



Washington Laboratories, Ltd.

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## FCC PART 15.249 CERTIFICATION TEST REPORT

for the

**DCL074 Work light**

**FCC ID: YJ7-DCL074**

**IC ID: 9082A-DCL074**

**REPORT# 15618-01 REV 1**

Prepared for:

**Stanley Black & Decker, Inc.**

**701 E. Joppa Road - TW116**

**Towson, MD 21286**

Prepared By:

**Washington Laboratories, Ltd.**

7560 Lindbergh Drive

Gaithersburg, Maryland 20879



Testing Certificate AT-1448



FCC Part 15.249 Certification Test Report  
for the  
**Stanley Black & Decker, Inc.**  
**DCL074 Work light**

FCC ID: YJ7-DCL074  
ISED ID: 9082A-DCL074

JUNE 14, 2018

WLL REPORT# 15618-01 REV 1

Prepared by:

A handwritten signature in black ink, appearing to read 'Nikolas Allen', is placed above a horizontal line.

Nikolas Allen  
EMC Compliance Engineer

Reviewed by:

A handwritten signature in blue ink, appearing to read 'Steven D. Koster', is placed above a horizontal line.

Steven D. Koster  
President



## ABSTRACT

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This report has been prepared on behalf of Stanley Black & Decker, Inc. to support the attached Application for Equipment Authorization. The test report and application are submitted for an Intentional Radiator under Part 15.249 (10/2013) of the FCC Rules and Regulations and Spectrum Management and Telecommunications Policy and under RSS-210 Issue 9, 8/2016 of Innovation, Science and Economic Development Canada (ISED). This Certification Test Report documents the test configuration and test results for the Stanley Black & Decker, Inc. DCL074 Work light.

Testing was performed on an Open Area Test Site (OATS) of Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. The ISED Canada OATS numbers are 3035A-1 and 3035A-2 for Washington Laboratories, Ltd. Site 1 and Site 2, respectively. Washington Laboratories, Ltd. has been accepted by the FCC and approved by ANAB under Certificate AT-1448 as an independent FCC test laboratory.

The Stanley Black & Decker, Inc. DCL074 Work light complies with the limits for DXX Transmitter device under FCC Part 15.249 and Innovation, Science and Economic Development Canada (ISED) RSS-210.

<b>Revision History</b>	<b>Description of Change</b>	<b>Date</b>
Rev 0	Initial Release	JUNE 14, 2018
Rev 1	Comments Addressed	JULY 31, 2018



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# 1 INTRODUCTION

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## 1.1 COMPLIANCE STATEMENT

The Stanley Black & Decker, Inc. DCL074 Work light complies with the limits for a Frequency Hopping Spread Spectrum Transmitter device under FCC Part 15.249 (10/2013) and ISED RSS-210 Issue 9 August 2016.

## 1.2 TEST SCOPE

Tests for radiated and conducted emissions were performed. All measurements were performed in accordance with the 2003 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

## 1.3 CONTRACT INFORMATION

Customer: Stanley Black & Decker, Inc.  
Address 701 E. Joppa Road - TW116  
Towson, MD 21286

Purchase Order Number: Ariba portal - Ref to project #M833418b  
Quotation Number: 70754

## 1.4 TEST DATES

Testing was performed on the following date(s): 6/11/2018 – 6/13/2018

## 1.5 TEST AND SUPPORT PERSONNEL

Washington Laboratories, LTD      Nikolas Allen  
Customer Representative              Kirwan Magdamo



## 1.6 ABBREVIATIONS

A	<b>A</b> mpere
ac	<b>a</b> lternating <b>c</b> urrent
AM	<b>A</b> mplitude <b>M</b> odulation
Amps	<b>A</b> mperes
b/s	<b>b</b> its per <b>s</b> econd
BW	<b>B</b> and <b>W</b> idth
CE	<b>C</b> onducted <b>E</b> mission
cm	<b>C</b> ent <b>m</b> eter
CW	<b>C</b> ontinuous <b>W</b> ave
dB	<b>d</b> eci <b>B</b> el
dc	<b>d</b> irect <b>c</b> urrent
EMI	<b>E</b> lectromagnetic <b>I</b> nterference
EUT	<b>E</b> quipment <b>U</b> nder <b>T</b> est
FM	<b>F</b> requency <b>M</b> odulation
G	<b>g</b> iga – prefix for 10 <sup>9</sup> multiplier
Hz	<b>H</b> ertz
IF	<b>I</b> ntermediate <b>F</b> requency
k	<b>k</b> ilo – prefix for 10 <sup>3</sup> multiplier
LISN	<b>L</b> ine <b>I</b> mpedance <b>S</b> tabilization <b>N</b> etwork
M	<b>M</b> ega – prefix for 10 <sup>6</sup> multiplier
m	<b>M</b> eter
μ	<b>μ</b> icro – prefix for 10 <sup>-6</sup> multiplier
NB	<b>N</b> arrow <b>b</b> and
QP	<b>Q</b> uasi- <b>P</b> eak
RE	<b>R</b> adiated <b>E</b> missions
RF	<b>R</b> adio <b>F</b> requency
rms	<b>r</b> oot- <b>m</b> ean- <b>s</b> quare
SN	<b>S</b> erial <b>N</b> umber
S/A	<b>S</b> pectrum <b>A</b> nalyzer
V	<b>V</b> olt



