

RF Exposure Report

Project Number: 5045970

Offer Number: SUW-202212003797

Report Number: 5045970EMC04

Revision Level: 2

Client: Philips Medical Systems

Equipment Under Test: Telemetry Monitor

Product Name: Philips Telemetry Monitor 5500

Model Number: 867232

FCC ID: PQC-5500SH1A4

Applicable Standards: 47 CFR §§ 2.1093 (Portable)

FCC KDB 447498 D01 General RF Exposure Guidance v06

Report issued on: 18 July 2025

Result: Exempt from SAR evaluation



FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

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1 General Information

1.1 Client Information

Company Name: Philips Medical Systems North America Co.
 Address: 222 Jacobs Street
 City, State, Zip, Country: Cambridge, MA 02141, USA

1.2 Test Laboratory

Name: SGS North America, Inc.
 Address: 620 Old Peachtree Road NW, Suite 100
 City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
 Type of lab: Testing Laboratory
 Certificate Number: 3212.01

1.3 General Information of EUT

Equipment Under Test: Telemetry Monitor
 Product Name: Philips Telemetry Monitor 5500
 Model Number: 867232
 Serial Number: USPP000164
 FCC ID: PQC-5500SH1A4

Frequency Ranges: 1395 – 1400 MHz (WMTS)
 1427 – 1432 MHz (WMTS)
 2402 – 2480 MHz (BLE)

Data Modes: Smart Hopping – GFSK/BPSK/QPSK/8PSK (WMTS)
 Bluetooth Low Energy – GFSK (BLE)

Antennas: WMTS: PCB Planar Antenna (2.0 dBi peak gain)*
 BLE: Inverted F Chip Antenna (1.7 dBi peak gain)*

Maximum Conducted Power: WMTS: 18.5 dBm (with tune-up tolerance) at 3.1% duty cycle*
 BLE: 2.86 dBm at 100% assumed worst case duty cycle

Rated Voltage: 4.5V_{DC}
 Test Voltage: 4.5V_{DC} (from three D cell batteries or via USB from laptop)

Sample Received Date: 18 May 2023
 Dates of testing: 06-26 June 2023

*Data was not measured by SGS laboratory and therefore SGS is not responsible for accuracy. Data obtained via customer, specification sheet, previous filing or other.

1.4 Separation Distance

According to information provided by the manufacturer, the minimum separation distance between the radiating structure of the EUT and the patient's body is 5mm.

2 SAR Exclusion Calculations

The highest output power (including tune-up tolerance) in conjunction with the maximum possible operating duty cycle and the transmit frequency has been used to demonstrate compliance. The WMTS tune-up tolerance and maximum duty cycle were provided in documents from the client. The maximum tune-up tolerance for the high power WMTS channels is 15 dBm ±3.5 dB (including over temperature).

The EUT is considered a body application.

WMTS – Channel 15

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SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	18.5	dBm
Duty Cycle:	3.1%	
Min separation distance:	5	mm
Frequency, f:	1398	MHz

<== Source based time average duty cycle

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.182	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.4729	number	<== [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.4729	number	<== [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

WMTS – Channel 17

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SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	18.5	dBm
Duty Cycle:	3.1%	
Min separation distance:	5	mm
Frequency, f:	1430	MHz

<== Source based time average duty cycle

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.196	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.4783	number	<== [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.4783	number	<== [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

BLE – Channel 0

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SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	2.86	dBm
Duty Cycle:	100.0%	<== Source based time average duty cycle
Min separation distance:	5	mm
Frequency, f:	2402	MHz

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.550	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.6199	number	<== [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.6199	number	<== [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

BLE – Channel 39

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SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	2.61	dBm
Duty Cycle:	100.0%	<== Source based time average duty cycle
Min separation distance:	5	mm
Frequency, f:	2480	MHz

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.575	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.6299	number	<== [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.6299	number	<== [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial Release	02 November 2023
1	Added WMTS tune-up tolerance in section 2	17 July 2025
2	Corrected WMTS tune-up tolerance power values	18 July 2025