

|       |    |       |     |      |       |       |
|-------|----|-------|-----|------|-------|-------|
| Band4 | 15 | 20025 | 1   | #Mid | QPSK  | 23.86 |
| Band4 | 15 | 20025 | 1   | #Max | QPSK  | 23.71 |
| Band4 | 15 | 20025 | 36  | #0   | QPSK  | 22.66 |
| Band4 | 15 | 20025 | 36  | #Mid | QPSK  | 22.69 |
| Band4 | 15 | 20025 | 36  | #Max | QPSK  | 22.74 |
| Band4 | 15 | 20025 | 75  | #0   | QPSK  | 22.72 |
| Band4 | 15 | 20025 | 1   | #0   | QAM16 | 22.90 |
| Band4 | 15 | 20025 | 1   | #Mid | QAM16 | 23.19 |
| Band4 | 15 | 20025 | 1   | #Max | QAM16 | 23.13 |
| Band4 | 15 | 20025 | 36  | #0   | QAM16 | 21.63 |
| Band4 | 15 | 20025 | 36  | #Mid | QAM16 | 21.66 |
| Band4 | 15 | 20025 | 36  | #Max | QAM16 | 21.72 |
| Band4 | 15 | 20025 | 75  | #0   | QAM16 | 21.69 |
| Band4 | 15 | 20175 | 1   | #0   | QPSK  | 23.80 |
| Band4 | 15 | 20175 | 1   | #Mid | QPSK  | 24.10 |
| Band4 | 15 | 20175 | 1   | #Max | QPSK  | 23.75 |
| Band4 | 15 | 20175 | 36  | #0   | QPSK  | 22.82 |
| Band4 | 15 | 20175 | 36  | #Mid | QPSK  | 22.98 |
| Band4 | 15 | 20175 | 36  | #Max | QPSK  | 23.05 |
| Band4 | 15 | 20175 | 75  | #0   | QPSK  | 22.95 |
| Band4 | 15 | 20175 | 1   | #0   | QAM16 | 22.96 |
| Band4 | 15 | 20175 | 1   | #Mid | QAM16 | 23.21 |
| Band4 | 15 | 20175 | 1   | #Max | QAM16 | 22.92 |
| Band4 | 15 | 20175 | 36  | #0   | QAM16 | 21.83 |
| Band4 | 15 | 20175 | 36  | #Mid | QAM16 | 21.96 |
| Band4 | 15 | 20175 | 36  | #Max | QAM16 | 22.02 |
| Band4 | 15 | 20175 | 75  | #0   | QAM16 | 21.88 |
| Band4 | 15 | 20325 | 1   | #0   | QPSK  | 23.73 |
| Band4 | 15 | 20325 | 1   | #Mid | QPSK  | 23.99 |
| Band4 | 15 | 20325 | 1   | #Max | QPSK  | 23.57 |
| Band4 | 15 | 20325 | 36  | #0   | QPSK  | 22.74 |
| Band4 | 15 | 20325 | 36  | #Mid | QPSK  | 22.69 |
| Band4 | 15 | 20325 | 36  | #Max | QPSK  | 22.64 |
| Band4 | 15 | 20325 | 75  | #0   | QPSK  | 22.63 |
| Band4 | 15 | 20325 | 1   | #0   | QAM16 | 22.74 |
| Band4 | 15 | 20325 | 1   | #Mid | QAM16 | 22.93 |
| Band4 | 15 | 20325 | 1   | #Max | QAM16 | 22.63 |
| Band4 | 15 | 20325 | 36  | #0   | QAM16 | 21.63 |
| Band4 | 15 | 20325 | 36  | #Mid | QAM16 | 21.58 |
| Band4 | 15 | 20325 | 36  | #Max | QAM16 | 21.51 |
| Band4 | 15 | 20325 | 75  | #0   | QAM16 | 21.65 |
| Band4 | 20 | 20050 | 1   | #0   | QPSK  | 23.35 |
| Band4 | 20 | 20050 | 1   | #Mid | QPSK  | 23.77 |
| Band4 | 20 | 20050 | 1   | #Max | QPSK  | 23.67 |
| Band4 | 20 | 20050 | 50  | #0   | QPSK  | 22.65 |
| Band4 | 20 | 20050 | 50  | #Mid | QPSK  | 22.71 |
| Band4 | 20 | 20050 | 50  | #Max | QPSK  | 22.80 |
| Band4 | 20 | 20050 | 100 | #0   | QPSK  | 22.74 |
| Band4 | 20 | 20050 | 1   | #0   | QAM16 | 22.62 |
| Band4 | 20 | 20050 | 1   | #Mid | QAM16 | 23.03 |
| Band4 | 20 | 20050 | 1   | #Max | QAM16 | 22.97 |
| Band4 | 20 | 20050 | 50  | #0   | QAM16 | 21.69 |
| Band4 | 20 | 20050 | 50  | #Mid | QAM16 | 21.74 |
| Band4 | 20 | 20050 | 50  | #Max | QAM16 | 21.83 |
| Band4 | 20 | 20050 | 100 | #0   | QAM16 | 21.73 |
| Band4 | 20 | 20175 | 1   | #0   | QPSK  | 23.62 |
| Band4 | 20 | 20175 | 1   | #Mid | QPSK  | 24.07 |

|       |    |       |     |      |       |       |
|-------|----|-------|-----|------|-------|-------|
| Band4 | 20 | 20175 | 1   | #Max | QPSK  | 23.60 |
| Band4 | 20 | 20175 | 50  | #0   | QPSK  | 22.70 |
| Band4 | 20 | 20175 | 50  | #Mid | QPSK  | 22.90 |
| Band4 | 20 | 20175 | 50  | #Max | QPSK  | 22.99 |
| Band4 | 20 | 20175 | 100 | #0   | QPSK  | 22.85 |
| Band4 | 20 | 20175 | 1   | #0   | QAM16 | 22.86 |
| Band4 | 20 | 20175 | 1   | #Mid | QAM16 | 23.23 |
| Band4 | 20 | 20175 | 1   | #Max | QAM16 | 22.77 |
| Band4 | 20 | 20175 | 50  | #0   | QAM16 | 21.69 |
| Band4 | 20 | 20175 | 50  | #Mid | QAM16 | 21.85 |
| Band4 | 20 | 20175 | 50  | #Max | QAM16 | 21.95 |
| Band4 | 20 | 20175 | 100 | #0   | QAM16 | 21.86 |
| Band4 | 20 | 20300 | 1   | #0   | QPSK  | 23.68 |
| Band4 | 20 | 20300 | 1   | #Mid | QPSK  | 23.76 |
| Band4 | 20 | 20300 | 1   | #Max | QPSK  | 23.40 |
| Band4 | 20 | 20300 | 50  | #0   | QPSK  | 22.64 |
| Band4 | 20 | 20300 | 50  | #Mid | QPSK  | 22.65 |
| Band4 | 20 | 20300 | 50  | #Max | QPSK  | 22.63 |
| Band4 | 20 | 20300 | 100 | #0   | QPSK  | 22.64 |
| Band4 | 20 | 20300 | 1   | #0   | QAM16 | 22.87 |
| Band4 | 20 | 20300 | 1   | #Mid | QAM16 | 23.00 |
| Band4 | 20 | 20300 | 1   | #Max | QAM16 | 22.62 |
| Band4 | 20 | 20300 | 50  | #0   | QAM16 | 21.69 |
| Band4 | 20 | 20300 | 50  | #Mid | QAM16 | 21.65 |
| Band4 | 20 | 20300 | 50  | #Max | QAM16 | 21.62 |
| Band4 | 20 | 20300 | 100 | #0   | QAM16 | 21.66 |

