Exhibit L: AC Conducted Emissions

FCC ID: HN2WN-5MP01

AC Powerline Conducted Emissions

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
Mid
High

Operating Modes Investigated:
Typical

Data Rates Investigated:
Maximum

Output Power Setting(s) Investigated:
Maximum

Power Input Settings Investigated:
120 VAC, 60 Hz.

Other Settings Investigated:
Low, mid, and high channels were tested with both the integral antennas and the highest gain removable antenna.

Frequency Range Investigated			
Start Frequency	150 kHz	Stop Frequency	30 MHz

Software\Firmware Applied During Test			
Exercise software	AP Monitor	Version	V5.97
Description			
A notebook PC controls the radio through a serial port connection on the WA21 access point. Hyper Terminal running in Windows 98 address the AP monitor commands for setting the transmit channel and data rate.			

Equipment Modifications

No EMI suppression devices were added or modified. The EUT was tested as delivered.

Northwest
EMC

AC Powerline Conducted Emissions

Revision 2/4/02

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
Omni antenna	Intermec	072760	N/A
Corner reflector antenna	Intermec	072762	N/A
Two Integral omni antennas	Intermec	072664	N/A
EUT-802.11(a) radio module installed in WA21 Access Point	Intermec	WN-5MP01	002-032
Laptop PC (config only)	Gateway	Solo 2500	BC699085606

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial	Yes	1.5	No	Access Point	Unterminated
Antenna Adapter Cable	Yes	1.8	No	Access Point	Omni antenna
Antenna adapter cable	Yes	.35	No	Access Point	Corner reflector antenna
AC Power	No	1.8	No	Access Point	AC Mains

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

Measurement Equipment

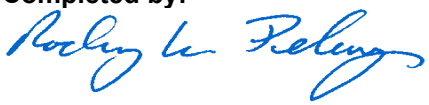
Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	03/19/2002	12 mo
High Pass Filter	TTE	H97-100k-50-720B	HFC	12/11/2001	12 mo
LISN	Solar	9252-50-R-24-BNC	LIP	06/12/2002	12 mo

Test Description

Requirement: Per 47 15.407(b)(5) and 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 AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in each 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 EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:15
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

low channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

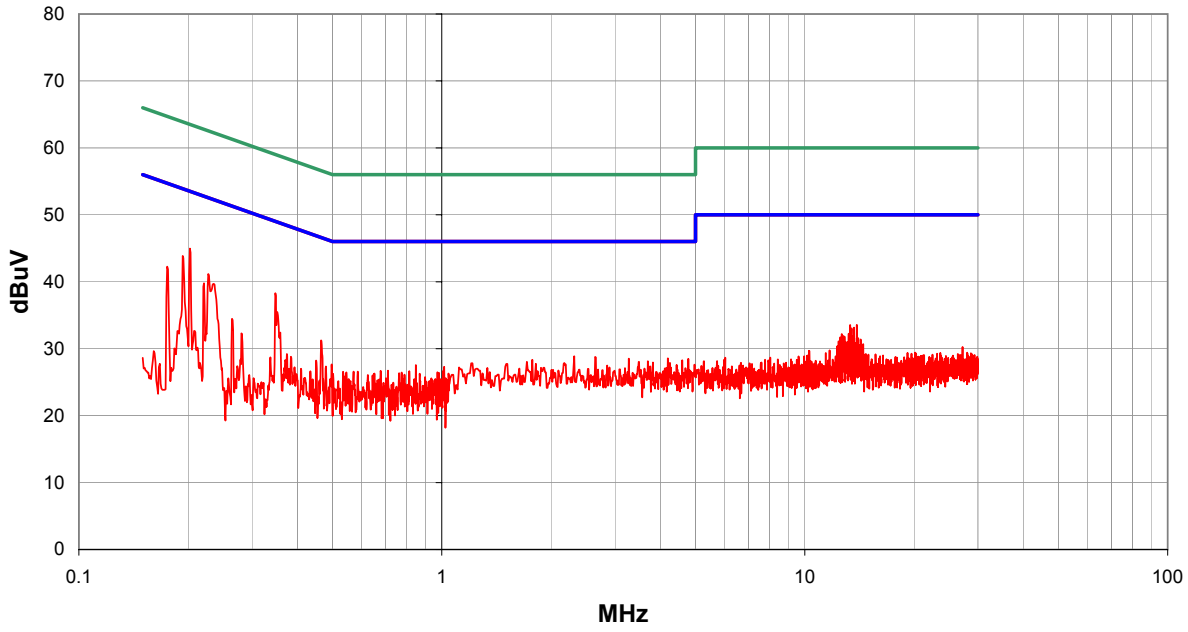
DEVIATIONS FROM TEST STANDARD

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)
0.202	24.8			0.0	0.2	20.0				45.0	53.5	-8.6
0.193	23.7			0.0	0.2	20.0				43.9	53.9	-10.0
0.348	18.1			0.0	0.2	20.0				38.3	49.0	-10.7
0.227	21.0			0.0	0.2	20.0				41.2	52.5	-11.4
0.175	22.1			0.0	0.2	20.0				42.3	54.7	-12.5
0.221	19.6			0.0	0.2	20.0				39.8	52.8	-13.0
0.352	15.3			0.0	0.2	20.0				35.5	48.9	-13.4
0.465	11.0			0.0	0.2	20.0				31.2	46.6	-15.4
13.920	12.5			0.0	1.1	20.0				33.6	50.0	-16.4
13.344	12.5			0.0	1.0	20.0				33.5	50.0	-16.5
0.264	14.3			0.0	0.2	20.0				34.5	51.3	-16.8
13.680	12.1			0.0	1.1	20.0				33.2	50.0	-16.8
13.464	12.0			0.0	1.0	20.0				33.0	50.0	-17.0
2.316	8.4			0.0	0.5	20.0				28.9	46.0	-17.1
2.646	8.3			0.0	0.5	20.0				28.8	46.0	-17.2
4.197	8.0			0.0	0.6	20.0				28.6	46.0	-17.4
3.276	8.0			0.0	0.5	20.0				28.5	46.0	-17.5
4.777	7.9			0.0	0.6	20.0				28.5	46.0	-17.5
1.775	7.9			0.0	0.4	20.0				28.3	46.0	-17.7
4.597	7.7			0.0	0.6	20.0				28.3	46.0	-17.7
13.224	11.2			0.0	1.0	20.0				32.2	50.0	-17.8

