

# Datalogic Mobile, Inc.

## Falcon 4410 or Falcon 4420

Report No. PSCI0322

Report Prepared By



[www.nwemc.com](http://www.nwemc.com)  
1-888-EMI-CERT

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**EMC Test Report**



22975 NW Evergreen Parkway  
Suite 400  
Hillsboro, Oregon 97124

## Certificate of Test

Last Date of Test: January 25, 2010

Datalogic Mobile, Inc.

Model: Falcon 4410 or Falcon 4420

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Spurious Radiated Emissions	FCC 15.247:2010	ANSI C63.10:2009	Pass

### Modifications made to the product

See the Modifications section of this report

### Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.  
22975 NW Evergreen Parkway, Suite 400  
Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834D-1).

Approved By:

Don Facteau, IS Manager



NVLAP Lab Code: 200630-0

*This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.*

*Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.*

Revision Number	Description	Date	Page Number
00	None		

**Barometric Pressure**

The recorded barometric pressure has been normalized to sea level.



# Accreditations and Authorizations

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## FCC

Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



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## NVLAP

Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



NVLAP LAB CODE 200629-0  
NVLAP LAB CODE 200630-0  
NVLAP LAB CODE 200676-0  
NVLAP LAB CODE 200761-0  
NVLAP LAB CODE 200881-0

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## Industry Canada

Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1*)



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## CAB

Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



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## NEMKO

Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



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## Australia/New Zealand

The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



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## VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634).



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## BSMI

Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017). License No.SL2-IN-E-1017.



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## GOST

Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



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## KCC

Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)



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## SCOPE

For details on the Scopes of our Accreditations, please visit:  
<http://www.nwemc.com/accreditations/>



## Northwest EMC Locations



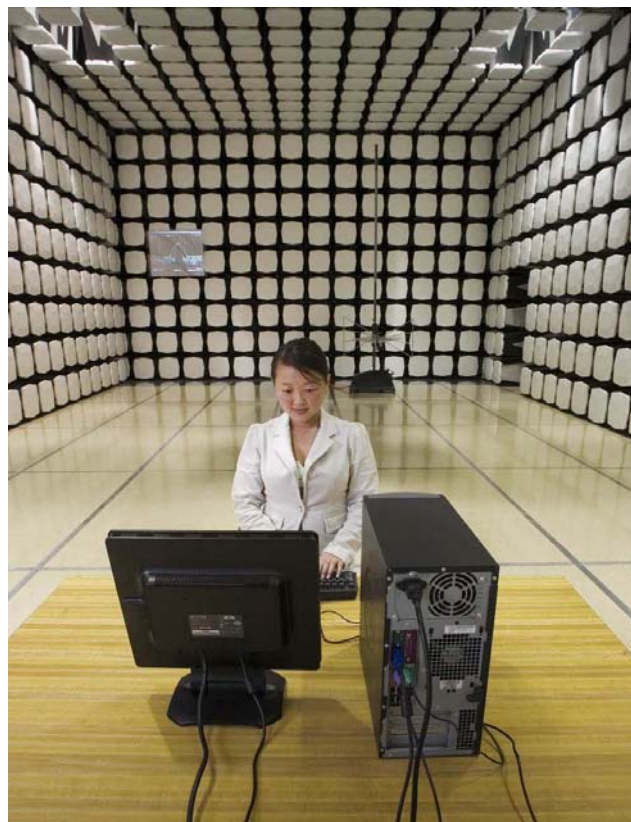
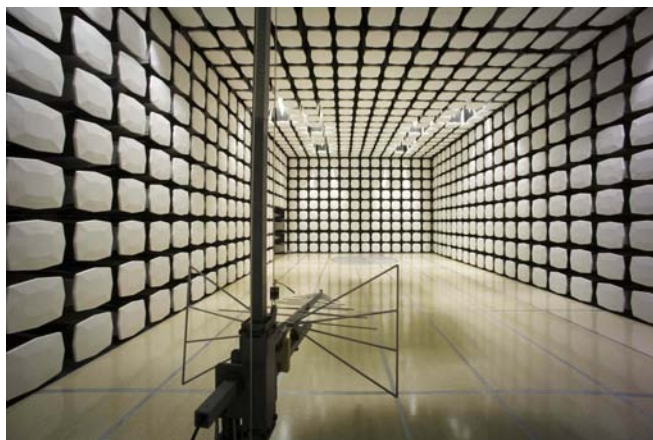
Oregon  
Labs EV01-EV12  
22975 NW Evergreen Pkwy  
Suite 400  
Hillsboro, OR 97124  
(503) 844-4066