| Band  | Bandwidth (MHz) | UL Channel | RB Size | RB Position | Modulation | Power (dBm) |
|-------|-----------------|------------|---------|-------------|------------|-------------|
| Band5 | 1.4             | 20407      | 1       | #0          | QPSK       | 25.82       |
| Band5 | 1.4             | 20407      | 1       | #Mid        | QPSK       | 25.98       |
| Band5 | 1.4             | 20407      | 1       | #Max        | QPSK       | 25.84       |
| Band5 | 1.4             | 20407      | 3       | #0          | QPSK       | 25.76       |
| Band5 | 1.4             | 20407      | 3       | #Mid        | QPSK       | 25.78       |
| Band5 | 1.4             | 20407      | 3       | #Max        | QPSK       | 25.80       |
| Band5 | 1.4             | 20407      | 6       | #0          | QPSK       | 24.80       |
| Band5 | 1.4             | 20407      | 1       | #0          | QAM16      | 24.89       |
| Band5 | 1.4             | 20407      | 1       | #Mid        | QAM16      | 25.00       |
| Band5 | 1.4             | 20407      | 1       | #Max        | QAM16      | 24.90       |
| Band5 | 1.4             | 20407      | 3       | #0          | QAM16      | 24.95       |
| Band5 | 1.4             | 20407      | 3       | #Mid        | QAM16      | 24.93       |
| Band5 | 1.4             | 20407      | 3       | #Max        | QAM16      | 24.93       |
| Band5 | 1.4             | 20407      | 6       | #0          | QAM16      | 23.93       |
| Band5 | 1.4             | 20525      | 1       | #0          | QPSK       | 25.80       |
| Band5 | 1.4             | 20525      | 1       | #Mid        | QPSK       | 25.98       |
| Band5 | 1.4             | 20525      | 1       | #Max        | QPSK       | 25.81       |
| Band5 | 1.4             | 20525      | 3       | #0          | QPSK       | 25.92       |
| Band5 | 1.4             | 20525      | 3       | #Mid        | QPSK       | 25.95       |
| Band5 | 1.4             | 20525      | 3       | #Max        | QPSK       | 25.83       |
| Band5 | 1.4             | 20525      | 6       | #0          | QPSK       | 24.81       |
| Band5 | 1.4             | 20525      | 1       | #0          | QAM16      | 24.98       |
| Band5 | 1.4             | 20525      | 1       | #Mid        | QAM16      | 25.06       |
| Band5 | 1.4             | 20525      | 1       | #Max        | QAM16      | 24.95       |
| Band5 | 1.4             | 20525      | 3       | #0          | QAM16      | 25.07       |
| Band5 | 1.4             | 20525      | 3       | #Mid        | QAM16      | 25.12       |
| Band5 | 1.4             | 20525      | 3       | #Max        | QAM16      | 25.06       |
| Band5 | 1.4             | 20525      | 6       | #0          | QAM16      | 23.96       |
| Band5 | 1.4             | 20643      | 1       | #0          | QPSK       | 25.47       |
| Band5 | 1.4             | 20643      | 1       | #Mid        | QPSK       | 25.68       |
| Band5 | 1.4             | 20643      | 1       | #Max        | QPSK       | 25.48       |
| Band5 | 1.4             | 20643      | 3       | #0          | QPSK       | 25.53       |
| Band5 | 1.4             | 20643      | 3       | #Mid        | QPSK       | 25.50       |
| Band5 | 1.4             | 20643      | 3       | #Max        | QPSK       | 25.49       |
| Band5 | 1.4             | 20643      | 6       | #0          | QPSK       | 24.51       |
| Band5 | 1.4             | 20643      | 1       | #0          | QAM16      | 24.36       |
| Band5 | 1.4             | 20643      | 1       | #Mid        | QAM16      | 24.48       |
| Band5 | 1.4             | 20643      | 1       | #Max        | QAM16      | 24.33       |
| Band5 | 1.4             | 20643      | 3       | #0          | QAM16      | 24.68       |
| Band5 | 1.4             | 20643      | 3       | #Mid        | QAM16      | 24.67       |
| Band5 | 1.4             | 20643      | 3       | #Max        | QAM16      | 24.70       |
| Band5 | 1.4             | 20643      | 6       | #0          | QAM16      | 23.68       |
| Band5 | 3               | 20415      | 1       | #0          | QPSK       | 25.77       |
| Band5 | 3               | 20415      | 1       | #Mid        | QPSK       | 26.10       |
| Band5 | 3               | 20415      | 1       | #Max        | QPSK       | 25.82       |
| Band5 | 3               | 20415      | 8       | #0          | QPSK       | 24.78       |
| Band5 | 3               | 20415      | 8       | #Mid        | QPSK       | 24.83       |
| Band5 | 3               | 20415      | 8       | #Max        | QPSK       | 24.83       |
| Band5 | 3               | 20415      | 15      | #0          | QPSK       | 24.74       |
| Band5 | 3               | 20415      | 1       | #0          | QAM16      | 25.18       |
| Band5 | 3               | 20415      | 1       | #Mid        | QAM16      | 25.46       |
| Band5 | 3               | 20415      | 1       | #Max        | QAM16      | 25.22       |
| Band5 | 3               | 20415      | 8       | #0          | QAM16      | 23.80       |
| Band5 | 3               | 20415      | 8       | #Mid        | QAM16      | 23.82       |
| Band5 | 3               | 20415      | 8       | #Max        | QAM16      | 23.77       |

|       |   |       |    |      |       |       |
|-------|---|-------|----|------|-------|-------|
| Band5 | 3 | 20415 | 15 | #0   | QAM16 | 23.77 |
| Band5 | 3 | 20525 | 1  | #0   | QPSK  | 25.94 |
| Band5 | 3 | 20525 | 1  | #Mid | QPSK  | 26.34 |
| Band5 | 3 | 20525 | 1  | #Max | QPSK  | 25.86 |
| Band5 | 3 | 20525 | 8  | #0   | QPSK  | 24.87 |
| Band5 | 3 | 20525 | 8  | #Mid | QPSK  | 24.88 |
| Band5 | 3 | 20525 | 8  | #Max | QPSK  | 24.83 |
| Band5 | 3 | 20525 | 15 | #0   | QPSK  | 24.82 |
| Band5 | 3 | 20525 | 1  | #0   | QAM16 | 25.08 |
| Band5 | 3 | 20525 | 1  | #Mid | QAM16 | 25.35 |
| Band5 | 3 | 20525 | 1  | #Max | QAM16 | 24.97 |
| Band5 | 3 | 20525 | 8  | #0   | QAM16 | 23.87 |
| Band5 | 3 | 20525 | 8  | #Mid | QAM16 | 23.90 |
| Band5 | 3 | 20525 | 8  | #Max | QAM16 | 23.84 |
| Band5 | 3 | 20525 | 15 | #0   | QAM16 | 23.81 |
| Band5 | 3 | 20635 | 1  | #0   | QPSK  | 25.63 |
| Band5 | 3 | 20635 | 1  | #Mid | QPSK  | 25.96 |
| Band5 | 3 | 20635 | 1  | #Max | QPSK  | 25.59 |
| Band5 | 3 | 20635 | 8  | #0   | QPSK  | 24.53 |
| Band5 | 3 | 20635 | 8  | #Mid | QPSK  | 24.59 |
| Band5 | 3 | 20635 | 8  | #Max | QPSK  | 24.53 |
| Band5 | 3 | 20635 | 15 | #0   | QPSK  | 24.55 |
| Band5 | 3 | 20635 | 1  | #0   | QAM16 | 24.45 |
| Band5 | 3 | 20635 | 1  | #Mid | QAM16 | 24.67 |
| Band5 | 3 | 20635 | 1  | #Max | QAM16 | 24.43 |
| Band5 | 3 | 20635 | 8  | #0   | QAM16 | 23.52 |
| Band5 | 3 | 20635 | 8  | #Mid | QAM16 | 23.56 |
| Band5 | 3 | 20635 | 8  | #Max | QAM16 | 23.50 |
| Band5 | 3 | 20635 | 15 | #0   | QAM16 | 23.60 |
| Band5 | 5 | 20425 | 1  | #0   | QPSK  | 25.67 |
| Band5 | 5 | 20425 | 1  | #Mid | QPSK  | 26.13 |
| Band5 | 5 | 20425 | 1  | #Max | QPSK  | 25.78 |
| Band5 | 5 | 20425 | 12 | #0   | QPSK  | 24.76 |
| Band5 | 5 | 20425 | 12 | #Mid | QPSK  | 24.82 |
| Band5 | 5 | 20425 | 12 | #Max | QPSK  | 24.79 |
| Band5 | 5 | 20425 | 25 | #0   | QPSK  | 24.79 |
| Band5 | 5 | 20425 | 1  | #0   | QAM16 | 25.21 |
| Band5 | 5 | 20425 | 1  | #Mid | QAM16 | 25.59 |
| Band5 | 5 | 20425 | 1  | #Max | QAM16 | 25.20 |
| Band5 | 5 | 20425 | 12 | #0   | QAM16 | 23.70 |
| Band5 | 5 | 20425 | 12 | #Mid | QAM16 | 23.77 |
| Band5 | 5 | 20425 | 12 | #Max | QAM16 | 23.77 |
| Band5 | 5 | 20425 | 25 | #0   | QAM16 | 23.71 |
| Band5 | 5 | 20525 | 1  | #0   | QPSK  | 25.83 |
| Band5 | 5 | 20525 | 1  | #Mid | QPSK  | 26.22 |
| Band5 | 5 | 20525 | 1  | #Max | QPSK  | 25.69 |
| Band5 | 5 | 20525 | 12 | #0   | QPSK  | 24.89 |
| Band5 | 5 | 20525 | 12 | #Mid | QPSK  | 24.88 |
| Band5 | 5 | 20525 | 12 | #Max | QPSK  | 24.85 |
| Band5 | 5 | 20525 | 25 | #0   | QPSK  | 24.86 |
| Band5 | 5 | 20525 | 1  | #0   | QAM16 | 25.12 |
| Band5 | 5 | 20525 | 1  | #Mid | QAM16 | 25.46 |
| Band5 | 5 | 20525 | 1  | #Max | QAM16 | 25.00 |
| Band5 | 5 | 20525 | 12 | #0   | QAM16 | 23.79 |
| Band5 | 5 | 20525 | 12 | #Mid | QAM16 | 23.81 |
| Band5 | 5 | 20525 | 12 | #Max | QAM16 | 23.76 |
| Band5 | 5 | 20525 | 25 | #0   | QAM16 | 23.91 |

