

RF Exposure Evaluation

(Mobile Condition)

FCC ID : A4RG6QU3
Equipment : Phone
Model Name : G6QU3
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated in accordance with 47 CFR Part 2.1091 for the device and pass the limit.

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



Approved by: Cona Huang / Deputy Manager

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1. Description of Equipment Under Test (EUT)

| Product Feature & Specification | |
|---|--|
| Equipment Name | Phone |
| Model Name | G6QU3 |
| FCC ID | A4RG6QU3 |
| Wireless Technology and Frequency Range | GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n260: 37GHz ~ 40GHz 5G NR n261: 27.5GHz ~ 28.35GHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8GHz Band: 5725 MHz ~ 5825 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz |
| Mode | GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM, 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN: 802.11a/b/g/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK |

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Reviewed by: Jason Wang

Report Producer: Wan Liu



2. Maximum Tune-up Limit

General Note:

- 1. For each cellular band, the device has 5 antennas, the antenna selection is based on the connection quality condition, and only one antenna will transmit at a time.
- 2. The maximum power of the WWAN antenna will be selected to evaluate the power density

<WWAN Maximum Power>

| Config0 | | | Maximum Transmit Power Level (dBm) |
|-------------------|-------------|--------------|------------------------------------|
| Radio Tech | Band Number | Antenna name | Default |
| GSM1Tx | 850 | ANT0 | 33.5 |
| GSM2Tx | 850 | ANT0 | 32.5 |
| GSM3Tx | 850 | ANT0 | 30.5 |
| GSM4Tx | 850 | ANT0 | 29.5 |
| EGPRS1Tx | 850 | ANT0 | 27.5 |
| EGPRS2Tx | 850 | ANT0 | 27.0 |
| EGPRS3Tx | 850 | ANT0 | 25.0 |
| EGPRS4Tx | 850 | ANT0 | 23.0 |
| GSM1Tx | 1900 | ANT2 | 30.5 |
| GSM2Tx | 1900 | ANT2 | 29.7 |
| GSM3Tx | 1900 | ANT2 | 28.0 |
| GSM4Tx | 1900 | ANT2 | 27.0 |
| EGPRS1Tx | 1900 | ANT2 | 26.5 |
| EGPRS2Tx | 1900 | ANT2 | 26.0 |
| EGPRS3Tx | 1900 | ANT2 | 25.0 |
| EGPRS4Tx | 1900 | ANT2 | 24.0 |
| WCDMA AMR/RMC | B2 | ANT2 | 25.7 |
| WCDMA HSDPA/HSUPA | B2 | ANT2 | 24.7 |
| WCDMA AMR/RMC | B4 | ANT2 | 25.7 |
| WCDMA HSDPA/HSUPA | B4 | ANT2 | 24.7 |
| WCDMA AMR/RMC | B5 | ANT0 | 25.0 |
| WCDMA HSDPA/HSUPA | B5 | ANT0 | 24.0 |
| CDMA | BC0 | ANT0 | 25.5 |
| CDMA | BC1 | ANT2 | 25.5 |
| CDMA | BC10 | ANT0 | 25.5 |
| LTE | B2 | ANT2 | 25.7 |
| LTE | B4 | ANT2 | 25.7 |
| LTE | B5 | ANT0 | 25.7 |
| LTE | B7 | ANT2 | 25.7 |
| LTE | B12 | ANT0 | 25.7 |
| LTE | B13 | ANT0 | 25.2 |
| LTE | B14 | ANT0 | 25.7 |
| LTE | B17 | ANT0 | 25.7 |
| LTE | B25 | ANT2 | 25.7 |
| LTE | B26 | ANT0 | 25.7 |
| LTE | B30 | ANT2 | 23.7 |
| LTE | B38 | ANT2 | 25.7 |
| LTE | B41 | ANT2 | 25.7 |
| LTE | B41_HPUE | ANT2 | 27.5 |
| LTE | B48 | ANT7 | 25.2 |
| LTE | B66 | ANT2 | 25.7 |