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:19
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

low channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

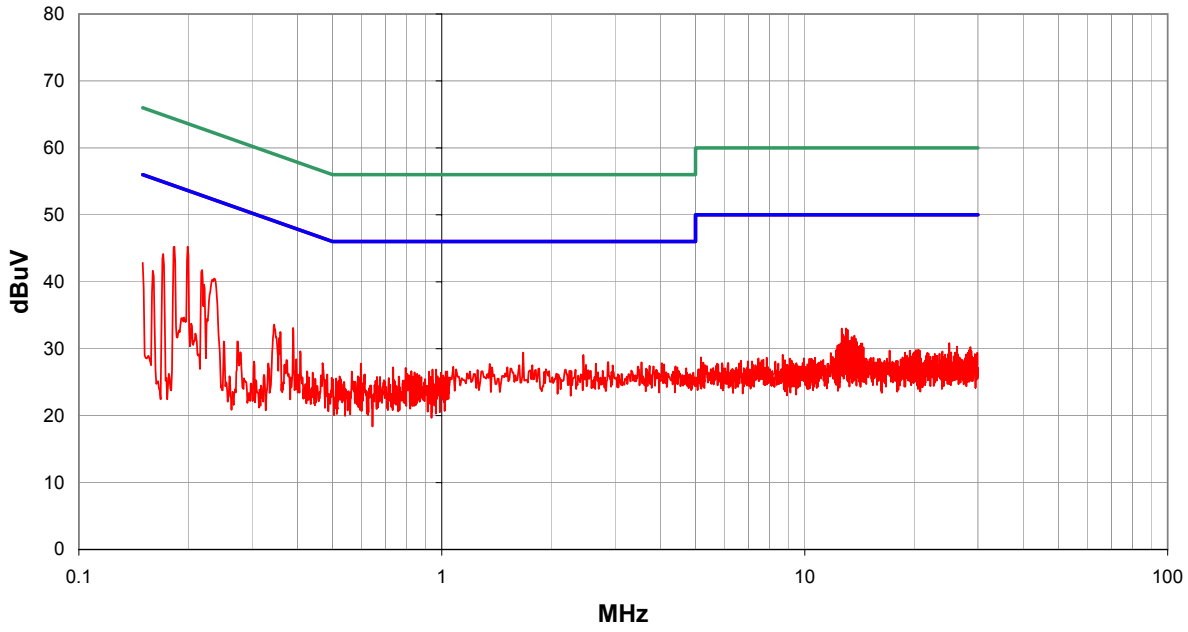
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	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)
0.200	25.1			0.0	0.2	20.0				45.3	53.6	-8.4
0.183	25.1			0.0	0.2	20.0				45.3	54.3	-9.1
0.171	24.0			0.0	0.1	20.0				44.1	54.9	-10.8
0.218	21.6			0.0	0.2	20.0				41.8	52.9	-11.1
0.236	20.3			0.0	0.2	20.0				40.5	52.2	-11.8
0.150	22.7			0.0	0.1	20.0				42.8	56.0	-13.2
0.221	19.4			0.0	0.2	20.0				39.6	52.8	-13.2
0.160	21.5			0.0	0.1	20.0				41.6	55.5	-13.8
0.389	12.9			0.0	0.2	20.0				33.1	48.1	-15.0
0.345	13.4			0.0	0.2	20.0				33.6	49.1	-15.5
0.359	12.3			0.0	0.2	20.0				32.5	48.8	-16.3
1.675	9.0			0.0	0.4	20.0				29.4	46.0	-16.6
2.456	8.6			0.0	0.5	20.0				29.1	46.0	-16.9
13.008	12.0			0.0	1.0	20.0				33.0	50.0	-17.0
12.648	12.0			0.0	1.0	20.0				33.0	50.0	-17.0
13.128	11.8			0.0	1.0	20.0				32.8	50.0	-17.2
0.356	11.4			0.0	0.2	20.0				31.6	48.8	-17.2
12.768	11.1			0.0	1.0	20.0				32.1	50.0	-17.9
2.876	7.5			0.0	0.5	20.0				28.0	46.0	-18.0
13.704	10.9			0.0	1.1	20.0				32.0	50.0	-18.0
3.556	7.4			0.0	0.5	20.0				27.9	46.0	-18.1

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:20
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

mid channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

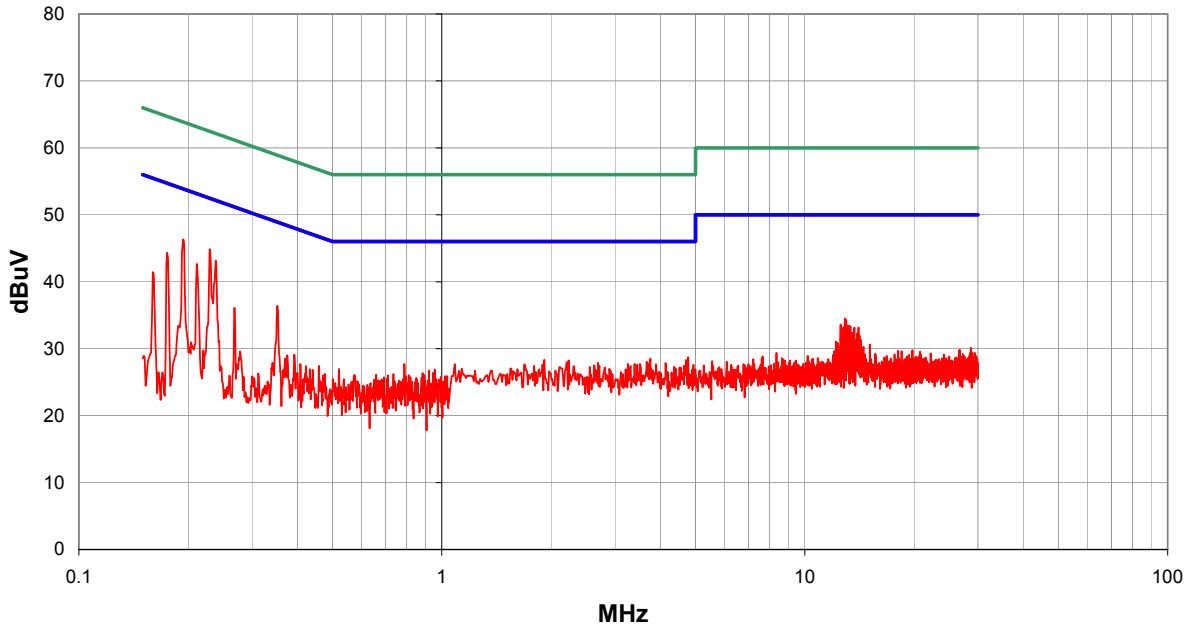
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	3

