Report on the FCC and ISED Testing of the

Stanley Convergent Security Solutions SONIP IPROX KP

In accordance with FCC 47 CFR Part 15.209 & ISED Canada's Radio Standards Specifications RSS-210

America

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Prepared for: Stanley Convergent Security Solutions
12000 Research Parkway Suite 128
Orlando, FL 32826

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IC: 7309A-SONIPPROXKP

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EXECUTIVE SUMMARY
A sample of this product was tested and found to be compliant with FCC Part 15.209, ISED Canada's RSS-210

A2LA Cert. No. 2955.15

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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:

Stanley Convergent Security Solutions
12000 Research Parkway Suite 128
Orlando, FL 32826

1.3 Product description

The EUT is an alarm system keypad for arming, disarming and system control. It is the main display and user interface to the Sonitrol control panels. The iProx Keypad features a four-line screen which displays system conditions and instructions. The text of each line will vary depending upon the current security level and features in use. Additionally, the device includes an integrated Prox Access Card Reader for credential input. The reader can be configured as an Arm/Disarm reader.

Technical Details
Frequency of Operation: 129 kHz
Number of Channels: 1
Modulation: None
Data Rate: None
Antenna / Gain: Integrated Coiled Antenna
Input Voltage: 12 VDC

Test Sample Serial Number(s): 6882988

Test Sample Condition: The sample was in good operating condition without any physical damages.

1.4 Test Methodology and Considerations

The EUT was evaluated for radiated and power line conducted emissions.

For the radiated emissions evaluation, the device was connected a FlexIP and other accessory equipment set remotely. The device was continuously transmitting during the evaluation.

For the power line conducted emissions evaluation, measuements were performed on the FlextIP console. Preliminary measurements were performed for the FlexIP configured with the Open Frame as well as the Wall Mount transformer. The test results are provided for the Open Frame transformer which corresponds to the worst case.

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

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:

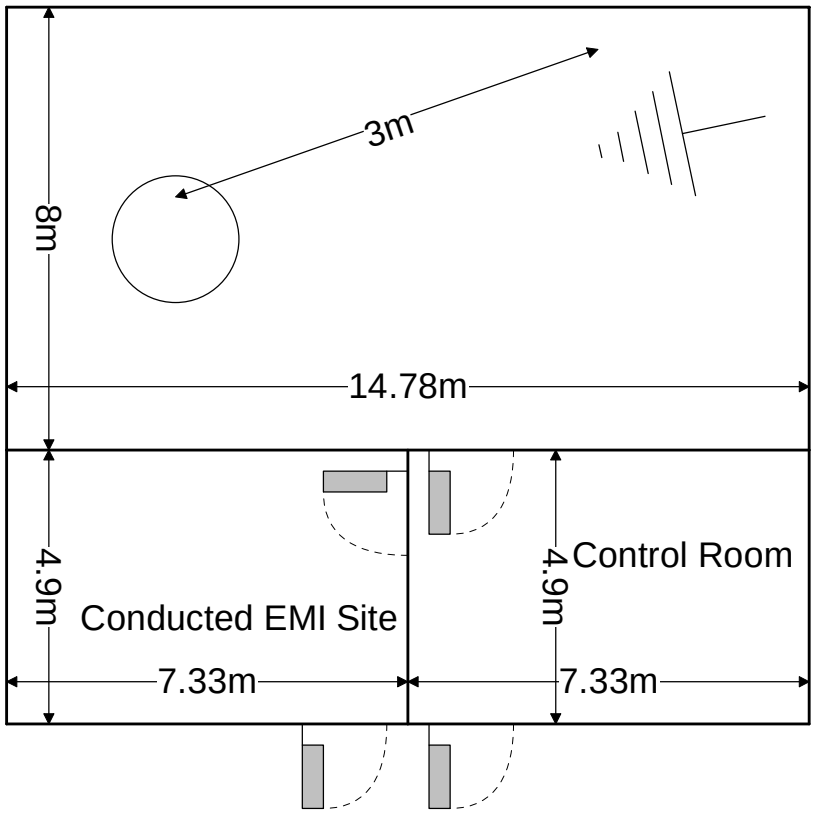

Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are 7.3 x 4.9 x 3 m^3. 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:

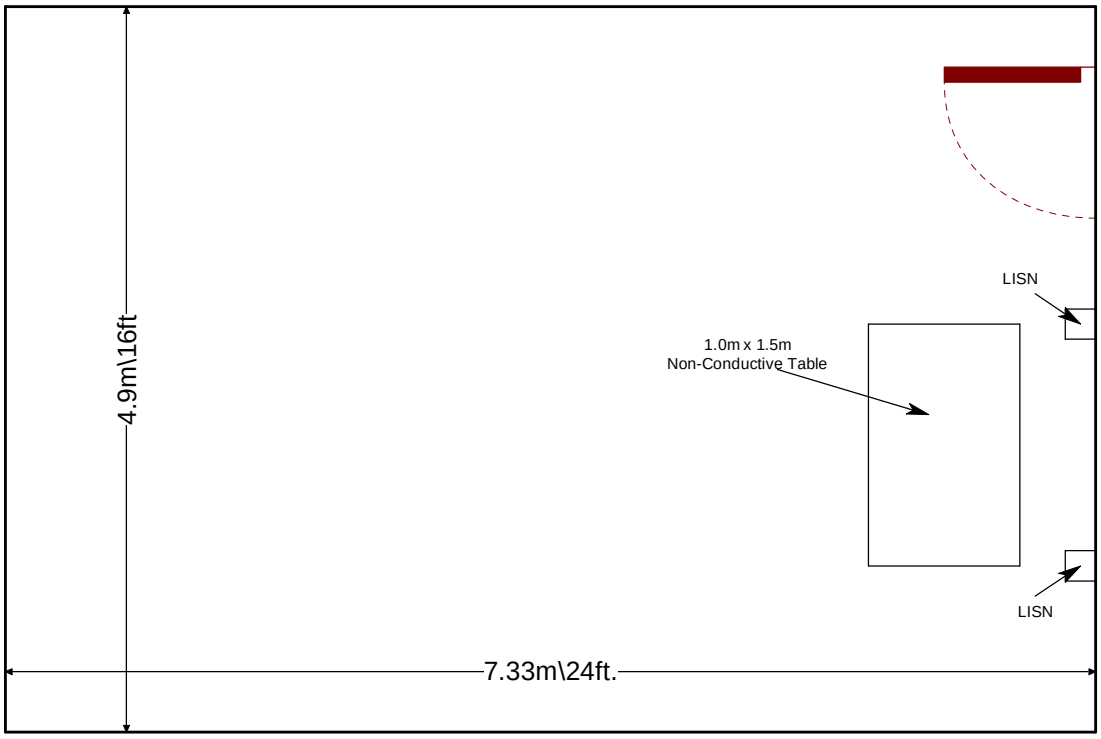

Figure 2.3.2-1: AC Mains Conducted EMI Site

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
BEMC00078	EMCO	6502	Active Loop Antenna	9104-2608	5/9/2018	5/9/2020
BEMC00523	Agilent	E7405	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
BEMC02011	Hewlett-Packard	HP 8447D	100 kHz to 1.3 GHz low-noise, high gain amplifier	2443A03952	10/27/2017	10/27/2018
BEMC02045	ACS Boca	Conducted Cable Set	Consists of cables 2046, 2047, 2062, 2063 and 2065	2045	10/26/2017	10/27/2018
BEMC02095	ETS Lindgren	TILE4! - Version 4.2.A	Tile Automation Software	85242	NCR	NCR
BEMC02121	Teledyne Storm Products	A81-0303	Radiated Cable Set	2121	7/26/2018	7/26/2019
BEMC03004	Teseq	CFL 9206A	Transient Filter Limiter 9kHz - 30MHz	34720	8/29/2017	8/29/2018
TEMC00044	Rohde & Schwarz	ESHS 30	EMI Receiver	839667/006	11/16/2017	11/16/2019
TEMC00153	Rhode & Schwarz Vertrieb München	ESH3-Z5	Voltage Network	894785/012	9/27/2017	9/27/2018

Notes:

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

5 SUPPORT EQUIPMENT

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

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Stanley	iProx Keypad	6882988
2	FlexIP	Stanley	FlexIP	N/A
3	24 VAC PlugIn Class 2 Transformer	MG Electronics	MGT2440P	N/A
4	6x Audio Sensors	Stanley		N/A
5	Normal Keypad	Stanley	Standard Keypad	N/A
6	PSTN Simulator	Virtual Console LLC	CH-8FXS-A	N/A
7	20V Plug In Class 2 Transformer	N/A	JOD-57U-03	N/A
8	Ethernet Switch	Linksys	BEFSR41 V.2	N/A
9	12 VDC Power Supply	Linksys	AM-1201000D41	N/A
10	Laptop	Dell	Latitude D620	N/A
11	19.5 VDC Power Supply	Dell	FA90PS0-00	N/A
12	Communication Receiver Gateway	Bosch Security Systems	D6600	4998122626C
13	Serial to Ethernet Adapter	Lantronix	CoBox-FL	N/A
14	12 VDC Power Supply	Cincon Electronics CO. LTD.	TR10R120	N/A

