

Compliance Testing, LLC

Previously Flom Test Lab EMI, EMC, RF Testing Experts Since 1963 toll-free: (866) 311-3268 fax: (480) 926-3598

http://www.ComplanceTesting.com info@ComplanceTesting.com

Date:	November 20, 2009
Applicant:	Y Soft, s.r.o. Czech Technology Park Podnikatelska 2902/4 612 00 Brno Czech Republic
Attention of:	Martin Zikmund Ph: 011420 549 240 950 E-mail: Martin.Zikmund@ysoft.com
Equipment:	HID Prox Family Model Numbers YL01030 00C - YSoft SafeQ Terminal UltraLight Print and Copy, HID Prox YL01030 00P - YSoft SafeQ Terminal UltraLight Print Only, HID Prox YL01030 00R - YSoft SafeQ Terminal UltraLight Network Card Reader, HID Prox YP04030 001 - YSoft SafeQ Terminal Professional, HID Prox
FCC ID:	XUY0YX0X030000
FCC Rules:	Part 15.207, 15.209

Gentlemen:

Enclosed please find your copy of the Test Data Report for the referenced equipment.

Please keep the original on record for submission to the FCC, but only if and when they request it.

In the event the FCC ever requests this submission, please complete all the documentation requirements, (as per the LIST OF EXHIBITS) before sending.

Should you have any questions, please do not hesitate to call.

Sincerely yours,

ind John Je

John Erhard: Engineering Manager



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Date:	November 20, 2009
Federal Communications Via: Electronic Filing	Commission
Attention:	Authorization & Evaluation Division
Applicant: Equipment:	Y Soft, s.r.o. HID Prox Family Model Numbers YL01030 00C - YSoft SafeQ Terminal UltraLight Print and Copy, HID Prox YL01030 00P - YSoft SafeQ Terminal UltraLight Print Only, HID Prox YL01030 00R - YSoft SafeQ Terminal UltraLight Network Card Reader, HID Prox YP04030 001 - YSoft SafeQ Terminal Professional, HID Prox
FCC ID:	XUY0YX0X030000

15.207, 15.209

FCC ID: FCC Rules:

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

and John

John Erhard: Engineering Manager

Compliance Testing 3356 N. San Marcos Place, Suite 107 Chandler, Arizona 85225-7176 (866) 311-3268 phone, (480) 926-3598 fax

p0990002, d09b0025 Rev 1.0



List Of Exhibits

(FCC Certification (Transmitters) - Revised 9/28/98)

Applicant:

Y Soft, s.r.o.

FCC ID:

XUY0YX0X030000

By Applicant:

- 1. Letter Of Authorization
- 2. Identification Drawings
 - _ Id Label
 - Location Info
 - _ Attestation Statement(S)
 - Location of Compliance Statement
- 3. Documentation: 2.1033(B)
 - (3) User Manual(S)
 - (4) Operational Description
 - (5) Block Diagram
 - (5) Schematic Diagram
 - (7) External Photographs Internal Photographs Parts List Active Devices

By Compliance Testing

- A. Testimonial & Statement of Certification
- B. Statement of Qualifications



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Test Report

for

FCC ID: XUY0YX0X030000

Model: HID Prox Family Model Numbers YL01030 00C - YSoft SafeQ Terminal UltraLight Print and Copy, HID Prox YL01030 00P - YSoft SafeQ Terminal UltraLight Print Only, HID Prox YL01030 00R - YSoft SafeQ Terminal UltraLight Network Card Reader, HID Prox YP04030 001 - YSoft SafeQ Terminal Professional, HID Prox

to

Federal Communications Commission

Rule Part(s)15.207, 15.209

Date Of Report: November 20, 2009

On the Behalf of the Applicant:

Y Soft, s.r.o. Czech Technology Park Podnikatelska 2902/4 612 00 Brno Czech Republic

Attention of:

Martin Zikmund Ph: 011420 549 240 950 E-mail: Martin.Zikmund@ysoft.com

John & and

John Erhard: Engineering Manager

Supervised By:



Test Report Revision History

Revision	Date	Revised By	Reason for revision
1.0	November 20, 2009	J. Erhard	Original Document



The applicant has been cautioned as to the following:

15.21 Information to User.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) Special Accessories.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.