California  
Labs OC01-OC13  
41 Tesla  
Irvine, CA 92618  
(949) 861-8918

Minnesota  
Labs MN01-MN08  
9349 W Broadway Ave.  
Brooklyn Park,  
MN 55445  
(763) 425-2281

Washington  
Labs SU01-SU07  
14128 339<sup>th</sup> Ave. SE  
Sultan, WA 98294  
(360) 793-8675

New York  
Labs WA01-WA04  
4939 Jordan Rd.  
Elbridge, NY 13060  
(315) 685-0796





**Party Requesting the Test**

<b>Company Name:</b>	Datalogic Mobile, Inc.
<b>Address:</b>	1505 Westec Drive
<b>City, State, Zip:</b>	Eugene, OR 97402
<b>Test Requested By:</b>	Jerry Kalina
<b>Model:</b>	Falcon 4410 or Falcon 4420
<b>First Date of Test:</b>	January 22, 2010
<b>Last Date of Test:</b>	January 25, 2010
<b>Receipt Date of Samples:</b>	January 22, 2010
<b>Equipment Design Stage:</b>	Production
<b>Equipment Condition:</b>	No Damage

**Information Provided by the Party Requesting the Test****Functional Description of the EUT (Equipment Under Test):**

Handheld Scanner that contains a Wi-Fi radio.

**Testing Objective:**

To demonstrate compliance to FCC 15.247 radiated emissions requirements when using a new antenna.

**EUT Photo**

**CONFIGURATION 1 PSCI0322**

<b>EUT</b>			
<b>Description</b>	<b>Manufacturer</b>	<b>Model/Part Number</b>	<b>Serial Number</b>
Antenna - Mini-Nanoblade Omni-Directional	Laird	Unknown	None
802.11 Radio Module	Summit Data Communications	SDC-DF10G	Unknown
Falcon Handheld Computer	Datalogic Scanning, Inc.	Falcon	F408303066

<b>Peripherals in test setup boundary</b>			
<b>Description</b>	<b>Manufacturer</b>	<b>Model/Part Number</b>	<b>Serial Number</b>
Bluetooth Radio	BlueGiga Technologies	WT12-A	Unknown



Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	1/22/2010	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	1/25/2010	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

# Spurious Radiated Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## MODES OF OPERATION

Tx

## POWER SETTINGS INVESTIGATED

Battery

## FREQUENCY RANGE INVESTIGATED

Start Frequency	30MHz	Stop Frequency	26.5GHz
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## SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Spectrum Analyzer	Agilent	E4446A	AAQ	1/6/2010	13
Cable	ESM Cable Corp.	KMKM-72	EVY	11/3/2009	13
EV01 Cables		Standard Gain Horns Cables	EVF	11/13/2008	16
EV01 Cables		Double Ridge Horn Cables	EVB	7/10/2009	13
EV01 Cables		Bilog Cables	EVA	7/10/2009	13
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	5/19/2009	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	7/10/2009	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	7/10/2009	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	7/10/2009	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	7/10/2009	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
Antenna, Horn	ETS	3160-07	AHU	NCR	0
Antenna, Horn	EMCO	3115	AHC	8/12/2008	24
Antenna, Biconilog	EMCO	3141	AXE	1/14/2010	24

