

Report on the FCC and ISED Testing of the  
 Current Products Corp.  
 CP19MTDF-01

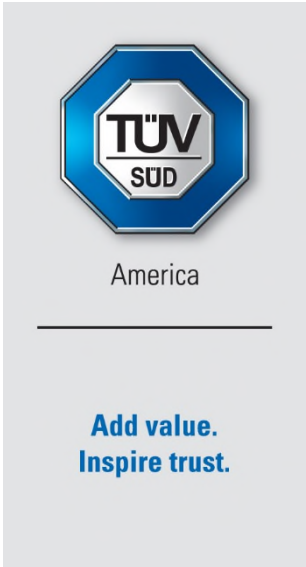
In accordance with FCC Rule Part 15.231 & ISED  
 Radio Standard RSS-210

Prepared for: Current Products Corp.  
 1995 Hollywood Ave  
 Pensacola, FL 32505

FCC ID: 2AJXX100176 IC: 22151-CP19MTDF01

COMMERCIAL-IN-CONFIDENCE

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EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC Rule Part 15.231, ISED Radio Standard RSS-210



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## 1 GENERAL

### 1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15 Subpart C of the FCC's Code of Federal Regulations and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-210.

### 1.2 Manufacturer Information

Current Products Corp.  
1995 Hollywood Ave  
Pensacola, FL 32505

### 1.3 Product description

The Current Products Corp. model CP19MTDF-01 (FM Track) is a track drapery that has a housing attached to one end that holds a motor and board inside. Coming down from the housing is a cable that attaches to a battery tube that can be pulled down or lifted up to manually control the drapery. The battery tube can either have 6 alkaline batteries, 2 different rechargeable batteries, or be configured to have a low voltage adapter plugged in. The device includes a 400 MHz transceiver.

#### Technical Details

Frequency of Operation: 434.62 - 436.02 MHz

Number of Channels: 8

Modulation: 2-FSK

Data Rate: 9.6 kbps

Antenna / Gain: Whip Antenna, 5.19 dBi

Input Voltage: 7VDC - 12 VDC (Power supply and type D Batteries)

Test Sample Serial Number(s): 2 (radiated and power line conducted emissions), N/A Timing Measurements

Test Sample Condition: The samples were in good operating condition without any physical damage.

### 1.4 Test Methodology and Considerations

The EUT was evaluated for radiated, RF and power line conducted Emissions using a test power setting of 0x60.

For the radiated and power line conducted emissions, the EUT was configured on a fixture representative of typical installation.

The bandwidth and timing parameters measurements were performed on the main PCB. The PCB was configured with a temporary connector which allowed direct coupling to the spectrum analyzer.

The unit is marketed with multiple power accessories configurations. Preliminary measurements were performed for the power supplies and the results reported correspond to the worst case. Additional information about the power supplies are described in the unintentional emissions test report.

Ferrite clamps as depicted in report sections 5 and 6 were attached to the power supplies cables in order to meet the unintentional emissions requirements. Compliance to the unintentional emissions test requirements are documented in a supplier's declaration of conformity test report.

## **2 TEST FACILITIES**

### **2.1 Location**

The radiated and conducted emissions test sites are located at the following address:

TÜV SÜD America, Inc.  
3998 FAU Blvd, Suite 310  
Boca Raton, Florida 33431  
Phone: (561) 961-5585  
Fax: (561) 961-5587  
<http://www.tuv-sud-america.com>

Innovation, Science and Economic Development Canada Lab Code: 4175C

### **2.2 Laboratory Accreditations/Recognitions/Certifications**

TÜV SÜD America, Inc. is accredited to ISO/IEC 17025 by American Association for Laboratory Accreditation (A2LA) and has been issued certificate number 2955.15 in recognition of this accreditation. Unless otherwise specified, all test methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

Main Site Information:

TÜV SÜD America, Inc.  
5610 West Sligh Ave., Suite 100  
Tampa, FL 33634  
Phone: 813-284-2715  
[www.tuv-sud-america.com](http://www.tuv-sud-america.com)

FCC Designation Number US1063  
FCC Test Firm Registration #: 160606  
Innovation, Science, and Economic Development Canada Lab Code: 2087A-2

**2.3 Radiated & Conducted Emissions Test Site Description**

**2.3.1 Semi-Anechoic Chamber Test Site**

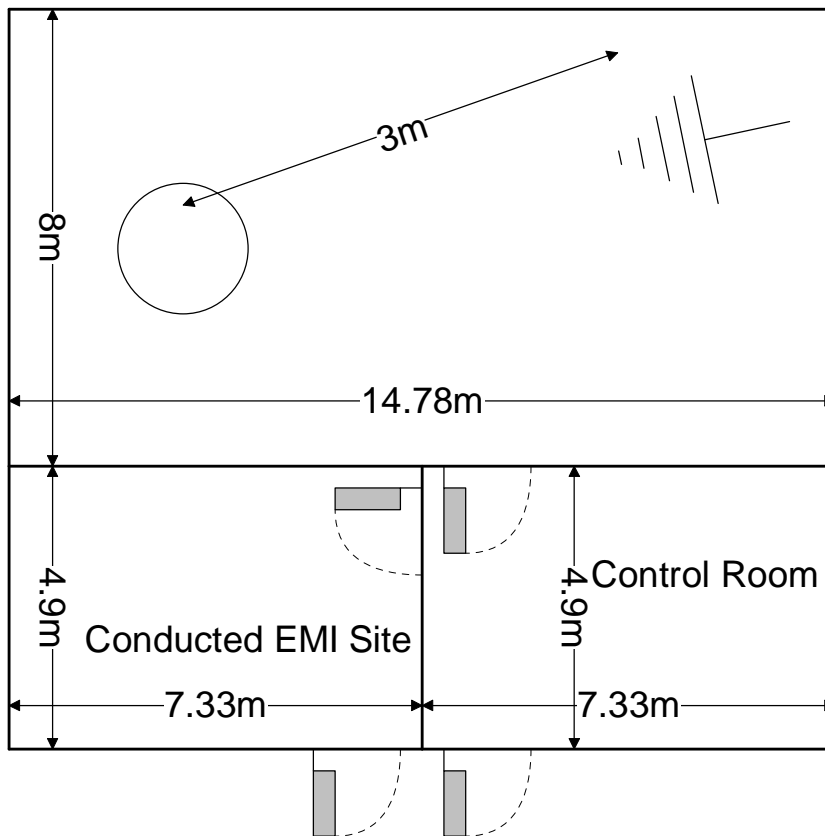
The EMC radiated test facility consists of an RF-shielded enclosure. The interior dimensions of the indoor semi-anechoic chamber are approximately 48 feet (14.6 m) long by 36 feet (10.8 m) wide by 24 feet (7.3 m) high and consist of rigid, 1/8 inch (0.32 cm) steel-clad, wood core modular panels with steel framing. In the shielded enclosure, the faces of the panels are galvanized and the chamber is self-supporting. 8-foot RF absorbing cones are installed on 4 walls and the ceiling. The steel-clad ground plane is covered with vinyl flooring.

