2	3.0	0.0	I-High Horr	PK	0.0	47.9	74.0	-26.1			
19695.820	39.1	8.7	313.0	1.4	3.0	0.0	I-High Horr	PK	0.0	47.8	74.0	-26.2			

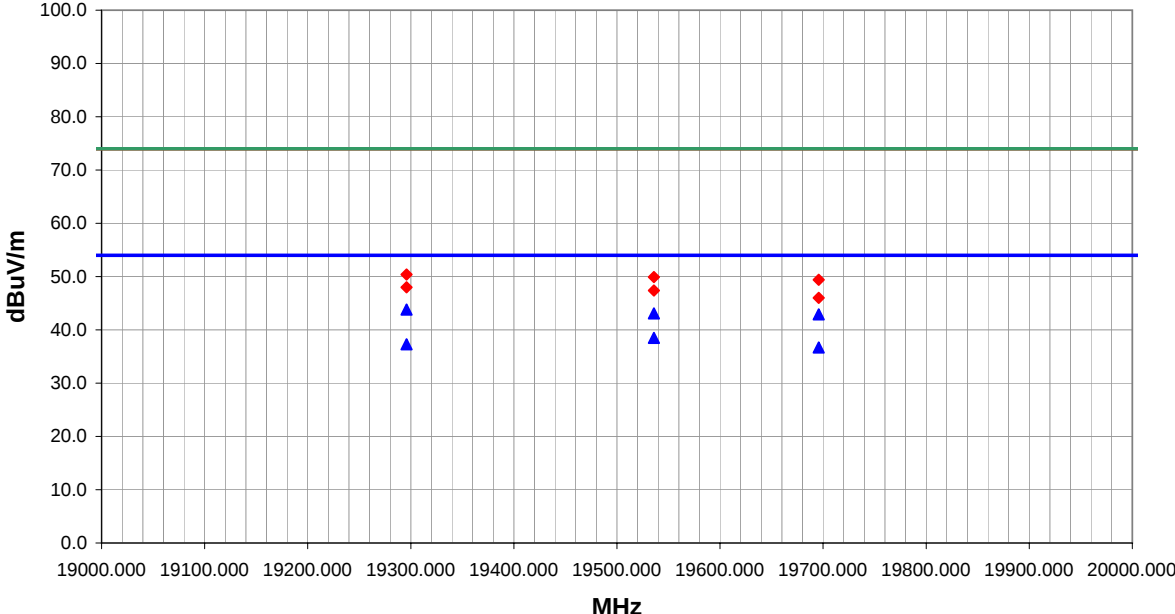
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										11					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	33.8	1.0	91.0	1.2	3.0	16.0	V-Horn	AV	0.0	50.8	54.0	-3.2			
2483.500	32.8	1.0	223.0	1.3	3.0	16.0	H-Horn	AV	0.0	49.8	54.0	-4.2			
2483.500	50.3	1.0	91.0	1.2	3.0	16.0	V-Horn	PK	0.0	67.3	74.0	-6.7			
2483.500	48.9	1.0	223.0	1.3	3.0	16.0	H-Horn	PK	0.0	65.9	74.0	-8.1			

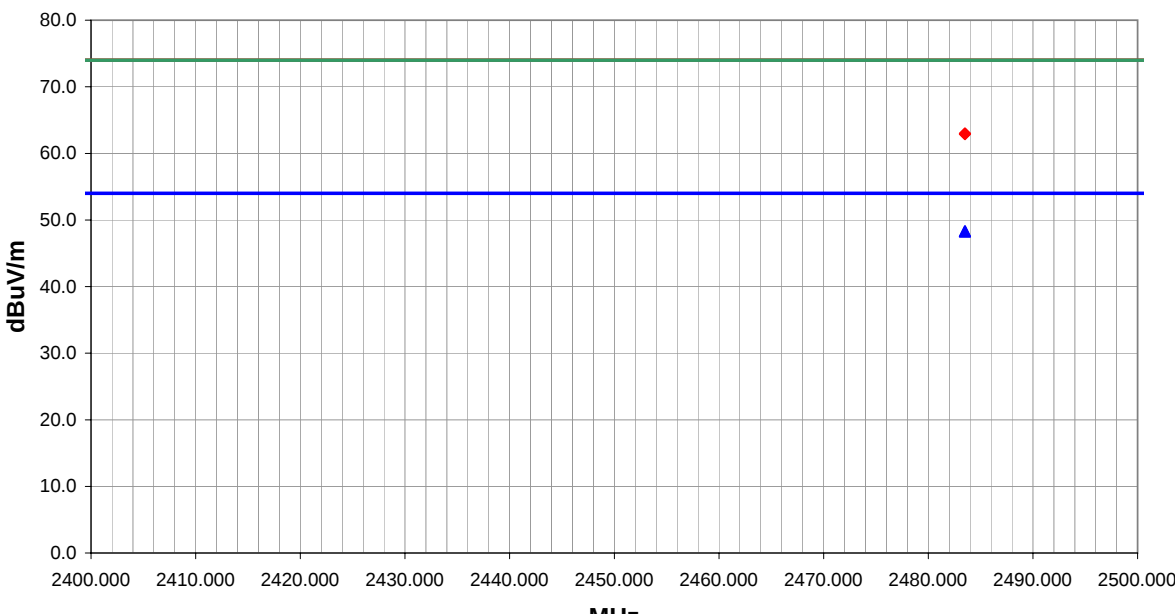
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/11/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										33					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	27.4	6.2	175.0	1.1	3.0	0.0	H-Horn	AV	0.0	33.6	54.0	-20.4			
4883.949	27.4	6.2	193.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.6	54.0	-20.4			
4923.995	27.3	6.2	232.0	1.1	3.0	0.0	V-Horn	AV	0.0	33.5	54.0	-20.5			
4883.949	26.4	6.2	231.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.6	54.0	-21.4			
4923.995	39.8	6.2	175.0	1.1	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0			
4923.995	39.8	6.2	232.0	1.1	3.0	0.0	V-Horn	PK	0.0	46.0	74.0	-28.0			
4883.949	39.7	6.2	193.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.9	74.0	-28.1			
4883.949	39.4	6.2	231.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.6	74.0	-28.4			

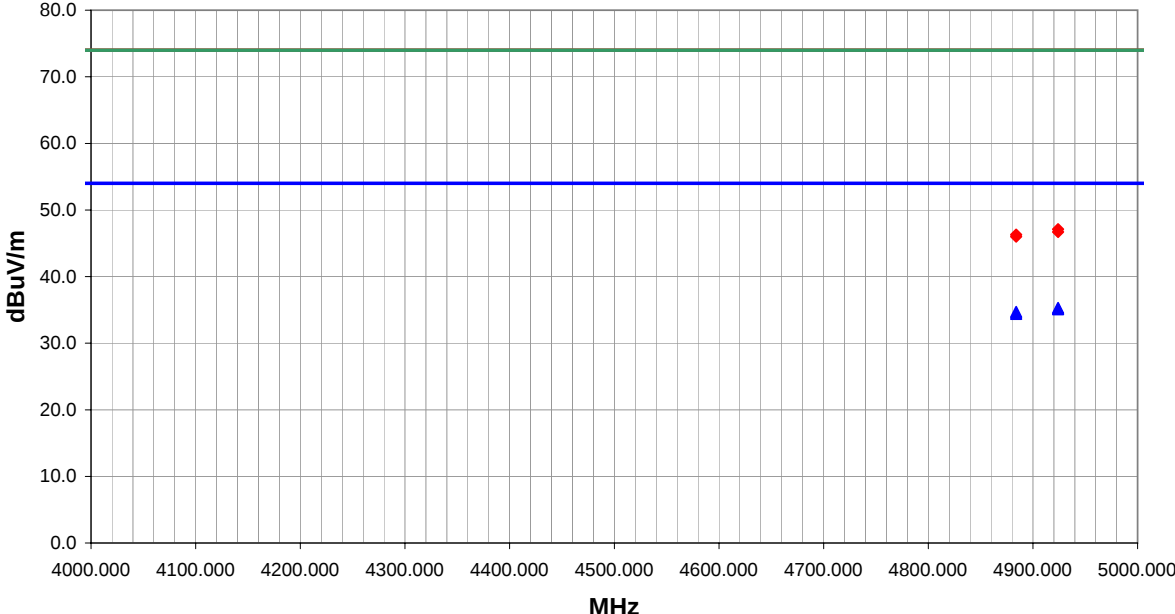
NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.12									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
065349 Omni															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										55					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	36.3	8.2	295.0	1.2	3.0	0.0	V-High Horr	AV	0.0	44.5	54.0	-9.5			
19535.820	34.6	8.5	296.0	1.3	3.0	0.0	V-High Horr	AV	0.0	43.1	54.0	-10.9			
19695.820	33.1	8.7	304.0	1.3	3.0	0.0	V-High Horr	AV	0.0	41.8	54.0	-12.2			
19295.820	30.6	8.2	335.0	1.2	3.0	0.0	I-High Horr	AV	0.0	38.8	54.0	-15.2			
19535.820	29.7	8.5	337.0	1.2	3.0	0.0	I-High Horr	AV	0.0	38.2	54.0	-15.8			
19695.820	29.3	8.7	335.0	1.2	3.0	0.0	I-High Horr	AV	0.0	38.0	54.0	-16.0			
19295.820	42.8	8.2	295.0	1.2	3.0	0.0	V-High Horr	PK	0.0	51.0	74.0	-23.0			
19535.820	41.1	8.5	296.0	1.3	3.0	0.0	V-High Horr	PK	0.0	49.6	74.0	-24.4			
19695.820	40.4	8.7	304.0	1.3	3.0	0.0	V-High Horr	PK	0.0	49.1	74.0	-24.9			
19295.820	40.5	8.2	335.0	1.2	3.0	0.0	I-High Horr	PK	0.0	48.7	74.0	-25.3			
19535.820	39.2	8.5	337.0	1.2	3.0	0.0	I-High Horr	PK	0.0	47.7	74.0	-26.3			
19695.820	38.5	8.7	335.0	1.2	3.0	0.0	I-High Horr	PK	0.0	47.2	74.0	-26.8			

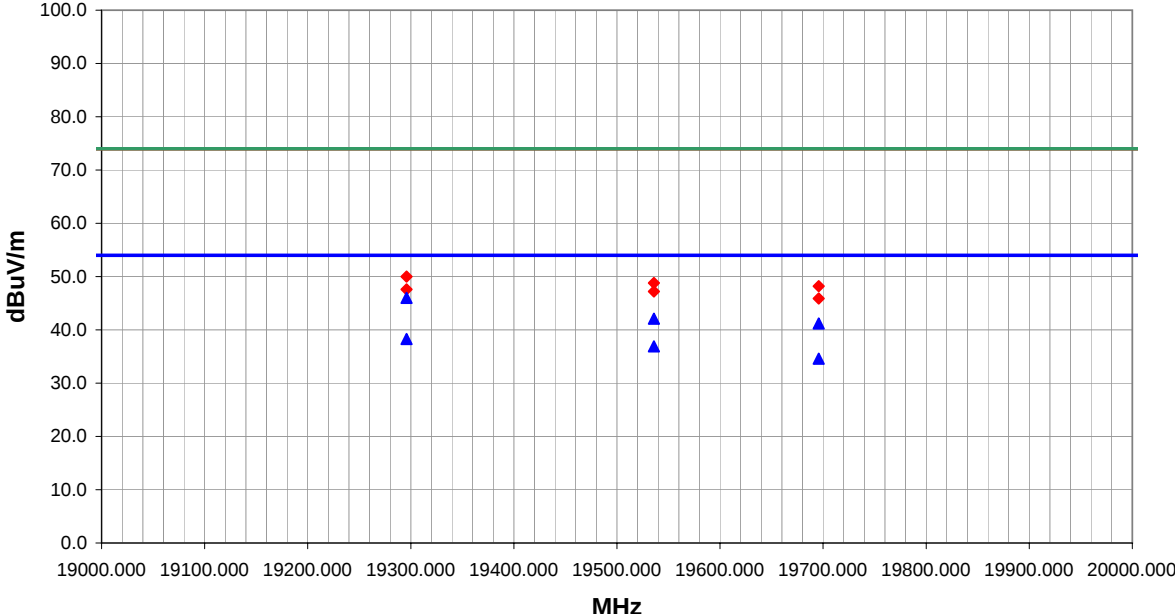
NORTHWEST		OATS DATA SHEET		REV d13.11 06/23/2003								
EMC												
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/09/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 35%										
Cust. Ref. No.:		Barometric Pressure: 29.96										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC Part 15.247(c)		Year: 2001										
Method: ANSI C63.4		Year: 1992										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
066147 Omni												
EUT OPERATING MODES												
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS					Run #							
Pass					12							
Other												
					 Tested By:							
												
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
2483.500	29.5	1.0	247.0	1.2	3.0	16.0	V-Horn	AV	0.0	46.5	54.0	-7.5
2483.500	28.8	1.0	221.0	1.3	3.0	16.0	H-Horn	AV	0.0	45.8	54.0	-8.2
2483.500	43.4	1.0	247.0	1.2	3.0	16.0	V-Horn	PK	0.0	60.4	74.0	-13.6
2483.500	42.7	1.0	221.0	1.3	3.0	16.0	H-Horn	PK	0.0	59.7	74.0	-14.3

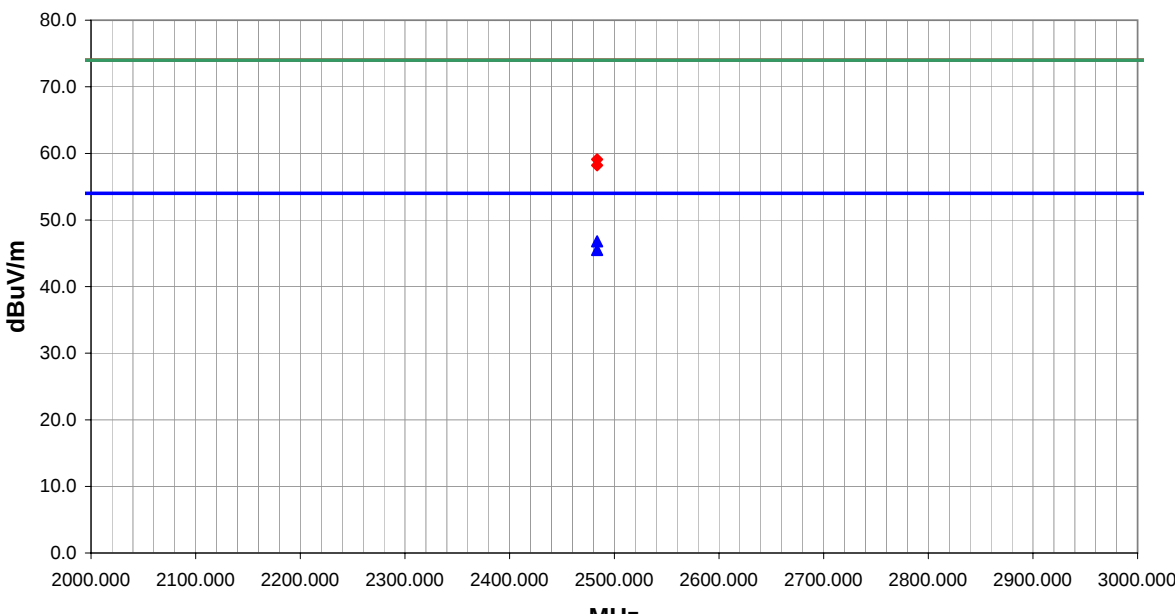
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
066147 Omni															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										41					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	29.0	6.2	273.0	1.4	3.0	0.0	V-Horn	AV	0.0	35.2	54.0	-18.8			
4923.995	28.8	6.2	155.0	1.4	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0			
4883.949	28.8	6.2	245.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0			
4883.949	28.3	6.2	275.0	2.0	3.0	0.0	H-Horn	AV	0.0	34.5	54.0	-19.5			
4883.949	42.4	6.2	245.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.6	74.0	-25.4			
4923.995	41.8	6.2	273.0	1.4	3.0	0.0	V-Horn	PK	0.0	48.0	74.0	-26.0			
4923.995	40.4	6.2	155.0	1.4	3.0	0.0	H-Horn	PK	0.0	46.6	74.0	-27.4			
4883.949	39.8	6.2	275.0	2.0	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0			

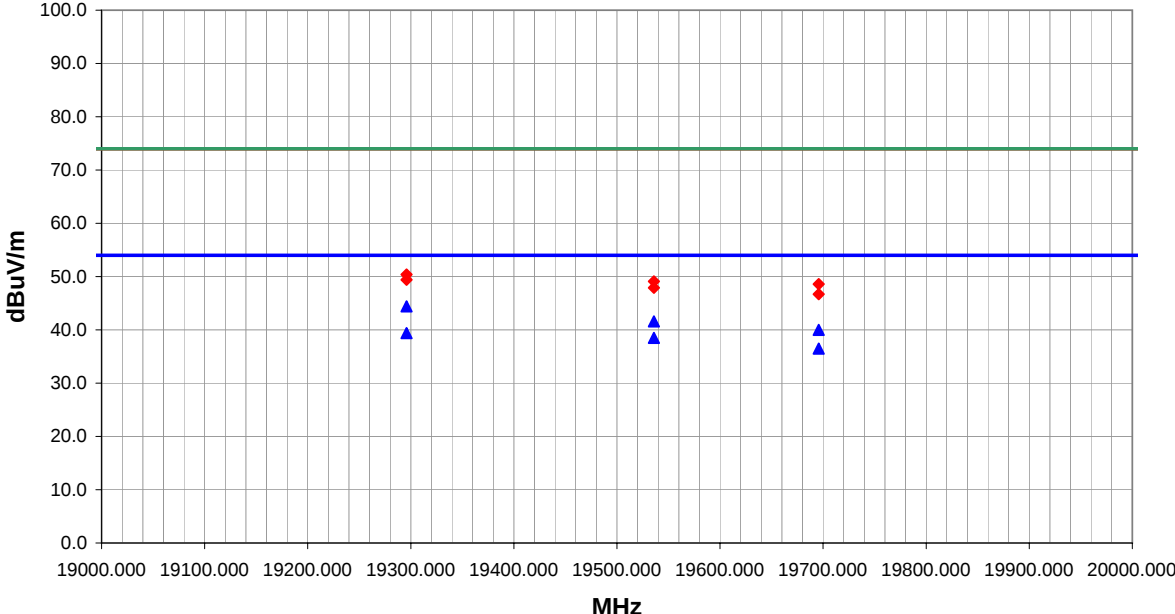
NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
066147 Omni															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										47					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	35.6	8.2	209.0	1.0	3.0	0.0	V-High Horr	AV	0.0	43.8	54.0	-10.2			
19535.820	34.6	8.5	8.0	1.2	3.0	0.0	V-High Horr	AV	0.0	43.1	54.0	-10.9			
19695.820	34.2	8.7	216.0	1.0	3.0	0.0	V-High Horr	AV	0.0	42.9	54.0	-11.1			
19535.820	30.0	8.5	339.0	1.2	3.0	0.0	I-High Horr	AV	0.0	38.5	54.0	-15.5			
19295.820	29.1	8.2	40.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.3	54.0	-16.7			
19695.820	28.0	8.7	229.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.7	54.0	-17.3			
19295.820	42.2	8.2	209.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6			
19535.820	41.4	8.5	8.0	1.2	3.0	0.0	V-High Horr	PK	0.0	49.9	74.0	-24.1			
19695.820	40.7	8.7	216.0	1.0	3.0	0.0	V-High Horr	PK	0.0	49.4	74.0	-24.6			
19295.820	39.8	8.2	40.0	1.0	3.0	0.0	I-High Horr	PK	0.0	48.0	74.0	-26.0			
19535.820	38.9	8.5	339.0	1.2	3.0	0.0	I-High Horr	PK	0.0	47.4	74.0	-26.6			
19695.820	37.3	8.7	229.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.0	74.0	-28.0			

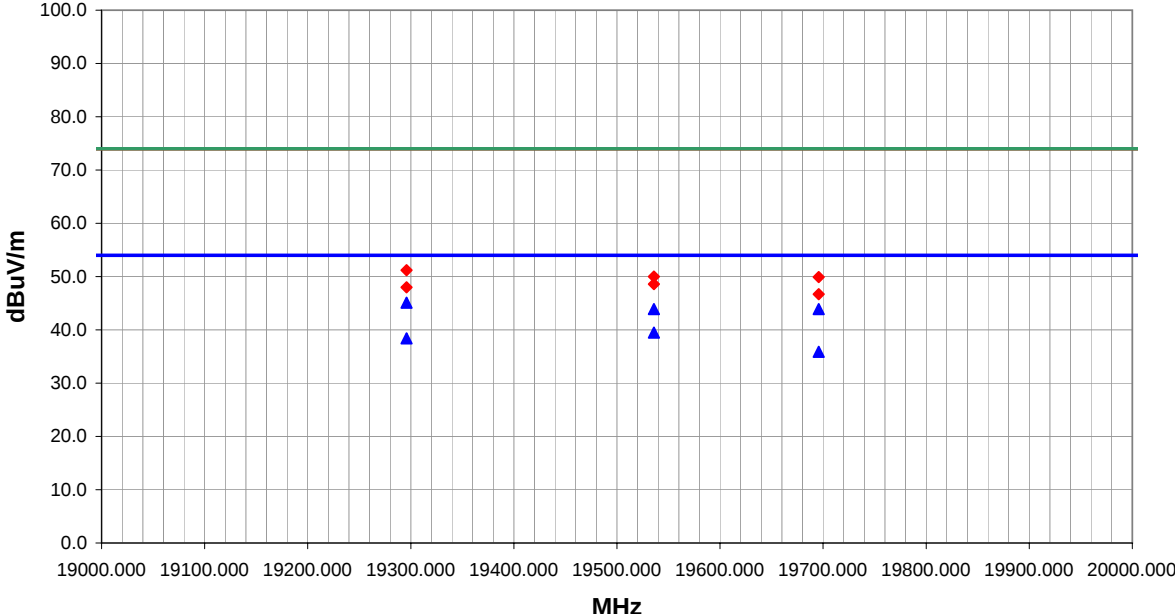
NORTHWEST EMC										OATS DATA SHEET				REV d/3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
066147 Omni															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										13					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	31.3	1.0	263.0	1.2	3.0	16.0	V-Horn	AV	0.0	48.3	54.0	-5.7			
2483.500	31.3	1.0	19.0	1.3	3.0	16.0	H-Horn	AV	0.0	48.3	54.0	-5.7			
2483.500	46.0	1.0	263.0	1.2	3.0	16.0	V-Horn	PK	0.0	63.0	74.0	-11.0			
2483.500	45.9	1.0	19.0	1.3	3.0	16.0	H-Horn	PK	0.0	62.9	74.0	-11.1			