Table 5-2: EUT and Support Equipment – Power Line Conduced Emissions

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Stanley	iProx Keypad	6882988
2	FlexIP	Stanley	FlexIP	N/A
3	6x Audio Sensors	Stanley		N/A
4	PSTN Simulator	Virtual Console LLC	CH-8FXS-A	N/A
5	20V Plug In Class 2 Transformer	N/A	JOD-57U-03	N/A
6	Ethernet Switch	Linksys	BEFSR41 V.2	N/A
7	12 VDC Power Supply	Linksys	AM-1201000D41	N/A
8	Laptop	Dell	Latitude D620	N/A
9	19.5 VDC Power Supply	Dell	FA90PS0-00	N/A
10	Communication Receiver Gateway	Bosch Security Systems	D6600	4998122626C
11	Serial to Ethernet adapter	Lantronix	CoBox-FL	N/A
12	12 VDC Power Supply	Cincon Electronics CO. LTD.	TR10R120	N/A

Table 5-3: Cable Description – Radiated Emissions

Cable #	Cable Type	Length	Shield	Termination
A	Ethernet	10 m	No	EUT to FlexIP
B	Power	10 m	No	EUT to FlexIP
C	Ethernet	10 m	No	EUT to Keypad
D	Power	10 m	No	EUT to Keypad
E	Audio Sensor Cable	1 m (x 6)	Yes	FlexIP to Audio sensors
F	Power	2.5 M	No	FlexIP to Transformer
G	Extension Cord	2.7 m	No	Transformer to AC Mains
H	RJ11	2 m	No	FlexIP to PSTN Simulator
I	Power	1.9 m	No	Power Supply to PSTN Simulator
J	Power	1.9 m	No	Power Supply to AC Mains
K	Ethernet	2.15 m	No	FlexIP to Ethernet Switch
L	Power	1.8 m	No	Power Supply to Ethernet Switch
M	Ethernet	2.15 m	No	Ethernet Switch to Laptop
N	Power	1.9 m	No	Power Supply to Laptop
O	Power	0.9 m	No	Power Supply to AC Mains
P	RJ11	2 m	No	PSTN Simulator to Communication Receiver Gateway
Q	Serial	1.8 m	No	Communication Receiver Gateway to CoBox-FL
R	Power	1.8 m	No	Communication Receiver Gateway to AC Mains
S	Power	1.8 m	No	Power Supply to CoBox-FL
T	Ethernet	2.15 m	No	Router to Serial to Ethernet Adapter

Table 5-4: Cable Description – Power Line Conducted Emissions

Cable #	Cable Type	Length	Shield	Termination
A	Ethernet	1 m	No	EUT to FlexIP
B	Power	1 m	No	EUT to FlexIP
C	Audio Sensor Cable	1 m (x 6)	Yes	FlexIP to Audio sensors
D	Power	2 m	No	FlexIP to AC Mains
E	RJ11	2 m	No	FlexIP to PSTN Simulator
F	Power	1.9 m	No	Power Supply to PSTN Simulator
G	Power	1.9 m	No	Power Supply to AC Mains
H	Ethernet	2.15 m	No	FlexIP to Ethernet Switch
I	Power	1.8 m	No	Power Supply to Ethernet Switch
J	Ethernet	2.15 m	No	Ethernet Switch to Laptop
K	Power	1.9 m	No	Power Supply to Laptop
L	Power	0.9 m	No	Power Supply to AC Mains
M	RJ11	2 m	No	PSTN Simulator to Communication Receiver Gateway
N	Serial	1.8 m	No	Communication Receiver Gateway to CoBox-FL
O	Power	1.8 m	No	Communication Receiver Gateway to AC Mains
P	Power	1.8 m	No	Power Supply to CoBox-FL
Q	Ethernet	2.15 m	No	Router to Serial to Ethernet Adapter

