ISRAEL TESTING LABORATORIES
Global Certifications You Can Trust

ACCREDITED
TESTING Cert No.1152.01

DATE: 21 June 2018

I.T.L. (PRODUCT TESTING) LTD.

FCC Radio Test Report

For

Orcam Technologies Ltd.

Equipment under test:

Wearable Camera

MYEYE2
(STD/EDR)

Tested by: _____
M. Zohar

Approved by: _____
D. Shidlowsky

Measurement/Technical Report for

Orcam Technologies Ltd.

Wearable Camera

MYEYE2

FCC ID: 2AAWI-MYEYE2

This report concerns:	Original Grant:	X
	Class I Change:	
	Class II Change:	

Equipment type: DSS Part 15 Spread Spectrum Transmitter

Limits used: 47CFR15 Section 15.247

Measurement procedures used are FCC Public Notice DA-00-705 and ANSI C63.10: 2013.

Application for Certification
prepared by:
R. Pinchuck
ITL (Product Testing) Ltd.
1 Bat Sheva St.
Lod 7116002
e-mail Rpinchuck@itl.co.il

Applicant for this device:
(different from "prepared by")
Ram Ben Yehuda
3 Kiryat Mada Street, PO Box 45157
Jerusalem, 9777603
Israel
Tel: +972-2-591-7805
Fax: +972-2-586-0121
e-mail: Rami.Ben-Yehuda@orcam.com

TABLE OF CONTENTS

1. General Information

1.1 *Administrative Information*

Manufacturer:	Orcam Technologies Ltd.
Manufacturer's Address:	13 Hartom St., Jerusalem, 91450 Israel Tel: +972-2-591-7805 Fax: +972-2-586-0121
Manufacturer's Representative:	Ram Ben Yehuda
Equipment Under Test (E.U.T):	Wearable Camera
Equipment Model No.:	MYEYE2
Equipment Serial No.:	Not designated
Date of Receipt of E.U.T:	February 21, 2018
Start of Test:	February 21, 2018
End of Test:	February 25, 2018
Test Laboratory Location:	I.T.L (Product Testing) Ltd. 1 Batsheva St., Lod ISRAEL 7120101
Test Specifications:	FCC Part 15, Subpart C

1.2 *List of Accreditations*

The EMC laboratory of I.T.L. is accredited by the following bodies:

1. The American Association for Laboratory Accreditation (A2LA) (U.S.A.), Certificate No. 1152.01.
2. The Federal Communications Commission (FCC) (U.S.A.), FCC Designation No. IL1005.
3. The Israel Ministry of the Environment (Israel), Registration No. 1104/01.
4. Industry Canada (Canada), IC File No.: 46405-4025; Site Nos. IC 4025A-1, IC 4025A-2.

I.T.L. Product Testing Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA) and the results shown in this test report have been determined in accordance with I.T.L.'s terms of accreditation unless stated otherwise in the report.

1.3 *Product Description*

Wearable camera that captures and processes images and transfers the data via radio links.

Model Name	MyEye2
Working voltage	Rechargeable battery via wall charger or laptop USB cable (via laptop AC/DC adapter)
Mode of operation	Transceiver
Modulation	EDR/STD (basic)
Assigned Frequency Range	2400-2483.5MHz
Operating Frequency Range	2402-2480MHz
Transmit power	1.2 dBm
Antenna Gain	-1.5 dBi

1.4 *Test Methodology*

Radiated testing was performed according to the procedures in FCC Public Notice DA 00-705 and ANSI C63.10: 2013. Radiated testing was performed at an antenna to EUT distance of 3 meters.

1.5 *Test Facility*

Emissions tests were performed at I.T.L.'s testing facility in Lod, Israel. I.T.L.'s EMC Laboratory is accredited by A2LA, certificate No. 1152.01 and its FCC Designation Number is IL1005.

1.6 *Measurement Uncertainty*

Conducted Emission

Conducted Emission (CISPR 11, EN 55011, CISPR 22, EN 55022, ANSI C63.4) 0.15 – 30 MHz:

Expanded Uncertainty (95% Confidence, K=2):

± 3.6 dB

Radiated Emission

Radiated Emission (CISPR 11, EN 55011, CISPR 22, EN 55022, ANSI C63.4) for open site:
30-1000MHz:
Expanded Uncertainty (95% Confidence, K=2):
± 4.96 dB

1 GHz to 6 GHz
Expanded Uncertainty (95% Confidence, K=2):
±5.19 dB

>6 GHz
Expanded Uncertainty (95% Confidence, K=2):
±5.51 dB

2. System Test Configuration

2.1 *Justification*

1. The E.U.T contains IEEE 802.15.2 std. transceiver (Bluetooth: STD. & EDR).
2. The evaluation was performed while the E.U.T was transmitting in low channel (2402MHz), mid channel (2440MHz) and high channel (2480MHz).
3. Exploratory emission testing was performed in 3 orthogonal polarities to determine the "worst case" radiation. Based on the below results the worst case was the Z axis for field strength tests and X axis for spurious emission tests

Orientation	Frequency	Field Strength	2rd Harmonic	3th Harmonic	Band Edge
	(MHz)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)
X axis	2402.0	85.5	41.4	45.6	63.4
	2440.0	86.3	42.0	46.7	-
	2480.0	84.3	41.9	46.9	64.1
Y axis	2402.0	85.2	41.5	46.6	63.5
	2440.0	86.4	41.4	46.6	-
	2480.0	82.9	41.4	47.8	64.0
Z axis	2402.0	**90.5**	41.3	45.5	63.5
	2440.0	**89.5**	41.3	46.4	-
	2480.0	**88.0**	41.5	46.3	64.1

Figure 1. Screening Results

4. The evaluation was performed while the E.U.T was connected to a laptop via USB port in charge mode as the "worst case".
5. AC line conducted emission tests were performed in 2 optional power charge operations:

   a) AC/DC adapter wall charger

   b) AC/DC laptop adapter.

2.2 *EUT Exercise Software*

No special exercise software was used.

2.3 *Special Accessories*

AC/DC wall charger:
Manufacturer: EDACPOWER ELEC
Model: EM1005AVEU
Serial Number: 001992

AC/DC laptop charger:
Manufacturer: DELL
Part Number: 23HXX AO1
Serial Number: 6KCCXZ1

Laptop:
Manufacturer: DELL
Model: LA90PM130
Serial Number: N/A

2.4 *Equipment Modifications*

No modifications were needed in order to achieve compliance.

2.5 *Configuration of Tested System*

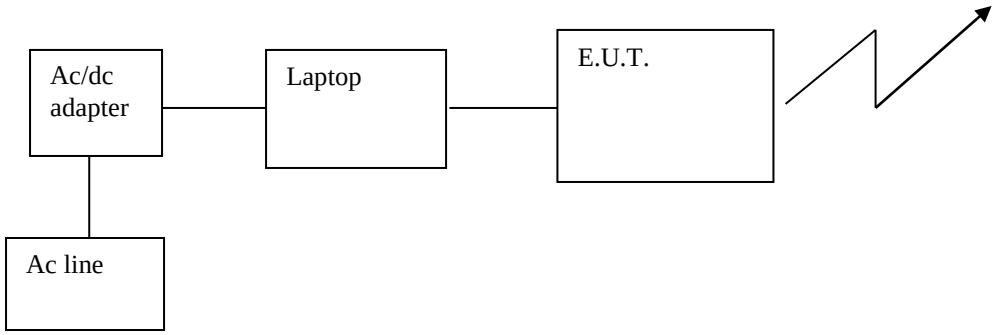

Figure 2. Configuration of Tested System – Radiated

3. Conducted & Radiated Measurement Test Set-Up Photos

Figure 3. Conducted Emission From AC Mains (Wall Charger)

Figure 4. Conducted Emission From AC Mains (Laptop)

Figure 5. Radiated Emission Test, 0.009-30MHz

Figure 6. Radiated Emission Test, 30-200MHz

Figure 7. Radiated Emission Test, 200-1000MHz

Figure 8. Radiated Emission Test, 1-18GHz

Figure 9. Radiated Emission Test, 18-26.5GHz

4. Conducted Emission From AC Mains

4.1 *Test Specification*

FCC Part 15, Subpart C, Section 15.207

4.2 *Test Procedure*

(Temperature (22°C)/ Humidity (52%RH))

The E.U.T operation mode and test setup are as described in Section 2 of this report. In order to minimize background noise interference, the conducted emission testing was performed inside a shielded room, with the E.U.T placed on a 0.8 meter high wooden table, 0.4 meter from the room's vertical wall. In the case of a floor-standing E.U.T., it was placed on the horizontal ground plane.

The E.U.T was powered from 115 V AC / 60 Hz via 50 Ohm / 50 µHn Line Impedance Stabilization Network (LISN) on the phase and neutral lines. The LISN's were grounded to the shielded room ground plane (floor), and were kept at least 0.8 meters from the nearest boundary of the E.U.T.

The center of the E.U.T.'s AC cable was folded back and forth, in order to form a bundle less than 0.40 meters and a total cable length of 1 meter.

The effect of varying the position of the cables was investigated to find the configuration that produces maximum emission. The configuration tested is shown in the photograph, *Figure 3. Conducted Emission From AC Mains (Wall Charger)* and *Figure 4. Conducted Emission From AC Mains (Laptop).*

The emission voltages at the LISN's outputs were measured using a computerized receiver, complying with CISPR 16 requirements. The specification limits are loaded to the receiver and are displayed on the receiver's spectrum display.

The E.U.T was evaluated in TX operation mode and with 2 optional power charge modes: AC/DC wall charger and AC/DC laptop adapter.

A frequency scan between 0.15 and 30 MHz was performed at 9 kHz I.F. band width, using peak detection.

The spectral components having the highest level on each line were measured using a quasi-peak and average detector.

4.3 *Test Limit*

Frequency of emission (MHz)	**Conducted limit (dBµV)**	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

4.4 *Test Results*

JUDGEMENT: Passed by 8.54dB

AC/DC Wall Charger

The margin between the emission levels and the specification limit is, in the worst case, 8.54dB for the phase line at 0.406 MHz and 13.24 dB at 0.410 MHz for the neutral line.

The EUT met the F.C.C. Part 15, Subpart C specification requirements.

The details of the highest emissions are given in *Figure 10* to *Figure 13.*

AC/DC Laptop Adapter

The margin between the emission levels and the specification limit is, in the worst case, 15.01dB for the phase line at 2.486 MHz and 19.07 dB at 2.486 MHz for the neutral line.

The EUT met the F.C.C. Part 15, Subpart C specification requirements.

The details of the highest emissions are given in *Figure 14* to *Figure 17.*

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Phase
Detectors: :	Peak, Quasi-peak, Average
Power Operation	AC/DC Wall Charger

EDIT PEAK LIST (Final Measurement Results)

Trace1: CE22BQP
Trace2: CE22BAP
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1	Quasi Peak	182 kHz	31.58	-32.81
2	Average	206 kHz	28.14	-25.22
1	Quasi Peak	406 kHz	47.81	-9.91
2	Average	406 kHz	39.18	-8.54
2	Average	586 kHz	27.95	-18.05
1	Quasi Peak	654 kHz	38.81	-17.18
2	Average	762 kHz	31.84	-14.15
1	Quasi Peak	774 kHz	40.88	-15.12
2	Average	1.282 MHz	29.73	-16.26
1	Quasi Peak	1.358 MHz	41.24	-14.75
1	Quasi Peak	2.238 MHz	36.17	-19.82
2	Average	2.334 MHz	20.86	-25.13
1	Quasi Peak	4.862 MHz	33.25	-22.74
2	Average	6.074 MHz	27.73	-22.26
2	Average	7.438 MHz	33.72	-16.27
1	Quasi Peak	7.542 MHz	43.18	-16.81
2	Average	10.922 MHz	26.92	-23.07
1	Quasi Peak	11.05 MHz	38.01	-21.98
1	Quasi Peak	18.434 MHz	30.74	-29.25
2	Average	22.294 MHz	25.45	-24.54

Date: 22.FEB.2018 12:44:16

Figure 10. Detectors: Peak, Quasi-peak, Average

Note: QP Delta/Av Delta refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Phase
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Wall Charger

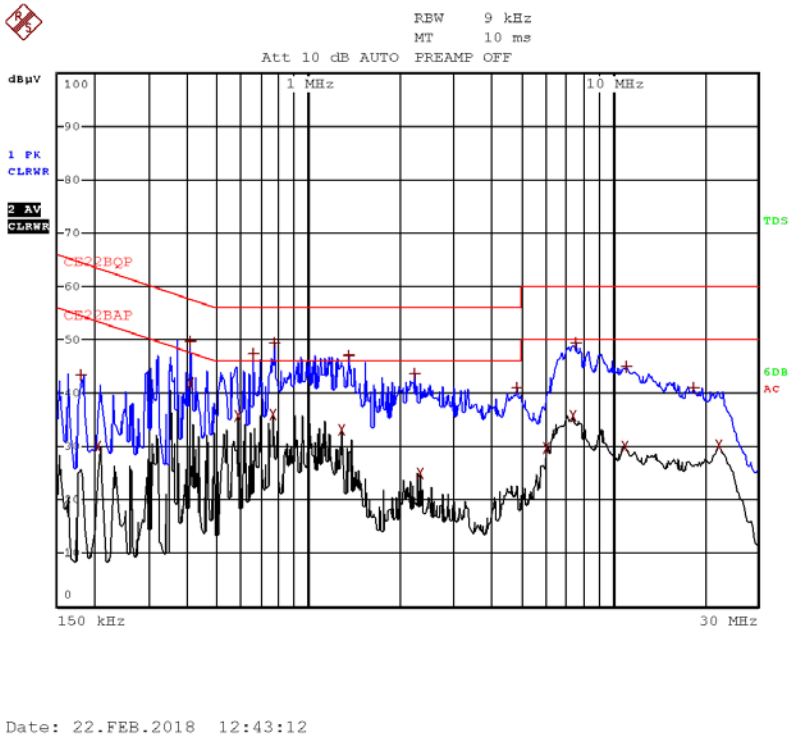

Figure 11. Detectors: Peak, Quasi-peak, Average

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Neutral
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Wall Charger

EDIT PEAK LIST (Final Measurement Results)

Trace1: CE22BQP
Trace2: CE22BAP
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1	Quasi Peak	226 kHz	34.20	-28.38
2	Average	234 kHz	24.64	-27.65
2	Average	354 kHz	28.26	-20.60
1	Quasi Peak	410 kHz	44.40	-13.24
1	Quasi Peak	478 kHz	34.50	-21.86
2	Average	698 kHz	24.62	-21.37
1	Quasi Peak	1.01 MHz	34.62	-21.37
2	Average	1.238 MHz	26.95	-19.04
2	Average	1.286 MHz	27.16	-18.83
1	Quasi Peak	1.474 MHz	31.38	-24.61
2	Average	2.166 MHz	23.10	-22.89
1	Quasi Peak	2.538 MHz	28.82	-27.17
1	Quasi Peak	4.29 MHz	30.55	-25.44
2	Average	4.31 MHz	22.11	-23.89
2	Average	6.622 MHz	29.27	-20.72
1	Quasi Peak	7.506 MHz	35.99	-24.01
1	Quasi Peak	11.402 MHz	32.40	-27.59
2	Average	11.866 MHz	23.44	-26.55
1	Quasi Peak	18.47 MHz	30.54	-29.45
2	Average	22.626 MHz	24.43	-25.56