The turntable is driven by pneumatic motor, which can support a 2000 lb. load. The turntable is flush with the chamber floor which it is connected to, around its circumference, with a continuous metallic loaded spring. An EMCO Model 1060 Multi-device Controller controls the turntable position.

A pneumatic motor is used to control antenna polarizations and height relative to the ground. The height information is displayed on the control unit EMCO Model 1050.

The control room is an RF shielded enclosure attached to the semi-anechoic chamber with two bulkhead panels for connecting RF, and control cables. The dimension of the room is 7.3 m x 4.9 m x 3 m high and the entrance doors of both control and conducted rooms are 3 feet (0.91 m) by 7 feet (2.13 m).

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3.1-1 below:



**Figure 2.3.1-1: Semi-Anechoic Chamber Test Site**

### 2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are 7.3 x 4.9 x 3 m<sup>3</sup>. The power line conducted emission site includes two LISNs: a Solar Model 8028-50 50 Ω/50 μH and an EMCO Model 3825/2R, which are installed as shown in the figure below. For evaluations requiring 230 V, 50 Hz AC input, a Polarad LISN (S/N 879341/048) is used in conjunction with a California Instruments signal generator Model 2001RP-OP1.

A diagram of the room is shown below in figure 2.3.2-1:

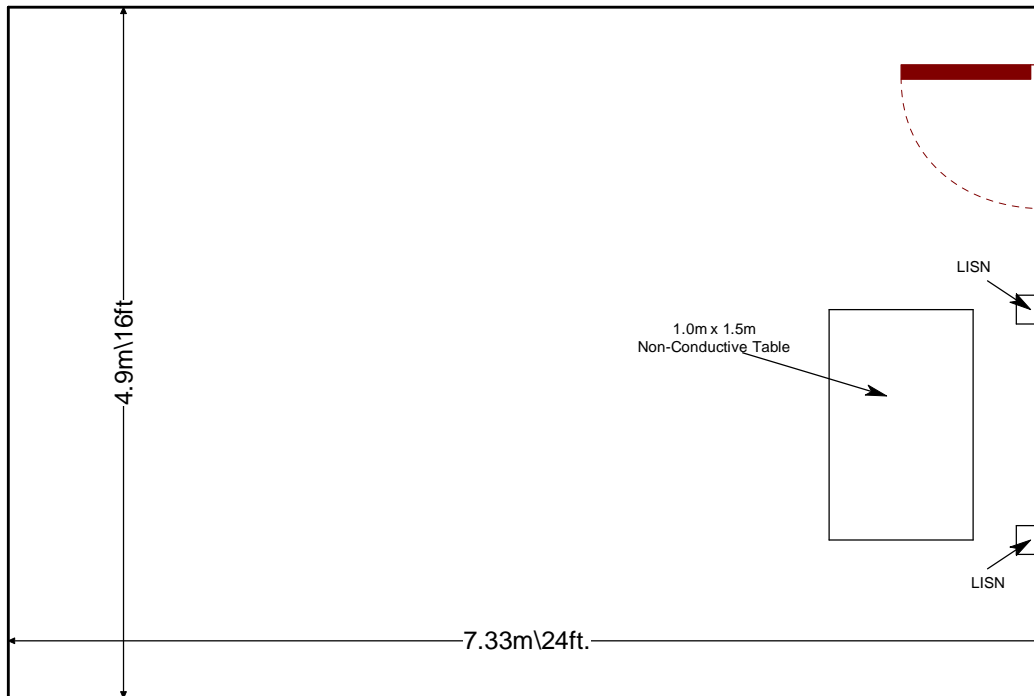


Figure 2.3.2-1: AC Mains Conducted EMI Site

## 3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ❖ ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2017.
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2017.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 4, November 2014.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-210 - Licence-Exempt Radio Apparatus: Category I Equipment, Issue 9 August 2016.

## 4 LIST OF TEST EQUIPMENT

The calibration interval of test equipment is annually or the manufacturer's recommendations. Where the calibration interval deviates from the annual cycle based on the instrument manufacturer's recommendations, it shall be stated below.

**Table 4-1: Test Equipment**

AssetID	Manufacturer	Model #	Equipment Type	Serial #	Last Calibration Date	Calibration Due Date
BEMC00283	Rohde & Schwarz	FSP40	Spectrum Analyzer	1000033	11/28/2017	11/28/2019
BEMC00523	Agilent	E7405A	9kHz-26.5GHz EMC analyzer/HYZ	MY45103293	12/9/2016	12/9/2018
BEMC02002	EMCO	3108	30 MHz to 200 MHz Biconical Antenna	2147	11/28/2017	11/30/2019
BEMC02004	EMCO	3146	200 MHz to 1 GHz Log Periodic Antenna	1385	12/27/2017	12/27/2019
BEMC02006	EMCO	3115	Linear Polarized Horn antenna, 1-18 GHz	2573	4/7/2017	4/7/2019
BEMC02011	Hewlett-Packard	HP 8447D	100 kHz to 1.3 GHz low-noise, high gain amplifier	2443A03952	10/27/2017	10/27/2018
BEMC02022	EMCO	LISN3825/2R	Line Impedance Stabilization Network	1095	9/28/2017	9/28/2019
BEMC02045	ACS Boca	Conducted Cable Set	Consists of cables 2046, 2047, 2062, 2063 and 2065	2045	10/26/2017	10/27/2018
BEMC02073	Mini Circuits	NHP-800	High Pass Filter	10247	11/27/2017	11/27/2018
BEMC02094	Mini Circuits	SHP-1000+	High Pass Filter, 1000-3000 MHz, 50 OHM	R UU27401137	2/28/2018	2/28/2019
BEMC02095	ETS Lindgren	TILE4! - Version 4.2.A	Tile Automation Software	85242	NCR	NCR
BEMC02110	Aeroflex Inmet	40AH2W-10	Attenuator 10dB, 2.9 mm-M/F, DC-40GHz 2 W	2110	8/5/2018	8/5/2019
BEMC02112	Teledyne Storm Products	921-0101-036	Duratest High Frequency Cable Max. frequency 26.5GHz	12-06-698	10/27/2017	10/27/2018
BEMC02121	Teledyne Storm Products	A81-0303	Radiated Cable Set	2121	7/26/2018	7/26/2019
BEMC02138	Hewlett Packard	8449B	Pre-Amplifier	3008A00320	12/1/2017	12/1/2018
BEMC03004	Teseq	CFL 9206A	Transient Filter Limiter 9kHz - 30MHz	34720	8/10/2018	8/10/2019