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

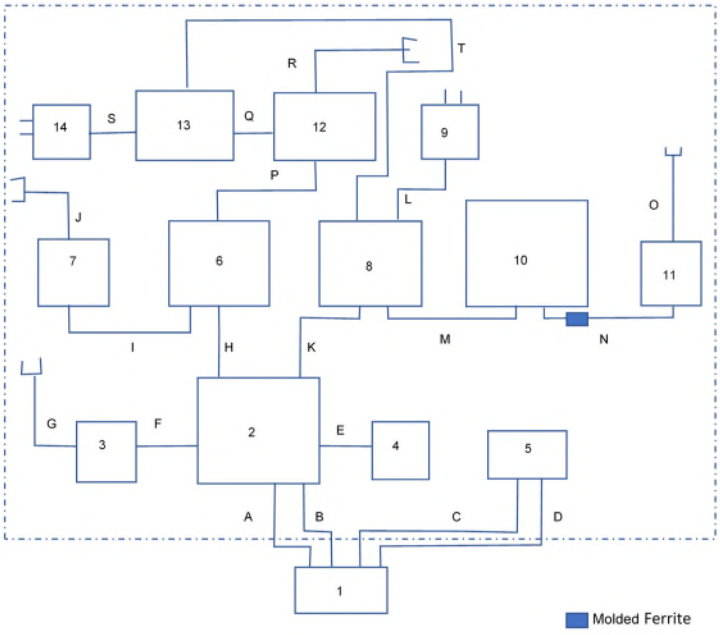

Figure 6-1: EUT Test Setup Diagram - Radiated Emissions

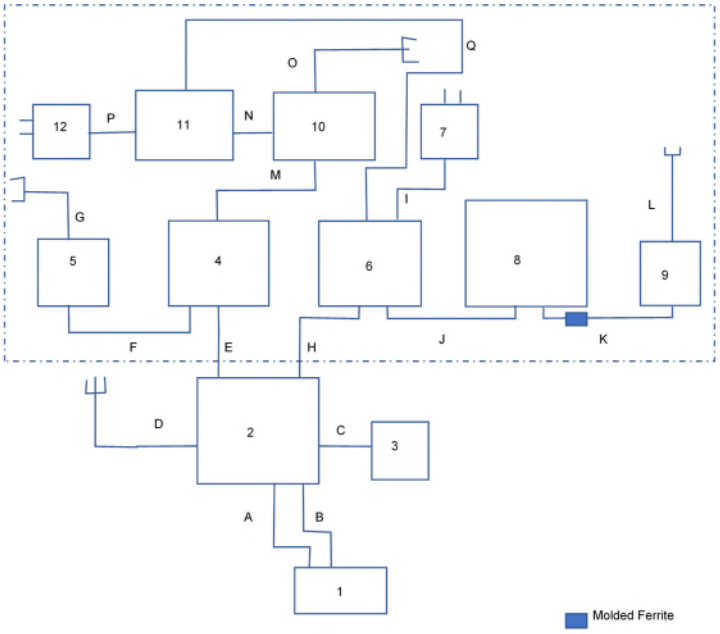

Figure 6-2: EUT Test Setup Diagram – Power Line Conducted Emissions

Notes:

The equipment within the dotted boxes were set outside of the test environment.
The FlexIP unit was grounded to the test site during the measurements.

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: July 23, 2018
Test End Date: August 1, 2018

Table 7-1: Summary of Tests

Requirements	FCC Rule Part	ISED Canada	Test Results
Antenna Requirement	FCC: Section 15.203		Pass
20 dB Bandwidth	FCC: Section 15.215		Pass
99% Bandwidth		ISED Canada: RSS-GEN 6.6	Pass
Radiated Spurious Emissions	FCC: Sections 15.209	ISED Canada: RSS-210 B. 10	Pass
Power Line Conducted Emissions	FCC: Section 15.207	ISED Canada: RSS-Gen 8.8	Pass

7.1 Antenna Requirement – FCC: Section 15.203

The EUT uses an integrated coiled antenna that is soldered to the PCB. The antenna is not readily replaceable, thus meeting the requirements of FCC Section 15.203.

7.2 20dB / 99% Bandwidth – FCC: Section 15.215; ISED Canada RSS-Gen 6.6

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% and 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