Date: 22.FEB.2018 12:37:53

Figure 12. Detectors: Peak, Quasi-peak, Average

Note: QP Delta/Av Delta refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Neutral
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Wall Charger

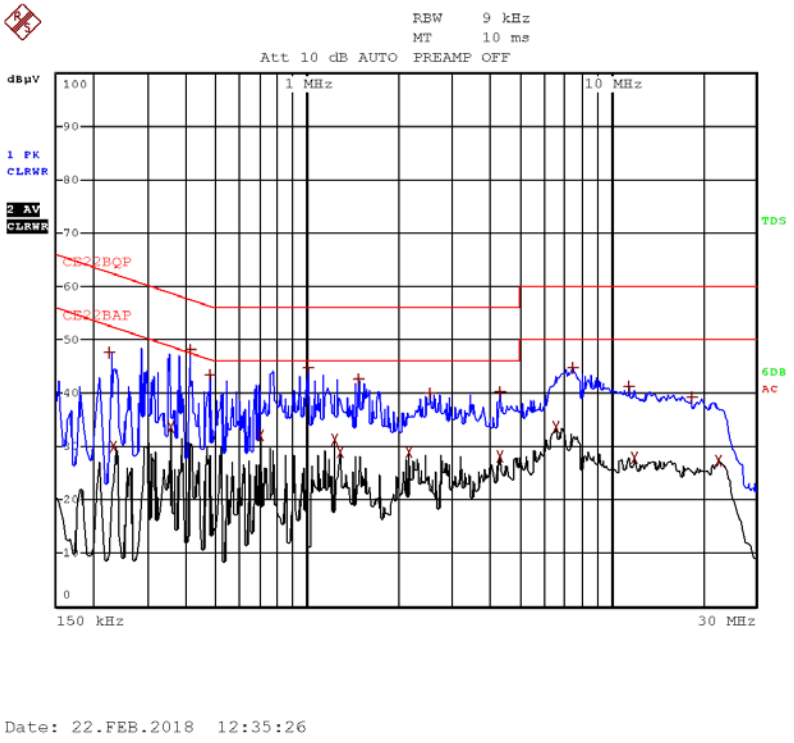

Figure 13 Detectors: Peak, Quasi-peak, Average

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Phase
Detectors: :	Peak, Quasi-peak, Average
Power Operation	AC/DC Laptop Adapter

Figure 14. Detectors: Peak, Quasi-peak, Average

EDIT PEAK LIST (Final Measurement Results)

Trace1: CE22BQP
Trace2: CE22BAP
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1	Quasi Peak	150 kHz	47.39	-18.60
2	Average	242 kHz	22.30	-29.72
1	Quasi Peak	282 kHz	37.16	-23.59
2	Average	414 kHz	22.20	-25.36
1	Quasi Peak	446 kHz	28.70	-28.24
2	Average	450 kHz	23.43	-23.44
1	Quasi Peak	966 kHz	25.27	-30.72
2	Average	1.242 MHz	22.53	-23.46
2	Average	1.554 MHz	23.19	-22.81
1	Quasi Peak	2.114 MHz	27.72	-28.27
1	Quasi Peak	2.482 MHz	35.63	-20.36
2	Average	2.486 MHz	30.98	-15.01
1	Quasi Peak	4.938 MHz	21.05	-34.94
2	Average	4.938 MHz	14.55	-31.44
2	Average	9.666 MHz	21.81	-28.18
1	Quasi Peak	10.086 MHz	30.04	-29.95
2	Average	10.494 MHz	21.79	-28.20
1	Quasi Peak	10.502 MHz	30.03	-29.96
1	Quasi Peak	17.758 MHz	22.87	-37.12
2	Average	17.866 MHz	15.80	-34.19

Date: 22.FEB.2018 11:48:47

Note: QP Delta/Av Delta refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Phase
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Laptop Adapter

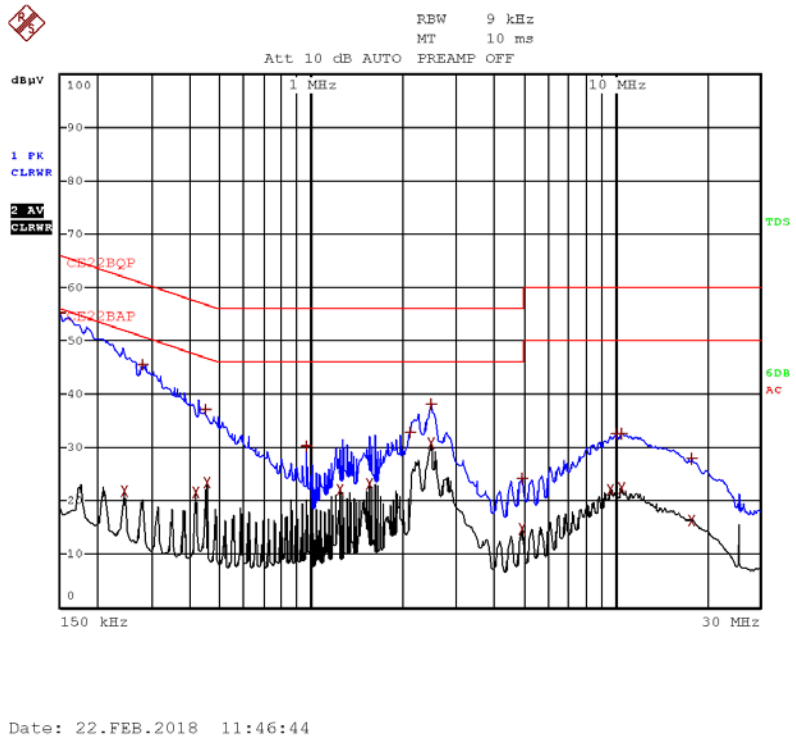

Figure 15. Detectors: Peak, Quasi-peak, Average

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Neutral
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Laptop Adapter

EDIT PEAK LIST (Final Measurement Results)

Trace1: CE22BQP
Trace2: CE22BAP
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1	Quasi Peak	154 kHz	44.91	-20.86
2	Average	174 kHz	21.49	-33.27
1	Quasi Peak	262 kHz	35.71	-25.64
2	Average	414 kHz	19.91	-27.65
1	Quasi Peak	446 kHz	28.60	-28.34
2	Average	450 kHz	17.82	-29.05
1	Quasi Peak	738 kHz	16.21	-39.78
2	Average	1.242 MHz	14.73	-31.26
1	Quasi Peak	2.106 MHz	28.16	-27.83
2	Average	2.106 MHz	20.03	-25.96
1	Quasi Peak	2.482 MHz	34.55	-21.44
2	Average	2.486 MHz	26.92	-19.07
1	Quasi Peak	4.93 MHz	15.63	-40.36
2	Average	4.934 MHz	10.30	-35.69
2	Average	10.086 MHz	19.15	-30.84
1	Quasi Peak	10.162 MHz	27.04	-32.95
2	Average	10.498 MHz	18.93	-31.07
1	Quasi Peak	10.946 MHz	27.96	-32.03
1	Quasi Peak	17.69 MHz	20.85	-39.14
2	Average	17.694 MHz	13.11	-36.88

Date: 22.FEB.2018 12:08:44

Figure 16. Detectors: Peak, Quasi-peak, Average

Note: QP Delta/Av Delta refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

Conducted Emission

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

Specification:	FCC Part 15, Subpart C
Lead:	Neutral
Detectors:	Peak, Quasi-peak, Average
Power Operation	AC/DC Laptop Adapter

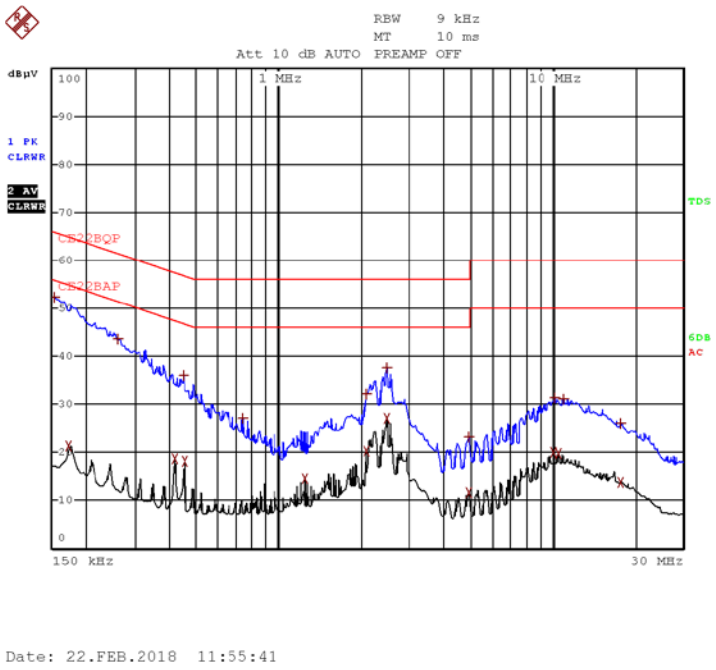

Figure 17 Detectors: Peak, Quasi-peak, Average

4.5 *Test Equipment Used; Conducted Emission*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
LISN	Fischer	FCC-LISN-25A	127	July 20, 2017	July 20, 2018
Transient Limiter	HP	11947A	3107A03041	June 29, 2017	June 29, 2018
EMI Receiver	Rohde & Schwarz	ESCI7	100724	February 19, 2018	February 19, 2019

Figure 18 Test Equipment Used

5. 20dB Minimum Bandwidth

5.1 *Test Specification*

F.C.C. Part 15, Subpart C: section 15.247(a)(1)

5.2 *Test Procedure*

(Temperature (21°C)/ Humidity (53%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable. The E.U.T. was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna. The transmitter unit operated with normal modulation. The spectrum analyzer was set to the following parameters:
Span = ~ 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥ 1% of the 20 dB bandwidth
Detector Function: Peak, Trace: Maximum Hold.

5.3 *Test Limit*

N/A

5.4 *Test Results*

Technique	Operation Frequency	Bandwidth Reading
(EDR/STD.)	(MHz)	(MHz)
STD.	2402.0	1.02
	2440.0	0.94
	2480.0	0.91
EDR	2402.0	1.35
	2440.0	1.32
	2480.0	1.35

Figure 19 Test Results

JUDGEMENT: Passed

For additional information see *Figure 20* to *Figure 25.*

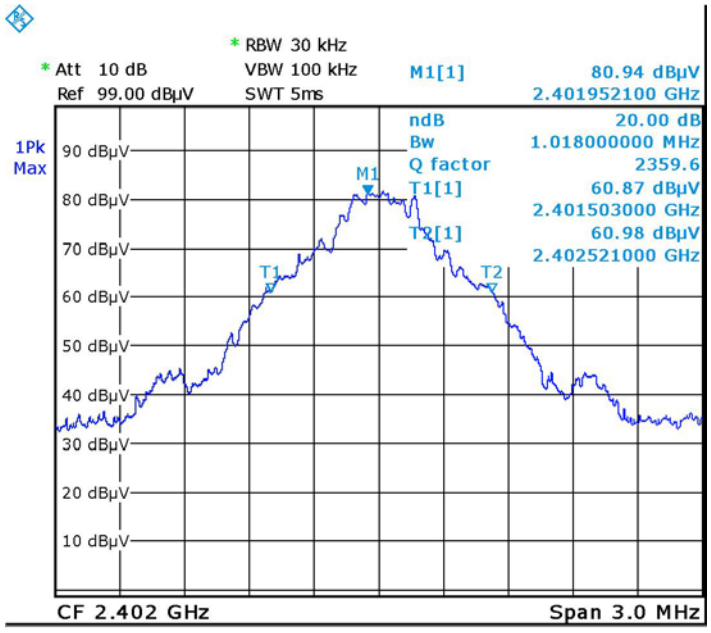

Figure 20. Low, STD.

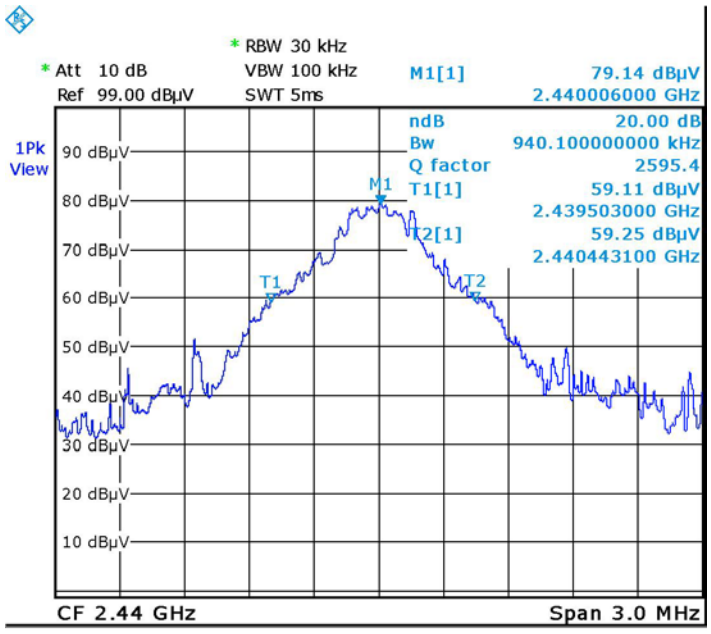

Figure 21. Mid, STD.

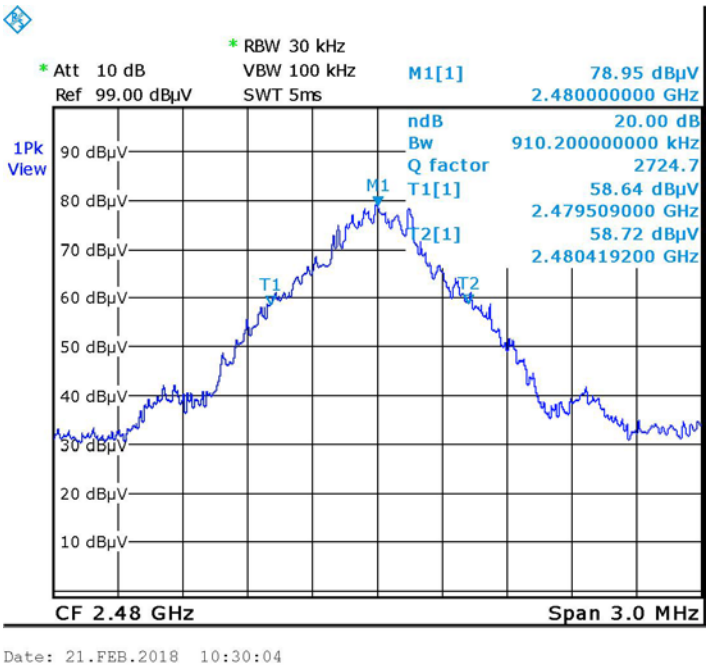

Figure 22. High, STD.