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| | | | |
|--------|-----|------|------|
| LTE | B71 | ANT0 | 25.7 |
| 5G FR1 | n2 | ANT2 | 25.7 |
| 5G FR1 | n5 | ANT0 | 25.0 |
| 5G FR1 | n12 | ANT0 | 24.7 |
| 5G FR1 | n25 | ANT2 | 25.7 |
| 5G FR1 | n66 | ANT2 | 25.7 |
| 5G FR1 | n71 | ANT0 | 25.7 |



| Config1 | | | Secondary Transmitter Maximum Transmit Power Level (dBm) |
|-------------------|-------------|--------------|--|
| Radio Tech | Band Number | Antenna name | Default |
| GSM1Tx | 850 | ANT1 | 33.5 |
| GSM2Tx | 850 | ANT1 | 32.5 |
| GSM3Tx | 850 | ANT1 | 30.5 |
| GSM4Tx | 850 | ANT1 | 29.5 |
| EGPRS1Tx | 850 | ANT1 | 27.5 |
| EGPRS2Tx | 850 | ANT1 | 27.0 |
| EGPRS3Tx | 850 | ANT1 | 25.0 |
| EGPRS4Tx | 850 | ANT1 | 23.0 |
| GSM1Tx | 1900 | ANT0 | 30.0 |
| GSM2Tx | 1900 | ANT0 | 29.2 |
| GSM3Tx | 1900 | ANT0 | 27.5 |
| GSM4Tx | 1900 | ANT0 | 26.5 |
| EGPRS1Tx | 1900 | ANT0 | 26.0 |
| EGPRS2Tx | 1900 | ANT0 | 25.5 |
| EGPRS3Tx | 1900 | ANT0 | 24.5 |
| EGPRS4Tx | 1900 | ANT0 | 23.5 |
| WCDMA AMR/RMC | B2 | ANT0 | 25.7 |
| WCDMA HSDPA/HSUPA | B2 | ANT0 | 24.7 |
| WCDMA AMR/RMC | B4 | ANT0 | 25.7 |
| WCDMA HSDPA/HSUPA | B4 | ANT0 | 24.7 |
| WCDMA AMR/RMC | B5 | ANT1 | 25.0 |
| WCDMA HSDPA/HSUPA | B5 | ANT1 | 24.0 |
| CDMA | BC0 | ANT1 | 25.5 |
| CDMA | BC1 | ANT0 | 25.5 |
| CDMA | BC10 | ANT1 | 25.5 |
| LTE | B2 | ANT0 | 25.7 |
| LTE | B4 | ANT0 | 25.7 |
| LTE | B5 | ANT1 | 25.7 |
| LTE | B7 | ANT0 | 25.7 |
| LTE | B12 | ANT1 | 25.7 |
| LTE | B13 | ANT1 | 25.2 |
| LTE | B14 | ANT1 | 25.7 |
| LTE | B17 | ANT1 | 25.7 |
| LTE | B25 | ANT0 | 25.7 |
| LTE | B26 | ANT1 | 25.7 |
| LTE | B30 | ANT0 | 23.7 |
| LTE | B38 | ANT0 | 25.7 |
| LTE | B41 | ANT0 | 25.7 |
| LTE | B41HPUE | ANT0 | 27.5 |
| LTE | B48 | ANT2 | 22.3 |
| LTE | B66 | ANT0 | 25.7 |
| LTE | B71 | ANT1 | 25.7 |
| 5G FR1 | n2 | ANT0 | 25.7 |
| 5G FR1 | n5 | ANT1 | 25.0 |
| 5G FR1 | n12 | ANT1 | 24.7 |
| 5G FR1 | n25 | ANT0 | 25.7 |
| 5G FR1 | n66 | ANT0 | 25.7 |
| 5G FR1 | n71 | ANT1 | 25.7 |



