

Exhibit P: Spurious Conducted Emissions

FCC ID: HN2MPCI3A-20

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:

DC from E-net

Frequency Range Investigated

Start Frequency

0 MHz

Stop Frequency

25 GHz

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
Power bridge	Intermec	071579	U01156281006901
Laptop PC	Panasonic	CF-35	7KHS A02247

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial cable	Yes	1.5	No	Access Point	Laptop
Ethernet cable	No	7.5	No	Power Bridge	Access Point
AC power	No	1.9	No	Power Bridge	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	03/08/2001	24 mo

Test Description

Requirement: Per 47 CFR 15.247(c), in any 100 kHz bandwidth outside the authorized band, the maximum level of radio frequency power must be at least 20dB down from the highest emission level within the authorized band. The measurement is made with the spectrum analyzer's resolution bandwidth set to 100 kHz, and the video bandwidth set to greater than or equal to the resolution bandwidth.

Configuration: The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were 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. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

Completed by:



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

EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel	Humidity: 43% RH		
Customer Ref. No.: N/A		Power: DC from E-net	Job Site: EV06		

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

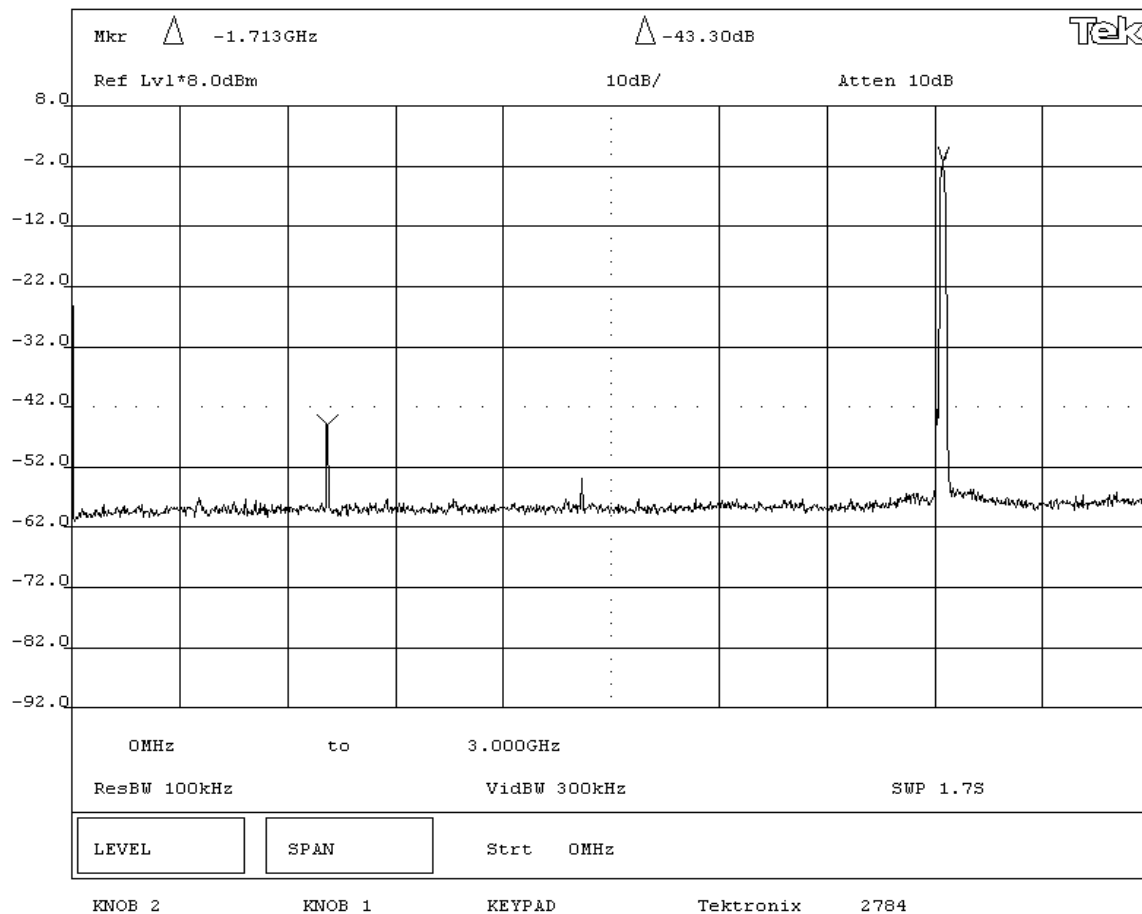
None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental

RESULTS

Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - Low Channel 0MHz-3GHz**

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

EUT: MPC13A-20				Work Order: INMC0023	
Serial Number: 002-026				Date: 07/23/02	
Customer: Intermec Corporation				Temperature: 26 degrees C	
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

