

# **Exhibit X: Output Power**

**FCC ID: HN2EASYLAN**

## 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:

Max Modulation

### Data Rates Investigated:

Maximum

### Output Power Setting(s) Investigated:

Maximum

### Power Input Settings Investigated:

120 VAC, 60 Hz.

## Software\Firmware Applied During Test

|  |                             |         |         |
|--|-----------------------------|---------|---------|
| Exercise software  | Windows 98<br>Hyperterminal | Version | Unknown |
| Description  |                             |         |         |
| Windows 98 Hyperterminal was used to communicate with the RF module embedded firmware. |                             |         |         |

## 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 |
|------------------------------|--------------|-------------------|---------------|
| EASYLAN installed in Printer | Intermec     | 4440              | 2019900103    |

## Cables

| Cable Type | Shield | Length (m) | Ferrite | Connection 1 | Connection 2 |
|------------|--------|------------|---------|--------------|--------------|
| AC Power   | No     | 2.1        | No      | Printer      | 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 | 8593E | AAA        | 04/08/2002 | 12 mo    |

## Test Description

**Requirement:** Per 47 CFR 15.247(b)(1), the maximum peak output power must not exceed 1 Watt. The measurement is made using either a peak power meter, or a spectrum analyzer.

If a spectrum analyzer is used, the resolution bandwidth must be set to greater than the 6 dB bandwidth of the modulated carrier, and the video bandwidth set to greater than or equal to the resolution bandwidth. If the largest resolution bandwidth is less than the 6 dB bandwidth of the modulated carrier, the analyzer band power function can be used with these settings:

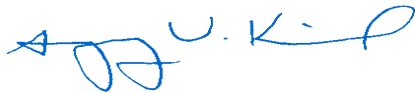
- Set RBW = VBW = Max
- Set Channel Bandwidth = Bandwidth of modulated carrier plus the resolution bandwidth
- Set Frequency Span just large enough to capture emission
- User peak detector only – set to max hold

(This alternate method was presented by Joe Dichoso of the FCC's OET Division at an FCC Workshop for TCBs, Feb 14, 2002)

**Configuration:** The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The EUT was transmitting at its maximum data rate and maximum output power.

**De Facto EIRP Limit:** Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

Completed by:



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

|                           |                        |                           |  |
|---------------------------|------------------------|---------------------------|--|
| EUT: EASYLAN              |                        | Work Order: INMC0015      |  |
| Serial Number: 072603-001 |                        | Date: 05/08/02            |  |
| Customer: INTERMEC Corp.  |                        | Temperature: 23 degrees C |  |
| Attendees: none           |                        | Humidity: 31% RH          |  |
| Customer Ref. No.: N/A    | Tested by: Greg Kiemel | Power: 120V, 60 Hz        |  |
|                           |                        | Job Site: EV06            |  |

|                                    |                    |                                |            |
|------------------------------------|--------------------|--------------------------------|------------|
| <b>TEST SPECIFICATIONS</b>         |                    |                                |            |
| Specification: 47 CFR 15.247(b)(1) | Year: Most Current | Method: FCC 97-114, ANSI C63.4 | Year: 1992 |

**SAMPLE CALCULATIONS**

**COMMENTS**

Maximum Output Power at Maximum Data Rate

**EUT OPERATING MODES**

Modulated by PRBS at maximum data rate

**DEVIATIONS FROM TEST STANDARD**


None

**REQUIREMENTS**

Maximum peak conducted output power does not exceed 1 Watt

|                |                  |
|----------------|------------------|
| <b>RESULTS</b> | <b>AMPLITUDE</b> |
| Pass           | 22.4 mW          |