## MEASUREMENT BANDWIDTHS

Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

## MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation is available upon request.

## TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

NORTHWEST										PSA 2008.07.21 EMI 2009.4.13			
EMC Spurious Radiated Emissions													
EUT: Falcon 4410 or Falcon 4420										Work Order: PSC10322			
Serial Number: F408303066										Date: 01/22/10			
Customer: Datalogic Mobile, Inc.										Temperature: 20			
Attendees: Jerry Kalina, Steve Shere										Humidity: 36%			
Project: None										Barometric Pres.: 29.83			
Tested by: Jennifer Herrett										Power: Battery		Job Site: EV01	
TEST SPECIFICATIONS										Test Method			
FCC 15.247:2010										ANSI C63.10:2009			
TEST PARAMETERS													
Antenna Height(s) (m)		1 - 4		Test Distance (m)		3							
COMMENTS													
None													
EUT OPERATING MODES													
Tx													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #		1		<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">Signature</div> </div>									
Configuration #		1											
Results		Pass											
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4823.983	43.0	9.6	225.0	1.0	3.0	0.0	H-Horn	AV	0.0	52.6	54.0	-1.4	EUT on side, Low Channel, 1Mbps.
4824.000	41.3	9.6	92.0	1.0	3.0	0.0	H-Horn	AV	0.0	50.9	54.0	-3.1	EUT horizontal, Low Channel, 1Mbps.
4823.975	40.8	9.6	134.0	1.1	3.0	0.0	V-Horn	AV	0.0	50.4	54.0	-3.6	EUT vertical, Low Channel, 1Mbps.
4824.008	38.1	9.6	222.0	1.0	3.0	0.0	H-Horn	AV	0.0	47.7	54.0	-6.3	EUT vertical, Low Channel, 1Mbps.
4823.925	36.2	9.6	209.0	1.1	3.0	0.0	V-Horn	AV	0.0	45.8	54.0	-8.2	EUT on side, Low Channel, 1Mbps.
4824.025	36.0	9.6	135.0	1.4	3.0	0.0	V-Horn	AV	0.0	45.6	54.0	-8.4	EUT horizontal, Low Channel, 1Mbps.
4923.975	32.5	9.9	185.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.4	54.0	-11.6	EUT on side, High Channel, 1Mbps.
4923.958	32.0	9.9	189.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.9	54.0	-12.1	EUT vertical, High Channel, 1Mbps.
4881.967	31.5	9.7	227.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.2	54.0	-12.8	EUT on side, Mid Channel, 1Mbps.
4882.000	30.8	9.7	190.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.5	54.0	-13.5	EUT vertical, Mid Channel, 1Mbps.
7388.883	23.8	16.6	122.0	2.0	3.0	0.0	V-Horn	AV	0.0	40.4	54.0	-13.6	EUT vertical, High Channel, 1Mbps.
7389.217	23.7	16.6	151.0	1.5	3.0	0.0	H-Horn	AV	0.0	40.3	54.0	-13.7	EUT on side, High Channel, 1Mbps.
7323.908	23.6	16.3	281.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.9	54.0	-14.1	EUT vertical, Mid Channel, 1Mbps.
7324.142	23.6	16.3	125.0	2.5	3.0	0.0	H-Horn	AV	0.0	39.9	54.0	-14.1	EUT on side, Mid Channel, 1Mbps.