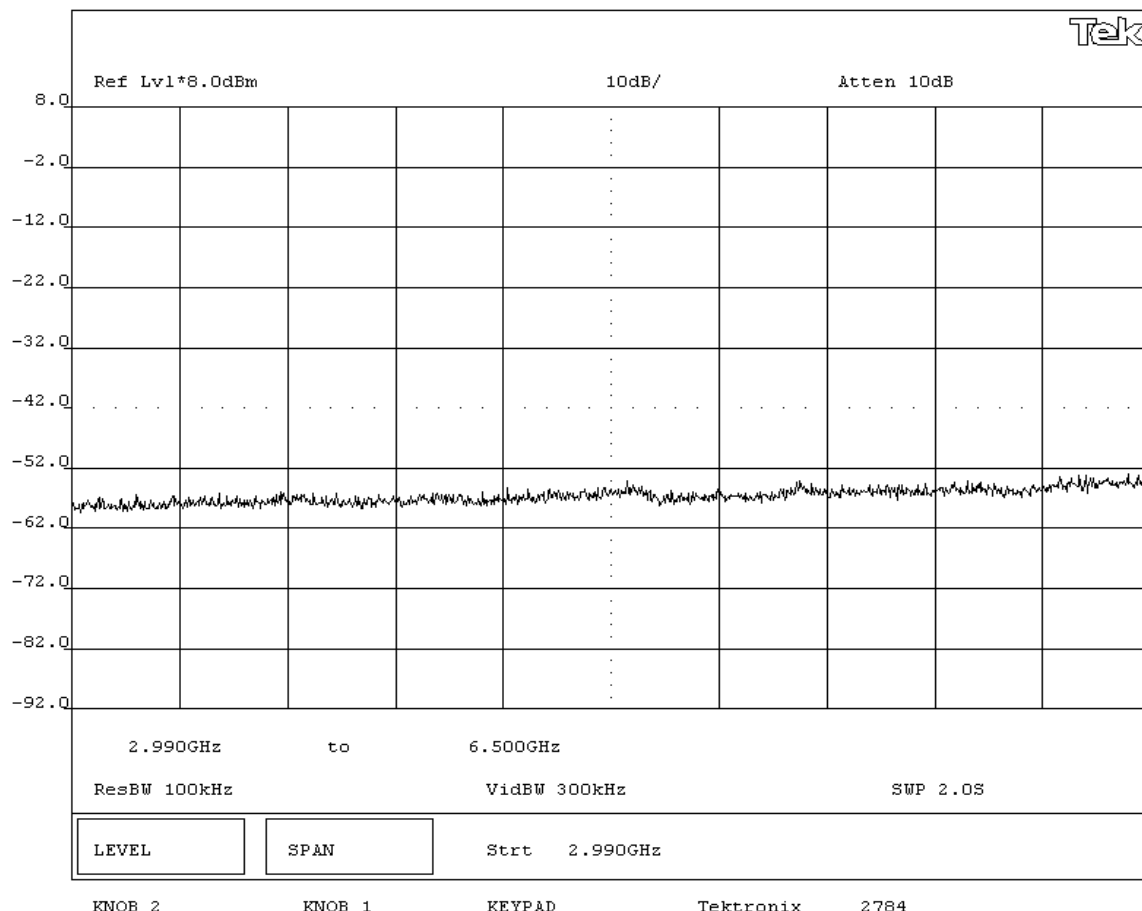
None


REQUIREMENTS

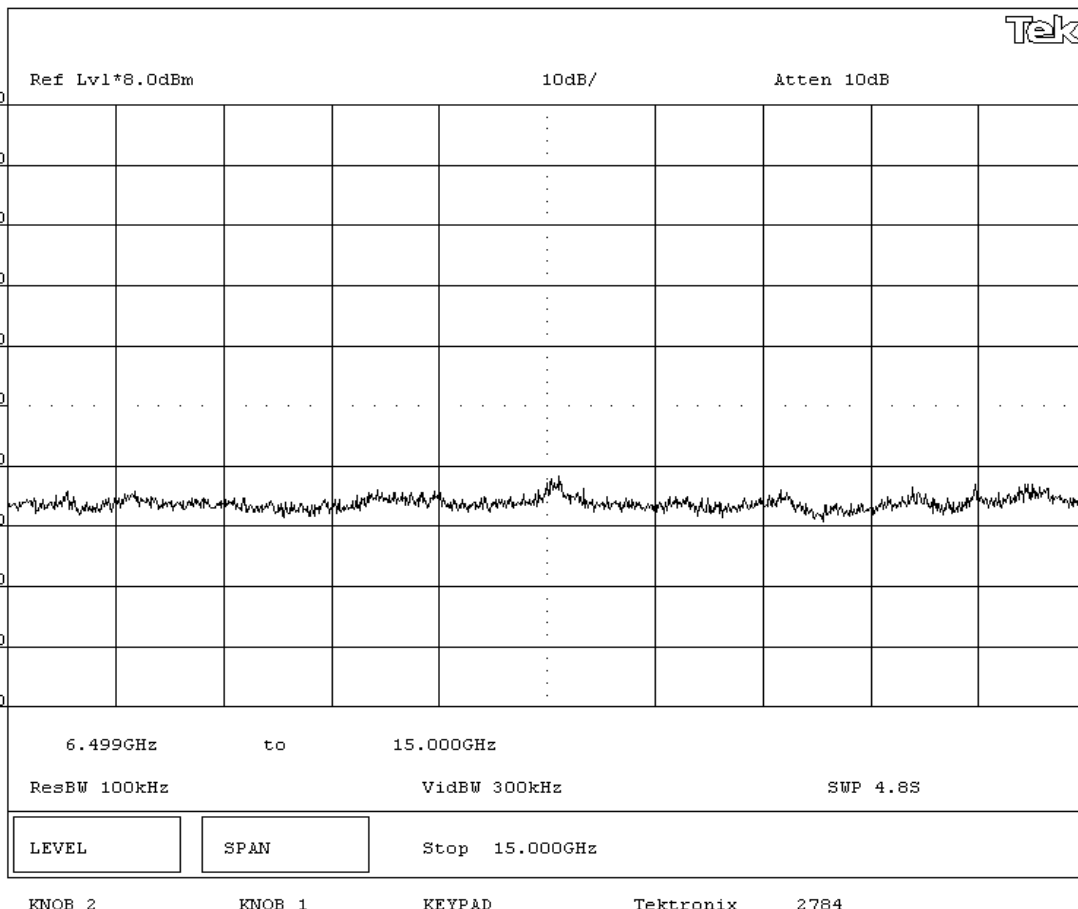
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental


