

# NORTHWEST EMC

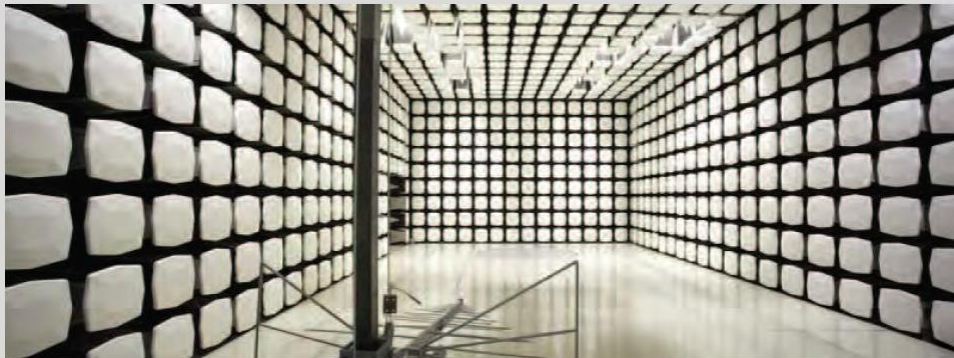
## Medivators

Advantage Plus Pass-Thru

FCC 15.247:2016

902 - 928 MHz Transceiver

Report # MDVS0001



NVLAP Lab Code: 200881-0

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# CERTIFICATE OF TEST

Last Date of Test: October 18, 2016  
Medivators  
Model: Advantage Plus Pass-Thru

## Radio Equipment Testing

### Standards

| Specification   | Method           |
|-----------------|------------------|
| FCC 15.247:2016 | ANSI C63.10:2013 |

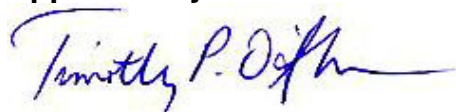
### Results

| Method Clause | Test Description                    | Applied | Results | Comments                                                                                                  |
|---------------|-------------------------------------|---------|---------|-----------------------------------------------------------------------------------------------------------|
| 6.2           | Powerline Conducted Emissions       | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 6.5, 6.6      | Spurious Radiated Emissions         | Yes     | Pass    |                                                                                                           |
| 7.5           | Duty Cycle                          | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.2         | Carrier Frequency Separation        | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.3         | Number of Hopping Frequencies       | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.4         | Dwell Time                          | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.5         | Output Power                        | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.6         | Band Edge Compliance                | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.6         | Band Edge Compliance - Hopping Mode | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.7         | Occupied Bandwidth                  | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 7.8.8         | Spurious Conducted Emissions        | No      | N/A     | Not required for a C2PC with change of antennas, and hardware change to unintentional part of the system. |
| 11.10.2       | Power Spectral Density              | No      | N/A     | Not required for FHSS devices.                                                                            |

### Deviations From Test Standards

None

### Approved By:



Tim O'Shea, Operations Manager

*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. 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. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.*

# REVISION HISTORY

| Revision Number |  | Description | Date | Page Number |
|-----------------|--|-------------|------|-------------|
| 00              |  | None        |      |             |

# ACCREDITATIONS AND AUTHORIZATIONS

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## United States

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**FCC** - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

**A2LA** - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

**NVLAP** - Each laboratory is accredited by NVLAP to ISO 17025

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## Canada

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**ISED** - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

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## European Union

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**European Commission** – Validated by the European Commission as a Notified Body under the R&TTE Directive.

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## Australia/New Zealand

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**ACMA** - Recognized by ACMA as a CAB for the acceptance of test data.

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## Korea

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**MSIP / RRA** - Recognized by KCC's RRA as a CAB for the acceptance of test data.

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## Japan

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**VCCI** - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

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## Taiwan

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**BSMI** – Recognized by BSMI as a CAB for the acceptance of test data.

**NCC** - Recognized by NCC as a CAB for the acceptance of test data.

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## Singapore

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**IDA** – Recognized by IDA as a CAB for the acceptance of test data.

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## Israel

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**MOC** – Recognized by MOC as a CAB for the acceptance of test data.

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## Hong Kong

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**OFCA** – Recognized by OFCA as a CAB for the acceptance of test data.

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## Vietnam

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**MIC** – Recognized by MIC as a CAB for the acceptance of test data.