Performed by: Thierry Jean-Charles

Table 7.2.2-1: 20dB / 99% Bandwidth

Frequency [kHz]	20dB Bandwidth [Hz]	99% Bandwidth [Hz]
129.0	2.0	1.0

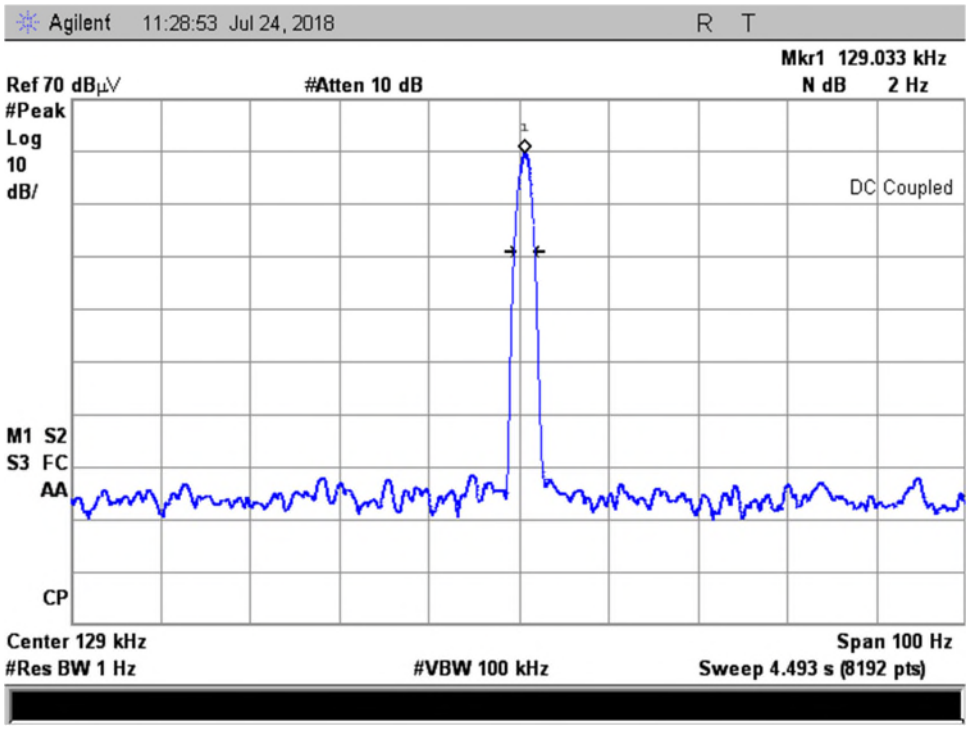

Figure 7.2.2-1: 20dB Occupied Bandwidth

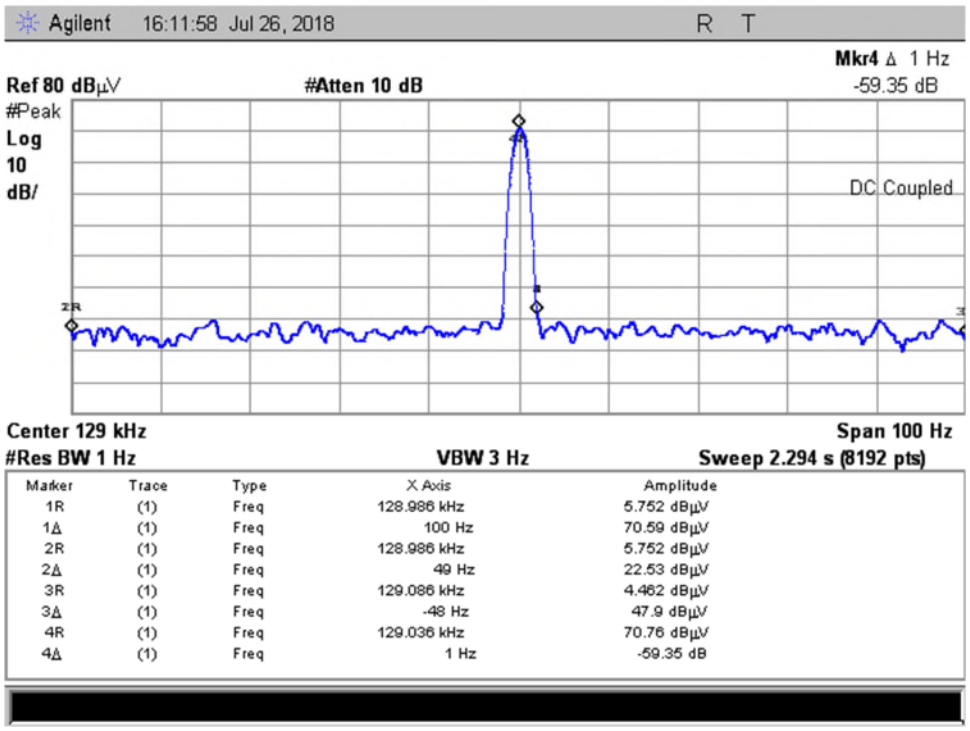

Figure 7.2.2-2: 99% Occupied Bandwidth

7.3 Radiated Spurious Emissions – FCC: Section 15.209; ISED Canada: RSS-210 2.5

7.3.1 Measurement Procedure

Radiated emissions tests were made over the frequency range of 9 kHz to 1 GHz. Section 15.33(a)(4) specifies, if the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to frequency specified in 15.33(b)(1) for unintentional radiators. The upper frequency range for the digital device is 1000 MHz which greater than the 10^{th} harmonic of the fundamental frequency. The upper frequency range measured was 1000 MHz.

Measurements below 30 MHz were performed in a semi-anechoic chamber with a 3-meter separation distance between the EUT and measurement antenna. The magnetic loop receiving antenna was positioned 1 meter above the ground. The EUT was rotated 360° to maximize each emission. The spectrum analyzer's resolution and video bandwidths were set to 200 Hz and 1000 Hz respectively for frequencies below 150 kHz, and to 9 kHz and 30 kHz respectively for frequencies between 150 kHz and 30 MHz. The fundamental levels were measured using a resolution bandwidth of 30 kHz which is greater than the measured emission bandwidth. For measurements in the frequency bands 9-90 kHz and 110-490 kHz, an average detector was used. When average measurements are specified, the peak emissions were also compared to a limit corresponding to 20 dB above the maximum permitted average limit according to Part 15.35. All other emissions were measured using a Quasi-peak detector. The final measurements were then corrected by antenna correction factors and cable loss for comparison to the limits.