Testimonial And Statement Of Certification

This is to certify that:

- 1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
- 2. **That** the technical data supplied with the application was taken under my direction and supervision.
- 3. That the data was obtained on representative units, randomly selected.
- 4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

John & and

John Erhard: Engineering Manager

Certifying Engineer:



Table Of Contents

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Required information per ISO 17025-2005, paragraph 5.10.2: a) Test Report

b) Laboratory: (FCC: 31040/SIT) (Canada: IC 2044A-1)	Compliance Testing 3356 N. San Marcos Place, Suite 107 Chandler, AZ 85225					
c) Report Number:	d09b0025					
d) Client:	Y Soft, s.r.o.					
e) Identification: Description:	HID Prox Family Model Numbers YL01030 00C - YSoft SafeQ Terminal UltraLight Print and Copy, HID Prox YL01030 00P - YSoft SafeQ Terminal UltraLight Print Only, HID Prox YL01030 00R - YSoft SafeQ Terminal UltraLight Network Card Reader, HID Prox YP04030 001 - YSoft SafeQ Terminal Professional, HID Prox HID Prox Family					
f) EUT Condition:	Not required unless specified in individual tests.					
g) Report Date:	November 20, 2009					
h, j, k):	As indicated in individual tests.					
i) Sampling method:	No sampling procedure used.					
I) Uncertainty:	In accordance with Compliance Testing internal quality manual.					
m) Supervised by:	0 1 0 C 1					

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John Erhard: Engineering Manager

n) Results:

The results presented in this report relate only to the item tested.

o) Reproduction:

This report must not be reproduced, except in full, without written permission from this laboratory.



List Of General Information Required For Certification

In Accordance with FCC Rules and Regulations, Volume II, Part 2 and to 15.231

Sub-Pa (c)(1):	nrt 2.1033	
Name a	and Address of Applicant:	Y Soft, s.r.o.
(c)(2):	FCC ID:	XUY0YX0X030000
	Model Number:	HID Prox Family Model Numbers YL01030 00C - YSoft SafeQ Terminal UltraLight Print and Copy, HID Prox YL01030 00P - YSoft SafeQ Terminal UltraLight Print Only, HID Prox YL01030 00R - YSoft SafeQ Terminal UltraLight Network Card Reader, HID Prox YP04030 001 - YSoft SafeQ Terminal Professional, HID Prox
(c)(3):	Instruction Manual(s):	
	Please See	Attached Exhibits
(c)(4):	Type of Emission:	ASK
(c)(5):	FREQUENCY RANGE	125 kHz
(c)(6):	Power Rating, W: Switchable	20 atto Watts Variable X_ N/A
(c)(7):	Maximum Power Rating, W	I: 7.5 nano Watts
15.203:	Antenna Requirement: 	X The antenna is permanently attached to the EUT The antenna uses a unique coupling The EUT must be professionally installed The antenna requirement does not apply



Subpart 2.1033 (continued)

(c)(8): Circuit Diagram/Circuit Description:

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please See Attached Exhibits

(c)(9): Label Information:

Please See Attached Exhibits

(c)(10): Photographs:

Please See Attached Exhibits

(c)(11): Digital Modulation Description:

(c)(12): Test And Measurement Data:

Follows



Sub-part 2.1033(b):

Test And Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2 and the following individual Parts: 15.207, 15.209; Unintentional Radiators

Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-2009, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

A2LA

"A2LA has accredited Compliance Testing in Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Please refer to <u>www.a2la.org</u> for current scope of accreditation.

Certificate number: 2152.01



FCC OATS Reg. #933597

IC O.A.T.S. Number: 2044A-1



Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
15.209	Radiated Emissions	Pass	
15.207	A/C Powerline Conducted Emissions	Pass	
RSS-GEN	99% Bandwidth	Pass	



Name of Test:RSpecification:1Test Equipment Utilizedi0

Radiated Emissions 15.209 i00033, i00326

Engineer: J. Erhard Test Date: 11/20/209

Test Procedure

The UUT was tested in a semi-anechoic chamber 1m from the receiving active loop antenna. The UUT was tested by rotating it 360° with the antennas in the X, Y, and Z-axis to ensure the TX signal levels were maximized. All emissions from the fundamental to greater than the 10^{th} harmonic were examined.

Correction factor = Antenna CF+ Distance CF + Cable loss.

Test Setup



Radiated Emissions

Emission Freq	Measured Value	Correction Factor	Corrected Value	Limit	Margin
(KHZ)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	dB
125.92	85.76	115.48	-29.72	25.60	-55.32
251.84	46.08	114.98	-68.9	19.58	-88.48
377.76	52.94	114.98	-62.04	16.06	-78.10
503.68	43.46	74.98	-71.52	33.56	-105.08
629.6	43.16	74.98	-71.82	31.62	-103.44
755.52	35.1	75.18	-79.78	30.04	-109.82
881.44	36.19	74.78	-78.99	28.70	-107.69
1007.36	35.87	74.78	-78.91	27.54	-106.45
1133.28	32.92	74.78	-81.86	26.52	-108.38
1259.2	30.12	74.98	-84.66	25.60	-110.26

Measurements from 110 kHz to 490 kHz are average measurements all other measurements are quasi-peak.