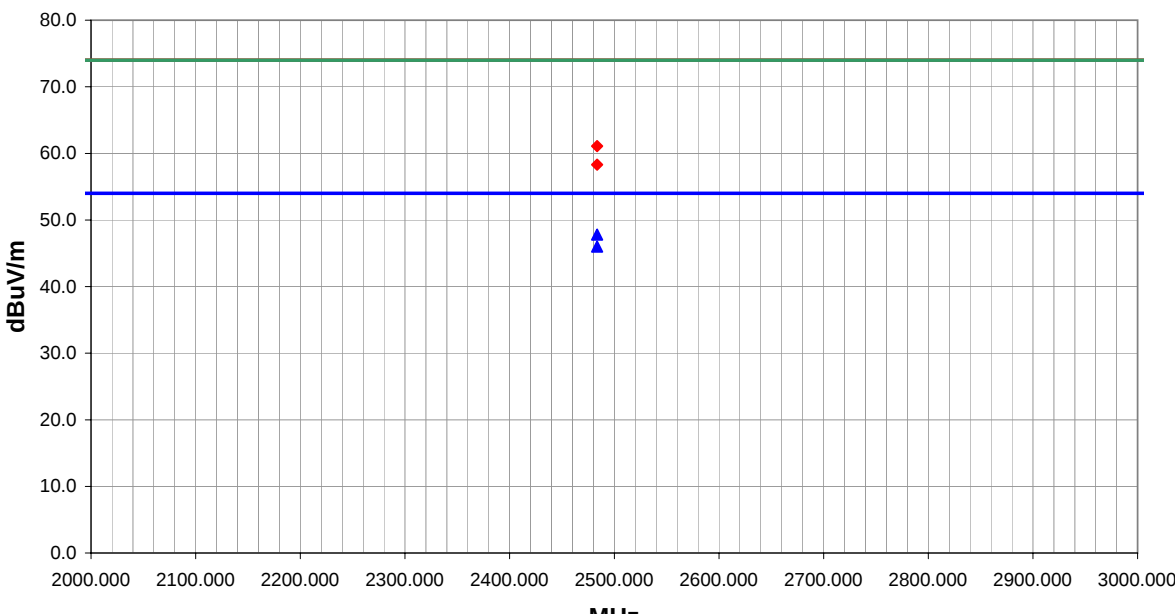
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
066147 Omni															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										42					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	29.1	6.2	244.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7			
4923.995	28.9	6.2	166.0	1.1	3.0	0.0	H-Horn	AV	0.0	35.1	54.0	-18.9			
4883.949	28.5	6.2	245.0	1.8	3.0	0.0	V-Horn	AV	0.0	34.7	54.0	-19.3			
4883.949	28.2	6.2	168.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.4	54.0	-19.6			
4923.995	40.9	6.2	244.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.1	74.0	-26.9			
4923.995	40.5	6.2	166.0	1.1	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3			
4883.949	40.1	6.2	245.0	1.8	3.0	0.0	V-Horn	PK	0.0	46.3	74.0	-27.7			
4883.949	39.8	6.2	168.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0			

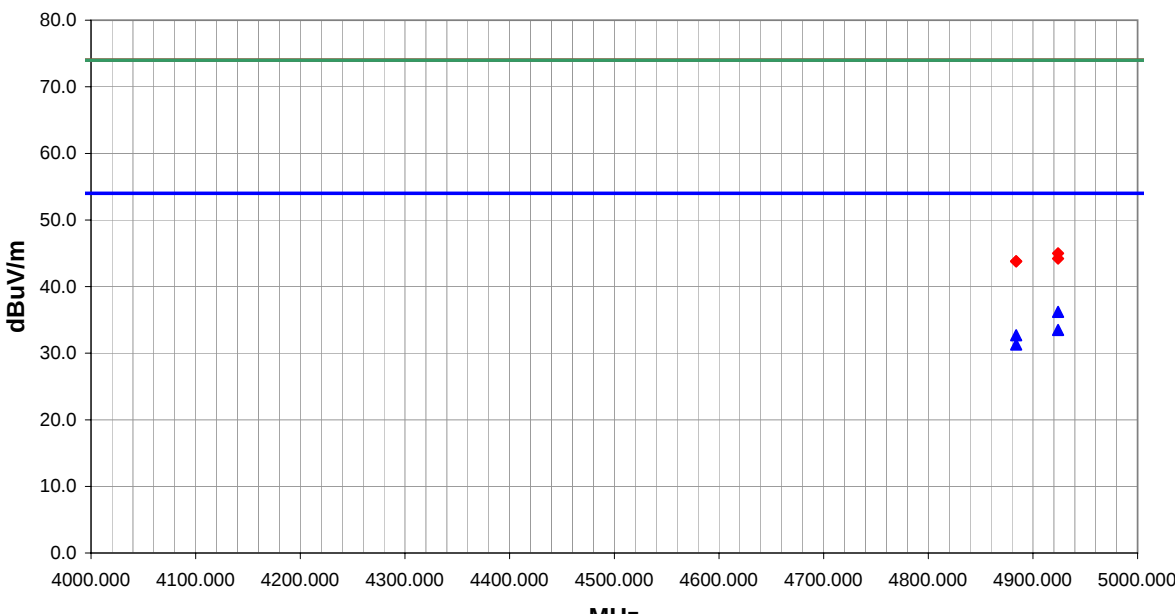
NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
066147 Omni															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										46					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	37.8	8.2	17.0	1.0	3.0	0.0	V-High Horr	AV	0.0	46.0	54.0	-8.0			
19535.820	33.6	8.5	25.0	1.0	3.0	0.0	V-High Horr	AV	0.0	42.1	54.0	-11.9			
19695.820	32.5	8.7	213.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.2	54.0	-12.8			
19295.820	30.1	8.2	13.0	1.0	3.0	0.0	I-High Horr	AV	0.0	38.3	54.0	-15.7			
19535.820	28.4	8.5	228.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.9	54.0	-17.1			
19695.820	25.9	8.7	64.0	1.0	3.0	0.0	I-High Horr	AV	0.0	34.6	54.0	-19.4			
19295.820	41.8	8.2	17.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.0	74.0	-24.0			
19535.820	40.3	8.5	25.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.8	74.0	-25.2			
19695.820	39.5	8.7	213.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.2	74.0	-25.8			
19295.820	39.4	8.2	13.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.6	74.0	-26.4			
19535.820	38.7	8.5	228.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.2	74.0	-26.8			
19695.820	37.2	8.7	64.0	1.0	3.0	0.0	I-High Horr	PK	0.0	45.9	74.0	-28.1			

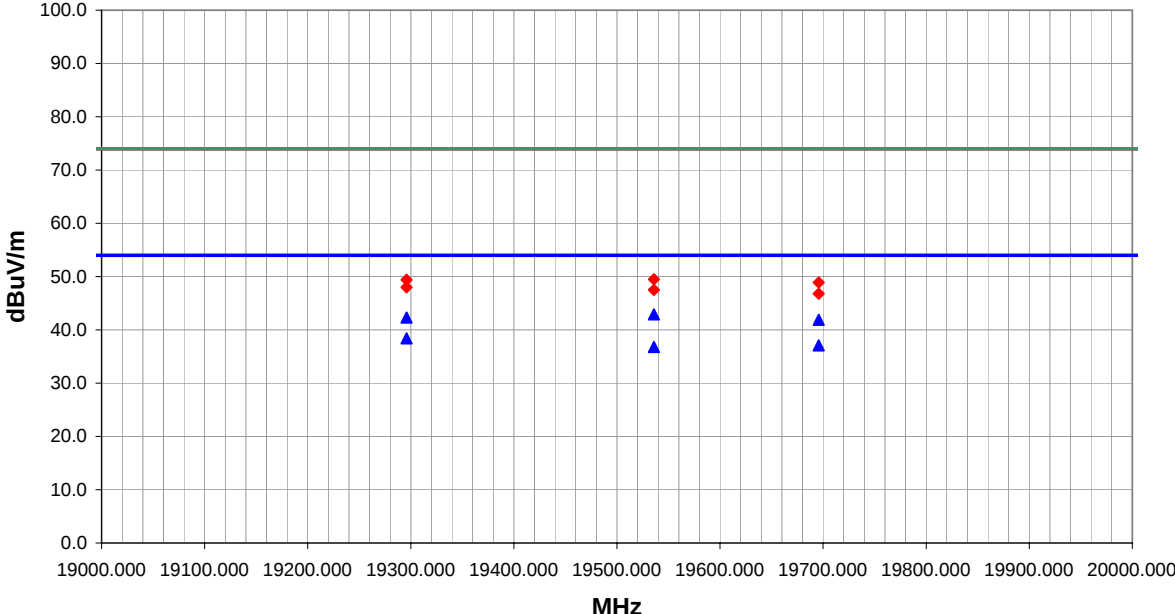
NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 79									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071121 Diversity															
EUT OPERATING MODES															
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										44					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	29.8	1.0	90.0	1.2	3.0	16.0	V-Horn	AV	0.0	46.8	54.0	-7.2			
2483.500	28.5	1.0	22.0	1.3	3.0	16.0	H-Horn	AV	0.0	45.5	54.0	-8.5			
2483.500	42.1	1.0	90.0	1.2	3.0	16.0	V-Horn	PK	0.0	59.1	74.0	-14.9			
2483.500	41.2	1.0	23.0	1.3	3.0	16.0	V-Horn	PK	0.0	58.2	74.0	-15.8			

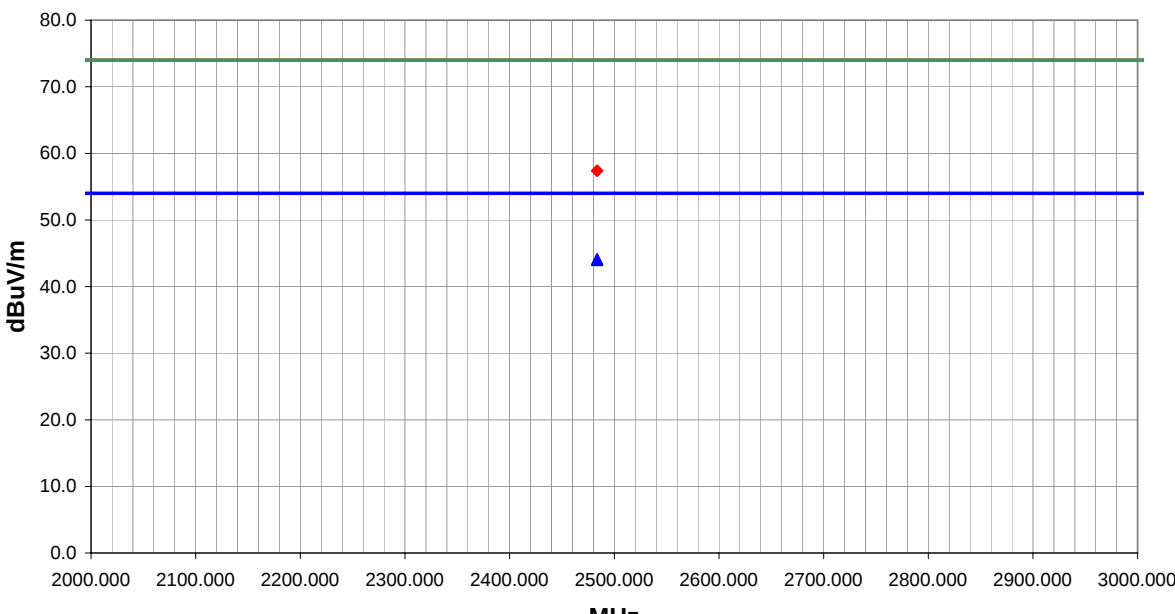
NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
063365 Yagi															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										48					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	36.2	8.2	220.0	1.0	3.0	0.0	V-High Horr	AV	0.0	44.4	54.0	-9.6			
19535.820	33.1	8.5	24.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.6	54.0	-12.4			
19695.820	31.3	8.7	348.0	1.0	3.0	0.0	V-High Horr	AV	0.0	40.0	54.0	-14.0			
19295.820	31.2	8.2	293.0	1.0	3.0	0.0	I-High Horr	AV	0.0	39.4	54.0	-14.6			
19535.820	30.0	8.5	234.0	1.0	3.0	0.0	I-High Horr	AV	0.0	38.5	54.0	-15.5			
19695.820	27.8	8.7	72.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.5	54.0	-17.5			
19295.820	42.2	8.2	220.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6			
19295.820	41.2	8.2	293.0	1.0	3.0	0.0	I-High Horr	PK	0.0	49.4	74.0	-24.6			
19535.820	40.6	8.5	24.0	1.0	3.0	0.0	V-High Horr	PK	0.0	49.1	74.0	-24.9			
19695.820	39.9	8.7	348.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.6	74.0	-25.4			
19535.820	39.4	8.5	234.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.9	74.0	-26.1			
19695.820	38.0	8.7	72.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.7	74.0	-27.3			

NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071121 Diversity															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										57					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	36.9	8.2	315.0	1.0	3.0	0.0	V-High Horr	AV	0.0	45.1	54.0	-8.9			
19535.820	35.4	8.5	320.0	1.2	3.0	0.0	V-High Horr	AV	0.0	43.9	54.0	-10.1			
19695.820	35.2	8.7	320.0	1.3	3.0	0.0	V-High Horr	AV	0.0	43.9	54.0	-10.1			
19535.820	31.0	8.5	67.0	1.1	3.0	0.0	I-High Horr	AV	0.0	39.5	54.0	-14.5			
19295.820	30.2	8.2	241.0	1.1	3.0	0.0	I-High Horr	AV	0.0	38.4	54.0	-15.6			
19695.820	27.2	8.7	243.0	1.0	3.0	0.0	I-High Horr	AV	0.0	35.9	54.0	-18.1			
19295.820	43.0	8.2	315.0	1.0	3.0	0.0	V-High Horr	PK	0.0	51.2	74.0	-22.8			
19535.820	41.5	8.5	320.0	1.2	3.0	0.0	V-High Horr	PK	0.0	50.0	74.0	-24.0			
19695.820	41.2	8.7	320.0	1.3	3.0	0.0	V-High Horr	PK	0.0	49.9	74.0	-24.1			
19535.820	40.1	8.5	67.0	1.1	3.0	0.0	I-High Horr	PK	0.0	48.6	74.0	-25.4			
19295.820	39.8	8.2	241.0	1.1	3.0	0.0	I-High Horr	PK	0.0	48.0	74.0	-26.0			
19695.820	38.0	8.7	243.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.7	74.0	-27.3			

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 79									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071121 Diversity															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										45					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	30.8	1.0	82.0	1.2	3.0	16.0	V-Horn	AV	0.0	47.8	54.0	-6.2			
2483.500	29.0	1.0	20.0	1.3	3.0	16.0	H-Horn	AV	0.0	46.0	54.0	-8.0			
2483.500	44.1	1.0	81.0	1.2	3.0	16.0	V-Horn	PK	0.0	61.1	74.0	-12.9			
2483.500	41.3	1.0	19.0	1.3	3.0	16.0	V-Horn	PK	0.0	58.3	74.0	-15.7			

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071121 Diversity															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										47					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	30.0	6.2	301.0	1.5	3.0	0.0	V-Horn	AV	0.0	36.2	54.0	-17.8			
4923.995	27.3	6.2	194.0	1.9	3.0	0.0	H-Horn	AV	0.0	33.5	54.0	-20.5			
4883.949	26.5	6.2	304.0	1.2	3.0	0.0	V-Horn	AV	0.0	32.7	54.0	-21.3			
4883.949	25.1	6.2	256.0	1.3	3.0	0.0	H-Horn	AV	0.0	31.3	54.0	-22.7			
4923.995	38.8	6.2	300.0	1.5	3.0	0.0	V-Horn	PK	0.0	45.0	74.0	-29.0			
4923.995	38.0	6.2	193.0	1.9	3.0	0.0	H-Horn	PK	0.0	44.2	74.0	-29.8			
4883.949	37.6	6.2	255.0	1.3	3.0	0.0	V-Horn	PK	0.0	43.8	74.0	-30.2			
4883.949	37.6	6.2	302.0	1.2	3.0	0.0	V-Horn	PK	0.0	43.8	74.0	-30.2			

NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071121 Diversity															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										58					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19535.820	34.4	8.5	234.0	1.0	3.0	0.0	V-High Horr	AV	0.0	42.9	54.0	-11.1			
19295.820	34.1	8.2	241.0	1.2	3.0	0.0	I-High Horr	AV	0.0	42.3	54.0	-11.7			
19695.820	33.2	8.7	234.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.9	54.0	-12.1			
19295.820	30.2	8.2	260.0	1.0	3.0	0.0	I-High Horr	AV	0.0	38.4	54.0	-15.6			
19695.820	28.4	8.7	328.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.1	54.0	-16.9			
19535.820	28.3	8.5	259.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.8	54.0	-17.2			
19535.820	41.0	8.5	234.0	1.0	3.0	0.0	V-High Horr	PK	0.0	49.5	74.0	-24.5			
19295.820	41.2	8.2	241.0	1.2	3.0	0.0	I-High Horr	PK	0.0	49.4	74.0	-24.6			
19695.820	40.2	8.7	234.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.9	74.0	-25.1			
19295.820	39.8	8.2	260.0	1.0	3.0	0.0	I-High Horr	PK	0.0	48.0	74.0	-26.0			
19535.820	39.0	8.5	259.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.5	74.0	-26.5			
19695.820	38.1	8.7	328.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.8	74.0	-27.2			

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071122 Corner Reflector															
EUT OPERATING MODES															
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										4					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	27.1	1.0	195.0	1.3	3.0	16.0	H-Horn	AV	0.0	44.1	54.0	-9.9			
2483.500	27.0	1.0	244.0	2.4	3.0	16.0	V-Horn	AV	0.0	44.0	54.0	-10.0			
2483.500	40.4	1.0	195.0	1.3	3.0	16.0	H-Horn	PK	0.0	57.4	74.0	-16.6			
2483.500	40.4	1.0	244.0	2.4	3.0	16.0	V-Horn	PK	0.0	57.4	74.0	-16.6			

EUT:	802MIG2 Radio			Work Order:	inmc0086
Serial Number:	none			Date:	07/11/03
Customer:	Intermec Technologies Corporation			Temperature:	77
Attendees:				Humidity:	41%
Cust. Ref. No.:				Barometric Pressure:	30.03
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(c)	Year:	2001
Method:	ANSI C63.4	Year:	1992

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

071122 Corner Reflector

EUT OPERATING MODES

Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.

DEVIATIONS FROM TEST STANDARD

No deviations.