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)
0.194	26.2			0.0	0.2	20.0				46.4	53.9	-7.5
0.229	24.7			0.0	0.2	20.0				44.9	52.5	-7.6
0.238	23.0			0.0	0.2	20.0				43.2	52.2	-9.0
0.175	24.2			0.0	0.2	20.0				44.4	54.7	-10.4
0.211	22.5			0.0	0.2	20.0				42.7	53.2	-10.5
0.353	16.2			0.0	0.2	20.0				36.4	48.9	-12.5
0.160	21.3			0.0	0.1	20.0				41.4	55.5	-14.0
0.269	15.9			0.0	0.2	20.0				36.1	51.2	-15.1
12.888	13.5			0.0	1.0	20.0				34.5	50.0	-15.5
13.008	13.3			0.0	1.0	20.0				34.3	50.0	-15.7
12.552	12.6			0.0	1.0	20.0				33.6	50.0	-16.4
13.236	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
13.128	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
13.356	12.3			0.0	1.0	20.0				33.3	50.0	-16.7
12.792	12.2			0.0	1.0	20.0				33.2	50.0	-16.8
14.064	12.1			0.0	1.1	20.0				33.2	50.0	-16.8
13.704	12.1			0.0	1.1	20.0				33.2	50.0	-16.8
4.777	8.1			0.0	0.6	20.0				28.7	46.0	-17.3
3.756	8.0			0.0	0.5	20.0				28.5	46.0	-17.5
13.584	11.3			0.0	1.1	20.0				32.4	50.0	-17.6
1.915	7.9			0.0	0.4	20.0				28.3	46.0	-17.7

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:22
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

mid channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

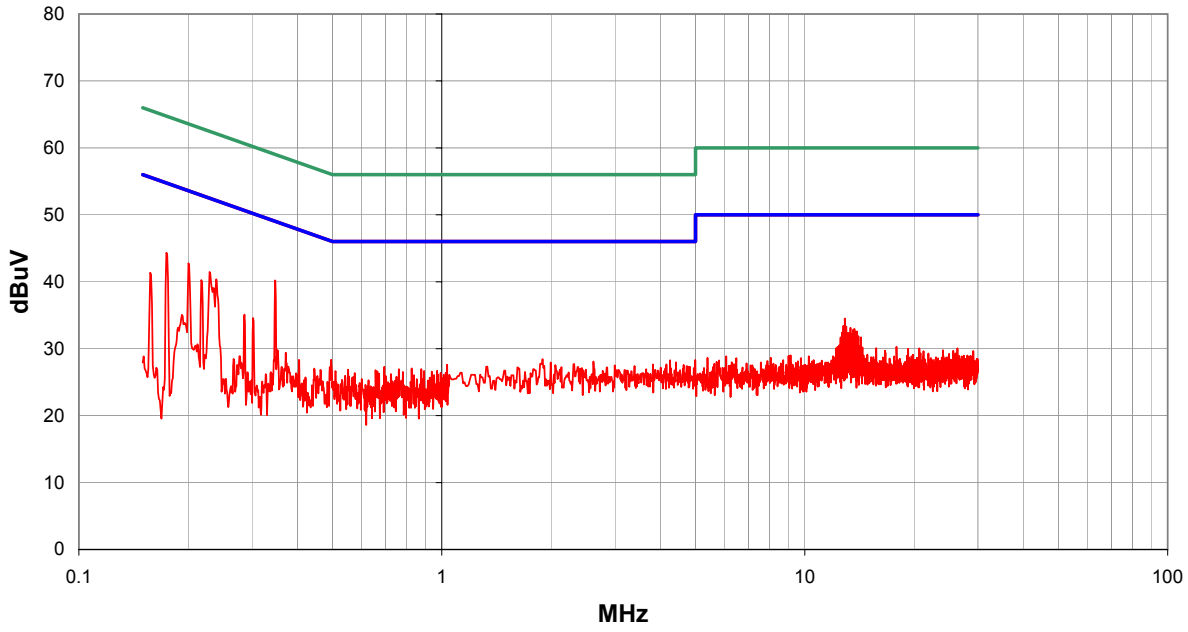
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	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)
0.347	20.0			0.0	0.2	20.0				40.2	49.0	-8.8
0.174	24.2			0.0	0.1	20.0				44.3	54.8	-10.4
0.200	22.6			0.0	0.2	20.0				42.8	53.6	-10.8
0.229	21.3			0.0	0.2	20.0				41.5	52.5	-11.0
0.239	20.2			0.0	0.2	20.0				40.4	52.1	-11.8
0.218	20.1			0.0	0.2	20.0				40.3	52.9	-12.7
0.157	21.2			0.0	0.1	20.0				41.3	55.6	-14.3
12.888	13.5			0.0	1.0	20.0				34.5	50.0	-15.5
0.286	14.9			0.0	0.2	20.0				35.1	50.6	-15.6
0.302	14.4			0.0	0.2	20.0				34.6	50.2	-15.6
12.792	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
13.008	12.3			0.0	1.0	20.0				33.3	50.0	-16.7
13.368	12.1			0.0	1.0	20.0				33.1	50.0	-16.9
13.704	11.9			0.0	1.1	20.0				33.0	50.0	-17.0
13.608	11.8			0.0	1.1	20.0				32.9	50.0	-17.1
13.944	11.5			0.0	1.1	20.0				32.6	50.0	-17.4
13.848	11.5			0.0	1.1	20.0				32.6	50.0	-17.4
1.895	8.0			0.0	0.4	20.0				28.4	46.0	-17.6
12.672	11.4			0.0	1.0	20.0				32.4	50.0	-17.6
13.248	11.3			0.0	1.0	20.0				32.3	50.0	-17.7
13.152	11.3			0.0	1.0	20.0				32.3	50.0	-17.7