|       |    |       |    |      |       |       |
|-------|----|-------|----|------|-------|-------|
| Band5 | 5  | 20625 | 1  | #0   | QPSK  | 25.46 |
| Band5 | 5  | 20625 | 1  | #Mid | QPSK  | 25.94 |
| Band5 | 5  | 20625 | 1  | #Max | QPSK  | 25.40 |
| Band5 | 5  | 20625 | 12 | #0   | QPSK  | 24.64 |
| Band5 | 5  | 20625 | 12 | #Mid | QPSK  | 24.63 |
| Band5 | 5  | 20625 | 12 | #Max | QPSK  | 24.50 |
| Band5 | 5  | 20625 | 25 | #0   | QPSK  | 24.59 |
| Band5 | 5  | 20625 | 1  | #0   | QAM16 | 24.80 |
| Band5 | 5  | 20625 | 1  | #Mid | QAM16 | 25.22 |
| Band5 | 5  | 20625 | 1  | #Max | QAM16 | 24.72 |
| Band5 | 5  | 20625 | 12 | #0   | QAM16 | 23.66 |
| Band5 | 5  | 20625 | 12 | #Mid | QAM16 | 23.61 |
| Band5 | 5  | 20625 | 12 | #Max | QAM16 | 23.52 |
| Band5 | 5  | 20625 | 25 | #0   | QAM16 | 23.58 |
| Band5 | 10 | 20450 | 1  | #0   | QPSK  | 25.71 |
| Band5 | 10 | 20450 | 1  | #Mid | QPSK  | 25.95 |
| Band5 | 10 | 20450 | 1  | #Max | QPSK  | 25.91 |
| Band5 | 10 | 20450 | 25 | #0   | QPSK  | 24.83 |
| Band5 | 10 | 20450 | 25 | #Mid | QPSK  | 24.87 |
| Band5 | 10 | 20450 | 25 | #Max | QPSK  | 24.90 |
| Band5 | 10 | 20450 | 50 | #0   | QPSK  | 24.83 |
| Band5 | 10 | 20450 | 1  | #0   | QAM16 | 25.15 |
| Band5 | 10 | 20450 | 1  | #Mid | QAM16 | 25.32 |
| Band5 | 10 | 20450 | 1  | #Max | QAM16 | 25.35 |
| Band5 | 10 | 20450 | 25 | #0   | QAM16 | 23.84 |
| Band5 | 10 | 20450 | 25 | #Mid | QAM16 | 23.88 |
| Band5 | 10 | 20450 | 25 | #Max | QAM16 | 23.89 |
| Band5 | 10 | 20450 | 50 | #0   | QAM16 | 23.85 |
| Band5 | 10 | 20525 | 1  | #0   | QPSK  | 25.93 |
| Band5 | 10 | 20525 | 1  | #Mid | QPSK  | 26.03 |
| Band5 | 10 | 20525 | 1  | #Max | QPSK  | 25.73 |
| Band5 | 10 | 20525 | 25 | #0   | QPSK  | 24.97 |
| Band5 | 10 | 20525 | 25 | #Mid | QPSK  | 24.84 |
| Band5 | 10 | 20525 | 25 | #Max | QPSK  | 24.92 |
| Band5 | 10 | 20525 | 50 | #0   | QPSK  | 24.89 |
| Band5 | 10 | 20525 | 1  | #0   | QAM16 | 25.04 |
| Band5 | 10 | 20525 | 1  | #Mid | QAM16 | 25.16 |
| Band5 | 10 | 20525 | 1  | #Max | QAM16 | 24.87 |
| Band5 | 10 | 20525 | 25 | #0   | QAM16 | 23.95 |
| Band5 | 10 | 20525 | 25 | #Mid | QAM16 | 23.87 |
| Band5 | 10 | 20525 | 25 | #Max | QAM16 | 23.89 |
| Band5 | 10 | 20525 | 50 | #0   | QAM16 | 23.97 |
| Band5 | 10 | 20600 | 1  | #0   | QPSK  | 25.77 |
| Band5 | 10 | 20600 | 1  | #Mid | QPSK  | 25.86 |
| Band5 | 10 | 20600 | 1  | #Max | QPSK  | 25.57 |
| Band5 | 10 | 20600 | 25 | #0   | QPSK  | 24.73 |
| Band5 | 10 | 20600 | 25 | #Mid | QPSK  | 24.62 |
| Band5 | 10 | 20600 | 25 | #Max | QPSK  | 24.47 |
| Band5 | 10 | 20600 | 50 | #0   | QPSK  | 24.60 |
| Band5 | 10 | 20600 | 1  | #0   | QAM16 | 24.56 |
| Band5 | 10 | 20600 | 1  | #Mid | QAM16 | 24.55 |
| Band5 | 10 | 20600 | 1  | #Max | QAM16 | 24.40 |
| Band5 | 10 | 20600 | 25 | #0   | QAM16 | 23.71 |
| Band5 | 10 | 20600 | 25 | #Mid | QAM16 | 23.62 |
| Band5 | 10 | 20600 | 25 | #Max | QAM16 | 23.52 |
| Band5 | 10 | 20600 | 50 | #0   | QAM16 | 23.58 |

| Band  | Bandwidth (MHz) | UL Channel | RB Size | RB Position | Modulation | Power (dBm) |
|-------|-----------------|------------|---------|-------------|------------|-------------|
| Band7 | 5               | 20775      | 1       | #0          | QPSK       | 22.67       |
| Band7 | 5               | 20775      | 1       | #Mid        | QPSK       | 22.81       |
| Band7 | 5               | 20775      | 1       | #Max        | QPSK       | 23.10       |
| Band7 | 5               | 20775      | 12      | #0          | QPSK       | 22.49       |
| Band7 | 5               | 20775      | 12      | #Mid        | QPSK       | 22.57       |
| Band7 | 5               | 20775      | 12      | #Max        | QPSK       | 22.46       |
| Band7 | 5               | 20775      | 25      | #0          | QPSK       | 22.50       |
| Band7 | 5               | 20775      | 1       | #0          | QAM16      | 22.70       |
| Band7 | 5               | 20775      | 1       | #Mid        | QAM16      | 22.91       |
| Band7 | 5               | 20775      | 1       | #Max        | QAM16      | 22.53       |
| Band7 | 5               | 20775      | 12      | #0          | QAM16      | 21.43       |
| Band7 | 5               | 20775      | 12      | #Mid        | QAM16      | 21.50       |
| Band7 | 5               | 20775      | 12      | #Max        | QAM16      | 21.41       |
| Band7 | 5               | 20775      | 25      | #0          | QAM16      | 21.41       |
| Band7 | 5               | 21100      | 1       | #0          | QPSK       | 22.52       |
| Band7 | 5               | 21100      | 1       | #Mid        | QPSK       | 22.27       |
| Band7 | 5               | 21100      | 1       | #Max        | QPSK       | 22.11       |
| Band7 | 5               | 21100      | 12      | #0          | QPSK       | 22.34       |
| Band7 | 5               | 21100      | 12      | #Mid        | QPSK       | 22.22       |
| Band7 | 5               | 21100      | 12      | #Max        | QPSK       | 22.11       |
| Band7 | 5               | 21100      | 25      | #0          | QPSK       | 22.19       |
| Band7 | 5               | 21100      | 1       | #0          | QAM16      | 22.76       |
| Band7 | 5               | 21100      | 1       | #Mid        | QAM16      | 22.58       |
| Band7 | 5               | 21100      | 1       | #Max        | QAM16      | 22.41       |
| Band7 | 5               | 21100      | 12      | #0          | QAM16      | 21.43       |
| Band7 | 5               | 21100      | 12      | #Mid        | QAM16      | 21.42       |
| Band7 | 5               | 21100      | 12      | #Max        | QAM16      | 21.29       |
| Band7 | 5               | 21100      | 25      | #0          | QAM16      | 21.39       |
| Band7 | 5               | 21425      | 1       | #0          | QPSK       | 22.52       |
| Band7 | 5               | 21425      | 1       | #Mid        | QPSK       | 21.87       |
| Band7 | 5               | 21425      | 1       | #Max        | QPSK       | 21.10       |
| Band7 | 5               | 21425      | 12      | #0          | QPSK       | 22.13       |
| Band7 | 5               | 21425      | 12      | #Mid        | QPSK       | 21.80       |
| Band7 | 5               | 21425      | 12      | #Max        | QPSK       | 21.35       |
| Band7 | 5               | 21425      | 25      | #0          | QPSK       | 21.73       |
| Band7 | 5               | 21425      | 1       | #0          | QAM16      | 22.46       |
| Band7 | 5               | 21425      | 1       | #Mid        | QAM16      | 21.85       |
| Band7 | 5               | 21425      | 1       | #Max        | QAM16      | 20.96       |
| Band7 | 5               | 21425      | 12      | #0          | QAM16      | 21.32       |
| Band7 | 5               | 21425      | 12      | #Mid        | QAM16      | 21.29       |
| Band7 | 5               | 21425      | 12      | #Max        | QAM16      | 21.14       |
| Band7 | 5               | 21425      | 25      | #0          | QAM16      | 21.34       |
| Band7 | 10              | 20800      | 1       | #0          | QPSK       | 22.39       |
| Band7 | 10              | 20800      | 1       | #Mid        | QPSK       | 22.88       |
| Band7 | 10              | 20800      | 1       | #Max        | QPSK       | 23.37       |
| Band7 | 10              | 20800      | 25      | #0          | QPSK       | 22.43       |
| Band7 | 10              | 20800      | 25      | #Mid        | QPSK       | 22.39       |
| Band7 | 10              | 20800      | 25      | #Max        | QPSK       | 22.52       |
| Band7 | 10              | 20800      | 50      | #0          | QPSK       | 22.44       |
| Band7 | 10              | 20800      | 1       | #0          | QAM16      | 22.24       |
| Band7 | 10              | 20800      | 1       | #Mid        | QAM16      | 22.64       |
| Band7 | 10              | 20800      | 1       | #Max        | QAM16      | 22.44       |
| Band7 | 10              | 20800      | 25      | #0          | QAM16      | 21.38       |