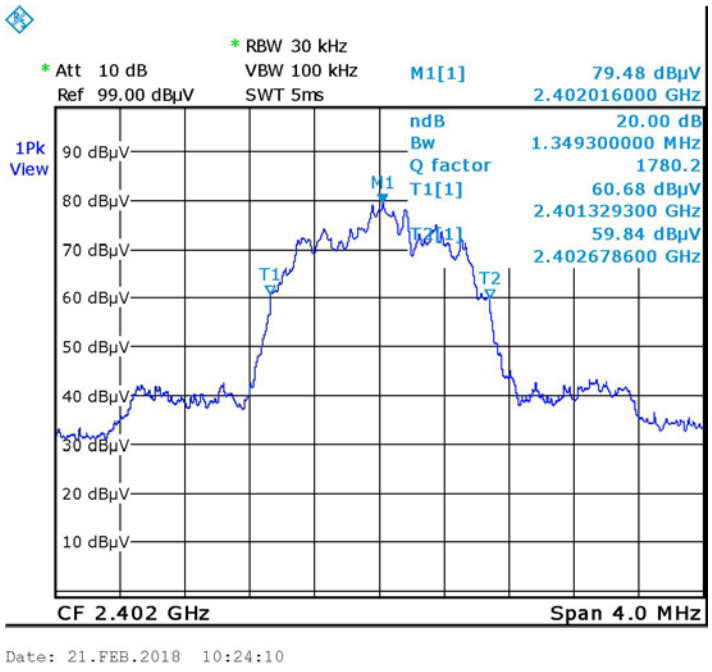

Figure 23. Low, EDR

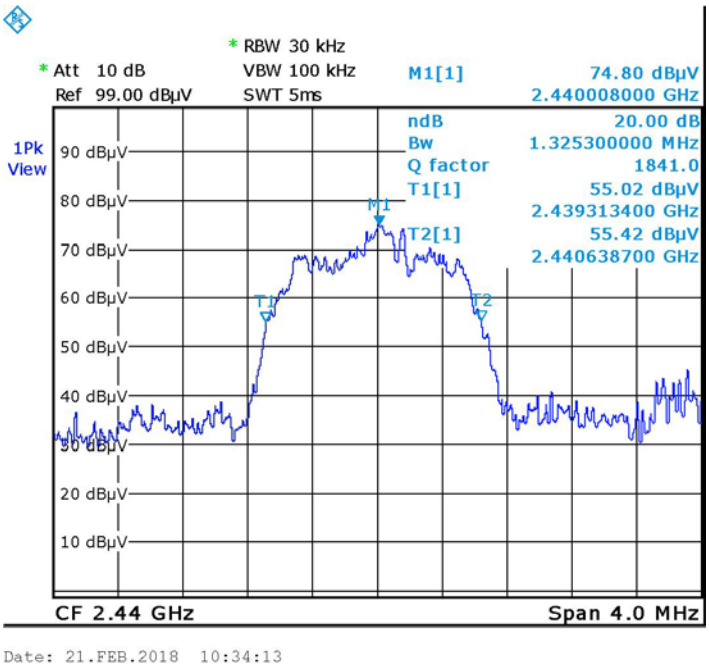

Figure 24. Mid, EDR

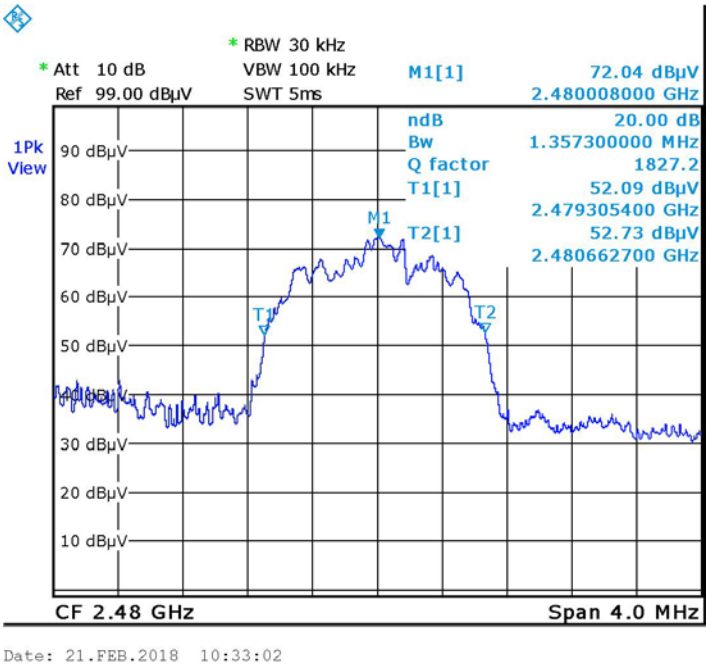

Figure 25. High, EDR

5.5 *Test Equipment Used, 20 dB Minimum Bandwidth*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 26 Test Equipment Used

6. 26dB Minimum Bandwidth

6.1 *Test Specification*

F.C.C. Part 2, Section 2.1049

6.2 *Test Procedure*

(Temperature (21°C)/ Humidity (54%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna. The spectrum analyzer was set to the following parameters:
Span = ~ 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥ 1% of the 26 dB bandwidth
Detector Function: Peak, Trace: Maximum Hold.
99% occupied bandwidth function set on.

6.3 *Test Limit*

N/A

6.4 *Test Results*

Protocol	Operation Frequency	Bandwidth Reading
(EDR/STD.)	(MHz)	(MHz)
STD.	2402.0	0.9
	2440.0	0.9
	2480.0	0.9
EDR	2402.0	1.2
	2440.0	1.2
	2480.0	1.2

Figure 27 Test Results

JUDGEMENT: Passed

For additional information see *Figure 28* to *Figure 33.*

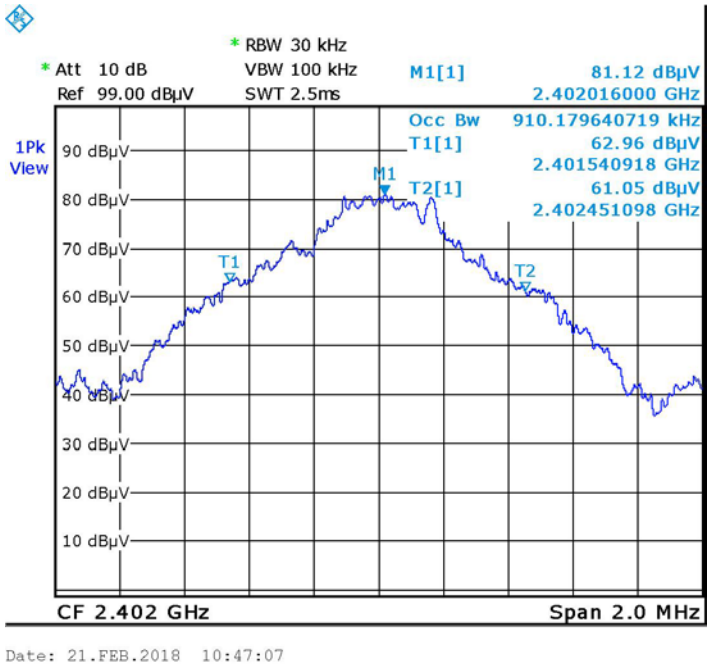

Figure 28. Low, STD.

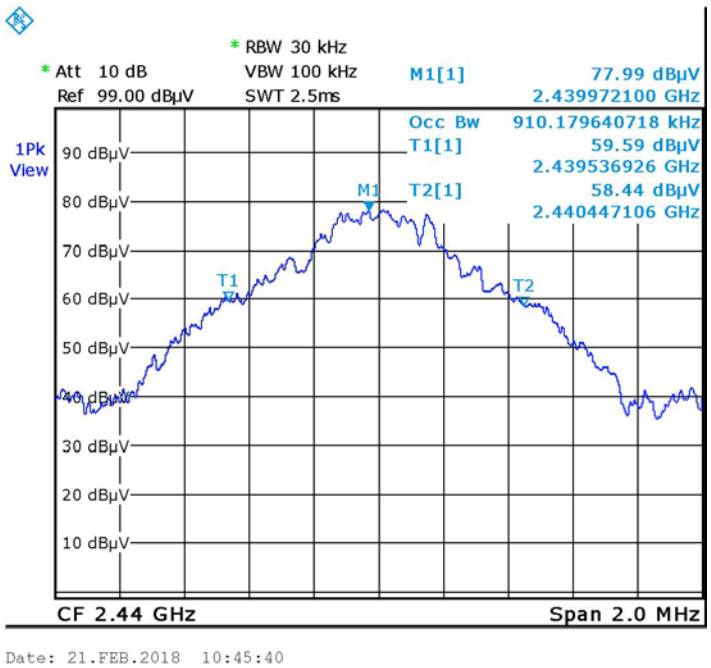

Figure 29. Mid, STD.

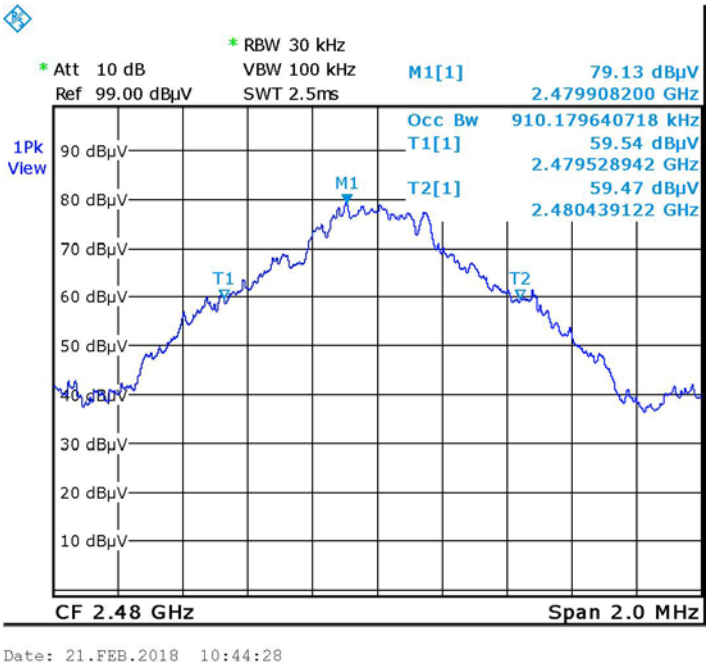

Figure 30. High, STD.

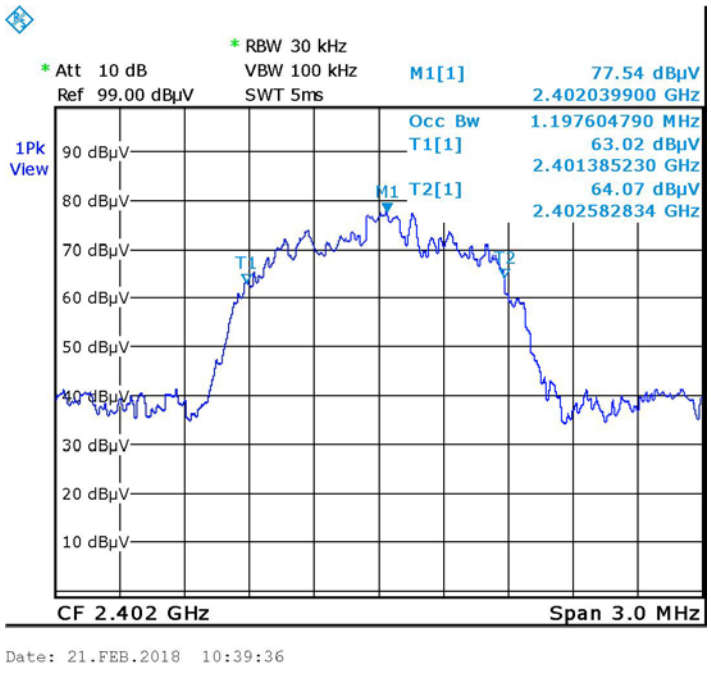

Figure 31. Low, EDR

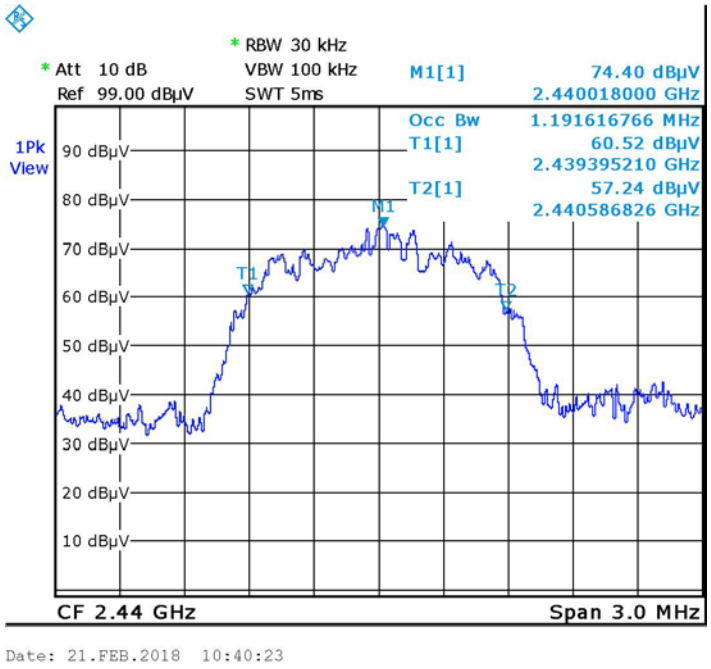

Figure 32. Mid, EDR

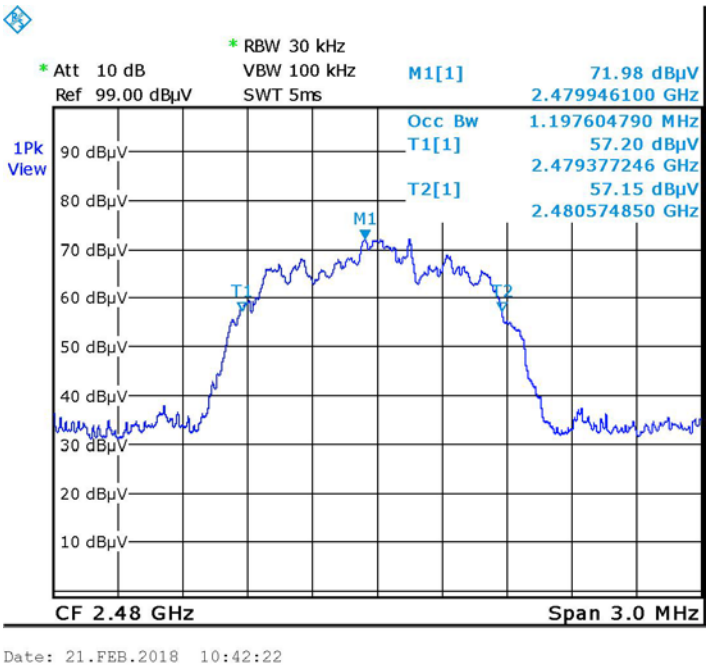

Figure 33. High, EDR

6.5 *Test Equipment Used, 26 dB Minimum Bandwidth*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 34 Test Equipment Used

7. Number of Hopping Frequencies

7.1 *Test Specification*

F.C.C., Part 15, Subpart C Section 15.247(a)(1)(iii)

7.2 *Test Procedure*

(Temperature (22°C)/ Humidity (54%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna.