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:24
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

high channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

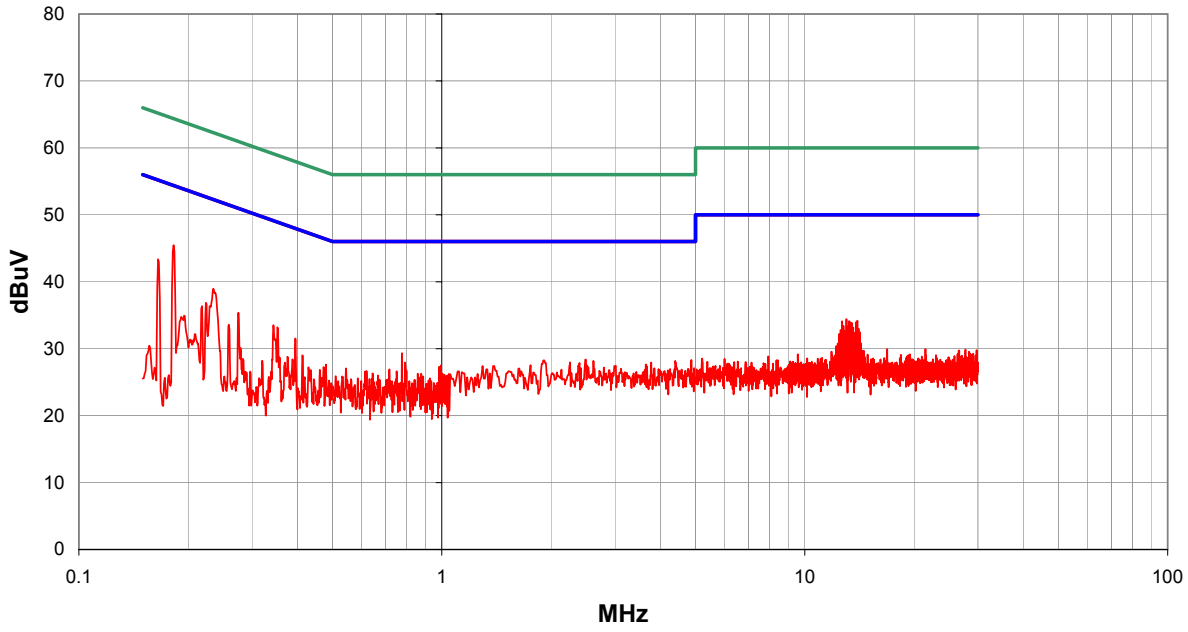
DEVIATIONS FROM TEST STANDARD

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)
0.182	25.3			0.0	0.2	20.0				45.5	54.4	-8.9
0.165	23.2			0.0	0.1	20.0				43.3	55.2	-11.8
0.235	18.8			0.0	0.2	20.0				39.0	52.3	-13.3
13.020	13.4			0.0	1.0	20.0				34.4	50.0	-15.6
0.275	15.2			0.0	0.2	20.0				35.4	51.0	-15.6
0.344	13.3			0.0	0.2	20.0				33.5	49.1	-15.6
0.353	13.0			0.0	0.2	20.0				33.2	48.9	-15.7
0.224	16.7			0.0	0.2	20.0				36.9	52.7	-15.8
13.968	13.1			0.0	1.1	20.0				34.2	50.0	-15.8
13.248	13.1			0.0	1.0	20.0				34.1	50.0	-15.9
12.672	13.1			0.0	1.0	20.0				34.1	50.0	-15.9
13.848	12.9			0.0	1.1	20.0				34.0	50.0	-16.0
13.368	12.9			0.0	1.0	20.0				33.9	50.0	-16.1
13.488	12.8			0.0	1.0	20.0				33.8	50.0	-16.2
0.395	11.3			0.0	0.2	20.0				31.5	48.0	-16.4
0.218	16.2			0.0	0.2	20.0				36.4	52.9	-16.5
12.792	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
0.776	9.0			0.0	0.3	20.0				29.3	46.0	-16.7
13.152	12.3			0.0	1.0	20.0				33.3	50.0	-16.7
13.608	12.1			0.0	1.1	20.0				33.2	50.0	-16.8
14.064	11.9			0.0	1.1	20.0				33.0	50.0	-17.0

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:25
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

high channel, tested in WA21, Tx radio a with intergral antennas, corner mount and omni on radio b

EUT OPERATING MODES

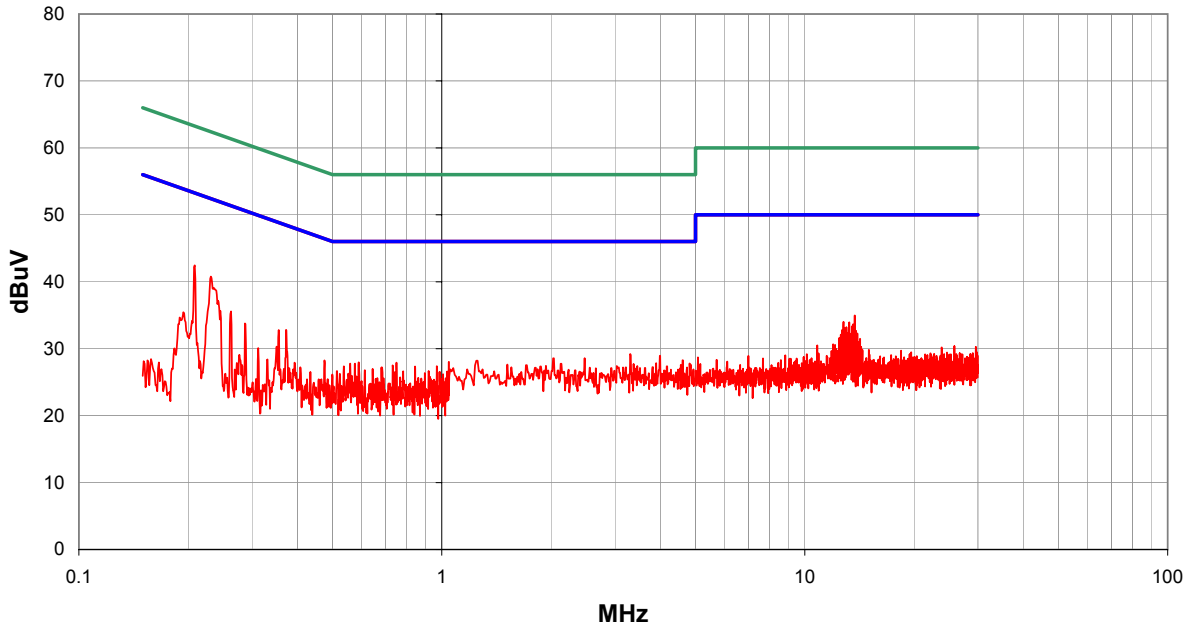
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	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)
0.209	22.3			0.0	0.2	20.0				42.5	53.3	-10.8
0.231	20.6			0.0	0.2	20.0				40.8	52.4	-11.6
13.728	13.9			0.0	1.1	20.0				35.0	50.0	-15.0
0.372	12.6			0.0	0.2	20.0				32.8	48.4	-15.6
0.263	15.4			0.0	0.2	20.0				35.6	51.4	-15.8
12.792	13.0			0.0	1.0	20.0				34.0	50.0	-16.0
0.355	12.6			0.0	0.2	20.0				32.8	48.8	-16.0
13.260	12.9			0.0	1.0	20.0				33.9	50.0	-16.1
13.596	12.6			0.0	1.1	20.0				33.7	50.0	-16.3
13.488	12.3			0.0	1.0	20.0				33.3	50.0	-16.7
13.020	12.2			0.0	1.0	20.0				33.2	50.0	-16.8
3.306	8.7			0.0	0.5	20.0				29.2	46.0	-16.8
0.287	13.6			0.0	0.2	20.0				33.8	50.6	-16.8
12.912	12.1			0.0	1.0	20.0				33.1	50.0	-16.9
3.996	8.4			0.0	0.6	20.0				29.0	46.0	-17.0
12.672	11.8			0.0	1.0	20.0				32.8	50.0	-17.2
13.848	11.6			0.0	1.1	20.0				32.7	50.0	-17.3
2.476	8.1			0.0	0.5	20.0				28.6	46.0	-17.4
2.036	8.1			0.0	0.5	20.0				28.6	46.0	-17.4
13.140	11.3			0.0	1.0	20.0				32.3	50.0	-17.7
4.617	7.7			0.0	0.6	20.0				28.3	46.0	-17.7