|       |    |       |    |      |       |       |
|-------|----|-------|----|------|-------|-------|
| Band7 | 10 | 20800 | 25 | #Mid | QAM16 | 21.42 |
| Band7 | 10 | 20800 | 25 | #Max | QAM16 | 21.53 |
| Band7 | 10 | 20800 | 50 | #0   | QAM16 | 21.50 |
| Band7 | 10 | 21100 | 1  | #0   | QPSK  | 22.25 |
| Band7 | 10 | 21100 | 1  | #Mid | QPSK  | 21.75 |
| Band7 | 10 | 21100 | 1  | #Max | QPSK  | 21.69 |
| Band7 | 10 | 21100 | 25 | #0   | QPSK  | 21.89 |
| Band7 | 10 | 21100 | 25 | #Mid | QPSK  | 21.70 |
| Band7 | 10 | 21100 | 25 | #Max | QPSK  | 21.61 |
| Band7 | 10 | 21100 | 50 | #0   | QPSK  | 21.73 |
| Band7 | 10 | 21100 | 1  | #0   | QAM16 | 21.87 |
| Band7 | 10 | 21100 | 1  | #Mid | QAM16 | 21.41 |
| Band7 | 10 | 21100 | 1  | #Max | QAM16 | 21.36 |
| Band7 | 10 | 21100 | 25 | #0   | QAM16 | 21.65 |
| Band7 | 10 | 21100 | 25 | #Mid | QAM16 | 21.47 |
| Band7 | 10 | 21100 | 25 | #Max | QAM16 | 21.43 |
| Band7 | 10 | 21100 | 50 | #0   | QAM16 | 21.51 |
| Band7 | 10 | 21400 | 1  | #0   | QPSK  | 23.01 |
| Band7 | 10 | 21400 | 1  | #Mid | QPSK  | 21.91 |
| Band7 | 10 | 21400 | 1  | #Max | QPSK  | 20.53 |
| Band7 | 10 | 21400 | 25 | #0   | QPSK  | 22.57 |
| Band7 | 10 | 21400 | 25 | #Mid | QPSK  | 22.00 |
| Band7 | 10 | 21400 | 25 | #Max | QPSK  | 21.26 |
| Band7 | 10 | 21400 | 50 | #0   | QPSK  | 21.98 |
| Band7 | 10 | 21400 | 1  | #0   | QAM16 | 22.58 |
| Band7 | 10 | 21400 | 1  | #Mid | QAM16 | 22.13 |
| Band7 | 10 | 21400 | 1  | #Max | QAM16 | 20.71 |
| Band7 | 10 | 21400 | 25 | #0   | QAM16 | 21.55 |
| Band7 | 10 | 21400 | 25 | #Mid | QAM16 | 21.36 |
| Band7 | 10 | 21400 | 25 | #Max | QAM16 | 21.18 |
| Band7 | 10 | 21400 | 50 | #0   | QAM16 | 21.42 |
| Band7 | 15 | 20825 | 1  | #0   | QPSK  | 22.12 |
| Band7 | 15 | 20825 | 1  | #Mid | QPSK  | 22.97 |
| Band7 | 15 | 20825 | 1  | #Max | QPSK  | 23.50 |
| Band7 | 15 | 20825 | 36 | #0   | QPSK  | 22.51 |
| Band7 | 15 | 20825 | 36 | #Mid | QPSK  | 22.54 |
| Band7 | 15 | 20825 | 36 | #Max | QPSK  | 22.69 |
| Band7 | 15 | 20825 | 75 | #0   | QPSK  | 22.62 |
| Band7 | 15 | 20825 | 1  | #0   | QAM16 | 22.00 |
| Band7 | 15 | 20825 | 1  | #Mid | QAM16 | 22.69 |
| Band7 | 15 | 20825 | 1  | #Max | QAM16 | 22.62 |
| Band7 | 15 | 20825 | 36 | #0   | QAM16 | 21.53 |
| Band7 | 15 | 20825 | 36 | #Mid | QAM16 | 21.53 |
| Band7 | 15 | 20825 | 36 | #Max | QAM16 | 21.69 |
| Band7 | 15 | 20825 | 75 | #0   | QAM16 | 21.54 |
| Band7 | 15 | 21100 | 1  | #0   | QPSK  | 22.03 |
| Band7 | 15 | 21100 | 1  | #Mid | QPSK  | 21.35 |
| Band7 | 15 | 21100 | 1  | #Max | QPSK  | 21.35 |
| Band7 | 15 | 21100 | 36 | #0   | QPSK  | 21.63 |
| Band7 | 15 | 21100 | 36 | #Mid | QPSK  | 21.34 |
| Band7 | 15 | 21100 | 36 | #Max | QPSK  | 21.28 |
| Band7 | 15 | 21100 | 75 | #0   | QPSK  | 21.43 |
| Band7 | 15 | 21100 | 1  | #0   | QAM16 | 21.92 |
| Band7 | 15 | 21100 | 1  | #Mid | QAM16 | 21.27 |
| Band7 | 15 | 21100 | 1  | #Max | QAM16 | 21.28 |
| Band7 | 15 | 21100 | 36 | #0   | QAM16 | 21.26 |
| Band7 | 15 | 21100 | 36 | #Mid | QAM16 | 21.13 |

|       |    |       |     |      |       |       |
|-------|----|-------|-----|------|-------|-------|
| Band7 | 15 | 21100 | 36  | #Max | QAM16 | 21.05 |
| Band7 | 15 | 21100 | 75  | #0   | QAM16 | 21.18 |
| Band7 | 15 | 21375 | 1   | #0   | QPSK  | 22.65 |
| Band7 | 15 | 21375 | 1   | #Mid | QPSK  | 22.18 |
| Band7 | 15 | 21375 | 1   | #Max | QPSK  | 20.20 |
| Band7 | 15 | 21375 | 36  | #0   | QPSK  | 21.99 |
| Band7 | 15 | 21375 | 36  | #Mid | QPSK  | 22.05 |
| Band7 | 15 | 21375 | 36  | #Max | QPSK  | 21.28 |
| Band7 | 15 | 21375 | 75  | #0   | QPSK  | 21.97 |
| Band7 | 15 | 21375 | 1   | #0   | QAM16 | 21.99 |
| Band7 | 15 | 21375 | 1   | #Mid | QAM16 | 22.41 |
| Band7 | 15 | 21375 | 1   | #Max | QAM16 | 20.44 |
| Band7 | 15 | 21375 | 36  | #0   | QAM16 | 20.95 |
| Band7 | 15 | 21375 | 36  | #Mid | QAM16 | 20.99 |
| Band7 | 15 | 21375 | 36  | #Max | QAM16 | 20.86 |
| Band7 | 15 | 21375 | 75  | #0   | QAM16 | 20.87 |
| Band7 | 20 | 20850 | 1   | #0   | QPSK  | 21.69 |
| Band7 | 20 | 20850 | 1   | #Mid | QPSK  | 23.26 |
| Band7 | 20 | 20850 | 1   | #Max | QPSK  | 23.00 |
| Band7 | 20 | 20850 | 50  | #0   | QPSK  | 21.74 |
| Band7 | 20 | 20850 | 50  | #Mid | QPSK  | 22.04 |
| Band7 | 20 | 20850 | 50  | #Max | QPSK  | 22.11 |
| Band7 | 20 | 20850 | 100 | #0   | QPSK  | 21.98 |
| Band7 | 20 | 20850 | 1   | #0   | QAM16 | 21.62 |
| Band7 | 20 | 20850 | 1   | #Mid | QAM16 | 22.23 |
| Band7 | 20 | 20850 | 1   | #Max | QAM16 | 22.09 |
| Band7 | 20 | 20850 | 50  | #0   | QAM16 | 20.68 |
| Band7 | 20 | 20850 | 50  | #Mid | QAM16 | 21.00 |
| Band7 | 20 | 20850 | 50  | #Max | QAM16 | 21.11 |
| Band7 | 20 | 20850 | 100 | #0   | QAM16 | 20.93 |
| Band7 | 20 | 21100 | 1   | #0   | QPSK  | 21.70 |
| Band7 | 20 | 21100 | 1   | #Mid | QPSK  | 21.07 |
| Band7 | 20 | 21100 | 1   | #Max | QPSK  | 21.08 |
| Band7 | 20 | 21100 | 50  | #0   | QPSK  | 21.37 |
| Band7 | 20 | 21100 | 50  | #Mid | QPSK  | 21.09 |
| Band7 | 20 | 21100 | 50  | #Max | QPSK  | 20.99 |
| Band7 | 20 | 21100 | 100 | #0   | QPSK  | 21.19 |
| Band7 | 20 | 21100 | 1   | #0   | QAM16 | 21.74 |
| Band7 | 20 | 21100 | 1   | #Mid | QAM16 | 21.13 |
| Band7 | 20 | 21100 | 1   | #Max | QAM16 | 21.16 |
| Band7 | 20 | 21100 | 50  | #0   | QAM16 | 21.31 |
| Band7 | 20 | 21100 | 50  | #Mid | QAM16 | 21.07 |
| Band7 | 20 | 21100 | 50  | #Max | QAM16 | 20.98 |
| Band7 | 20 | 21100 | 100 | #0   | QAM16 | 21.15 |
| Band7 | 20 | 21350 | 1   | #0   | QPSK  | 21.83 |
| Band7 | 20 | 21350 | 1   | #Mid | QPSK  | 22.46 |
| Band7 | 20 | 21350 | 1   | #Max | QPSK  | 19.85 |
| Band7 | 20 | 21350 | 50  | #0   | QPSK  | 21.65 |
| Band7 | 20 | 21350 | 50  | #Mid | QPSK  | 21.90 |
| Band7 | 20 | 21350 | 50  | #Max | QPSK  | 21.44 |
| Band7 | 20 | 21350 | 100 | #0   | QPSK  | 21.69 |
| Band7 | 20 | 21350 | 1   | #0   | QAM16 | 21.86 |
| Band7 | 20 | 21350 | 1   | #Mid | QAM16 | 22.25 |
| Band7 | 20 | 21350 | 1   | #Max | QAM16 | 19.98 |
| Band7 | 20 | 21350 | 50  | #0   | QAM16 | 20.65 |
| Band7 | 20 | 21350 | 50  | #Mid | QAM16 | 20.96 |
| Band7 | 20 | 21350 | 50  | #Max | QAM16 | 20.69 |

