Exhibit T: AC Powerline Conducted Emissions

FCC ID: HN2MPCI3A-20

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 to power bridge. Access point DC powered via the Ethernet cable from the hub (power bridge).

Frequency Range Investigated			
Start Frequency	450 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 WA22 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.

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
EUT – 802.11(b) radio module installed in WA22 Access Point	Intermec	MPCI3A-20	022-026
Laptop PC	Panasonic	CF-35	7KHSA02247
Remote Power Bridge	Intermec	071579	U01156281006901
063366 flat panel antenna	Larsen	063366	N/A
Three 066147 dipole antennas	Intermec	066147	N/A

AC Powerline Conducted Emissions

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Ethernet cable	No	1.2	No	Remote Power Bridge	WA22 Access Point
AC power	No	1.9	No	Remote Power Bridge	AC mains
Serial cable	Yes	1.5	No	WA22 Access Point	Laptop (for setup)
Antenna adapter cable	Yes	.75	No	Access Point	Antennas

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

Measurement Equipment

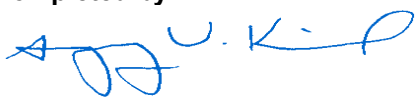
Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	03/19/2002	12 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	03/19/2002	12 mo
LISN	Solar	9252-50-R-24-BNC	LIP	06/12/2002	12 mo
High Pass Filter	TTE	H97-100k-50-720B	HFC	12/11/2001	12 mo

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 is DC powered from a host access point that receives its DC voltage via the Ethernet cable. The DC supply voltage is provided by the Ethernet hub (power bridge) that is connected to the AC mains. Therefore, measurements were made at the AC input of the power bridge that supplies the DC voltage to the access point. 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 450 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 df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	120 V, 60 Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
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