<WLAN Maximum Power>

<2.4GHz WLAN>

| 2.4GHz WLAN | Transmit Antenna | | | SISO | SISO | MIMO | | |
|---------------------|------------------|---------|-----------------|---------------------|---------------------|--------------------------|--------------------------|-----------------------|
| | Mode | Channel | Frequency (MHz) | Ant 4 Tune-Up Limit | Ant 3 Tune-Up Limit | Ant 4+3(4) Tune-Up Limit | Ant 4+3(3) Tune-Up Limit | Ant 4+3 Tune-Up Limit |
| 802.11b 1Mbps | | 1 | 2412 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| | | 6 | 2437 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| | | 11 | 2462 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| 802.11g 6Mbps | | 1 | 2412 | 16.00 | 16.00 | 16.00 | 16.00 | 19.0 |
| | | 6 | 2437 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| | | 11 | 2462 | 16.50 | 16.50 | 16.50 | 16.50 | 19.5 |
| 802.11n-HT20 MCS0 | | 1 | 2412 | 15.00 | 15.00 | 15.00 | 15.00 | 18.0 |
| | | 6 | 2437 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| | | 11 | 2462 | 15.50 | 15.50 | 15.50 | 15.50 | 18.5 |
| 802.11ac-VHT20 MCS0 | | 1 | 2412 | 14.50 | 14.50 | 14.50 | 14.50 | 17.5 |
| | | 6 | 2437 | 19.50 | 19.50 | 19.50 | 19.50 | 22.5 |
| | | 11 | 2462 | 15.50 | 15.50 | 15.50 | 15.50 | 18.5 |

<5GHz WLAN>

| 5.2GHz WLAN | Transmit Antenna | | | SISO | SISO | MIMO | | |
|---------------------|------------------|---------|-----------------|---------------------|---------------------|--------------------------|--------------------------|-----------------------|
| | Mode | Channel | Frequency (MHz) | Ant 4 Tune-Up Limit | Ant 3 Tune-Up Limit | Ant 4+3(4) Tune-Up Limit | Ant 4+3(3) Tune-Up Limit | Ant 4+3 Tune-Up Limit |
| 802.11a 6Mbps | | 36 | 5180 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 40 | 5200 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 44 | 5220 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 48 | 5240 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11n-HT20 MCS0 | | 36 | 5180 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 40 | 5200 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 44 | 5220 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 48 | 5240 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11n-HT40 MCS0 | | 38 | 5190 | 16.00 | 16.00 | 16.00 | 16.00 | 19.0 |
| | | 46 | 5230 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11ac-VHT20 MCS0 | | 36 | 5180 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 40 | 5200 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 44 | 5220 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 48 | 5240 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11ac-VHT40 MCS0 | | 38 | 5190 | 16.00 | 16.00 | 16.00 | 16.00 | 19.0 |
| | | 46 | 5230 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11ac-VHT80 MCS0 | | 42 | 5210 | 15.00 | 15.00 | 15.00 | 15.00 | 18.0 |



| Transmit Antenna | | | | SISO | SISO | MIMO | | |
|---------------------|---------------------|---------|-----------------|---------------------|---------------------|--------------------------|--------------------------|-----------------------|
| 5.3GHz WLAN | Mode | Channel | Frequency (MHz) | Ant 4 Tune-Up Limit | Ant 3 Tune-Up Limit | Ant 4+3(4) Tune-Up Limit | Ant 4+3(3) Tune-Up Limit | Ant 4+3 Tune-Up Limit |
| | 802.11a 6Mbps | 52 | 5260 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 56 | 5280 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 60 | 5300 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 64 | 5320 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | 802.11n-HT20 MCS0 | 52 | 5260 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 56 | 5280 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 60 | 5300 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 64 | 5320 | 17.00 | 17.00 | 17.00 | 17.00 | 20.0 |
| | 802.11n-HT40 MCS0 | 54 | 5270 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 62 | 5310 | 16.50 | 16.50 | 16.50 | 16.50 | 19.5 |
| | 802.11ac-VHT20 MCS0 | 52 | 5260 | 18.00 | 18.00 | 18.00 | 18.00 | 21.0 |
| | | 56 | 5280 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 60 | 5300 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 64 | | 5320 | 17.00 | 17.00 | 17.00 | 17.00 | 20.0 | |
| 802.11ac-VHT40 MCS0 | 54 | 5270 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 | |
| | 62 | 5310 | 16.50 | 16.50 | 16.50 | 16.50 | 19.5 | |
| 802.11ac-VHT80 MCS0 | 58 | 5290 | 16.00 | 16.00 | 16.00 | 16.00 | 19.0 | |