|       |    |       |     |    |       |       |
|-------|----|-------|-----|----|-------|-------|
| Band7 | 20 | 21350 | 100 | #0 | QAM16 | 20.73 |
|-------|----|-------|-----|----|-------|-------|

| Band   | Bandwidth (MHz) | UL Channel | RB Size | RB Position | Modulation | Power (dBm) |
|--------|-----------------|------------|---------|-------------|------------|-------------|
| Band12 | 1.4             | 23017      | 1       | #0          | QPSK       | 22.65       |
| Band12 | 1.4             | 23017      | 1       | #Mid        | QPSK       | 22.80       |
| Band12 | 1.4             | 23017      | 1       | #Max        | QPSK       | 22.66       |
| Band12 | 1.4             | 23017      | 3       | #0          | QPSK       | 22.75       |
| Band12 | 1.4             | 23017      | 3       | #Mid        | QPSK       | 22.71       |
| Band12 | 1.4             | 23017      | 3       | #Max        | QPSK       | 22.76       |
| Band12 | 1.4             | 23017      | 6       | #0          | QPSK       | 21.83       |
| Band12 | 1.4             | 23017      | 1       | #0          | QAM16      | 21.84       |
| Band12 | 1.4             | 23017      | 1       | #Mid        | QAM16      | 21.93       |
| Band12 | 1.4             | 23017      | 1       | #Max        | QAM16      | 21.83       |
| Band12 | 1.4             | 23017      | 3       | #0          | QAM16      | 21.89       |
| Band12 | 1.4             | 23017      | 3       | #Mid        | QAM16      | 21.92       |
| Band12 | 1.4             | 23017      | 3       | #Max        | QAM16      | 21.91       |
| Band12 | 1.4             | 23017      | 6       | #0          | QAM16      | 21.00       |
| Band12 | 1.4             | 23095      | 1       | #0          | QPSK       | 22.62       |
| Band12 | 1.4             | 23095      | 1       | #Mid        | QPSK       | 22.80       |
| Band12 | 1.4             | 23095      | 1       | #Max        | QPSK       | 22.64       |
| Band12 | 1.4             | 23095      | 3       | #0          | QPSK       | 22.67       |
| Band12 | 1.4             | 23095      | 3       | #Mid        | QPSK       | 22.62       |
| Band12 | 1.4             | 23095      | 3       | #Max        | QPSK       | 22.68       |
| Band12 | 1.4             | 23095      | 6       | #0          | QPSK       | 21.74       |
| Band12 | 1.4             | 23095      | 1       | #0          | QAM16      | 21.51       |
| Band12 | 1.4             | 23095      | 1       | #Mid        | QAM16      | 21.65       |
| Band12 | 1.4             | 23095      | 1       | #Max        | QAM16      | 21.46       |
| Band12 | 1.4             | 23095      | 3       | #0          | QAM16      | 21.78       |
| Band12 | 1.4             | 23095      | 3       | #Mid        | QAM16      | 21.79       |
| Band12 | 1.4             | 23095      | 3       | #Max        | QAM16      | 21.79       |
| Band12 | 1.4             | 23095      | 6       | #0          | QAM16      | 20.93       |
| Band12 | 1.4             | 23173      | 1       | #0          | QPSK       | 22.38       |
| Band12 | 1.4             | 23173      | 1       | #Mid        | QPSK       | 22.58       |
| Band12 | 1.4             | 23173      | 1       | #Max        | QPSK       | 22.44       |
| Band12 | 1.4             | 23173      | 3       | #0          | QPSK       | 22.38       |
| Band12 | 1.4             | 23173      | 3       | #Mid        | QPSK       | 22.38       |
| Band12 | 1.4             | 23173      | 3       | #Max        | QPSK       | 22.42       |
| Band12 | 1.4             | 23173      | 6       | #0          | QPSK       | 21.43       |
| Band12 | 1.4             | 23173      | 1       | #0          | QAM16      | 21.50       |
| Band12 | 1.4             | 23173      | 1       | #Mid        | QAM16      | 21.66       |
| Band12 | 1.4             | 23173      | 1       | #Max        | QAM16      | 21.58       |
| Band12 | 1.4             | 23173      | 3       | #0          | QAM16      | 21.56       |
| Band12 | 1.4             | 23173      | 3       | #Mid        | QAM16      | 21.59       |
| Band12 | 1.4             | 23173      | 3       | #Max        | QAM16      | 21.58       |
| Band12 | 1.4             | 23173      | 6       | #0          | QAM16      | 20.60       |
| Band12 | 3               | 23025      | 1       | #0          | QPSK       | 22.66       |
| Band12 | 3               | 23025      | 1       | #Mid        | QPSK       | 22.77       |
| Band12 | 3               | 23025      | 1       | #Max        | QPSK       | 22.59       |
| Band12 | 3               | 23025      | 8       | #0          | QPSK       | 21.78       |
| Band12 | 3               | 23025      | 8       | #Mid        | QPSK       | 21.77       |
| Band12 | 3               | 23025      | 8       | #Max        | QPSK       | 21.63       |
| Band12 | 3               | 23025      | 15      | #0          | QPSK       | 21.73       |
| Band12 | 3               | 23025      | 1       | #0          | QAM16      | 22.06       |
| Band12 | 3               | 23025      | 1       | #Mid        | QAM16      | 22.20       |
| Band12 | 3               | 23025      | 1       | #Max        | QAM16      | 21.93       |
| Band12 | 3               | 23025      | 8       | #0          | QAM16      | 20.79       |

|        |   |       |    |      |       |       |
|--------|---|-------|----|------|-------|-------|
| Band12 | 3 | 23025 | 8  | #Mid | QAM16 | 20.80 |
| Band12 | 3 | 23025 | 8  | #Max | QAM16 | 20.71 |
| Band12 | 3 | 23025 | 15 | #0   | QAM16 | 20.82 |
| Band12 | 3 | 23095 | 1  | #0   | QPSK  | 22.61 |
| Band12 | 3 | 23095 | 1  | #Mid | QPSK  | 22.84 |
| Band12 | 3 | 23095 | 1  | #Max | QPSK  | 22.58 |
| Band12 | 3 | 23095 | 8  | #0   | QPSK  | 21.60 |
| Band12 | 3 | 23095 | 8  | #Mid | QPSK  | 21.66 |
| Band12 | 3 | 23095 | 8  | #Max | QPSK  | 21.69 |
| Band12 | 3 | 23095 | 15 | #0   | QPSK  | 21.65 |
| Band12 | 3 | 23095 | 1  | #0   | QAM16 | 21.77 |
| Band12 | 3 | 23095 | 1  | #Mid | QAM16 | 22.18 |
| Band12 | 3 | 23095 | 1  | #Max | QAM16 | 21.72 |
| Band12 | 3 | 23095 | 8  | #0   | QAM16 | 20.72 |
| Band12 | 3 | 23095 | 8  | #Mid | QAM16 | 20.81 |
| Band12 | 3 | 23095 | 8  | #Max | QAM16 | 20.75 |
| Band12 | 3 | 23095 | 15 | #0   | QAM16 | 20.67 |
| Band12 | 3 | 23165 | 1  | #0   | QPSK  | 22.56 |
| Band12 | 3 | 23165 | 1  | #Mid | QPSK  | 22.64 |
| Band12 | 3 | 23165 | 1  | #Max | QPSK  | 22.40 |
| Band12 | 3 | 23165 | 8  | #0   | QPSK  | 21.49 |
| Band12 | 3 | 23165 | 8  | #Mid | QPSK  | 21.47 |
| Band12 | 3 | 23165 | 8  | #Max | QPSK  | 21.39 |
| Band12 | 3 | 23165 | 15 | #0   | QPSK  | 21.44 |
| Band12 | 3 | 23165 | 1  | #0   | QAM16 | 21.37 |
| Band12 | 3 | 23165 | 1  | #Mid | QAM16 | 21.32 |
| Band12 | 3 | 23165 | 1  | #Max | QAM16 | 21.27 |
| Band12 | 3 | 23165 | 8  | #0   | QAM16 | 20.56 |
| Band12 | 3 | 23165 | 8  | #Mid | QAM16 | 20.50 |
| Band12 | 3 | 23165 | 8  | #Max | QAM16 | 20.42 |
| Band12 | 3 | 23165 | 15 | #0   | QAM16 | 20.57 |
| Band12 | 5 | 23035 | 1  | #0   | QPSK  | 22.62 |
| Band12 | 5 | 23035 | 1  | #Mid | QPSK  | 22.96 |
| Band12 | 5 | 23035 | 1  | #Max | QPSK  | 22.51 |
| Band12 | 5 | 23035 | 12 | #0   | QPSK  | 21.91 |
| Band12 | 5 | 23035 | 12 | #Mid | QPSK  | 21.72 |
| Band12 | 5 | 23035 | 12 | #Max | QPSK  | 21.54 |
| Band12 | 5 | 23035 | 25 | #0   | QPSK  | 21.74 |
| Band12 | 5 | 23035 | 1  | #0   | QAM16 | 21.84 |
| Band12 | 5 | 23035 | 1  | #Mid | QAM16 | 22.21 |
| Band12 | 5 | 23035 | 1  | #Max | QAM16 | 21.82 |
| Band12 | 5 | 23035 | 12 | #0   | QAM16 | 20.90 |
| Band12 | 5 | 23035 | 12 | #Mid | QAM16 | 20.76 |
| Band12 | 5 | 23035 | 12 | #Max | QAM16 | 20.60 |
| Band12 | 5 | 23035 | 25 | #0   | QAM16 | 20.87 |
| Band12 | 5 | 23095 | 1  | #0   | QPSK  | 22.41 |
| Band12 | 5 | 23095 | 1  | #Mid | QPSK  | 22.71 |
| Band12 | 5 | 23095 | 1  | #Max | QPSK  | 22.36 |
| Band12 | 5 | 23095 | 12 | #0   | QPSK  | 21.51 |
| Band12 | 5 | 23095 | 12 | #Mid | QPSK  | 21.66 |
| Band12 | 5 | 23095 | 12 | #Max | QPSK  | 21.73 |
| Band12 | 5 | 23095 | 25 | #0   | QPSK  | 21.64 |
| Band12 | 5 | 23095 | 1  | #0   | QAM16 | 21.78 |
| Band12 | 5 | 23095 | 1  | #Mid | QAM16 | 22.17 |
| Band12 | 5 | 23095 | 1  | #Max | QAM16 | 21.64 |
| Band12 | 5 | 23095 | 12 | #0   | QAM16 | 20.59 |
| Band12 | 5 | 23095 | 12 | #Mid | QAM16 | 20.74 |