RESULTS

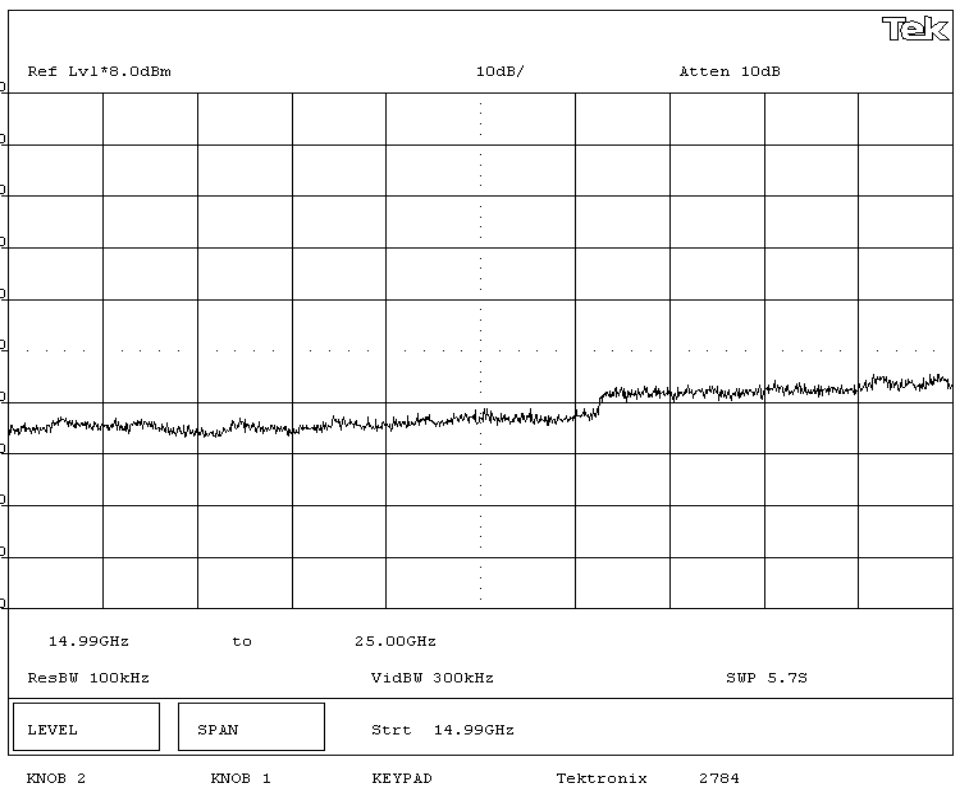
Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - Low Channel 3GHz-6.5GHz**

NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(c)		Year: Most Current		Method: FCC 97-114, ANSI C63.4	
				Year: 1992	
SAMPLE CALCULATIONS					
COMMENTS					
Tested in WA22 Access Point					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - Low Channel 6.5GHz-15GHz					



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: MPC13A-20		Work Order: INMC0023			
Serial Number: 002-026		Date: 07/23/02			
Customer: Intermec Corporation		Temperature: 26 degrees C			
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(c)	Year: Most Current	Method: FCC 97-114, ANSI C63.4	Year: 1992		
SAMPLE CALCULATIONS					
COMMENTS					
Tested in WA22 Access Point					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
 Tested By: _____					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - Low Channel 15GHz - 25GHz					



NORTHWEST
EMC**EMISSIONS DATA SHEET**Rev BETA
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EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

