

Sargent Manufacturing Company

RF Exposure REPORT

SCOPE OF WORK

RF Exposure Calculation – Accentra NTT-Touch Screen and Accentra NTT- Push Button

REPORT NUMBER

105779713BOX-006_RF exposure

ISSUE DATE

November 1, 2024

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RF EXPOSURE REPORT (FULL COMPLIANCE)

Report Number: 105779713BOX-006_RF exposure

Project Number: G105779713

Report Issue Date: November 1, 2024

Model(s) Tested: Accentra NTT-Touch Screen and
Accentra NTT- Push Button

Model(s) Partially Tested: None

Model(s) Not Tested but declared equivalent by the client: None

Standards: FCC Part 1.1310 Limits for Maximum Permissible Exposure (MPE)
KDB 447498 D01 General RF Exposure Guidance v06 Section 4.3.1(a)
RSS-102 Issue 6 December 15, 2023

Tested by:
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70 Codman Hill Road
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USA

Client:
Sargent Manufacturing Company
100 Sargent Drive
New Haven, CT 6511
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1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 4.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

2 Test Summary

Section	Test full name	Result
3	Client Information	--
4	Description of Equipment Under Test and Variant Models	--
5	FCC SAR Exclusion Criteria FCC Part 1.1310 Limits for Maximum Permissible Exposure (MPE) KDB 447498 D01 General RF Exposure Guidance v06 Section 4.3.1(a)	Pass
6	Canada SAR exemption RSS-102 Issue 6 December 15, 2023	Pass
7	Revision History	--

Notes: The EUT is battery powered. It does not transmit simultaneously with other radio within the electronic access control system.

3 Client Information

This EUT was tested at the request of:

Client: Sargent Manufacturing Company
100 Sargent Drive
New Haven, CT 6511
USA

Contact: Dave Debiase
Telephone: 203-821-5724
Email: dave.debiase@assaabloy.com

4 Description of Equipment Under Test and Variant Models

Manufacturer: Sargent Manufacturing Company
100 Sargent Drive
New Haven, CT 6511
USA

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Electronic access control system with (Touch Screen)	Sargent Manufacturing Company	NTT	005 (From SGS report #F690501-RF-RTL002141)
Electronic access control system with (Push Button)	Sargent Manufacturing Company	NTT	002 (From SGS report #F690501-RF-RTL002138)

Description of Equipment Under Test (provided by client)
Electronic access control system

5 FCC SAR Exclusion Criteria

Per KDB 447498 D01 General RF Exposure Guidance v06 Section 4.3.1(a).

For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,³⁰ where

- $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz

NTT Touch Screen

Worst-case Channel (MHz)	Worst-case Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
2402	2.79	-0.05	2.77	1.892344

Note: Data was taken from SGS report #F690501-RF-RTL002141. Antenna gain of 0 dBi was used for EIRP calculation.

5 mm was used for separation distance. SAR test exclusion threshold is:

$(1.892344/5) \cdot \sqrt{(2.480)} = 0.596013 < 3.0$, $f = 2.480$ GHz was used for worst case

Conclusion: No SAR test is required.

NTT Push Button

Worst-case Channel (MHz)	Worst-case Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
2402	2.79	-0.05	2.79	1.901078

Note: Data was taken from SGS Report # SGS report #F690501-RF-RTL002138. Antenna gain of 0 dBi was used for EIRP calculation.

5 mm was used for separation distance. SAR test exclusion threshold is:

$(1.901078/5) \cdot \sqrt{(2.480)} = 0.598764 < 3.0$, $f = 2.480$ GHz was used for worst case

Conclusion: No SAR test is required.

6 CANADA SAR exemption

RSS-102 Issue 6, Section 6.3.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

NTT Touch Screen

Worst-case Channel (MHz)	Worst-case Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
2402	2.79	-0.05	2.77	1.892344

Note: Data was taken from SGS Report # SGS report #F690501-RF-RTL002141. Antenna gain of 0 dBi was used for EIRP calculation.

EIRP (mW) was compared to Limit for $\leq 5\text{mm}$, $f = 3.5\text{ GHz}$

Conclusion: No SAR test is required as EIRP (mW) is less than 2.0 mW.

NTT Push Button

Worst-case Channel (MHz)	Worst-case Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
2402	2.79	-0.05	2.79	1.901078

Note: Data was taken from SGS Report # SGS report #F690501-RF-RTL002138. Antenna gain of 0 dBi was used for EIRP calculation.

EIRP (mW) was compared to Limit for $\leq 5\text{mm}$, $f = 3.5\text{ GHz}$

Conclusion: No SAR test is required as EIRP (mW) is less than 2.0 mW.

7 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	11/01/2024	105779713BOX-006_RF exposure	VFV <i>VFV</i>	KPS <i>KPS</i>	Original Issue