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. Low Channel

EUT OPERATING MODES

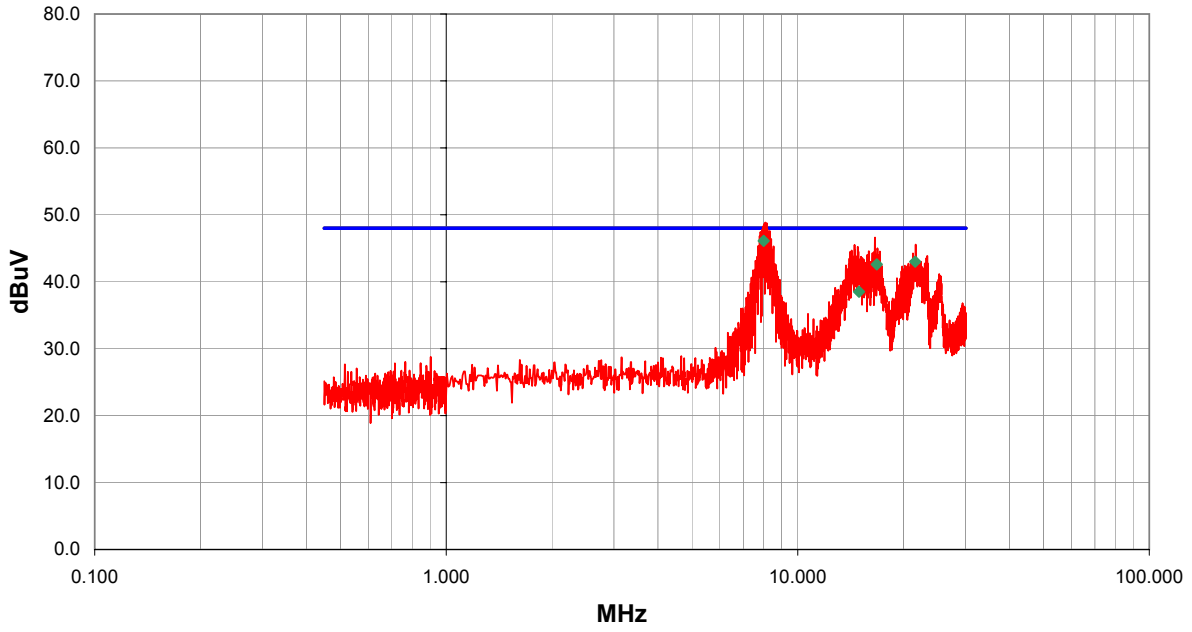
DEVIATIONS FROM TEST STANDARD

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)
7.996	25.3			0.0	0.8	20.0		QP		46.1	48.0	-1.9
21.573	21.5			0.0	1.5	20.0		QP		43.0	48.0	-5.0
16.788	21.4			0.0	1.2	20.0		QP		42.6	48.0	-5.4
14.933	17.4			0.0	1.1	20.0		QP		38.5	48.0	-9.5
8.081	28.1			0.0	0.8	20.0				48.9	48.0	0.9
8.163	28.0			0.0	0.8	20.0				48.8	48.0	0.8
8.036	27.9			0.0	0.8	20.0				48.7	48.0	0.7
7.964	27.5			0.0	0.8	20.0				48.3	48.0	0.3
8.199	27.0			0.0	0.8	20.0				47.8	48.0	-0.2
7.909	27.0			0.0	0.8	20.0				47.8	48.0	-0.2
8.326	26.8			0.0	0.8	20.0				47.6	48.0	-0.4
7.837	26.7			0.0	0.8	20.0				47.5	48.0	-0.5
8.280	26.6			0.0	0.8	20.0				47.4	48.0	-0.6
8.244	26.2			0.0	0.8	20.0				47.0	48.0	-1.0
7.792	26.1			0.0	0.8	20.0				46.9	48.0	-1.1
16.583	25.4			0.0	1.2	20.0				46.6	48.0	-1.4
8.407	25.6			0.0	0.8	20.0				46.4	48.0	-1.6
8.362	25.4			0.0	0.8	20.0				46.2	48.0	-1.8
21.655	24.1			0.0	1.5	20.0				45.6	48.0	-2.4
14.513	24.4			0.0	1.1	20.0				45.5	48.0	-2.5
8.000	24.6			0.0	0.8	20.0				45.4	48.0	-2.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	120 V, 60 Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
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

