

R D

|  | TEST F   | REP                                 | ORT  |   |
|--|--|-------------------------------------|--|---|
| To:  | BRANFORD LIMITED   |                                     | To:  | -   |
| Attn:  | DICKSON LEUNG  |                                     | Attn:  | -   |
| Address:   | 15 <sup>th</sup> Floor, Raiway Plaza, 39 Chatham<br>Road South, Tsimshatsui, Kowloon |                                     | Address:   | -   |
| Fax:   | 23682087   |                                     | Fax:   | -   |
| E-mail:  | Dickson.leung@branford.com   |                                     | E-mail:  | -   |
| Folder No.:  |  |                                     |  |   |
| Factory name:  |  |                                     |  |   |
| Location:  |  |                                     |  |   |
| Product:   |  |                                     | hony in B.<br>o.: BX1977Z  |   |
|  |  |                                     | Sample No:   | (5220)234-0059  |
|  | CORRECTOR.   |                                     | Test Date(s):  | September 07, 2020<br>to<br>September 16, 2020  |
|  |  | A.                                  | Test Requested:  | FCC Part 2 (section 2.1093)   |
|  |  |                                     | Test Method:   | KDB 447498 D01<br>IEEE C95.1  |
|  |  |                                     | FCC ID:  | SLURF1356BX1977Z  |
| The results g  | jiven in this report are related to the te   | ested sp                            | becimen of the des   | cribed electrical apparatus.  |
| CONCLUSION:  | The submitted sample was found to <u>C</u>   | OMPLY                               | with requirement   | of FCC Part 2.  |
|  | Authorize  | d Signat                            | ture:  |   |
|  | Vin  |                                     |  | Sy  |
| Reviewed by: Kir   | nko Wong   | Approv                              | ved by: Sze Tsz Ma   | n   |
| Date: December   |  |                                     | December 11, 2020  |   |
| BUREAU VERITAS<br>Kowloon Bay Offic<br>1/F Pacific Trade C | e report at <u>http://www.bu</u><br>exclusive use. Any cop                           | ireauveritas.co<br>bying or replica | m/home/about-us/our-business/cp.<br>tion of this report to or for any othe | ons of Service as posted at the date of issuance of this<br>s/about-us/terms-conditions/and is intended for your<br>or person or entity, or use of our name or trademark, is<br>ur findings solely with respect to the test samples |

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# **Test Result Summary**

| EMISSION TEST                                 |                |             |        |  |  |
|---|----------------|-------------|--------|--|--|
| Test requirement: FCC Part 2 (Section 2.1093) |                |             |        |  |  |
| Test Condition                                | Test Method    | Test Result |        |  |  |
| Test Condition                                | Test Method    | Pass        | Failed |  |  |
| RF EXPOSURE EVALUATION                        | KDB 447498 D01 | $\square$   |        |  |  |
|   | IEEE C95.1     |             |        |  |  |

### **Report Revision & Sample Re-submit History:**

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### Location of the test laboratory

### **Bureau Veritas Hong Kong Limited**

Room 03, 6/F, Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

Radiated measurements are investigated and taken pursuant to the procedures of ANSI C63.10 – 2013. Semi-anechoic Chamber are set up for investigation and located at:

LG1/F., HKPC Building, 78 Tat Chee Avenue, Kowloon, Hong Kong

### List of measuring equipment

| Radiated Emission                      |                          |                    |             |             |                  |
|--|--------------------------|--------------------|-------------|-------------|------------------|
| EQUIPMENT                              | MANUFACTURER             | MODEL NO.          | SERIAL NO.  | CAL. DATE   | CAL. DUE<br>DATE |
| EMI TEST RECEIVER                      | R&S                      | ESU40              | 100190      | 10-OCT-2020 | 10-OCT-2021      |
| SEMI-ANECHOIC CHAMBER                  | FRANKONIA                |                    |             | 20-MAR-2020 | 20-MAR-2021      |
| BICONICAL ANTENNA                      | R&S                      | HK116              | 100242      | 7-MAR-2019  | 7-MAR-2021       |
| LOG-PERIODIC ANTENNA                   | R&S                      | HL223              | 841516/019  | 6-MAR-2019  | 6-MAR-2021       |
| ACTIVE LOOP ANTENNA                    | EMCO                     | 6502               | 9107-2651   | 30-OCT-2019 | 30-OCT-2021      |
| STANDARD GAIN HORN<br>(8.2 – 12.4GHZ)  | ETS-LINDGREN             | 3160-07            | 00205404    | 04-SEP-2018 | 04-SEP-2020      |
| STANDARD GAIN HORN<br>(12.4 – 18GHZ)   | ETS-LINDGREN             | 3160-08            | 002056363   | 26-SEP-2018 | 26-SEP-2020      |
| DOUBLE RIDGED HORN<br>(1 – 8.2GHZ)     | ETS-LINDGREN             | 3117               | 00094998    | 30-AUG-2018 | 30-AUG-2020      |
| STANDARD GAIN HORN<br>(26.5 – 40GHZ)   | ETS-LINDGREN             | 3160-10            | 00205696    | 03-OCT-2018 | 03-OCT-2020      |
| DOUBLE RIDGED HORN<br>(18-26.5GHZ)     | ETS-LINDGREN             | 3116               | 00109210    | 05-OCT-2018 | 05-OCT-2020      |
| MICROWAVE PREAMPLIFIER                 | COM-POWER<br>CORPORATION | PAM-118A           | 551091      | 6-MAR-2020  | 6-MAR-2021       |
| PREAMPLIFIER<br>(18 -40GHZ WITH CABLE) | A.H. Systems, Inc.       | Pam-1840VH         | 168         | 30-JAN-2020 | 30-JAN-2021      |
| COAXIAL CABLE                          | Huber+Suhner             | CNM-NMCMILX800-473 | A2803 #0001 | 04-OCT-2018 | 04-OCT-2020      |