**Notes:**

- NCR=No Calibration Required
- The assets calibration cycle information is provided to cover the entire test period. The assets were only used during the active period of the calibration cycle.

## 5 SUPPORT EQUIPMENT

Table 5-1: EUT and Support Equipment – Radiated Emissions

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Current Products Corp.	CP19MTDF-01	2
2	Secondary Motor	Current Products Corp.	N/A	FCC Testing A
3	Battery Tube	Current Products Corp.	N/A	N/A
4	2xFerrites	FAIR-RITE	0431167281	N/A
5	12 VDC Power Supply	N/A	DNK-1204000	N/A

Table 5-2: Cable Description – Radiated Emissions

Cable #	Cable Type	Length	Shield	Termination
A	Power Cable	0.22 m	No	EUT to Secondary Motor
B	Power Cable	0.65 m	No	EUT to Battery Tube
C	Power Cable	1.9 m	No	Power Supply to Battery Tube
D	Extension Cord	2.73 m	No	Power Supply to AC Mains

Table 5-3: EUT and Support Equipment – Conducted Emissions

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Current Products Corp.	CP19MTDF-01	2
2	Secondary Motor	Current Products Corp.	N/A	FCC Testing A
3	Battery Tube	Current Products Corp.	N/A	N/A
4	Ferrite	FAIR-RITE	0431164281	N/A
5	8.4 VDC Power Supply	DSS	DSS12D-0841000-E	N/A

Table 5-4: Cable Description – Conducted Emissions

Cable #	Cable Type	Length	Shield	Termination
A	Power Cable	0.22 m	No	EUT to Secondary Motor
B	Power Cable	0.65 m	No	EUT to Battery Tube
C	Power Cable	2.0 m	No	Power Supply to Battery Tube
D	Extension Cord	2.73 m	No	Power Supply to AC Mains



## 6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

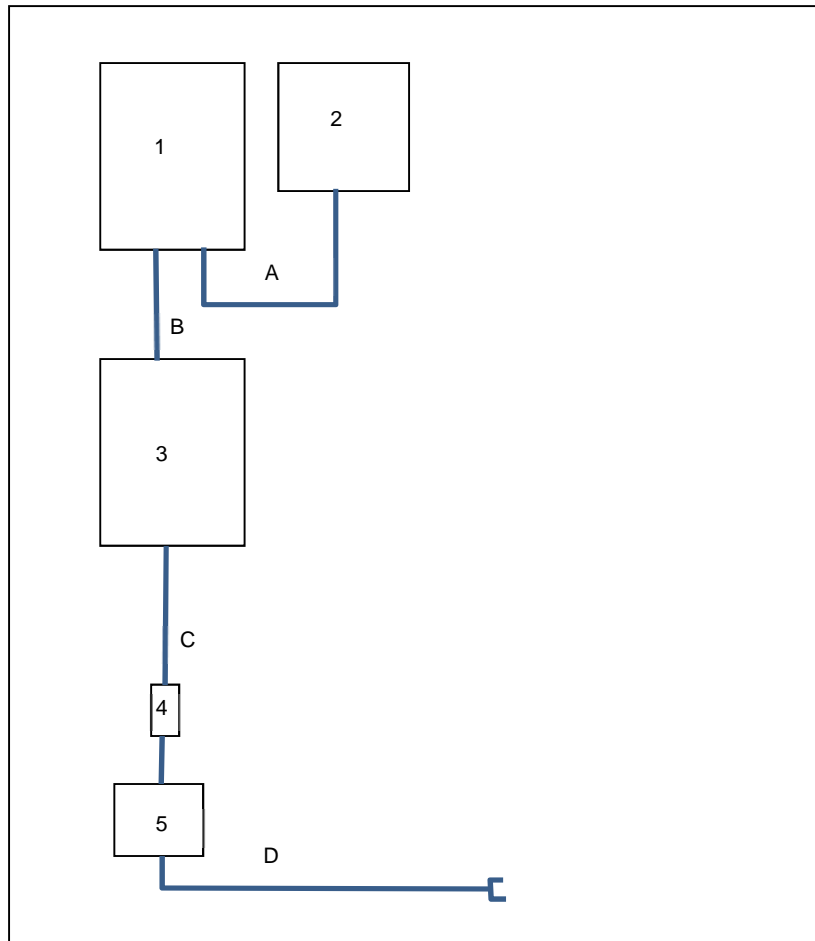


Figure 6-1: EUT Test Setup Block Diagram

## 7 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

Test Begin Date: August 16, 2018  
Test End Date: October 23, 2018

**Table 7-1: Summary of Tests**

Test Description	FCC 47 CFR Rule Part	ISED Canada RSS Section	Test Results
Antenna Requirements	FCC: Section 15.203		Compliant
20dB / 99% Bandwidth	FCC: Section 15.231(c)	ISED Canada: RSS-210 A.1.3	Compliant
Field Strength of Fundamental and Spurious Emissions	FCC: Sections 15.231(b)	ISED Canada: RSS-210 A.1.2	Compliant
Periodic Operation	FCC: Sections 15.231(a)	ISED Canada: RSS-210 A.1.1	Compliant
Power Line Conducted Emissions	FCC: Section 15.207	ISED Canada: RSS-Gen 8.8	Compliant

### 7.1 Antenna Requirement – FCC: Section 15.203

The EUT uses a 5.19 dBi whip antenna which is directly soldered to the PCB. The antenna is not readily removable and therefore meets the requirements of FCC Section 15.203.