## 2 EQUIPMENT UNDER TEST

### 2.1 EUT IDENTIFICATION & DESCRIPTION

Table 1: Device Summary

<b>Item</b>	DCL074
<b>Manufacturer:</b>	Stanley Black & Decker, Inc.
<b>FCC ID:</b>	YJ7-DCL074
<b>ISED ID:</b>	9082A-DCL074
<b>Model:</b>	DCL074 Work light
<b>Serial Number of Unit Tested</b>	000220E
<b>FCC Rule Parts:</b>	§15.249
<b>ISED Rule Parts:</b>	RSS-210
<b>Frequency Range:</b>	2.4GHz
<b>Maximum Output Power:</b>	13.7mV/m (@ 3m)
<b>Modulation:</b>	Bluetooth 4.0 BLE
<b>Occupied Bandwidth (99%)[MHz]:</b>	1.0531(LOW), 1.2985(MID),1.0759(High)
<b>FCC Emission Designator:</b>	1M30F7D
<b>ISED Emissions Designators:</b>	1M30F7D for all modulations
<b>Keying:</b>	Automatic, Manual
<b>Type of Information:</b>	Data
<b>Number of Channels:</b>	80
<b>Power Output Level</b>	Fixed
<b>Highest TX Spurious Emission:</b>	39.4 uV/m (@ 3m)
<b>Highest RX Spurious Emission:</b>	68.7 uV/m (@ 3m)
<b>Antenna Connector</b>	PCB Trace
<b>Antenna Type</b>	PCB
<b>Interface Cables:</b>	None
<b>Maximum Data Rate</b>	8192 kSymbols
<b>Power Source &amp; Voltage:</b>	DC, 20V Battery





The Stanley Black & Decker, Inc. DCL074 Work light is a Battery powered portable light.

## 2.2 TEST CONFIGURATION

The DCL074 Work light was configured to run continuously with the light set at full brightness and the transmitter on.

## 2.3 TESTING ALGORITHM

The DCL074 Work light was tested with the EUT transmitting and set to the brightest light level. Worst case emission levels are provided in the test results data.

## 2.4 TEST LOCATION

All measurements herein were performed at Washington Laboratories, Ltd. test center in Gaithersburg, MD. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. The ISED Canada OATS numbers are 3035A-1 and 3035A-2 for Washington Laboratories, Ltd. Site 1 and Site 2, respectively. Washington Laboratories, Ltd. has been accepted by the FCC and approved by ANAB under Testing Certificate AT-1448 as an independent FCC test laboratory.

## 2.5 MEASUREMENTS

### 2.5.1 References

ANSI C63.2 (Jan-2016) Specifications for Electromagnetic Noise and Field Strength Instrumentation

ANSI C63.4 (Jan 2014) American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

ANSI C63.10 (Jun 2013) American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI C63.26 (Dec 2015) American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services



## 2.6 MEASUREMENT UNCERTAINTY

All results reported herein relate only to the equipment tested. The basis for uncertainty calculation uses ANSI/NCSL Z540-2-1997 (R2002) with a type B evaluation of the standard uncertainty. Elements contributing to the standard uncertainty are combined using the method described in Equation 1 to arrive at the total standard uncertainty. The standard uncertainty is multiplied by the coverage factor to determine the expanded uncertainty which is generally accepted for use in commercial, industrial, and regulatory applications and when health and safety are concerned (see Equation 2). A coverage factor was selected to yield a 95% confidence in the uncertainty estimation.

### Equation 1: Standard Uncertainty

$$u_c = \pm \sqrt{\frac{a^2}{div_a^2} + \frac{b^2}{div_b^2} + \frac{c^2}{div_c^2} + \dots}$$

Where  $u_c$  = standard uncertainty

a, b, c,.. = individual uncertainty elements

Div<sub>a, b, c</sub> = the individual uncertainty element divisor based on the probability distribution

Divisor = 1.732 for rectangular distribution

Divisor = 2 for normal distribution

Divisor = 1.414 for trapezoid distribution

### Equation 2: Expanded Uncertainty

$$U = ku_c$$

Where U = expanded uncertainty

k = coverage factor

$k \leq 2$  for 95% coverage (ANSI/NCSL Z540-2 Annex G)

$u_c$  = standard uncertainty

The measurement uncertainty complies with the maximum allowed uncertainty from CISPR 16-4-2. Measurement uncertainty is not used to adjust the measurements to determine compliance. The expanded uncertainty values for the various scopes in the WLL accreditation are provided in Table 2 below.



**Table 2: Expanded Uncertainty List**

<b>Scope</b>	<b>Standard(s)</b>	<b>Expanded Uncertainty</b>
Conducted Emissions	CISPR11, CISPR22, , CISPR32, CISPR14, FCC Part 15	$\pm 2.63$ dB
Radiated Emissions	CISPR11, CISPR22, , CISPR32, CISPR14, FCC Part 15	$\pm 4.55$ dB



### 3 TEST EQUIPMENT

Table 3 shows a list of the test equipment used for measurements along with the calibration information.

**Table 3: Test Equipment List**

Test Name:	Radiated Emissions	Test Date:	6/11/2018
Asset #	Manufacturer/Model	Description	Cal. Due
823	AGILENT - N9010A	EXA SPECTRUM ANALYZER	4/21/2019
826	MEGAPHASE - TM40-K1K5-36	RF CABLE - 2.9MM-2.9MM 36	08/15/2018
638	WLL - RG-223	BNC COAXIAL CABLE (1.8M)	04/12/2019
627	AGILENT - 8449B	AMPLIFIER 1-26GHZ	09/12/2019
558	HP - 8447D	AMPLIFIER	2/9/2019
644	SUNOL SCIENCES CORPORATION - JB1 925-833-9936	BICONALOG ANTENNA	1/16/2020
4	ARA - DRG-118/A	ANTENNA DRG 1-18GHZ	12/14/2018



## 4 TEST RESULTS

The Table Below shows the results of testing for compliance with a Frequency Hopping Spread Spectrum device in accordance with FCC Part 15.249 10/2013 and RSS-210 Issue 8. Full test results are shown in subsequent sub-sections.