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. Low Channel

EUT OPERATING MODES

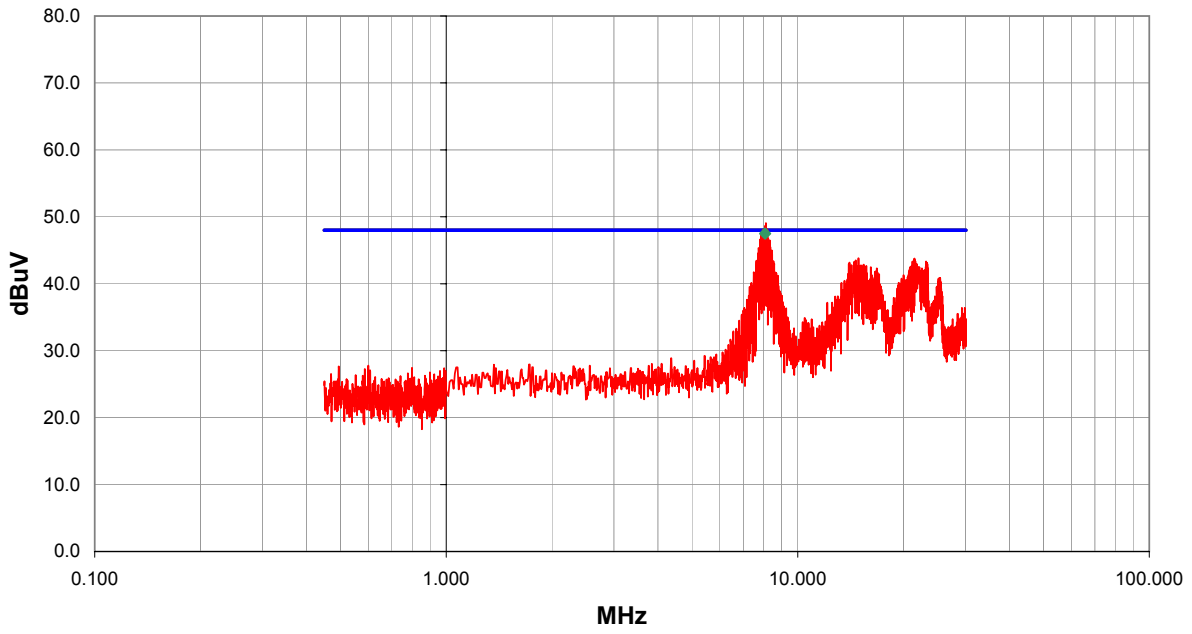
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L2	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)
8.077	26.7			0.0	0.8	20.0		QP		47.5	48.0	-0.5
8.118	28.3			0.0	0.8	20.0				49.1	48.0	1.1
8.081	27.9			0.0	0.8	20.0				48.7	48.0	0.7
8.190	27.4			0.0	0.8	20.0				48.2	48.0	0.2
7.955	27.3			0.0	0.8	20.0				48.1	48.0	0.1
7.991	27.0			0.0	0.8	20.0				47.8	48.0	-0.2
7.873	26.8			0.0	0.8	20.0				47.6	48.0	-0.4
8.235	26.0			0.0	0.8	20.0				46.8	48.0	-1.2
7.828	25.9			0.0	0.8	20.0				46.7	48.0	-1.3
8.326	25.7			0.0	0.8	20.0				46.5	48.0	-1.5
8.362	24.7			0.0	0.8	20.0				45.5	48.0	-2.5
7.746	24.6			0.0	0.7	20.0				45.3	48.0	-2.7
8.434	24.2			0.0	0.8	20.0				45.0	48.0	-3.0
8.271	24.0			0.0	0.8	20.0				44.8	48.0	-3.2
7.710	23.8			0.0	0.7	20.0				44.5	48.0	-3.5
14.895	22.7			0.0	1.1	20.0				43.8	48.0	-4.2
21.483	22.3			0.0	1.5	20.0				43.8	48.0	-4.2
21.452	22.2			0.0	1.5	20.0				43.7	48.0	-4.3
8.027	22.8			0.0	0.8	20.0				43.6	48.0	-4.4
14.613	22.4			0.0	1.1	20.0				43.5	48.0	-4.5
7.629	22.7			0.0	0.7	20.0				43.4	48.0	-4.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	DC from E-net	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
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