| Transmit Antenna | | | | SISO | SISO | MIMO | | |
|---------------------|---------------|---------|-----------------|---------------------|---------------------|--------------------------|--------------------------|-----------------------|
| 5.5GHz WLAN | Mode | Channel | Frequency (MHz) | Ant 4 Tune-Up Limit | Ant 3 Tune-Up Limit | Ant 4+3(4) Tune-Up Limit | Ant 4+3(3) Tune-Up Limit | Ant 4+3 Tune-Up Limit |
| | 802.11a 6Mbps | | 100 | 5500 | 18.50 | 18.50 | 18.50 | 18.50 |
| 116 | | | 5580 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 124 | | | 5620 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 132 | | | 5660 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 144 | | | 5720 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 802.11n-HT20 MCS0 | | 100 | 5500 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 116 | 5580 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 124 | 5620 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 132 | 5660 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 144 | 5720 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 802.11n-HT40 MCS0 | | 102 | 5510 | 17.00 | 17.00 | 17.00 | 17.00 | 20.0 |
| | | 110 | 5550 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 126 | 5630 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 134 | 5670 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 142 | 5710 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11ac-VHT20 MCS0 | | 100 | 5500 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 116 | 5580 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 124 | 5620 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 132 | 5660 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 144 | 5720 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 802.11ac-VHT40 MCS0 | | 102 | 5510 | 17.00 | 17.00 | 17.00 | 17.00 | 20.0 |
| | | 110 | 5550 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 126 | 5630 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 134 | 5670 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 142 | 5710 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| 802.11ac-VHT80 MCS0 | | 106 | 5530 | 16.00 | 16.00 | 16.00 | 16.00 | 19.0 |
| | | 122 | 5610 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 138 | 5690 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |



| Transmit Antenna | | | | SISO | SISO | MIMO | | |
|---------------------|---------------------|---------|-----------------|---------------------|---------------------|--------------------------|--------------------------|-----------------------|
| 5.8GHz WLAN | Mode | Channel | Frequency (MHz) | Ant 4 Tune-Up Limit | Ant 3 Tune-Up Limit | Ant 4+3(4) Tune-Up Limit | Ant 4+3(3) Tune-Up Limit | Ant 4+3 Tune-Up Limit |
| | 802.11a 6Mbps | 149 | 5745 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 157 | 5785 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 165 | 5825 | 17.00 | 17.00 | 17.00 | 17.00 | 20.0 |
| | 802.11n-HT20 MCS0 | 149 | 5745 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 157 | 5785 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | | 165 | 5825 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| | 802.11n-HT40 MCS0 | 151 | 5755 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | | 159 | 5795 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 |
| | 802.11ac-VHT20 MCS0 | 149 | 5745 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 |
| 157 | | 5785 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 | |
| 165 | | 5825 | 18.50 | 18.50 | 18.50 | 18.50 | 21.5 | |
| 802.11ac-VHT40 MCS0 | 151 | 5755 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 | |
| | 159 | 5795 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 | |
| 802.11ac-VHT80 MCS0 | 155 | 5775 | 17.50 | 17.50 | 17.50 | 17.50 | 20.5 | |

<Bluetooth Maximum Power>

| Mode | Average power (dBm) | | | | |
|---------------|---------------------|-------|-------|-------|-------|
| | BR / EDR | | | LE | |
| | 1Mbps | 2Mbps | 3Mbps | 1Mbps | 2Mbps |
| Tune-up Limit | 18 | 18 | 18 | 11.5 | 11.5 |



3. RF Exposure Limit Introduction

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 Occupational/Controlled Exposures | | | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 |
| 3.0-30 | 1842/f | 4.89/f | *(900/f ²) | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | | | f/300 | 6 |
| 1500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34-30 | 824/f | 2.19/f | *(180/f ²) | 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

