RF Exposure Evaluation Declaration

Product Name	:	EZ-BLE PSoC XT/XR module
Model No.	:	CYBLE-224110-00；CYBLE-224116-01
FCC ID	:	WAP4110
IC	:	7922A-4110

Applicant	:	Cypress Semiconductor Corporation
Address	:	198 Champion Ct, San Jose, California 95134 United States

Date of Receipt	:	Mar. 10, 2016
Test Date	:	Mar. 10, 2016~ Apr. 21, 2016
Issued Date	:	Apr. 22, 2016
Report No.	:	1622048R-RF-US-P20V01
Report Version	:	V1.0

Test Report Certification

Issued Date : Apr.22, 2016
Report No. : 1622048R-RF-US-P20V01

QuieTek
a DEKRA company

Product Name	:	EZ-BLE PSoC XT/XR module
Applicant	:	Cypress Semiconductor Corporation
Address	:	198 Champion Ct, San Jose, California 95134 United States
Manufacturer	:	Wujiang Sigmatron Electronics Co., Ltd
Address	:	386 Huahong Rd, Wujiang, Suzhou, Jiangsu, China
Model No.	:	CYBLE-224110-00;CYBLE-224116-01
FCC ID	:	WAP4110
IC	:	7922A-4110
EUT Voltage	:	DC 2.3V
Applicable Standard	:	KDB 447498D01V06 FCC Part1.1310(b)
Test Result	:	Complied
Performed Location	:	Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392

Documented By : Alice Ni
(Senior Adm. Specialist: Alice Ni)

Reviewed By : Jack Zhang
(Senior Engineer: Jack Zhang)

Approved By :
(Engineering Manager : Harry Zhao)

Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	**:**	**BSMI, NCC, TAF**
USA	**:**	**FCC**
Japan	**:**	**VCCI**
China	**:**	**CNAS**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site :http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory :
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

Suzhou Testing Laboratory :
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1622048R-RF-US-P20V01	V1.0	Initial Issued Report	Apr.22, 2016

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.
The temperature and related humidity: 18℃ and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	:	EZ-BLE PSoC XT/XR module
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

- Antenna Gain:

No.	Peak Gain
ANT	0.5dBi

RF Exposure Evaluation

- Output Power into Antenna & RF Exposure Evaluation Distance:

Test Mode	Frequency Band (MHz)	Maximum Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
BLE	2402-2480	4.3551	0.000972

Note: The standalone power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is below the limit of 1 mW/cm2.

The End