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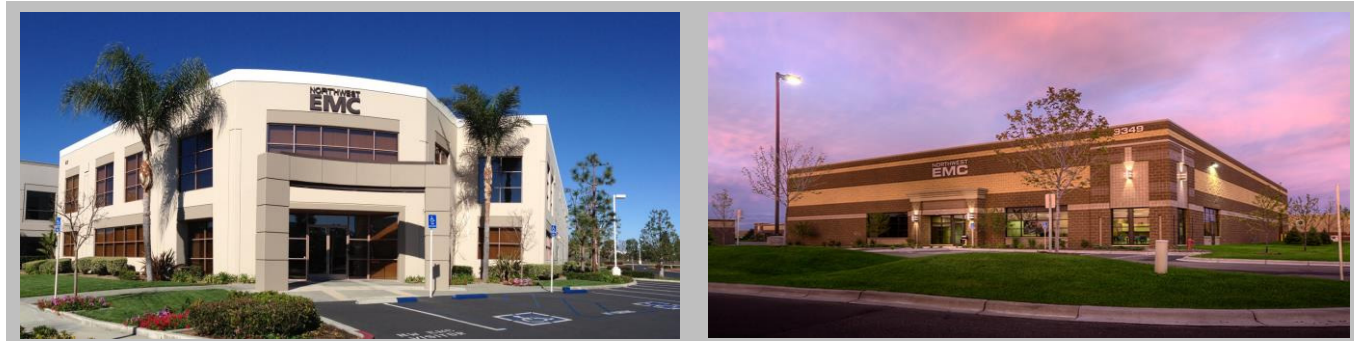
## SCOPE

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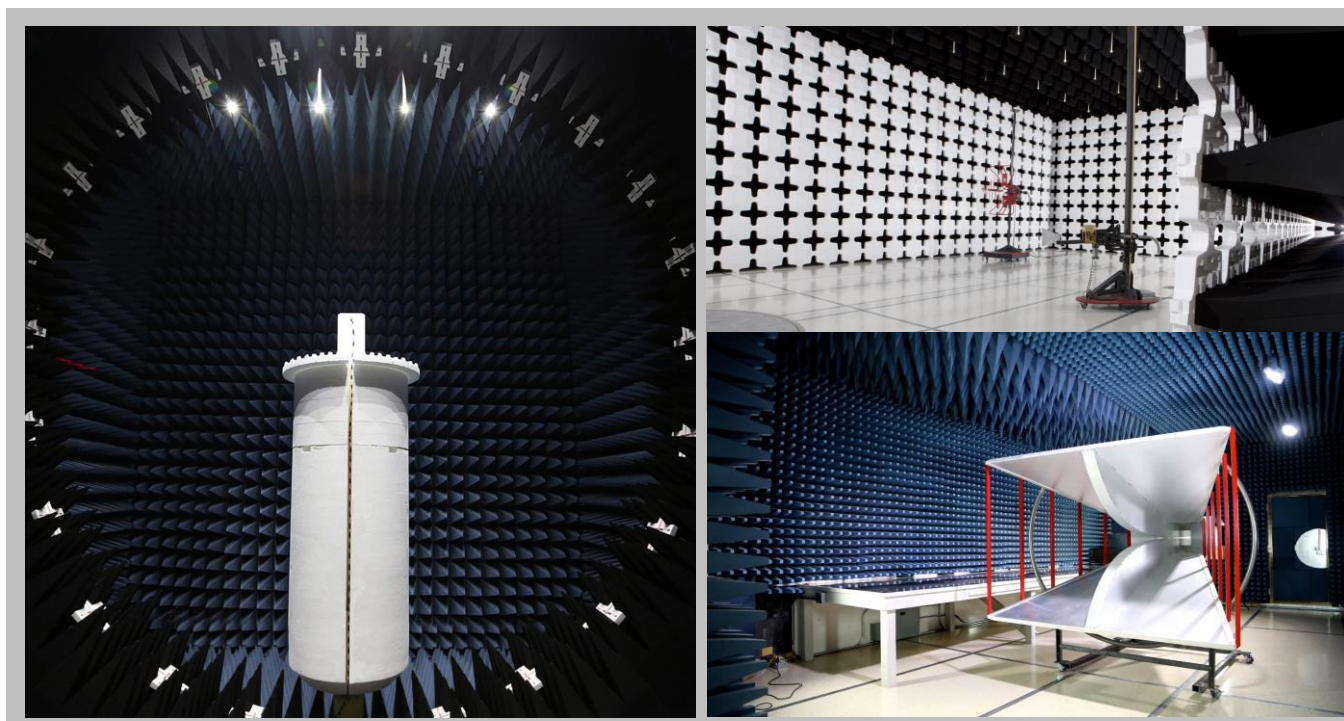
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>  
<http://gsi.nist.gov/global/docs/cabs/designations.html>