The E.U.T. was set to hopping mode.
The spectrum analyzer was set to the following parameters:

Band of Operation: 2400M-2483.5 MHz
RBW: 30 kHz, VBW: 100 kHz
Detector Function: Peak, Trace: Maximum Hold

7.3 *Test Limit*

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.4 *Test Results*

Protocol	Number of Hopping Frequencies	Limit
EDR	79	≥15
STD.	79	≥15

Figure 35 Test Results

JUDGEMENT: Passed

For additional information see *Figure 36* to *Figure 43.*

Number of Hopping Frequencies

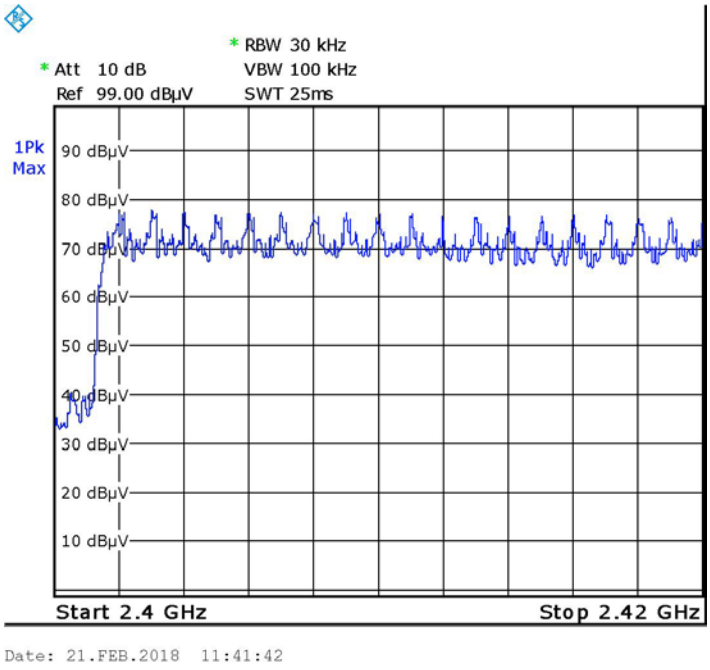

Figure 36. Number of Channels EDR

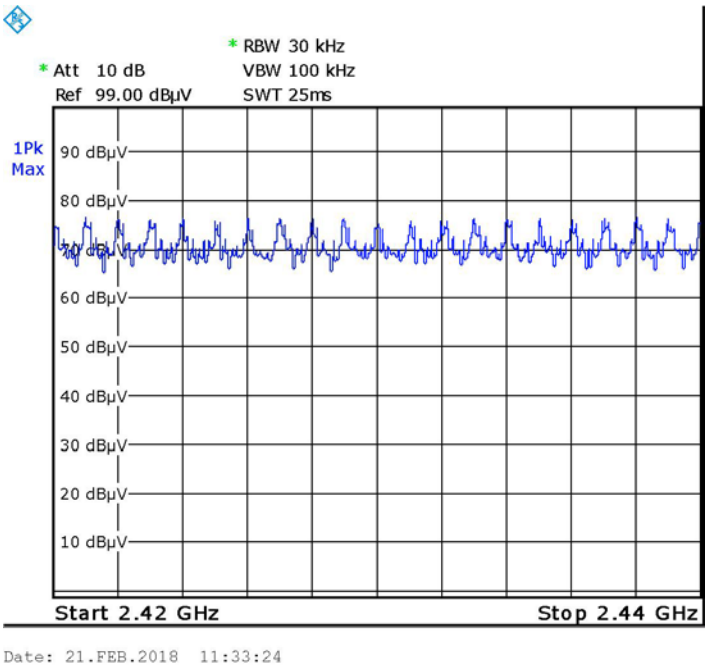

Figure 37. Number of Channels EDR

Number of Hopping Frequencies

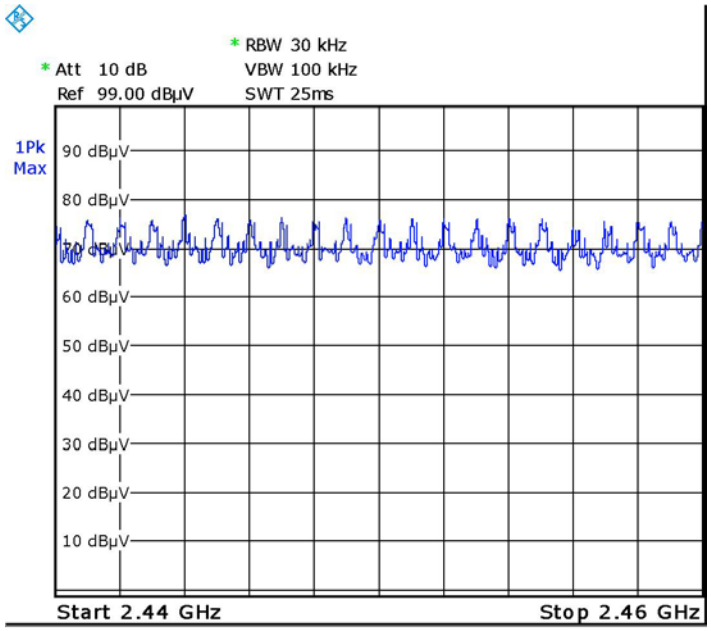

Figure 38. Number of Channels EDR

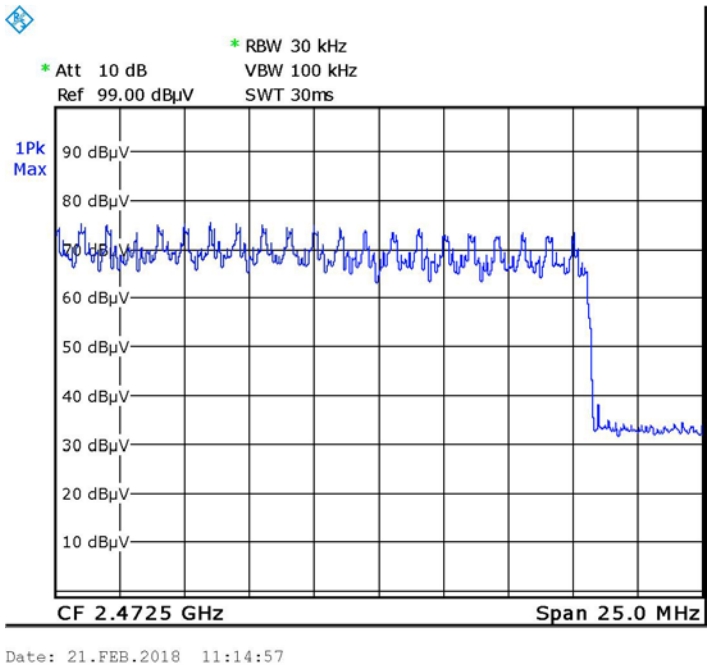

Figure 39. Number of Channels EDR

Number of Hopping Frequencies

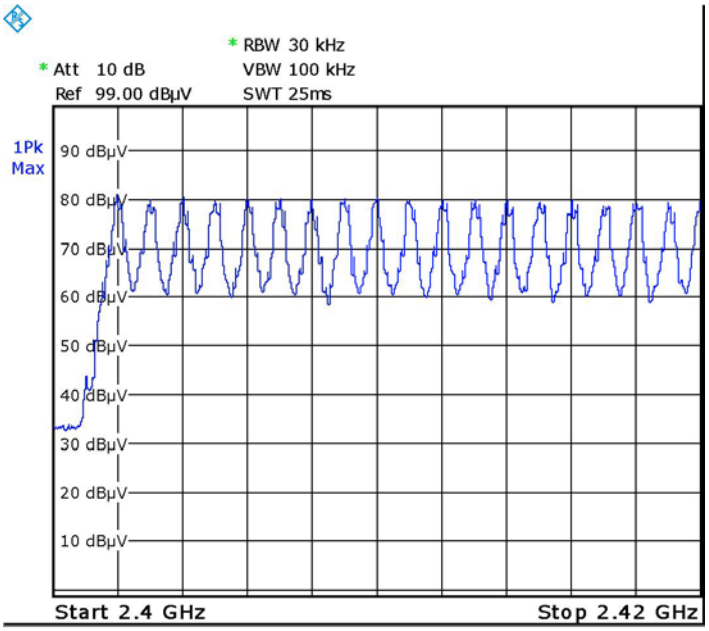

Figure 40. Number of Channels STD.

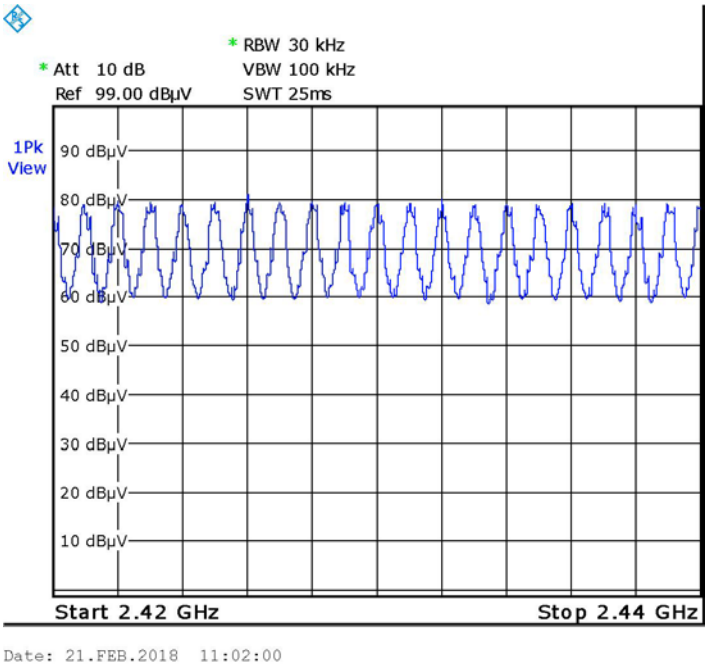

Figure 41. Number of Channels STD.

Number of Hopping Frequencies

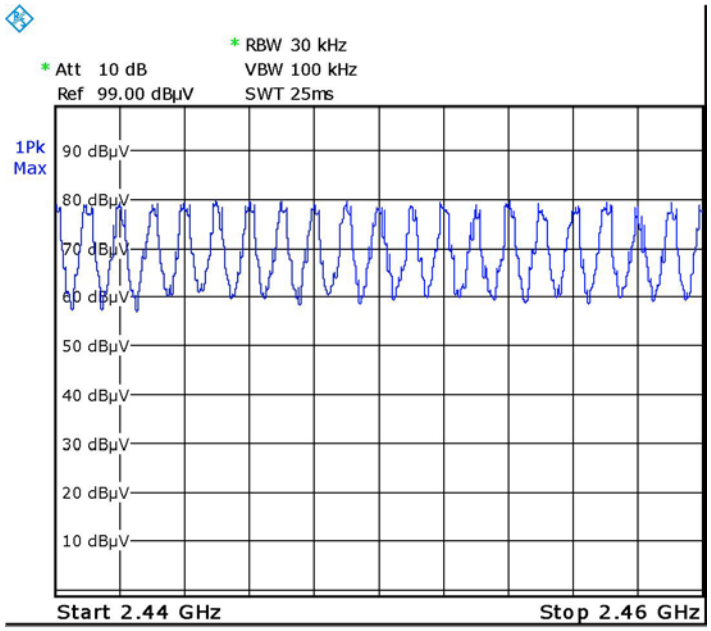

Figure 42. Number of Channels STD.

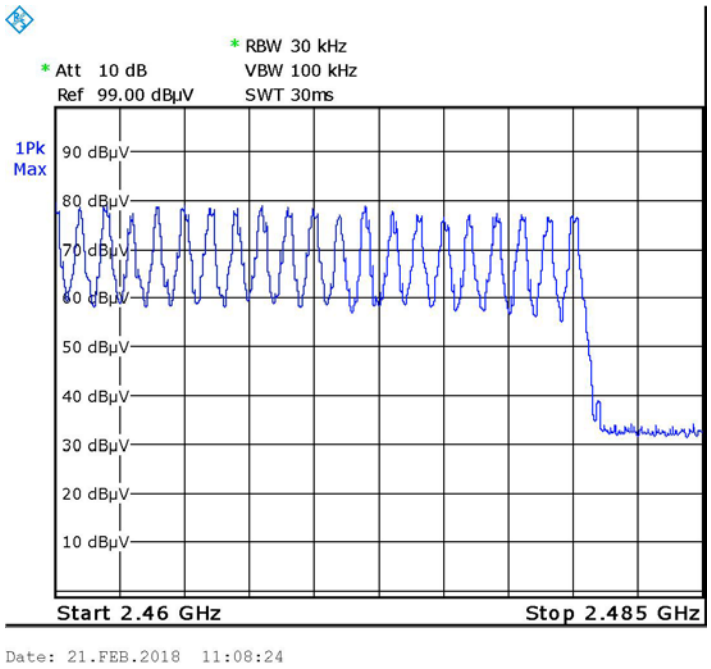

Figure 43. Number of Channels STD.

7.5 *Test Equipment Used, Number of Hopping Frequencies*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 44 Test Equipment Used

8. Channel Frequency Separation

8.1 *Test Specification*

FCC Part 15, Subpart C, 15.247(a) (1)

8.2 *Test Procedure*

(Temperature (21°C)/ Humidity (52%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable.
The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna.

The E.U.T. was set to hopping mode.

The spectrum analyzer was set to the following parameters:
Span = wide enough to capture two adjacent channels, RBW≥ 1% of the span
Detector Function: Peak, Trace: Maximum Hold.

8.3 *Test Limit*

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

8.4 *Test Results*

Technique	Channel Frequency Separation
(EDR/STD.)	(MHz)
EDR	0.98
STD.	1.0

Figure 45 Test Results

JUDGEMENT: Passed

For additional information see *Figure 46*.

