



## Test Report

Prepared for: Suntech Medical

Model: WK100

Serial Number: M00127246

Project No: p2430014

Test Results: Compliant

To

FCC Part 1.1310 / 2.1093  
and  
RSS-102: Issue 5 (March 2015)

Date of Issue: May 8, 2024

On the behalf of the applicant:

Suntech Medical  
5827 S. Miami Blvd.  
Suite 100  
Morrisville, NC 27560

Attention of:

Philip Schmidt, Sr. Director of Engineering  
Ph: (919)654-2300  
E-Mail: pschmidt@suntechmed.com

Prepared By:

Compliance Testing, LLC  
Mesa, AZ 85204  
(480) 926-3100 phone / (480) 926-3598 fax  
[www.compliancetesting.com](http://www.compliancetesting.com)  
ANAB Cert#: AT-2901  
FCC Site Reg. #US2901  
ISED Site Reg. #2044A-2

Reviewed / Authorized By:

A handwritten signature in blue ink, appearing to read 'J. Darden', is written over a light blue horizontal line.

Jeremiah Darden, Principal Engineer

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### Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	May 8, 2024	Jeremiah Darden	Original Document
2.0	May 16, 2024	Racheal Roberts	Updated Attention to, and added Firmware Information

*Current revision of the test report replaces any prior versions. Only the current version of the test report is valid.*

### EUT Description

<b>Model:</b>	<b>WK100</b>
<b>Serial:</b>	<b>M00127246</b>
<b>Firmware:</b>	<b>WK100 UI Firmware</b>
<b>Software:</b>	<b>N/A</b>
<b>Description:</b>	<b>Blood Pressure Monitor</b>
<b>Additional Information:</b>	<b>Calculations in this report are based on measured values from the respective FCC 15.249 and RSS-210 Reports.</b>  <b>Radio Frequency Range and Operational Info: 2401-2481MHz, GFSK, 41 channels, 250kbs data rate</b>  <b>EUT operates on removeable Li-Ion Battery (7.2VDC)</b> <b>Usage: Portable</b>

**MPE Evaluation (FCC)**

This is a mobile device used in Uncontrolled Exposure environment.

**Limits Controlled Exposure  
47 CFR 1.1310  
Table 1, (A)**

0.3-3.0 MHz:	Limit [mW/cm <sup>2</sup> ] = 100
3.0-30 MHz:	Limit [mW/cm <sup>2</sup> ] = (900/f <sup>2</sup> )
30-300 MHz:	Limit [mW/cm <sup>2</sup> ] = 1.0
300-1500 MHz:	Limit [mW/cm <sup>2</sup> ] = f/300
1500-100,000 MHz	Limit [mW/cm <sup>2</sup> ] = 5

**Limits Uncontrolled Exposure  
47 CFR 1.1310  
Table 1, (B)**

0.3-1.234 MHz:	Limit [mW/cm <sup>2</sup> ] = 100
1.34-30 MHz:	Limit [mW/cm <sup>2</sup> ] = (180/f <sup>2</sup> )
30-300 MHz:	Limit [mW/cm <sup>2</sup> ] = 0.2
300-1500 MHz:	Limit [mW/cm <sup>2</sup> ] = f/1500
1500-100,000 MHz	Limit [mW/cm <sup>2</sup> ] = 1.0

**Test Data**

Test Frequency, MHz	2400-2483.5
Peak Power, Conducted, mW (P)	0.31
Antenna Gain Isotropic	2.0 dBi
Antenna Gain Numeric (G)	1.58
Antenna Type	PCB Omni
Distance (R)	0.5cm

$S = \frac{P * G}{4\pi r^2}$
Power Density (S) mw/cm <sup>2</sup>
0.16 mW/cm <sup>2</sup>

Power Density (S) =
Limit = (from above table) = 1 mW/cm <sup>2</sup>

## MPE Evaluation (RSS 102)

### RF Exemption Section 2.5

#### EIRP Calculations

Frequency (MHz)	Output Power (dBm)	Duty Cycle (%)	Time Averaged Power (dBm)	Antenna Gain (dB)	EIRP (dBm)	EIRP (mW)	Exemption Limit (mW)
2401	-6.22	100	-6.22	2.0	-4.22	0.38	4.0
2441	-5.11	100	-5.11	2.0	-3.11	0.49	4.0
2481	-6.94	100	-6.94	2.0	-4.94	0.32	4.0

#### 2.5.1 Exemption Limits for Routine Evaluation – SAR Evaluation

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance 4,5

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance<sup>4,5</sup>

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW
1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW
5800	1 mW	6 mW	15 mW	27 mW	41 mW

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of ≥50 mm
≤300	223 mW	254 mW	284 mW	315 mW	345 mW
450	141 mW	159 mW	177 mW	195 mW	213 mW
835	80 mW	92 mW	105 mW	117 mW	130 mW
1900	99 mW	153 mW	225 mW	316 mW	431 mW
2450	83 mW	123 mW	173 mW	235 mW	309 mW
3500	86 mW	124 mW	170 mW	225 mW	290 mW
5800	56 mW	71 mW	85 mW	97 mW	106 mW

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power. For controlled use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 5. For limb-worn devices where the 10 gram value applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 2.5. If the operating frequency of the device is between two frequencies located in Table 1, linear interpolation shall be applied for the applicable separation distance. For test separation distance less than 5 mm, the exemption limits for a separation distance of 5 mm can be applied to determine if a routine evaluation is required.

For medical implants devices, the exemption limit for routine evaluation is set at 1 mW. The output



power of a medical implants device is defined as the higher of the conducted or e.i.r.p to determine whether the device is exempt from the SAR evaluation.

**The SAR measurement is not necessary.**

RSS 102 Annex C has been submitted with this Technical Brief, which shows compliance to the RF Exposure Limits in RSS 102.



END OF TEST REPORT