Measurements above 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 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, quasi-peak measurements were made using a resolution bandwidth (RBW) of 120 kHz and a video bandwidth (VBW) of 300 kHz.

7.3.2 Distance Correction for Measurements below 30 MHz – FCC: Section 15.31

Radiated measurements were performed at a distance closer than 300 meters and 30m as required, according to Part 15.209. Therefore, a correction factor was applied to account for propagation loss at the specified distance. The propagation loss was determined by using the square of an inverse linear distance extrapolation factor (40dB/decade) according to 15.31. A sample calculation of the distance correction factor is shown below for limits expressed at a 300m measurement distance and a 30m measurement distance.

Distance correction factor (300m Specified Test Distance) = 40*Log (Test Distance/300)
= 40*Log (3/300)
= - 80 dB

Distance correction factor (30m Specified Test Distance) = 40*Log (Test Distance/30)
= 40*Log (3/30)
= - 40 dB

7.3.3 Measurement Results

Performed by: Thierry Jean-Charles, Jean Rene

Radiated spurious emissions found in the band of 9 kHz to 1 GHz are reported in the Table below.

Table 7.3.2-1: Radiated Spurious Emissions Tabulated Data

Frequency (MHz)	Level (dBuV)		Antenna Polarity	Correction Factors	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	Qpk/avg	(H/V)	(dB)	pk	Qpk/avg	pk	Qpk/avg	pk	Qpk/avg
Fundamental Frequency										
0.129033	71.96	71.50	V	10.38	82.34	81.88	125.4	105.4	43.1	23.5
0.129033	62.96	62.71	H	10.38	73.34	73.09	125.4	105.4	52.1	32.3
Spurious Emissions										
0.387099	30.00	27.00	V	10.17	40.17	37.17	115.8	95.8	75.6	58.6
Unintentional Emissions										
40.96	---------	47.03	V	-15.14	---------	31.89	--------	40	---------	8.1
42.07	---------	44.60	V	-15.26	---------	29.34	--------	40	---------	10.7
47.81	---------	51.55	V	-15.99	---------	35.56	--------	40	---------	4.4
48.47	---------	50.78	V	-16.08	---------	34.70	--------	40	---------	5.3
49.055	---------	50.41	V	-16.16	---------	34.25	--------	40	---------	5.7
57.34	---------	50.06	V	-17.23	---------	32.83	--------	40	---------	7.2
69.27	---------	51.27	V	-18.48	---------	32.79	--------	40	---------	7.2
143.3	---------	48.48	H	-14.17	---------	34.31	--------	43.5	---------	9.2
145.2	---------	47.45	V	-14.12	---------	33.33	--------	43.5	---------	10.2
750	---------	45.61	H	-3.17	---------	42.44	--------	46	---------	3.6
750	---------	40.67	V	-3.17	---------	37.50	--------	46	---------	8.5
875	---------	39.82	H	-1.93	---------	37.89	--------	46	---------	8.1
956.2	---------	33.82	V	-0.54	---------	33.28	--------	46	---------	12.7

Note:

- **Peak and Average measurements were performed for the emissions below 30 MHz.**
- **Quasi-Peak measurements were performed for the emissions above 30 MHz.**

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: 29 + 10.17 = 39.17 dBµV/m
Margin: 115.8 dBµV/m – 39.17 dBµV/m = 76.63 dB

Example Calculation: Average
Corrected Level: 26.3 + 10.17 – 0 = 36.47dBµV/m
Margin: 95.8 dBµV – 36.47 dBµV/m = 59.33 dB

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

7.4.1 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:

Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss
Margin = Applicable Limit - Corrected Reading