Channel Frequency Separation

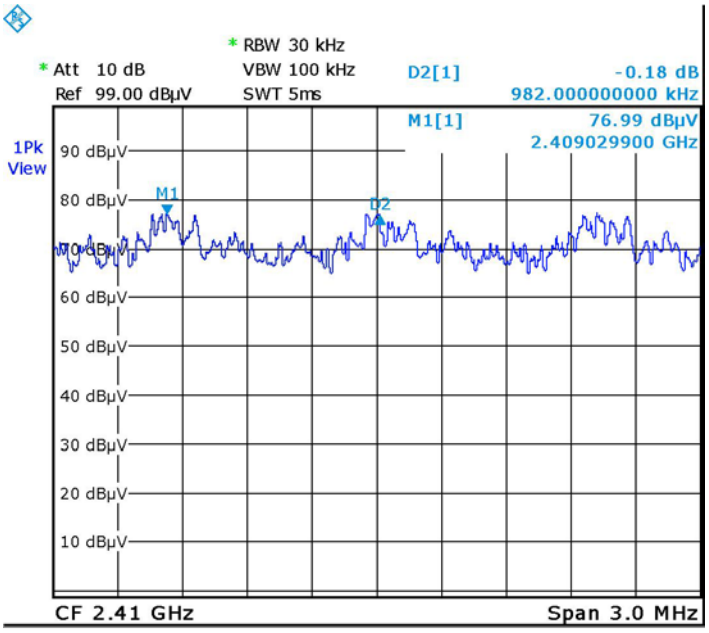

Figure 46. Channel Frequency Separation, EDR

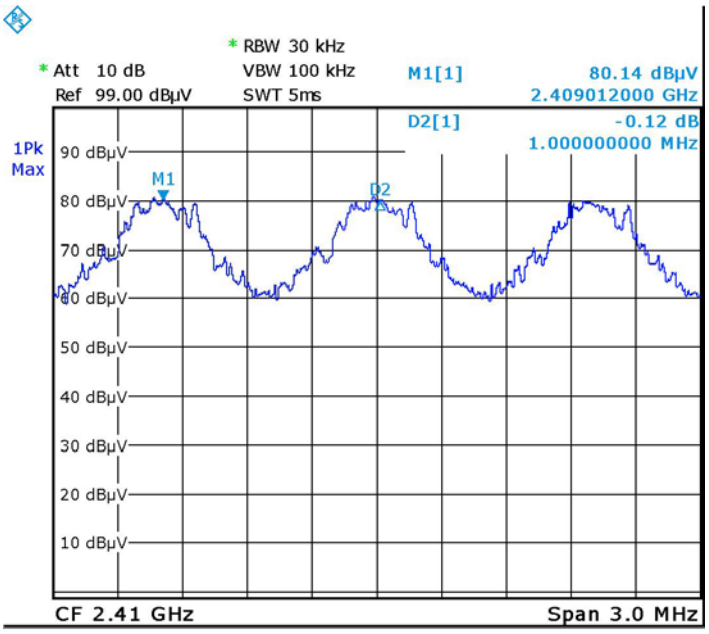

Figure 30. Channel Frequency Separation, STD.

8.5 *Test Equipment Used, Channel Frequency Separation Test*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 47 Test Equipment Used

9. Peak Output Power

9.1 *Test Specification*

F.C.C. Part 15, Subpart C: section 15.247(b)(1)

9.2 *Test Procedure*

(Temperature (20°C)/ Humidity (49%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable.
The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna
The spectrum analyzer was set to the following parameters:
Span = ~5 times the 20 dB bandwidth, centered on a hopping channel RBW ≥ of the 20 dB bandwidth of the emission being measured
Detector Function: Peak, Trace: Maximum Hold.
Radiated output power levels were measured at selected operation frequencies and the results were converted to power level according to the formula as shown below:

$$P = \frac{(E_{V/m} \times d)^2}{(30 \times G)} \text{ [W]}$$

E - Field Strength (V/m)

d – Distance from transmitter (m)

G – Antenna gain

P – Peak power (W)

9.3 *Test Limit*

The maximum peak conducted output power of the intentional radiator shall not exceed the following: For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts. (The limits above applies to antenna gain until 6dBi).

9.4 *Test Results*

Protocol	Operation Frequency	Pol.	Field Strength	EIRP	Antenna Gain	Conducted Power	Conducted Power	Limit	Margin
(EDR, STD.)	(MHz)	(V/H)	(dBuV/m)	(dBm)	(dBi)	(dBm)	(mW)	(mW)	(mW)
EDR	2402.0	V	89.4	-5.8	-1.5	-7.3	0.19	1000.0	-999.81
		H	95.2	0.0	-1.5	-1.5	0.71	1000.0	-999.29
	2440.0	V	88.3	-6.9	-1.5	-8.4	0.15	1000.0	-999.85
		H	93.7	-1.5	-1.5	-3.0	0.50	1000.0	-999.50
	2480.0	V	85.5	-9.7	-1.5	-11.2	0.08	1000.0	-999.92
		H	91.9	-3.3	-1.5	-4.8	0.33	1000.0	-999.67
STD.	2402.0	V	89.5	-5.7	-1.5	-7.2	0.19	1000.0	-999.81
		H	96.4	1.2	-1.5	-0.3	0.93	1000.0	-999.07
	2440.0	V	89.8	-5.4	-1.5	-6.9	0.20	1000.0	-999.80
		H	95.4	0.2	-1.5	-1.3	0.74	1000.0	-999.26
	2480.0	V	87.8	-7.4	-1.5	-8.9	0.13	1000.0	-999.87
		H	94.6	-0.6	-1.5	-2.1	0.62	1000.0	-999.38

Figure 48 Radiated Power Output Test Results

JUDGEMENT: Passed by 999.07mW

For additional information see *Figure 49* to *Figure 60*.

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

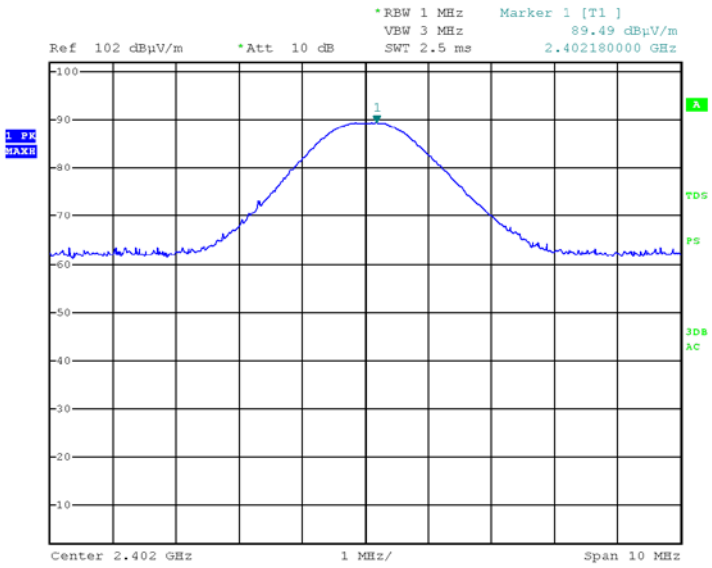

Figure 49. Low, Vertical STD.

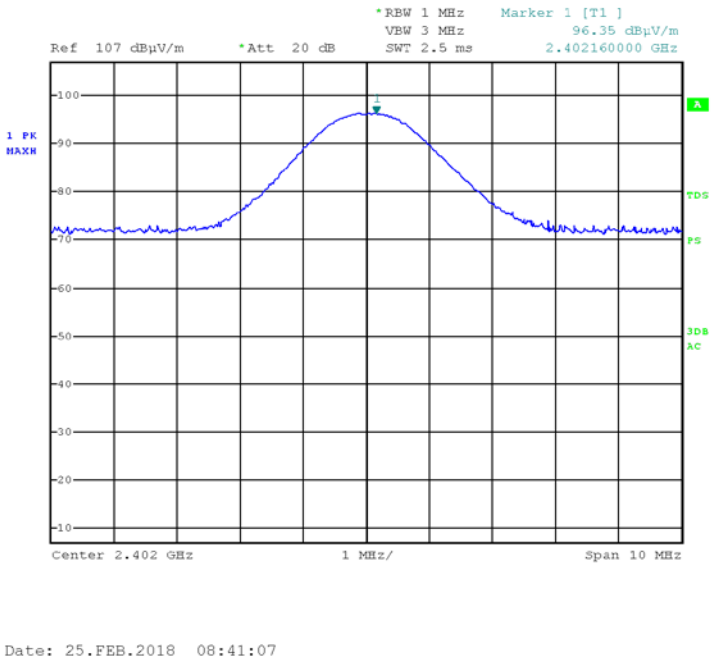

Figure 50. Low, Horizontal STD.

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

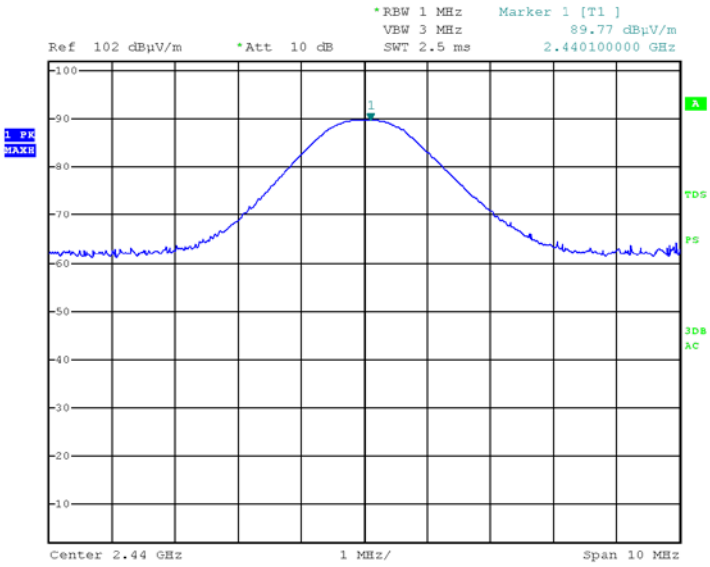

Figure 51. Mid, Vertical STD.

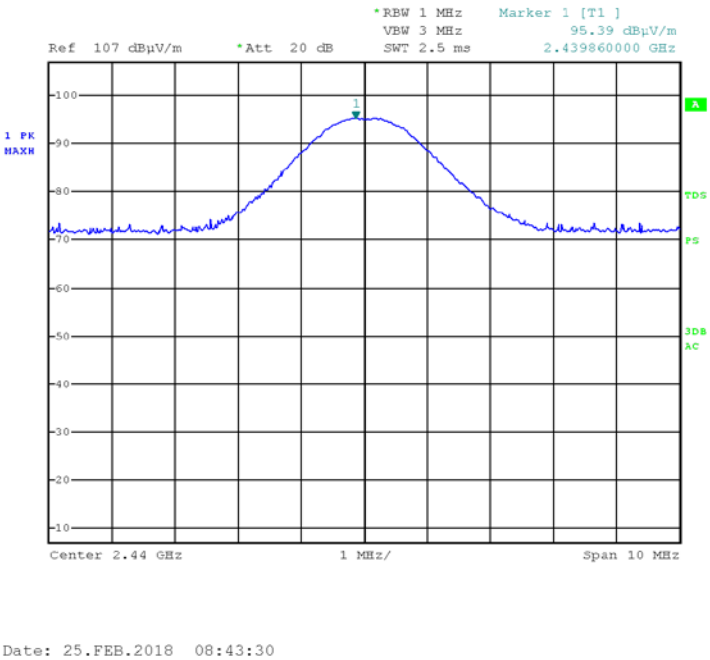

Figure 52. Mid, Horizontal STD.

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

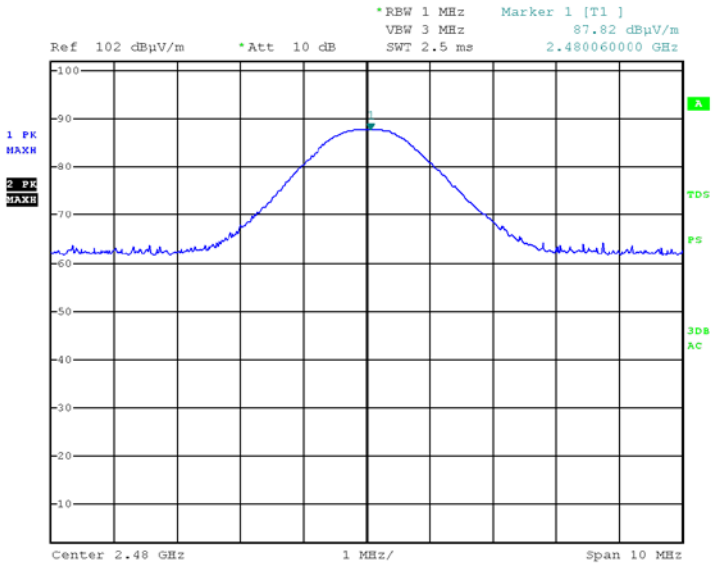

Figure 53. High, Vertical STD.

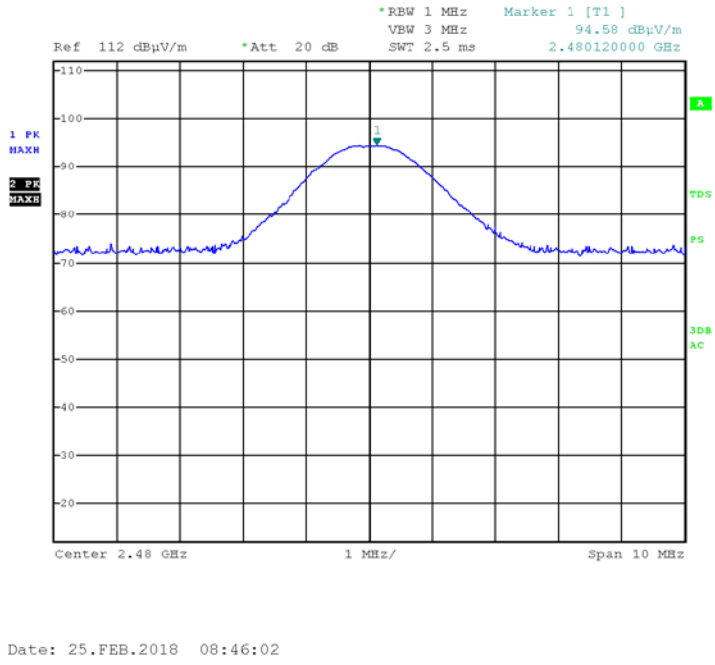

Figure 54. High, Horizontal STD.