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. Mid Channel

EUT OPERATING MODES

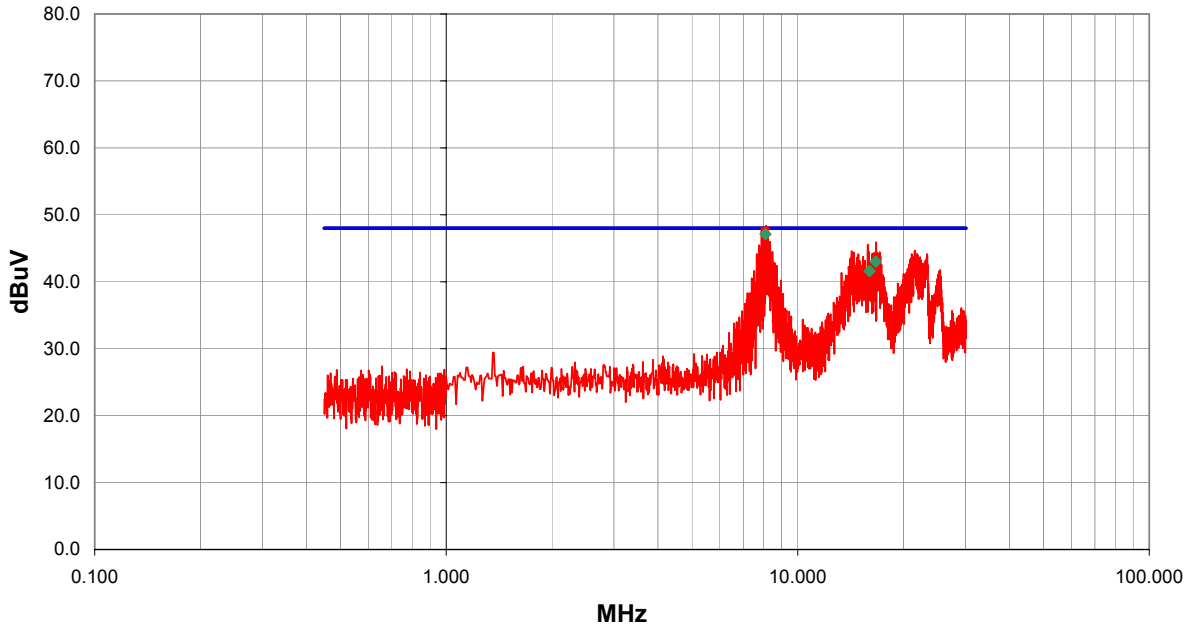
DEVIATIONS FROM TEST STANDARD

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)
8.094	26.3			0.0	0.8	20.0		QP		47.1	48.0	-0.9
16.658	21.8			0.0	1.2	20.0		QP		43.0	48.0	-5.0
16.003	20.4			0.0	1.2	20.0		QP		41.6	48.0	-6.4
8.136	27.6			0.0	0.8	20.0				48.4	48.0	0.4
8.226	27.4			0.0	0.8	20.0				48.2	48.0	0.2
8.018	27.4			0.0	0.8	20.0				48.2	48.0	0.2
7.891	27.4			0.0	0.8	20.0				48.2	48.0	0.2
8.099	27.1			0.0	0.8	20.0				47.9	48.0	-0.1
7.973	26.6			0.0	0.8	20.0				47.4	48.0	-0.6
8.344	25.2			0.0	0.8	20.0				46.0	48.0	-2.0
16.703	24.7			0.0	1.2	20.0				45.9	48.0	-2.1
15.819	24.4			0.0	1.2	20.0				45.6	48.0	-2.4
7.765	24.7			0.0	0.7	20.0				45.4	48.0	-2.6
7.855	24.2			0.0	0.8	20.0				45.0	48.0	-3.0
21.513	23.2			0.0	1.5	20.0				44.7	48.0	-3.3
14.231	23.5			0.0	1.1	20.0				44.6	48.0	-3.4
16.653	23.3			0.0	1.2	20.0				44.5	48.0	-3.5
8.470	23.7			0.0	0.8	20.0				44.5	48.0	-3.5
15.920	23.3			0.0	1.2	20.0				44.5	48.0	-3.5
17.105	23.2			0.0	1.2	20.0				44.4	48.0	-3.6
16.784	23.2			0.0	1.2	20.0				44.4	48.0	-3.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	DC from E-net	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
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