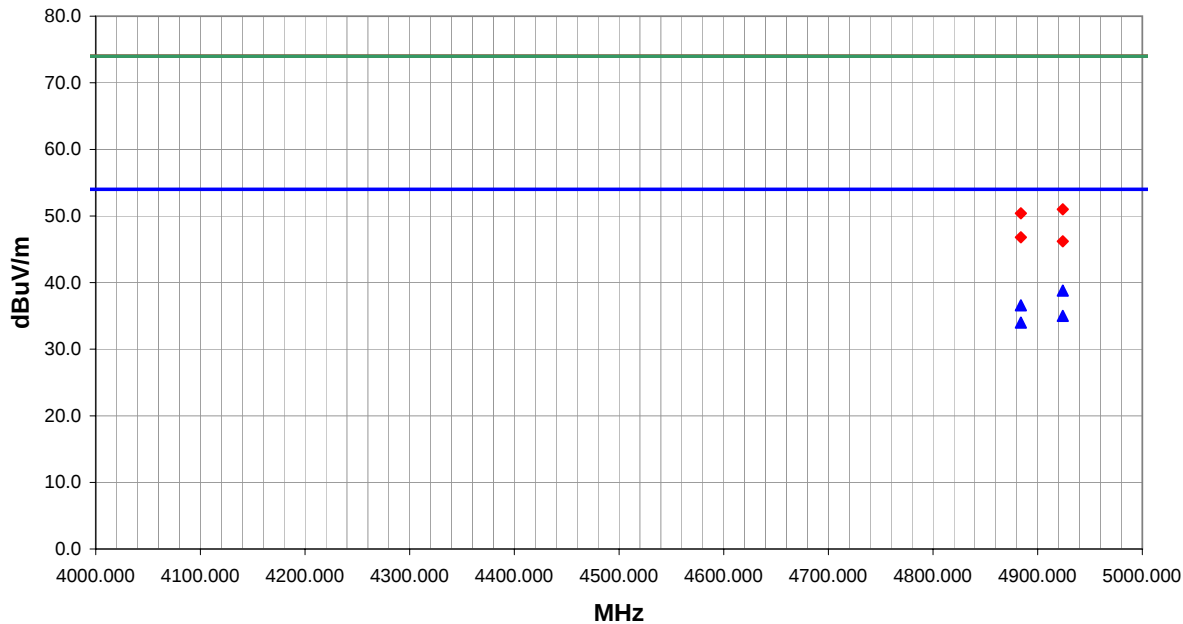
RESULTS

Pass	39
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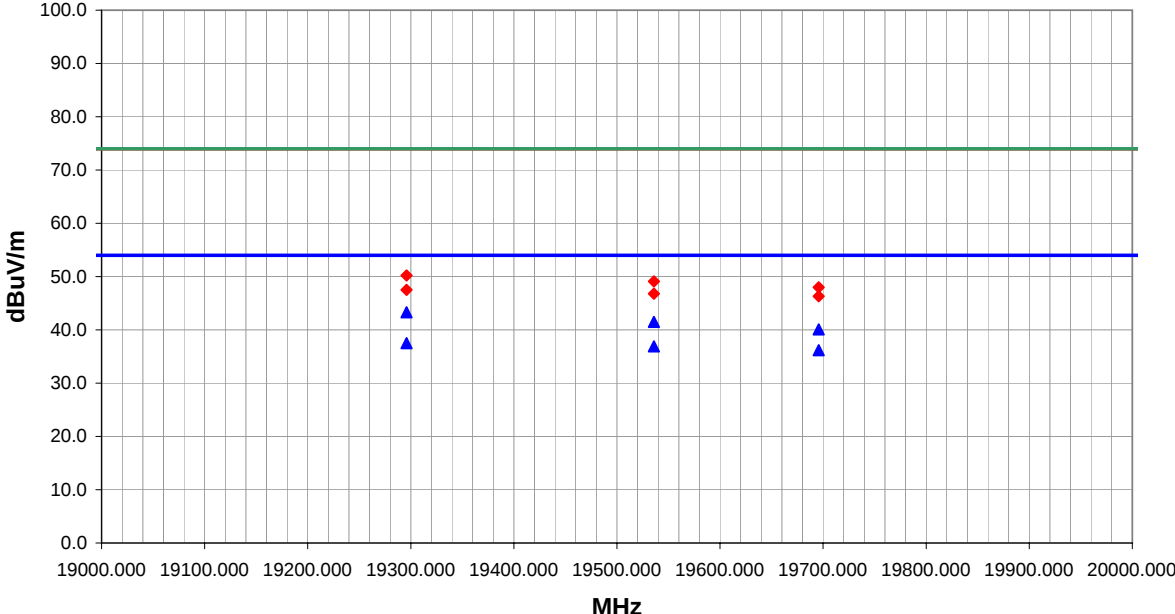
Other	
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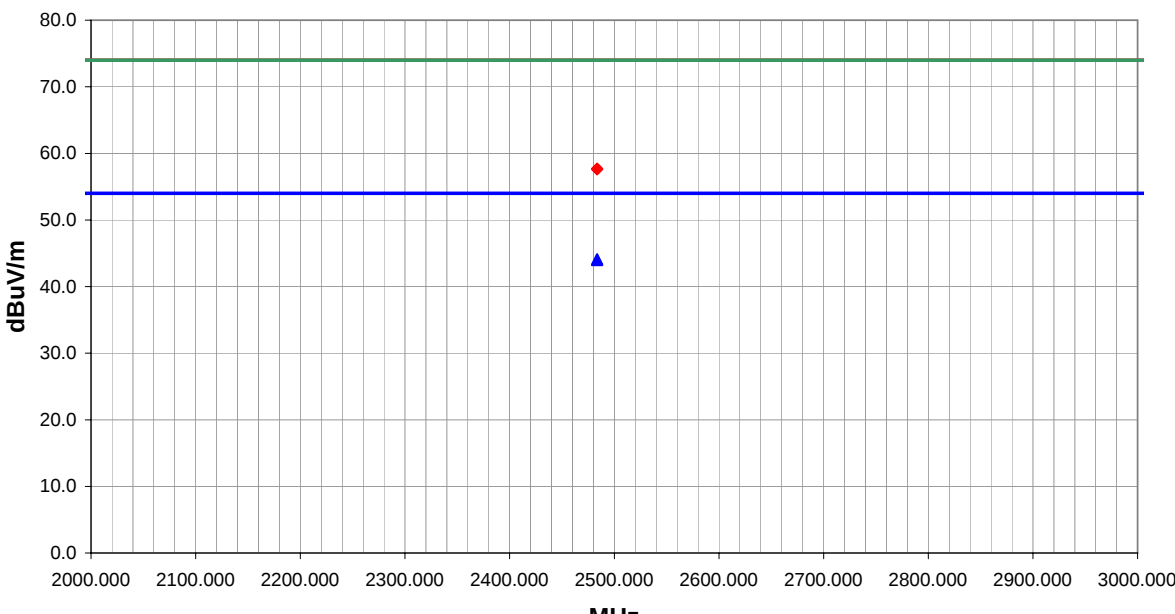
Holy Antiphon

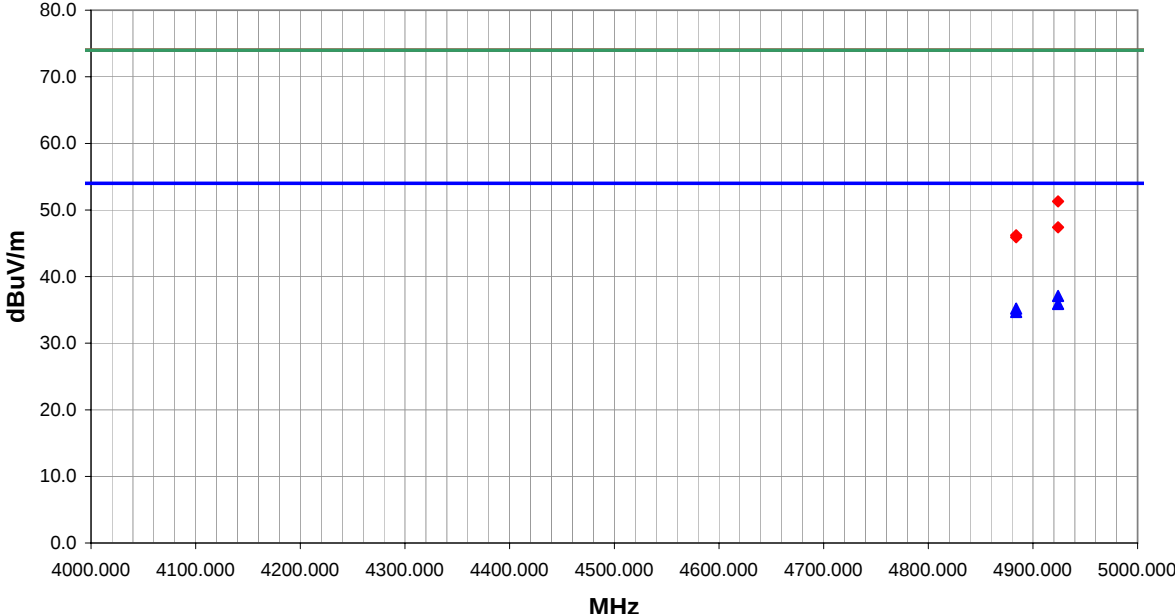
Tested By:

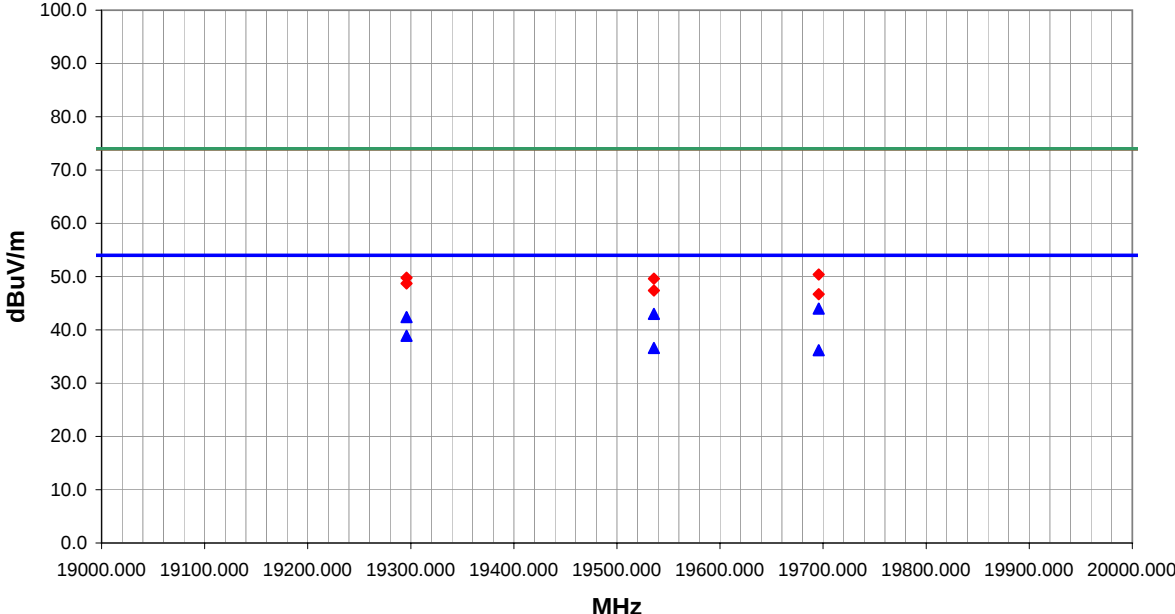


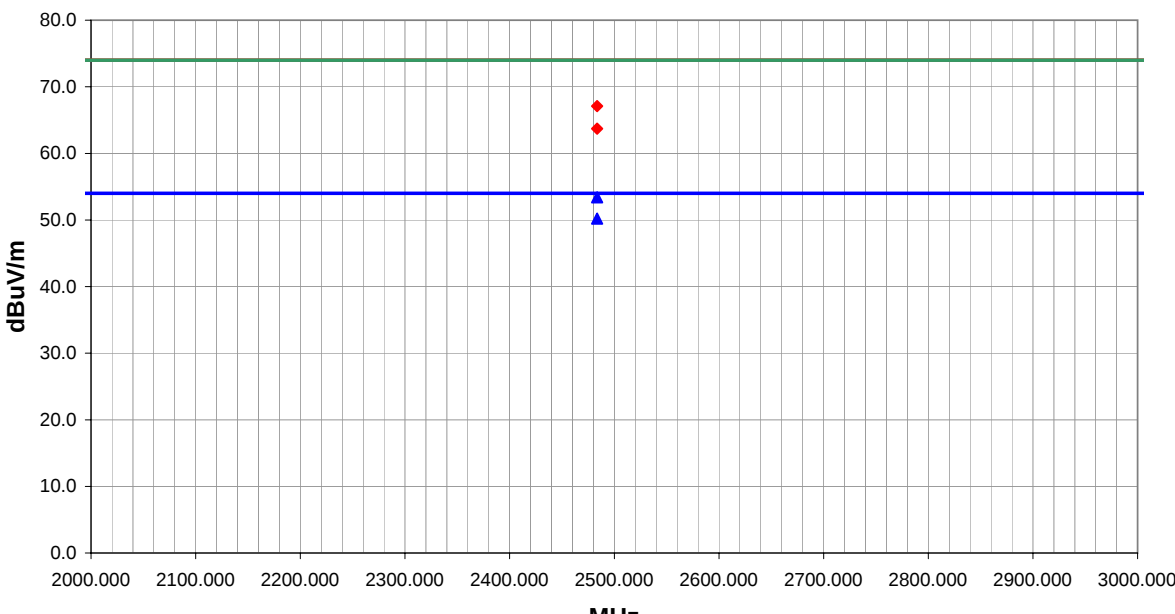
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	
													Comments
4923.995	32.6	6.2	285.0	1.1	3.0	0.0	V-Horn	AV	0.0	38.8	54.0	-15.2	High channel
4883.949	30.4	6.2	274.0	1.2	3.0	0.0	V-Horn	AV	0.0	36.6	54.0	-17.4	Mid channel
4923.995	28.8	6.2	337.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0	High channel
4883.949	27.8	6.2	323.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.0	54.0	-20.0	Mid channel
4923.995	44.8	6.2	285.0	1.1	3.0	0.0	V-Horn	PK	0.0	51.0	74.0	-23.0	High channel
4883.949	44.2	6.2	274.0	1.2	3.0	0.0	V-Horn	PK	0.0	50.4	74.0	-23.6	Mid channel
4883.949	40.6	6.2	323.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.8	74.0	-27.2	Mid channel
4923.995	40.0	6.2	337.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8	High channel

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071122 Corner Reflector															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										50					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19295.820	35.1	8.2	230.0	1.0	3.0	0.0	V-High Horr	AV	0.0	43.3	54.0	-10.7			
19535.820	33.0	8.5	22.0	1.0	3.0	0.0	V-High Horr	AV	0.0	41.5	54.0	-12.5			
19695.820	31.4	8.7	348.0	1.0	3.0	0.0	V-High Horr	AV	0.0	40.1	54.0	-13.9			
19295.820	29.3	8.2	333.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.5	54.0	-16.5			
19535.820	28.4	8.5	228.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.9	54.0	-17.1			
19695.820	27.5	8.7	319.0	1.0	3.0	0.0	I-High Horr	AV	0.0	36.2	54.0	-17.8			
19295.820	42.0	8.2	230.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.2	74.0	-23.8			
19535.820	40.6	8.5	22.0	1.0	3.0	0.0	V-High Horr	PK	0.0	49.1	74.0	-24.9			
19695.820	39.3	8.7	348.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.0	74.0	-26.0			
19295.820	39.3	8.2	333.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.5	74.0	-26.5			
19535.820	38.3	8.5	228.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.8	74.0	-27.2			
19695.820	37.6	8.7	319.0	1.0	3.0	0.0	I-High Horr	PK	0.0	46.3	74.0	-27.7			

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/09/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 35%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071122 Corner Reflector															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										5					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	27.1	1.0	242.0	2.3	3.0	16.0	V-Horn	AV	0.0	44.1	54.0	-9.9			
2483.500	27.0	1.0	286.0	1.3	3.0	16.0	H-Horn	AV	0.0	44.0	54.0	-10.0			
2483.500	40.7	1.0	242.0	2.3	3.0	16.0	V-Horn	PK	0.0	57.7	74.0	-16.3			
2483.500	40.6	1.0	286.0	1.3	3.0	16.0	H-Horn	PK	0.0	57.6	74.0	-16.4			

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/12/03									
Customer: Intermec Technologies Corporation						Temperature: 77									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.03									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
071122 Corner Reflector															
EUT OPERATING MODES															
Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										40					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
4923.995	30.9	6.2	108.0	1.1	3.0	0.0	V-Horn	AV	0.0	37.1	54.0	-16.9			
4923.995	29.7	6.2	164.0	1.1	3.0	0.0	H-Horn	AV	0.0	35.9	54.0	-18.1			
4883.949	29.0	6.2	324.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.2	54.0	-18.8			
4883.949	28.5	6.2	244.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.7	54.0	-19.3			
4923.995	45.1	6.2	108.0	1.1	3.0	0.0	V-Horn	PK	0.0	51.3	74.0	-22.7			
4923.995	41.2	6.2	164.0	1.1	3.0	0.0	H-Horn	PK	0.0	47.4	74.0	-26.6			
4883.949	40.0	6.2	324.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8			
4883.949	39.7	6.2	244.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.9	74.0	-28.1			

NORTHWEST										REV			
EMC										d3.11			
OATS DATA SHEET										06/23/2003			
EUT: 802MIG2 Radio										Work Order: inmc0086			
Serial Number: none										Date: 07/13/03			
Customer: Intermec Technologies Corporation										Temperature: 75			
Attendees:										Humidity: 41%			
Cust. Ref. No.:										Barometric Pressure: 30.12			
Tested by: Dan Haas					Power: 120VAC/60Hz					Job Site: EV01			
TEST SPECIFICATIONS													
Specification: FCC Part 15.247(c)										Year: 2001			
Method: ANSI C63.4										Year: 1992			
SAMPLE CALCULATIONS													
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation													
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator													
COMMENTS													
071122 Corner Reflector													
EUT OPERATING MODES													
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
RESULTS												Run #	
Pass												51	
Other													
										 Tested By:			
													
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	
19695.820	35.3	8.7	339.0	1.4	3.0	0.0	V-High Horr	AV	0.0	44.0	54.0	-10.0	
19535.820	34.5	8.5	354.0	1.2	3.0	0.0	V-High Horr	AV	0.0	43.0	54.0	-11.0	
19295.820	34.2	8.2	221.0	1.1	3.0	0.0	V-High Horr	AV	0.0	42.4	54.0	-11.6	
19295.820	30.7	8.2	300.0	1.0	3.0	0.0	I-High Horr	AV	0.0	38.9	54.0	-15.1	
19535.820	28.1	8.5	214.0	1.1	3.0	0.0	I-High Horr	AV	0.0	36.6	54.0	-17.4	
19695.820	27.5	8.7	304.0	1.1	3.0	0.0	I-High Horr	AV	0.0	36.2	54.0	-17.8	
19695.820	41.7	8.7	339.0	1.4	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6	
19295.820	41.6	8.2	221.0	1.1	3.0	0.0	V-High Horr	PK	0.0	49.8	74.0	-24.2	
19535.820	41.1	8.5	354.0	1.2	3.0	0.0	V-High Horr	PK	0.0	49.6	74.0	-24.4	
19295.820	40.5	8.2	300.0	1.0	3.0	0.0	I-High Horr	PK	0.0	48.7	74.0	-25.3	
19535.820	38.9	8.5	214.0	1.1	3.0	0.0	I-High Horr	PK	0.0	47.4	74.0	-26.6	
19695.820	38.0	8.7	304.0	1.1	3.0	0.0	I-High Horr	PK	0.0	46.7	74.0	-27.3	

NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/10/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
067263 Flat Panel															
EUT OPERATING MODES															
High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										20					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	32.4	1.0	202.0	1.2	3.0	20.0	V-Horn	AV	0.0	53.4	54.0	-0.6			
2483.500	29.2	1.0	179.0	2.1	3.0	20.0	H-Horn	AV	0.0	50.2	54.0	-3.8			
2483.500	46.1	1.0	202.0	1.2	3.0	20.0	V-Horn	PK	0.0	67.1	74.0	-6.9			
2483.500	42.7	1.0	179.0	2.1	3.0	20.0	H-Horn	PK	0.0	63.7	74.0	-10.3			

NORTHWEST

REV
df3.11
06/23/2003

EMC

OATS DATA SHEET

EUT: 802MIG2 Radio

Work Order: inmc0086

Serial Number: none

Date: 07/10/03

Customer: Intermec Technologies Corporation

Temperature: 75

Attendees:

Humidity: 41%

Cust. Ref. No.:

Barometric Pressure 29.96

Tested by: Holly Ashkannejhad

Power: 120VAC/60Hz

Job Site: EV01

TEST SPECIFICATIONS

Specification: FCC Part 15.247(c)

Year: 2001

Method: ANSI C63.4

Year: 1992

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

067263 Flat Panel

EUT OPERATING MODES

Mid (7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.

DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS

Run #

Pass

22

Other

Holly Ashkannejhad

Tested By:

80.0

70.0

60.0

50.0

40.0

30.0

20.0

10.0

0.0

4500.000

4550.000

4600.000

4650.000

4700.000

4750.000

4800.000

4850.000

4900.000

4950.000

5000.000

dBuV/m

MHz

4923.995

4923.995

4883.949

4883.949

4923.995

4923.995

4883.949

4883.949

30.0

28.8

27.9

27.7

43.2

43.0

41.0

39.2

6.2

6.2

6.2

6.2

6.2

6.2

6.2

6.2

219.0

154.0

283.0

151.0

219.0

154.0

151.0

283.0

1.6

1.5

1.0

1.9

1.6

1.5

1.9

1.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

H-Horn

V-Horn

H-Horn

V-Horn

H-Horn

V-Horn

V-Horn

H-Horn

AV

AV

AV

AV

PK

PK

PK

PK

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

36.2

35.0

34.1

33.9

49.4

49.2

47.2

45.4

54.0

54.0

54.0

54.0

74.0

74.0

74.0

74.0

-17.8

-19.0

-19.9

-20.1

-24.6

-24.8

-26.8

-28.6

High channel

High channel

Mid channel

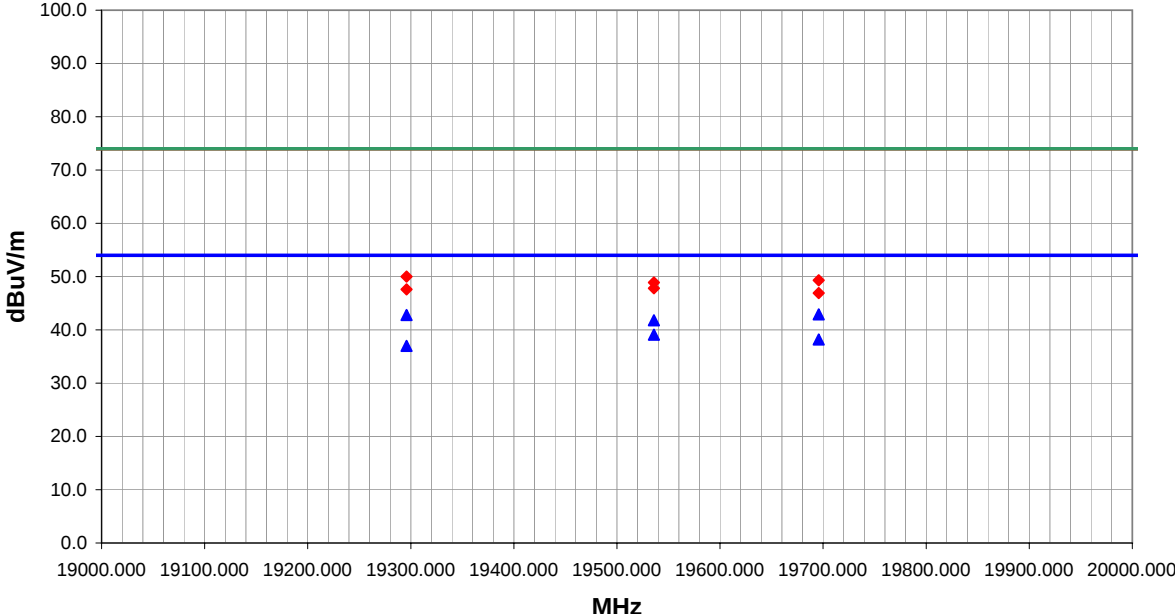
Mid channel

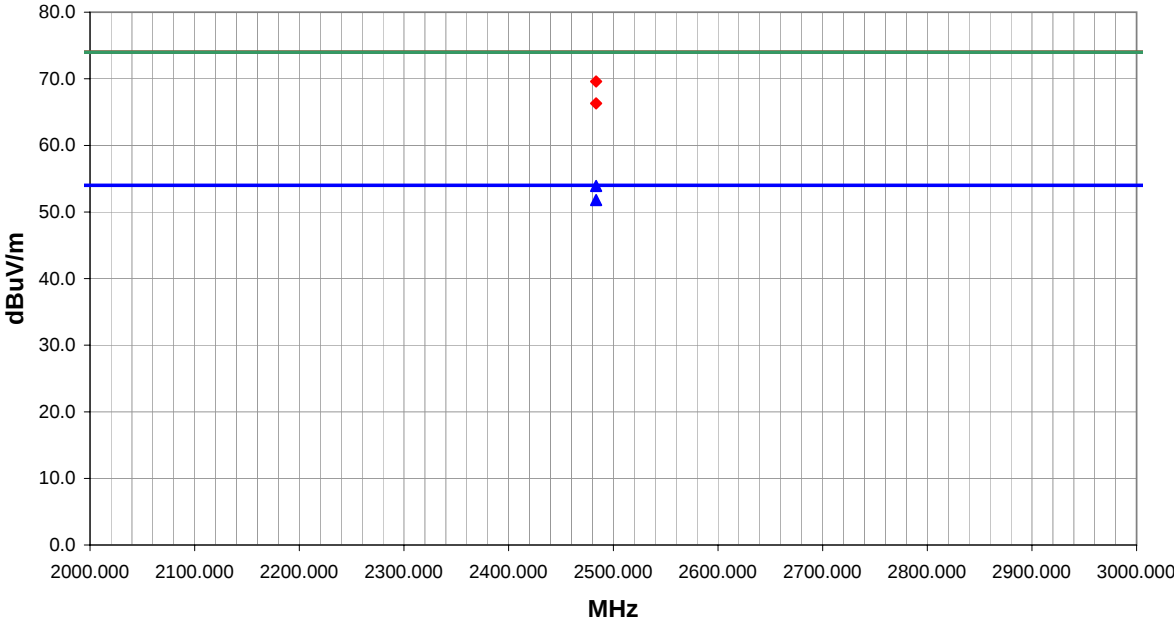
High channel

High channel

Mid channel

Mid channel

NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.12									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
067263 Flat Panel															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(b) 11Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										52					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19695.820	34.2	8.7	351.0	1.4	3.0	0.0	V-High Horr	AV	0.0	42.9	54.0	-11.1			
19295.820	34.6	8.2	0.0	1.0	3.0	0.0	V-High Horr	AV	0.0	42.8	54.0	-11.2			
19535.820	33.3	8.5	217.0	1.1	3.0	0.0	V-High Horr	AV	0.0	41.8	54.0	-12.2			
19535.820	30.6	8.5	320.0	1.4	3.0	0.0	I-High Horr	AV	0.0	39.1	54.0	-14.9			
19695.820	29.5	8.7	316.0	1.4	3.0	0.0	I-High Horr	AV	0.0	38.2	54.0	-15.8			
19295.820	28.8	8.2	292.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.0	54.0	-17.0			
19295.820	41.8	8.2	0.0	1.0	3.0	0.0	V-High Horr	PK	0.0	50.0	74.0	-24.0			
19695.820	40.6	8.7	351.0	1.4	3.0	0.0	V-High Horr	PK	0.0	49.3	74.0	-24.7			
19535.820	40.4	8.5	217.0	1.1	3.0	0.0	V-High Horr	PK	0.0	48.9	74.0	-25.1			
19535.820	39.3	8.5	320.0	1.4	3.0	0.0	I-High Horr	PK	0.0	47.8	74.0	-26.2			
19295.820	39.4	8.2	292.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.6	74.0	-26.4			
19695.820	38.2	8.7	316.0	1.4	3.0	0.0	I-High Horr	PK	0.0	46.9	74.0	-27.1			

NORTHWEST EMC										OATS DATA SHEET				REV d3.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/10/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 29.96									
Tested by: Greg Kiemel				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
067263 Flat Panel															
EUT OPERATING MODES															
High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										19					
Other															
 Tested By:															
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
2483.500	32.9	1.0	205.0	1.2	3.0	20.0	V-Horn	AV	0.0	53.9	54.0	-0.1			
2483.500	30.8	1.0	191.0	1.0	3.0	20.0	H-Horn	AV	0.0	51.8	54.0	-2.2			
2483.500	48.6	1.0	205.0	1.2	3.0	20.0	V-Horn	PK	0.0	69.6	74.0	-4.4			
2483.500	45.3	1.0	191.0	1.0	3.0	20.0	H-Horn	PK	0.0	66.3	74.0	-7.7			

NORTHWEST

REV
df3.11
06/23/2003

EMC

OATS DATA SHEET

EUT: 802MIG2 Radio				Work Order: inmc0086			
Serial Number: none				Date: 07/11/03			
Customer: Intermec Technologies Corporation				Temperature: 75			
Attendees:				Humidity: 41%			
Cust. Ref. No.:				Barometric Pressure: 29.96			
Tested by: Dan Haas		Power: 120VAC/60Hz		Job Site: EV01			

TEST SPECIFICATIONS

Specification: FCC Part 15.247(c)

Method: ANSI C63.4

Year: 2001

Year: 1992

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

067263 Flat Panel

EUT OPERATING MODES

Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.

DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	24

Other



Tested By:

dBuV/m

80.0

70.0

60.0

50.0

40.0

30.0

20.0

10.0

0.0

4500.000

4550.000

4600.000

4650.000

4700.000

4750.000

4800.000

4850.000

4900.000

4950.000

5000.000

MHz

4923.995

28.8

6.2

155.0

1.3

3.0

0.0

H-Horn

AV

0.0

35.0

54.0

-19.0

High (11) Channel

4923.995

28.0

6.2

222.0

1.0

3.0

0.0

V-Horn

AV

0.0

34.2

54.0

-19.8

High (11) Channel

4883.949

27.2

6.2

182.0

1.6

3.0

0.0

H-Horn

AV

0.0

33.4

54.0

-20.6

Mid (7) Channel

4883.949

27.0

6.2

273.0

1.7

3.0

0.0

V-Horn

AV

0.0

33.2

54.0

-20.8

Mid (7) Channel

4923.995

40.1

6.2

155.0

1.3

3.0

0.0

H-Horn

PK

0.0

46.3

74.0

-27.7

High (11) Channel

4923.995

39.9

6.2

222.0

1.0

3.0

0.0

V-Horn

PK

0.0

46.1

74.0

-27.9

High (11) Channel

4883.949

39.1

6.2

273.0

1.7

3.0

0.0

V-Horn

PK

0.0

45.3

74.0

-28.7

Mid (7) Channel

4883.949

38.9

6.2

182.0

1.6

3.0

0.0

H-Horn

PK

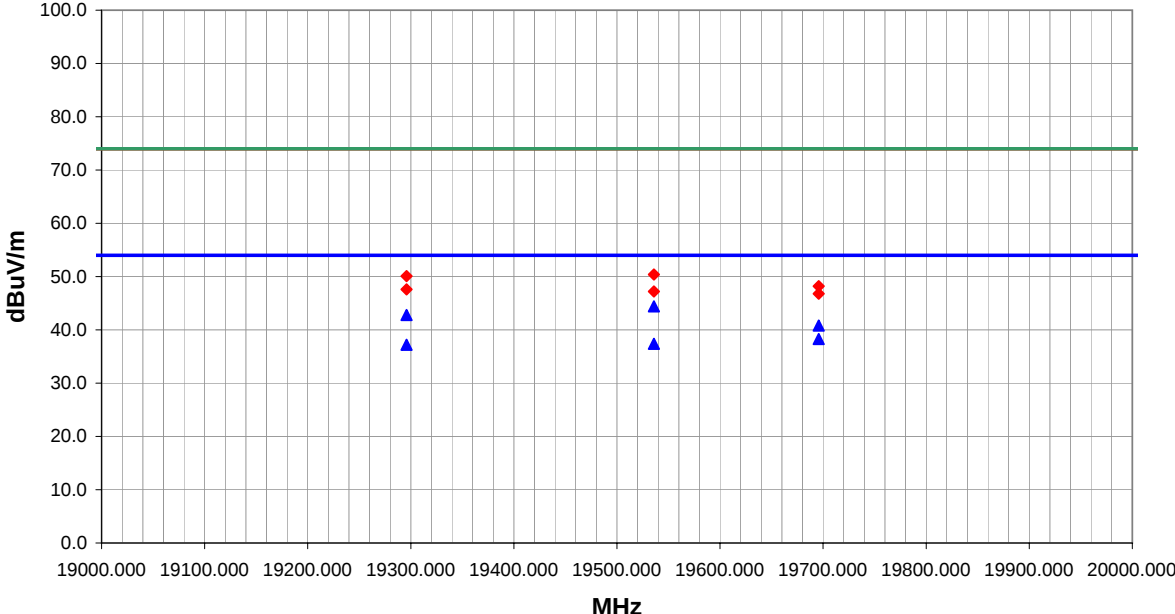
0.0

45.1

74.0

-28.9

Mid (7) Channel

NORTHWEST EMC										OATS DATA SHEET				REV d13.11 06/23/2003	
EUT: 802MIG2 Radio						Work Order: inmc0086									
Serial Number: none						Date: 07/13/03									
Customer: Intermec Technologies Corporation						Temperature: 75									
Attendees:						Humidity: 41%									
Cust. Ref. No.:						Barometric Pressure: 30.12									
Tested by: Dan Haas				Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS															
Specification: FCC Part 15.247(c)						Year: 2001									
Method: ANSI C63.4						Year: 1992									
SAMPLE CALCULATIONS															
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation															
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator															
COMMENTS															
067263 Flat Panel															
EUT OPERATING MODES															
Low (1), Mid(7) and High(11) Channel, 802.11(g) 6Mbit, Power Level = 60.															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
RESULTS										Run #					
Pass										53					
Other															
										 Tested By:					
															
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)			
19535.820	35.9	8.5	349.0	1.4	3.0	0.0	V-High Horr	AV	0.0	44.4	54.0	-9.6			
19295.820	34.6	8.2	354.0	1.2	3.0	0.0	V-High Horr	AV	0.0	42.8	54.0	-11.2			
19695.820	32.1	8.7	12.0	1.0	3.0	0.0	V-High Horr	AV	0.0	40.8	54.0	-13.2			
19695.820	29.6	8.7	312.0	1.4	3.0	0.0	I-High Horr	AV	0.0	38.3	54.0	-15.7			
19535.820	28.9	8.5	57.0	1.0	3.0	0.0	I-High Horr	AV	0.0	37.4	54.0	-16.6			
19295.820	29.0	8.2	342.0	1.2	3.0	0.0	I-High Horr	AV	0.0	37.2	54.0	-16.8			
19535.820	41.9	8.5	349.0	1.4	3.0	0.0	V-High Horr	PK	0.0	50.4	74.0	-23.6			
19295.820	41.9	8.2	354.0	1.2	3.0	0.0	V-High Horr	PK	0.0	50.1	74.0	-23.9			
19695.820	39.5	8.7	12.0	1.0	3.0	0.0	V-High Horr	PK	0.0	48.2	74.0	-25.8			
19295.820	39.4	8.2	342.0	1.2	3.0	0.0	I-High Horr	PK	0.0	47.6	74.0	-26.4			
19535.820	38.7	8.5	57.0	1.0	3.0	0.0	I-High Horr	PK	0.0	47.2	74.0	-26.8			
19695.820	38.1	8.7	312.0	1.4	3.0	0.0	I-High Horr	PK	0.0	46.8	74.0	-27.2			

Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:

High
Mid
Low

Operating Modes Investigated:

802.11(b)
802.11(g)

Data Rates Investigated:

6 Mbit
11 Mbit
36 Mbit
54 Mbit

Output Power Setting(s) Investigated:

Maximum

Power Input Settings Investigated:

Battery

Software\Firmware Applied During Test

Exercise software	FccTest.exe	Version	1/1/1601
Description			
The system was tested using special software developed to test all functions of the device during the test. The software allowed the selection of transmit channel and data rate. These were varied to produce the highest level of emissions. The OS of the host device was Ver. 0.00.00.0072			

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
Mini-PCI to CardBus Extender	TDK	Rev. 2	ICMB-68FYGC-0M03
802.11(b) and 802.11(g) radio	Intermec Technologies Corporation	802MIG2	C1
Laptop	Dell	PPL	0009321C-12800-8B6-0901
Power Adapter 1	Dell	PA-2	85391
Power Adapter 2	CUI Stack	DX-57AAT	N/A

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	PA	1.6	Yes	Laptop	Power Adapter 1
AC Power	No	1.6	No	Power Adapter 1	AC Mains
DC Leads	PA	1.8	No	802.11(b) and 802.11(g) radio	Power Adapter 2
AC Power	PA	1.4	PA	Power Adapter 2	AC Mains

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Measurement Equipment

Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Tektronix	2784	AAO	02/26/2003	24 mo

Test Description

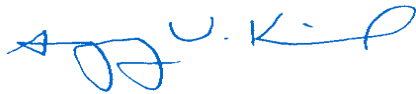
Requirement: Per 47 CFR 15.247(d), the peak power spectral density conducted from the antenna port of a direct sequence transmitter must not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission.

Configuration: The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. Per the procedure outlined in FCC 97-114, the spectrum analyzer was used as follows:

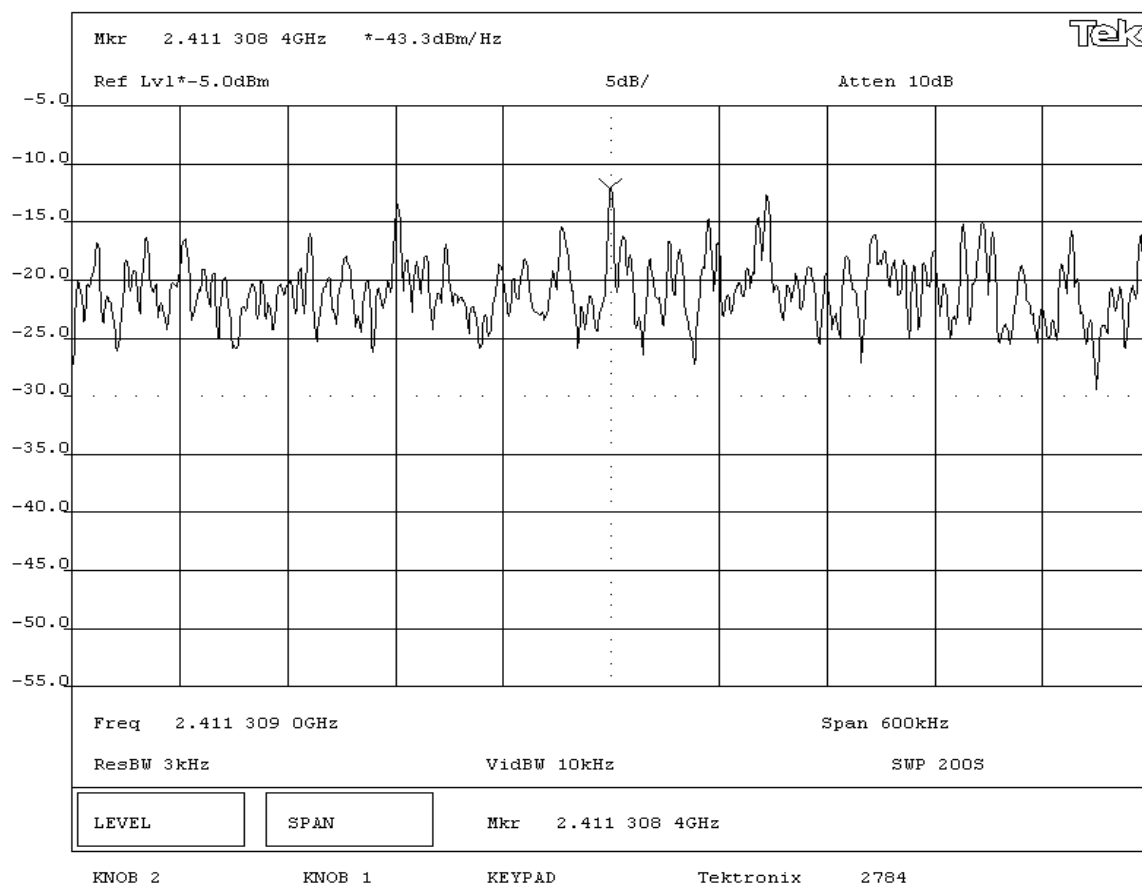
The emission peak(s) were located and zoom in on within the passband. The resolution bandwidth was set to 3 kHz, the video bandwidth was set to greater than or equal to the resolution bandwidth. The sweep speed was set equal to the span divided by 3 kHz (sweep = $(\text{SPAN}/3 \text{ kHz})$). For example, given a span of 1.5 MHz, the sweep should be $1.5 \times 10^6 \div 3 \times 10^3 = 500$ seconds. External attenuation was used and added to the reading. The following FCC procedure was used for modifying the power spectral density measurements:

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 34.8 dB for correction to 3 kHz."