### 7.2 20dB / 99% Bandwidth: FCC: Section 15.231(c); ISED Canada: RSS-210 A.1.3

#### 7.2.1 Measurement Procedure

The spectrum analyzer span was set to 2 to 5 times the estimated bandwidth of the emission. The RBW was set from 1% to 5% of the estimated emission bandwidth. The trace was set to max hold with a peak detector active. The 20-dB function of the analyzer was utilized to determine the 20-dB bandwidth of the emission.

The 99% occupied bandwidth was measured with the spectrum analyzer span set to fully display the emission, including the emissions skirts. The RBW was set from 1% to 5% of the estimated 99% bandwidth. The occupied 99% bandwidth was measured by using the occupied bandwidth function of the spectrum analyzer set to 99% with a peak detector.

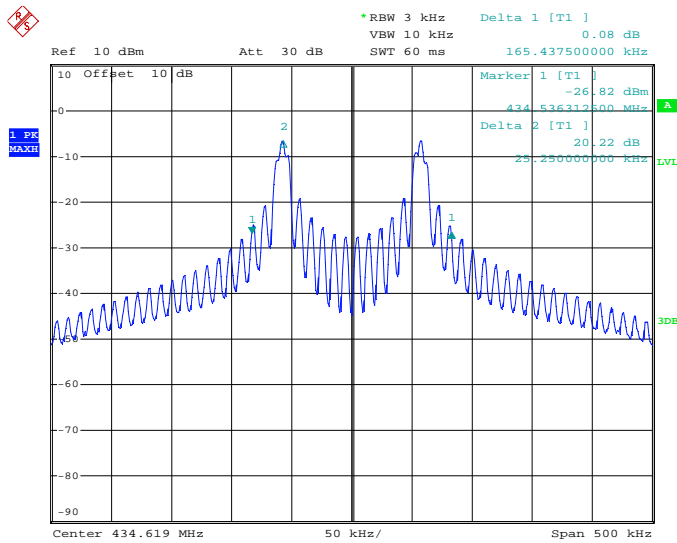
#### 7.2.2 Measurement Results

0.25% of the 434.62 MHz center frequency is equivalent to 1.09 MHz. Therefore the 20 dB and 99% bandwidths of the emission are less than 0.25% of the center frequency.

Performed by: Thierry Jean-Charles

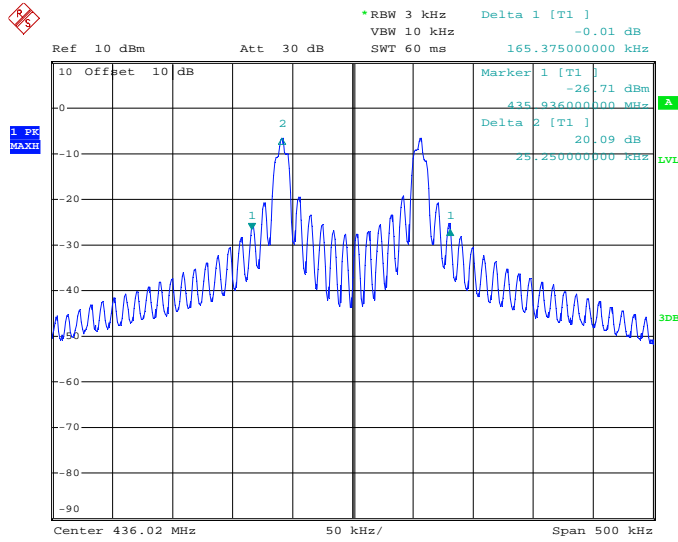
Table 7.2.2-1: 20dB / 99% Bandwidth

Frequency [MHz]	20dB Bandwidth [kHz]	99% Bandwidth [kHz]
434.62	165.4375	183.75
436.02	165.3750	183.50