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. Mid Channel

EUT OPERATING MODES

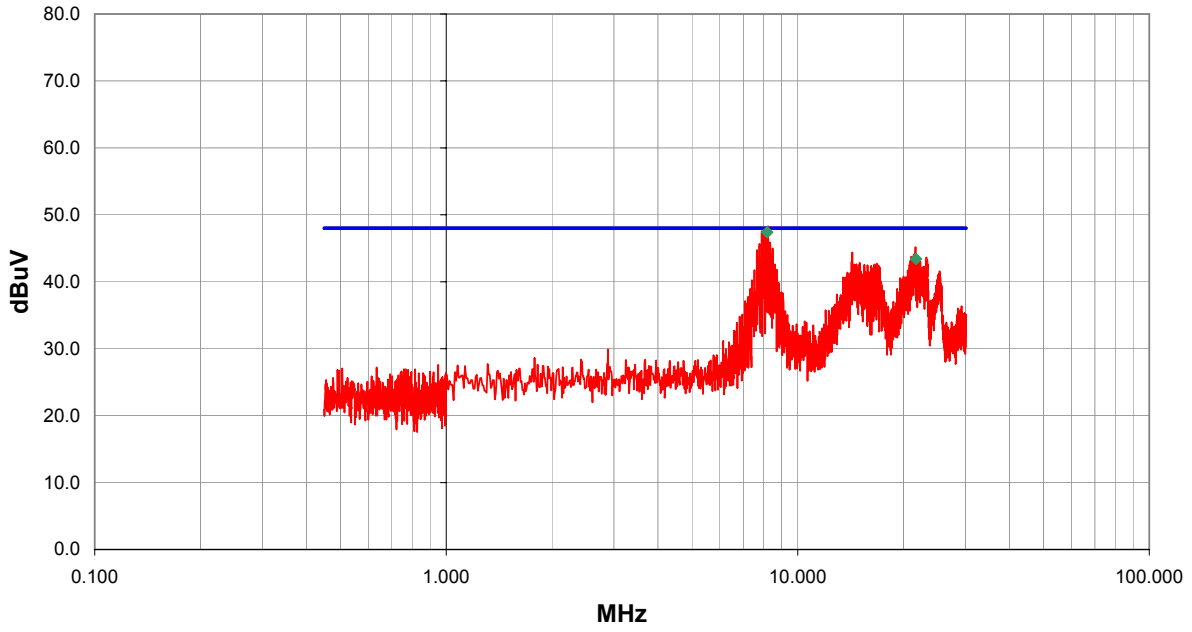
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L2	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)
8.189	26.6			0.0	0.8	20.0		QP		47.4	48.0	-0.6
21.699	21.9			0.0	1.5	20.0		QP		43.4	48.0	-4.6
8.235	27.5			0.0	0.8	20.0				48.3	48.0	0.3
8.154	27.2			0.0	0.8	20.0				48.0	48.0	0.0
8.108	27.2			0.0	0.8	20.0				48.0	48.0	0.0
7.900	26.8			0.0	0.8	20.0				47.6	48.0	-0.4
8.027	26.6			0.0	0.8	20.0				47.4	48.0	-0.6
7.991	26.5			0.0	0.8	20.0				47.3	48.0	-0.7
8.344	25.1			0.0	0.8	20.0				45.9	48.0	-2.1
7.783	24.9			0.0	0.8	20.0				45.7	48.0	-2.3
21.635	23.7			0.0	1.5	20.0				45.2	48.0	-2.8
8.480	24.2			0.0	0.8	20.0				45.0	48.0	-3.0
8.271	24.1			0.0	0.8	20.0				44.9	48.0	-3.1
7.656	24.0			0.0	0.7	20.0				44.7	48.0	-3.3
14.292	23.3			0.0	1.1	20.0				44.4	48.0	-3.6
21.493	22.7			0.0	1.5	20.0				44.2	48.0	-3.8
21.371	22.6			0.0	1.5	20.0				44.1	48.0	-3.9
21.249	22.3			0.0	1.4	20.0				43.7	48.0	-4.3
21.046	22.3			0.0	1.4	20.0				43.7	48.0	-4.3
8.398	22.9			0.0	0.8	20.0				43.7	48.0	-4.3
23.229	22.1			0.0	1.5	20.0				43.6	48.0	-4.4

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	DC from E-net	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
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