**Table 4: Test Summary Table**

<b>Frequency Hopping Spread Spectrum - TX Test Summary</b>			
<b>FCC Rule Part</b>	<b>IC Rule Part</b>	<b>Description</b>	<b>Result</b>
2.1049	RSS-GEN Section 4.6.(1)	Occupied Bandwidth	Pass
15.249 (a) 15.209	RSS-210 A2.9 (a)	General Field Strength Limits	Pass
<b>Frequency Hopping Spread Spectrum - RX/Digital Test Summary</b>			
<b>FCC Rule Part</b>	<b>IC Rule Part</b>	<b>Description</b>	<b>Result</b>
15.209	RSS-210 Section 2.5 RSS-GEN Section 4.1	General Field Strength Limits	Pass



#### 4.1 OCCUPIED BANDWIDTH: (FCC PART §2.1049, RSS-GEN 4.6.1)

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer.

At full modulation, the occupied bandwidth was measured as shown.

Table 5 provides a summary of the Occupied Bandwidth Results.

**Table 5: Occupied Bandwidth Results**

Frequency	Bandwidth (kHz)	Limit (kHz)	Pass/Fail
Low Channel: 2402MHz	1053.1	N/A	Pass
Mid Channel: 2440MHz	1298.5	N/A	Pass
High Channel: 2480MHz	1075.9	N/A	Pass