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<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th>Freq (MHz)</th> <th>Amplitude (dBuV)</th> <th>Factor (dB)</th> <th>Azimuth (degrees)</th> <th>Height (meters)</th> <th>Distance (meters)</th> <th>External Attenuation (dB)</th> <th>Polarity</th> <th>Detector</th> <th>Distance Adjustment (dB)</th> <th>Adjusted dBuV/m</th> <th>Spec. Limit dBuV/m</th> <th>Compared to Spec. (dB)</th> <th>Comments</th> </tr> </thead> <tbody> <tr><td>2484.403</td><td>49.1</td><td>2.7</td><td>255.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>PK</td><td>0.0</td><td>71.8</td><td>74.0</td><td>-2.2</td><td>EUT vertical, 54Mbps.</td></tr> <tr><td>2483.593</td><td>28.5</td><td>2.7</td><td>175.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>51.2</td><td>54.0</td><td>-2.8</td><td>EUT on side, 1Mbps.</td></tr> <tr><td>2483.733</td><td>28.5</td><td>2.7</td><td>256.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>51.2</td><td>54.0</td><td>-2.8</td><td>EUT vertical, 1Mbps.</td></tr> <tr><td>2483.867</td><td>28.4</td><td>2.7</td><td>101.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>51.1</td><td>54.0</td><td>-2.9</td><td>EUT horizontal, 1Mbps.</td></tr> <tr><td>2483.715</td><td>27.7</td><td>2.7</td><td>262.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>50.4</td><td>54.0</td><td>-3.6</td><td>EUT vertical, 6Mbps.</td></tr> <tr><td>2483.793</td><td>46.8</td><td>2.7</td><td>262.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>PK</td><td>0.0</td><td>69.5</td><td>74.0</td><td>-4.5</td><td>EUT vertical, 6Mbps.</td></tr> <tr><td>2483.775</td><td>26.7</td><td>2.7</td><td>158.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>49.4</td><td>54.0</td><td>-4.6</td><td>EUT on side, 6Mbps.</td></tr> <tr><td>2483.640</td><td>25.2</td><td>2.7</td><td>139.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>47.9</td><td>54.0</td><td>-6.1</td><td>EUT horizontal, 1Mbps.</td></tr> <tr><td>2484.063</td><td>25.2</td><td>2.7</td><td>284.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>47.9</td><td>54.0</td><td>-6.1</td><td>EUT vertical, 11Mbps.</td></tr> <tr><td>2483.510</td><td>45.0</td><td>2.7</td><td>158.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>PK</td><td>0.0</td><td>67.7</td><td>74.0</td><td>-6.3</td><td>EUT on side, 6Mbps.</td></tr> <tr><td>2483.688</td><td>24.9</td><td>2.7</td><td>178.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>47.6</td><td>54.0</td><td>-6.4</td><td>EUT on side, 11Mbps.</td></tr> <tr><td>2484.107</td><td>24.7</td><td>2.7</td><td>264.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>47.4</td><td>54.0</td><td>-6.6</td><td>EUT vertical, 36Mbps.</td></tr> <tr><td>2483.895</td><td>44.7</td><td>2.7</td><td>264.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>PK</td><td>0.0</td><td>67.4</td><td>74.0</td><td>-6.6</td><td>EUT vertical, 36Mbps.</td></tr> <tr><td>2483.537</td><td>24.6</td><td>2.7</td><td>262.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>47.3</td><td>54.0</td><td>-6.7</td><td>EUT vertical, 1Mbps.</td></tr> <tr><td>2483.795</td><td>24.5</td><td>2.7</td><td>255.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>47.2</td><td>54.0</td><td>-6.8</td><td>EUT vertical, 54Mbps.</td></tr> <tr><td>2483.812</td><td>24.2</td><td>2.7</td><td>176.0</td><td>1.4</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>46.9</td><td>54.0</td><td>-7.1</td><td>EUT on side, 54Mbps.</td></tr> <tr><td>2483.845</td><td>24.2</td><td>2.7</td><td>156.0</td><td>1.5</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>AV</td><td>0.0</td><td>46.9</td><td>54.0</td><td>-7.1</td><td>EUT on side, 36Mbps.</td></tr> <tr><td>2483.718</td><td>24.1</td><td>2.7</td><td>213.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>V-Horn</td><td>AV</td><td>0.0</td><td>46.8</td><td>54.0</td><td>-7.2</td><td>EUT on side, 1Mbps.</td></tr> <tr><td>2484.097</td><td>42.8</td><td>2.7</td><td>176.0</td><td>1.4</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>PK</td><td>0.0</td><td>65.5</td><td>74.0</td><td>-8.5</td><td>EUT on side, 54Mbps.</td></tr> <tr><td>2484.457</td><td>40.1</td><td>2.7</td><td>175.0</td><td>1.0</td><td>3.0</td><td>20.0</td><td>H-Horn</td><td>PK</td><td>0.0</td><td>62.8</td><td>74.0</td><td>-11.2</td><td>EUT on side, 1Mbps.