Completed by:



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: 802MIG2			Work Order: INMC0086		
Serial Number: C1			Date: 06/26/03		
Customer: Intermec Corporation			Temperature: 75 degrees F		
Attendees: C.D. White		Tested by: Greg Kiemel	Humidity: 41% RH		
Customer Ref. No.: N/A		Power: DC from Host Unit	Job Site: EV06		
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(d)		Year: Most Current	Method: FCC 97-114, ANSI C63.4	Year: 1992	
SAMPLE CALCULATIONS					
Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.					
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.					
Bandwidth Correction Factor = $10 \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$					
COMMENTS					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band					
RESULTS					
			AMPLITUDE		
Pass			Power Spectral Density = -8.5 dBm / 3kHz		
SIGNATURE					
 Tested By: _____					
DESCRIPTION OF TEST					
Power Spectral Density - Low Channel					



NORTHWEST
EMC**EMISSIONS DATA SHEET**Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$ **COMMENTS****EUT OPERATING MODES**

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

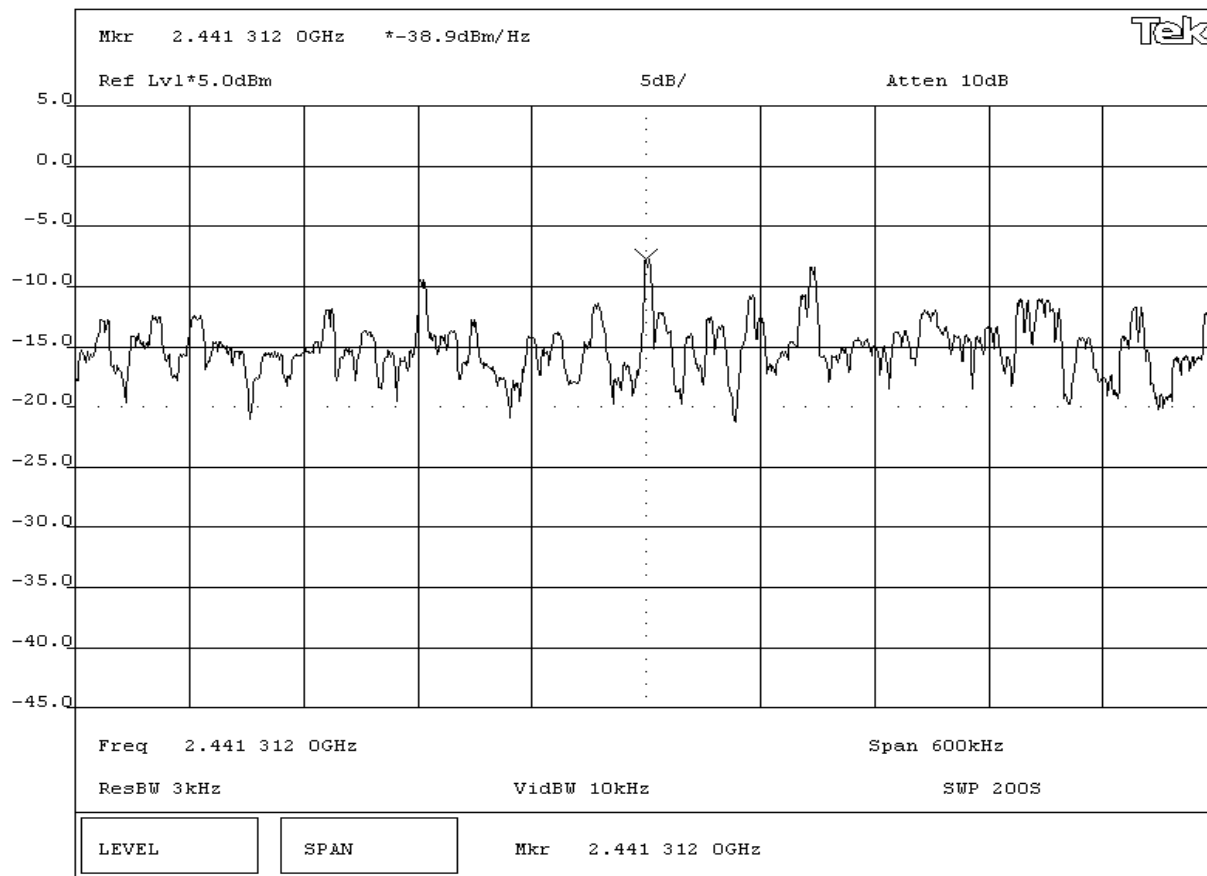
None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS	AMPLITUDE
----------------	------------------

Pass	Power Spectral Density = -4.1 dBm / 3kHz
------	--

SIGNATURETested By: **DESCRIPTION OF TEST****Power Spectral Density - Mid Channel**

KNOB 2

KNOB 1

KEYPAD

Tektronix

2784

NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS

AMPLITUDE

Pass

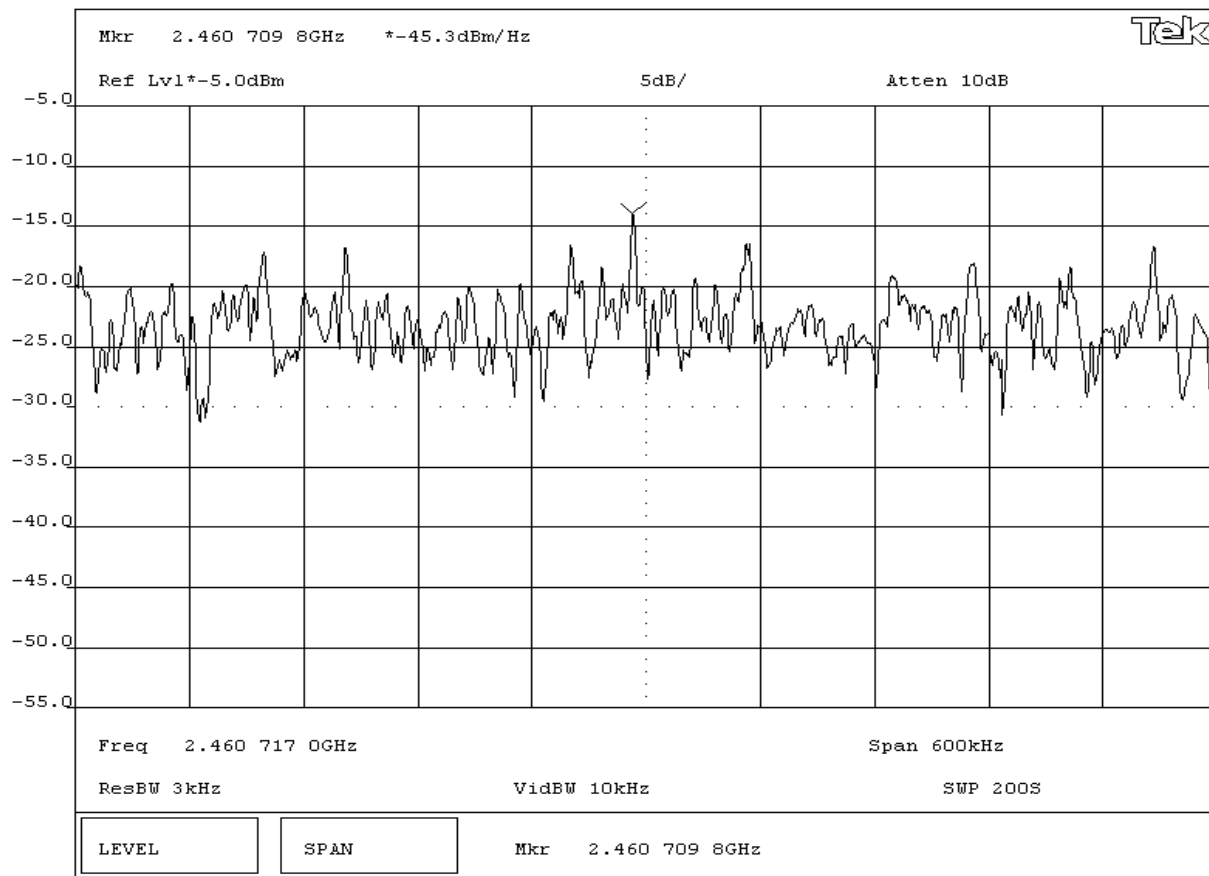
Power Spectral Density = -10.5 dBm / 3kHz

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - High Channel



KNOB 2

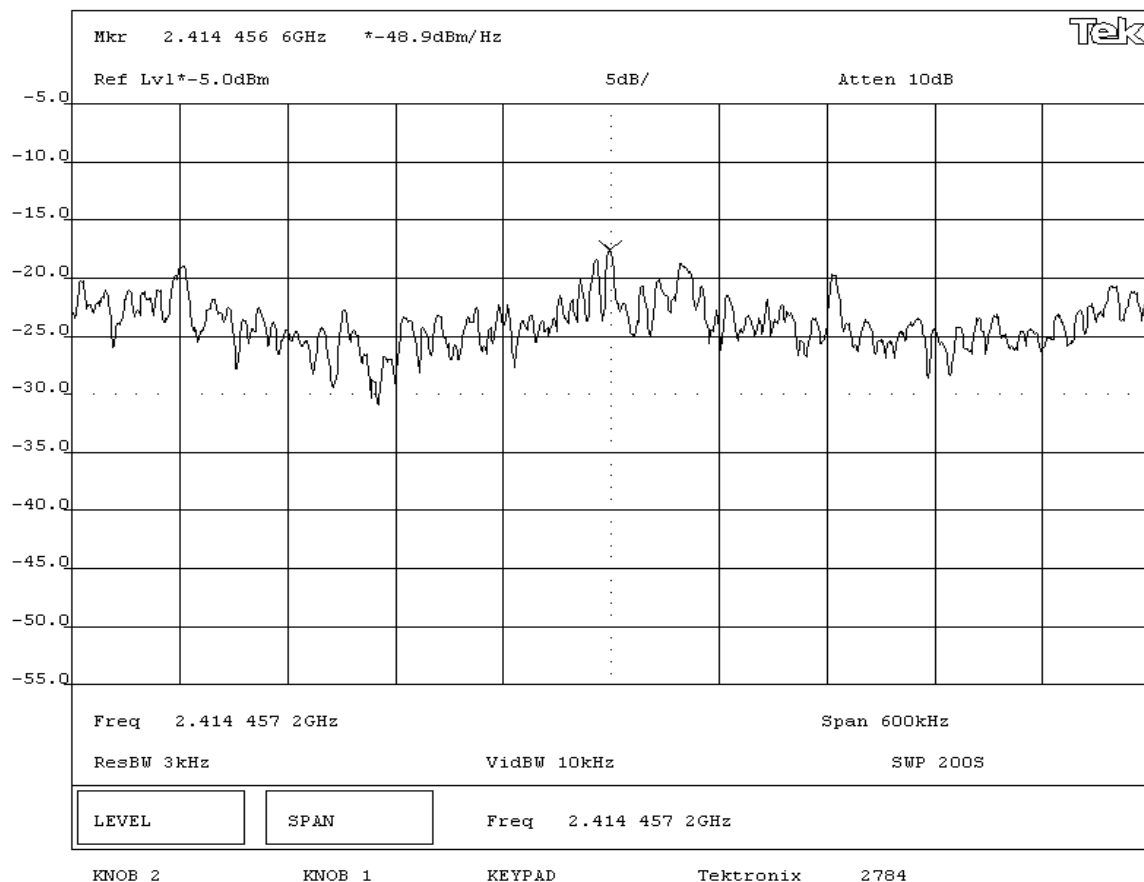
KNOB 1

KEYPAD

Tektronix

2784

NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: 802MIG2			Work Order: INMC0086		
Serial Number: C1			Date: 06/26/03		
Customer: Intermec Corporation			Temperature: 75 degrees F		
Attendees: C.D. White		Tested by: Greg Kiemel	Humidity: 41% RH		
Customer Ref. No.: N/A		Power: DC from Host Unit	Job Site: EV06		
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(d)		Year: Most Current	Method: FCC 97-114, ANSI C63.4	Year: 1992	
SAMPLE CALCULATIONS					
Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.					
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.					
Bandwidth Correction Factor = $10 \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$					
COMMENTS					
EUT OPERATING MODES					
Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band					
RESULTS			AMPLITUDE		
Pass			Power Spectral Density = -14.1 dBm / 3kHz		
SIGNATURE					
 Tested By: _____					
DESCRIPTION OF TEST					
Power Spectral Density - Low Channel - 6 Mbit					



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS	AMPLITUDE
---------	-----------

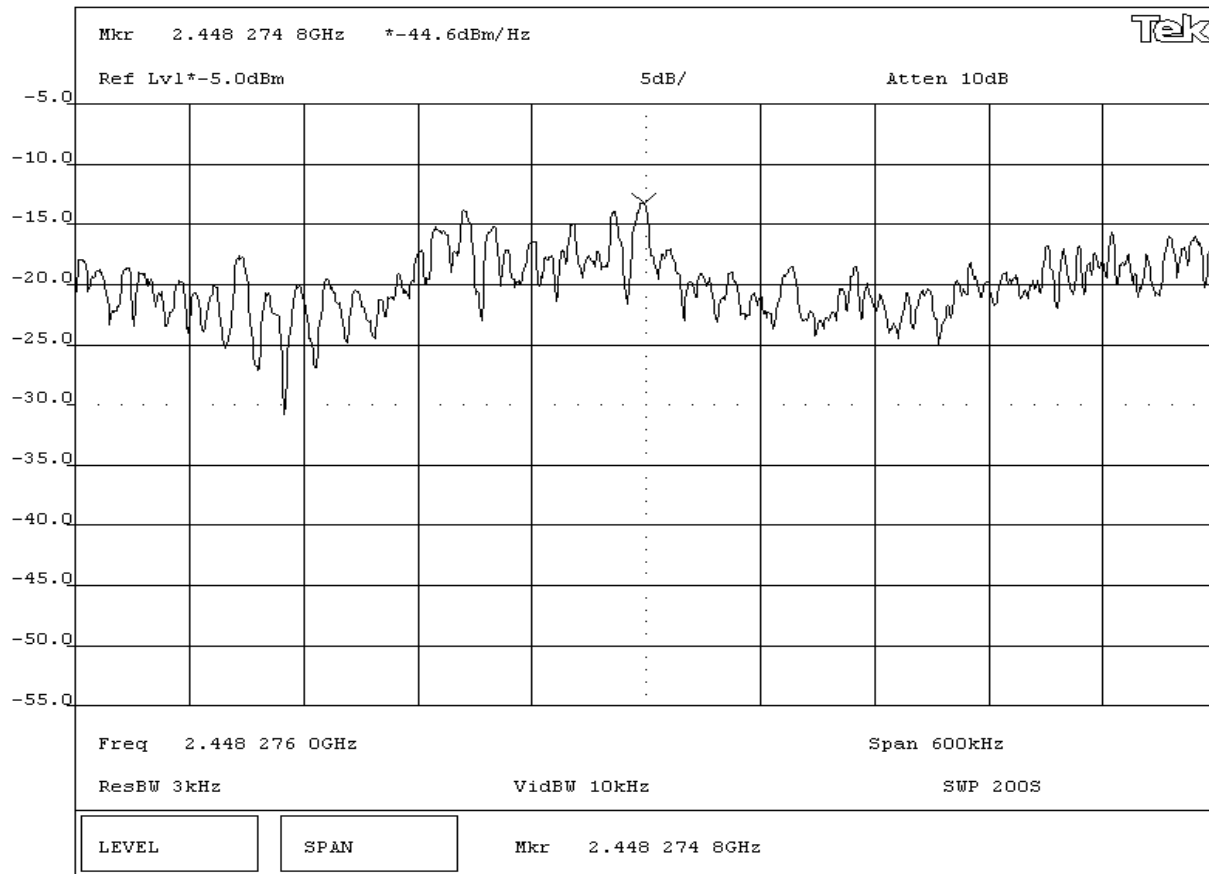
Pass	Power Spectral Density = -9.8 dBm / 3kHz
------	--

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 6 Mbit



Knob 2

Knob 1

Keypad

Tektronix

2784

NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS

AMPLITUDE

Pass

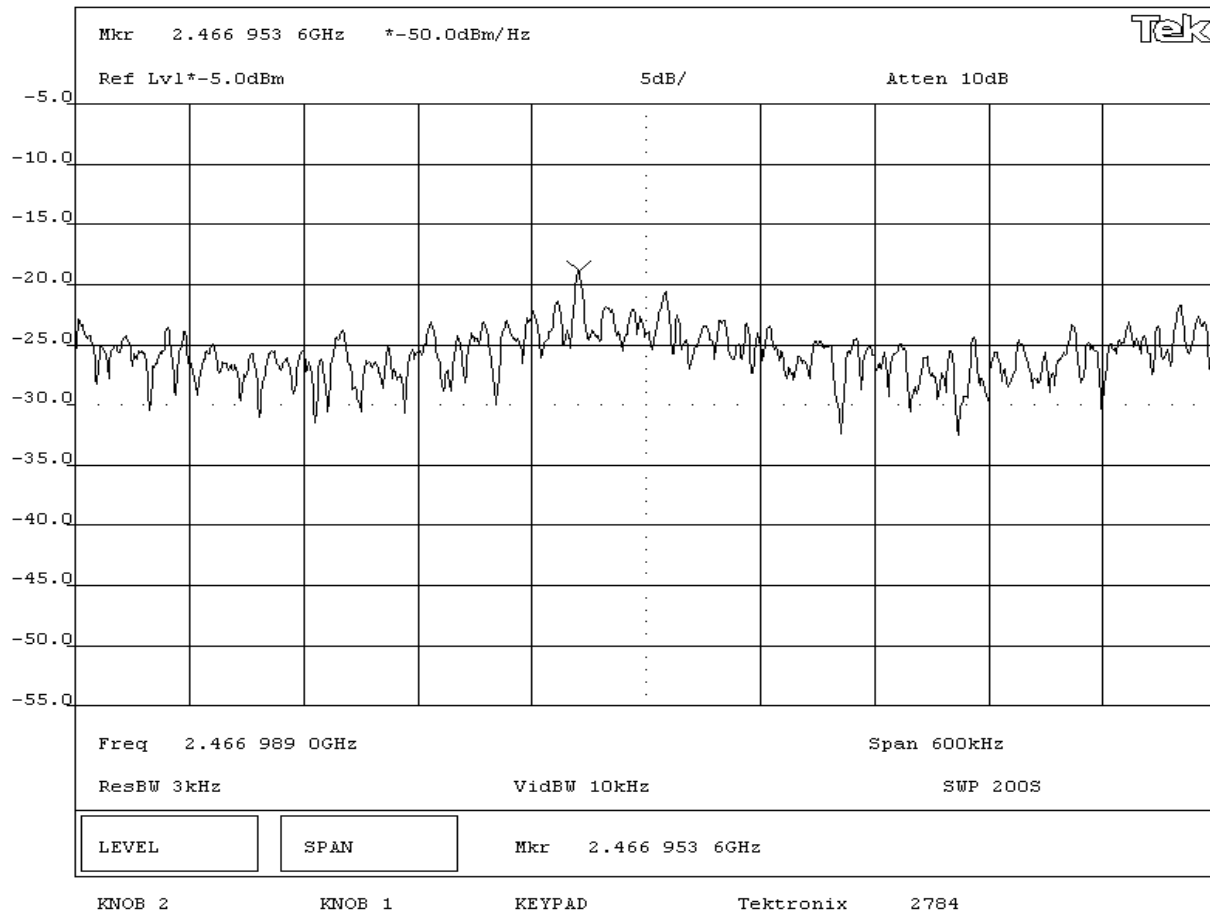
Power Spectral Density = -15.2 dBm / 3kHz

SIGNATURE

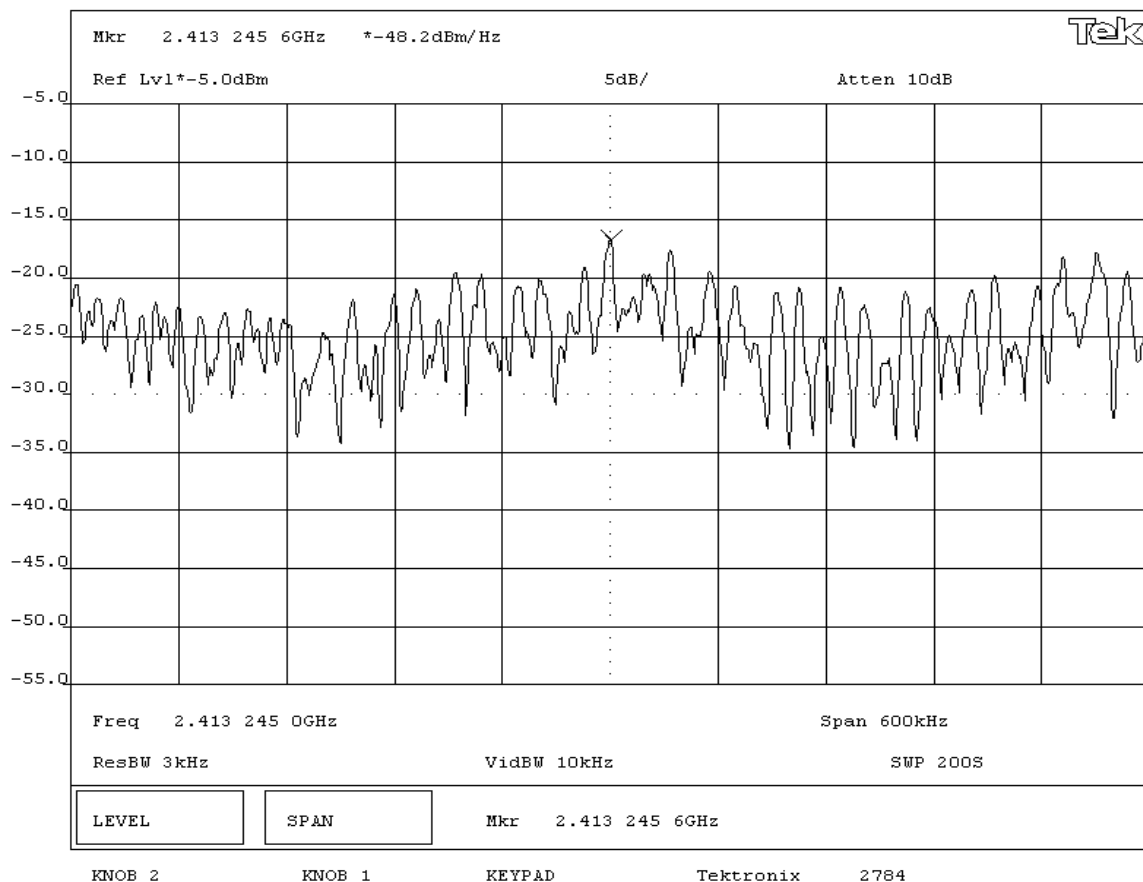
Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 6 Mbit



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: 802MIG2			Work Order: INMC0086		
Serial Number: C1			Date: 06/26/03		
Customer: Intermec Corporation			Temperature: 75 degrees F		
Attendees: C.D. White		Tested by: Greg Kiemel	Humidity: 41% RH		
Customer Ref. No.: N/A		Power: DC from Host Unit	Job Site: EV06		
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(d)		Year: Most Current	Method: FCC 97-114, ANSI C63.4	Year: 1992	
SAMPLE CALCULATIONS					
Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.					
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.					
Bandwidth Correction Factor = $10 \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$					
COMMENTS					
EUT OPERATING MODES					
Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band					
RESULTS					
Pass			Power Spectral Density = -13.4 dBm / 3kHz		
SIGNATURE					
 Tested By: _____					
DESCRIPTION OF TEST					
Power Spectral Density - Low Channel - 36 Mbit					



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS	AMPLITUDE
---------	-----------