Figure 1: Occupied Bandwidth, Low Channel

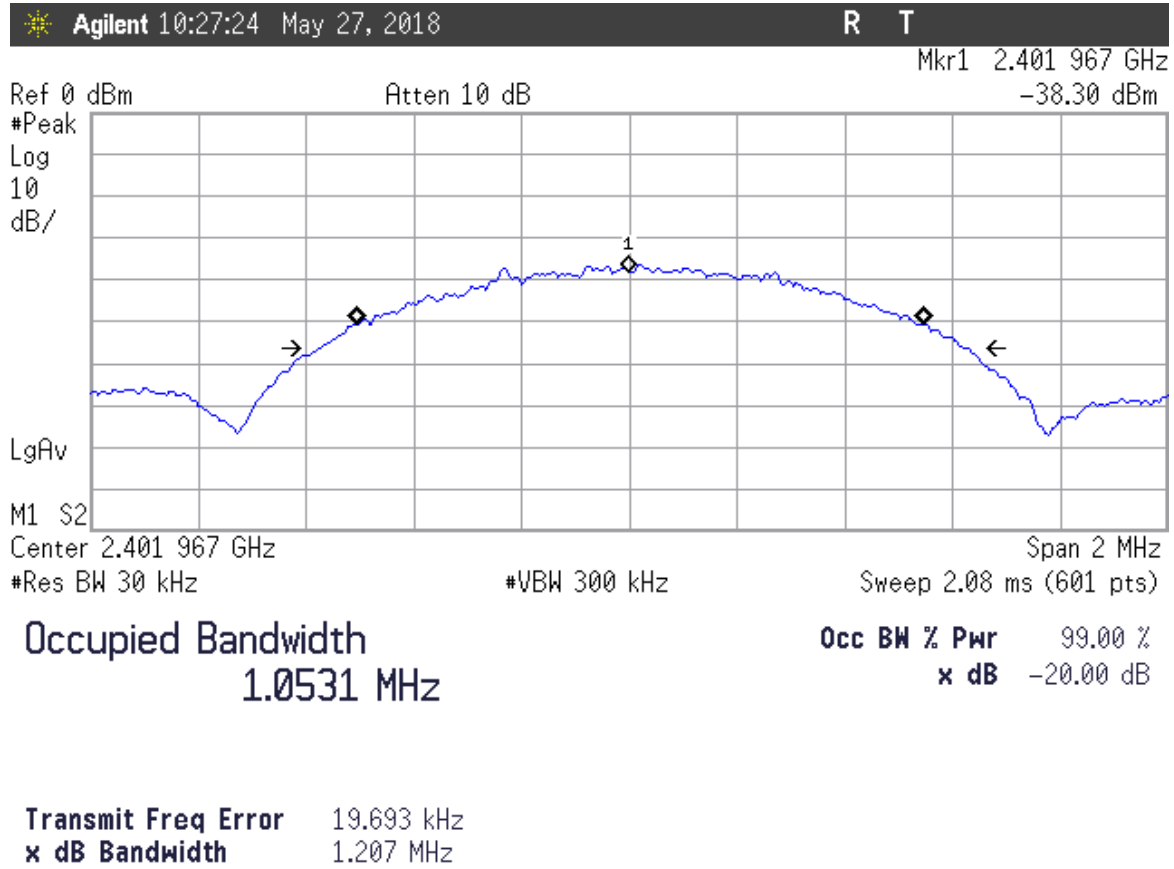




Figure 2: Occupied Bandwidth, Mid Channel