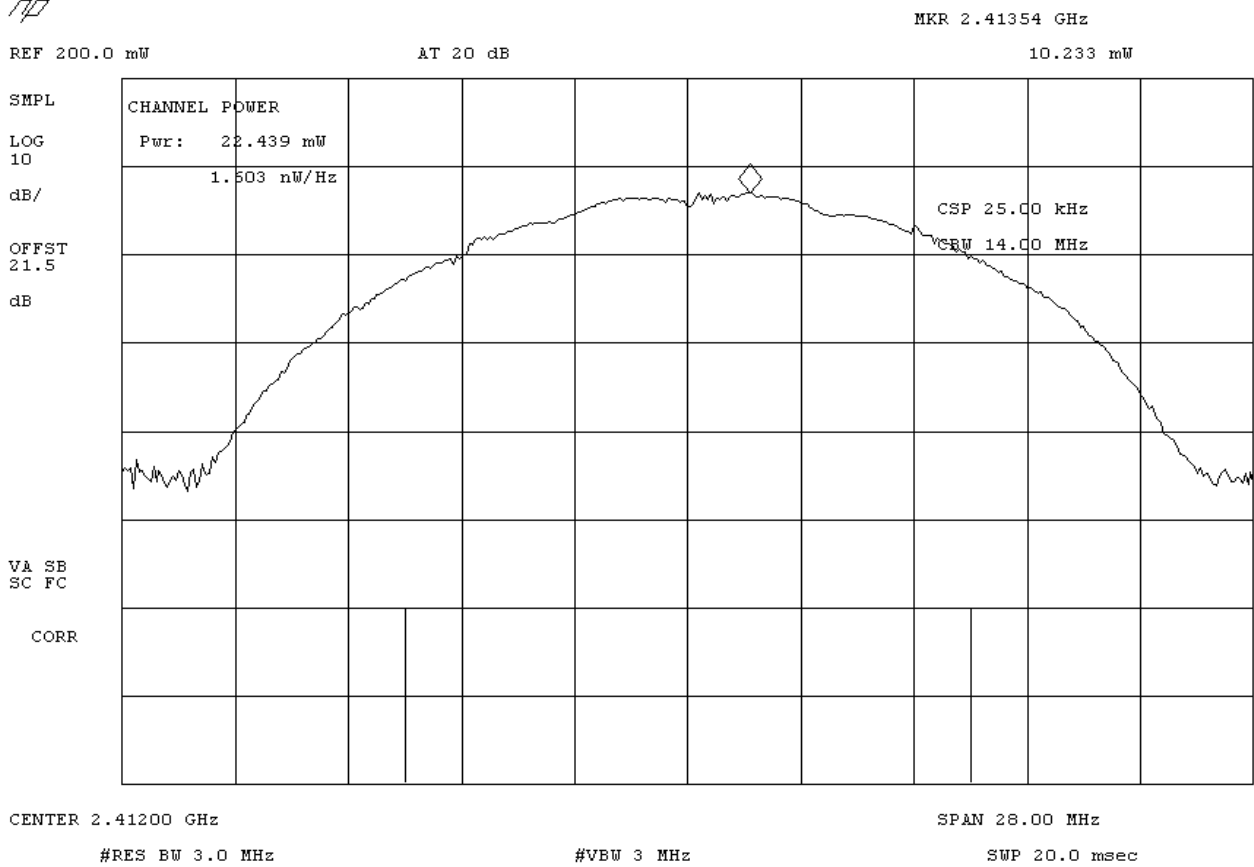
**SIGNATURE**

Tested By: 

**DESCRIPTION OF TEST**

**Output Power - Low Channel**

17:18:31 MAY 08, 2002



No us  
Me:

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

|                           |                        |                           |
|---------------------------|------------------------|---------------------------|
| EUT: EASYLAN              |                        | Work Order: INMC0015      |
| Serial Number: 072603-001 |                        | Date: 05/08/02            |
| Customer: INTERMEC Corp.  |                        | Temperature: 23 degrees C |
| Attendees: none           | Tested by: Greg Kiemel | Humidity: 31% RH          |
| Customer Ref. No.: N/A    | Power: 120V, 60 Hz     | Job Site: EV06            |

|                                    |                    |                                |            |
|------------------------------------|--------------------|--------------------------------|------------|
| Specification: 47 CFR 15.247(b)(1) | Year: Most Current | Method: FCC 97-114, ANSI C63.4 | Year: 1992 |
|------------------------------------|--------------------|--------------------------------|------------|