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:28
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

Low channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

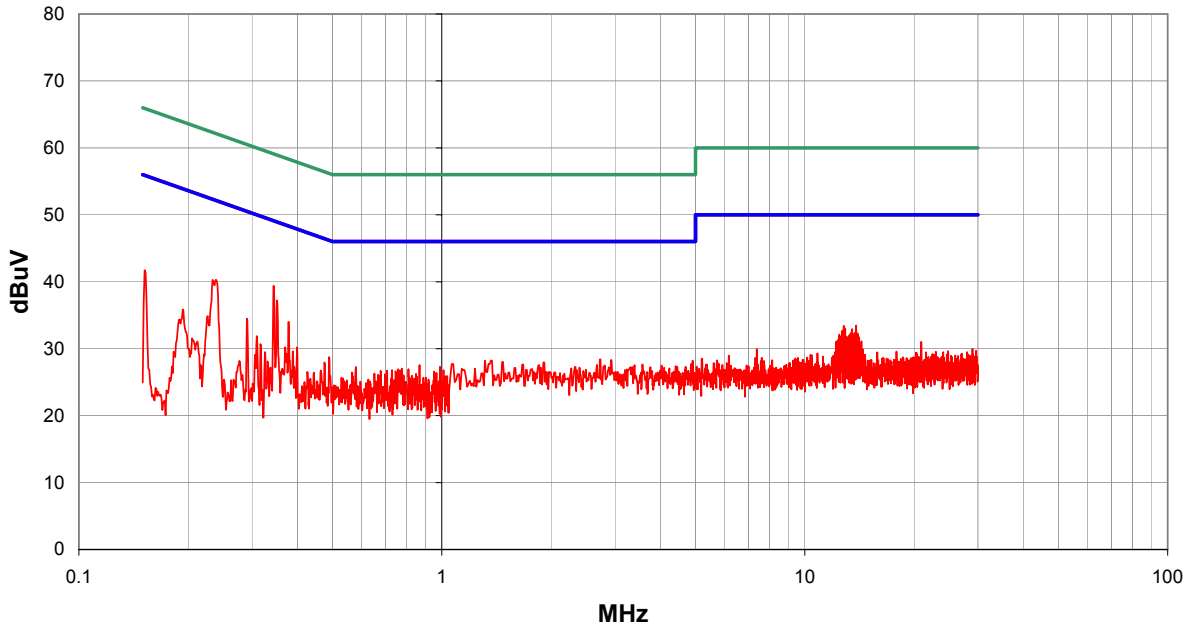
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	7

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)
0.344	19.2			0.0	0.2	20.0				39.4	49.1	-9.7
0.352	17.0			0.0	0.2	20.0				37.2	48.9	-11.7
0.239	20.1			0.0	0.2	20.0				40.3	52.1	-11.9
0.152	21.6			0.0	0.1	20.0				41.7	55.9	-14.2
0.379	13.8			0.0	0.2	20.0				34.0	48.3	-14.3
0.290	14.3			0.0	0.2	20.0				34.5	50.5	-16.0
13.860	12.4			0.0	1.1	20.0				33.5	50.0	-16.5
12.816	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
12.936	12.0			0.0	1.0	20.0				33.0	50.0	-17.0
13.512	11.9			0.0	1.0	20.0				32.9	50.0	-17.1
12.696	11.7			0.0	1.0	20.0				32.7	50.0	-17.3
0.489	8.5			0.0	0.2	20.0				28.7	46.2	-17.4
2.736	7.9			0.0	0.5	20.0				28.4	46.0	-17.6
13.728	11.3			0.0	1.1	20.0				32.4	50.0	-17.6
0.399	10.0			0.0	0.2	20.0				30.2	47.9	-17.6
13.392	11.3			0.0	1.0	20.0				32.3	50.0	-17.7
2.936	7.8			0.0	0.5	20.0				28.3	46.0	-17.7
13.992	11.2			0.0	1.1	20.0				32.3	50.0	-17.7
1.375	7.8			0.0	0.4	20.0				28.2	46.0	-17.8
4.917	7.6			0.0	0.6	20.0				28.2	46.0	-17.8
13.632	11.1			0.0	1.1	20.0				32.2	50.0	-17.8

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:29
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

