



element

SMART Technologies ULC

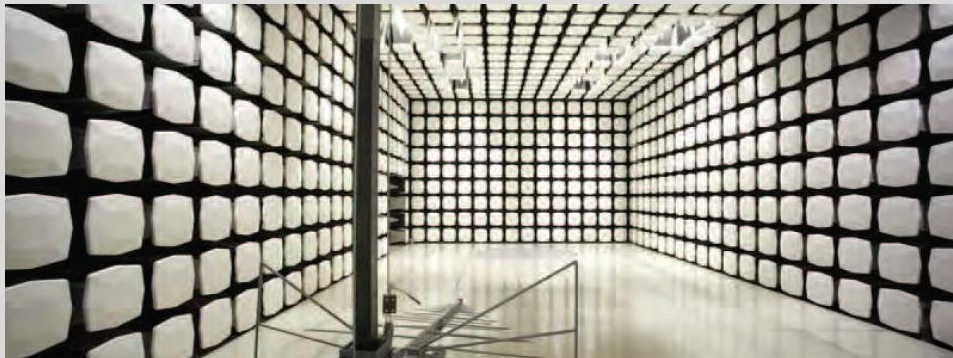
PQR-3

FCC 1.1307:2026

FCC 2.1093:2026

Proprietary 2.4 GHz Radio

Report: SMTE0017.4, Issue Date: May 21, 2026



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CERTIFICATE OF EVALUATION

Last Date of Evaluation: May 13, 2026
SMART Technologies ULC
EUT: PQR-3

RF Exposure Evaluation

Standards

Specification	Method
FCC 1.1307:2026 FCC 2.1093:2026	FCC 1.1307:2026

Results

Method Clause	Description	Applied	Results	Comments
(b)(3)(i)(A)	Exemption From RF Exposure Evaluation	Yes	Pass	None

Deviations From Evaluation Standards

None

Approved By:



David Schaefer, Technical Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing

REVISION HISTORY



Revision Number		Description	Date (yyyy-mm-dd)	Page Number
00	None			

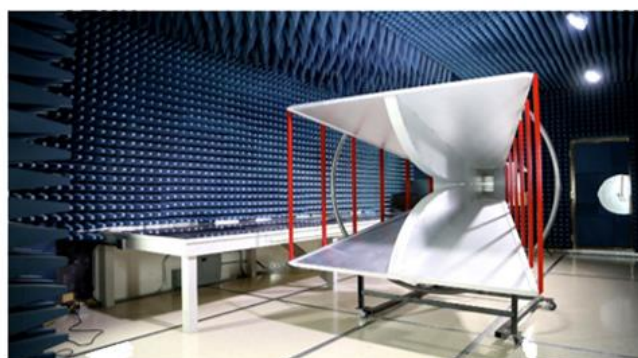
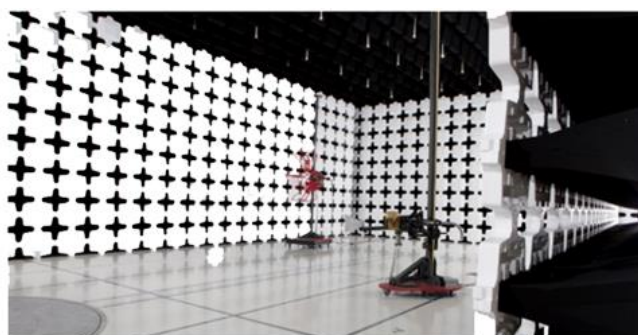
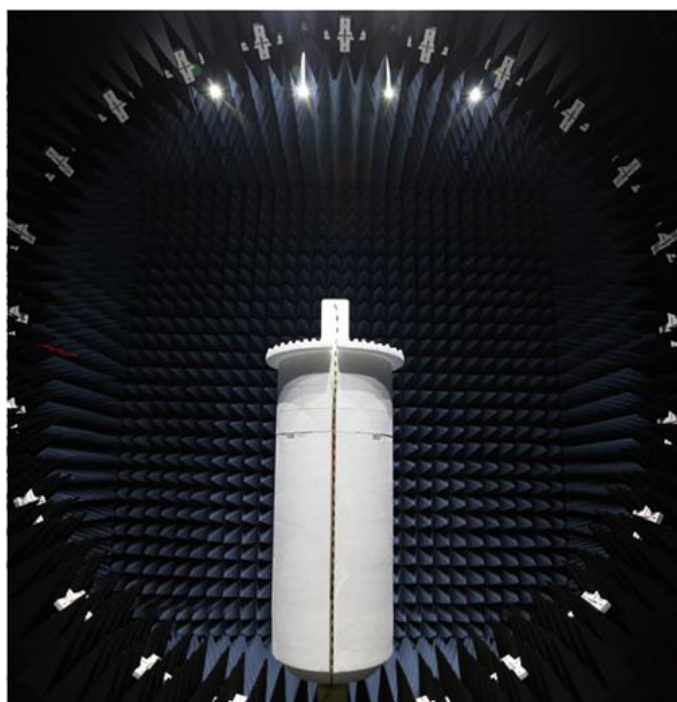
FACILITIES