7.4.2 Measurement Results

Performed by: Jean Rene

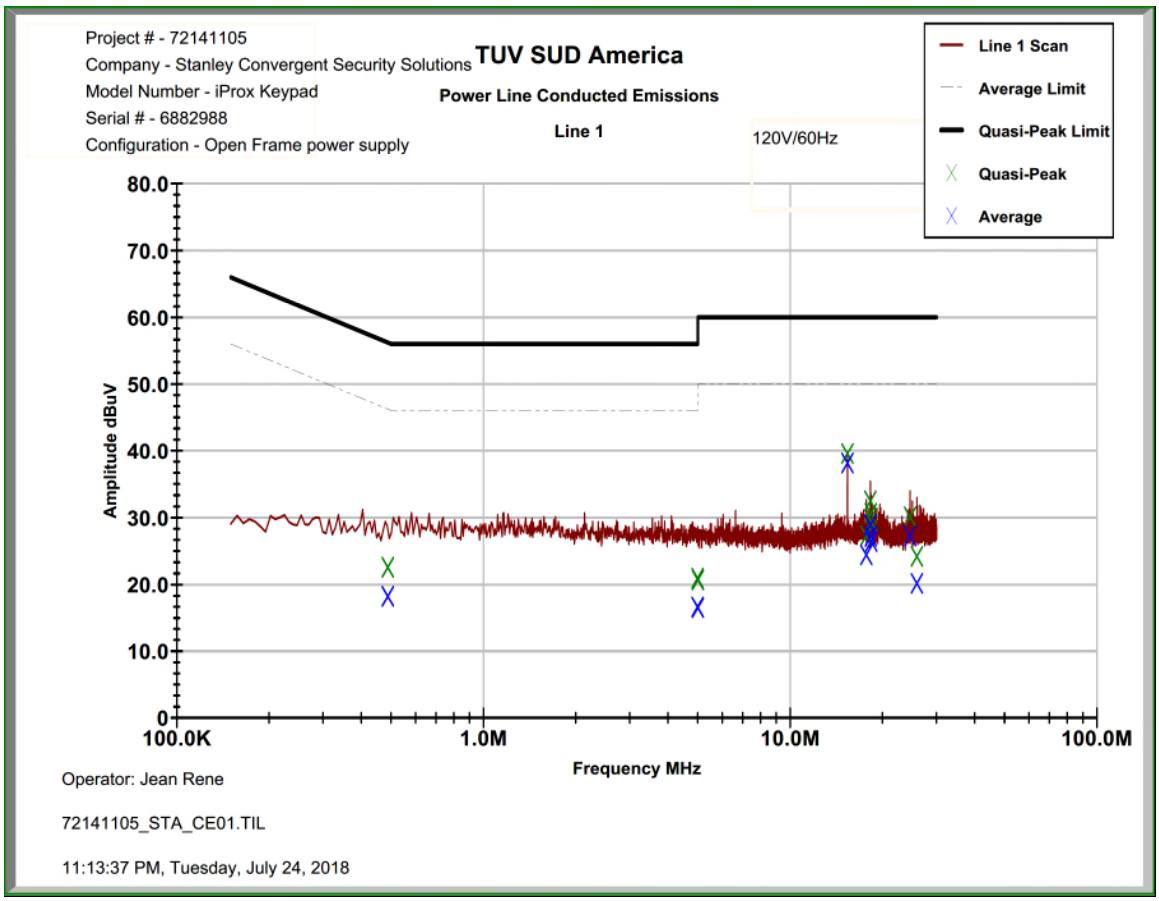

Figure 7.3.2-1: Conducted Emissions Results – Line 1

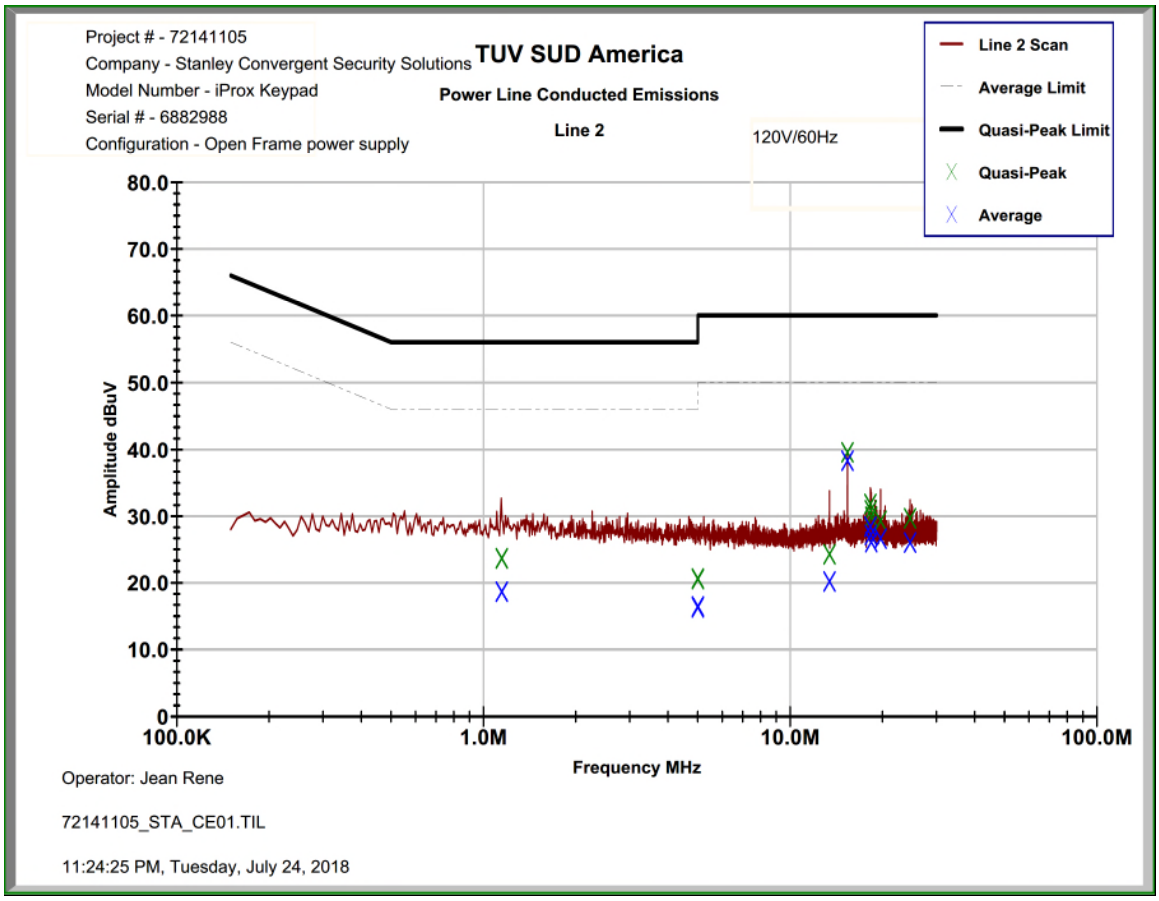

Figure 7.3.2-2: Conducted Emissions Results – Line 2

Table 7.3.2-1: Conducted EMI Results

☒ Line 1 ☒ Line 2 ☐ Line 3
☐ Line 4
☒ To Ground ☐ Floating
☐ Telecom Port _____
☒ dBµV ☐ dBµA

Plot Number:
72141105_STA_CE01
Power Supply Description:
Open Frame Transformer

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									
0.48775	12.541	8.196	10.04	22.58	18.24	56.21	46.21	33.6	28.0
4.98625	10.449	6.142	10.41	20.86	16.55	56.00	46.00	35.1	29.5
4.9997	10.177	6.022	10.41	20.59	16.43	56.00	46.00	35.4	29.6
15.3588	28.057	26.625	11.47	39.53	38.09	60.00	50.00	20.5	11.9
17.694	15.675	12.806	11.53	27.20	24.34	60.00	50.00	32.8	25.7
18.2435	20.826	17.303	11.54	32.37	28.85	60.00	50.00	27.6	21.2
18.3047	18.977	15.562	11.54	30.52	27.11	60.00	50.00	29.5	22.9
18.3662	17.731	14.78	11.55	29.28	26.33	60.00	50.00	30.7	23.7
24.5761	18.146	15.28	11.93	30.07	27.21	60.00	50.00	29.9	22.8
25.8795	12.175	8.156	11.98	24.16	20.14	60.00	50.00	35.8	29.9
Line 2									
1.14711	13.479	8.487	10.13	23.61	18.62	56.00	46.00	32.4	27.4
4.99745	10.13	5.77	10.42	20.55	16.19	56.00	46.00	35.5	29.8