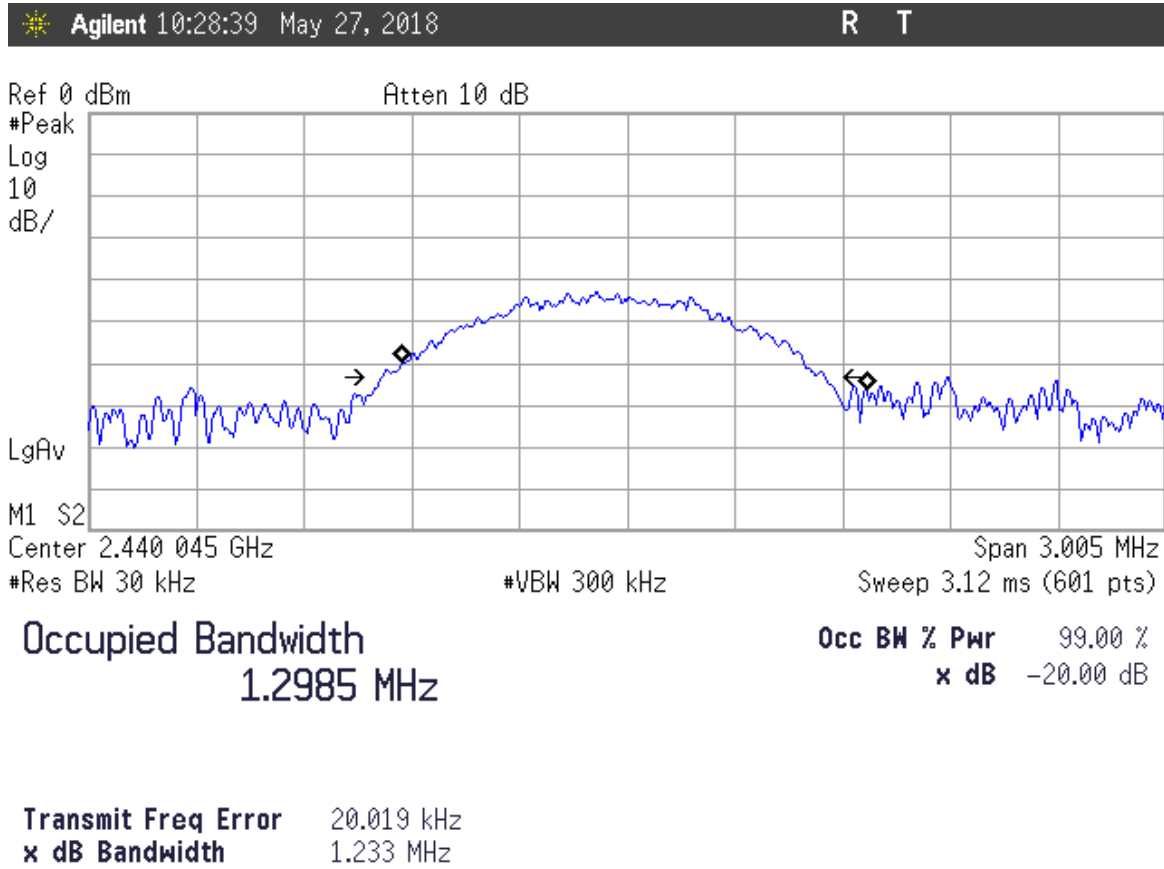
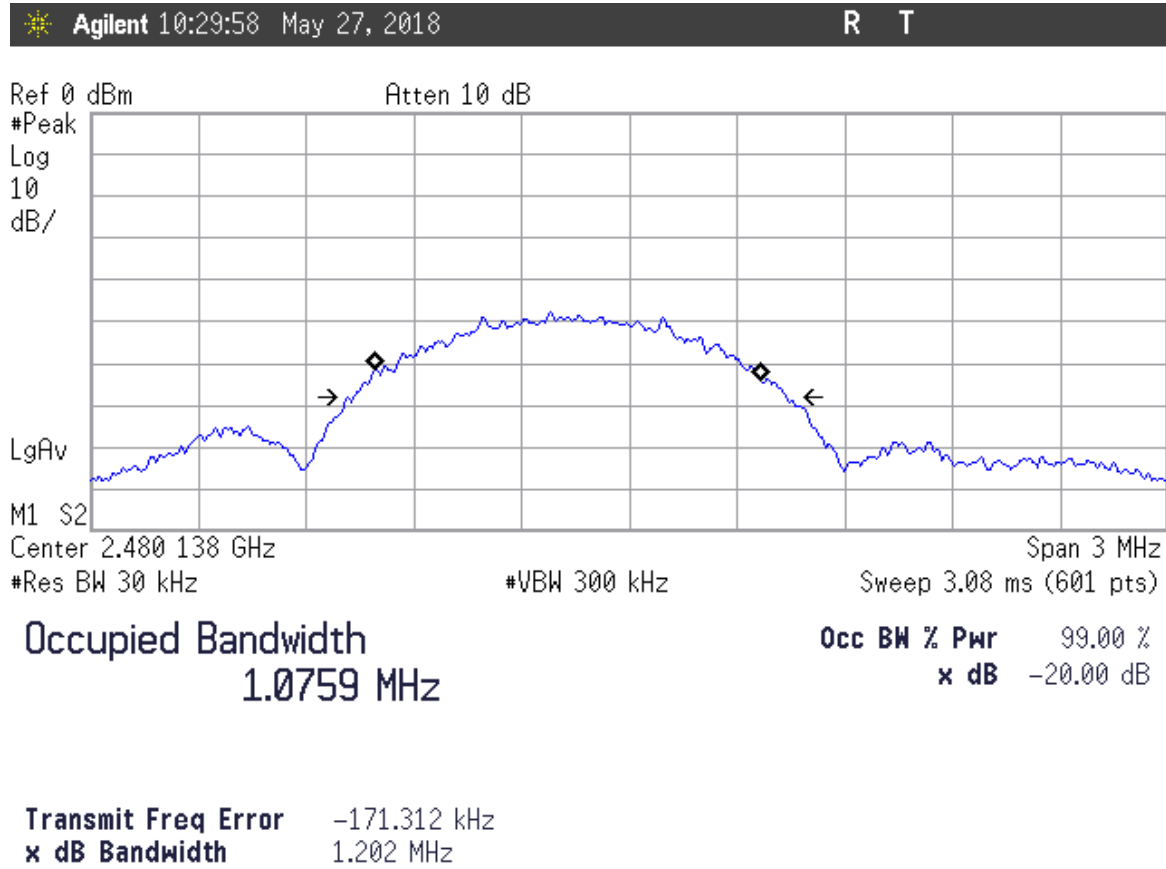
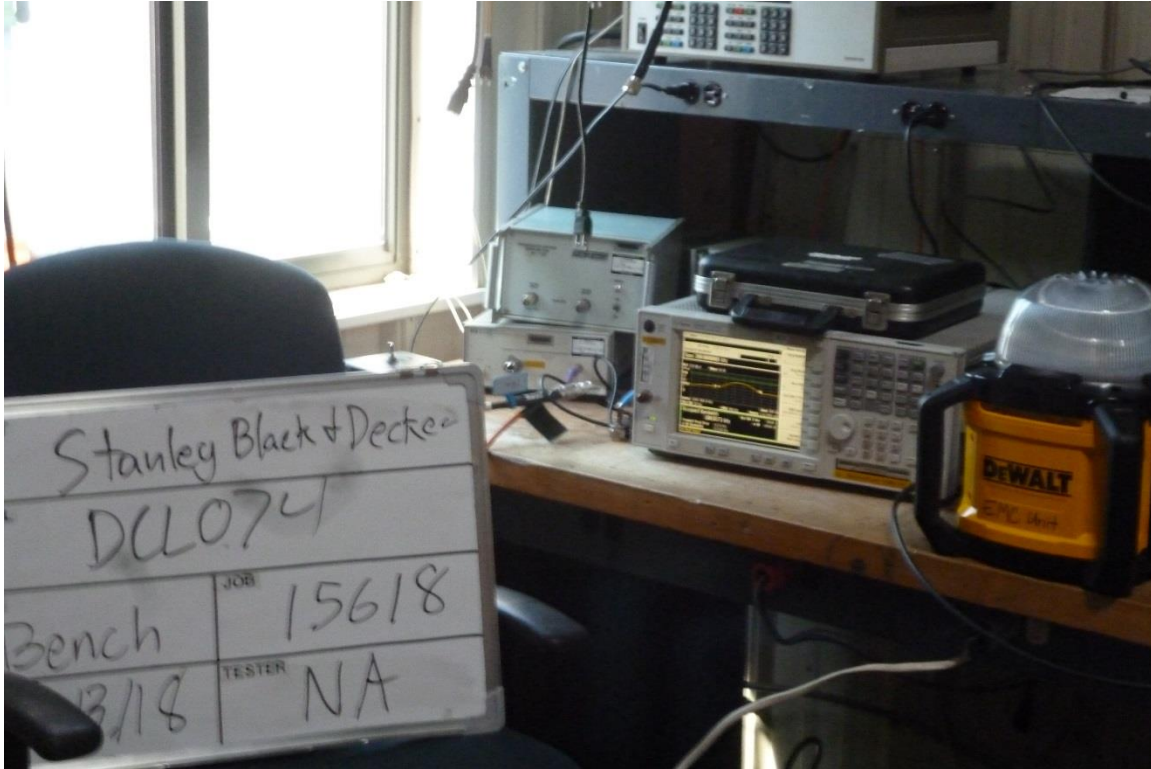