|        |    |       |    |      |       |       |
|--------|----|-------|----|------|-------|-------|
| Band12 | 5  | 23095 | 12 | #Max | QAM16 | 20.82 |
| Band12 | 5  | 23095 | 25 | #0   | QAM16 | 20.65 |
| Band12 | 5  | 23155 | 1  | #0   | QPSK  | 22.37 |
| Band12 | 5  | 23155 | 1  | #Mid | QPSK  | 22.72 |
| Band12 | 5  | 23155 | 1  | #Max | QPSK  | 22.29 |
| Band12 | 5  | 23155 | 12 | #0   | QPSK  | 21.72 |
| Band12 | 5  | 23155 | 12 | #Mid | QPSK  | 21.55 |
| Band12 | 5  | 23155 | 12 | #Max | QPSK  | 21.38 |
| Band12 | 5  | 23155 | 25 | #0   | QPSK  | 21.60 |
| Band12 | 5  | 23155 | 1  | #0   | QAM16 | 21.75 |
| Band12 | 5  | 23155 | 1  | #Mid | QAM16 | 22.16 |
| Band12 | 5  | 23155 | 1  | #Max | QAM16 | 21.83 |
| Band12 | 5  | 23155 | 12 | #0   | QAM16 | 20.76 |
| Band12 | 5  | 23155 | 12 | #Mid | QAM16 | 20.58 |
| Band12 | 5  | 23155 | 12 | #Max | QAM16 | 20.41 |
| Band12 | 5  | 23155 | 25 | #0   | QAM16 | 20.65 |
| Band12 | 10 | 23060 | 1  | #0   | QPSK  | 22.74 |
| Band12 | 10 | 23060 | 1  | #Mid | QPSK  | 22.75 |
| Band12 | 10 | 23060 | 1  | #Max | QPSK  | 22.65 |
| Band12 | 10 | 23060 | 25 | #0   | QPSK  | 22.01 |
| Band12 | 10 | 23060 | 25 | #Mid | QPSK  | 21.75 |
| Band12 | 10 | 23060 | 25 | #Max | QPSK  | 22.01 |
| Band12 | 10 | 23060 | 50 | #0   | QPSK  | 21.99 |
| Band12 | 10 | 23060 | 1  | #0   | QAM16 | 21.53 |
| Band12 | 10 | 23060 | 1  | #Mid | QAM16 | 21.61 |
| Band12 | 10 | 23060 | 1  | #Max | QAM16 | 21.45 |
| Band12 | 10 | 23060 | 25 | #0   | QAM16 | 21.15 |
| Band12 | 10 | 23060 | 25 | #Mid | QAM16 | 20.85 |
| Band12 | 10 | 23060 | 25 | #Max | QAM16 | 21.05 |
| Band12 | 10 | 23060 | 50 | #0   | QAM16 | 21.10 |
| Band12 | 10 | 23095 | 1  | #0   | QPSK  | 22.50 |
| Band12 | 10 | 23095 | 1  | #Mid | QPSK  | 22.71 |
| Band12 | 10 | 23095 | 1  | #Max | QPSK  | 22.49 |
| Band12 | 10 | 23095 | 25 | #0   | QPSK  | 21.55 |
| Band12 | 10 | 23095 | 25 | #Mid | QPSK  | 21.67 |
| Band12 | 10 | 23095 | 25 | #Max | QPSK  | 21.59 |
| Band12 | 10 | 23095 | 50 | #0   | QPSK  | 21.57 |
| Band12 | 10 | 23095 | 1  | #0   | QAM16 | 21.92 |
| Band12 | 10 | 23095 | 1  | #Mid | QAM16 | 22.09 |
| Band12 | 10 | 23095 | 1  | #Max | QAM16 | 21.80 |
| Band12 | 10 | 23095 | 25 | #0   | QAM16 | 20.63 |
| Band12 | 10 | 23095 | 25 | #Mid | QAM16 | 20.74 |
| Band12 | 10 | 23095 | 25 | #Max | QAM16 | 20.67 |
| Band12 | 10 | 23095 | 50 | #0   | QAM16 | 20.63 |
| Band12 | 10 | 23130 | 1  | #0   | QPSK  | 22.57 |
| Band12 | 10 | 23130 | 1  | #Mid | QPSK  | 22.51 |
| Band12 | 10 | 23130 | 1  | #Max | QPSK  | 22.40 |
| Band12 | 10 | 23130 | 25 | #0   | QPSK  | 21.39 |
| Band12 | 10 | 23130 | 25 | #Mid | QPSK  | 21.51 |
| Band12 | 10 | 23130 | 25 | #Max | QPSK  | 21.22 |
| Band12 | 10 | 23130 | 50 | #0   | QPSK  | 21.36 |
| Band12 | 10 | 23130 | 1  | #0   | QAM16 | 21.75 |
| Band12 | 10 | 23130 | 1  | #Mid | QAM16 | 21.62 |
| Band12 | 10 | 23130 | 1  | #Max | QAM16 | 21.55 |
| Band12 | 10 | 23130 | 25 | #0   | QAM16 | 20.45 |
| Band12 | 10 | 23130 | 25 | #Mid | QAM16 | 20.57 |
| Band12 | 10 | 23130 | 25 | #Max | QAM16 | 20.27 |

|        |    |       |    |    |       |       |
|--------|----|-------|----|----|-------|-------|
| Band12 | 10 | 23130 | 50 | #0 | QAM16 | 20.46 |
|--------|----|-------|----|----|-------|-------|