</td></tr> </tbody> </table>				Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments	2484.403	49.1	2.7	255.0	1.0	3.0	20.0	V-Horn	PK	0.0	71.8	74.0	-2.2	EUT vertical, 54Mbps.	2483.593	28.5	2.7	175.0	1.0	3.0	20.0	H-Horn	AV	0.0	51.2	54.0	-2.8	EUT on side, 1Mbps.	2483.733	28.5	2.7	256.0	1.0	3.0	20.0	V-Horn	AV	0.0	51.2	54.0	-2.8	EUT vertical, 1Mbps.	2483.867	28.4	2.7	101.0	1.0	3.0	20.0	H-Horn	AV	0.0	51.1	54.0	-2.9	EUT horizontal, 1Mbps.	2483.715	27.7	2.7	262.0	1.0	3.0	20.0	V-Horn	AV	0.0	50.4	54.0	-3.6	EUT vertical, 6Mbps.	2483.793	46.8	2.7	262.0	1.0	3.0	20.0	V-Horn	PK	0.0	69.5	74.0	-4.5	EUT vertical, 6Mbps.	2483.775	26.7	2.7	158.0	1.0	3.0	20.0	H-Horn	AV	0.0	49.4	54.0	-4.6	EUT on side, 6Mbps.	2483.640	25.2	2.7	139.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.9	54.0	-6.1	EUT horizontal, 1Mbps.	2484.063	25.2	2.7	284.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.9	54.0	-6.1	EUT vertical, 11Mbps.	2483.510	45.0	2.7	158.0	1.0	3.0	20.0	H-Horn	PK	0.0	67.7	74.0	-6.3	EUT on side, 6Mbps.	2483.688	24.9	2.7	178.0	1.0	3.0	20.0	H-Horn	AV	0.0	47.6	54.0	-6.4	EUT on side, 11Mbps.	2484.107	24.7	2.7	264.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.4	54.0	-6.6	EUT vertical, 36Mbps.	2483.895	44.7	2.7	264.0	1.0	3.0	20.0	V-Horn	PK	0.0	67.4	74.0	-6.6	EUT vertical, 36Mbps.	2483.537	24.6	2.7	262.0	1.0	3.0	20.0	H-Horn	AV	0.0	47.3	54.0	-6.7	EUT vertical, 1Mbps.	2483.795	24.5	2.7	255.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.2	54.0	-6.8	EUT vertical, 54Mbps.	2483.812	24.2	2.7	176.0	1.4	3.0	20.0	H-Horn	AV	0.0	46.9	54.0	-7.1	EUT on side, 54Mbps.	2483.845	24.2	2.7	156.0	1.5	3.0	20.0	H-Horn	AV	0.0	46.9	54.0	-7.1	EUT on side, 36Mbps.	2483.718	24.1	2.7	213.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.8	54.0	-7.2	EUT on side, 1Mbps.	2484.097	42.8	2.7	176.0	1.4	3.0	20.0	H-Horn	PK	0.0	65.5	74.0	-8.5	EUT on side, 54Mbps.	2484.457	40.1	2.7	175.0	1.0	3.0	20.0	H-Horn	PK	0.0	62.8	74.0	-11.2	EUT on side, 1Mbps.
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments																																																																																																																																																																																																																																																																																												
2484.403	49.1	2.7	255.0	1.0	3.0	20.0	V-Horn	PK	0.0	71.8	74.0	-2.2	EUT vertical, 54Mbps.																																																																																																																																																																																																																																																																																												
2483.593	28.5	2.7	175.0	1.0	3.0	20.0	H-Horn	AV	0.0	51.2	54.0	-2.8	EUT on side, 1Mbps.																																																																																																																																																																																																																																																																																												
2483.733	28.5	2.7	256.0	1.0	3.0	20.0	V-Horn	AV	0.0	51.2	54.0	-2.8	EUT vertical, 1Mbps.																																																																																																																																																																																																																																																																																												
2483.867	28.4	2.7	101.0	1.0	3.0	20.0	H-Horn	AV	0.0	51.1	54.0	-2.9	EUT horizontal, 1Mbps.																																																																																																																																																																																																																																																																																												
2483.715	27.7	2.7	262.0	1.0	3.0	20.0	V-Horn	AV	0.0	50.4	54.0	-3.6	EUT vertical, 6Mbps.																																																																																																																																																																																																																																																																																												
2483.793	46.8	2.7	262.0	1.0	3.0	20.0	V-Horn	PK	0.0	69.5	74.0	-4.5	EUT vertical, 6Mbps.																																																																																																																																																																																																																																																																																												
2483.775	26.7	2.7	158.0	1.0	3.0	20.0	H-Horn	AV	0.0	49.4	54.0	-4.6	EUT on side, 6Mbps.																																																																																																																																																																																																																																																																																												
