

FCC MPE TEST REPORT

Project Number : EA1710C-008
Test Report Number : TR-W1711-030
Type of Equipment : SCOPE2.0 Plus
FCC ID : 2AN5BGIS-PAMSC3
Model Name : GIS-PAMSC3
Multiple Model Name : N/A
Applicant : SEMES CO., LTD.
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Chungcheongnam-do, Korea
Manufacturer : SEMES CO., LTD.
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Chungcheongnam-do, Korea
Regulation : FCC Part 15 Subpart C 15.247 & Subpart E 15.407
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Test Result : PASS

This test report only contains the result of a single test of the sample supplied for the examination.
It is not a generally valid assessment of the features of the respective products of the mass-production.

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CONTENTS

Page

1. EUT (EQUIPMENT UNDER TEST)	4
2. TEST RESULT	5

Release Control Record

Issue Report No.	Issued Date	Revisions	Effect Section
TR-W1711-030	2017-11-30	Initial Release	All

1. EUT (Equipment Under Test)

1.1 General Description

The SEMES CO., LTD., Model GIS-PAMSC3 (referred to as the EUT in this report) is a SCOPE2.0 Plus. The EUT is a device for transferring vibration signal and equipment information to an agent PC through wired/wireless communication. For wireless communication, the EUT has WLAN module has function for 802.11a/b/g, and measure RF output power is as following table..

1.2 RF Output Power

Operating Mode	Channel	Frequency (MHz)	Data rate (Mbps)	Output Power (dBm)
802.11b	Low	2 412	11	18.00
	Middle	2 437	11	18.05
	High	2 462	11	18.09
802.11g	Low	2 412	54	18.90
	Middle	2 437	54	18.91
	High	2 462	54	19.06
802.11a (U-NII Band 1)	Low	5 180	54	15.78
	Middle	5 200	54	15.60
	High	5 240	54	15.48
802.11a (U-NII Band 3)	Low	5 745	54	11.63
	Middle	5 765	54	12.16
	High	5 805	54	12.05

2. TEST RESULT

According to FCC KDB 447498 D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

where,

$f(\text{GHz})$ 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 test exclusions are applicable only when the minimum test separation distance is ≤ 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 is applied to determine SAR test exclusion.

For the present device, the declared output power is 19.06 dBm. at 802.11g

So, max. power of channel, including tune-up tolerance = 80.54 mW

min. test separation distance = 50 mm

$f(\text{GHz}) = 2.462$

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

$$= (80.54 / 50) \times (\sqrt{2.462}) = 2.5 \leq 3.0$$

Hence the SAR Exclusion Threshold condition is satisfied and the SAR evaluation for general population exposure conditions is not required.