SAMPLE CALCULATIONS

**COMMENTS**

Maximum Output Power at Maximum Data Rate

EUT OPERATING MODES  
Modulated by PRBS at maximum data rate

DEVIATIONS FROM TEST STANDARD  
None

REQUIREMENTS  
Maximum peak conducted output power does not exceed 1 Watt

|         |           |
|---------|-----------|
| RESULTS | AMPLITUDE |
| Pass    | 18.5 mW   |

SIGNATURE  
Tested By: *Greg Kiemel*

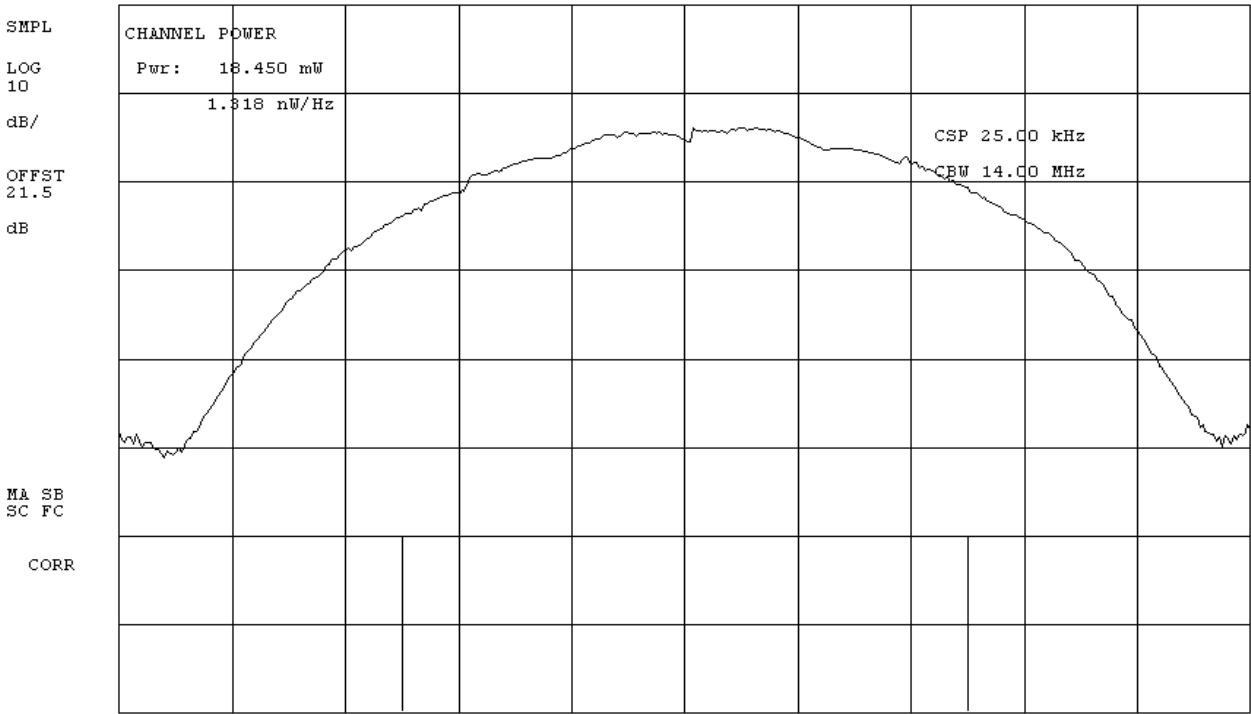
**DESCRIPTION OF TEST**

Output Power - Mid Channel

17:43:13 MAY 08, 2002

*hp*

REF 200.0 mW AT 20 dB



No us  
Me:

CENTER 2.44200 GHz SPAN 28.00 MHz  
#RES BW 3.0 MHz #VBW 3 MHz SWP 20.0 msec

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

|                           |                        |                           |  |
|---------------------------|------------------------|---------------------------|--|
| EUT: EASYLAN              |                        | Work Order: INMC0015      |  |
| Serial Number: 072603-001 |                        | Date: 05/08/02            |  |
| Customer: INTERMEC Corp.  |                        | Temperature: 23 degrees C |  |
| Attendees: none           | Tested by: Greg Kiemel | Humidity: 31% RH          |  |
| Customer Ref. No.: N/A    | Power: 120V, 60 Hz     | Job Site: EV06            |  |

|                     |                                    |                    |                                |            |
|---------------------|------------------------------------|--------------------|--------------------------------|------------|
| TEST SPECIFICATIONS | Specification: 47 CFR 15.247(b)(1) | Year: Most Current | Method: FCC 97-114, ANSI C63.4 | Year: 1992 |
|---------------------|------------------------------------|--------------------|--------------------------------|------------|