# FACILITIES



|                                                                                     |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>California</b><br>Labs OC01-13<br>41 Tesla<br>Irvine, CA 92618<br>(949) 861-8918 | <b>Minnesota</b><br>Labs MN01-08, MN10<br>9349 W Broadway Ave.<br>Brooklyn Park, MN 55445<br>(612)-638-5136 | <b>New York</b><br>Labs NY01-04<br>4939 Jordan Rd.<br>Elbridge, NY 13060<br>(315) 554-8214 | <b>Oregon</b><br>Labs EV01-12<br>22975 NW Evergreen Pkwy<br>Hillsboro, OR 97124<br>(503) 844-4066 | <b>Texas</b><br>Labs TX01-09<br>3801 E Plano Pkwy<br>Plano, TX 75074<br>(469) 304-5255 | <b>Washington</b><br>Labs NC01-05<br>19201 120 <sup>th</sup> Ave NE<br>Bothell, WA 98011<br>(425)984-6600 |
| <b>NVLAP</b>                                                                        |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
| NVLAP Lab Code: 200676-0                                                            | NVLAP Lab Code: 200881-0                                                                                    | NVLAP Lab Code: 200761-0                                                                   | NVLAP Lab Code: 200630-0                                                                          | NVLAP Lab Code:201049-0                                                                | NVLAP Lab Code: 200629-0                                                                                  |
| <b>Innovation, Science and Economic Development Canada</b>                          |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
| 2834B-1, 2834B-3                                                                    | 2834E-1                                                                                                     | N/A                                                                                        | 2834D-1, 2834D-2                                                                                  | 2834G-1                                                                                | 2834F-1                                                                                                   |
| <b>BSMI</b>                                                                         |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
| SL2-IN-E-1154R                                                                      | SL2-IN-E-1152R                                                                                              | N/A                                                                                        | SL2-IN-E-1017                                                                                     | SL2-IN-E-1158R                                                                         | SL2-IN-E-1153R                                                                                            |
| <b>VCCI</b>                                                                         |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
| A-0029                                                                              | A-0109                                                                                                      | N/A                                                                                        | A-0108                                                                                            | A-0201                                                                                 | A-0110                                                                                                    |
| <b>Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRR, MIC, MOC, NCC, OFCA</b>     |                                                                                                             |                                                                                            |                                                                                                   |                                                                                        |                                                                                                           |
| US0158                                                                              | US0175                                                                                                      | N/A                                                                                        | US0017                                                                                            | US0191                                                                                 | US0157                                                                                                    |



# MEASUREMENT UNCERTAINTY

## Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

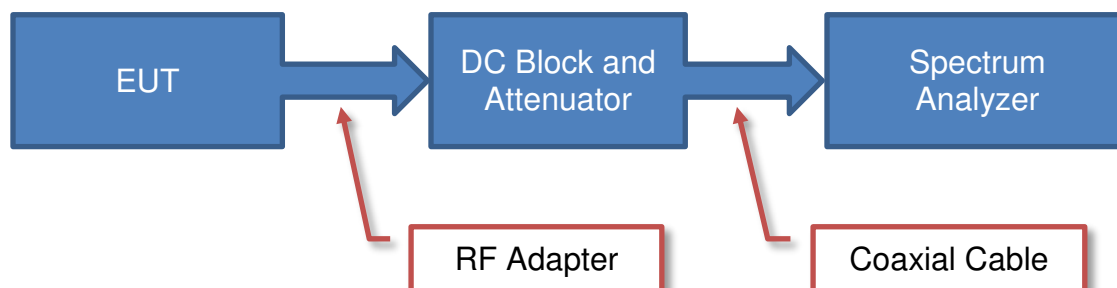
A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty ( $K=2$ ) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

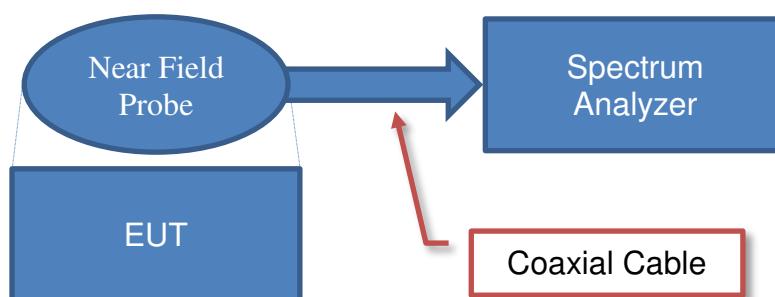
| <b>Test</b>                           | <b>+ MU</b> | <b>- MU</b> |
|---------------------------------------|-------------|-------------|
| Frequency Accuracy (Hz)               | 0.0007%     | -0.0007%    |
| Amplitude Accuracy (dB)               | 1.2 dB      | -1.2 dB     |
| Conducted Power (dB)                  | 0.3 dB      | -0.3 dB     |
| Radiated Power via Substitution (dB)  | 0.7 dB      | -0.7 dB     |
| Temperature (degrees C)               | 0.7°C       | -0.7°C      |
| Humidity (% RH)                       | 2.5% RH     | -2.5% RH    |
| Voltage (AC)                          | 1.0%        | -1.0%       |
| Voltage (DC)                          | 0.7%        | -0.7%       |
| Field Strength (dB)                   | 5.2 dB      | -5.2 dB     |
| AC Powerline Conducted Emissions (dB) | 2.4 dB      | -2.4 dB     |

