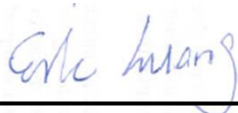


# RF Exposure Evaluation Report

APPLICANT : Telit Wireless Solutions Ltd.  
EQUIPMENT : LE940B6-NA  
BRAND NAME : Telit  
MODEL NAME : LE940B6-NA  
FCC ID : RI7LE940B6NA  
STANDARD : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Eric Huang / Manager



Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL INC.**

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA710425	Rev. 01	Initial issue of report	Mar. 17, 2017
FA710425	Rev. 02	Updated antenna gain	Mar. 27, 2017



**1. Administration Data**

**1.1. Testing Laboratory**

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Telit Wireless Solutions Ltd.
Address	12th Fl. Shinyoung Securities Bldg., 34-12, Yeouido-dong, Yeongdeungpo-gu, Seoul, Korea

Manufacturer	
Company Name	Telit Wireless Solutions Ltd.
Address	12th Fl. Shinyoung Securities Bldg., 34-12, Yeouido-dong, Yeongdeungpo-gu, Seoul, Korea



## 2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	LE940B6-NA
Brand Name	Telit
Model Name	LE940B6-NA
FCC ID	RI7LE940B6NA
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz
Mode	GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM
EUT Stage	Production Unit

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



**3. Maximum RF average output power among production units**

Mode	Average power(dBm)	
	GSM 850	GSM 1900
GPRS (GMSK, 1 Tx slot)	33.3	30.3
GPRS (GMSK, 2 Tx slots)	33.3	30.3
GPRS (GMSK, 3 Tx slots)	32.0	29.5
GPRS (GMSK, 4 Tx slots)	31.0	28.5
EDGE (8PSK, 1 Tx slot)	28.0	27.0
EDGE (8PSK, 2 Tx slots)	28.0	27.0
EDGE (8PSK, 3 Tx slots)	27.0	26.0
EDGE (8PSK, 4 Tx slots)	26.0	25.0

Mode		Average power(dBm)
WCDMA	Band II	24.5
	Band IV	24.5
	Band V	24.5
LTE	Band 2	24.0
	Band 4	24.0
	Band 5	24.0
	Band 7	24.0
	Band 12	24.0



### 4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
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

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:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



### 5. Radio Frequency Radiation Exposure Evaluation

#### 5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
GPRS 850 (1 Tx slot)	824.2	1.91	33.30	35.212	3.320	418.023	0.083	0.549
GPRS 850 (2 Tx slots)	824.2	1.91	33.30	35.212	3.320	834.065	0.166	0.549
GPRS 850 (3 Tx slots)	824.2	1.91	32.00	33.912	2.462	922.996	0.184	0.549
GPRS 850 (4 Tx slots)	824.2	1.91	31.00	32.912	1.955	979.941	0.195	0.549
EGPRS 850 (1 Tx slot)	824.2	1.91	28.00	29.912	0.980	123.367	0.025	0.549
EGPRS 850 (2 Tx slots)	824.2	1.91	28.00	29.912	0.980	246.150	0.049	0.549
EGPRS 850 (3 Tx slots)	824.2	1.91	27.00	28.912	0.778	291.877	0.058	0.549
EGPRS 850 (4 Tx slots)	824.2	1.91	26.00	27.912	0.618	309.885	0.062	0.549
GPRS 1900 (1 Tx slot)	1850.2	3.44	30.30	33.744	2.368	298.126	0.059	1.000
GPRS 1900 (2 Tx slots)	1850.2	3.44	30.30	33.744	2.368	594.840	0.118	1.000
GPRS 1900 (3 Tx slots)	1850.2	3.44	29.50	32.944	1.970	738.584	0.147	1.000
GPRS 1900 (4 Tx slots)	1850.2	3.44	28.50	31.944	1.565	784.152	0.156	1.000
EGPRS 1900 (1 Tx slot)	1850.2	3.44	27.00	30.444	1.108	139.444	0.028	1.000
EGPRS 1900 (2 Tx slots)	1850.2	3.44	27.00	30.444	1.108	278.227	0.055	1.000
EGPRS 1900 (3 Tx slots)	1850.2	3.44	26.00	29.444	0.880	329.913	0.066	1.000
EGPRS 1900 (4 Tx slots)	1850.2	3.44	25.00	28.444	0.699	350.268	0.070	1.000
WCDMA Band II	1852.4	3.44	24.50	27.944	0.623	622.874	0.124	1.000
WCDMA Band IV	1712.4	4.25	24.50	28.748	0.750	749.549	0.149	1.000
WCDMA Band V	826.4	1.91	24.50	26.412	0.438	437.724	0.087	0.551
LTE Band 2	1850.7	3.44	24.00	27.444	0.555	555.137	0.110	1.000
LTE Band 4	1710.7	4.25	24.00	28.248	0.668	668.036	0.133	1.000
LTE Band 5	824.7	1.91	24.00	25.912	0.390	390.122	0.078	0.550
LTE Band 7	2502.5	1.25	24.00	25.251	0.335	335.043	0.067	1.000
LTE Band 12	699.7	2.56	24.00	26.556	0.452	452.481	0.090	0.466

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band

### Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.