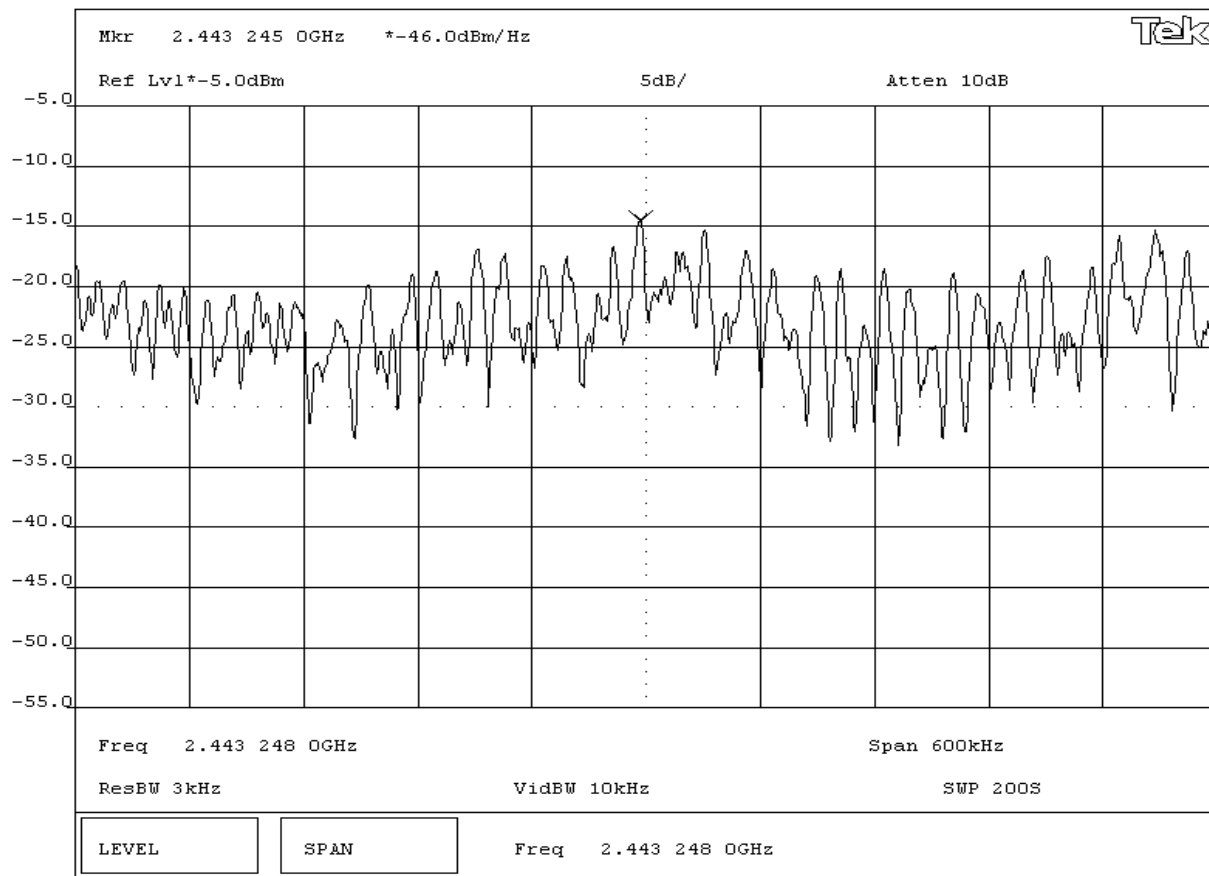
Pass	Power Spectral Density = -11.2 dBm / 3kHz
------	---

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 36 Mbit



Knob 2

Knob 1

Keypad

Tektronix

2784

NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS	AMPLITUDE
---------	-----------

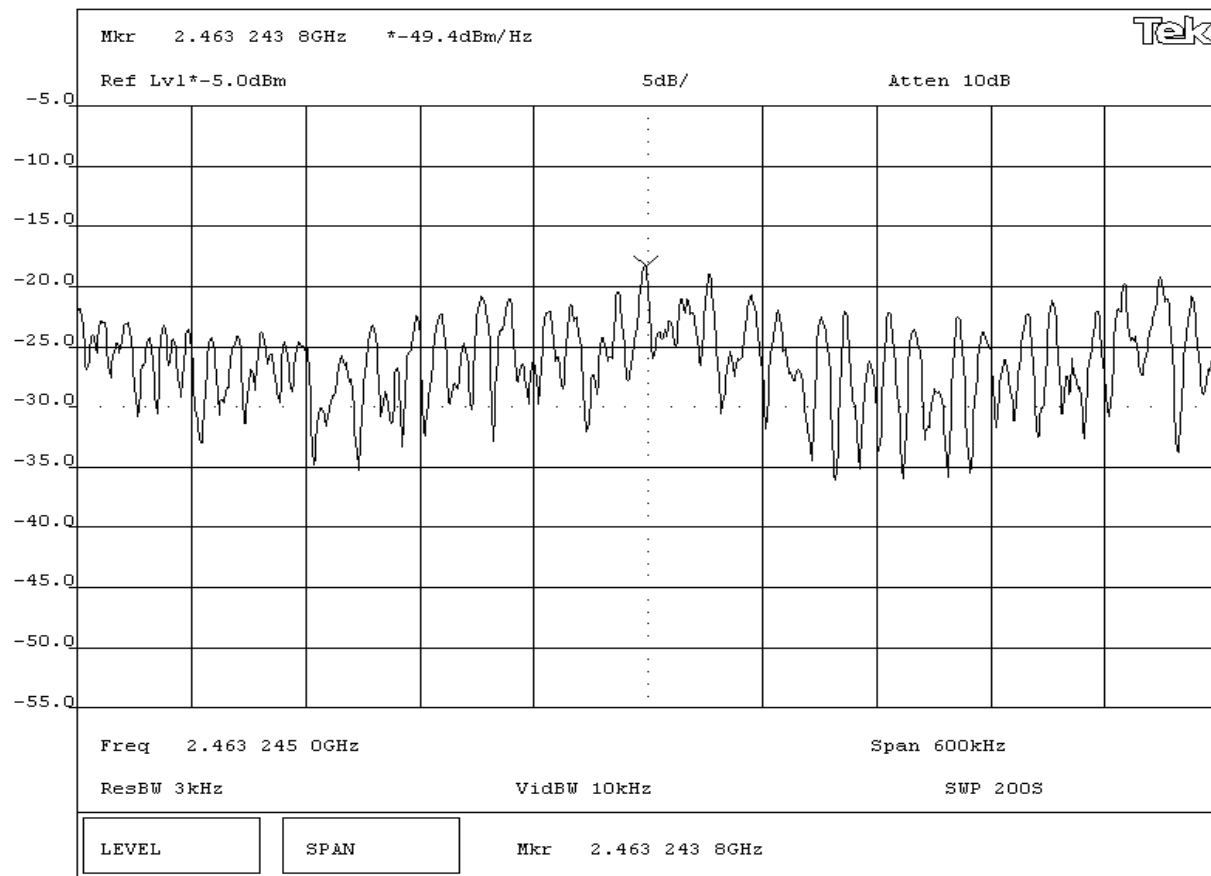
Pass	Power Spectral Density = -14.6 dBm / 3kHz
------	---

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 36 Mbit



KNOB 2

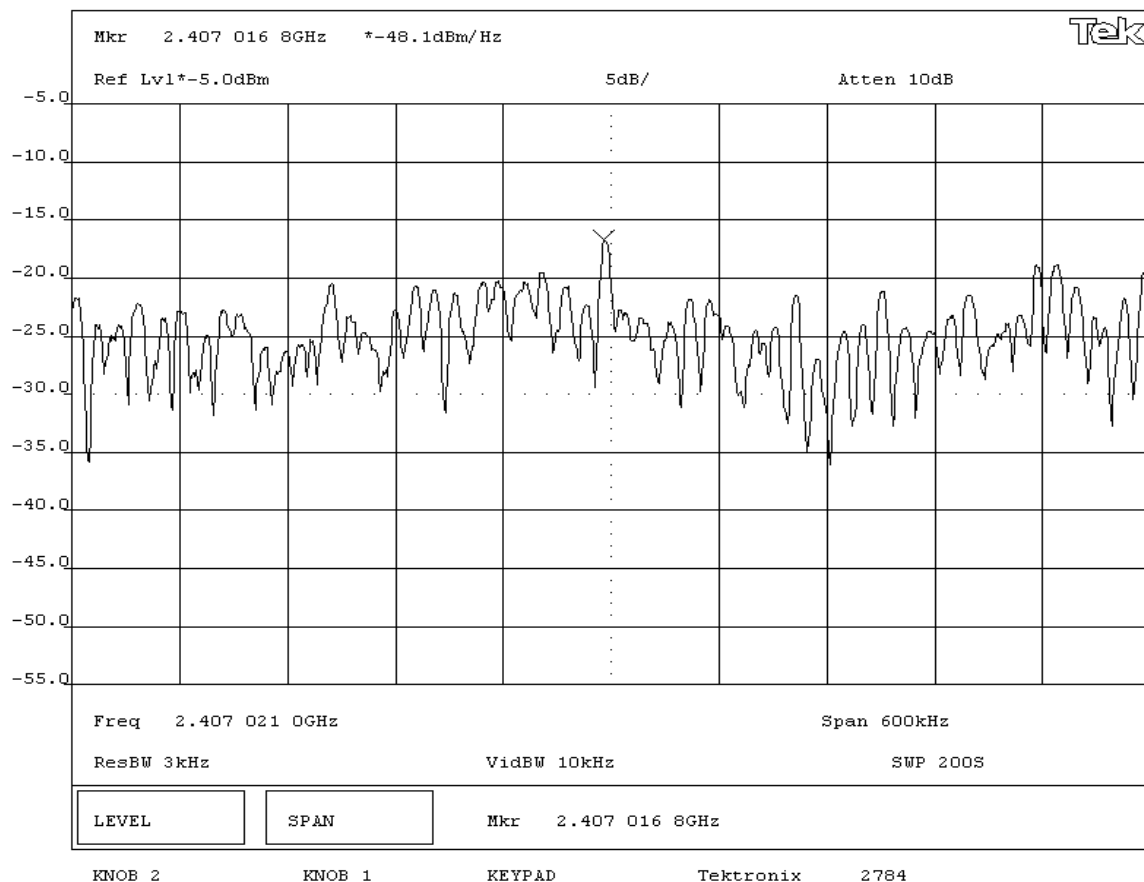
KNOB 1

KEYPAD

Tektronix

2784

NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: 802MIG2			Work Order: INMC0086		
Serial Number: C1			Date: 06/26/03		
Customer: Intermec Corporation			Temperature: 75 degrees F		
Attendees: C.D. White		Tested by: Greg Kiemel	Humidity: 41% RH		
Customer Ref. No.: N/A		Power: DC from Host Unit	Job Site: EV06		
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(d)		Year: Most Current	Method: FCC 97-114, ANSI C63.4	Year: 1992	
SAMPLE CALCULATIONS					
Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.					
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.					
Bandwidth Correction Factor = $10 \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$					
COMMENTS					
EUT OPERATING MODES					
Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band					
RESULTS			AMPLITUDE		
Pass			Power Spectral Density = -13.3 dBm / 3kHz		
SIGNATURE					
 Tested By: _____					
DESCRIPTION OF TEST					
Power Spectral Density - Low Channel - 54 Mbit					



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS

AMPLITUDE

Pass

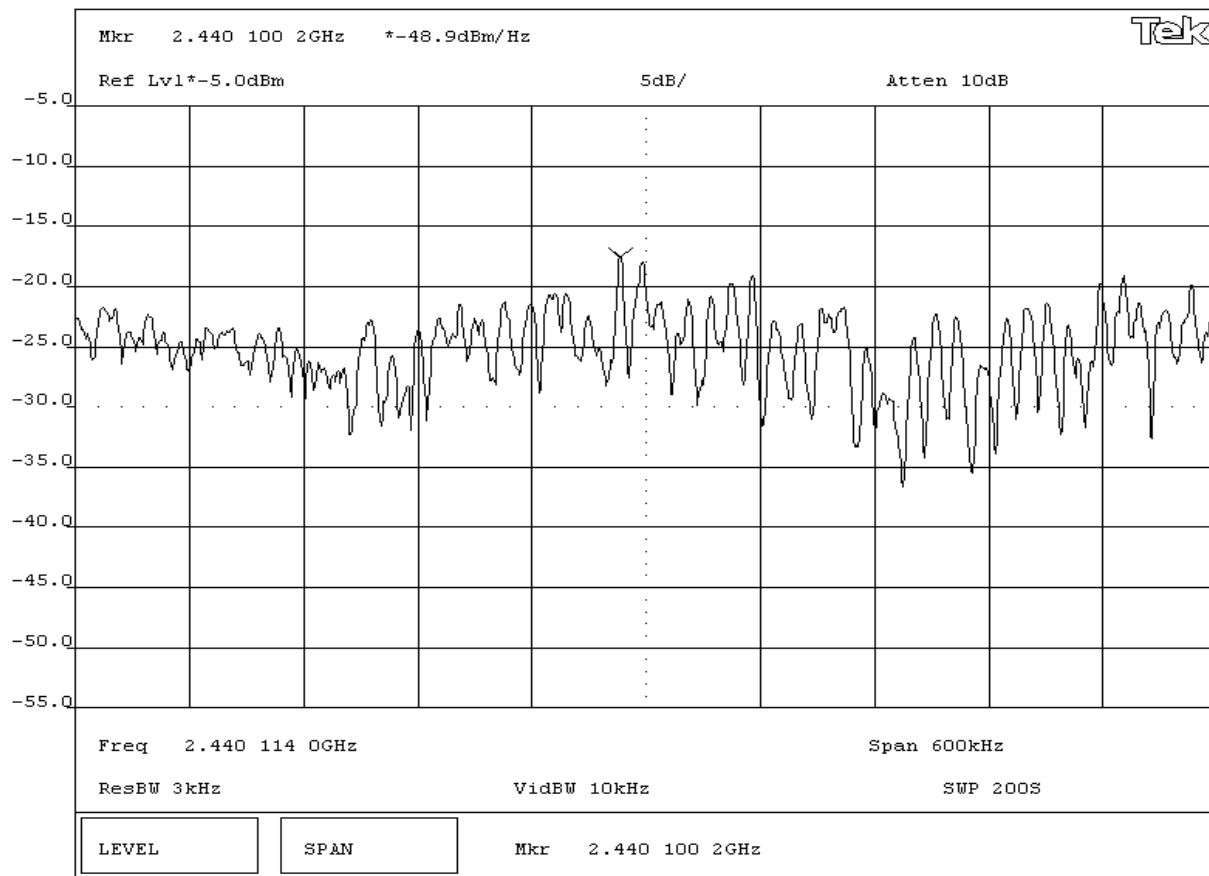
Power Spectral Density = -14.1 dBm / 3kHz

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 54 Mbit



KNOB 2

KNOB 1

KEYPAD

Tektronix

2784

NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802MIG2	Work Order:	INMC0086
Serial Number:	C1	Date:	06/26/03
Customer:	Intermec Corporation	Temperature:	75 degrees F
Attendees:	C.D. White	Humidity:	41% RH
Customer Ref. No.:	N/A	Power:	DC from Host Unit
		Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(d)	Year:	Most Current	Method:	FCC 97-114, ANSI C63.4	Year:	1992
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SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

RESULTS

AMPLITUDE

Pass

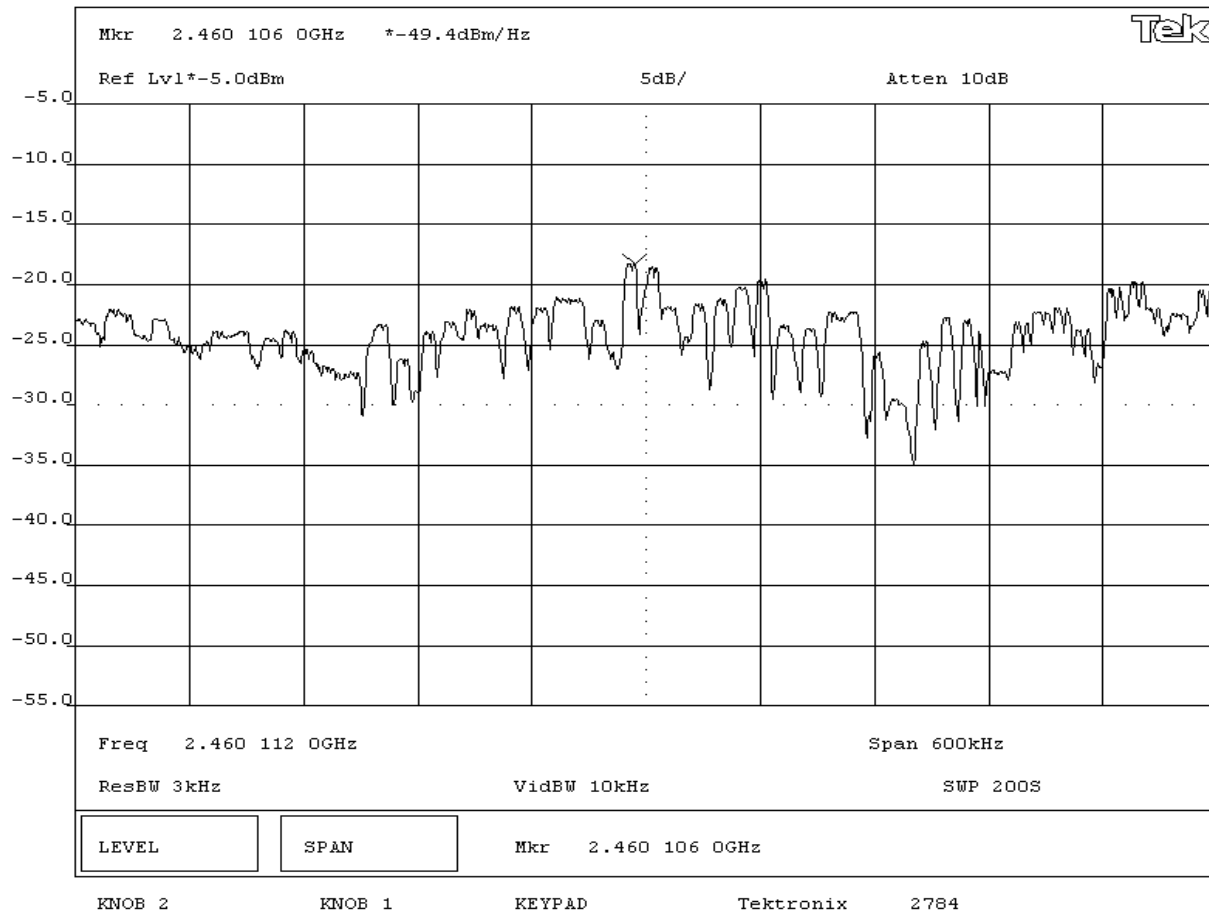
Power Spectral Density = -14.6 dBm / 3kHz

SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 54 Mbit



Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:

High (Channel 11)

Mid (Channel 7)

Low (Channel 1)

Operating Modes Investigated:

Transmitting

Output Power Investigated:

Maximum

Data Rates Investigated:

11Mbit [802.11(b)]

6Mbit [802.11(g)]

Power Input Settings Investigated:

120 VAC, 60 Hz.

Frequency Range Investigated

Start Frequency	150 kHz	Stop Frequency	30 MHz
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Software\Firmware Applied During Test

Exercise software	CTxRx	Version	1.4.1
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Description

The software transmitted 802.11(g) and 802.11(b) modulation in low, mid, and high channels.