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2484.063	25.2	2.7	284.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.9	54.0	-6.1	EUT vertical, 11Mbps.																																																																																																																																																																																																																																																																																												
2483.510	45.0	2.7	158.0	1.0	3.0	20.0	H-Horn	PK	0.0	67.7	74.0	-6.3	EUT on side, 6Mbps.																																																																																																																																																																																																																																																																																												
2483.688	24.9	2.7	178.0	1.0	3.0	20.0	H-Horn	AV	0.0	47.6	54.0	-6.4	EUT on side, 11Mbps.																																																																																																																																																																																																																																																																																												
2484.107	24.7	2.7	264.0	1.0	3.0	20.0	V-Horn	AV	0.0	47.4	54.0	-6.6	EUT vertical, 36Mbps.																																																																																																																																																																																																																																																																																												
2483.895	44.7	2.7	264.0	1.0	3.0	20.0	V-Horn	PK	0.0	67.4	74.0	-6.6	EUT vertical, 36Mbps.																																																																																																																																																																																																																																																																																												
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NORTHWEST <b>EMC</b>		<b>Spurious Radiated Emissions</b>		PSA 2008.07.21 EMI 2009.4.13									
EUT: Falcon 4410 or Falcon 4420			Work Order: PSCI0322										
Serial Number: F408303066			Date: 01/22/10										
Customer: Datalogic Mobile, Inc.			Temperature: 20										
Attendees: None			Humidity: 36%										
Project: None			Barometric Pres.: 29.83										
Tested by: Jennifer Herrett		Power: Battery	Job Site: EV01										
TEST SPECIFICATIONS			Test Method										
FCC 15.247:2010			ANSI C63.10:2009										
TEST PARAMETERS													
Antenna Height(s) (m)		1 - 4		Test Distance (m)	3								
COMMENTS													
None													
EUT OPERATING MODES													
Tx													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #	3		<i>Jennifer Herrett</i> Signature										
Configuration #	1												
Results	Pass												
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12062.620	45.8	-3.9	208.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.9	54.0	-12.1	EUT on side, Low Channel, 1Mbps
12312.100	41.4	-2.8	237.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.6	54.0	-15.4	EUT on side, High Channel, 1Mbps
12312.150	36.6	-2.8	183.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.8	54.0	-20.2	EUT vertical, High Channel, 1Mbps
12061.220	51.9	-3.9	208.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.0	74.0	-26.0	EUT on side, Low Channel, 1Mbps
12058.350	31.2	-3.9	143.0	1.5	3.0	0.0	V-Horn	AV	0.0	27.3	54.0	-26.7	EUT vertical, Low Channel, 1Mbps
12195.500	29.0	-3.2	98.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.8	54.0	-28.2	EUT vertical, Mid Channel, 1Mbps
12206.920	28.9	-3.2	116.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.7	54.0	-28.3	EUT on side, Mid Channel, 1Mbps
12312.980	47.7	-2.8	237.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.9	74.0	-29.1	EUT on side, High Channel, 1Mbps
12307.480	45.5	-2.8	183.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.7	74.0	-31.3	EUT vertical, High Channel, 1Mbps
12062.180	43.5	-3.9	143.0	1.5	3.0	0.0	V-Horn	PK	0.0	39.6	74.0	-34.4	EUT vertical, Low Channel, 1Mbps
12206.250	41.9	-3.2	116.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.7	74.0	-35.3	EUT on side, Mid Channel, 1Mbps
12202.600	40.9	-3.2	98.0	1.0	3.0	0.0	V-Horn	PK	0.0	37.7	74.0	-36.3	EUT vertical, Mid Channel, 1Mbps

