

# TEST REPORT

FCC/ISED MPE Test for BTM530A  
Certification

**APPLICANT**  
SEONG JI INDUSTRIAL CO.,LTD.

**REPORT NO.**  
HCT-RF-2011-FI026

**DATE OF ISSUE**  
December 7, 2020

**Tested by**  
Jung Ki Lim



**Technical Manager**  
Kwon Jeong



**HCT CO., LTD.**

*Soo Chan Lee*  
SooChan Lee / CEO

**HCT CO., LTD.**

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA  
Tel. +82 31 634 6300 F ax. +82 31 645 6401

**HCT Co., Ltd.**

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA  
Tel. +82 31 634 6300 Fax. +82 31 645 6401

**TEST  
REPORT**

FCC MPE Test for  
BTM530A

**REPORT NO.**

HCT-RF-2011-FI026

**DATE OF ISSUE**

December 07, 2020

**Additional Model**

-

**Applicant**

**SEONG JI INDUSTRIAL CO.,LTD**

54-33, DongtanHana 1-gil, Hwaseong-si, Gyeonggi-do, 18423, Korea

**Eut Type  
Model Name**

Bluetooth Module  
BTM530A

**FCC ID**

2AS8LBTM530A

**Frequency range**

2 402 MHz – 2 480 MHz (Bluetooth)

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test results were applied only to the test methods required by the standard.

## REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	December 07, 2020	Initial Release

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance

\* The report shall not be reproduced except in full(only partly) without approval of the laboratory.



## RF Exposure Statement

### 1. Limit

According to § 1.1310, § 2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f <sup>2</sup> )	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	f/1500	30
1500 - 100.000.....	.....	.....	1.0	30

F = frequency in MHz

\* = Plane-wave equivalent power density

### 2. Maximum Permissible Exposure Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = Power input to antenna

G = Power gain to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

### 3. RESULTS

#### 3-1. Bluetooth

Average output Power at antenna input terminal	9.99	dBm
Average output Power at antenna input terminal	9.98	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	0.00	dBi
Antenna Gain(numeric)	1.00	-
Power density at prediction frequency( S)	0.0020	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

#### 2.1091

EIRP	9.99 (dBm)
ERP	7.84 (dBm)
ERP	0.006 (W)
ERP Limit	3.00 (W)
MARGIN	26.93 (dB)

### 3-2. BT LE

Average output Power at antenna input terminal	9.99	dBm
Average output Power at antenna input terminal	9.98	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	0.00	dBi
Antenna Gain(numeric)	1.00	-
Power density at prediction frequency( S)	0.0020	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

### 2.1091

EIRP	9.99 (dBm)
ERP	7.84 (dBm)
ERP	0.006 (W)
ERP Limit	3.00 (W)
MARGIN	26.93 (dB)