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TEST REPORT #: 315364
LSR Job #: C-2372


Compliance Testing of:

SPPM (Signal Performance Power Magazine)

Prepared For:

Attention: Teri Michaels
TASER
17800 N 85th Street
Scottsdale, AZ 58255

This Test Report is issued under the Authority of:
Michael Hintzke, EMC Engineer

Signature: 

Date: 6/29/16

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Prepared For: Ultratec	Model #: 2400iBT	Report #: 315336 A
EUT: 2400iBT	Serial #: 434ENG00014 (Conducted) 434ENG00015 (Radiated)	LSR Job #: C-2335

EXHIBIT 1 INTRODUCTION

1.1 Client Information

Manufacturer Name:	TASER
Address:	17800 N 85 th Street, Scottsdale AZ 58255
Contact Name:	Teri Michaels
E-mail:	tmichaels@taser.com

1.2 Equipment Under Test (EUT) Information

Product Name:	SPPM
Model Number:	T00074
Serial Number:	Engineering Sample

1.3 Product Description

The SPPM (Signal Performance Power Magazine) contains a BLE system-in-package module for BLE applications that enable wireless RF interfaces for video products, mobile phones, or other Bluetooth® Smart Ready devices.

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EXHIBIT 2 SAR Minimum Separation Distance

2.1 Bluetooth Transmitter

The EUT was evaluated against the SAR test exclusion threshold listed in FCC KDB 447498 D01 General RF Exposure Guidance v06 Section 4.3 (1).

Channel Frequency (MHz)	Max Peak Conducted Power (dBm)
2402	0.3
2440	1.5
2480	2.2

Frequency = 2.480 GHz
Output Power = 2.2 dBm
Tune-up Tolerance = 2 dB
Pout including tune-up tolerance = 4.2 dBm = 3 mW

Note: The tune-up tolerance was not available and was assumed to be 2 dB.

2.1.1 1-g Head/Body Minimum Separation Distance

$$\frac{P_{out}\sqrt{f(GHz)}}{3} = \frac{3 mW\sqrt{2.480}}{3} = 2 mm$$

Note: KDB 447498 states that if the minimum separation distance calculated above is less than 5 mm, a distance of 5mm is applied to determine SAR test exclusion

2.1.2 1-g Head/Body SAR Test Exclusion Threshold

$$\frac{3 mW}{5 mm} \cdot \sqrt{2.480} \leq 3.0$$

$$0.9 \leq 3.0$$

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EXHIBIT 3 RSS 102 Compliance

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

Note: Table 1 from RSS 102. The exemption limits represented in this table apply to 1-gram tissue, head and body, evaluation (uncontrolled).

3.1 Bluetooth Transmitter

Frequency = 2.480 GHz
 Output Power = 2.2 dBm
 Antenna Gain = 0.5 dBi
 Tune-up Tolerance = 2 dB
 EIRP = 4.7 dBm = 2.95 mW

3.2.1 1-g SAR Exemption:

Interpolating between 2450 MHz and 3500 MHz for 2480 MHz at a separation distance of **5 mm** yields the exemption limit of 3.94 mW

When evaluated against RSS 102 issue 5 section 2.5, table 1:

$$\underline{\underline{2.95 \text{ mW} \leq 3.94 \text{ mW}}}$$

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