Low channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

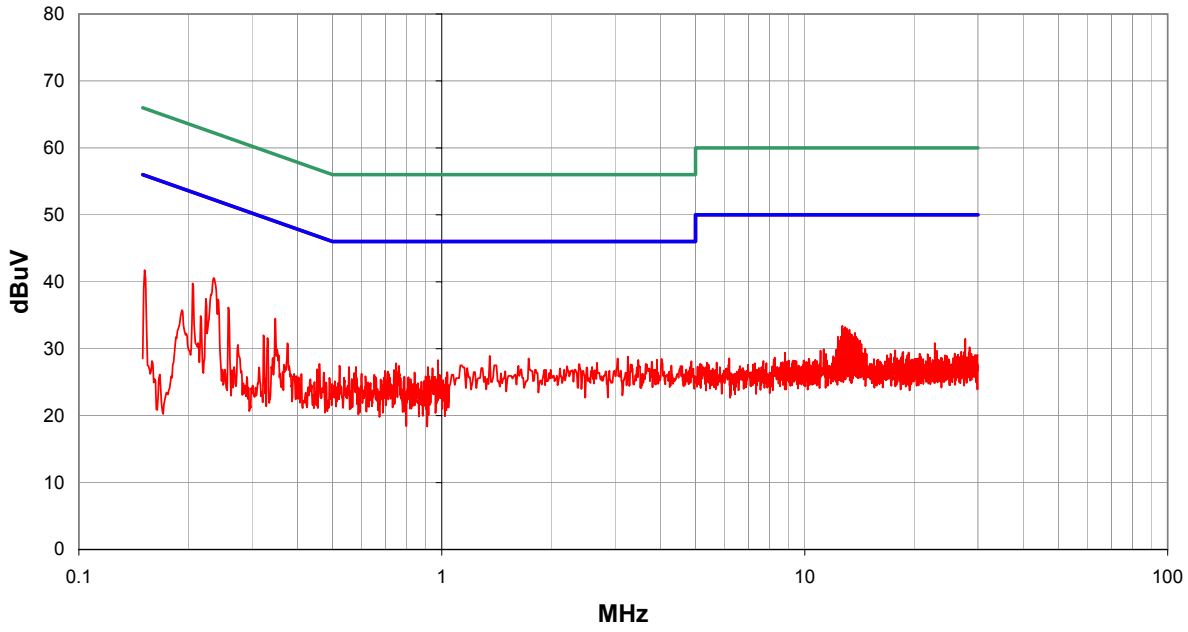
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	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)
0.236	20.4			0.0	0.2	20.0				40.6	52.3	-11.7
0.206	19.6			0.0	0.2	20.0				39.8	53.4	-13.6
0.152	21.6			0.0	0.1	20.0				41.7	55.9	-14.2
0.348	14.3			0.0	0.2	20.0				34.5	49.0	-14.5
0.242	17.2			0.0	0.2	20.0				37.4	52.0	-14.7
0.224	17.3			0.0	0.2	20.0				37.5	52.7	-15.2
0.258	16.0			0.0	0.2	20.0				36.2	51.5	-15.3
12.696	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
12.924	12.2			0.0	1.0	20.0				33.2	50.0	-16.8
13.056	12.0			0.0	1.0	20.0				33.0	50.0	-17.0
1.355	8.5			0.0	0.4	20.0				28.9	46.0	-17.1
12.816	11.9			0.0	1.0	20.0				32.9	50.0	-17.1
13.272	11.8			0.0	1.0	20.0				32.8	50.0	-17.2
3.256	8.3			0.0	0.5	20.0				28.8	46.0	-17.2
1.735	8.1			0.0	0.4	20.0				28.5	46.0	-17.5
3.056	8.0			0.0	0.5	20.0				28.5	46.0	-17.5
4.037	7.9			0.0	0.6	20.0				28.5	46.0	-17.5
0.376	10.6			0.0	0.2	20.0				30.8	48.4	-17.6
0.323	11.8			0.0	0.2	20.0				32.0	49.6	-17.6
13.752	11.3			0.0	1.1	20.0				32.4	50.0	-17.6
3.916	7.8			0.0	0.6	20.0				28.4	46.0	-17.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:31
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

Mid channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

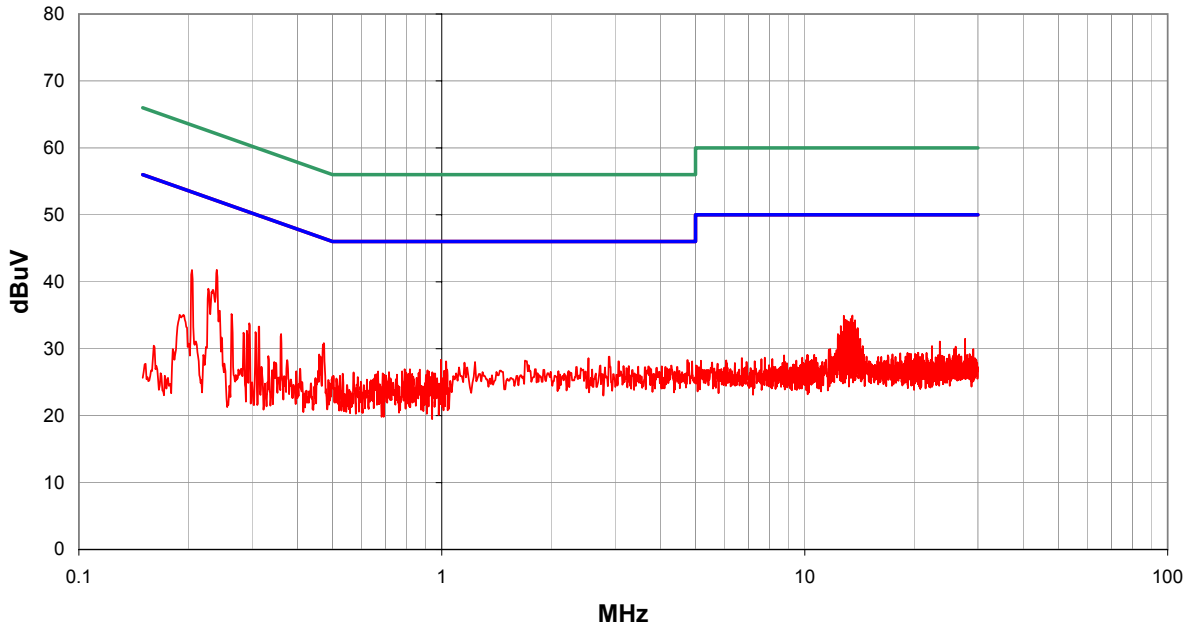
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	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)
0.240	21.6			0.0	0.2	20.0				41.8	52.1	-10.3
0.205	21.6			0.0	0.2	20.0				41.8	53.4	-11.7
0.227	18.8			0.0	0.2	20.0				39.0	52.5	-13.6
13.536	13.9			0.0	1.0	20.0				34.9	50.0	-15.1
12.816	13.9			0.0	1.0	20.0				34.9	50.0	-15.1
13.404	13.4			0.0	1.0	20.0				34.4	50.0	-15.6
0.473	10.6			0.0	0.2	20.0				30.8	46.5	-15.6
12.936	13.3			0.0	1.0	20.0				34.3	50.0	-15.7
13.752	13.2			0.0	1.1	20.0				34.3	50.0	-15.7
13.056	13.2			0.0	1.0	20.0				34.2	50.0	-15.8
13.176	13.0			0.0	1.0	20.0				34.0	50.0	-16.0
13.296	12.9			0.0	1.0	20.0				33.9	50.0	-16.1
0.263	15.0			0.0	0.2	20.0				35.2	51.3	-16.1
13.632	12.8			0.0	1.1	20.0				33.9	50.0	-16.1
0.361	12.0			0.0	0.2	20.0				32.2	48.7	-16.5
0.314	13.1			0.0	0.2	20.0				33.3	49.9	-16.6
0.295	13.6			0.0	0.2	20.0				33.8	50.4	-16.6
12.576	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
13.992	12.0			0.0	1.1	20.0				33.1	50.0	-16.9
13.872	11.8			0.0	1.1	20.0				32.9	50.0	-17.1
2.896	8.3			0.0	0.5	20.0				28.8	46.0	-17.2