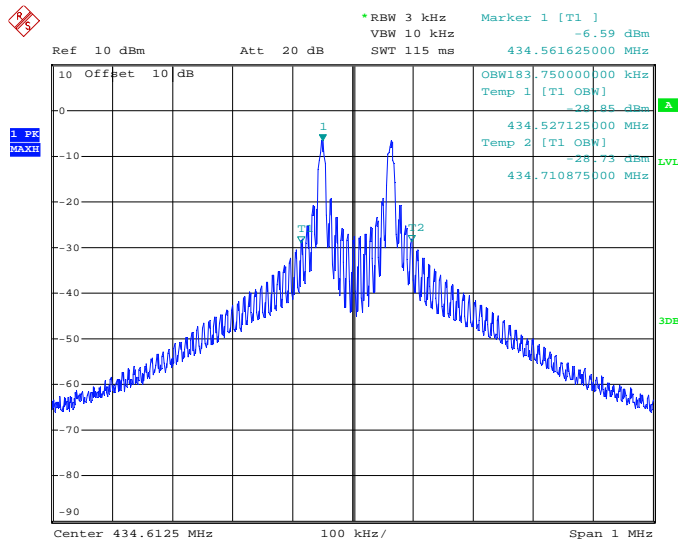
Date: 16.AUG.2018 17:27:22

Figure 7.2.2-1: 20dB Bandwidth



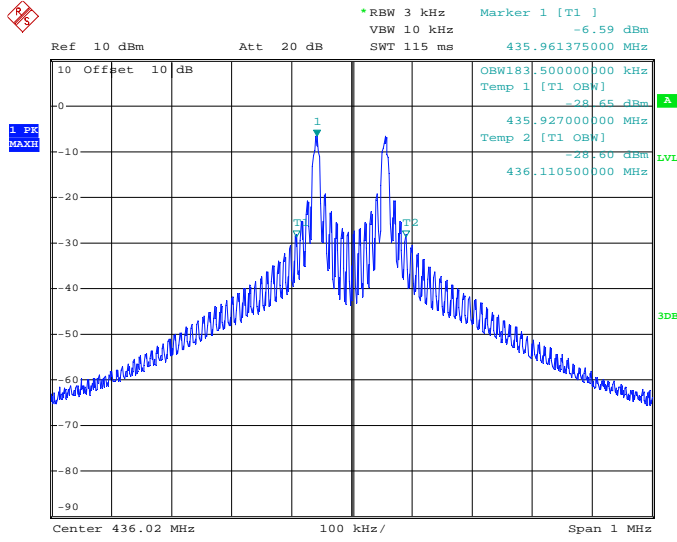
Date: 16.AUG.2018 17:39:26

Figure 7.2.2-2: 20dB Bandwidth



Date: 16.AUG.2018 17:19:52

Figure 7.2.2-3: 99% Bandwidth



Date: 16.AUG.2018 17:51:28

Figure 7.2.2-4: 99% Bandwidth

**7.3 Radiated Spurious Emissions – FCC: Section 15.231(b); ISED Canada: RSS-210 A.1.2****7.3.1 Measurement Procedure**

Radiated emissions tests were made over the frequency range of 9 kHz to 5 GHz, 10 times the highest fundamental frequency.

Measurements below 30 MHz were performed in a semi-anechoic chamber with a 3-meter separation distance between the EUT and measurement antenna. The EUT was rotated 360° to maximize each emission. The magnetic loop receiving antenna was positioned with its lowest point 1 meter above the ground. The loop antenna was aligned along the site axis, orthogonal to the site axis, and ground-parallel to the site axis.

The spectrum analyzer's resolution and video bandwidths were set to 200 Hz and 1000 Hz respectively for frequencies below 150 kHz and 9 kHz and 30 kHz respectively for frequencies above 150 kHz and below 30 MHz.

For measurements above 30 MHz, the EUT was rotated through 360° and the receive antenna height was varied from 1 meter to 4 meters so that the maximum radiated emissions level would be detected. For frequencies below 1000 MHz, measurements were made using a resolution bandwidth (RBW) of 120 kHz and a video bandwidth (VBW) of 300 kHz. For frequencies above 1000 MHz, measurements were made with RBW of 1 MHz and a VBW of 3 MHz.

An average detector was used for all measurement. The peak emissions were also compared to a limit corresponding to 20 dB above the maximum permitted average limit according to Part 15.35. The final measurements were then corrected by antenna correction factors and cable loss for comparison to the limits. Further, compliance with the provisions of 15.205 was demonstrated using the measurement instrumentation specified in that section where applicable.

**7.3.2 Duty Cycle Correction**

A Duty Cycle Correction of 30% corresponding to  $20 \cdot \log(30/100) = -10.46$  dB was applied to the average measurements for the corrected average results. The justification of the duty cycle is provided in the equipment's theory of operation document.

**7.3.3 Measurement Results**

Performed by: Thierry Jean-Charles, Jean Rene

Radiated spurious emissions found in the band of 9 kHz to 5 GHz are reported.

**Table 7.3.3-1: Radiated Spurious Emissions Tabulated Data – Low Channel**

Frequency (MHz)	Level (dBuV)		Antenna Polarity (H/V)	Correction Factors (dB)	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	avg			pk	avg	pk	avg	pk	avg
<b>Fundamental Frequency</b>										
434.62	71.32	71.32	H	18.35	89.67	79.21	100.8	80.8	11.1	1.6
434.62	71.97	71.97	V	18.35	90.32	79.86	100.8	80.8	10.5	0.9
<b>Spurious Emissions</b>										
869.24	35.83	35.83	H	-1.52	34.31	23.86	80.8	60.8	46.5	36.9
869.24	38.58	38.58	V	-1.52	37.06	26.61	80.8	60.8	43.7	34.2
1303.86	42.91	42.91	H	-4.67	38.24	27.78	74	54	35.8	26.2
1303.86	42.65	42.65	V	-4.67	37.98	27.52	74	54	36.0	26.5
2173.1	43.29	43.29	H	0.75	44.04	33.58	80.8	60.8	36.8	27.2
2173.1	43.50	43.50	V	0.75	44.25	33.79	80.8	60.8	36.6	27.0
2607.72	39.62	39.62	H	1.89	41.51	31.05	80.8	60.8	39.3	29.7
2607.72	40.35	40.35	V	1.89	42.24	31.78	80.8	60.8	38.6	29.0
3476.96	39.65	39.65	H	4.87	44.52	34.06	80.8	60.8	36.3	26.7
3476.96	39.12	39.12	V	4.87	43.99	33.53	80.8	60.8	36.8	27.3
3911.58	39.05	39.05	H	6.72	45.77	35.31	74	54	28.2	18.7
3911.58	39.00	39.00	V	6.72	45.72	35.26	74	54	28.3	18.7

**Notes:**

- The fundamental emissions were measured using RBW = 1 MHz which is greater than the measured occupied bandwidth.
- A duty cycle correction factor of -10.46 dB was applied to the peak measurements for the average spurious emissions levels.

**Table 7.3.3-2: Radiated Spurious Emissions Tabulated Data – High Channel**

Frequency (MHz)	Level (dBuV)		Antenna Polarity (H/V)	Correction Factors (dB)	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	avg			pk	avg	pk	avg	pk	avg
<b>Fundamental Frequency</b>										
436.02	70.40	70.40	H	18.40	88.80	78.34	100.9	80.9	12.1	2.6
436.02	70.88	70.88	V	18.40	89.28	78.82	100.9	80.9	11.6	2.1
<b>Spurious Emissions</b>										
872.04	37.74	37.74	H	-1.55	36.19	25.73	80.9	60.9	44.7	35.2
872.04	38.39	38.39	V	-1.55	36.84	26.38	80.9	60.9	44.1	34.5
1308.06	42.84	42.84	H	-4.65	38.19	27.73	74	54	35.8	26.3
1308.06	43.46	43.46	V	-4.65	38.81	28.35	74	54	35.2	25.6
2180.1	43.75	43.75	H	0.76	44.51	34.05	80.9	60.9	36.4	26.8
2180.1	43.76	43.76	V	0.76	44.52	34.06	80.9	60.9	36.4	26.8
2616.12	40.44	40.44	H	1.92	42.36	31.90	80.9	60.9	38.5	29.0
2616.12	40.53	40.53	V	1.92	42.45	31.99	80.9	60.9	38.5	28.9
3488.16	39.24	39.24	H	4.91	44.15	33.69	80.9	60.9	36.7	27.2
3488.16	39.32	39.32	V	4.91	44.23	33.77	80.9	60.9	36.7	27.1
3924.18	39.06	39.06	H	6.77	45.83	35.37	74	54	28.2	18.6
3924.18	38.78	38.78	V	6.77	45.55	35.09	74	54	28.4	18.9

**Notes:**

- The fundamental emissions were measured using RBW = 1 MHz which is greater than the measured occupied bandwidth.
- A duty cycle correction factor of -10.46 dB was applied to the peak measurements for the average spurious emissions levels.

