

# RF Exposure Evaluation Report

## 1 RF EXPOSURE

Product Name: Mechanical keyboard  
 Model No: BTS-MKB-A-109, PJR-111-MKB, Y98  
 FCC ID: 2AXYZ-Y98

### 1.1 LIMITS

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

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

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusio

### 1.2 EUT RF EXPOSURE EVALUATION

| Operational Mode: EDR                                          |                                           |                        |                             |                            |                  |                     |
|----------------------------------------------------------------|-------------------------------------------|------------------------|-----------------------------|----------------------------|------------------|---------------------|
| Channel (MHz)                                                  | Maximum Peak Conducted Output Power (dBm) | Tune up tolerance (dB) | Maximum tune-up Power (dBm) | Maximum tune-up Power (mW) | Calculated value | Exclusion threshold |
| 2402                                                           | 2.95                                      | $\pm 1$                | 3.95                        | 2.483                      | 0.770            | 3                   |
| Conclusion: the calculated value $\leq 3.0$ , SAR is exempted. |                                           |                        |                             |                            |                  |                     |

| Operational Mode: GFSK                                         |                                              |                                           |                        |                       |       |                  |       |
|----------------------------------------------------------------|----------------------------------------------|-------------------------------------------|------------------------|-----------------------|-------|------------------|-------|
| Channel (MHz)                                                  | Maximum Peak Conducted Output Power (dBuV/m) | Maximum Peak Conducted Output Power (dBm) | Tune up tolerance (dB) | Maximum tune-up Power |       | Calculated value | Limit |
|                                                                |                                              |                                           |                        | (dBm)                 | (mW)  |                  |       |
| 2480                                                           | 86.87                                        | -8.33                                     | $\pm 1$                | -7.33                 | 0.185 | 0.0582           | 3     |
| Conclusion: the calculated value $\leq 3.0$ , SAR is exempted. |                                              |                                           |                        |                       |       |                  |       |

dBm=dBuV/m-95.2

The 2.4g protocol and the Bluetooth protocol cannot be transmitted at the same time.