

Radio Frequency Exposure Evaluation Report

FOR

Smith & Nephew Inc.

Model Name:

STRIDE 2012980

Product Description:

A wearable wireless sensor for motion activity tracking

FCC ID:

2AEAJ-2012980

Applied Rules and Standards:

CFR 47 Part 2.1093 FCC KDB 447498 D01 General RF Exposure Guidance v06

Test Report #:

SMITH-18001-FCC-SAR-EX

DATE:

05/09/2018



A2LA Accredited

IC recognized # 3462B-2

CETECOM Inc.

411 Dixon Landing Road • Milpitas, CA 95035 • U.S.A.

Phone: +1 (408) 586 6200 • Fax: +1 (408) 586 6299 • E-mail: info@cetecom.com • http://www.cetecom.com CETECOM Inc. is a Delaware Corporation with Corporation number: 2905571

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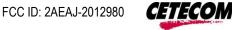
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1. Assessment

The following device was evaluated against the limits for general population uncontrolled exposure specified in CFR 47 Part 2.1093 according to SAR evaluation exclusion requirements specified in FCC regulation as listed in KDB 447498.

The device meets the requirements for SAR exclusion as stipulated by the above given FCC/ISED rules.

Responsible for Testing Laboratory:

5/09/2018 C	ompliance	(Lab Manager)	
Date	Section	Name	Signature

Responsible for the Report:

Cindy Li				
Compliance	(Sr. EMC Engineer)			
Section	Name	Signature		
	· ·			

The test results of this test report relate exclusively to the test item specified in Section3.

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2. Administrative Data

2.1. Identification of the Testing Laboratory Issuing the Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Compliance Manager:	James Donnellan
Responsible Project Manager:	Cathy Palacios

2.2. Identification of the Client

Applicant's Name:	Smith & Nephew Inc.
Street Address:	76 South Meridian Avenue
City/Zip Code	Oklahoma City / 73107
Country	USA

2.3. Identification of the Manufacturer

Applicant's Name:	Same as applicant
Street Address:	
City/Zip Code	
Country	

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3. Equipment under Assessment

Radio Type	BTLE			
Original Device FCC-ID	2ACEB-MMC			
Max. documented values from the modular grant:	Band	Frequency range (MHz)	Output Power (Watts)	
3	BTLE	2402 - 2480	0.0026	
Minimum distance of antenna or radiating parts to user	5 mm Body worn			
Other Radios included in the device:	N/A			
Co-located Transmitters/ Antennas:	□ Yes ■ No			
Exposure Category:	☐ Occupational/ Controlled ■ General Population/ Uncontrolled			
Device Category	☐ Fixed Installation ■ Portable	on □Mobile □ Mixed Mobile and	Portable	

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4. FCC Exemption Limits for Routine Evaluation

4.1.FCC SAR test exclusions are set by KDB 447498 D01 General RF Exposure Guidance v06

KDB 447498 Section: 4.3.1. Standalone SAR test exclusion considerations

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:

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

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

The test exclusions are applicable only when the minimum test separation distance is \leq 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

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5. Stand-Alone SAR Evaluation Exclusion

5.1. SAR exclusion calculation

According to KDB 447498, SAR evaluation can be excluded if the following equation is satisfied:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] $\cdot [\sqrt{f(GHz)}] \le 3.0$

Band/Technology	Frequency [GHz]	Max. Output Power [mW]	Applying duty cycle correction factor [mW]	Distance [mm]	P/D*SQRT(F) at 5 mm	≤ 3.0
BTLE	2.48	2.6	1.0	5	0.82	Pass

F: Frequency.

P: Max. Output Power [mW].

D: Distance.

SQRT(F): Square root(Frequency)

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6. Revision History

Date	Report Name	Changes to report	Report prepared by
05/09/2018	SMITH-18001-FCC-SAR-EX	Initial Version	Cindy Li