# Test Setup Block Diagrams

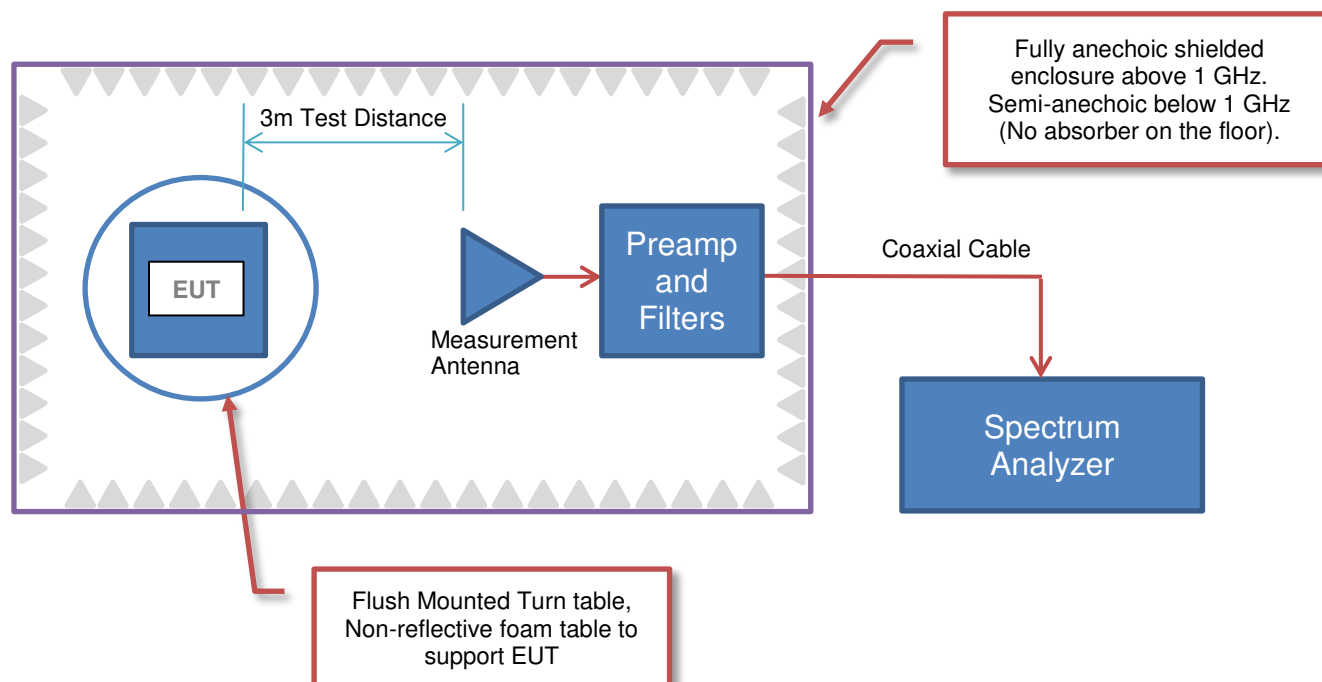
## Antenna Port Conducted Measurements



## Near Field Test Fixture Measurements



## Spurious Radiated Emissions



# PRODUCT DESCRIPTION

## Client and Equipment Under Test (EUT) Information

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Company Name:</b>            | Medivators               |
| <b>Address:</b>                 | 14605 28th Ave, North    |
| <b>City, State, Zip:</b>        | Plymouth, MN 55447       |
| <b>Test Requested By:</b>       | Ryan Kelly               |
| <b>Model:</b>                   | Advantage Plus Pass-Thru |
| <b>First Date of Test:</b>      | October 18, 2016         |
| <b>Last Date of Test:</b>       | October 18, 2016         |
| <b>Receipt Date of Samples:</b> | October 18, 2016         |
| <b>Equipment Design Stage:</b>  | Production               |
| <b>Equipment Condition:</b>     | No Damage                |
| <b>Purchase Authorization:</b>  | Verified                 |

## Information Provided by the Party Requesting the Test

### Functional Description of the EUT:

The Advantage Plus Pass-Thru is a washer disinfector for endoscopes which is designed to be mounted within a wall to separate the clean rooms and dirty rooms. An RFID reader is will be used to identify operators of the system.

### Testing Objective:

Seeking to demonstrate compliance under FCC 15.247:2016 for operation in the 902 - 928 MHz Band.

# CONFIGURATIONS

## Configuration MDVS0001- 1

| Software/Firmware Running during test |         |
|---------------------------------------|---------|
| Description                           | Version |
| Internal Software                     | Unknown |

| EUT                           |              |                          |               |
|-------------------------------|--------------|--------------------------|---------------|
| Description                   | Manufacturer | Model/Part Number        | Serial Number |
| Endoscope Reprocessing System | Medivators   | Advantage Plus Pass-Thru | 76961304      |

| Cables         |        |            |         |                     |              |
|----------------|--------|------------|---------|---------------------|--------------|
| Cable Type     | Shield | Length (m) | Ferrite | Connection 1        | Connection 2 |
| AC Mains Cable | No     | >3.0m      | No      | Medical Disinfector | AC Mains     |