NORTHWEST		Spurious Radiated Emissions		PSA 2008.07.21 EMI 2009.4.13																																																																							
EMC																																																																											
EUT: Falcon 4410 or Falcon 4420		Work Order: PSCI0322																																																																									
Serial Number: F408303066		Date: 01/25/10																																																																									
Customer: Datalogic Mobile, Inc.		Temperature: 20																																																																									
Attendees: None		Humidity: 40%																																																																									
Project: None		Barometric Pres.: 29.89																																																																									
Tested by: Jennifer Herrett		Power: Battery		Job Site: EV01																																																																							
TEST SPECIFICATIONS		Test Method																																																																									
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Run #	5		<i>Signature</i>																																																																								
Configuration #	1																																																																										
Results	Pass																																																																										
<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Freq (MHz)</th> <th>Amplitude (dBuV)</th> <th>Factor (dB)</th> <th>Azimuth (degrees)</th> <th>Height (meters)</th> <th>Distance (meters)</th> <th>External Attenuation (dB)</th> <th>Polarity</th> <th>Detector</th> <th>Distance Adjustment (dB)</th> <th>Adjusted dBuV/m</th> <th>Spec. Limit dBuV/m</th> <th>Compared to Spec. (dB)</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>19295.900</td> <td>43.6</td> <td>-8.5</td> <td>242.0</td> <td>1.4</td> <td>3.0</td> <td>0.0</td> <td>+-High Horr</td> <td>AV</td> <td>0.0</td> <td>35.1</td> <td>54.0</td> <td>-18.9</td> <td>EUT on side, Low Channel, 1Mbps.</td> </tr> <tr> <td>19296.170</td> <td>42.6</td> <td>-8.5</td> <td>226.0</td> <td>1.2</td> <td>3.0</td> <td>0.0</td> <td>√-High Horr</td> <td>AV</td> <td>0.0</td> <td>34.1</td> <td>54.0</td> <td>-19.9</td> <td>EUT vertical, Low Channel, 1Mbps.</td> </tr> <tr> <td>19294.600</td> <td>52.9</td> <td>-8.5</td> <td>226.0</td> <td>1.2</td> <td>3.0</td> <td>0.0</td> <td>√-High Horr</td> <td>PK</td> <td>0.0</td> <td>44.4</td> <td>74.0</td> <td>-29.6</td> <td>EUT vertical, Low Channel, 1Mbps.</td> </tr> <tr> <td>19296.150</td> <td>52.9</td> <td>-8.5</td> <td>242.0</td> <td>1.4</td> <td>3.0</td> <td>0.0</td> <td>+-High Horr</td> <td>PK</td> <td>0.0</td> <td>44.4</td> <td>74.0</td> <td>-29.6</td> <td>EUT on side, Low Channel, 1Mbps.</td> </tr> </tbody> </table>						Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments	19295.900	43.6	-8.5	242.0	1.4	3.0	0.0	+-High Horr	AV	0.0	35.1	54.0	-18.9	EUT on side, Low Channel, 1Mbps.	19296.170	42.6	-8.5	226.0	1.2	3.0	0.0	√-High Horr	AV	0.0	34.1	54.0	-19.9	EUT vertical, Low Channel, 1Mbps.	19294.600	52.9	-8.5	226.0	1.2	3.0	0.0	√-High Horr	PK	0.0	44.4	74.0	-29.6	EUT vertical, Low Channel, 1Mbps.	19296.150	52.9	-8.5	242.0	1.4	3.0	0.0	+-High Horr	PK	0.0	44.4	74.0	-29.6	EUT on side, Low Channel, 1Mbps.
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# Spurious Radiated Emissions