| Band   | Bandwidth (MHz) | UL Channel | RB Size | RB Position | Modulation | Power (dBm) |
|--------|-----------------|------------|---------|-------------|------------|-------------|
| Band17 | 5               | 23755      | 1       | #0          | QPSK       | 22.65       |
| Band17 | 5               | 23755      | 1       | #Mid        | QPSK       | 23.09       |
| Band17 | 5               | 23755      | 1       | #Max        | QPSK       | 22.70       |
| Band17 | 5               | 23755      | 12      | #0          | QPSK       | 21.81       |
| Band17 | 5               | 23755      | 12      | #Mid        | QPSK       | 21.85       |
| Band17 | 5               | 23755      | 12      | #Max        | QPSK       | 21.97       |
| Band17 | 5               | 23755      | 25      | #0          | QPSK       | 21.83       |
| Band17 | 5               | 23755      | 1       | #0          | QAM16      | 22.17       |
| Band17 | 5               | 23755      | 1       | #Mid        | QAM16      | 22.62       |
| Band17 | 5               | 23755      | 1       | #Max        | QAM16      | 22.24       |
| Band17 | 5               | 23755      | 12      | #0          | QAM16      | 20.70       |
| Band17 | 5               | 23755      | 12      | #Mid        | QAM16      | 20.84       |
| Band17 | 5               | 23755      | 12      | #Max        | QAM16      | 21.05       |
| Band17 | 5               | 23755      | 25      | #0          | QAM16      | 20.86       |
| Band17 | 5               | 23790      | 1       | #0          | QPSK       | 22.76       |
| Band17 | 5               | 23790      | 1       | #Mid        | QPSK       | 22.84       |
| Band17 | 5               | 23790      | 1       | #Max        | QPSK       | 22.52       |
| Band17 | 5               | 23790      | 12      | #0          | QPSK       | 21.58       |
| Band17 | 5               | 23790      | 12      | #Mid        | QPSK       | 21.64       |
| Band17 | 5               | 23790      | 12      | #Max        | QPSK       | 21.34       |
| Band17 | 5               | 23790      | 25      | #0          | QPSK       | 21.51       |
| Band17 | 5               | 23790      | 1       | #0          | QAM16      | 22.00       |
| Band17 | 5               | 23790      | 1       | #Mid        | QAM16      | 21.91       |
| Band17 | 5               | 23790      | 1       | #Max        | QAM16      | 21.78       |
| Band17 | 5               | 23790      | 12      | #0          | QAM16      | 20.55       |
| Band17 | 5               | 23790      | 12      | #Mid        | QAM16      | 20.58       |
| Band17 | 5               | 23790      | 12      | #Max        | QAM16      | 20.29       |
| Band17 | 5               | 23790      | 25      | #0          | QAM16      | 20.50       |
| Band17 | 5               | 23825      | 1       | #0          | QPSK       | 22.37       |
| Band17 | 5               | 23825      | 1       | #Mid        | QPSK       | 22.85       |
| Band17 | 5               | 23825      | 1       | #Max        | QPSK       | 22.45       |
| Band17 | 5               | 23825      | 12      | #0          | QPSK       | 21.80       |
| Band17 | 5               | 23825      | 12      | #Mid        | QPSK       | 21.65       |
| Band17 | 5               | 23825      | 12      | #Max        | QPSK       | 21.47       |
| Band17 | 5               | 23825      | 25      | #0          | QPSK       | 21.64       |
| Band17 | 5               | 23825      | 1       | #0          | QAM16      | 21.62       |
| Band17 | 5               | 23825      | 1       | #Mid        | QAM16      | 22.15       |
| Band17 | 5               | 23825      | 1       | #Max        | QAM16      | 21.72       |
| Band17 | 5               | 23825      | 12      | #0          | QAM16      | 20.78       |
| Band17 | 5               | 23825      | 12      | #Mid        | QAM16      | 20.68       |
| Band17 | 5               | 23825      | 12      | #Max        | QAM16      | 20.37       |
| Band17 | 5               | 23825      | 25      | #0          | QAM16      | 20.82       |
| Band17 | 10              | 23780      | 1       | #0          | QPSK       | 22.75       |
| Band17 | 10              | 23780      | 1       | #Mid        | QPSK       | 22.86       |
| Band17 | 10              | 23780      | 1       | #Max        | QPSK       | 22.57       |
| Band17 | 10              | 23780      | 25      | #0          | QPSK       | 21.57       |
| Band17 | 10              | 23780      | 25      | #Mid        | QPSK       | 21.69       |
| Band17 | 10              | 23780      | 25      | #Max        | QPSK       | 21.32       |
| Band17 | 10              | 23780      | 50      | #0          | QPSK       | 21.48       |
| Band17 | 10              | 23780      | 1       | #0          | QAM16      | 21.92       |
| Band17 | 10              | 23780      | 1       | #Mid        | QAM16      | 21.89       |
| Band17 | 10              | 23780      | 1       | #Max        | QAM16      | 21.73       |
| Band17 | 10              | 23780      | 25      | #0          | QAM16      | 20.65       |

|        |    |       |    |      |       |       |
|--------|----|-------|----|------|-------|-------|
| Band17 | 10 | 23780 | 25 | #Mid | QAM16 | 20.71 |
| Band17 | 10 | 23780 | 25 | #Max | QAM16 | 20.31 |
| Band17 | 10 | 23780 | 50 | #0   | QAM16 | 20.53 |
| Band17 | 10 | 23790 | 1  | #0   | QPSK  | 22.84 |
| Band17 | 10 | 23790 | 1  | #Mid | QPSK  | 22.76 |
| Band17 | 10 | 23790 | 1  | #Max | QPSK  | 22.50 |
| Band17 | 10 | 23790 | 25 | #0   | QPSK  | 21.52 |
| Band17 | 10 | 23790 | 25 | #Mid | QPSK  | 21.57 |
| Band17 | 10 | 23790 | 25 | #Max | QPSK  | 21.17 |
| Band17 | 10 | 23790 | 50 | #0   | QPSK  | 21.37 |
| Band17 | 10 | 23790 | 1  | #0   | QAM16 | 21.69 |
| Band17 | 10 | 23790 | 1  | #Mid | QAM16 | 21.38 |
| Band17 | 10 | 23790 | 1  | #Max | QAM16 | 21.26 |
| Band17 | 10 | 23790 | 25 | #0   | QAM16 | 20.55 |
| Band17 | 10 | 23790 | 25 | #Mid | QAM16 | 20.57 |
| Band17 | 10 | 23790 | 25 | #Max | QAM16 | 20.23 |
| Band17 | 10 | 23790 | 50 | #0   | QAM16 | 20.38 |
| Band17 | 10 | 23800 | 1  | #0   | QPSK  | 22.79 |
| Band17 | 10 | 23800 | 1  | #Mid | QPSK  | 22.61 |
| Band17 | 10 | 23800 | 1  | #Max | QPSK  | 22.45 |
| Band17 | 10 | 23800 | 25 | #0   | QPSK  | 21.58 |
| Band17 | 10 | 23800 | 25 | #Mid | QPSK  | 21.66 |
| Band17 | 10 | 23800 | 25 | #Max | QPSK  | 21.29 |
| Band17 | 10 | 23800 | 50 | #0   | QPSK  | 21.48 |
| Band17 | 10 | 23800 | 1  | #0   | QAM16 | 22.20 |
| Band17 | 10 | 23800 | 1  | #Mid | QAM16 | 21.92 |
| Band17 | 10 | 23800 | 1  | #Max | QAM16 | 21.87 |
| Band17 | 10 | 23800 | 25 | #0   | QAM16 | 20.58 |
| Band17 | 10 | 23800 | 25 | #Mid | QAM16 | 20.67 |
| Band17 | 10 | 23800 | 25 | #Max | QAM16 | 20.33 |
| Band17 | 10 | 23800 | 50 | #0   | QAM16 | 20.46 |

## WIFI2.4G

| Mode | Frequency (MHz) | Conducted Power (dBm) |
|------|-----------------|-----------------------|
| b    | 2412            | 15.29                 |
| b    | 2437            | 15.61                 |
| b    | 2462            | 15.59                 |
| g    | 2412            | 14.03                 |
| g    | 2437            | 14.06                 |
| g    | 2462            | 13.76                 |
| n20  | 2412            | 12.62                 |
| n20  | 2437            | 12.77                 |
| n20  | 2462            | 12.54                 |
| n40  | 2422            | 11.86                 |
| n40  | 2437            | 12.02                 |
| n40  | 2452            | 12.02                 |

Note: SAR is not required for the following 2.4 GHz OFDM conditions as the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

## WIFI5.1G

| Mode | Frequency (MHz) | Conducted Power (dBm) |
|------|-----------------|-----------------------|
| a    | 5180            | 13.31                 |
| a    | 5200            | 13.13                 |
| a    | 5240            | 13.18                 |
| n20  | 5180            | 11.78                 |
| n20  | 5200            | 11.58                 |
| n20  | 5240            | 11.58                 |
| n40  | 5190            | 10.74                 |
| n40  | 5230            | 11.42                 |
| ac20 | 5180            | 11.52                 |
| ac20 | 5200            | 11.24                 |
| ac20 | 5240            | 11.57                 |
| ac40 | 5190            | 10.94                 |
| ac40 | 5230            | 11.27                 |
| ac80 | 5210            | 9.37                  |

## WIFI5.8G

| Mode | Frequency (MHz) | Conducted Power (dBm) |
|------|-----------------|-----------------------|
| a    | 5745            | 7.3                   |
| a    | 5785            | 6.58                  |
| a    | 5825            | 6.56                  |
| n20  | 5745            | 6.25                  |
| n20  | 5785            | 4.97                  |
| n20  | 5825            | 4.72                  |
| n40  | 5755            | 4.78                  |
| n40  | 5795            | 4.55                  |
| ac20 | 5745            | 5.74                  |
| ac20 | 5785            | 4.8                   |
| ac20 | 5825            | 4.82                  |
| ac40 | 5755            | 4.88                  |
| ac40 | 5795            | 4.17                  |
| ac80 | 5775            | 3.58                  |

## Bluetooth

| Mode  | Frequency (MHz) | Conducted Power (dBm) |
|-------|-----------------|-----------------------|
| 1-DH1 | 2402            | 2.27                  |
| 1-DH1 | 2441            | 2.4                   |
| 1-DH1 | 2480            | 2.4                   |
| 2-DH1 | 2402            | 1.37                  |
| 2-DH1 | 2441            | 1.47                  |
| 2-DH1 | 2480            | 1.49                  |
| 3-DH1 | 2402            | 1.51                  |
| 3-DH1 | 2441            | 1.56                  |
| 3-DH1 | 2480            | 1.57                  |

|            | Frequency | Maximum Conducted Output Power(PK) |
|------------|-----------|------------------------------------|
|            | (MHz)     | (dBm)                              |
| GFSK 1Mbps | 2402      | -4.1                               |
|            | 2440      | -4.01                              |
|            | 2480      | -4.22                              |
| GFSK 2Mbps | 2402      | -4.12                              |
|            | 2440      | -4.1                               |
|            | 2480      | -4.29                              |