# MODIFICATIONS

## Equipment Modifications

| Item | Date       | Test                        | Modification                         | Note                                                                | Disposition of EUT               |
|------|------------|-----------------------------|--------------------------------------|---------------------------------------------------------------------|----------------------------------|
| 1    | 10/18/2016 | 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. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

## MODES OF OPERATION

Transmitting continuously (100% duty cycle) at low channel (902.75 MHz), mid channel (915.25 MHz), high channel (927.25 MHz)

## POWER SETTINGS INVESTIGATED

110VAC/60Hz

## CONFIGURATIONS INVESTIGATED

MDVS0001 - 1

## FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 10 GHz

## 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 |
|------------------------------|--------------------|--------------------------------|-----|------------|----------|
| Filter - Band Pass/Notch     | K&L Microwave      | 3TNF-500/1000-N/N              | HGS | 8/29/2016  | 12 mo    |
| Filter - High Pass           | Micro-Tronics      | HPM50108                       | LFM | 9/22/2016  | 12 mo    |
| Attenuator                   | Fairview Microwave | SA18E-20                       | TWZ | 9/23/2016  | 12 mo    |
| Filter - Low Pass            | Micro-Tronics      | LPM50003                       | LFJ | 9/22/2016  | 12 mo    |
| Attenuator                   | Fairview Microwave | SA18E-10                       | TYA | 9/23/2016  | 12 mo    |
| Amplifier - Pre-Amplifier    | Miteq              | AM-1616-1000                   | AVO | 12/10/2015 | 12 mo    |
| Amplifier - Pre-Amplifier    | Miteq              | AMF-3D-00100800-32-13P         | AVT | 3/1/2016   | 12 mo    |
| Amplifier - Pre-Amplifier    | Miteq              | AMF-6F-08001200-30-10P         | AVV | 3/1/2016   | 12 mo    |
| Antenna - Standard Gain      | ETS Lindgren       | 3160-07                        | AXP | NCR        | 0 mo     |
| Antenna - Double Ridge       | ETS Lindgren       | 3115                           | AJA | 6/23/2016  | 24 mo    |
| Cable                        | ESM Cable Corp.    | Standard Gain Horn Cables      | MNJ | 7/29/2016  | 12 mo    |
| Cable                        | ESM Cable Corp.    | Double Ridge Guide Horn Cables | MNI | 12/7/2015  | 12 mo    |
| Cable                        | ESM Cable Corp.    | Bilog Cables                   | MNH | 12/7/2015  | 12 mo    |
| Antenna - Biconilog          | Teseq              | CBL 6141B                      | AYD | 1/6/2016   | 24 mo    |
| Analyzer - Spectrum Analyzer | Agilent            | N9010A                         | AFI | 1/27/2016  | 12 mo    |

## MEASUREMENT BANDWIDTHS

| Frequency Range (MHz) | Peak Data (kHz) | Quasi-Peak Data (kHz) | Average Data (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             |

## TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector  
PK = Peak Detector  
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

A duty cycle correction factor based on the typically operating mode on time in a 100ms period was applied to the average measurements.