### 7.3.4 Sample Calculation

$$R_C = R_U + CF_T$$

Where:

$CF_T$  = Total Correction Factor (AF+CA+AG)-DC (Average Measurements Only)

$R_U$  = Uncorrected Reading

$R_C$  = Corrected Level

AF = Antenna Factor

CA = Cable Attenuation

AG = Amplifier Gain

DC = Duty Cycle Correction Factor

#### Example Calculation: Peak

Corrected Level:  $42.91 + (-4.67) = 38.24$  dB $\mu$ V/m

Margin:  $74.00$  dB $\mu$ V/m –  $38.24$  dB $\mu$ V/m =  $35.76$  dB

#### Example Calculation: Average

Corrected Level:  $42.91 + (-4.67) - 10.46 = 27.78$  dB $\mu$ V/m

Margin:  $54.00$  dB $\mu$ V –  $27.78$  dB $\mu$ V/m =  $26.22$  dB



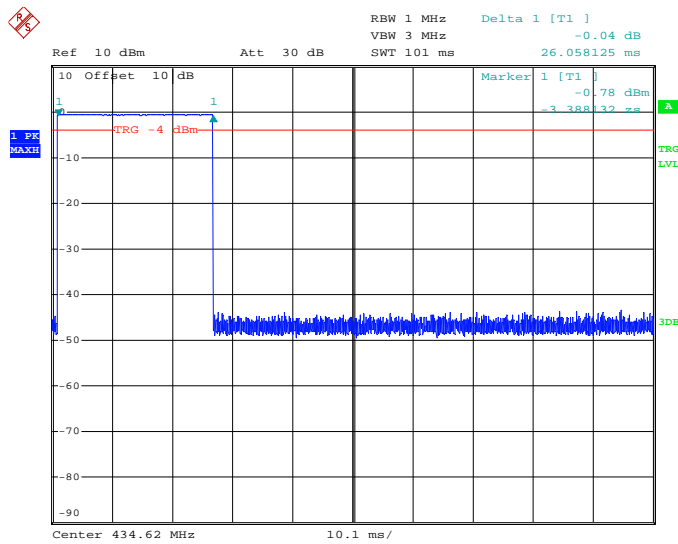
7.4 Periodic Operation – FCC: CFR 47 15.231(a); ISED Canada: RSS-210 A.1.1

7.4.1 Test Methodology

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released. A transmitter activated automatically shall cease transmission within 5 seconds after activation. The transmitter was activated automatically as well as manually and was evaluated using a spectrum analyzer at zero span.