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
Mini-PCI to CardBus Extender	TDK	Rev. 2	ICMB-68FYGC-0M03
802.11(b) and 802.11(g) radio	Intermec Technologies Corporation	802MIG2	N/A
Receive antenna	N/A	Omni 066147	N/A
Laptop	Dell	PPL	0009321C-12800-8B6-0901
Power Adapter 1	Dell	PA-2	85391
Transmit antenna	CushCraft	Yagi 063365	PC2415
Power Adapter 2	CUI Stack	DX-57AAT	N/A

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Coax	Yes	0.15	No	802.11(b) and 802.11(g) radio	Receive antenna
Coax adapter cable	Yes	1.4	No	802.11(b) and 802.11(g) radio	Transmit antenna
DC Leads	PA	1.6	Yes	Laptop	Power Adapter 1
AC Power	No	1.6	No	Power Adapter 1	AC Mains
DC Leads	PA	1.8	No	802.11(b) and 802.11(g) radio	Power Adapter 2
AC Power	PA	1.4	PA	Power Adapter 2	AC Mains

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Measurement Equipment

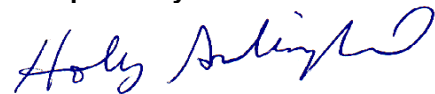
Description	Manufacturer	Model	Identifier	Last Cal	Interval
High Pass Filter	TTE	H97-100k-50-720B	HFC	01/02/2003	12 mo
LISN	Solar	9252-50-R-24-BNC	LIN	12/12/2002	12 mo
LISN	Solar	9252-50-R-24-BNC	LIP	12/12/2002	12 mo
Spectrum Analyzer	Hewlett-Packard	8591A	AAG	01/02/2003	12 mo

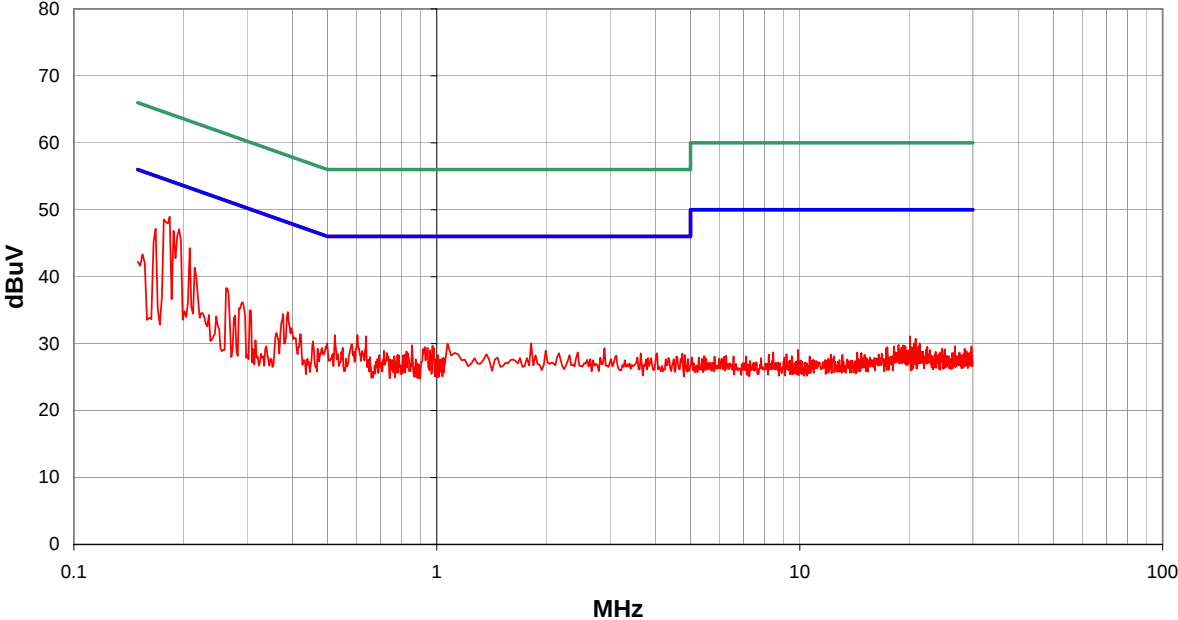
Test Description

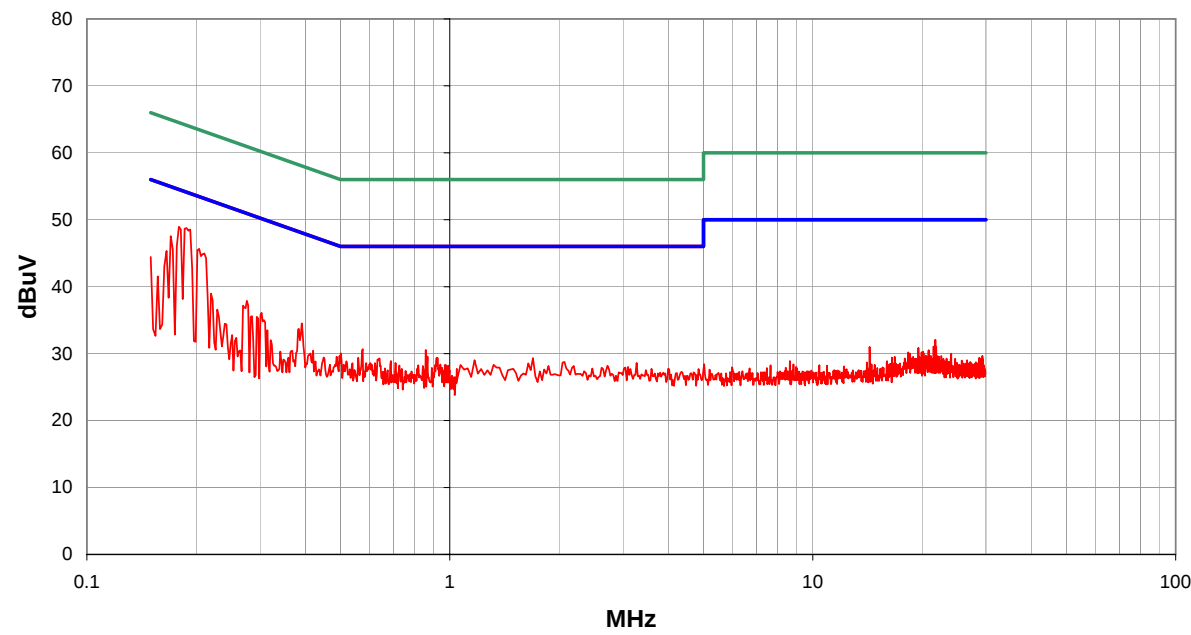
Requirement: Per 47 15.207(d), if the EUT is connected to the AC power line indirectly, obtaining its power from another device that is connected to the AC power line, then it should be tested to demonstrate compliance with the conducted limits of 15.207.

Configuration: The EUT will be powered from a host device that could be connected to the AC power line. Therefore, measurements were with the EUT powered from a linear DC supply (CUI Stack P/N DX-57AAT) that contains no EMC suppression devices. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.4-1992.

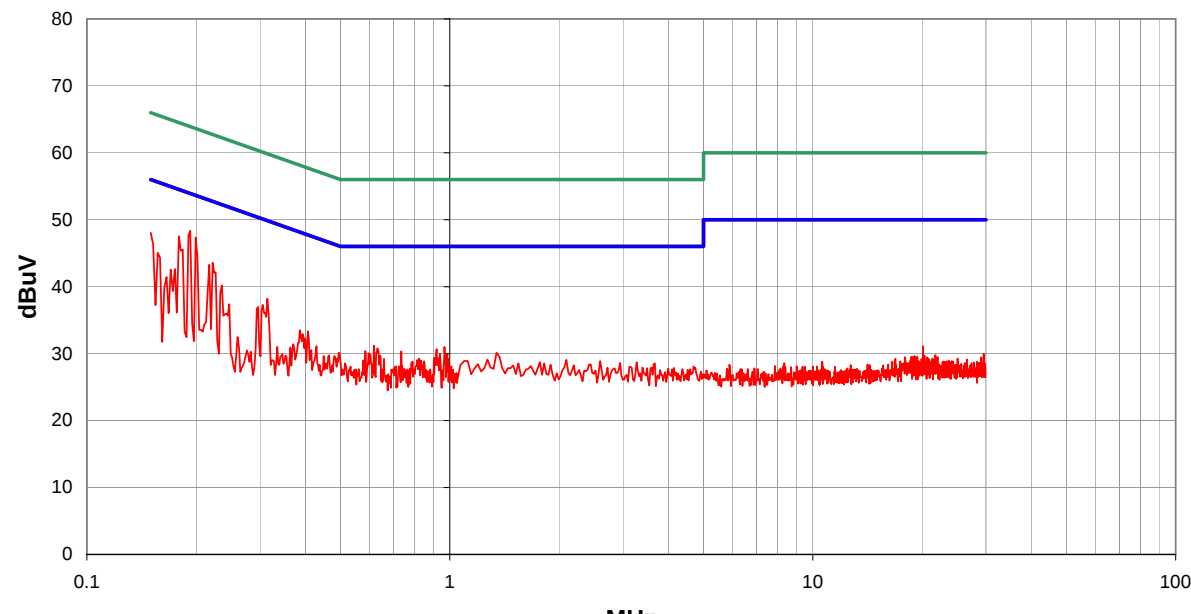
Completed by:

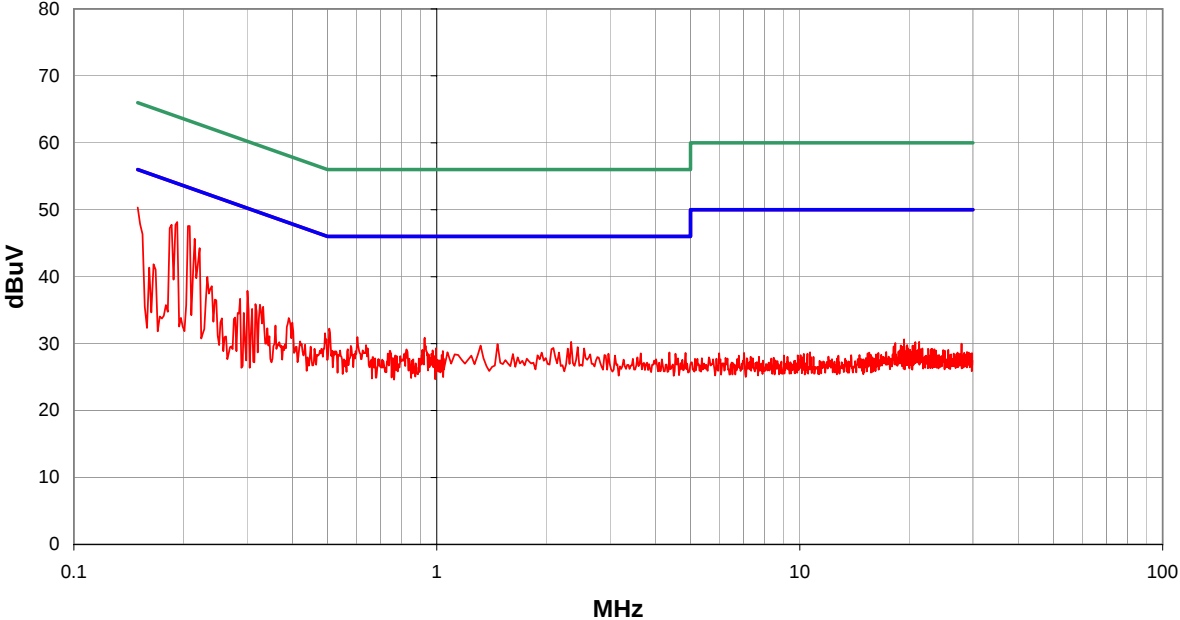


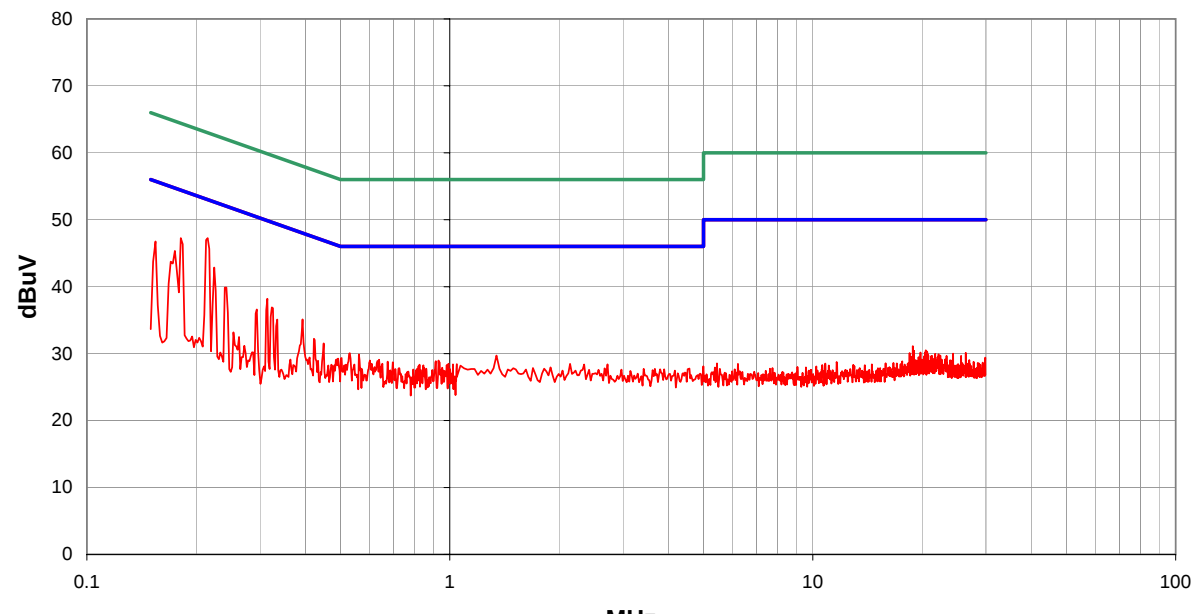
NORTHWEST		CONDUCTED EMISSIONS DATA SHEET					REV d13.11 06/23/2003					
EMC												
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207				Year: 1997								
Method: ANSI C63.4				Year: 1997								
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
Low (1) Channel, 802.11(b) 11Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS						Line	Run #					
Pass						L1	1					
Other												
						Tested By: 						
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.184	28.8			0.0	0.2	20.0				49.0	54.3	-5.4
0.195	26.9			0.0	0.2	20.0				47.1	53.8	-6.8
0.188	26.7			0.0	0.2	20.0				46.9	54.1	-7.3
0.168	27.0			0.0	0.1	20.0				47.1	55.1	-7.9
0.209	24.1			0.0	0.2	20.0				44.3	53.3	-9.0
0.215	21.2			0.0	0.2	20.0				41.4	53.0	-11.6
0.155	23.2			0.0	0.1	20.0				43.3	55.8	-12.4
0.265	18.1			0.0	0.2	20.0				38.3	51.3	-13.0
0.388	14.5			0.0	0.2	20.0				34.7	48.1	-13.4
0.377	14.2			0.0	0.2	20.0				34.4	48.3	-13.9
0.292	16.0			0.0	0.2	20.0				36.2	50.5	-14.3
0.604	11.0			0.0	0.3	20.0				31.3	46.0	-14.7
0.523	11.0			0.0	0.3	20.0				31.3	46.0	-14.7
0.638	10.8			0.0	0.3	20.0				31.1	46.0	-14.9
0.305	14.8			0.0	0.2	20.0				35.0	50.1	-15.1
1.820	9.6			0.0	0.4	20.0				30.0	46.0	-16.0
0.499	9.8			0.0	0.2	20.0				30.0	46.0	-16.0
1.070	9.6			0.0	0.4	20.0				30.0	46.0	-16.0
0.420	11.2			0.0	0.2	20.0				31.4	47.4	-16.0
0.584	9.6			0.0	0.3	20.0				29.9	46.0	-16.1

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003						
EUT: 802MIG2 Radio				Work Order: inmc0086								
Serial Number: none				Date: 07/17/03								
Customer: Intermec Technologies Corporation				Temperature: 75								
Attendees:				Humidity: 39%								
Cust. Ref. No.:				Barometric Pressure: 30.06								
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207				Year: 1997								
Method: ANSI C63.4				Year: 1997								
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
Low (1) Channel, 802.11(b) 11Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS												
Pass				Line N		Run # 2						
Other				 Tested By:								
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.188	28.6			0.0	0.2	20.0				48.8	54.1	-5.4
0.179	28.8			0.0	0.2	20.0				49.0	54.5	-5.6
0.170	27.4			0.0	0.1	20.0				47.5	54.9	-7.4
0.204	25.5			0.0	0.2	20.0				45.7	53.4	-7.8
0.166	25.2			0.0	0.1	20.0				45.3	55.2	-9.8
0.150	24.3			0.0	0.1	20.0				44.4	56.0	-11.6
0.276	17.7			0.0	0.2	20.0				37.9	50.9	-13.1
0.391	14.3			0.0	0.2	20.0				34.5	48.0	-13.5
0.220	18.8			0.0	0.2	20.0				39.0	52.8	-13.9
0.303	15.9			0.0	0.2	20.0				36.1	50.2	-14.1
0.157	21.4			0.0	0.1	20.0				41.5	55.6	-14.1
0.294	15.3			0.0	0.2	20.0				35.5	50.4	-14.9
0.285	15.4			0.0	0.2	20.0				35.6	50.7	-15.1
0.575	10.4			0.0	0.3	20.0				30.7	46.0	-15.3
0.859	10.2			0.0	0.4	20.0				30.6	46.0	-15.4
0.229	16.4			0.0	0.2	20.0				36.6	52.5	-15.9
0.501	9.8			0.0	0.2	20.0				30.0	46.0	-16.0
0.314	13.3			0.0	0.2	20.0				33.5	49.9	-16.4
0.868	9.2			0.0	0.4	20.0				29.6	46.0	-16.4
0.924	9.0			0.0	0.4	20.0				29.4	46.0	-16.6

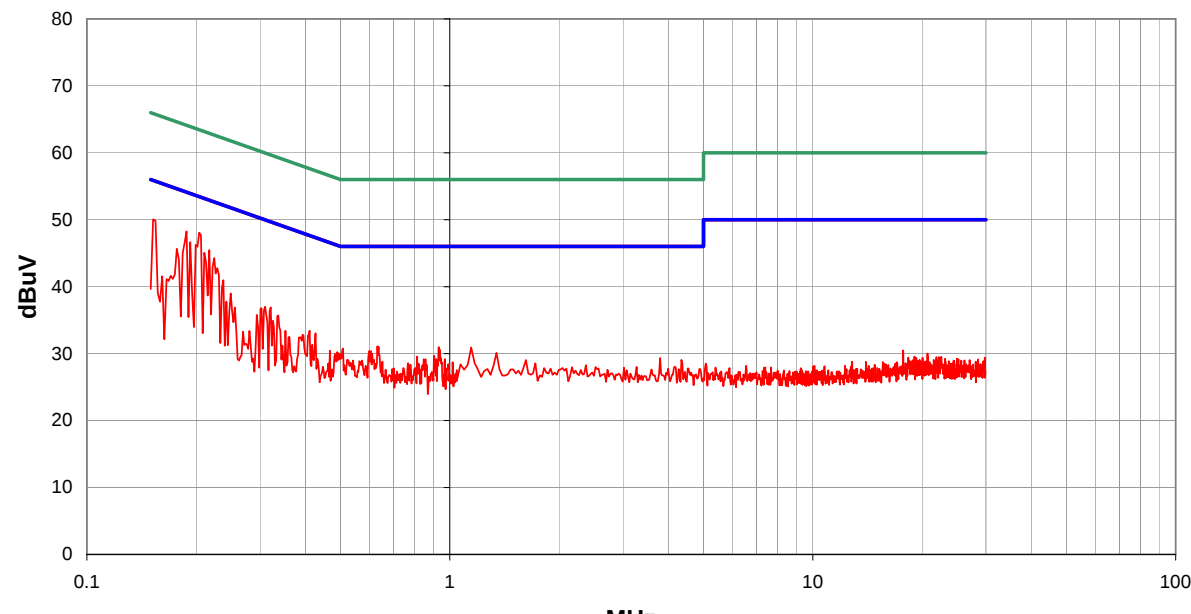
NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003				
EMC										
EUT: 802MIG2 Radio		Work Order: inmc0086								
Serial Number: none		Date: 07/17/03								
Customer: Intermec Technologies Corporation		Temperature: 75								
Attendees:		Humidity: 39%								
Cust. Ref. No.:		Barometric Pressure: 30.06								
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS										
Specification: FCC 15.207		Year: 1997								
Method: ANSI C63.4		Year: 1997								
SAMPLE CALCULATIONS										
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation										
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator										
COMMENTS										
063365 Yagi										
EUT OPERATING MODES										
Mid (7) Channel, 802.11(b) 11Mbit, Power = 60.										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
RESULTS				Line		Run #				
Pass				N		3				
Other										
				Holly Ashkannejhad Tested By:						
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.187	4.7			0.0	0.0	20.0	AV	24.7	54.2	-29.5
0.187	19.1			0.0	0.0	20.0	QP	39.1	64.2	-25.1
0.188	29.2			0.0	0.2	20.0		49.4	54.1	-4.8
0.200	26.8			0.0	0.2	20.0		47.0	53.6	-6.7
0.204	25.3			0.0	0.2	20.0		45.5	53.4	-8.0
0.211	24.0			0.0	0.2	20.0		44.2	53.2	-9.0
0.218	22.9			0.0	0.2	20.0		43.1	52.9	-9.9
0.388	16.2			0.0	0.2	20.0		36.4	48.1	-11.7
0.292	17.8			0.0	0.2	20.0		38.0	50.5	-12.5
0.150	23.1			0.0	0.1	20.0		43.2	56.0	-12.8
0.164	21.9			0.0	0.1	20.0		42.0	55.3	-13.2
0.303	16.6			0.0	0.2	20.0		36.8	50.2	-13.4
0.280	17.1			0.0	0.2	20.0		37.3	50.8	-13.5
0.384	13.7			0.0	0.2	20.0		33.9	48.2	-14.3
0.373	13.5			0.0	0.2	20.0		33.7	48.4	-14.7
0.159	20.5			0.0	0.1	20.0		40.6	55.5	-14.9
0.640	10.8			0.0	0.3	20.0		31.1	46.0	-14.9
0.274	15.7			0.0	0.2	20.0		35.9	51.0	-15.1
1.070	10.0			0.0	0.4	20.0		30.4	46.0	-15.6
0.629	10.0			0.0	0.3	20.0		30.3	46.0	-15.7