Figure 3: Occupied Bandwidth, High Channel





**Photograph 1: Bench Test Setup Configuration**



## 4.2 RADIATED SPURIOUS EMISSIONS: (FCC PART §15.249(A), RSS210 A2.9)

The EUT must comply with the requirements for radiated spurious emissions that fall within the restricted bands. These emissions must meet the limits specified in §15.209 and §15.35(b) for peak measurements.

### 4.2.1 Test Procedure

The EUT was placed on motorized turntable for radiated testing on a 3-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Receiving antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The peripherals were placed on the table in accordance with ANSI C63.4-2014. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The emissions were measured using the following resolution bandwidths:

**Table 6: Spectrum Analyzer Settings**

Frequency Range	Resolution Bandwidth	Video Bandwidth
30MHz-1000 MHz	120kHz	>100 kHz
>1000 MHz	1 MHz	<10 Hz (Avg.), 1MHz (Peak)



**Table 7: Radiated Emission Test Data**

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
31.15	V	90.00	1.00	36.25	-5.4	34.8	100.0	-9.2	0
64.03	V	0.00	1.00	41.07	-17.9	14.4	100.0	-16.8	0
110.59	V	180.00	1.00	36.64	-12.6	16.0	150.0	-19.4	0
165.90	V	270.00	1.00	34.71	-13.1	12.0	150.0	-21.9	0
168.32	V	270.00	1.00	35.90	-13.2	13.7	150.0	-20.8	0
182.60	V	90.00	1.00	36.88	-13.7	14.5	150.0	-20.3	0
238.38	V	180.00	1.00	37.84	-12.7	18.0	200.0	-20.9	0
250.00	V	270.00	1.00	36.00	-12.7	14.6	200.0	-22.7	0
333.73	V	270.00	1.00	37.38	-9.8	24.0	200.0	-18.4	0
2193.00	V	0.00	0.00	43.68	-1.8	124.7	5000.0	-32.1	PEAK
2193.00	V	0.00	0.00	33.68	-1.8	39.4	500.0	-22.1	AVG
2396.6700	V	180.00	1.00	46.20	-4.8	117.7	5,000.0	-32.6	PEAK
2396.6700	V	180.00	1.00	45.67	-4.8	110.6	500.0	-13.1	AVG
2399.1600	V	180.00	1.00	49.79	-4.8	178.5	5,000.0	-28.9	PEAK
2399.1600	V	180.00	1.00	48.60	-4.8	155.7	500.0	-10.1	AVG
2400.0000	V	180.00	1.00	49.39	-4.7	170.7	5,000.0	-29.3	PEAK
2400.0000	V	180.00	1.00	48.26	-4.7	149.9	500.0	-10.5	AVG
2483.5000	V	180.00	1.00	48.39	-5.6	138.5	5,000.0	-31.1	PEAK
2483.5000	V	180.00	1.00	48.32	-5.6	137.4	500.0	-11.2	AVG
2486.0940	V	180.00	1.00	52.20	-5.6	214.2	5,000.0	-27.4	PEAK
2486.0940	V	180.00	1.00	52.45	-5.6	220.5	500.0	-7.1	AVG
2487.1220	V	180.00	1.00	53.64	-5.6	252.6	5,000.0	-25.9	PEAK
2487.1220	V	180.00	1.00	52.50	-5.6	221.5	500.0	-7.1	AVG
2490.7540	V	180.00	1.00	50.81	-5.6	181.6	5,000.0	-28.8	PEAK
2490.7540	V	180.00	1.00	48.60	-5.6	140.8	500.0	-11.0	AVG
4803.94	H	0.00	0.00	48.85	1.5	328.3	500.0	-3.7	Peak
4879.94	H	0.00	0.00	44.64	1.8	208.9	500.0	-7.6	Peak
4960.00	H	0.00	0.00	46.80	2.1	279.9	500.0	-5.0	Peak
									0
32.00	H	0.00	4.00	33.22	-6.0	22.9	100.0	-12.8	0
66.36	H	90.00	4.00	42.00	-17.6	16.5	100.0	-15.6	0
110.62	H	90.00	4.00	39.15	-12.6	21.4	150.0	-16.9	0
137.74	H	180.00	4.00	37.12	-11.7	18.6	150.0	-18.1	0
165.90	H	270.00	4.00	38.40	-13.1	18.4	150.0	-18.2	0
238.39	H	270.00	2.30	36.32	-12.7	15.1	200.0	-22.4	0
250.00	V	270.00	4.00	33.98	-12.7	11.6	200.0	-24.7	0
333.73	V	270.00	4.00	34.78	-9.8	17.8	200.0	-21.0	0
2192.68	H	0.00	4.00	45.59	-1.8	155.4	5000.0	-30.2	PEAK
2192.68	H	0.00	4.00	32.42	-1.8	34.1	500.0	-23.3	AVG



2400.0000	H	180.00	1.00	44.48	-4.7	97.0	500.0	-14.2	
2483.5000	H	180.00	1.00	48.09	-5.6	133.8	500.0	-11.4	
2485.5100	H	180.00	1.00	51.75	-5.6	203.5	500.0	-7.8	
2490.5620	H	180.00	1.00	53.07	-5.6	235.6	500.0	-6.5	
2399.3060	H	180.00	1.00	44.38	-4.8	95.8	500.0	-14.4	
2400.0000	H	180.00	1.00	43.20	-4.7	83.7	500.0	-15.5	
2483.5000	H	180.00	1.00	47.53	-5.6	125.4	500.0	-12.0	
2485.5100	H	180.00	1.00	50.55	-5.6	177.3	500.0	-9.0	
2490.5620	H	180.00	1.00	54.00	-5.6	262.2	500.0	-5.6	
2399.3060	H	180.00	1.00	43.92	-4.8	90.8	500.0	-14.8	
2400.0000	H	180.00	1.00	44.48	-4.7	97.0	500.0	-14.2	
2483.5000	H	180.00	1.00	48.09	-5.6	133.8	500.0	-11.4	
4803.94	H	0.00	1.50	45.75	-1.1	170.0	500.0	-9.4	Peak
4879.94	H	0.00	1.50	42.07	-0.8	115.5	500.0	-12.7	Peak
4960.00	H	0.00	1.50	44.80	-0.4	165.3	500.0	-9.6	Peak

Equipment harmonics were investigated measured in Peak



**Table 8: 15.249 mV Power Requirements All Channels**

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (mV/m)	Limit (mV/m)	Margin (dB)	Comments
2401.96	V	0.00	0.00	87.29	-10.9	6.6	50.0	-17.6	Low-CW
2439.97	V	0.00	0.00	91.20	-10.5	10.9	50.0	-13.3	Mid-CW
2480.00	V	0.00	0.00	90.58	-10.0	10.7	50.0	-13.4	High-CW
2401.96	V	0.00	0.00	90.03	-10.9	9.0	50.0	-14.9	Low-MOD-Peak
2439.97	V	0.00	0.00	90.65	-10.5	10.2	50.0	-13.8	Mid-MOD-Peak
2480.00	V	0.00	0.00	91.46	-10.0	11.8	50.0	-12.5	High-MOD-Peak
2401.96	V	180.00	1.00	87.29	0.2	23.6	50.0	-6.5	Low-MOD AVG
2439.97	V	180.00	1.00	85.44	-0.1	18.4	50.0	-8.7	Mid-MOD-AVG
2480.00	V	180.00	1.00	86.45	-0.4	20.0	50.0	-8.0	High-MOD AVG
2401.96	H	0.00	1.00	91.22	-10.9	10.3	50.0	-13.7	Low-CW
2439.97	H	270.00	1.00	90.66	-10.5	10.2	50.0	-13.8	Mid-CW
2480.00	H	90.00	1.20	87.33	-10.0	7.3	50.0	-16.7	High-CW
2401.96	H	0.00	1.10	93.65	-10.9	13.7	50.0	-11.2	Low-MOD-Peak
2439.97	H	0.00	1.50	86.96	-10.5	6.7	50.0	-17.5	Mid-MOD-Peak
2480.00	H	0.00	1.50	88.29	-10.0	8.2	50.0	-15.7	High-MOD-Peak
2401.96	H	180.00	1.00	81.46	0.2	12.1	50.0	-12.3	Low-MOD AVG
2439.97	H	180.00	1.00	84.85	-0.1	17.2	50.0	-9.2	Mid-MOD-AVG
2480.00	H	180.00	1.00	80.36	-0.4	9.9	50.0	-14.1	High-MOD AVG