# SPURIOUS RADIATED EMISSIONS

**NORTHWEST  
EMC**

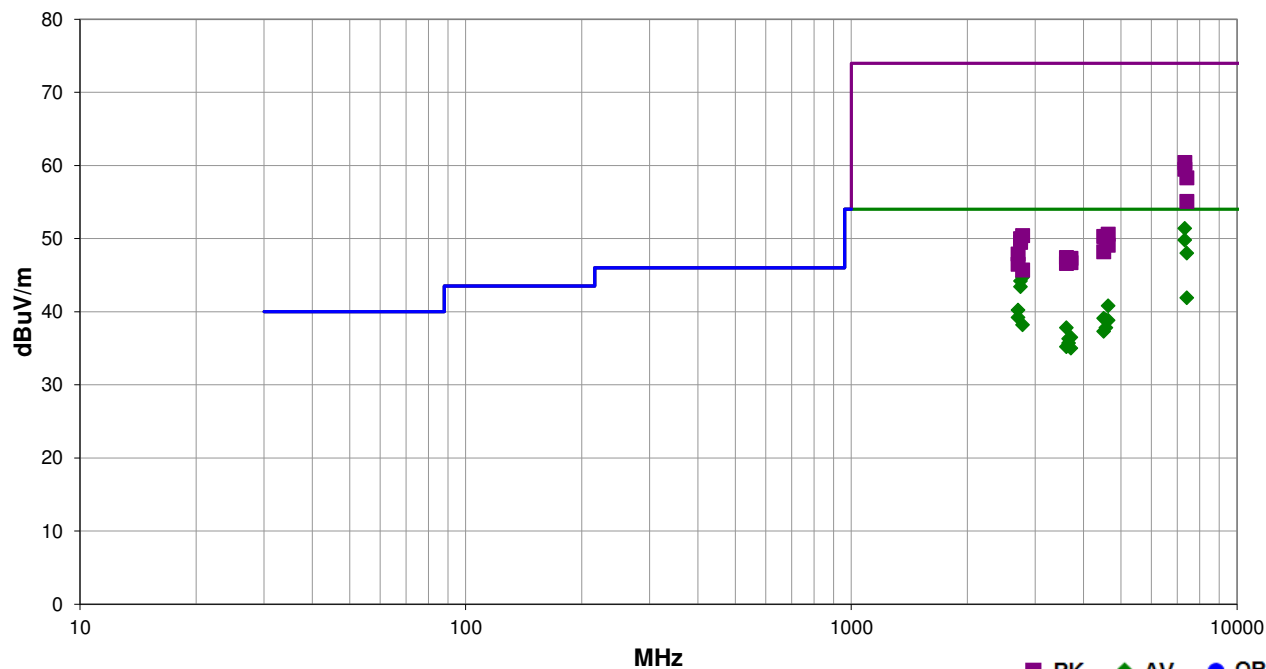
PSA-ESC1 2016.07.22

EmiR5 2016.08.26

|                 |                                                                                                                                                         |                   |           |                                                                                    |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|------------------------------------------------------------------------------------|
| Work Order:     | MDVS0001                                                                                                                                                | Date:             | 10/18/16  |  |
| Project:        | None                                                                                                                                                    | Temperature:      | 23.7 °C   |                                                                                    |
| Job Site:       | MN05                                                                                                                                                    | Humidity:         | 49.7% RH  |                                                                                    |
| Serial Number:  | 76961304                                                                                                                                                | Barometric Pres.: | 1010 mbar | Tested by: Dustin Sparks                                                           |
| EUT:            | Advantage Plus Pass-Thru                                                                                                                                |                   |           |                                                                                    |
| Configuration:  | 1                                                                                                                                                       |                   |           |                                                                                    |
| Customer:       | Medivators                                                                                                                                              |                   |           |                                                                                    |
| Attendees:      | Ryan Kelly                                                                                                                                              |                   |           |                                                                                    |
| EUT Power:      | 110VAC/60Hz                                                                                                                                             |                   |           |                                                                                    |
| Operating Mode: | Transmitting continuously (100% duty cycle) at low channel (902.75 MHz), mid channel (915.25 MHz), high channel (927.25 MHz)                            |                   |           |                                                                                    |
| Deviations:     | None                                                                                                                                                    |                   |           |                                                                                    |
| Comments:       | EUT in single upright position. DCCF added to average values based on 80% duty cycle hopping mode. DCCF: $20 \cdot \log_{10}(71.4/100) = -2.9\text{dB}$ |                   |           |                                                                                    |

|                     |                  |
|---------------------|------------------|
| Test Specifications | Test Method      |
| FCC 15.247:2016     | ANSI C63.10:2013 |