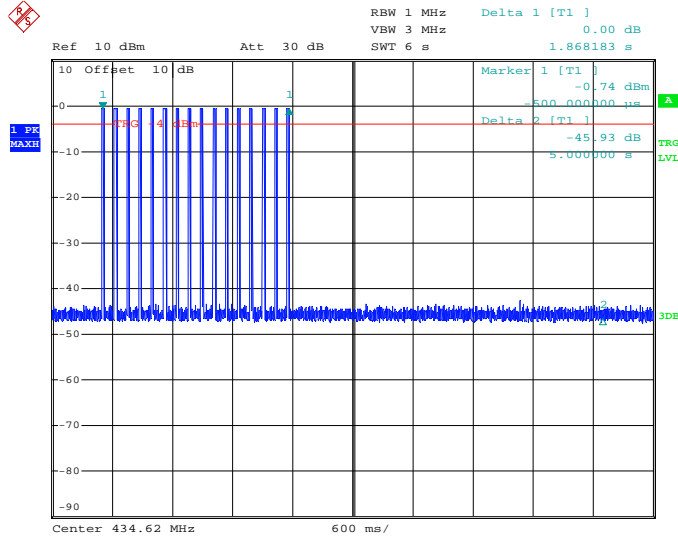
7.4.2 Test Results

Performed by: Thierry Jean-Charles



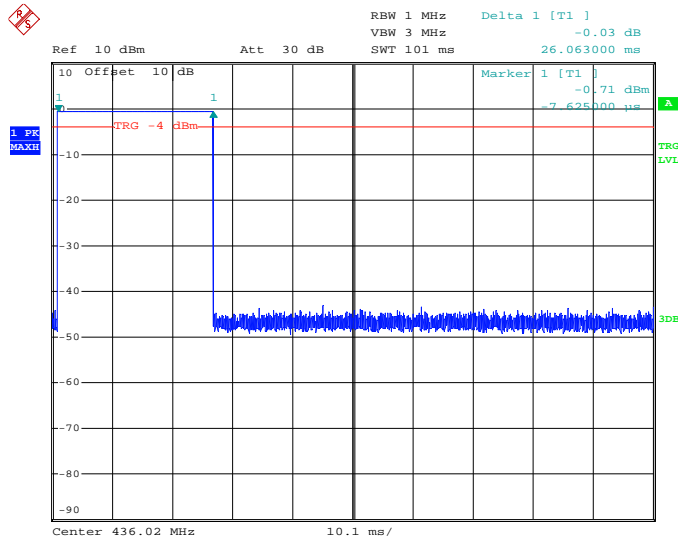
Date: 16.AUG.2018 18:09:23

Figure 7.4.2-1: Periodic Operation –100 Milliseconds – Low Channel



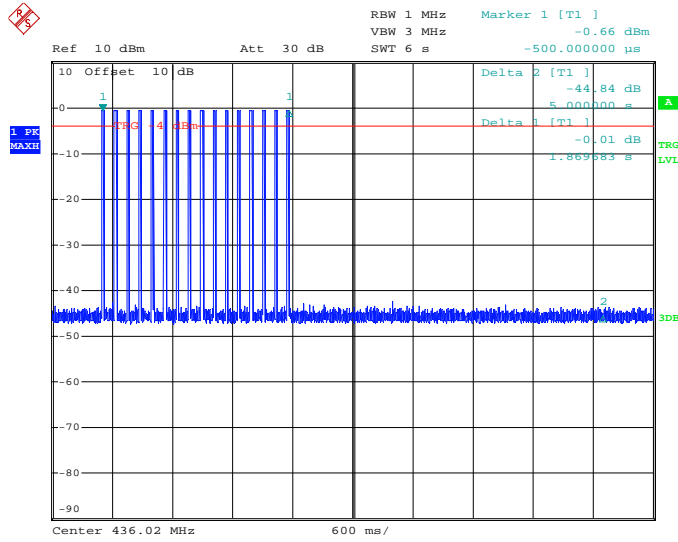
Date: 16.AUG.2018 18:15:18

Figure 7.4.2-2: Periodic Operation – 5 Seconds – Low Channel



Date: 16.AUG.2018 18:51:57

Figure 7.4.2-3: Periodic Operation – 100 Milliseconds – High Channel



Date: 16.AUG.2018 18:48:19

Figure 7.4.2-4: Periodic Operation –5 Seconds – High Channel

7.5 Power Line Conducted Emissions – FCC: Section 15.207; ISED Canada: RSS-Gen 8.8

7.5.1 Measurement Procedure

ANSI C63.10 section 6.2 was the guiding document for this evaluation. Conducted emissions were performed from 150 kHz to 30 MHz with the spectrum analyzer’s resolution bandwidth set to 9 kHz and the video bandwidth set to 30 kHz. The calculation for the conducted emissions is as follows:

$$\text{Corrected Reading} = \text{Analyzer Reading} + \text{LISN Loss} + \text{Cable Loss}$$
$$\text{Margin} = \text{Applicable Limit} - \text{Corrected Reading}$$