### **Measurement Uncertainty:**

| MEASUREMENT        | FREQUENCY         | UNCERTAINTY |  |
|--------------------|-------------------|-------------|--|
| Radiated emissions | 30MHz to 200MHz   | ±5.2dB      |  |
|                    | 200MHz to 1GHz    | ±6.1dB      |  |
|                    | 1GHz to 8.2GHz    | ±4.9dB      |  |
|                    | 8.2GHZ to 12.4GHz | ±4.3dB      |  |
|                    | 12.4GHz to 18GHz  | ±4.6dB      |  |

### Remarks: -

N/A: Not Applicable or Not Available

Measurement uncertainty is calculated in accordance with CISPR 16-4-2.

The statement of compliance is based on a 95% coverage probability for the expanded uncertainty of the measurement result using a coverage factor k = 2.

Compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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| General Information  |   |  |  |  |
|--|---|--|--|--|
| Product:   | Symphony in B.  |  |  |  |
| Model Number:  | BX1977Z   |  |  |  |
| Data Cable:  |   |  |  |  |
| Power Line Cable:  |   |  |  |  |
| Accessory Device:  |   |  |  |  |
| Additional Product Name:   |   |  |  |  |
| Additional Model Number:   |   |  |  |  |
| Additional Model Information:  |   |  |  |  |
| Adaptor:   |   |  |  |  |
| Model:   | -   |  |  |  |
| Input:   |   |  |  |  |
| Input power line cable:  |   |  |  |  |
| Output:  | -   |  |  |  |
| Output power line cable:   |   |  |  |  |
| Technical Information  |   |  |  |  |
| Rated Voltage:   | 9Vd.c. ("AA" size battery x 6)  |  |  |  |
| Power supply:  | 9Vd.c. ("AA" size battery x 6)  |  |  |  |
| Other information:   |   |  |  |  |
| Disclaimer Note: Technical information sta<br>base on the technical information provided | ated on this table are provided by client. All tests were conducted dabove. |  |  |  |

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### **Description of EUT Operation:**

The Equipment Under Test (EUT) is a **BRANFORD LIMITED** of RFID toy. The transmitter with 13 Tags is operating at 13.56 MHz. The transmitter continues to transmit when buttons is turn to ON and the Passive Tags provoked the signal transmission when the transmitter track on them. Modulation by IC, and type is amplitude modulation. The transmitter has different control:

- 1. Play song control play the next song
- 2. Demo play a loop of songs
- 3. Volume control control the volume
- 4. Tempo control control the tempo
- 5. Stop song control stop the song
- 6. On/Off switch control power on/off

### Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. The antenna consists of 50cm long signal. It is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirements of S15.203 are met. There are no deviations or exceptions to the specifications.

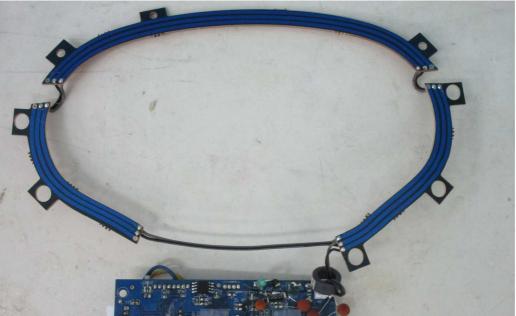


Photo of Antenna

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# **RF EXPOSURE EVALUATION**

a) For 100 MHz to 6 GHz and test separation distances  $\leq$  50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]  $\cdot [\sqrt{f(GHz)}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

- b) For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following (also illustrated in Appendix B):
  - 1) {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance -50mm) · (f(MHz)/150)] } mW, for 100 MHz to 1500 MHz
  - 2)  $\{$ [Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance – 50
- mm)·10]} mW, for > 1500 MHz and  $\leq 6$  GHz c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):
  - 1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by [1 +  $\log(100/f(MHz))$ ]
  - For test separation distances  $\leq$  50 mm, the power threshold determined by the equation in c) 2) 1) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$
  - 3) SAR measurement procedures are not established below 100 MHz.

# **CLASSIFICATION**

The antenna of this product under normal use condition, is less than 20 cm away from the body of the user. So, this device is classified as Portable device.

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# SAR test exclusion threshold

| Frequency<br>Band (MHz) | Maximum source-<br>based time averaged<br>conducted output<br>power<br>(dBm) | Tolerance<br>(dBm) | Power in<br>(mW) | Power<br>threshold<br>from c) 2<br>(mW) |
|-------------------------|--|--------------------|------------------|---|
| 13.56                   | -11.7  | 1                  | 0.1              | 442.7                                   |

Therefore this device is not required SAR evaluation for general population exposure conditions since the SAR Test Exclusion Threshold condition is satisfied.

\*\*\*\*\* End of Report \*\*\*\*\*

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