4.1. Power Density Calculation

| 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) | Power Density / Limit |
|-------------------------|--------------------|---------------------|--------------------|------------------|-------------------|---|-----------------------------|-----------------------|
| GSM 850 (1 Tx slot) | -3.60 | 33.50 | 29.900 | 0.977 | 123.027 | 0.024 | 0.549 | 0.045 |
| GPRS 850 (1 Tx slot) | -3.60 | 33.50 | 29.900 | 0.977 | 123.027 | 0.024 | 0.549 | 0.045 |
| GPRS 850 (2 Tx slots) | -3.60 | 32.50 | 28.900 | 0.776 | 194.984 | 0.039 | 0.549 | 0.071 |
| GPRS 850 (3 Tx slots) | -3.60 | 30.50 | 26.900 | 0.490 | 183.654 | 0.037 | 0.549 | 0.067 |
| GPRS 850 (4 Tx slots) | -3.60 | 29.50 | 25.900 | 0.389 | 194.984 | 0.039 | 0.549 | 0.071 |
| EGPRS 850 (1 Tx slot) | -3.60 | 27.50 | 23.900 | 0.245 | 30.903 | 0.006 | 0.549 | 0.011 |
| EGPRS 850 (2 Tx slots) | -3.60 | 27.00 | 23.400 | 0.219 | 54.954 | 0.011 | 0.549 | 0.020 |
| EGPRS 850 (3 Tx slots) | -3.60 | 25.00 | 21.400 | 0.138 | 51.761 | 0.010 | 0.549 | 0.019 |
| EGPRS 850 (4 Tx slots) | -3.60 | 23.00 | 19.400 | 0.087 | 43.652 | 0.009 | 0.549 | 0.016 |
| GSM 1900 (1 Tx slot) | 1.50 | 30.50 | 32.000 | 1.585 | 199.526 | 0.040 | 1.000 | 0.040 |
| GPRS 1900 (1 Tx slot) | 1.50 | 30.50 | 32.000 | 1.585 | 199.526 | 0.040 | 1.000 | 0.040 |
| GPRS 1900 (2 Tx slots) | 1.50 | 29.70 | 31.200 | 1.318 | 331.131 | 0.066 | 1.000 | 0.066 |
| GPRS 1900 (3 Tx slots) | 1.50 | 28.00 | 29.500 | 0.891 | 334.195 | 0.067 | 1.000 | 0.067 |
| GPRS 1900 (4 Tx slots) | 1.50 | 27.00 | 28.500 | 0.708 | 354.813 | 0.071 | 1.000 | 0.071 |
| EGPRS 1900 (1 Tx slot) | 1.50 | 26.50 | 28.000 | 0.631 | 79.433 | 0.016 | 1.000 | 0.016 |
| EGPRS 1900 (2 Tx slots) | 1.50 | 26.00 | 27.500 | 0.562 | 141.254 | 0.028 | 1.000 | 0.028 |
| EGPRS 1900 (3 Tx slots) | 1.50 | 25.00 | 26.500 | 0.447 | 167.494 | 0.033 | 1.000 | 0.033 |
| EGPRS 1900 (4 Tx slots) | 1.50 | 24.00 | 25.500 | 0.355 | 177.828 | 0.035 | 1.000 | 0.035 |
| WCDMA Band 2 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| WCDMA Band 4 | 1.00 | 25.70 | 26.700 | 0.468 | 467.735 | 0.093 | 1.000 | 0.093 |
| WCDMA Band 5 | -3.60 | 25.00 | 21.400 | 0.138 | 138.038 | 0.027 | 0.551 | 0.050 |
| CDMA2000 BC0 | -3.60 | 25.50 | 21.900 | 0.155 | 154.882 | 0.031 | 0.550 | 0.056 |
| CDMA2000 BC1 | 1.50 | 25.50 | 27.000 | 0.501 | 501.187 | 0.100 | 1.000 | 0.100 |
| CDMA2000 BC10 | -3.60 | 25.50 | 21.900 | 0.155 | 154.882 | 0.031 | 0.545 | 0.057 |
| LTE Band 2 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| LTE Band 4 | 1.00 | 25.70 | 26.700 | 0.468 | 467.735 | 0.093 | 1.000 | 0.093 |
| LTE Band 5 | -3.60 | 25.70 | 22.100 | 0.162 | 162.181 | 0.032 | 0.550 | 0.059 |
| LTE Band 7 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| LTE Band 12 | -3.90 | 25.70 | 21.800 | 0.151 | 151.356 | 0.030 | 0.466 | 0.065 |
| LTE Band 13 | -3.90 | 25.20 | 21.300 | 0.135 | 134.896 | 0.027 | 0.520 | 0.052 |
| LTE Band 14 | -3.90 | 25.70 | 21.800 | 0.151 | 151.356 | 0.030 | 0.527 | 0.057 |
| LTE Band 17 | -3.90 | 25.70 | 21.800 | 0.151 | 151.356 | 0.030 | 0.471 | 0.064 |
| LTE Band 25 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| LTE Band 26 | -3.60 | 25.70 | 22.100 | 0.162 | 162.181 | 0.032 | 0.550 | 0.059 |
| LTE Band 30 | -1.00 | 23.70 | 22.700 | 0.186 | 186.209 | 0.037 | 1.000 | 0.037 |
| LTE Band 38 | -0.90 | 25.70 | 24.800 | 0.302 | 301.995 | 0.060 | 1.000 | 0.060 |
| LTE Band 41 | -0.90 | 25.70 | 24.800 | 0.302 | 301.995 | 0.060 | 1.000 | 0.060 |
| LTE Band 41 HPUE | -0.90 | 27.50 | 26.600 | 0.457 | 457.088 | 0.091 | 1.000 | 0.091 |
| LTE Band 48 | -0.50 | 25.20 | 24.700 | 0.295 | 295.121 | 0.059 | 1.000 | 0.059 |
| LTE Band 66 | 1.00 | 25.70 | 26.700 | 0.468 | 467.735 | 0.093 | 1.000 | 0.093 |
| LTE Band 71 | -6.00 | 25.70 | 19.700 | 0.093 | 93.325 | 0.019 | 0.444 | 0.042 |
| 5G NR n2 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| 5G NR n5 | -3.60 | 25.00 | 21.400 | 0.138 | 138.038 | 0.027 | 0.551 | 0.050 |
| 5G NR n12 | -3.90 | 24.70 | 20.800 | 0.120 | 120.226 | 0.024 | 0.468 | 0.051 |
| 5G NR n25 | 1.50 | 25.70 | 27.200 | 0.525 | 524.807 | 0.104 | 1.000 | 0.104 |
| 5G NR n66 | 1.00 | 25.70 | 26.700 | 0.468 | 467.735 | 0.093 | 1.000 | 0.093 |
| 5G NR n71 | -6.00 | 25.70 | 19.700 | 0.093 | 93.325 | 0.019 | 0.444 | 0.042 |