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

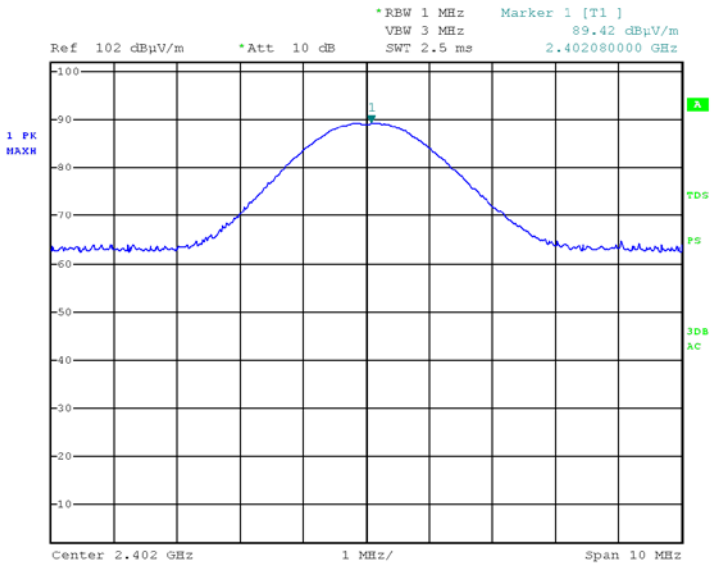

Figure 55. Low, Vertical EDR

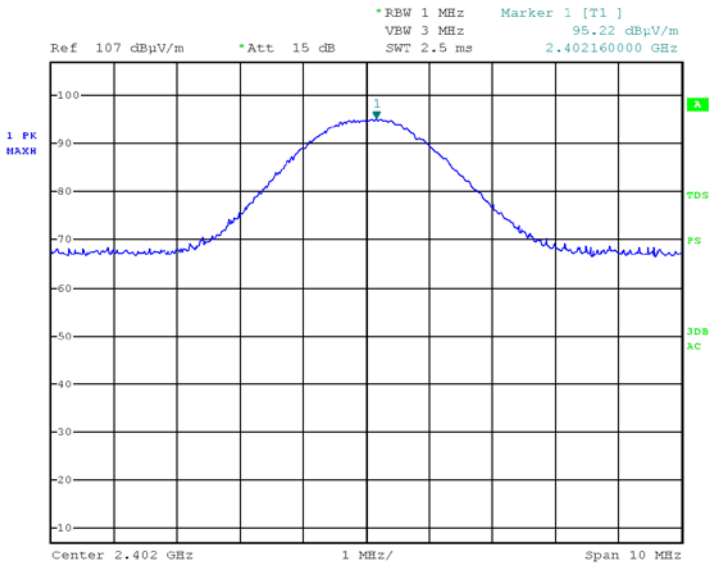

Figure 56. Low, Horizontal EDR

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

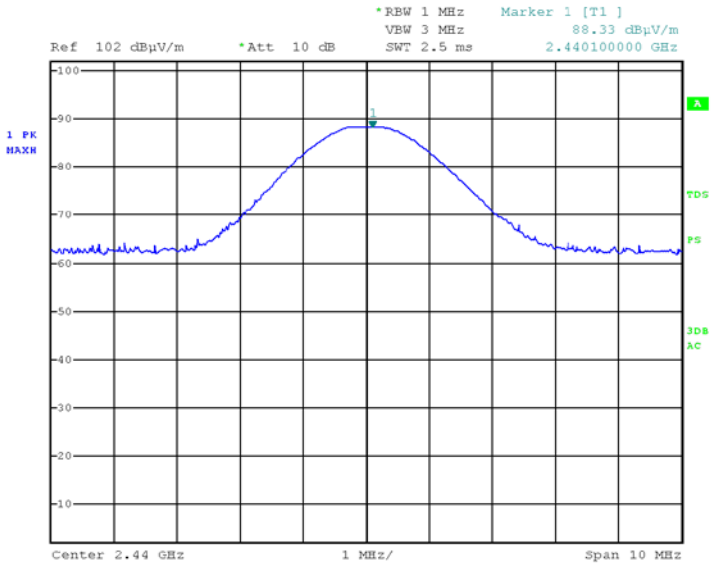

Figure 57. Mid, Vertical EDR

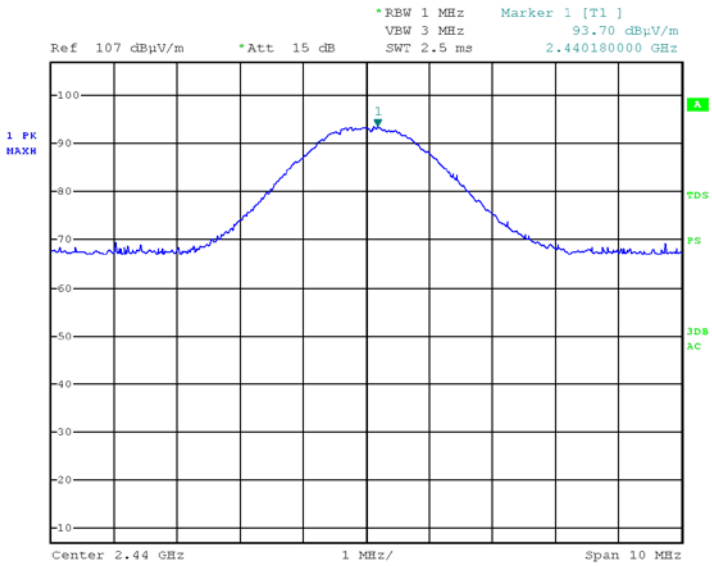

Figure 58. Mid, Horizontal EDR

Peak Output Power

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

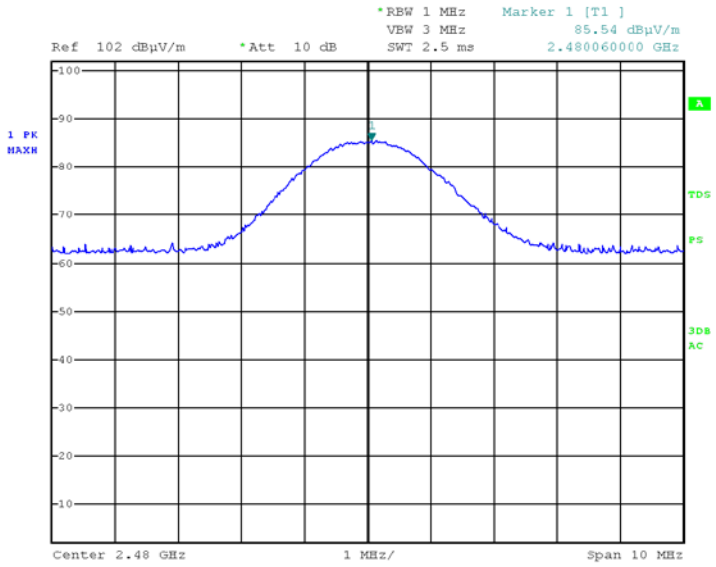

Figure 59. High, Vertical EDR

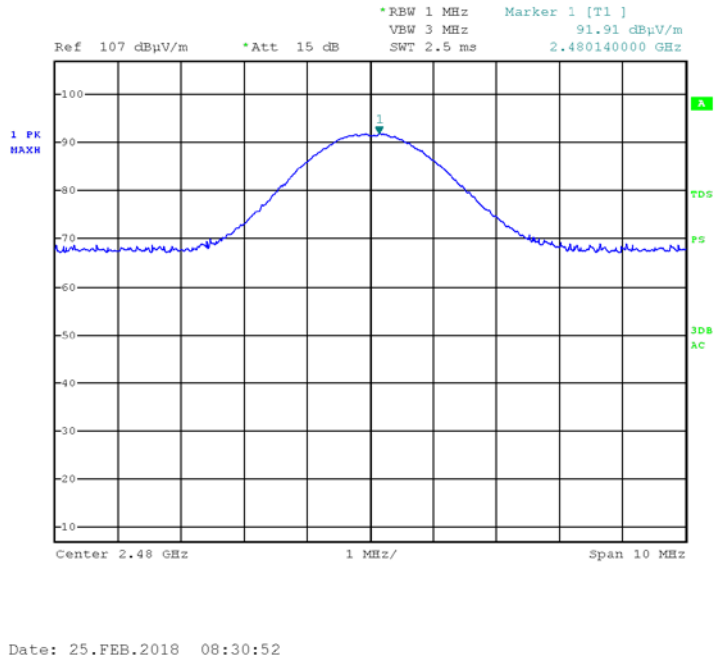

Figure 60. High, Horizontal EDR

9.5 *Test Equipment Used, Radiated Maximum Power Output*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	ESCI7	100724	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 61 Test Equipment Used

10. Dwell Time on Each Channel

10.1 *Test Specification*

FCC Part 15, sub part C, Section 15.247(a)(1)(iii)

10.2 *Test Procedure*

(Temperature (22°C)/ Humidity (52%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna.
The spectrum analyzer was set to the following parameters:
Span = zero span, centered on a hopping channel, RBW≥ 1MHz
Detector Function: Peak, Trace: Maximum Hold

10.3 *Test Limit*

The average time of occupancy on any channel shall not be greater than 0.4 Seconds within a period of 0.4 seconds multiplied by the number of hopping Channels employed (31.6sec).

10.4 *Test Results*

JUDGEMENT: Passed

The E.U.T met the requirements of the FCC Part 15, Section 15.247(a)(1)(i).

Additional information of the results is given in *Figure 62* to *Figure 65*.

For EDR Mode:

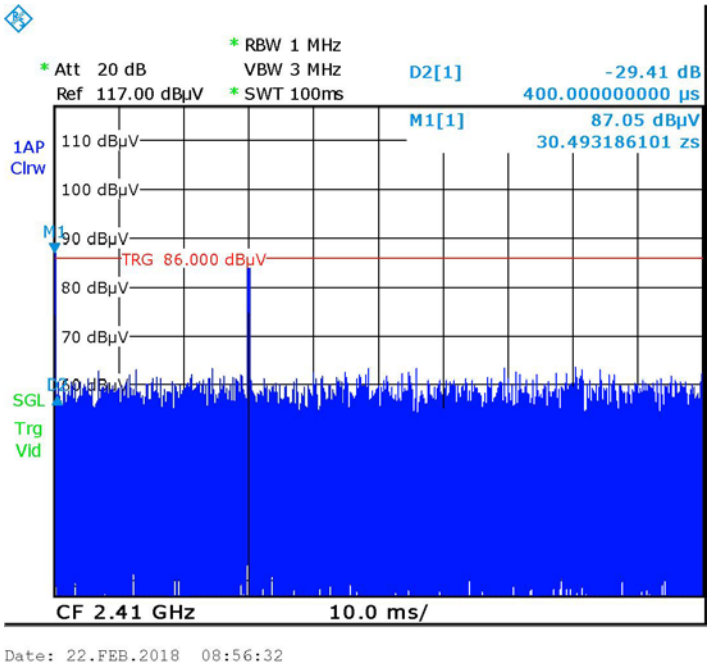

Figure 62 — Number of Bursts in 100msec=2, in 1sec=20

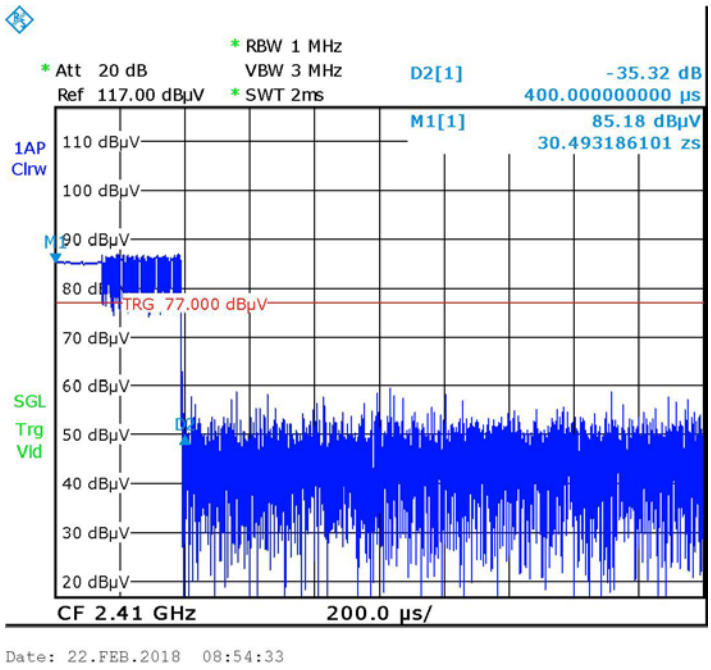

Figure 63 — Burst Duration =0.4msec

DWELL TIME = 0.4m *20*31.6 = 252msec< 400msec

For STD. Mode:

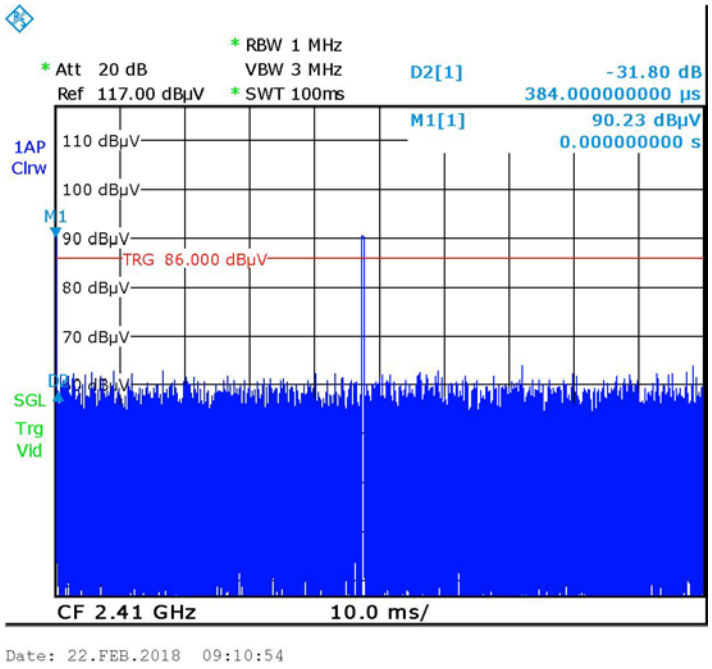

Figure 64 — Number of Bursts in 100msec=2, in 1sec=20

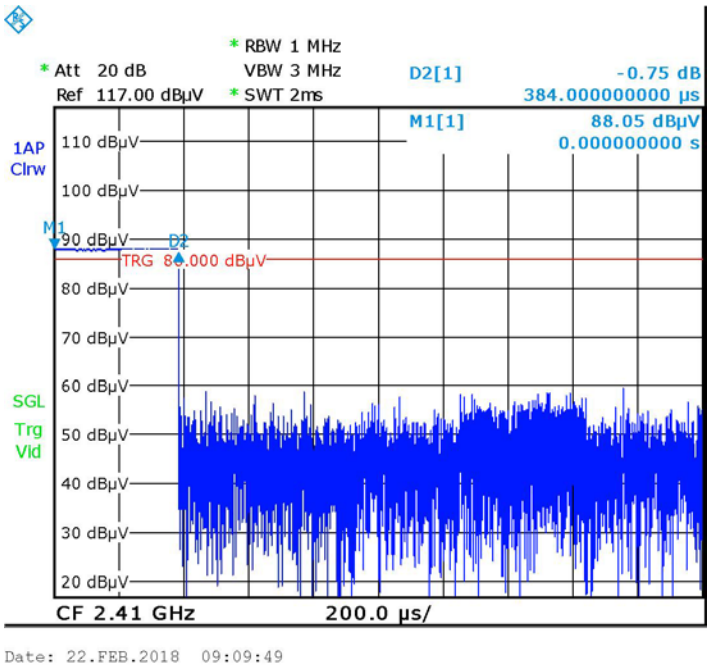

Figure 65 — Burst Duration =0.384msec

DWELL TIME = 0.384m *20*31.6 = 242.6msec< 400msec

10.5 *Test Equipment Used, Dwell Time on Each Channel*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 66 Test Equipment Used

11. Band Edge

11.1 *Test Specification*

FCC Part 15, Section 15.247(d)

11.2 *Test Procedure*

(Temperature (22°C)/ Humidity (54%RH))
The E.U.T operation mode and test set-up are as described in Section 2 of this report.
The E.U.T was tested in the chamber, and placed on a remote-controlled turntable.
The E.U.T was placed on a non-metallic table, 1.5 meters above the ground and a 3 meter distance from testing antenna.
The transmitter unit operated in 2 modes: hopping enabled and hopping disabled.
The RBW was set to 100 kHz.