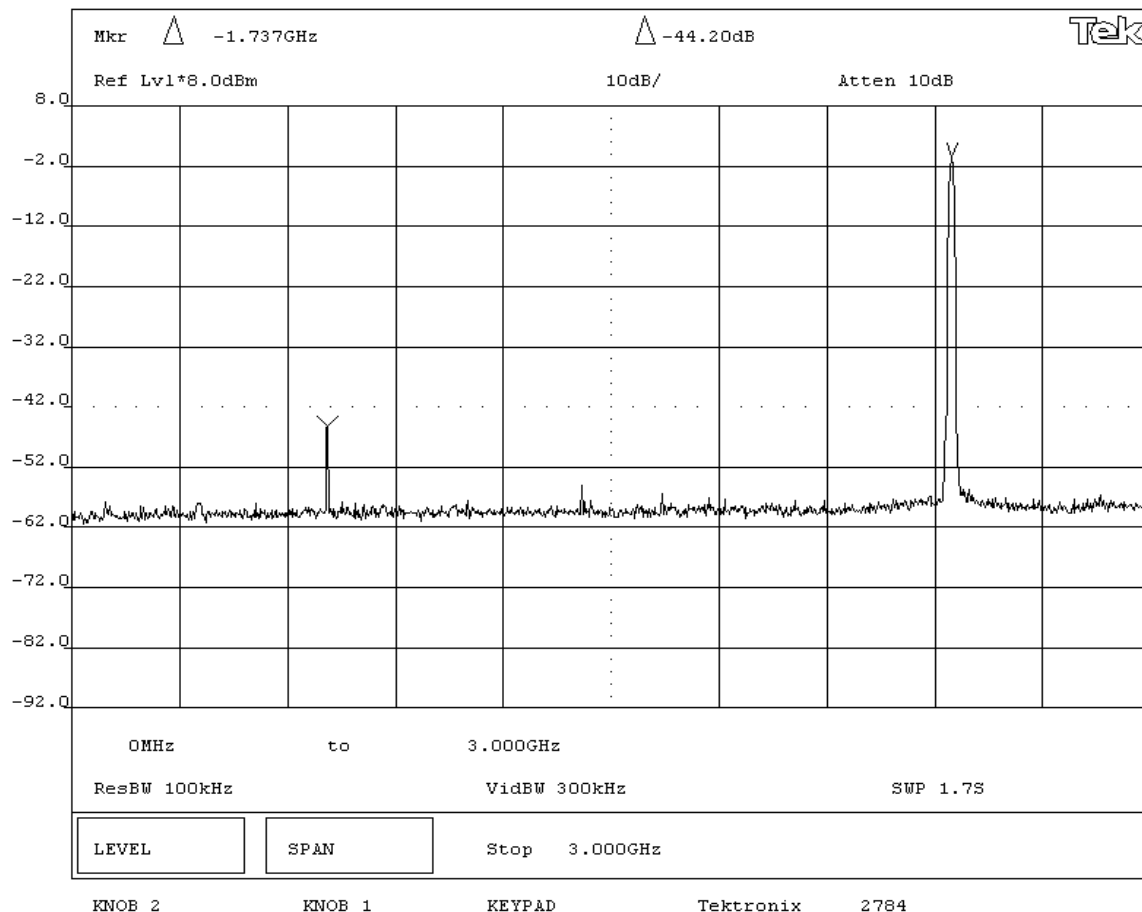
None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental

RESULTS

Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - Mid Channel 0MHz-3GHz**

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

EUT: MPC13A-20				Work Order: INMC0023	
Serial Number: 002-026				Date: 07/23/02	
Customer: Intermec Corporation				Temperature: 26 degrees C	
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

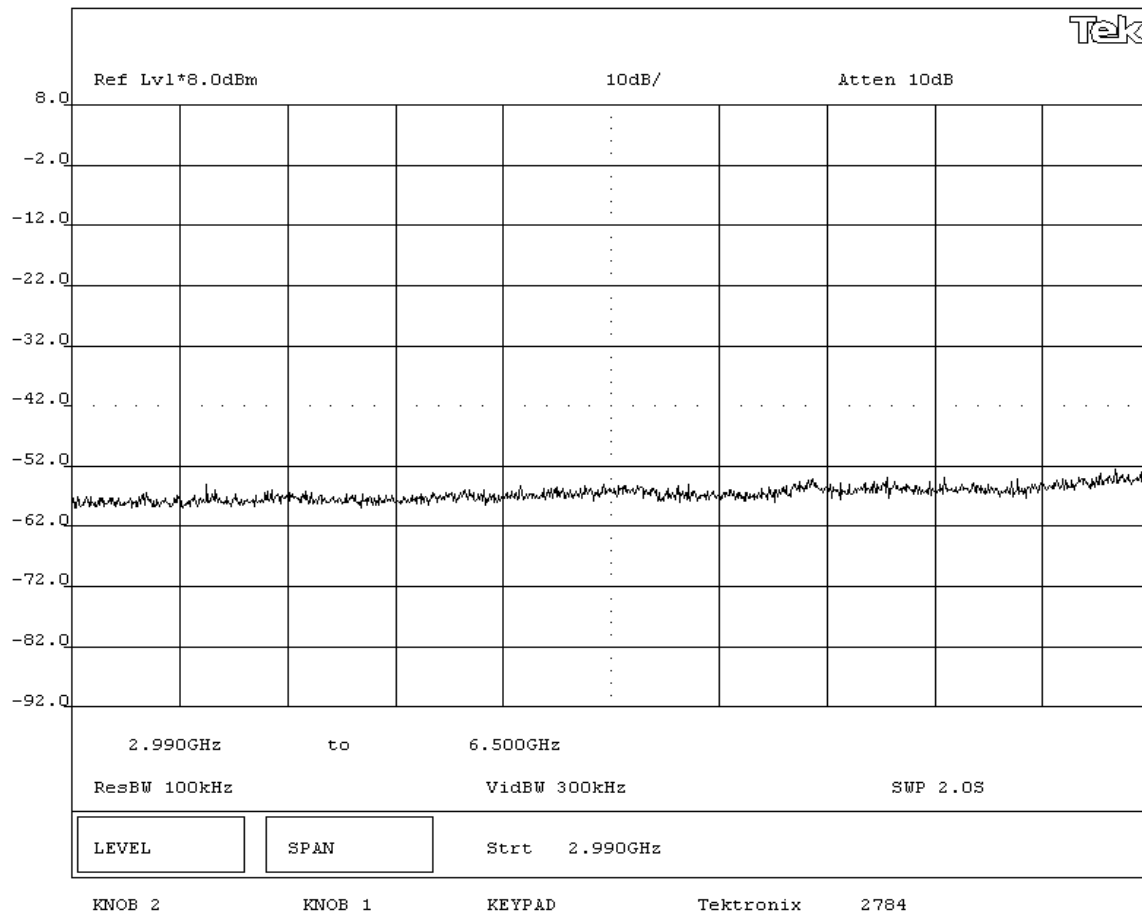
None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental

RESULTS

Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - Mid Channel 3GHz-6.5GHz**

NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel	Humidity: 43% RH		
Customer Ref. No.: N/A		Power: DC from E-net	Job Site: EV06		

TEST SPECIFICATIONS

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

COMMENTS

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental

RESULTS

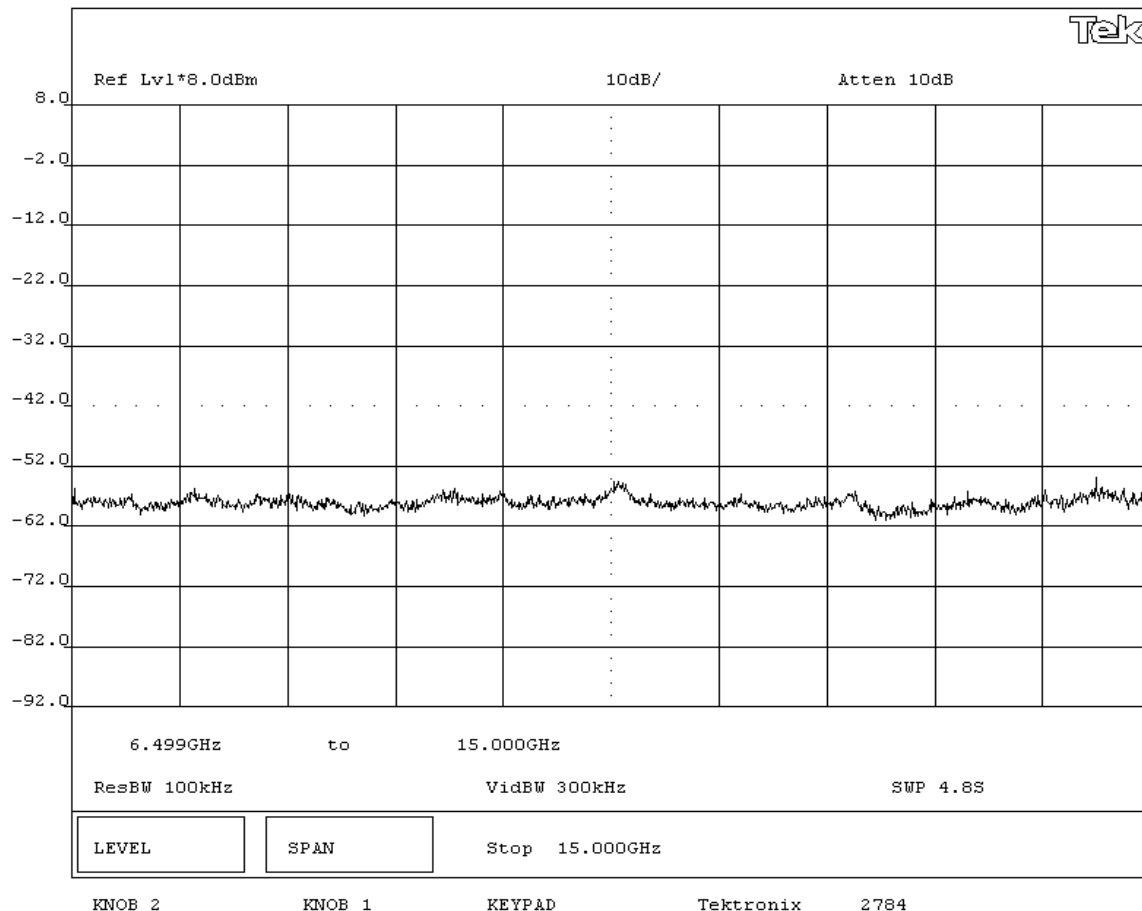
Pass


SIGNATURE

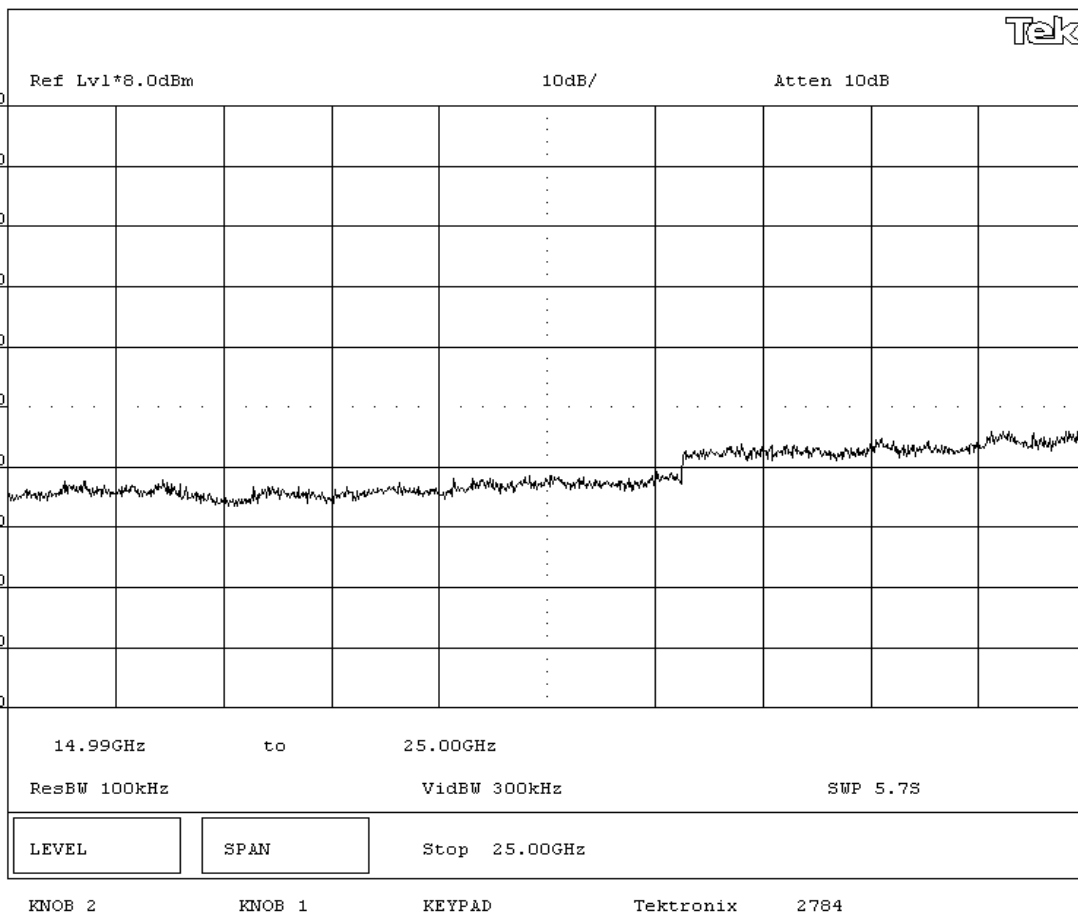
Tested By: 

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions - Mid Channel 6.5GHz-15GHz



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(c)		Year: Most Current		Method: FCC 97-114, ANSI C63.4	
				Year: 1992	
SAMPLE CALCULATIONS					
COMMENTS					
Tested in WA22 Access Point					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - Mid Channel 15GHz-25GHz					



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

EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel	Humidity: 43% RH		
Customer Ref. No.: N/A		Power: DC from E-net	Job Site: EV06		

