

RF EXPOSURE EVALUATION REPORT

| FCC ID | : 2AF77-H2521550 |
|------------|--|
| Equipment | : Sync Module |
| Model Name | : BSM00600U |
| Applicant | : Immedia Semiconductor LLC. 100 Riverpark Drive Suite 125, North Reading, MA, United States 01864 |
| Standard | : 47 CFR Part 2.1091 |

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

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

Gua Guarge

Approved by: Cona Huang / Deputy Manager



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History of this test report

| Report No. Version | | Description | Issued Date | |
|--------------------|---------|-------------------------|---------------|--|
| FA512514 | Rev. 01 | Initial issue of report | Mar. 24, 2025 | |
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1. Description of Equipment Under Test (EUT)

| Product Feature & Specification | | | | |
|--|--|--|--|--|
| EUT Type | Sync Module | | | |
| Model Name | BSM00600U | | | |
| FCC ID | 2AF77-H2521550 | | | |
| Wireless Technology and Frequency Range | WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz LRF: 902.4 MHz ~ 927.6 MHz | | | |
| Mode | WLAN: 802.11b/g/n HT20 Bluetooth LE LRF: FHSS | | | |

Reviewed by: <u>Jason Wang</u> Report Producer: <u>Paula Chen</u>

2. Maximum RF average output power among production units

| Wireless Tech. | Max. Average power (dBm) |
|----------------|--------------------------|
| 2.4GHz WLAN | 17 |
| Bluetooth LE | 19 |
| LRF | 12.5 |



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3. <u>RF Exposure Limit Introduction</u>

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 ²) | Averaging time (minutes) | |
|--------------------------|----------------------------------|----------------------------------|--|-----------------------------|--|
| | (A) Limits for O | ccupational/Controlled Expo | sures | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 | |
| 3.0-30 | 1842/ | f 4.89/ | f *(900/f2) | 6 | |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 | |
| 300- <mark>1</mark> 500 | | | f/300 | 6 | |
| 1500-100,000 | | | 5 | 6 | |
| | (B) Limits for Gene | ral Population/Uncontrolled | Exposure | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 | |
| 1.34-30 824/ | | f 2.19/ | f *(180/f2) | 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

4. Radio Frequency Radiation Exposure Evaluation

| Band | Antenna Gain (dBi) | Maximum Power (dBm) | Maximum EIRP (dBm) | Maximum EIRP (W) | Average EIRP (mW) | Power Density at 20cm (mW/cm^2) | Limit (mW/cm^2) |
|-----------------|-----------------------|---------------------------|--------------------------|------------------------|----------------------|--|--------------------|
| WLAN2.4GHz Band | 3.0 | 17.00 | 20.00 | 0.10 | 100.00 | 0.020 | 1.000 |
| Bluetooth | 3.0 | 19.00 | 22.00 | 0.16 | 158.49 | 0.032 | 1.000 |
| LRF | 0.0 | 12.50 | 12.50 | 0.02 | 17.78 | 0.004 | 0.601 |

Conclusion:

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