The EMI receiver was adjusted to the transmission channel at the maximum level.
The display line was set to 20 dBc and the EMC analyzer was set to the band edge frequencies.

The E.U.T. was tested at the lower and the upper channels.

11.3 *Test Limit*

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

11.4 *Test Results*

Protocol	Mode	Operation Frequency	Band Edge Frequency	Spectrum Level	Limit	Margin
(EDR/STD.)		(MHz)	(MHz)	(dBuV/m)	(dBuV/m)	(dB)
EDR	Hopping	Low	2400.0	29.1	59.2	-30.1
		High	2483.5	38.0	56.3	-18.3
	Non-Hopping	Low	2400.0	36.0	60.5	-24.5
		High	2483.5	38.8	56.7	-17.9
STD.	Hopping	Low	2400.0	38.0	63.5	-25.5
		High	2483.5	38.6	58.9	-20.3
	Non-Hopping	Low	2400.0	37.5	63.2	-25.7
		High	2483.5	37.4	60.7	-23.3

Figure 67 Band Edge Test Results

JUDGEMENT: Passed by 17.9 dB

Band Edge

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

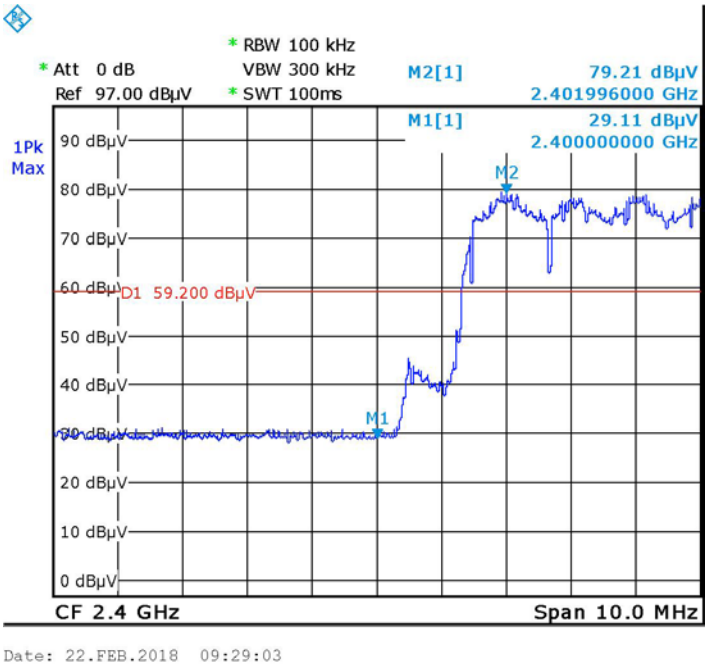

Figure 68 — Hopping – Low, EDR

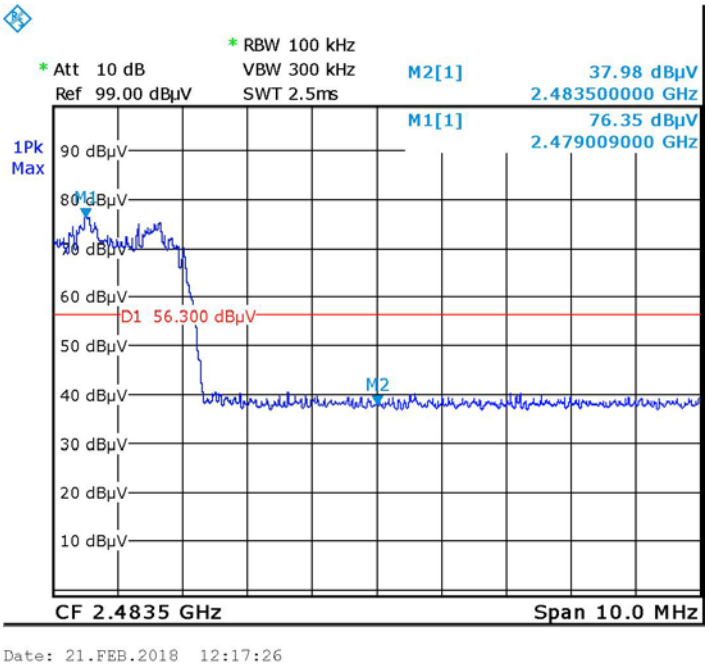

Figure 69 — Hopping – High, EDR

Band Edge

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

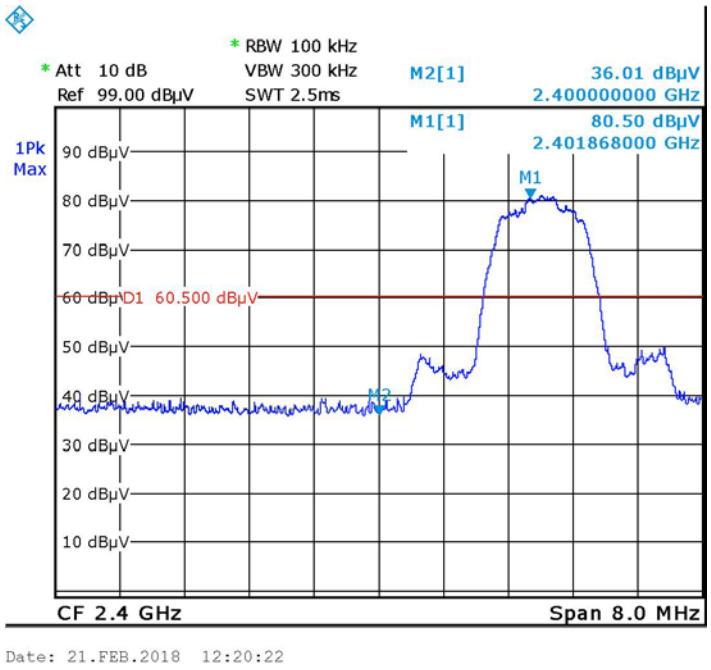

Figure 70 — Non-Hopping – Low, EDR

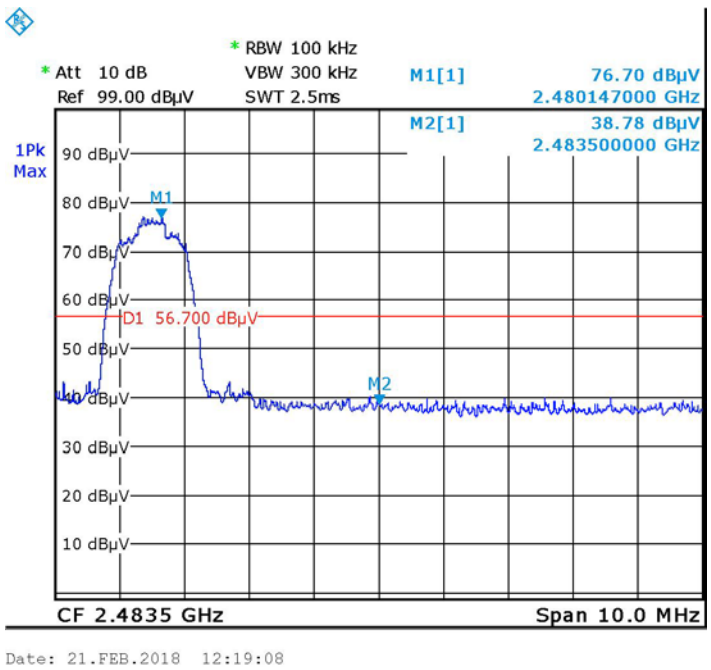

Figure 71 — Non-Hopping – High, EDR

Band Edge

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

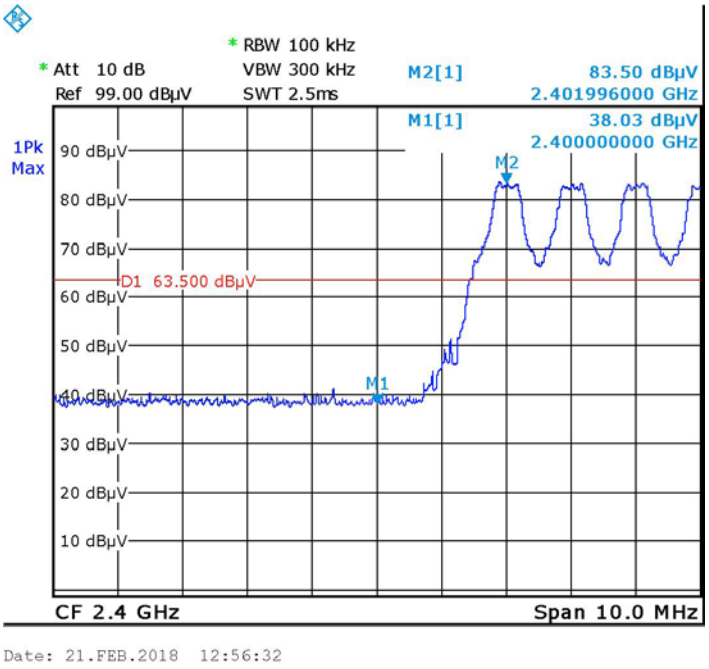

Figure 72 — Hopping – Low, STD.

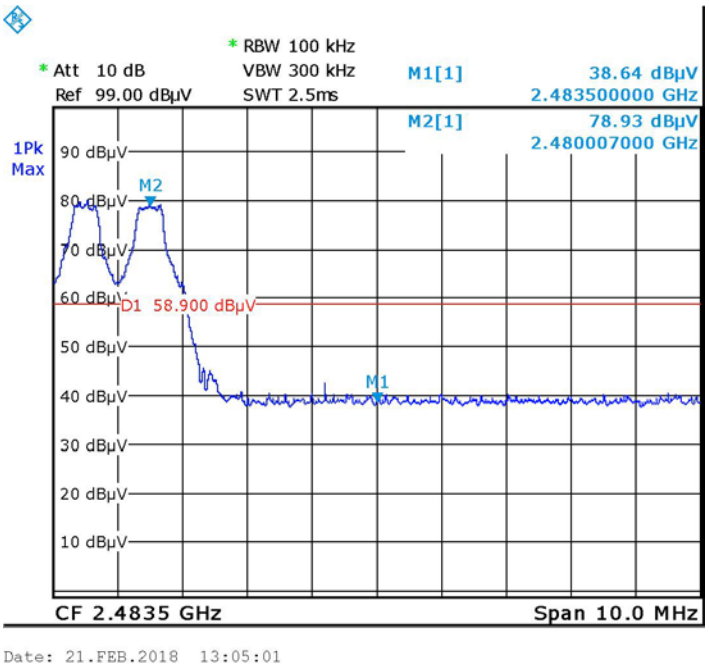

Figure 73 — Hopping – High, STD.

Band Edge

E.U.T Description	Wearable Camera
Type	MYEYE2
Serial Number:	Not designated

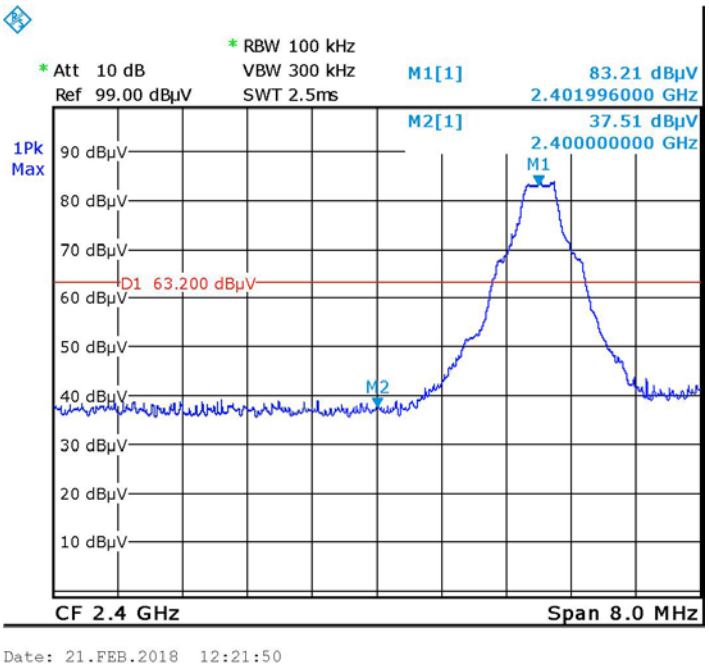

Figure 74 — Non-Hopping – Low, STD.

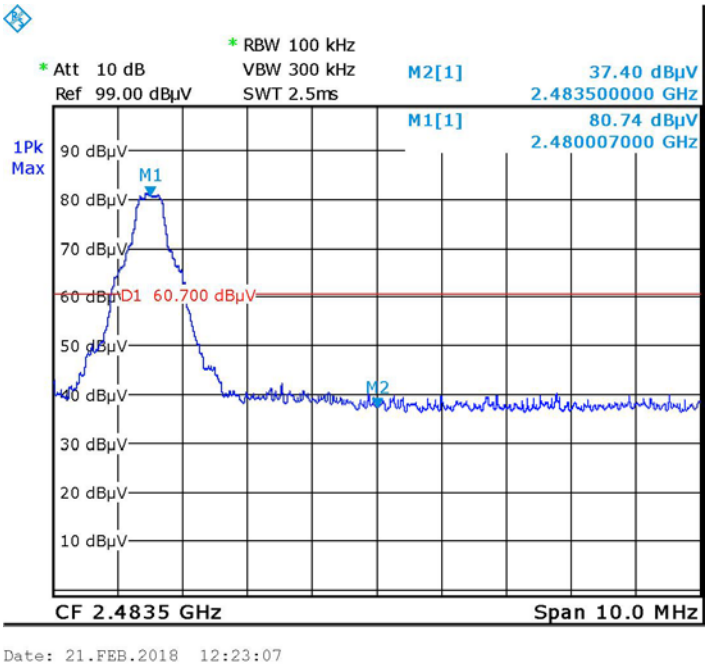

Figure 75 — Non-Hopping – High, STD.

11.5 *Test Equipment Used, Band Edge Spectrum*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	FSL6	100194	February 19, 2018	February 19, 2019
Horn Antenna	ETS	3115	6142	May 19, 2015	May 19, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR

Figure 76 Test Equipment Used

12. Emissions in Non-Restricted Frequency Bands

12.1 *Test Specification*

FCC, Part 15, Subpart C, Section 247(d)

12.2 *Test Procedure*

(Temperature (22°C)/ Humidity (53%RH))
The E.U.T. operation mode and test set-up are as described in Section 2 of this report.

For measurements between 0.009MHz-30MHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 0.009MHz-30MHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

For measurements between 30.0MHz-1.0GHz:
A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The frequency range 30.0MHz -1.0GHz was scanned and the list of the highest emissions was verified and updated accordingly.
The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

For measurements between 1.0GHz-25.0GHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 1.0GHz -25.0GHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

RBW was set to 100 kHz, detector set to max peak and trace to “max hold”

12.3 *Test Limit*

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

12.4 *Test Results*

JUDGEMENT: Passed

The EUT met the requirements of the F.C.C. Part 15, Subpart C, Section 247 (d) specification.

All detected emissions were greater than 20dBc below the fundamental level.