Testing was performed at the following location(s)

	Location	Labs ⁽¹⁾	Address	A2LA ⁽²⁾	ISED ⁽³⁾	BSMI ⁽⁴⁾	VCCI ⁽⁵⁾	CAB	FDA ⁽⁶⁾
☐	California	OC01-17	41 Tesla Irvine, CA 92618 (949) 861-8918	3310.04	2834B	SL2-IN-E-1154R	A-0029	US0158	TL-55
☐	Minnesota	MN01-11	9349 W Broadway Ave. Brooklyn Park, MN 55445 (612) 638-5136	3310.05	2834E	SL2-IN-E-1152R	A-0109	US0175	TL-57
☐	Oregon	EV01-12	6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	3310.02	2834D	SL2-IN-E-1017	A-0108	US0017	TL-56
☒	Washington	NC01-05	19201 120th Ave NE Bothell, WA 98011 (425) 984-6600	3310.06	2834F	SL2-IN-E-1153R	A-0110	US0157	TL-67
☐	Offsite	N/A	See Product Description	N/A	N/A	N/A	N/A	N/A	N/A

See data sheets for specific labs

- (1) The lab designations denote individual rooms within each location. (OC01, OC02, OC03, etc.)
- (2) A2LA Certificate No.
- (3) ISED Company No.
- (4) BSMI No.
- (5) VCCI Site Filing No.
- (6) FDA ASCA No.



PRODUCT DESCRIPTION

Client and Equipment Under Evaluation Information

Company Name:	SMART Technologies ULC
Address:	Suite 600, 214 11 Ave SW
City, State, Zip:	Calgary, AB T2R 0K1 CANADA
Evaluation Requested By:	Sean MacKellar
EUT:	PQR-3
Date of Evaluation:	5/13/2026

Information Provided by the Party Requesting the Evaluation

Functional Description of the Equipment:

The PQR-3 is a multistylus accessory for use with SMART Interactive Flat Panel displays. The PQR-3 is a WPT client device, powered by a hybrid-supercap, which can be charged via inductive WPT charging. The PQR-3 utilizes a proprietary 2.4 GHz radio for communication. Transmission is possible while charging (via WPT).

Objective:

To demonstrate compliance with FCC Requirements for RF exposure for 1.1307 RF exempt devices

RF EXPOSURE CONDITION



The following RF Exposure conditions were used for the assessment documented in this report:	
Intended Use	Portable
Location on Body (if applicable)	Head/Torso
How is the Device Used	The PQR-3 is a handheld device
Radios Contained in the Same Host Device	Proprietary 2.4 GHz radio
Simultaneous Transmitting Radios	None
Body Worn Accessories	None
Environment	General Population/Uncontrolled Exposure

EXEMPTION FROM RF EXPOSURE EVALUATION



OVERVIEW

Section 1.3 of KDB 44798 D04 v01 states that, “Under the new rules, all radio services and operations are subject to Routine Evaluation [§§ 1.1307(b)(1), 2.1033(f), etc.], unless shown to qualify under the exemptions provided in the rules and OET Lab policies for equipment authorization.”

The glossary of KDB 44798 D04 v01 specifies that an exempt RF device is defined “solely from the obligation to perform a routine environmental evaluation to demonstrate compliance with the RF exposure limits in § 1.1310; it is not exemption from the equipment authorization procedures described in 47 CFR Part 2, not exemption from general obligations of compliance with the RF exposure limits in § 1.1310 of this chapter, and not exemption from determination of whether there is no significant effect on the quality of the human environment under § 1.1306.” Compliance with the exemption criteria defined in 1.1307(b) confirm compliance with the limits in § 1.1310.

COMPLIANCE WITH FCC LIMITS IN 47 CFR §1.1310

Per §1.1307(b)(3), (i) For single RF sources (*i.e.*, any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

- (A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);
- (B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th}(mW) = \begin{cases} ERP_{20\text{ cm}}(d/20\text{ cm})^x & d \leq 20\text{ cm} \\ ERP_{20\text{ cm}} & 20\text{ cm} < d \leq 40\text{ cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\text{ cm}}\sqrt{f}}\right) \text{ and } f \text{ is in GHz};$$

And

$$ERP_{20\text{ cm}}(mW) = \begin{cases} 2040f & 0.3\text{ GHz} \leq f < 1.5\text{ GHz} \\ 3060 & 1.5\text{ GHz} \leq f \leq 6\text{ GHz} \end{cases}$$

- (C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

TABLE 1 TO §1.1307(b)(3)(i)(C)—SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.