| 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) | Power Density / Limit |
|-------------|--------------------|---------------------|--------------------|------------------|-------------------|---|-----------------------------|-----------------------|
| 2.4GHz WLAN | 0.30 | 22.50 | 22.800 | 0.191 | 190.546 | 0.038 | 1.000 | 0.038 |
| 5GHz WLAN | 0.50 | 21.50 | 22.000 | 0.158 | 158.489 | 0.032 | 1.000 | 0.032 |
| Bluetooth | 0.30 | 18.00 | 18.300 | 0.068 | 67.608 | 0.013 | 1.000 | 0.013 |

| WWAN Power Density / Limit | 2.4GHz WLAN Power Density / Limit | 5GHz WLAN Power Density / Limit | Σ(Power Density / Limit) |
|----------------------------|-----------------------------------|---------------------------------|--------------------------|
| 0.104 | 0.038 | 0.032 | 0.174 |
| WWAN Power Density / Limit | 5GHz WLAN Power Density / Limit | Bluetooth Power Density / Limit | Σ(Power Density / Limit) |
| 0.104 | 0.032 | 0.013 | 0.149 |

Note:

- For collocation analysis, the highest (power density/limit) among all WWAN wireless modes is chosen for summation.
- Σ(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + 2.4GHz WLAN + 5GHz WLAN low power transmitter or WWAN + 5GHz WLAN + Bluetooth low power transmitter.
- Considering the WWAN collocation with the WLAN / Bluetooth low power transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 3 collocated transmitters is compliant

Conclusion:

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