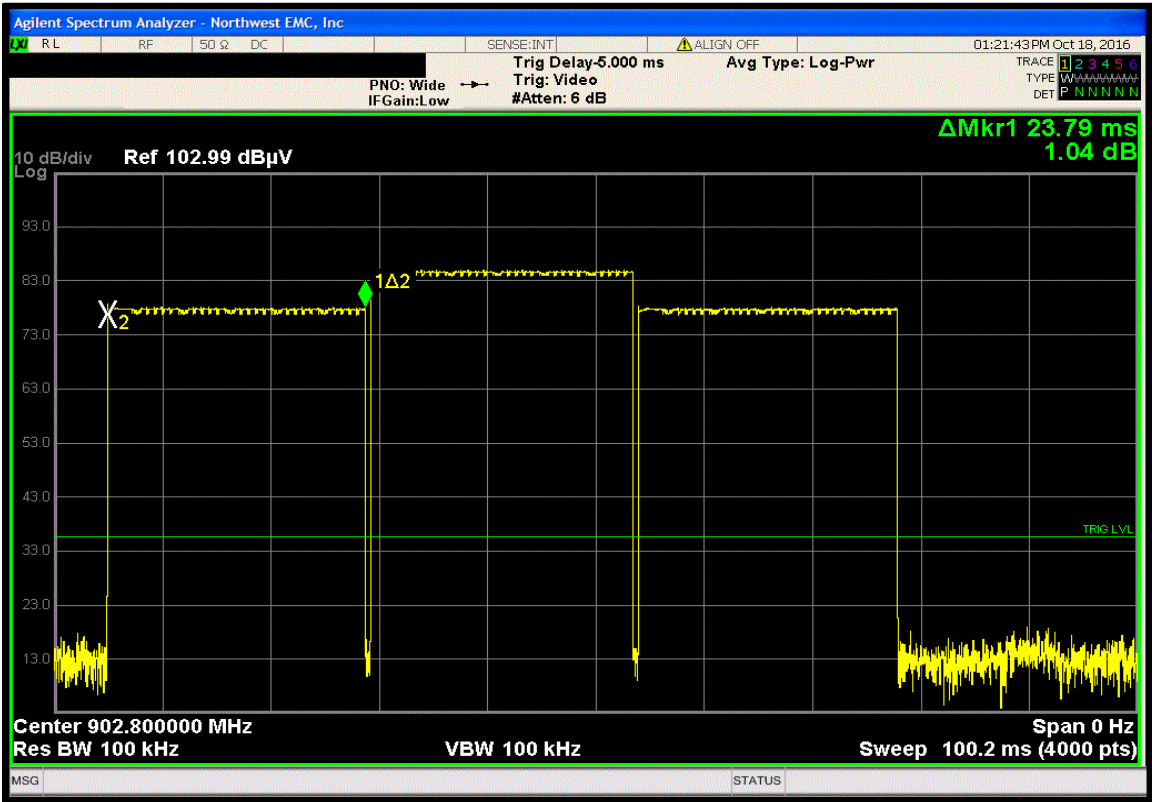
|       |    |                   |   |                   |           |         |      |
|-------|----|-------------------|---|-------------------|-----------|---------|------|
| Run # | 12 | Test Distance (m) | 3 | Antenna Height(s) | 1 to 4(m) | Results | Pass |
|-------|----|-------------------|---|-------------------|-----------|---------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Duty Cycle Correction Factor (dB) | External Attenuation (dB) | Polarity/ Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments     |
|------------|------------------|-------------|-------------------------|-------------------|-----------------------------------|---------------------------|---------------------------|----------|--------------------------|-------------------|----------------------|------------------------|--------------|
| 7321.983   | 41.0             | 13.3        | 1.0                     | 220.1             | -2.9                              | 0.0                       | Vert                      | AV       | 0.0                      | 51.4              | 54.0                 | -2.6                   | Mid channel  |
| 7322.025   | 39.4             | 13.3        | 1.0                     | 188.1             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 49.8              | 54.0                 | -4.2                   | Mid channel  |
| 7418.017   | 37.5             | 13.4        | 1.1                     | 183.0             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 48.0              | 54.0                 | -6.0                   | High channel |
| 2781.758   | 49.8             | -2.2        | 1.0                     | 194.0             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 44.7              | 54.0                 | -9.3                   | High channel |
| 2745.750   | 49.6             | -2.5        | 1.0                     | 183.0             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 44.2              | 54.0                 | -9.8                   | Mid channel  |
| 2745.808   | 48.8             | -2.5        | 3.3                     | 206.1             | -2.9                              | 0.0                       | Vert                      | AV       | 0.0                      | 43.4              | 54.0                 | -10.6                  | Mid channel  |
| 7418.183   | 31.4             | 13.4        | 1.8                     | 22.1              | -2.9                              | 0.0                       | Vert                      | AV       | 0.0                      | 41.9              | 54.0                 | -12.1                  | High channel |
| 4636.267   | 38.8             | 4.9         | 2.0                     | 236.9             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 40.8              | 54.0                 | -13.2                  | High channel |
| 7322.008   | 47.1             | 13.3        | 1.0                     | 188.1             | 0.0                               | 0.0                       | Horz                      | PK       | 0.0                      | 60.4              | 74.0                 | -13.6                  | Mid channel  |
| 2708.242   | 46.0             | -2.9        | 1.0                     | 168.0             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 40.2              | 54.0                 | -13.8                  | Low channel  |
| 7322.150   | 46.2             | 13.3        | 1.0                     | 220.1             | 0.0                               | 0.0                       | Vert                      | PK       | 0.0                      | 59.5              | 74.0                 | -14.5                  | Mid channel  |
| 2708.292   | 45.0             | -2.9        | 1.0                     | 142.1             | -2.9                              | 0.0                       | Vert                      | AV       | 0.0                      | 39.2              | 54.0                 | -14.8                  | Low channel  |
| 4513.725   | 37.5             | 4.5         | 1.3                     | 329.9             | -2.9                              | 0.0                       | Horz                      | AV       | 0.0                      | 39.1              | 54.0                 | -14.9                  | Low channel  |