5.0007	10.036	5.933	10.50	20.53	16.43	60.00	50.00	39.5	33.6
13.4215	13.071	8.958	11.11	24.18	20.07	60.00	50.00	35.8	29.9
15.3607	28.202	26.931	11.35	39.55	38.28	60.00	50.00	20.5	11.7
18.2426	20.316	16.91	11.41	31.73	28.32	60.00	50.00	28.3	21.7
18.3053	19.357	15.674	11.41	30.77	27.09	60.00	50.00	29.2	22.9
18.3655	18.393	14.602	11.41	29.81	26.02	60.00	50.00	30.2	24.0
19.7094	17.726	15.074	11.44	29.17	26.52	60.00	50.00	30.8	23.5
24.5751	17.877	14.249	11.76	29.63	26.01	60.00	50.00	30.4	24.0

8 MEASUREMENT UNCERTAINTIES

The expanded laboratory measurement uncertainty figures (U_{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_{lab}
Occupied Channel Bandwidth	± 0.009 %
RF Conducted Output Power	± 1.15 dB
Power Spectral Density	± 1.15 dB
Antenna Port Conducted Emissions	± 1.15 dB
Radiated Emissions ≤ 1GHz	± 5.86 dB
Radiated Emissions > 1GHz	± 4.65 dB
Temperature	± 0.860 °C
Radio Frequency	$\pm 2.832 \times 10^{-8}$
AC Power Line Conducted Emissions	±3.72 dB

9 CONCLUSION

In the opinion of TÜV SÜD America, Inc. the SONIP IPROX KP, manufactured by Stanley Convergent Security Solutions meets the requirements of FCC Part 15 subpart C and Innovation, Science and Economic Development Canada's Radio Standards Specification RSS-210.

END REPORT