12.5 *Test Equipment Used, Emissions in Non-Restricted Frequency Bands*

Instrument	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	ESCI7	100724	February 28, 2017	February 28, 2018
Spectrum Analyzer	HP	8592L	3826A01204	March 1, 2017	March 1, 2018
EMI Receiver	HP	8542E	3906A00276	March 1, 2017	March 1, 2018
RF Filter Section	HP	85420E	3705A00248	March 1, 2017	March 1, 2018
Spectrum Analyzer	HP	8564E	3442A00275	March 19, 2017	March 19, 2018
Biconical Antenna	EMCO	3110B	9912-3337	May 15, 2017	May 15, 2019
Log Periodic Antenna	EMCO	3146	9505-4081	May 15, 2017	May 15, 2018
Horn Antenna	ETS	3115	29845	May 19, 2015	May 19, 2018
Horn Antenna	ARA	SWH-28	1007	December 31, 2017	December 31, 2020
Active Loop Antenna	EMCO	6502	9506-2950	October 19, 2017	October 19, 2018
MicroWave System Amplifier	HP	83006A	3104A00589	October 1, 2017	October 1, 2018
Low noise amplifier 1GHz-18GHz	Miteq	AFSX4-02001800-50-8P	-	October 1, 2017	October 1, 2018
Spectrum Analyzer	HP	8593EM	3536A00120 ADI	February 28, 2017	February 28, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR
Antenna Mast	ETS	2070-2	9608-1497	NCR	NCR
Turntable	ETS	2087	-	NCR	NCR
Mast & Table Controller	ETS/EMCO	2090	9608-1456	NCR	NCR

Figure 77 Test Equipment Used

13. Emissions in Restricted Frequency Bands

13.1 *Test Specification*

FCC, Part 15, Subpart C, Sections 247(d), 15.205, 15.209

13.2 *Test Procedure*

(Temperature (22°C)/ Humidity (53%RH))

For measurements between 0.009MHz-30MHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 0.009MHz-30MHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

For measurements between 30.0MHz-1.0GHz:
A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The frequency range 30.0MHz -1.0GHz was scanned and the list of the highest emissions was verified and updated accordingly.
The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

For measurements between 1.0GHz-25.0GHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 1.0GHz -25.0GHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

The levels of the emissions within the frequency ranges of the restricted bands (Section 15.205 of FCC Part 15) were compared to the limits of the table in Section 15.209 (a), General Requirements.

13.3 *Test Limit*

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c))

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	Field strength* (dBµV/m)	Field strength* (dBµV/m)@3m
0.009-0.490	2400/F(kHz)	300	48.5-13.8	128.5-73.8
0.490-1.705	24000/F(kHz)	30	33.8-23.0	73.8-63.0
1.705-30.0	30	30	29.5	69.5
30-88	100	3	40.0	40.0
88-216	150	3	43.5	43.5
216-960	200	3	46.0	46.0
Above 960	500	3	54.0	54.0

*The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

13.4 *Test Results*

JUDGEMENT: Passed

The EUT met the requirements of the F.C.C. Part 15, Subpart C 209 specification.

For additional information see *Figure 78* and *Figure 79.*

Radiated Emission

E.U.T Description Wearable Camera
Type MYEYE2
Serial Number: Not designated

Specification: FCC, Part 15, Subpart C, Sections 15.209, 15.205, 15.247(d)

Antenna Polarization: Horizontal/Vertical Frequency Range: 9KHz to 25.0 GHz
Protocol type: EDR Detector: Peak, Average

Operation Frequency	Freq.	Pol	Peak Reading	Peak Limit	Peak Margin	Average Reading	Average Limit	Average Margin
(MHz)	(MHz)	(H/V)	(dBµV/m)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
2402.0	2390.0	V	64.8	74.0	-9.2	34.3	54.0	-19.7
	2390.0	H	66.4	74.0	-7.6	35.9	54.0	-18.1
	4804.0	V	42.3	74.0	-31.7	-	54.0	-
	4804.0	H	42.6	74.0	-31.4	-	54.0	-
2440.0	4880.0	V	42.2	74.0	-31.8	-	54.0	-
	4880.0	H	42.7	74.0	-31.3	-	54.0	-
	7320.0	V	45.5	74.0	-28.5	-	54.0	-
	7320.0	H	45.6	74.0	-28.4	-	54.0	-
2480.0	4960.0	V	42.3	74.0	-31.7	-	54.0	-
	4960.0	H	42.0	74.0	-32.0	-	54.0	-
	2483.5	V	63.5	74.0	-10.5	33.0	54.0	-21.0
	2483.5	H	68.1	74.0	-5.9	37.6	54.0	-16.4

Figure 78. Radiated Emission Results

Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

"Peak Amp" includes correction factor.

* "Correction Factor" = Antenna Factor + Cable Loss- Low Noise Amplifier Gain

Radiated Emission

E.U.T Description Wearable Camera
Type MYEYE2
Serial Number: Not designated

Specification: FCC, Part 15, Subpart C, Sections 15.209, 15.205, 15.247(d)

Antenna Polarization: Horizontal/Vertical Frequency Range: 9KHz to 25.0 GHz
Protocol type: STD. Detector: Peak, Average

Operation Frequency	Freq.	Pol	Peak Reading	Peak Limit	Peak Margin	Average Reading	Average Limit	Average Margin
(MHz)	(MHz)	(H/V)	(dBµV/m)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
2402.0	2390.0	V	64.0	74.0	-10.0	33.5	54.0	-20.5
	2390.0	H	64.2	74.0	-9.8	33.7	54.0	-20.3
	4804.0	V	42.7	74.0	-31.3	-	54.0	-
	4804.0	H	43.2	74.0	-30.8	-	54.0	-
2440.0	4880.0	V	42.5	74.0	-31.5	-	54.0	-
	4880.0	H	42.5	74.0	-31.5	-	54.0	-
	7320.0	V	45.2	74.0	-28.8	-	54.0	-
	7320.0	H	45.9	74.0	-28.1	-	54.0	-
2480.0	4960.0	V	43.1	74.0	-30.9	-	54.0	-
	4960.0	H	42.6	74.0	-31.4	-	54.0	-
	2483.5	V	63.8	74.0	-10.2	33.3	54.0	-20.7
	2483.5	H	64.1	74.0	-9.9	33.6	54.0	-20.4

Figure 79. Radiated Emission Results

Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.

"Peak Amp" includes correction factor.

* "Correction Factor" = Antenna Factor + Cable Loss- Low Noise Amplifier Gain

13.5 *Field Strength Calculation*

The field strength is calculated directly by the EMI Receiver software, and a "Correction Factors" data disk, using the following equation:

$$[dB\mu v/m]\ FS = RA + AF + CF$$

FS:	Field Strength [dBμv/m]
RA:	Receiver Amplitude [dBμv]
AF:	Receiving Antenna Correction Factor [dB/m]
CF:	Cable Attenuation Factor [dB]

Example: FS = 30.7 dBμV (RA) + 14.0 dB (AF) + 0.9 dB (CF) = 45.6 dBμV

No external pre-amplifiers are used.

13.6 *Test Equipment Used, Emissions in Restricted Frequency Bands*

Instrument	Manufacturer	Model	Serial Number	Last Calibration Date	Next Calibration Due
EMI Receiver	R&S	ESCI7	100724	February 28, 2017	February 28, 2018
Spectrum Analyzer	HP	8592L	3826A01204	March 1, 2017	March 1, 2018
EMI Receiver	HP	8542E	3906A00276	March 1, 2017	March 1, 2018
RF Filter section	HP	85420E	3705A00248	March 1, 2017	March 1, 2018
Horn Antenna	ETS	3115	29845	May 19, 2015	May 19, 2018
Log Periodic Antenna	EMCO	3146	9505-4081	May 15, 2017	May 15, 2018
Biconical Antenna	EMCO	3110B	9912-3337	May 15, 2017	May 15, 2019
Active Loop Antenna	EMCO	6502	9506-2950	October 19, 2017	October 19, 2018
Low Noise Amplifier	DBS MICROWAVE	LNA-DBS-0411N313	013	October 1, 2017	October 1, 2018
Low Noise Amplifier	Sophia Wireless	LNA 28-B	232	October 1, 2017	October 1, 2018
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR
Antenna Mast	ETS	2070-2	9608-1497	NCR	NCR
Turntable	ETS	2087	-	NCR	NCR
Mast & Table Controller	ETS/EMCO	2090	9608-1456	NCR	NCR

Figure 80 Test Equipment Used

14. Avg. Factor Calculation

1. Pulse period = 1 (worst scenario)
2. Pulse duration = 1 (worst scenario)
3. Burst duration = 3msec

4. $$\text{Average Factor} = 20\log\left[\frac{\text{Pulse duration}}{\text{Pulse period}} \times \frac{\text{burst duration}}{100\text{msec}} \times \text{Num of burst within } 100\text{msec}\right]$$

Average Factor = 20log [1*3/100] = -30.4

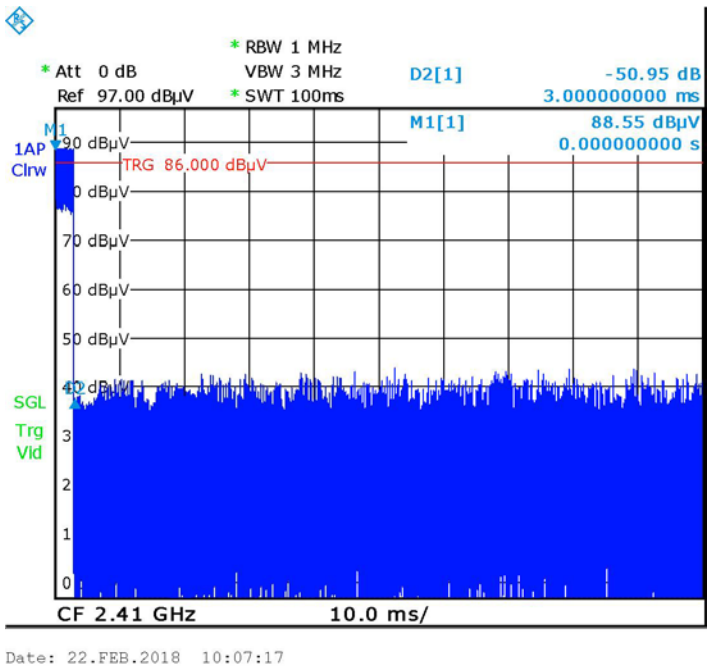

Figure 81. Burst Duration = 3msec - Number of Bursts in 100msec= 1

14.1 *Test Equipment Used, Average Factor*

Instrument	Manufacturer	Model	Serial Number	Last Calibration Date	Next Calibration Due
Spectrum Analyzer	Rodhe & Schwarz	FSL6	100194	February 19, 2018	February 19, 2019

Figure 82 Test Equipment Used

15. Antenna Gain/Information

The antenna gain is -1.5 dBi.

16. R.F Exposure/Safety

Typical use of the E.U.T. is as a wearable camera.

The typical distance between the E.U.T. and the user is 0.5 cm.

SAR Testing Exclusion Based on Section 4.3.1 and Appendix A of KDB 447498 D01 V06 Requirements

For FCC

Section 4.3.1 and Appendix A of KDB447498 D01 V06 was used as the guidance as follows:

Conducted power output (standard) = -0.3dBm

EIRP = -0.3 dBm - (-1.5 dBi) = 1.2dBm = 1.32 mW.

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] *· [√f(GHz)]

=1.32/5 * 1.55=0.41 this value is less than 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

The SAR measurement is not necessary.

17. APPENDIX A - CORRECTION FACTORS

17.1 *Correction factors for RF OATS Cable 35m ITL #1879*

Frequency (MHz)	Cable loss (dB)
30.0	1.1
50.0	1.1
100.0	1.7
150.0	2.1
200.0	2.5
250.0	2.7
300.0	2.9
350.0	3.1
400.0	3.5
450.0	3.7
500.0	3.9
550.0	4.0
600.0	4.2
650.0	4.4
700.0	4.9
750.0	5.0
800.0	5.0
850.0	4.9
900.0	5.0
950.0	5.1
1000.0	5.4

17.2 *Correction factor for RF CABLE for Semi Anechoic Chamber*

ITL # 1841

FREQ (MHz)	LOSS (dB)
1000.0	1.5
2000.0	2.1
3000.0	2.7
4000.0	3.1
5000.0	3.5
6000.0	4.1
7000.0	4.6
8000.0	4.9
9000.0	5.7
10000.0	5.7
11000.0	6.1
12000.0	6.1
13000.0	6.2
14000.0	6.7
15000.0	7.4
16000.0	7.5
17000.0	7.9
18000.0	8.1
19000.0	8.8
20000.0	9.1

NOTES:

1. *The cable is manufactured by Commscope*
2. *The cable type is 0623 WBC-400, serial # G020132 and 10m long*

17.3 *Correction factors forActive Loop Antenna*

Model 6502 S/N 9506-2950

ITL # 1075:

f(MHz)	MAF(dBs/m)	AF(dB/m)
0.01	-33.1	18.4
0.02	-37.2	14.3
0.03	-38.2	13.3
0.05	-39.8	11.7
0.1	-40.1	11.4
0.2	-40.3	11.2
0.3	-40.3	11.2
0.5	-40.3	11.2
0.7	-40.3	11.2
1	-40.1	11.4
2	-40	11.5
3	-40	11.5
4	-40.1	11.4
5	-40.2	11.3
6	-40.4	11.1
7	-40.4	11.1
8	-40.4	11.1
9	-40.5	11
10	-40.5	11
20	-41.5	10
30	-43.5	8

17.4 Correction factors for biconical antenna – ITL # 1356

Model: EMCO 3110B

Serial No.:9912-3337

Frequency	**ITL 1356 AF**
[MHz]	**[dB/m]**
30	13.00
35	10.89
40	10.59
45	10.63
50	10.12
60	9.26
70	7.74
80	6.63
90	8.23
100	11.12
120	13.16
140	13.07
160	14.80
180	16.95
200	17.17

17.5 Correction factors for log periodic antenna – ITL # 1349

Model: EMCO 3146

Serial No.:9505-4081

Frequency	**ITL 1349 AF**
[MHz]	**[dB/m]**
200	11.58
250	12.04
300	14.76
400	15.55
500	17.85
600	18.66
700	20.87
800	21.15
900	22.32
1000	24.22

17.6 Correction factors for Double –Ridged Waveguide Horn ANTENNA

Model: 3115
Serial number:29845
3 meter range; ITL # 1352

FREQUENCY (GHz)	AFE (dB/m)	FREQUENCY (GHz)	AFE (dB/m)
0.75	25	9.5	38
1.0	23.5	10.0	38.5
1.5	26.0	10.5	38.5
2.0	29.0	11.0	38.5
2.5	27.5	11.5	38.5
3.0	30.0	12.0	38.0
3.5	31.5	12.5	38.5
4.0	32.5	13.0	40.0
4.5	32.5	13.5	41.0
5.0	33.0	14.0	40.0
5.5	35.0	14.5	39.0
6.0	36.5	15.0	38.0
6.5	36.5	15.5	37.5
7.0	37.5	16.0	37.5
7.5	37.5	16.5	39.0
8.0	37.5	17.0	40.0
8.5	38.0	17.5	42.0
9.0	37.5	18.0	42.5