

Exhibit N: Peak Output Power

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

Software\Firmware Applied During Test

Exercise software	AP Monitor	Version	V5.97
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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	7KHSA02247

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
RF Detector	RLC Electronics	CR-133-R	ZZA	05/10/2002	12 mo
Multimeter	Tektronix	DMM912	MMH	06/20/2002	12 mo
Signal Generator	Hewlett Packard	8341B	TGN	05/31/2002	12 mo
Power Meter	Hewlett Packard	E4418A	SPA	06/21/2002	24 mo
Power Sensor	Hewlett-Packard	8481H	SPB	06/21/2002	24 mo

Test Description

Requirement: Per 47 CFR 15.247(b)(3), the maximum peak output power must not exceed 1 Watt.

Configuration: The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The EUT was transmitting at its maximum data rate and maximum output power.

The measurement was made using a direct connection between the RF output of the EUT and a RF detector diode. The DC output of the diode was measured with the DMM. The signal generator, tuned to the transmit frequency, was then substituted for the EUT. The CW output of the signal generator was adjusted until the DC output of the RF detector diode match the level produced when connected to the EUT. To further reduce measurement error, the power meter and sensor were then used to measure the output power level of the signal generator.

De Facto EIRP Limit: Per 47 CFR 15.247 (4), the EUT meets the de facto EIRP limit of +36dBm.

Completed by:



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
Customer Ref. No.:	N/A	Power:	DC from E-net
		Humidity:	43% RH
		Job Site:	EV06

TEST SPECIFICATIONS			
Specification:	47 CFR 15.247(b)(3)	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, at maximum output power

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak conducted output power does not exceed 1 Watt

RESULTS	AMPLITUDE
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Pass	21.5 mW
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SIGNATURE

Tested By: 

DESCRIPTION OF TEST

Output Power - Low, Mid, & High Channels

Frequency (MHz)	Power (mW)
2412	16.2
2438	19.1
2462	21.5