**Photograph 2: Radiated Emissions Test Setup**



Photograph 3: Radiated Emissions Test Setup

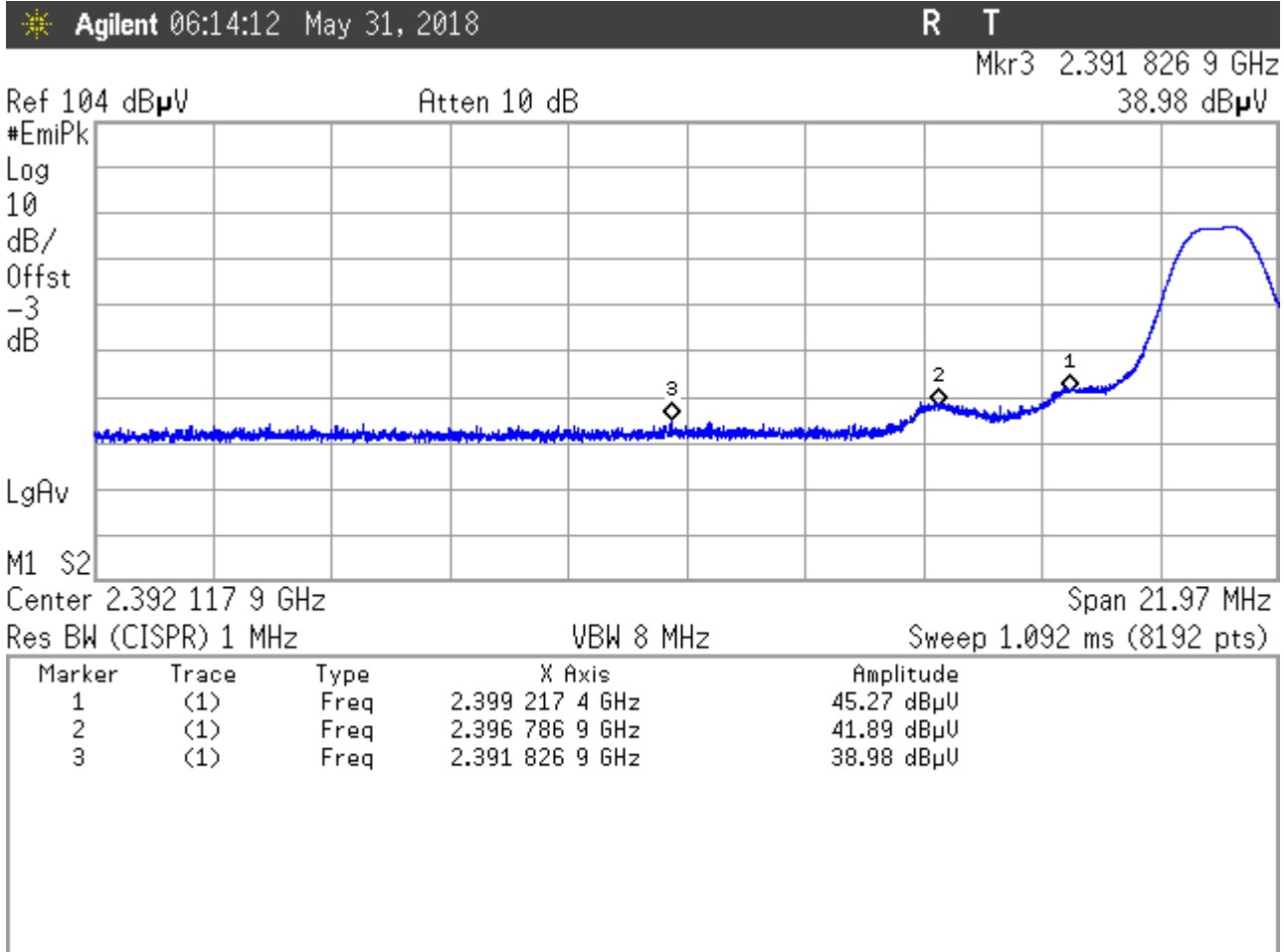




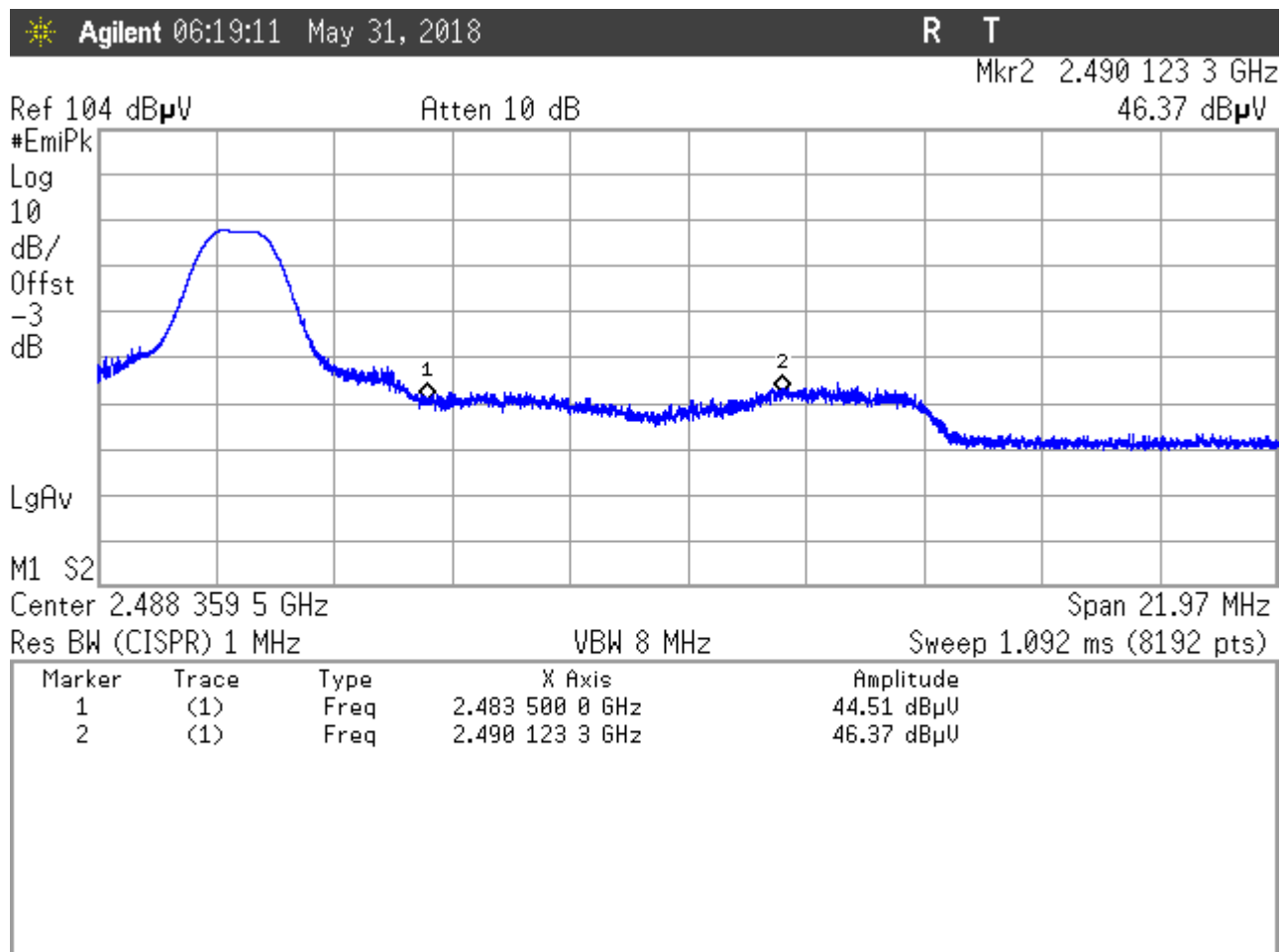
**Photograph 4: Radiated Emissions Test Setup**



Photograph 5: Radiated Emissions Test Setup



Photograph 6: Lower Band Edge



Photograph 7: Higher Band Edge

### 4.3 RECEIVER RADIATED SPURIOUS EMISSIONS: (RSS-210 SECT 2.6)

The EUT must comply with the requirements for radiated spurious emissions that fall within the restricted bands. These emissions must meet the limits specified in §15.109 and §15.35(b) for peak measurements.

#### 4.3.1 Test Procedure

The EUT was placed on motorized turntable for radiated testing on a 3-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Receiving antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The peripherals were placed on the table in accordance with ANSI C63.4-2014. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The emissions were measured using the following resolution bandwidths:



**Table 9: Spectrum Analyzer Settings**

<b>Frequency Range</b>	<b>Resolution Bandwidth</b>	<b>Video Bandwidth</b>