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:33
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

Mid channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

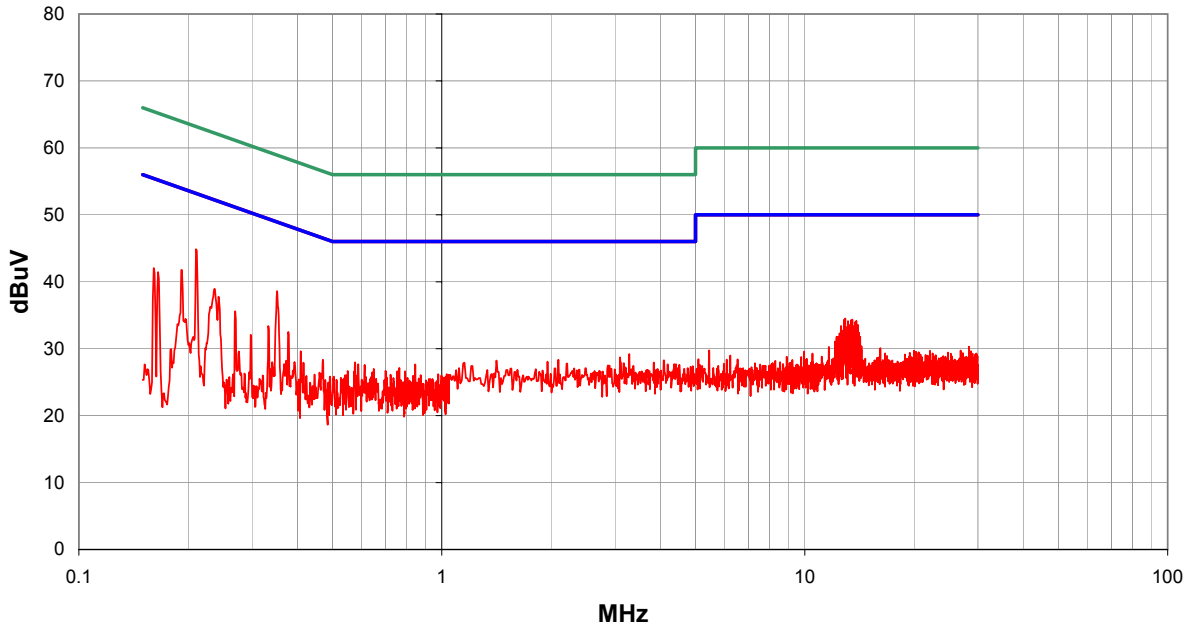
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	10

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)
0.210	24.7			0.0	0.2	20.0				44.9	53.2	-8.3
0.352	18.4			0.0	0.2	20.0				38.6	48.9	-10.3
0.192	21.6			0.0	0.2	20.0				41.8	53.9	-12.2
0.236	18.8			0.0	0.2	20.0				39.0	52.2	-13.3
0.161	21.9			0.0	0.1	20.0				42.0	55.4	-13.4
0.165	21.3			0.0	0.1	20.0				41.4	55.2	-13.7
0.243	17.6			0.0	0.2	20.0				37.8	52.0	-14.2
12.936	13.5			0.0	1.0	20.0				34.5	50.0	-15.5
0.270	15.4			0.0	0.2	20.0				35.6	51.1	-15.5
13.524	13.3			0.0	1.0	20.0				34.3	50.0	-15.7
12.840	13.3			0.0	1.0	20.0				34.3	50.0	-15.7
13.404	13.2			0.0	1.0	20.0				34.2	50.0	-15.8
0.378	12.3			0.0	0.2	20.0				32.5	48.3	-15.8
13.872	13.1			0.0	1.1	20.0				34.2	50.0	-15.8
13.164	13.1			0.0	1.0	20.0				34.1	50.0	-15.9
0.333	13.2			0.0	0.2	20.0				33.4	49.4	-16.0
13.752	12.9			0.0	1.1	20.0				34.0	50.0	-16.0
13.992	12.5			0.0	1.1	20.0				33.6	50.0	-16.4
13.284	12.5			0.0	1.0	20.0				33.5	50.0	-16.5
12.600	12.4			0.0	1.0	20.0				33.4	50.0	-16.6
13.656	12.3			0.0	1.1	20.0				33.4	50.0	-16.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:35
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

High channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

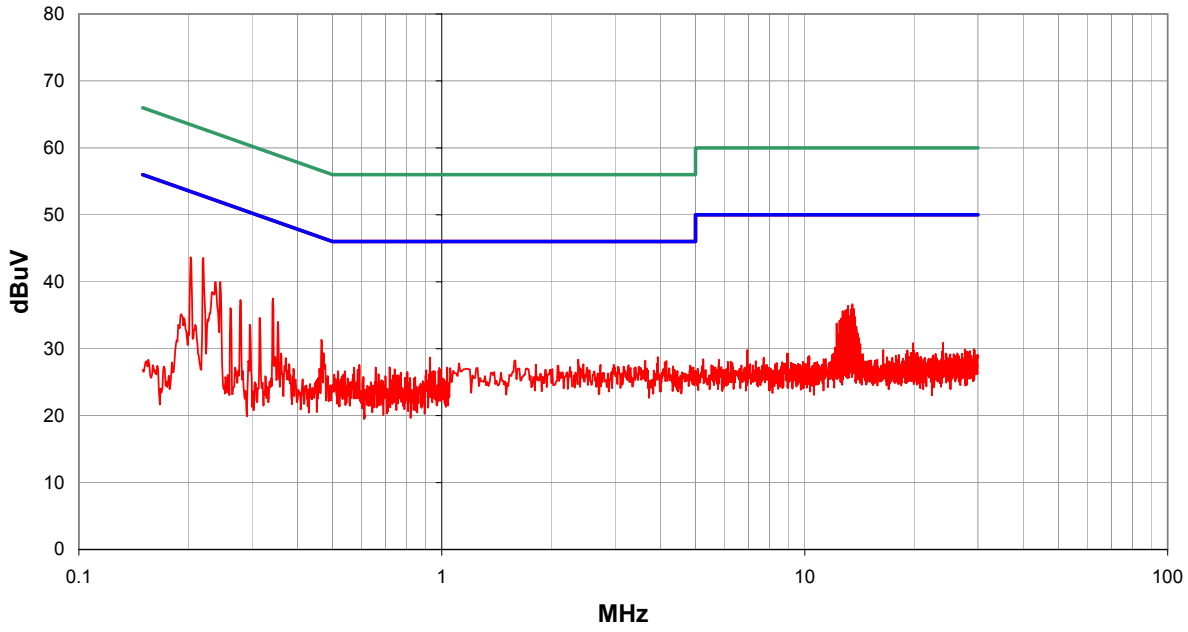
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	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)
0.220	23.4			0.0	0.2	20.0				43.6	52.8	-9.2
0.203	23.5			0.0	0.2	20.0				43.7	53.5	-9.8
0.343	17.3			0.0	0.2	20.0				37.5	49.1	-11.6
0.245	19.8			0.0	0.2	20.0				40.0	51.9	-11.9
0.238	19.8			0.0	0.2	20.0				40.0	52.2	-12.2
13.536	15.6			0.0	1.0	20.0				36.6	50.0	-13.4
13.176	15.4			0.0	1.0	20.0				36.4	50.0	-13.6
0.279	17.1			0.0	0.2	20.0				37.3	50.9	-13.6
13.656	14.9			0.0	1.1	20.0				36.0	50.0	-14.0
13.416	14.8			0.0	1.0	20.0				35.8	50.0	-14.2
13.056	14.8			0.0	1.0	20.0				35.8	50.0	-14.2
12.936	14.7			0.0	1.0	20.0				35.7	50.0	-14.3
12.720	14.6			0.0	1.0	20.0				35.6	50.0	-14.4
0.353	13.8			0.0	0.2	20.0				34.0	48.9	-14.9
12.828	14.0			0.0	1.0	20.0				35.0	50.0	-15.0
13.296	13.8			0.0	1.0	20.0				34.8	50.0	-15.2
0.316	14.4			0.0	0.2	20.0				34.6	49.8	-15.2
13.764	13.7			0.0	1.1	20.0				34.8	50.0	-15.2
0.466	11.1			0.0	0.2	20.0				31.3	46.6	-15.2
0.262	15.9			0.0	0.2	20.0				36.1	51.4	-15.3
12.600	13.5			0.0	1.0	20.0				34.5	50.0	-15.5