EXEMPTION FROM RF EXPOSURE EVALUATION

(ii) For multiple RF sources: Multiple RF sources are exempt if:

- (A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).
- (B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of this section for P_m , including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

$P_{m,i}$ = the exemption threshold power (P_m) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i .

ERP_j = the ERP of fixed, mobile, or portable RF source j .

$ERP_{m,j}$ = exemption threshold ERP for fixed, mobile, or portable RF source j , at a distance of at least $\lambda/2\pi$ according to the applicable formula of paragraph (b)(3)(i)(C) of this section.

$Evaluated_k$ = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

$Exposure Limit_k$ = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k , as applicable from §1.1310

The relationship between EIRP and ERP is:

$$ERP \text{ (dBm)} = EIRP \text{ (dBm)} - 2.14 \text{ dB}$$

Where EIRP is the sum of the conducted power (dBm) and the antenna gain (dBi).

EXEMPTION FROM RF EXPOSURE EVALUATION

ASSESSMENT

The exemption from RF exposure evaluation is summarized in the following table(s):

Radio	Frequency Range (MHz)	Conducted Output Power	Power Tolerance (dB)	Duty Cycle	Antenna Assembly Gain (dBi)	Minimum Separation Distance (cm)	Calculated Radiated Exposure Power (mW) ERP	Calculated Conducted Exposure Power (mW)	Limit (mW)	Compliant
Proprietary 2.4 GHz radio	2402-2480	1.75 dBm	2.0	3.1%	2.5	0.5	N/A	0.1	1.0	yes

The information in the table above was obtained from:

The rated value was used in these calculations. The rated power was supplied by the customer from Element report SMTE0017.1 Rev 1. The operational duty cycle is defined in the operation description submitted for product certification.

Evaluator: Frank Wong

Following Information Provided by the Party Requesting the Evaluation

Maximum Operating Duty Cycle:

The PQR-3 MultiStylus operates as a protocol-limited device. The STM32WB07 MCU is restricted by SMART firmware that cannot be altered by the end-user. During normal operation, maximum operating duty cycle for 2.4 GHz transmission is 3.118%.

The following illustrations describe the operation of the MCU during normal operation:



Within each 10ms period, the MCU operates for ~2.5ms, then returns to a sleep state:



Within the 2.5ms period, the MCU wakes up, the ADC is setup / read, the RF transmission occurs, the rest of the program is executed, and the MCU returns to sleep mode.

RF transmission occurs when the current is above 11mA within the 312.066us period shown above.

These illustrations demonstrate the maximum operating duty cycle for RF transmission, as set by SMART firmware, is 312.066us within a 10.0081ms period.

$$\text{Duty cycle} = T_{\text{on}} / (T_{\text{on}} + T_{\text{off}})$$

$$= 0.312066\text{ms} / 10.0081\text{ms}$$

$$= 0.03118$$

= 3.118%

Duty Cycle Correction:

Duty cycle correction has been applied to Average measurements within the FCC Part 15.247 and ISSED RSS-247 test reports to account for the duty cycle during testing and maximum operating duty cycle of the transmit signal during typical operation.

During testing, the duty cycle measured while in test mode was: 85.4%

Upward duty cycle correction has been applied to Average measurements to account for the test mode duty cycle being <98%.

Downward duty cycle correction was then applied to Average measurements to account for the maximum operating duty cycle.

The following calculations demonstrate how the Duty Cycle Correction Factor (DCCF) was derived:

Test Mode DCCF:

$$\begin{aligned} \text{DCCF} &= 10 \cdot \log(1/\text{DC}) \\ &= 10 \cdot \log(1/0.854) \\ &= 10 \cdot \log(1.171) \\ &= 10 \cdot (0.0685) \\ &= 0.685 \end{aligned}$$

Maximum Operating DCCF:

$$\begin{aligned} \text{DCCF} &= 10 \cdot \log(1/\text{DC}) \\ &= 10 \cdot \log(1/0.03118) \\ &= 10 \cdot \log(32.070) \\ &= 10 \cdot (1.506) \\ &= 15.06 \end{aligned}$$

Total DCCF applied to Average measurements:

$$\text{DCCF}_{\text{Tot}} = \text{DCCF}_{\text{TM}} - \text{DCCF}_{\text{MO}}$$

$$= 0.685 - 15.06$$

$$= -14.37$$

End of Test Report