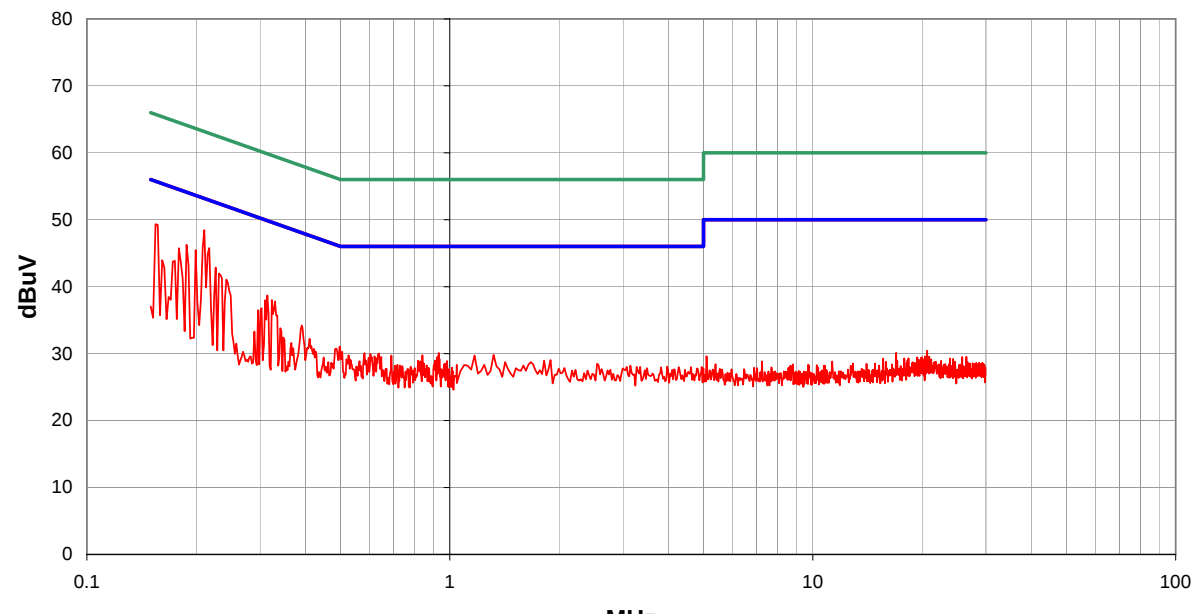
NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003						
EUT: 802MIG2 Radio				Work Order: inmc0086								
Serial Number: none				Date: 07/17/03								
Customer: Intermec Technologies Corporation				Temperature: 75								
Attendees:				Humidity: 39%								
Cust. Ref. No.:				Barometric Pressure: 30.06								
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207				Year: 1997								
Method: ANSI C63.4				Year: 1997								
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
Mid (7) Channel, 802.11(b) 11Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS				Line		Run #						
Pass				L1		4						
Other				 Tested By:								
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.193	28.2			0.0	0.2	20.0				48.4	53.9	-5.6
0.200	27.2			0.0	0.2	20.0				47.4	53.6	-6.3
0.179	27.4			0.0	0.2	20.0				47.6	54.5	-7.0
0.150	27.9			0.0	0.1	20.0				48.0	56.0	-8.0
0.222	23.4			0.0	0.2	20.0				43.6	52.7	-9.2
0.218	23.1			0.0	0.2	20.0				43.3	52.9	-9.7
0.157	24.9			0.0	0.1	20.0				45.0	55.6	-10.6
0.314	18.0			0.0	0.2	20.0				38.2	49.9	-11.7
0.175	22.5			0.0	0.1	20.0				42.6	54.7	-12.1
0.236	20.0			0.0	0.2	20.0				40.2	52.3	-12.1
0.170	22.4			0.0	0.1	20.0				42.5	54.9	-12.4
0.296	16.8			0.0	0.2	20.0				37.0	50.3	-13.4
0.166	21.3			0.0	0.1	20.0				41.4	55.2	-13.7
0.406	13.1			0.0	0.2	20.0				33.3	47.7	-14.4
0.386	13.3			0.0	0.2	20.0				33.5	48.1	-14.6
0.618	10.9			0.0	0.3	20.0				31.2	46.0	-14.8
0.967	10.6			0.0	0.4	20.0				31.0	46.0	-15.0
0.631	10.5			0.0	0.3	20.0				30.8	46.0	-15.2
0.920	10.3			0.0	0.4	20.0				30.7	46.0	-15.3
0.584	10.1			0.0	0.3	20.0				30.4	46.0	-15.6

NORTHWEST		REV										
EMC		d13.11										
		06/23/2003										
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz										
		Job Site: EV01										
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
High (11) Channel, 802.11(b) 11Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS		Line	Run #									
Pass		L1	5									
Other												
		Tested By: 										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	30.2			0.0	0.1	20.0				50.3	56.0	-5.7
0.209	27.4			0.0	0.2	20.0				47.6	53.3	-5.7
0.193	28.0			0.0	0.2	20.0				48.2	53.9	-5.8
0.186	27.6			0.0	0.2	20.0				47.8	54.2	-6.5
0.215	25.5			0.0	0.2	20.0				45.7	53.0	-7.3
0.222	24.1			0.0	0.2	20.0				44.3	52.7	-8.5
0.301	17.7			0.0	0.2	20.0				37.9	50.2	-12.3
0.233	19.8			0.0	0.2	20.0				40.0	52.3	-12.4
0.166	21.7			0.0	0.1	20.0				41.8	55.2	-13.3
0.505	12.0			0.0	0.3	20.0				32.3	46.0	-13.7
0.325	15.6			0.0	0.2	20.0				35.8	49.6	-13.8
0.332	15.3			0.0	0.2	20.0				35.5	49.4	-13.9
0.316	15.7			0.0	0.2	20.0				35.9	49.8	-13.9
0.287	16.5			0.0	0.2	20.0				36.7	50.6	-13.9
0.161	21.2			0.0	0.1	20.0				41.3	55.4	-14.1
0.391	13.6			0.0	0.2	20.0				33.8	48.0	-14.2
0.492	11.3			0.0	0.2	20.0				31.5	46.1	-14.6
0.400	12.9			0.0	0.2	20.0				33.1	47.9	-14.7
0.310	15.0			0.0	0.2	20.0				35.2	50.0	-14.8
0.604	10.7			0.0	0.3	20.0				31.0	46.0	-15.0

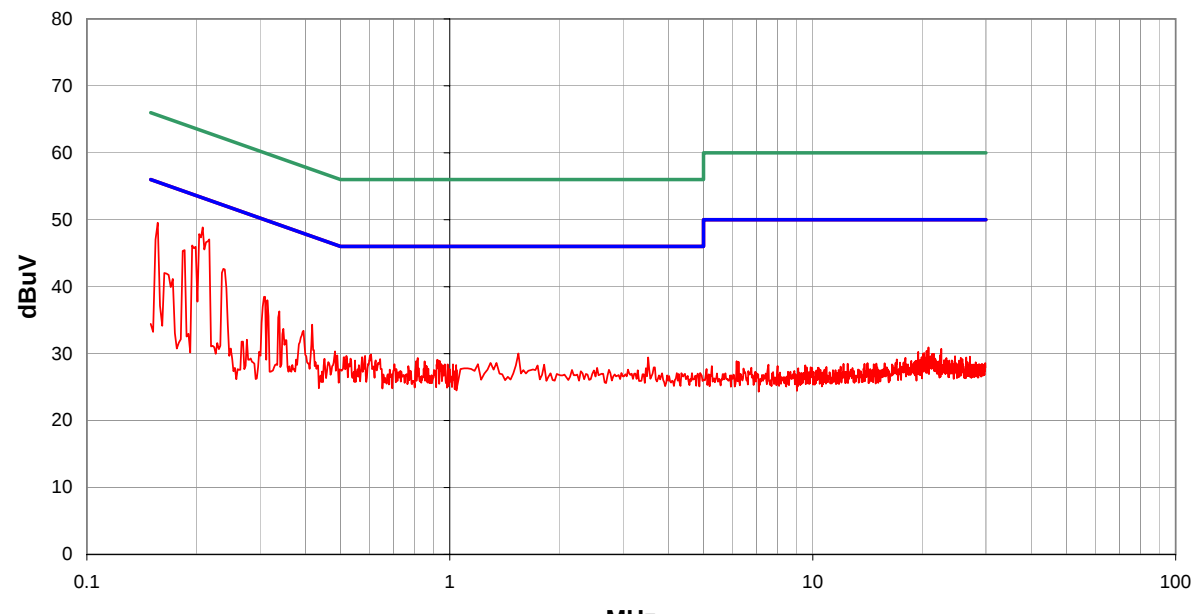
NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d3.11 06/23/2003						
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
High (11) Channel, 802.11(b) 11Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS												
Pass		Line N		Run # 6								
Other		 Tested By:										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.215	27.1			0.0	0.2	20.0				47.3	53.0	-5.7
0.182	27.1			0.0	0.2	20.0				47.3	54.4	-7.2
0.155	26.6			0.0	0.1	20.0				46.7	55.8	-9.0
0.175	25.2			0.0	0.1	20.0				45.3	54.7	-9.4
0.224	22.7			0.0	0.2	20.0				42.9	52.7	-9.8
0.314	18.0			0.0	0.2	20.0				38.2	49.9	-11.7
0.242	19.7			0.0	0.2	20.0				39.9	52.0	-12.1
0.323	16.7			0.0	0.2	20.0				36.9	49.6	-12.7
0.393	14.9			0.0	0.2	20.0				35.1	48.0	-12.9
0.294	16.4			0.0	0.2	20.0				36.6	50.4	-13.8
0.334	14.9			0.0	0.2	20.0				35.1	49.3	-14.2
0.422	12.0			0.0	0.2	20.0				32.2	47.4	-15.2
0.449	11.3			0.0	0.2	20.0				31.5	46.9	-15.4
0.530	9.8			0.0	0.3	20.0				30.1	46.0	-15.9
0.562	9.6			0.0	0.3	20.0				29.9	46.0	-16.1
1.345	9.3			0.0	0.4	20.0				29.7	46.0	-16.3
0.503	9.1			0.0	0.2	20.0				29.3	46.0	-16.7
0.492	9.0			0.0	0.2	20.0				29.2	46.1	-16.9
0.638	8.8			0.0	0.3	20.0				29.1	46.0	-16.9
0.602	8.7			0.0	0.3	20.0				29.0	46.0	-17.0

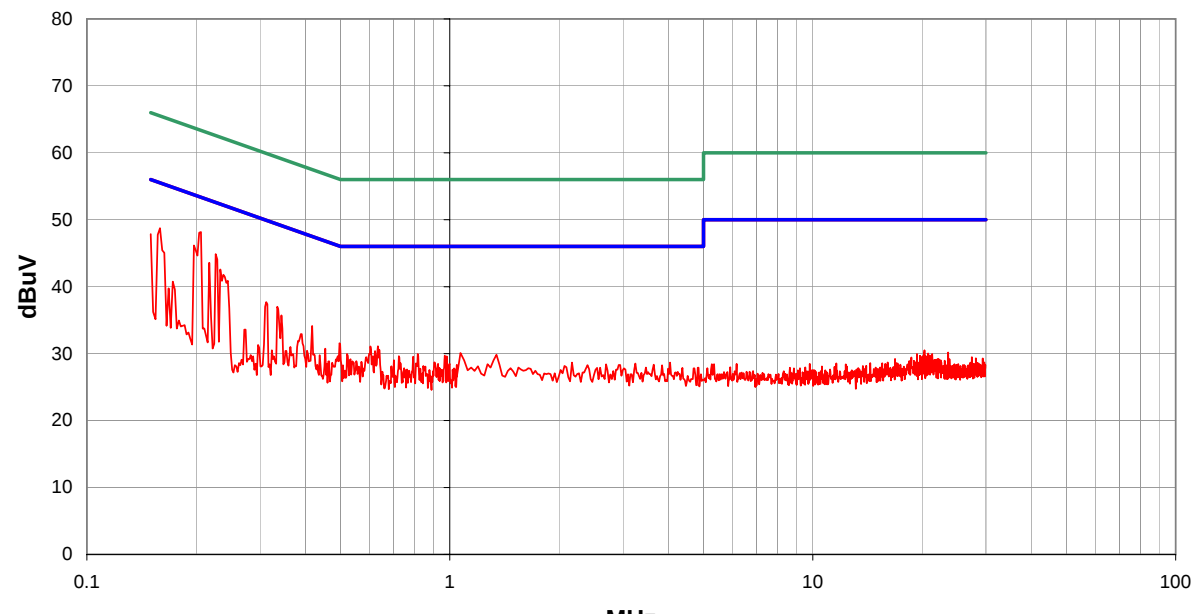
NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003	
EMC							
EUT: 802MIG2 Radio		Work Order: inmc0086					
Serial Number: none		Date: 07/17/03					
Customer: Intermecc Technologies Corporation		Temperature: 75					
Attendees:		Humidity: 39%					
Cust. Ref. No.:		Barometric Pressure 30.06					
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01			
TEST SPECIFICATIONS							
Specification: FCC 15.207		Year: 1997					
Method: ANSI C63.4		Year: 1997					
SAMPLE CALCULATIONS							
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation							
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator							
COMMENTS							
063365 Yagi							
EUT OPERATING MODES							
Low (1) Channel, 802.11(g) 6Mbit, Power = 60.							
DEVIATIONS FROM TEST STANDARD							
No deviations.							
RESULTS				Line		Run #	
Pass				N		7	
Other							
				Tested By: Holly Ashkannejhad			
80 70 60 50 40 30 20 10 0 0.1 1 10 100 dBuV MHz							

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003						
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
Low (1) Channel, 802.11(g) 6Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS		Line		Run #								
Pass		L1		8								
Other		 Tested By:										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.204	27.9			0.0	0.2	20.0				48.1	53.4	-5.4
0.152	29.9			0.0	0.1	20.0				50.0	55.9	-5.8
0.188	28.1			0.0	0.2	20.0				48.3	54.1	-5.9
0.193	26.5			0.0	0.2	20.0				46.7	53.9	-7.3
0.218	25.3			0.0	0.2	20.0				45.5	52.9	-7.5
0.211	24.9			0.0	0.2	20.0				45.1	53.2	-8.1
0.224	24.1			0.0	0.2	20.0				44.3	52.7	-8.4
0.177	25.5			0.0	0.2	20.0				45.7	54.6	-9.0
0.238	20.8			0.0	0.2	20.0				41.0	52.2	-11.2
0.321	16.7			0.0	0.2	20.0				36.9	49.7	-12.8
0.249	18.8			0.0	0.2	20.0				39.0	51.8	-12.8
0.310	16.8			0.0	0.2	20.0				37.0	50.0	-13.0
0.303	16.6			0.0	0.2	20.0				36.8	50.2	-13.4
0.337	15.5			0.0	0.2	20.0				35.7	49.3	-13.6
0.161	21.4			0.0	0.1	20.0				41.5	55.4	-13.9
0.411	13.2			0.0	0.2	20.0				33.4	47.6	-14.2
0.242	17.6			0.0	0.2	20.0				37.8	52.0	-14.2
0.427	12.8			0.0	0.2	20.0				33.0	47.3	-14.3
0.294	15.6			0.0	0.2	20.0				35.8	50.4	-14.6
0.325	14.7			0.0	0.2	20.0				34.9	49.6	-14.7

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d3.11 06/23/2003						
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
Mid (7) Channel, 802.11(g) 6Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS												
Pass		Line L1		Run # 9								
Other		 Tested By:										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.211	28.3			0.0	0.2	20.0				48.5	53.2	-4.7
0.155	29.2			0.0	0.1	20.0				49.3	55.8	-6.4
0.218	25.6			0.0	0.2	20.0				45.8	52.9	-7.2
0.188	26.1			0.0	0.2	20.0				46.3	54.1	-7.9
0.200	25.3			0.0	0.2	20.0				45.5	53.6	-8.2
0.179	25.6			0.0	0.2	20.0				45.8	54.5	-8.8
0.227	22.7			0.0	0.2	20.0				42.9	52.6	-9.7
0.231	21.8			0.0	0.2	20.0				42.0	52.4	-10.4
0.175	23.7			0.0	0.1	20.0				43.8	54.7	-10.9
0.242	20.9			0.0	0.2	20.0				41.1	52.0	-10.9
0.314	18.5			0.0	0.2	20.0				38.7	49.9	-11.2
0.161	23.8			0.0	0.1	20.0				43.9	55.4	-11.5
0.323	17.8			0.0	0.2	20.0				38.0	49.6	-11.6
0.310	17.8			0.0	0.2	20.0				38.0	50.0	-12.0
0.303	16.6			0.0	0.2	20.0				36.8	50.2	-13.4
0.391	14.0			0.0	0.2	20.0				34.2	48.0	-13.8
0.296	16.3			0.0	0.2	20.0				36.5	50.3	-13.9
0.496	10.8			0.0	0.2	20.0				31.0	46.1	-15.0
0.341	13.6			0.0	0.2	20.0				33.8	49.2	-15.4
0.411	12.0			0.0	0.2	20.0				32.2	47.6	-15.4

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003					
EMC											
EUT: 802MIG2 Radio		Work Order: inmc0086									
Serial Number: none		Date: 07/17/03									
Customer: Intermec Technologies Corporation		Temperature: 75									
Attendees:		Humidity: 39%									
Cust. Ref. No.:		Barometric Pressure: 30.06									
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01							
TEST SPECIFICATIONS											
Specification: FCC 15.207				Year: 1997							
Method: ANSI C63.4				Year: 1997							
SAMPLE CALCULATIONS											
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation											
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator											
COMMENTS											
063365 Yagi											
EUT OPERATING MODES											
Mid (7) Channel, 802.11(g) 6Mbit, Power = 60.											
DEVIATIONS FROM TEST STANDARD											
No deviations.											
RESULTS				Line		Run #					
Pass				N		10					
Other											
				Holly Ashkannejhad Tested By:							
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	4.0			0.0	0.0	20.0	AV		24.0	56.0	-32.0
0.150	23.3			0.0	0.0	20.0	QP		43.3	66.0	-22.7
0.150	32.8			0.0	0.1	20.0			52.9	56.0	-3.1
0.206	28.1			0.0	0.2	20.0			48.3	53.4	-5.1
0.218	26.0			0.0	0.2	20.0			46.2	52.9	-6.8
0.231	22.6			0.0	0.2	20.0			42.8	52.4	-9.6
0.177	24.2			0.0	0.2	20.0			44.4	54.6	-10.3
0.161	24.1			0.0	0.1	20.0			44.2	55.4	-11.2
0.247	20.5			0.0	0.2	20.0			40.7	51.9	-11.2
0.238	20.5			0.0	0.2	20.0			40.7	52.2	-11.5
0.312	17.8			0.0	0.2	20.0			38.0	49.9	-11.9
0.301	17.3			0.0	0.2	20.0			37.5	50.2	-12.7
0.328	16.3			0.0	0.2	20.0			36.5	49.5	-13.0
0.256	18.2			0.0	0.2	20.0			38.4	51.6	-13.2
0.168	21.3			0.0	0.1	20.0			41.4	55.1	-13.6
0.296	16.0			0.0	0.2	20.0			36.2	50.3	-14.2
0.341	14.4			0.0	0.2	20.0			34.6	49.2	-14.6
0.292	15.7			0.0	0.2	20.0			35.9	50.5	-14.6
0.530	10.9			0.0	0.3	20.0			31.2	46.0	-14.8
0.357	13.3			0.0	0.2	20.0			33.5	48.8	-15.3

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d3.11 06/23/2003						
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
High (11) Channel, 802.11(g) 6Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS												
Pass		Line N		Run # 11								
Other		 Tested By:										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.209	28.7			0.0	0.2	20.0				48.9	53.3	-4.4
0.157	29.4			0.0	0.1	20.0				49.5	55.6	-6.1
0.195	26.0			0.0	0.2	20.0				46.2	53.8	-7.7
0.186	25.3			0.0	0.2	20.0				45.5	54.2	-8.8
0.238	22.5			0.0	0.2	20.0				42.7	52.2	-9.5
0.310	18.3			0.0	0.2	20.0				38.5	50.0	-11.5
0.314	17.8			0.0	0.2	20.0				38.0	49.9	-11.9
0.339	16.1			0.0	0.2	20.0				36.3	49.2	-12.9
0.418	14.1			0.0	0.2	20.0				34.3	47.5	-13.2
0.164	21.9			0.0	0.1	20.0				42.0	55.3	-13.2
0.395	13.2			0.0	0.2	20.0				33.4	48.0	-14.5
0.348	13.5			0.0	0.2	20.0				33.7	49.0	-15.3
0.483	10.1			0.0	0.2	20.0				30.3	46.3	-15.9
1.545	9.6			0.0	0.4	20.0				30.0	46.0	-16.0
0.607	9.6			0.0	0.3	20.0				29.9	46.0	-16.1
0.584	9.4			0.0	0.3	20.0				29.7	46.0	-16.3
0.519	9.4			0.0	0.3	20.0				29.7	46.0	-16.3
0.490	9.5			0.0	0.2	20.0				29.7	46.2	-16.4
0.573	9.2			0.0	0.3	20.0				29.5	46.0	-16.5
3.521	8.9			0.0	0.5	20.0				29.4	46.0	-16.6

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET				REV d13.11 06/23/2003						
EUT: 802MIG2 Radio		Work Order: inmc0086										
Serial Number: none		Date: 07/17/03										
Customer: Intermec Technologies Corporation		Temperature: 75										
Attendees:		Humidity: 39%										
Cust. Ref. No.:		Barometric Pressure: 30.06										
Tested by: Holly Ashkannejhad		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS												
Specification: FCC 15.207		Year: 1997										
Method: ANSI C63.4		Year: 1997										
SAMPLE CALCULATIONS												
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation												
Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator												
COMMENTS												
063365 Yagi												
EUT OPERATING MODES												
High (11) Channel, 802.11(g) 6Mbit, Power = 60.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
RESULTS												
Pass		Line L1		Run # 12								
Other		 Tested By:										
												
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.206	28.0			0.0	0.2	20.0				48.2	53.4	-5.2
0.159	28.6			0.0	0.1	20.0				48.7	55.5	-6.8
0.227	24.7			0.0	0.2	20.0				44.9	52.6	-7.7
0.150	27.7			0.0	0.1	20.0				47.8	56.0	-8.2
0.218	23.4			0.0	0.2	20.0				43.6	52.9	-9.4
0.233	22.4			0.0	0.2	20.0				42.6	52.3	-9.8
0.312	17.5			0.0	0.2	20.0				37.7	49.9	-12.2
0.334	16.8			0.0	0.2	20.0				37.0	49.3	-12.3
0.418	13.9			0.0	0.2	20.0				34.1	47.5	-13.4
0.343	15.5			0.0	0.2	20.0				35.7	49.1	-13.4
0.173	20.6			0.0	0.1	20.0				40.7	54.8	-14.1
0.496	11.3			0.0	0.2	20.0				31.5	46.1	-14.5
0.634	10.8			0.0	0.3	20.0				31.1	46.0	-14.9
0.604	10.8			0.0	0.3	20.0				31.1	46.0	-14.9
0.391	12.7			0.0	0.2	20.0				32.9	48.0	-15.1
0.168	19.6			0.0	0.1	20.0				39.7	55.1	-15.3
0.622	10.1			0.0	0.3	20.0				30.4	46.0	-15.6
1.070	9.7			0.0	0.4	20.0				30.1	46.0	-15.9
0.521	9.7			0.0	0.3	20.0				30.0	46.0	-16.0
0.816	9.6			0.0	0.3	20.0				29.9	46.0	-16.1