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| SAMPLE CALCULATIONS |  |  |  |  |
|---------------------|--|--|--|--|

**COMMENTS**

Maximum Output Power at Maximum Data Rate

**EUT OPERATING MODES**

Modulated by PRBS at maximum data rate

**DEVIATIONS FROM TEST STANDARD**

None

**REQUIREMENTS**

Maximum peak conducted output power does not exceed 1 Watt

**RESULTS** AMPLITUDE

Pass 17.1 mW

**SIGNATURE**

Tested By: *Greg Kiemel*

**DESCRIPTION OF TEST**

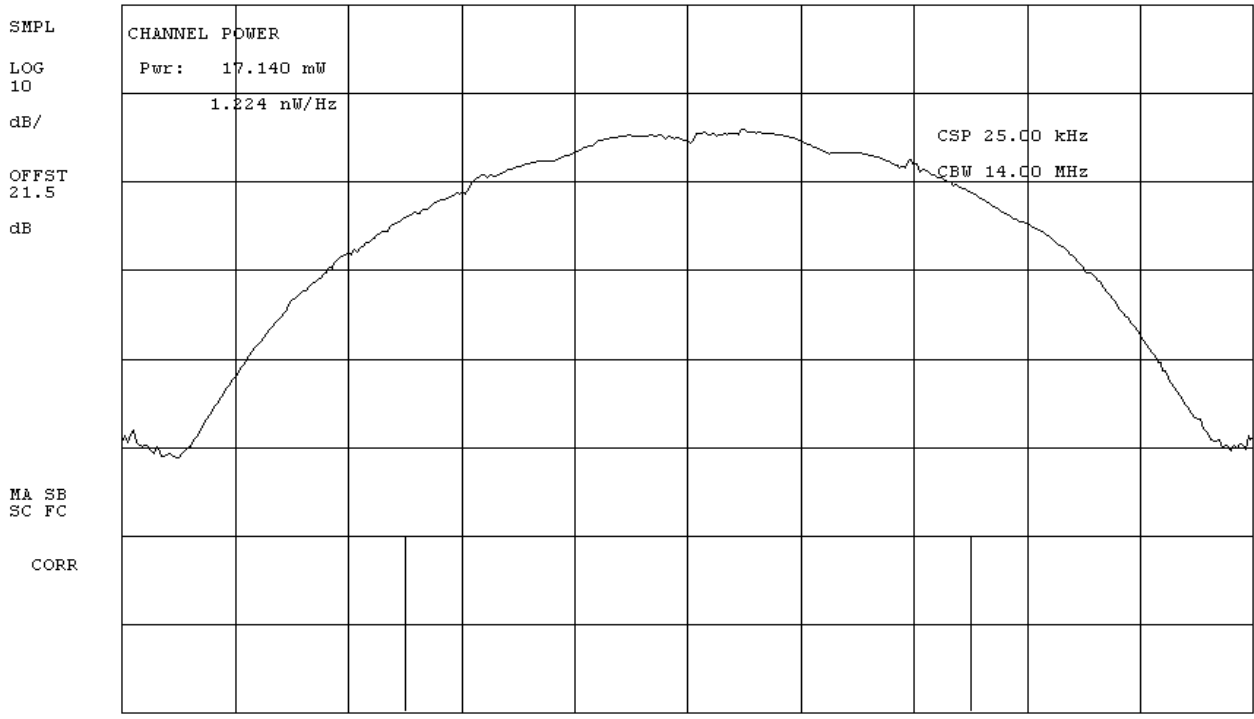
**Output Power - High Channel**

17:50:06 MAY 08, 2002

*hp*

REF 200.0 mW AT 20 dB

No us:  
Me:



CENTER 2.46200 GHz SPAN 28.00 MHz  
 #RES BW 3.0 MHz #VBW 3 MHz SWP 20.0 msec