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

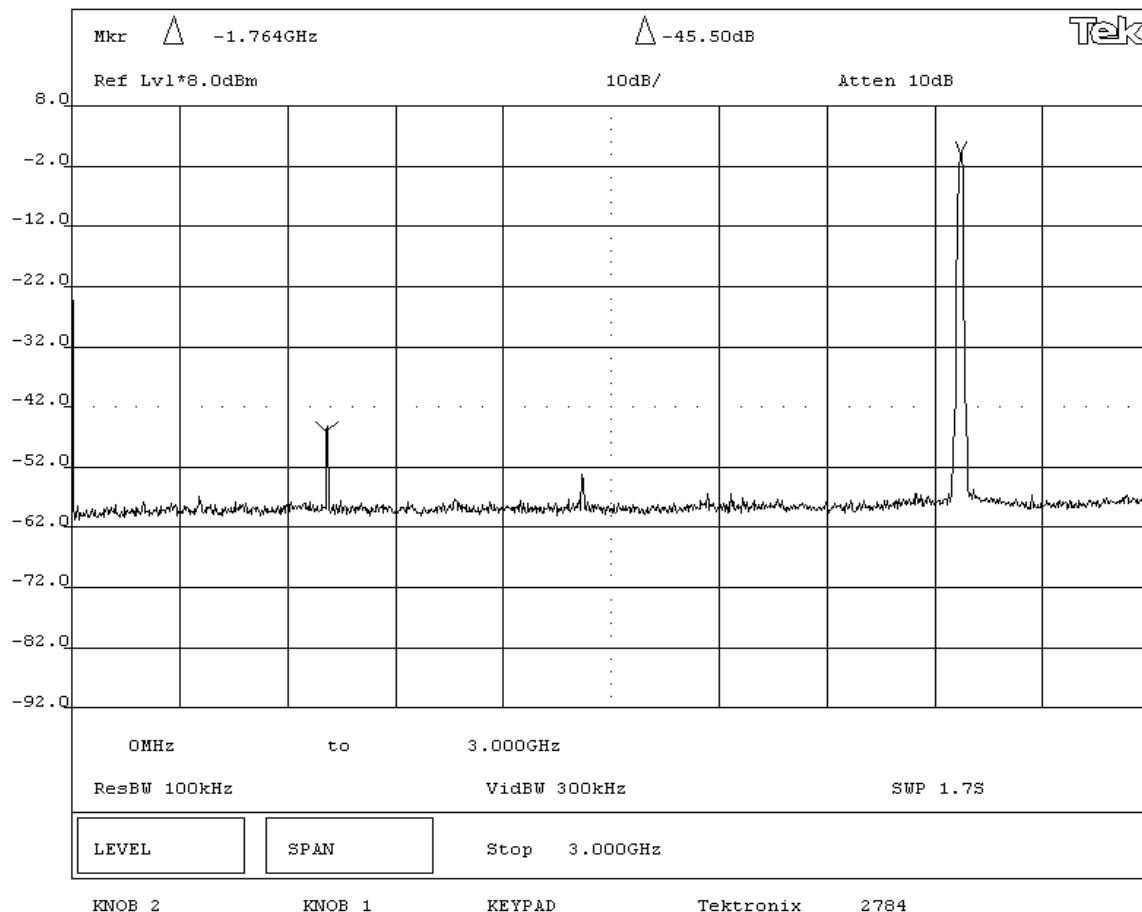
None


REQUIREMENTS

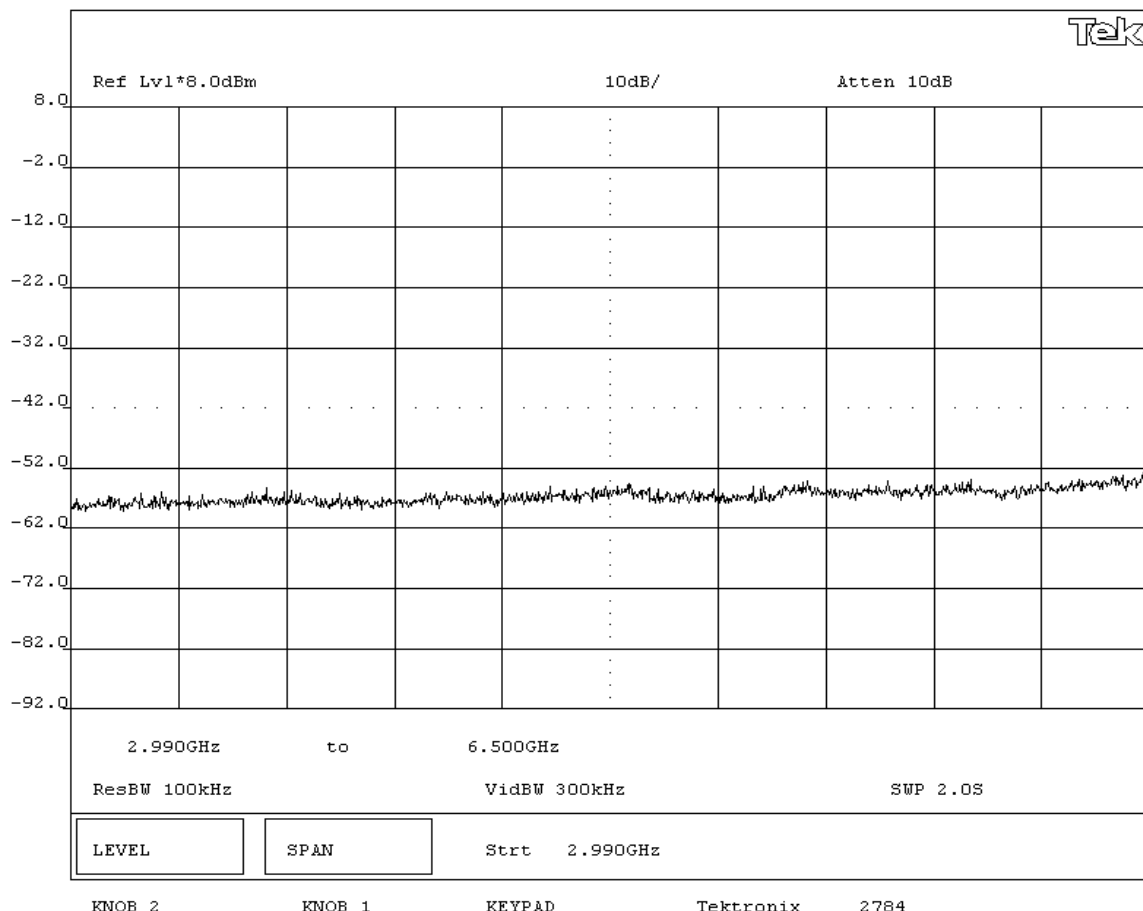
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental


RESULTS

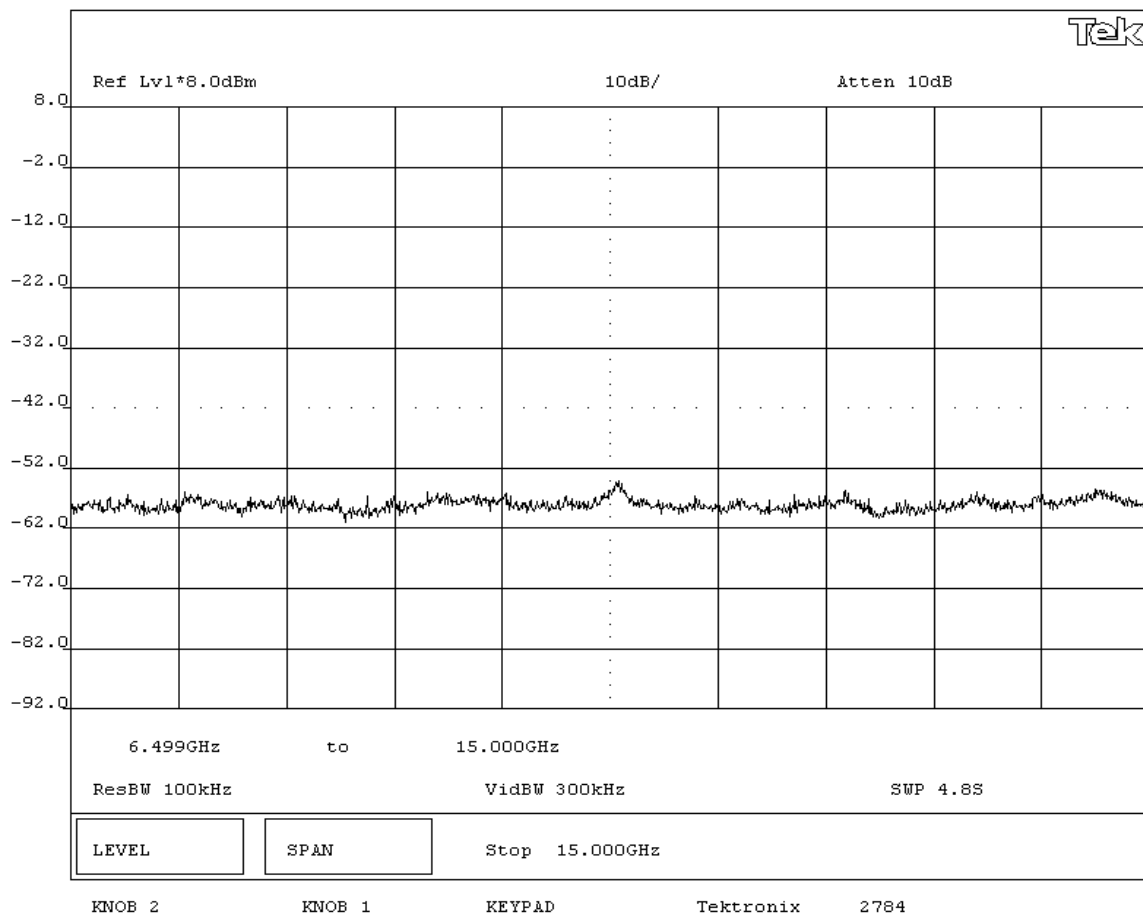
Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - High Channel 0MHz-3GHz**

NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(c)		Year: Most Current		Method: FCC 97-114, ANSI C63.4	
				Year: 1992	
SAMPLE CALCULATIONS					
COMMENTS					
Tested in WA22 Access Point					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - High Channel 3GHz-6.5GHz					



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel		Humidity: 43% RH	
Customer Ref. No.: N/A		Power: DC from E-net		Job Site: EV06	
TEST SPECIFICATIONS					
Specification: 47 CFR 15.247(c)		Year: Most Current		Method: FCC 97-114, ANSI C63.4	
				Year: 1992	
SAMPLE CALCULATIONS					
COMMENTS					
Tested in WA22 Access Point					
EUT OPERATING MODES					
Modulated by PRBS at maximum data rate					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - High Channel 6.5GHz-15GHz					



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

EUT: MPC13A-20			Work Order: INMC0023		
Serial Number: 002-026			Date: 07/23/02		
Customer: Intermec Corporation			Temperature: 26 degrees C		
Attendees: None		Tested by: Greg Kiemel	Humidity: 43% RH		
Customer Ref. No.: N/A		Power: DC from E-net	Job Site: EV06		

TEST SPECIFICATIONS

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

Tested in WA22 Access Point

EUT OPERATING MODES

Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental

RESULTS

Pass

SIGNATURETested By: **DESCRIPTION OF TEST****Antenna Conducted Spurious Emissions - High Channel 15GHz-25GHz**