7.5.2 Measurement Results

Performed by: Jean Rene

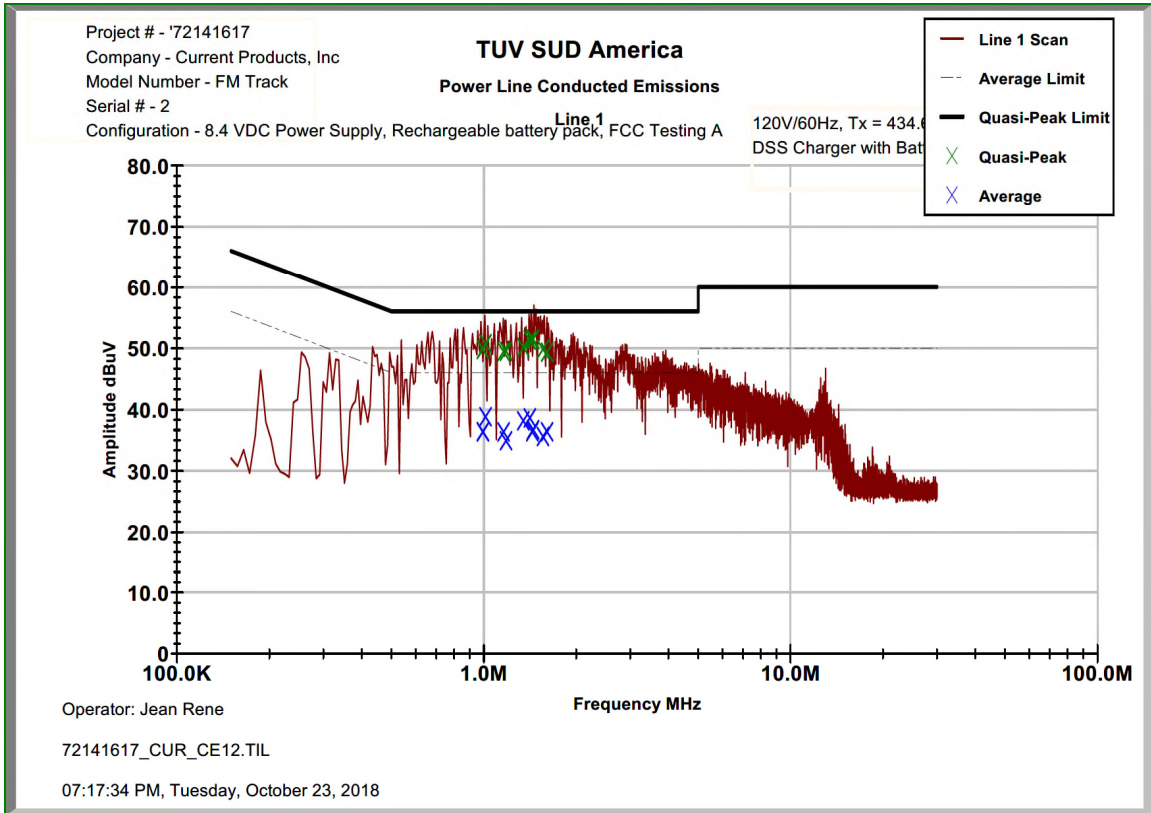


Figure 7.5.2-1: Conducted Emissions Results – Line 1

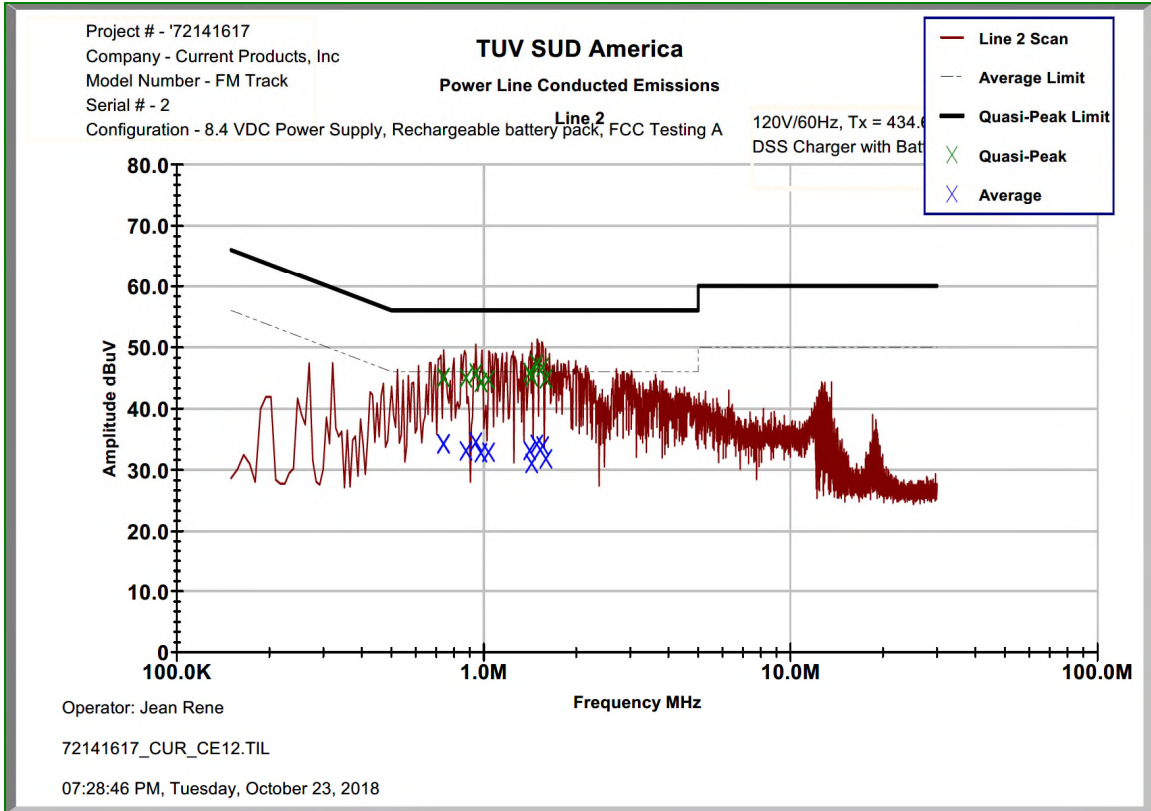


Figure 7.5.2-2: Conducted Emissions Results – Line 2

Table 7.5.2-1: Conducted EMI Results

Line 1  Line 2  Line 3  Line 4  
 To Ground  Floating  
 Telecom Port \_\_\_\_\_  
 dB $\mu$ V  dB $\mu$ A  
 Plot Number: 72141617 CUR CE12  
 Power Supply Description: 8.4 DC Power Supply

Frequency (MHz)	Uncorrected Reading		Total Correction Factor (dB)	Corrected Level		Limit		Margin (dB)	
	Quasi-Peak	Average		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
Line 1									
0.993188	39.782	26.331	10.14	49.92	36.47	56.00	46.00	6.1	9.5
1.01299	40.694	28.8	10.13	50.83	38.93	56.00	46.00	5.2	7.1
1.16054	39.42	26.299	10.13	49.55	36.43	56.00	46.00	6.4	9.6
1.18118	39.446	24.876	10.13	49.58	35.01	56.00	46.00	6.4	11.0
1.34377	40.105	28.099	10.13	50.24	38.23	56.00	46.00	5.8	7.8
1.4135	41.266	28.592	10.13	51.40	38.73	56.00	46.00	4.6	7.3
1.43794	41.317	26.3	10.13	51.45	36.43	56.00	46.00	4.5	9.6
1.44884	41.402	26.653	10.13	51.54	36.79	56.00	46.00	4.5	9.2
1.55969	39.764	25.511	10.13	49.90	35.65	56.00	46.00	6.1	10.4
1.60769	39.249	26.295	10.13	49.38	36.43	56.00	46.00	6.6	9.6
Line 2									
0.739288	35.047	24.217	10.31	45.36	34.53	56.00	46.00	10.6	11.5
0.87435	34.949	23.087	10.32	45.27	33.41	56.00	46.00	10.7	12.6
0.941224	35.754	24.471	10.33	46.08	34.80	56.00	46.00	9.9	11.2
0.9782	34.217	22.767	10.33	44.55	33.10	56.00	46.00	11.5	12.9
1.03559	34.699	22.813	10.32	45.02	33.14	56.00	46.00	11.0	12.9
1.41032	35.784	23.069	10.32	46.11	33.39	56.00	46.00	9.9	12.6
1.43165	35.093	20.95	10.32	45.42	31.27	56.00	46.00	10.6	14.7
1.4872	37.153	24.108	10.32	47.48	34.43	56.00	46.00	8.5	11.6
1.55404	36.663	23.816	10.32	46.99	34.14	56.00	46.00	9.0	11.9
1.59371	34.729	21.695	10.32	45.05	32.02	56.00	46.00	10.9	14.0

## 8 MEASUREMENT UNCERTAINTIES

The expanded laboratory measurement uncertainty figures ( $U_{\text{Lab}}$ ) provided below correspond to an expansion factor (coverage factor)  $k = 1.96$  which provide confidence levels of 95%.

**Table 8-1: Measurement Uncertainties**

Parameter	$U_{\text{lab}}$
Occupied Channel Bandwidth	$\pm 0.009 \%$
RF Conducted Output Power	$\pm 1.15 \text{ dB}$
Power Spectral Density	$\pm 1.15 \text{ dB}$
Antenna Port Conducted Emissions	$\pm 1.15 \text{ dB}$
Radiated Emissions $\leq 1\text{GHz}$	$\pm 5.86 \text{ dB}$
Radiated Emissions $> 1\text{GHz}$	$\pm 4.65 \text{ dB}$
Temperature	$\pm 0.860 \text{ }^\circ\text{C}$
Radio Frequency	$\pm 2.832 \times 10^{-8}$
AC Power Line Conducted Emissions	$\pm 3.72 \text{ dB}$

## 9 CONCLUSION

In the opinion of TÜV SÜD America, Inc. the model CP19MTDF-01, manufactured by Current Products Corp. meets the requirements of FCC Part 15 subpart C and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-210.

## **END REPORT**