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.06 08/16/2002

EUT:	WN-5MP01			Work Order:	INMC0024
Serial Number:	002-032			Date:	8/19/02 9:37
Customer:	INTERMEC Corporation			Temperature:	72
Attendees:	None			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	CISPR22 Class B	Year:	1997
Method:	CISPR 22	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

High channel, tested in WA21, Tx radio b corner mount antenna, Rx radio b omni antenna

EUT OPERATING MODES

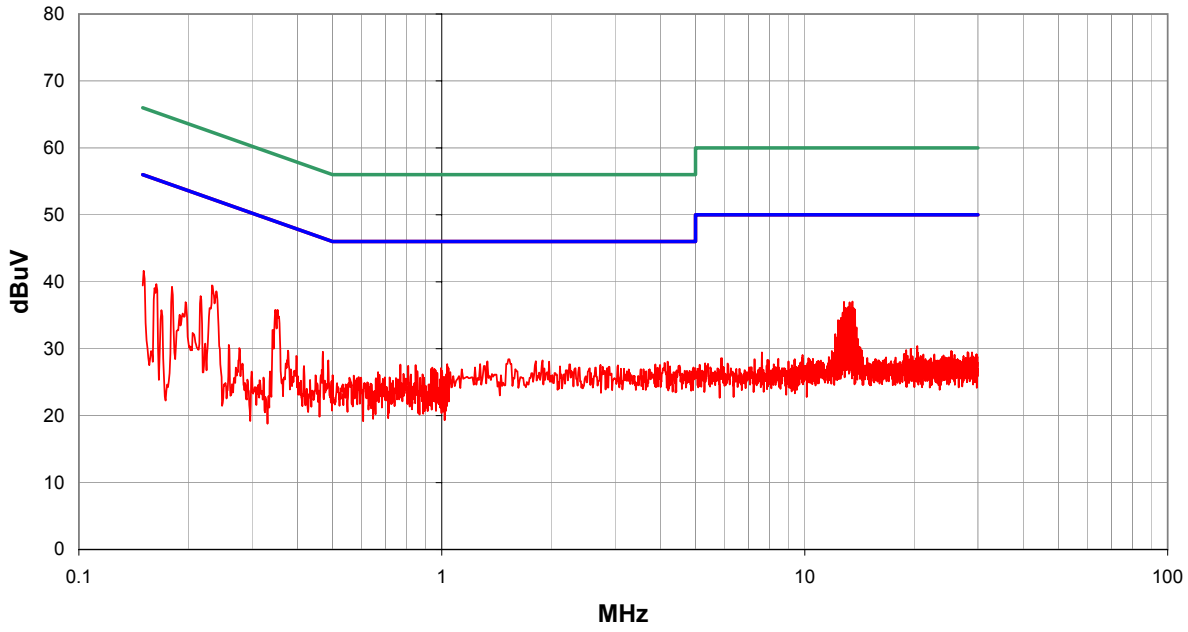
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	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)
0.233	19.3			0.0	0.2	20.0				39.5	52.3	-12.9
13.536	16.0			0.0	1.0	20.0				37.0	50.0	-13.0
12.828	16.0			0.0	1.0	20.0				37.0	50.0	-13.0
13.296	15.9			0.0	1.0	20.0				36.9	50.0	-13.1
0.353	15.6			0.0	0.2	20.0				35.8	48.9	-13.1
0.348	15.6			0.0	0.2	20.0				35.8	49.0	-13.2
13.176	15.2			0.0	1.0	20.0				36.2	50.0	-13.8
12.960	15.1			0.0	1.0	20.0				36.1	50.0	-13.9
13.644	15.0			0.0	1.1	20.0				36.1	50.0	-13.9
13.416	15.0			0.0	1.0	20.0				36.0	50.0	-14.0
13.068	15.0			0.0	1.0	20.0				36.0	50.0	-14.0
13.764	14.8			0.0	1.1	20.0				35.9	50.0	-14.1
0.151	21.5			0.0	0.1	20.0				41.6	56.0	-14.3
12.720	14.4			0.0	1.0	20.0				35.4	50.0	-14.6
0.217	17.7			0.0	0.2	20.0				37.9	52.9	-15.1
0.181	19.1			0.0	0.2	20.0				39.3	54.5	-15.2
12.588	13.6			0.0	1.0	20.0				34.6	50.0	-15.4
0.164	19.5			0.0	0.1	20.0				39.6	55.3	-15.6
12.360	13.3			0.0	1.0	20.0				34.3	50.0	-15.7
12.480	13.2			0.0	1.0	20.0				34.2	50.0	-15.8
0.343	12.6			0.0	0.2	20.0				32.8	49.1	-16.3