

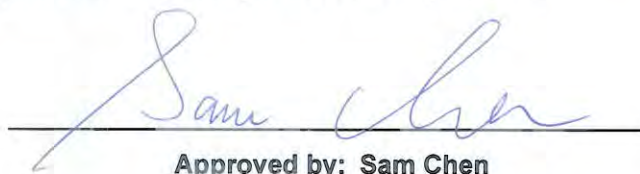


FCC RADIO EXPOSURE TEST REPORT

FCC ID : RI7WE310F5
Equipment : 802.11 b/g/n WiFi Module+BT combo module
Brand Name : Telit
Model Name : WE310F5-I; WE310F5-P
Applicant : TELIT COMMUNICATIONS S.P.A.
VIA STAZIONE DI PROSECCO 5B - SGONICO
-TRIESTE - ITALY
Manufacturer : TELIT COMMUNICATIONS S.P.A.
VIA STAZIONE DI PROSECCO 5B - SGONICO
-TRIESTE - ITALY
Standard : 47 CFR Part 2.1091

The product was received on Nov. 12, 2020, and testing was started from Nov. 26, 2020 and completed on Dec. 14, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
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Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 EUT General Information5

1.2 Table for Multiple Listing5

1.3 EUT Support Function.....5

2 Maximum Permissible Exposure6

2.1 Limit of Maximum Permissible Exposure6

2.2 MPE Calculation Method.....6

2.3 Calculated Result and Limit.....7

Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: **Sam Chen**

Report Producer: **Viola Huang**



1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Bluetooth	2400-2483.5	2402-2480	LE: GFSK

1.2 Table for Multiple Listing

The EUT has two model names which are identical to each other in all aspects except for the following table:

EUT No.	Model Name	Description	Remark
1	WE310F5-I	Interated antenna variant (SMD)	Equip with ant.1
2	WE310F5-P	Without antenna-Expose RF pad (Dipole antenna)	Equip with ant.2

Note 1: The above information was declared by manufacturer.

Note 2: The EUT 2 was performed testing for the RF exposure.

1.3 EUT Support Function

The EUT supports AP/client functions, only the client function was tested by manufacturer request.



2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*(100)	<6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1500	-	-	f/1500	<30
1500-100,000	-	-	1.0	<30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;G1D	2.30	17.34	19.64	0.50	20.14	0.10328	20	0.02055	1.00000
2.4G;BT-LE	2.30	4.86	7.16	0.50	7.66	0.00583	20	0.00116	1.00000

Note: The above antenna gain was declared by manufacturer.

————THE END————