Name of Test: Specification: Test Equipment Utilized

A/C Powerline Conducted Emissions 15.207 i00033, i00270

Engineer: J. Erhard Test Date: 11/20/209

Test Procedure

The EUT power cable connected to a LISN and the monitored output of the LISN was connected directly to a spectrum analyzer. The conducted emissions from 150 kHz to 30 MHz were monitored and compared to the specification limits.



Conducted Emissions Line 2





Frequency (kHz)	Measured	LISN Corr	Cable	Attenuator	Final L1	Limit	AVG
	Data	Fact (dB)	Loss (dB)	(dB)	(dBuV)	(dBuV)	Margin
	(dBuV)						(dB)
176.03 kHz	24.66	0.20	0.015	10.000	34.871	55.256	-20.385
162.95 kHz	12.01	0.20	0.034	10.000	22.248	55.630	-33.382
157.60 kHz	12.69	0.22	0.034	10.000	22.945	55.783	-32.838
154.96 kHz	11.87	0.25	0.036	10.000	22.157	55.858	-33.701
153.87 kHz	11.97	0.26	0.038	10.000	22.270	55.889	-33.620
151.39 kHz	12.10	0.29	0.044	10.000	22.434	55.960	-33.527

Line 1 Neutral AVG Detector

Line 2 Phase AVG Detector

Frequency (kHz)	Measured	LISN Corr	Cable	Attenuator	Final L2	Limit	AVG
	Data	Fact (dB)	Loss (dB)	(dB)	(dBuV)	(dBuV)	Margin
	(dBuV)						(dB)
181.74 kHz	25.55	0.20	0.009	10.000	35.759	55.093	-19.334
154.66 kHz	5.46	0.25	0.038	10.000	15.751	55.867	-40.115
152.39 kHz	6.02	0.28	0.042	10.000	16.335	55.932	-39.597
151.73 kHz	13.91	0.28	0.040	10.000	24.236	55.950	-31.715
151.25 kHz	11.59	0.29	0.043	10.000	21.924	55.964	-34.040
150.05 kHz	11.88	0.30	0.043	10.000	22.223	55.999	-33.776

Line 1 Neutral QP Detector

Frequency (kHz)	Measured	LISN Corr	Cable	Attenuator	Final L1	Limit	QP
	Data	Fact (dB)	Loss (dB)	(dB)	(dBuV)	(dBuV)	Margin
	(dBuV)						(dB)
176.03 kHz	38.540	0.200	0.015	10.000	48.755	65.256	-16.502
162.95 kHz	37.570	0.200	0.034	10.000	47.804	65.630	-17.826
157.60 kHz	38.250	0.224	0.034	10.000	48.508	65.783	-17.274
154.96 kHz	37.870	0.250	0.036	10.000	48.157	65.858	-17.701
153.87 kHz	38.270	0.261	0.038	10.000	48.570	65.889	-17.320
151.39 kHz	39.350	0.286	0.044	10.000	49.680	65.960	-16.280

Line 2 Phase QP Detector

Frequency (kHz)	Measured Data (dBuV)	LISN Corr Fact (dB)	Cable Loss (dB)	Attenuator (dB)	Final L2 (dBuV)	Limit (dBuV)	QP Margin (dB)
181.74 kHz	37.33	0.20	0.009	10.000	47.539	65.093	-17.554
154.66 kHz	38.59	0.25	0.038	10.000	48.881	65.867	-16.985
152.39 kHz	33.60	0.28	0.042	10.000	43.919	65.932	-22.013
151.73 kHz	39.42	0.28	0.040	10.000	49.742	65.950	-16.208
151.25 kHz	39.32	0.29	0.043	10.000	49.651	65.964	-16.314
150.05 kHz	38.67	0.30	0.043	10.000	49.013	65.999	-16.986



Name of Test: Specification: Test Equipment Utilized

99% Occupied Bandwidth RSS 210 Industry Canada Only i00033, i00326

Engineer: J. Erhard Test Date: 11/20/209

Test Procedure

The UUT was tested in a semi-anechoic chamber 1m from the receiving active loop antenna. The UUT was tested by rotating it 360° with the antennas in the X, Y, and Z-axis to ensure the TX signal levels were maximized. The 99% bandwidth was recorded and plotted.

Test Setup



Occupied Bandwidth Summary

Frequency	Recorded Measurement	Result
125 KHz	1.15 kHz	Pass

99% Occupied Bandwidth Plot







Radiated Emissions Test Setup Photos



AC Conducted Emissions Test Setup Photos:





Test Equipment Utilized

Description	MFG	Model Number	CT Asset Number	Last Cal Date	Cal Due Date
Spectrum Analyzer	HP	8546A	i00033	11/4/09	11/4/10
LISN	FCC	FCC-LISN-50-32-2-01	i00270	9/17/08	9/17/10
Loop Antenna	EMCO	6507	i00326	4/1/09	4/1/11

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

END OF TEST REPORT