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. High Channel

EUT OPERATING MODES

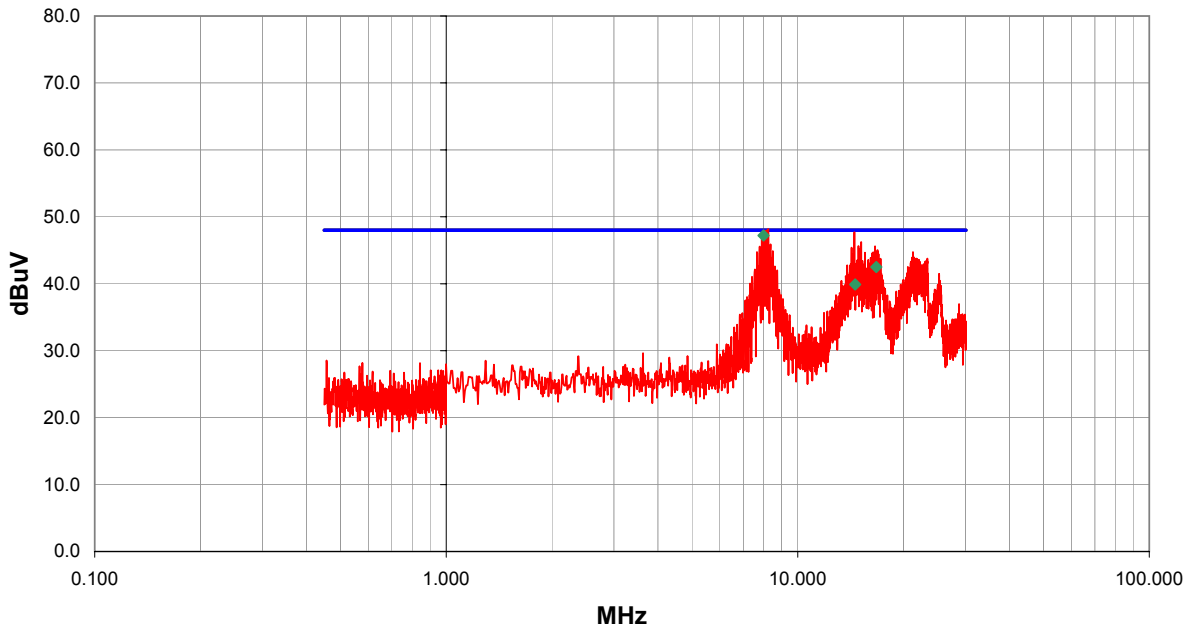
DEVIATIONS FROM TEST STANDARD

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)
7.992	26.4			0.0	0.8	20.0		QP		47.2	48.0	-0.8
16.732	21.3			0.0	1.2	20.0		QP		42.5	48.0	-5.5
14.574	18.8			0.0	1.1	20.0		QP		39.9	48.0	-8.1
8.244	27.4			0.0	0.8	20.0				48.2	48.0	0.2
8.145	27.2			0.0	0.8	20.0				48.0	48.0	0.0
7.991	27.2			0.0	0.8	20.0				48.0	48.0	0.0
8.118	27.1			0.0	0.8	20.0				47.9	48.0	-0.1
14.493	26.6			0.0	1.1	20.0				47.7	48.0	-0.3
7.909	26.9			0.0	0.8	20.0				47.7	48.0	-0.3
15.156	25.1			0.0	1.1	20.0				46.2	48.0	-1.8
8.371	25.1			0.0	0.8	20.0				45.9	48.0	-2.1
14.895	24.5			0.0	1.1	20.0				45.6	48.0	-2.4
16.583	24.4			0.0	1.2	20.0				45.6	48.0	-2.4
7.792	24.8			0.0	0.8	20.0				45.6	48.0	-2.4
14.231	24.3			0.0	1.1	20.0				45.4	48.0	-2.6
14.955	24.1			0.0	1.1	20.0				45.2	48.0	-2.8
16.864	23.8			0.0	1.2	20.0				45.0	48.0	-3.0
8.489	24.1			0.0	0.8	20.0				44.9	48.0	-3.1
16.703	23.6			0.0	1.2	20.0				44.8	48.0	-3.2
21.270	23.3			0.0	1.4	20.0				44.7	48.0	-3.3
7.656	24.0			0.0	0.7	20.0				44.7	48.0	-3.3

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

REV df2.05 07/31/2002

EUT:	MPCI3A-20			Work Order:	INMC0023
Serial Number:	002-026			Date:	8/11/02
Customer:	Intermec Corporation			Temperature:	77
Attendees:	None			Humidity:	41%
Cust. Ref. No.:				Barometric Pressure	30.26
Tested by:	Greg Kiemel	Power:	DC from E-net	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC Part 15 Class B	Year:	2000
Method:	ANSI C63.4	Year:	1992

SAMPLE CALCULATIONS

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

COMMENTS

Tested in WA22 Access Point. Access point DC powered from hub (power bridge). LISN on AC input of hub. Radio transmitting at maximum data rate, worst case antenna configuration: Flat Panel on TX b, 3 dipole antennas. High Channel