30MHz-1000 MHz	120kHz	>100 kHz
>1000 MHz	1 MHz	10 Hz (Avg.), 1MHz (Peak)

Average measurements above 1GHz were made with the Spectrum analyzer set to the linear mode with a Video bandwidth of 10Hz, and the resultant reading mathematically converted to dBuV. Correction factors were then applied and the resulting value was compared to the limit.



**Table 10: Radiated Emission Test Data, Receiver**

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
110.54	V	0.0	1.0	35.0	-12.6	13.2	150.0	-21.1	
140.44	V	0.0	1.0	32.7	-12.0	10.9	150.0	-22.8	
195.07	V	45.0	1.0	34.6	-13.0	12.0	150.0	-21.9	
276.50	V	45.0	1.0	32.3	-10.8	11.9	200.0	-24.5	
333.79	V	180.0	1.0	33.0	-9.8	14.5	200.0	-22.8	
2193.53	V	0.0	1.0	40.7	-1.8	88.4	500.0	-15.0	PEAK
2193.53	V	0.0	1.0	38.5	-1.8	68.7	500.0	-17.2	AVG
110.60	H	0.0	4.0	33.6	-12.6	11.2	150.0	-22.5	
143.04	H	90.0	4.0	39.3	-12.2	22.5	150.0	-16.5	
195.25	H	0.0	4.0	33.9	-13.0	11.1	150.0	-22.6	
238.39	H	90.0	4.0	34.9	-12.7	12.8	200.0	-23.9	
297.03	H	180.0	4.0	28.6	-10.8	7.8	200.0	-28.2	
333.71	H	180.0	3.7	28.0	-9.8	8.1	200.0	-27.8	
2185.76	H	180.0	4.0	37.2	-1.8	58.9	500.0	-18.6	PEAK
2185.76	H	180.0	4.0	35.2	-1.8	46.8	500.0	-20.6	AVG