## **APPENDIX E: TEST SEQUENCES**

- 1. Test sequence is generated based on below parameters of the DUT:
  - a. Measured maximum power ( $P_{max}$ )
  - b. Measured Tx\_power\_at\_SAR\_design\_target (Plimit)
  - c. Reserve\_power\_margin (dB)
    - For 3G Technology: Reserve\_power\_margin (dB) = Reserve\_power\_margin\_db\_2g\_3g\_wwan; Preserve (dBm) = measured Plimit (dBm) -Reserve\_power\_margin\_db\_2g\_3g\_wwan
    - For 4G and 5G Technology: Reserve\_power\_margin (dB) = -10\*log10(total\_min\_exp\_budget\_linear\_4g\_5g\_wwan); Preserve (dBm) = measured Plimit (dBm) -( -10\*log10(total\_min\_exp\_budget\_linear\_4g\_5g\_wwan))
  - d. SAR\_time\_window (100s for FCC)
- Test Sequence 1 Waveform:

Based on the parameters above, the Test Sequence 1 is generated with one transition between high and low Tx powers. Here, high power =  $P_{max}$ ; low power =  $P_{max}/2$ , and the transition occurs after 80 seconds at high power  $P_{max}$ . As long as the power enforcement is taking into effective during one 100s/60s time window, the validation test with this defined test sequence 1 is valid, otherwise, select other radio configuration (band/DSI within the same technology group) having lower Plimit for this test. The Test sequence 1 waveform is shown below:

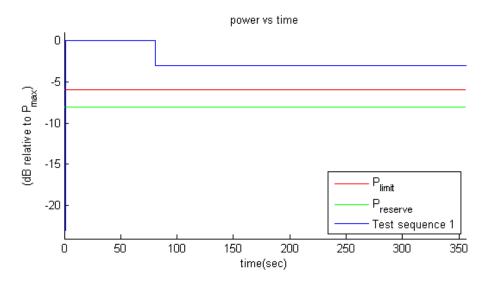


Figure E-1 Test sequence 1 waveform

|  | FCC ID: BCGA2761           | PART 2 RF EXPOSURE EVALUATION REPORT | Approved by:               |
|--|----------------------------|--------------------------------------|----------------------------|
|  |                            |                                      | Technical Manager          |
|  | DUT Type:<br>Tablet Device |                                      | APPENDIX E:<br>Page 1 of 3 |

© 2022 Element Rev0

## 3. Test Sequence 2 Waveform:

Based on the parameters described above, the Test Sequence 2 is generated as described in Table E-1, which contains two 170 second-long sequences (yellow and green highlighted rows) that are mirrored around the center row of 20s, resulting in a total duration of 360 seconds:

Table E-1 **Test Sequence 2** 

| Time duration (seconds) | dB relative to P <sub>limit</sub> or P <sub>reserve</sub>                   |  |
|-------------------------|---|--|
| <mark>15</mark>         | P <sub>reserve</sub> – 2  |  |
| <mark>20</mark>         | P <sub>limit</sub>  |  |
| <mark>20</mark>         | $(P_{limit} + P_{max})/2$ averaged in mW and rounded to nearest 0.1 dB step |  |
| 10                      | P <sub>reserve</sub> – 6  |  |
| <mark>20</mark>         | P <sub>max</sub>  |  |
| <mark>15</mark>         | P <sub>limit</sub>  |  |
| <mark>15</mark>         | P <sub>reserve</sub> – 5  |  |
| <mark>20</mark>         | P <sub>max</sub>  |  |
| <mark>10</mark>         | P <sub>reserve</sub> – 3  |  |
| <mark>15</mark>         | P <sub>limit</sub>  |  |
| <mark>10</mark>         | P <sub>reserve</sub> – 4  |  |
| 20                      | $(P_{limit} + P_{max})/2$ averaged in mW and rounded to nearest 0.1 dB step |  |
| 10                      | P <sub>reserve</sub> – 4  |  |
| <mark>15</mark>         | P <sub>limit</sub>  |  |
| <mark>10</mark>         | Preserve - 3  |  |
| <mark>20</mark>         | P <sub>max</sub>  |  |
| <mark>15</mark>         | P <sub>reserve</sub> – 5  |  |
| <mark>15</mark>         | P <sub>limit</sub>  |  |
| 20                      | P <sub>max</sub>  |  |
| <mark>10</mark>         | P <sub>reserve</sub> – 6  |  |
| 20                      | $(P_{limit} + P_{max})/2$ averaged in mW and rounded to nearest 0.1 dB step |  |
| 20                      | Plimit  |  |
| <mark>15</mark>         | P <sub>reserve</sub> – 2  |  |

| FCC ID: BCGA2761                  | PART 2 RF EXPOSURE EVALUATION REPORT | Approved by:               |
|-----------------------------------|--------------------------------------|----------------------------|
|                                   |                                      | Technical Manager          |
| <b>DUT Type:</b><br>Tablet Device |                                      | APPENDIX E:<br>Page 2 of 3 |

## The Test Sequence 2 waveform is shown in Figure E-2.

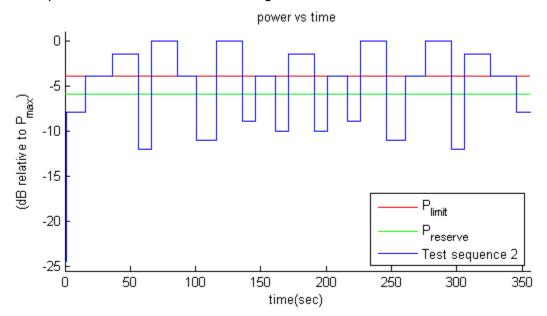


Figure E-2
Test sequence 2 waveform

| FCC ID: BCGA2761                  | PART 2 RF EXPOSURE EVALUATION REPORT | Approved by:               |
|-----------------------------------|--------------------------------------|----------------------------|
|                                   |                                      | Technical Manager          |
| <b>DUT Type:</b><br>Tablet Device |                                      | APPENDIX E:<br>Page 3 of 3 |

Rev0 09/21/2022 © 2022 Element