| Freq<br>(MHz) | Amplitude<br>(dBuV) | Factor<br>(dB) | Antenna Height<br>(meters) | Azimuth<br>(degrees) | Duty Cycle<br>Correction<br>Factor<br>(dB) | External<br>Attenuation<br>(dB) | Polarity/<br>Transducer<br>Type | Detector | Distance<br>Adjustment<br>(dB) | Adjusted<br>(dBuV/m) | Spec. Limit<br>(dBuV/m) | Compared to<br>Spec.<br>(dB) | Comments     |
|---------------|---------------------|----------------|----------------------------|----------------------|--------------------------------------------|---------------------------------|---------------------------------|----------|--------------------------------|----------------------|-------------------------|------------------------------|--------------|
| 4576.292      | 37.1                | 4.7            | 2.2                        | 189.0                | -2.9                                       | 0.0                             | Horz                            | AV       | 0.0                            | 38.9                 | 54.0                    | -15.1                        | Mid channel  |
| 4636.350      | 36.8                | 4.9            | 1.1                        | 184.1                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.8                 | 54.0                    | -15.2                        | High channel |
| 7417.700      | 44.9                | 13.4           | 1.1                        | 183.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 58.3                 | 74.0                    | -15.7                        | High channel |
| 2781.825      | 43.3                | -2.2           | 1.0                        | 229.9                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.2                 | 54.0                    | -15.8                        | High channel |
| 4576.317      | 36.0                | 4.7            | 2.1                        | 229.0                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.8                 | 54.0                    | -16.2                        | Mid channel  |
| 3611.058      | 39.9                | 0.8            | 1.0                        | 131.1                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.8                 | 54.0                    | -16.2                        | Low channel  |
| 4513.800      | 35.7                | 4.5            | 1.3                        | 336.0                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.3                 | 54.0                    | -16.7                        | Low channel  |
| 3709.100      | 37.9                | 1.5            | 1.6                        | 253.9                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 36.5                 | 54.0                    | -17.5                        | High channel |
| 3661.008      | 38.0                | 1.2            | 1.7                        | 256.0                | -2.9                                       | 0.0                             | Vert                            | AV       | 0.0                            | 36.3                 | 54.0                    | -17.7                        | Mid channel  |
| 3661.033      | 37.4                | 1.2            | 1.0                        | 203.1                | -2.9                                       | 0.0                             | Horz                            | AV       | 0.0                            | 35.7                 | 54.0                    | -18.3                        | Mid channel  |
| 3610.933      | 37.3                | 0.8            | 1.5                        | 201.0                | -2.9                                       | 0.0                             | Horz                            | AV       | 0.0                            | 35.2                 | 54.0                    | -18.8                        | Low channel  |
| 7415.700      | 41.7                | 13.4           | 1.8                        | 22.1                 | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 55.1                 | 74.0                    | -18.9                        | High channel |
| 3709.042      | 36.4                | 1.5            | 1.0                        | 191.1                | -2.9                                       | 0.0                             | Horz                            | AV       | 0.0                            | 35.0                 | 54.0                    | -19.0                        | High channel |
| 4636.383      | 45.7                | 4.9            | 2.0                        | 236.9                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 50.6                 | 74.0                    | -23.4                        | High channel |
| 2781.675      | 52.6                | -2.2           | 1.0                        | 194.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 50.4                 | 74.0                    | -23.6                        | High channel |
| 4576.108      | 45.6                | 4.7            | 2.2                        | 189.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 50.3                 | 74.0                    | -23.7                        | Mid channel  |
| 4513.758      | 45.8                | 4.5            | 1.3                        | 329.9                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 50.3                 | 74.0                    | -23.7                        | Low channel  |
| 2745.858      | 52.5                | -2.5           | 1.0                        | 183.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 50.0                 | 74.0                    | -24.0                        | Mid channel  |
| 2745.742      | 52.0                | -2.5           | 3.3                        | 206.1                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 49.5                 | 74.0                    | -24.5                        | Mid channel  |
| 4575.825      | 44.5                | 4.7            | 2.1                        | 229.0                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 49.2                 | 74.0                    | -24.8                        | Mid channel  |
| 4636.242      | 44.2                | 4.9            | 1.1                        | 184.1                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 49.1                 | 74.0                    | -24.9                        | High channel |
| 4514.100      | 43.7                | 4.5            | 1.3                        | 336.0                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 48.2                 | 74.0                    | -25.8                        | Low channel  |
| 2708.483      | 50.8                | -2.9           | 1.0                        | 168.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 47.9                 | 74.0                    | -26.1                        | Low channel  |
| 3611.017      | 46.6                | 0.8            | 1.0                        | 131.1                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 47.4                 | 74.0                    | -26.6                        | Low channel  |
| 3709.033      | 45.8                | 1.5            | 1.6                        | 253.9                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 47.3                 | 74.0                    | -26.7                        | High channel |
| 3660.867      | 45.6                | 1.2            | 1.0                        | 203.1                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 46.8                 | 74.0                    | -27.2                        | Mid channel  |
| 3661.317      | 45.6                | 1.2            | 1.7                        | 256.0                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 46.8                 | 74.0                    | -27.2                        | Mid channel  |
| 3709.083      | 45.2                | 1.5            | 1.0                        | 191.1                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 46.7                 | 74.0                    | -27.3                        | High channel |
| 3611.325      | 45.8                | 0.8            | 1.5                        | 201.0                | 0.0                                        | 0.0                             | Horz                            | PK       | 0.0                            | 46.6                 | 74.0                    | -27.4                        | Low channel  |
| 2708.108      | 49.4                | -2.9           | 1.0                        | 142.1                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 46.5                 | 74.0                    | -27.5                        | Low channel  |
| 2781.792      | 47.9                | -2.2           | 1.0                        | 229.9                | 0.0                                        | 0.0                             | Vert                            | PK       | 0.0                            | 45.7                 | 74.0                    | -28.3                        | High channel |

# SPURIOUS RADIATED EMISSIONS



80% hopping mode pulse train.