EUT OPERATING MODES

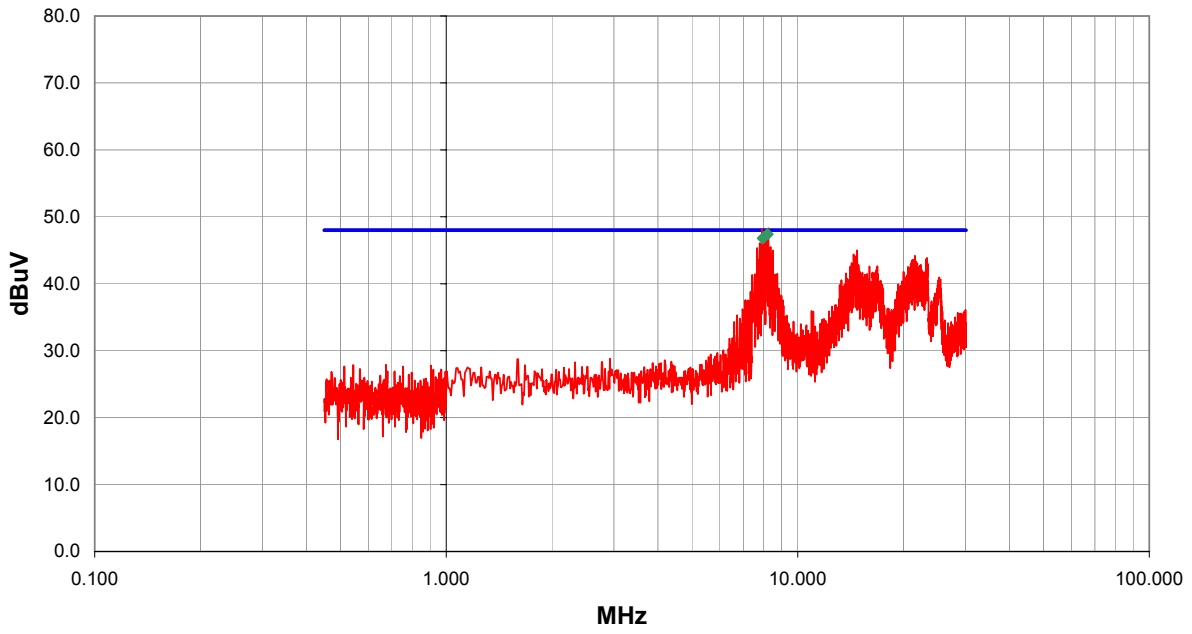
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L2	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)
8.206	26.6			0.0	0.8	20.0		QP		47.4	48.0	-0.6
7.954	26.0			0.0	0.8	20.0		QP		46.8	48.0	-1.2
8.244	27.5			0.0	0.8	20.0				48.3	48.0	0.3
7.918	27.3			0.0	0.8	20.0				48.1	48.0	0.1
8.163	27.2			0.0	0.8	20.0				48.0	48.0	0.0
8.000	27.0			0.0	0.8	20.0				47.8	48.0	-0.2
8.036	26.6			0.0	0.8	20.0				47.4	48.0	-0.6
8.127	26.4			0.0	0.8	20.0				47.2	48.0	-0.8
7.801	25.3			0.0	0.8	20.0				46.1	48.0	-1.9
8.371	24.7			0.0	0.8	20.0				45.5	48.0	-2.5
7.665	24.6			0.0	0.7	20.0				45.3	48.0	-2.7
7.864	24.5			0.0	0.8	20.0				45.3	48.0	-2.7
14.754	23.9			0.0	1.1	20.0				45.0	48.0	-3.0
8.498	24.2			0.0	0.8	20.0				45.0	48.0	-3.0
8.289	23.7			0.0	0.8	20.0				44.5	48.0	-3.5
14.422	23.3			0.0	1.1	20.0				44.4	48.0	-3.6
21.534	22.7			0.0	1.5	20.0				44.2	48.0	-3.8
14.613	23.0			0.0	1.1	20.0				44.1	48.0	-3.9
23.320	22.3			0.0	1.6	20.0				43.9	48.0	-4.1
23.280	22.2			0.0	1.6	20.0				43.8	48.0	-4.2
23.158	22.1			0.0	1.5	20.0				43.6	48.0	-4.4