Per KDB 447498 D01v06, 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

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

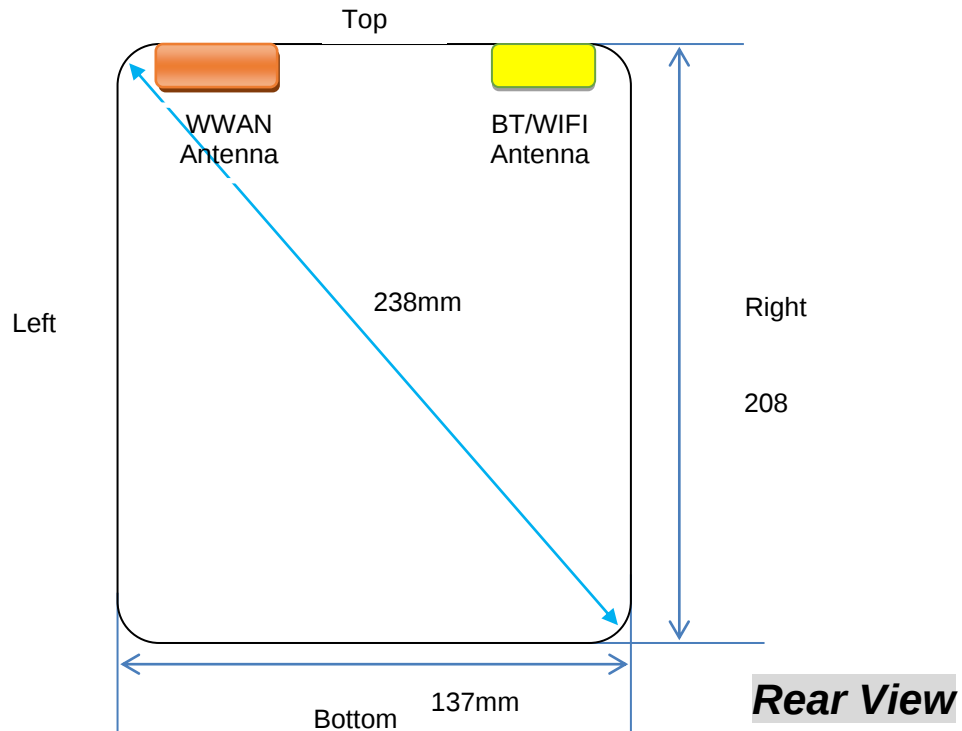
Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

| Bluetooth Turn up Power (dBm) | Separation Distance (mm) | Frequency (GHz) | Exclusion Thresholds |
|-------------------------------|--------------------------|-----------------|----------------------|
| 2.5                           | 5                        | 2.45            | 0.6                  |

Per KDB 447498 D01v06, when the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is  $0.6 < 3.0$ , SAR testing is not required.

## 14.2 Transmit Antennas and SAR Measurement Position



### Antenna information:

|                 |       |
|-----------------|-------|
| BT/WIFI Antenna | TX/RX |
| 234G Antenna    | TX/RX |

### Note:

- 1). Per KDB648474 D04, 10-g extremity SAR is not required when Body-Worn mode 1-g reported SAR < 1.2 W/Kg.
- 2). According to the KDB941225 D06 Hot Spot SAR v02, the edges with less than 25 mm distance to the antennas need to be tested for SAR.

| Distance of The Antenna to the EUT surface and edge (mm) |       |      |          |             |           |            |
|----------------------------------------------------------|-------|------|----------|-------------|-----------|------------|
| Antennas                                                 | Front | Back | Top Side | Bottom Side | Left Side | Right Side |
| BT                                                       | <5    | <5   | <5       | 187         | 105       | <5         |
| WWAN                                                     | <5    | <5   | <5       | 186         | <5        | 107        |

| Positions for SAR tests; Hotspot mode |       |      |          |             |           |            |
|---------------------------------------|-------|------|----------|-------------|-----------|------------|
| Antennas                              | Front | Back | Top Side | Bottom Side | Left Side | Right Side |
| BT                                    | Yes   | Yes  | Yes      | No          | No        | Yes        |
| WWAN                                  | Yes   | Yes  | Yes      | No          | Yes       | No         |

General Note: Referring to KDB 941225 D06 v02, When the overall device length and width are 9cm\*5cm, the test distance is 0mm, SAR must be measured for all sides and surfaces with a transmitting antenna located with 25mm from that surface or edge.

### 14.3 Test Results for Standalone SAR Test

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} * 10^{(P_{\text{target}} - P_{\text{measured}})/10}$$

$$\text{Scaling factor} = 10^{(P_{\text{target}} - P_{\text{measured}})/10}$$

$$\text{Reported SAR} = \text{Measured SAR} * \text{Scaling factor}$$

Where

$P_{\text{target}}$  is the power of manufacturing upper limit;

$P_{\text{measured}}$  is the measured power;

Measured SAR is measured SAR at measured power which including power drift)

Reported SAR which including Power Drift and Scaling factor

Duty Cycle

| Test Mode | Duty Cycle |
|-----------|------------|
| GSM       | 4:8        |
| UMTS      | 1:1        |
| LTE       | 1:1        |
| BT        | 1:1        |
| WIFI      | 1:1        |

SAR Values [GSM 850]

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 128                                                                 | 824.2       | 4Txslots   | Front         | 28.66                 | 29.00                       | N/A             | 1.081          | 0.400                | 0.433    |               |
| 128                                                                 | 824.2       | 4Txslots   | Rear          | 28.66                 | 29.00                       | N/A             | 1.081          | <b>0.432</b>         | 0.467    | <b>Plot 1</b> |
| 128                                                                 | 824.2       | 4Txslots   | Right         | 28.66                 | 29.00                       | N/A             | 1.081          | 0.374                | 0.404    |               |
| 128                                                                 | 824.2       | 4Txslots   | Top           | 28.66                 | 29.00                       | N/A             | 1.081          | 0.321                | 0.347    |               |

Remark:

1. The value with black color is the maximum SAR Value of each test band.

2. The frame average of GPRS (4Tx slots) higher than GSM and sample can support VoIP function, tested at GPRS (4Tx slots) mode for head.

3. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is optional for such test configuration(s).

SAR Values [GSM 1900]

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 810                                                                 | 1909.8      | 4Txslots   | Front         | 23.03                 | 23.50                       | N/A             | 1.114          | 0.612                | 0.682    |               |
| 810                                                                 | 1909.8      | 4Txslots   | Rear          | 23.03                 | 23.50                       | N/A             | 1.114          | <b>0.648</b>         | 0.722    | <b>Plot 2</b> |
| 810                                                                 | 1909.8      | 4Txslots   | Right         | 23.03                 | 23.50                       | N/A             | 1.114          | 0.563                | 0.627    |               |
| 810                                                                 | 1909.8      | 4Txslots   | Top           | 23.03                 | 23.50                       | N/A             | 1.114          | 0.510                | 0.568    |               |

Remark:

1. The value with black color is the maximum SAR Value of each test band.

2. The frame average of GPRS (4Tx slots) higher than GSM and sample can support VoIP function, tested at GPRS (4Tx slots) mode for head.

3. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is optional for such test configuration(s).

#### SAR Values [WCDMA Band II]

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 9538                                                                | 1907.6      | RMC*       | Front         | 18.97                 | 19.00                       | N/A             | 1.007          | 0.512                | 0.516    |               |
| 9538                                                                | 1907.6      | RMC*       | Rear          | 18.97                 | 19.00                       | N/A             | 1.007          | <b>0.598</b>         | 0.602    | <b>Plot 3</b> |
| 9538                                                                | 1907.6      | RMC*       | Right         | 18.97                 | 19.00                       | N/A             | 1.007          | 0.503                | 0.506    |               |
| 9538                                                                | 1907.6      | RMC*       | Top           | 18.97                 | 19.00                       | N/A             | 1.007          | 0.472                | 0.475    |               |

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC\* - RMC 12.2kbps mode;

#### SAR Values [WCDMA Band IV]

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 1312                                                                | 1712.4      | RMC*       | Front         | 19.42                 | 19.50                       | N/A             | 1.019          | 0.563                | 0.573    |               |
| 1312                                                                | 1712.4      | RMC*       | Rear          | 19.42                 | 19.50                       | N/A             | 1.019          | <b>0.605</b>         | 0.616    | <b>Plot 4</b> |
| 1312                                                                | 1712.4      | RMC*       | Right         | 19.42                 | 19.50                       | N/A             | 1.019          | 0.524                | 0.534    |               |
| 1312                                                                | 1712.4      | RMC*       | Top           | 19.42                 | 19.50                       | N/A             | 1.019          | 0.482                | 0.491    |               |

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC\* - RMC 12.2kbps mode;

#### SAR Values [WCDMA Band V]

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 4132                                                                | 826.4       | RMC*       | Front         | 21.85                 | 22.00                       | N/A             | 1.035          | 0.412                | 0.426    |               |
| 4132                                                                | 826.4       | RMC*       | Rear          | 21.85                 | 22.00                       | N/A             | 1.035          | <b>0.464</b>         | 0.480    | <b>Plot 5</b> |
| 4132                                                                | 826.4       | RMC*       | Right         | 21.85                 | 22.00                       | N/A             | 1.035          | 0.366                | 0.379    |               |
| 4132                                                                | 826.4       | RMC*       | Top           | 21.85                 | 22.00                       | N/A             | 1.035          | 0.320                | 0.331    |               |

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC\* - RMC 12.2kbps mode;

**SAR Values [LTE Band 2]**

| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 19100                                                               | 1900        | 1RB        | Front         | 23.28                 | 23.50                       | N/A             | 1.052          | 0.500                | 0.526    | Plot 6        |
| 19100                                                               | 1900        | 1RB        | Rear          | 23.28                 | 23.50                       | N/A             | 1.052          | <b>0.548</b>         | 0.576    |               |
| 19100                                                               | 1900        | 1RB        | Right         | 23.28                 | 23.50                       | N/A             | 1.052          | 0.475                | 0.500    |               |
| 19100                                                               | 1900        | 1RB        | Top           | 23.28                 | 23.50                       | N/A             | 1.052          | 0.442                | 0.465    |               |
| 19100                                                               | 1900        | 50%RB      | Front         | 22.11                 | 22.50                       | N/A             | 1.094          | 0.470                | 0.514    |               |
| 19100                                                               | 1900        | 50%RB      | Rear          | 22.11                 | 22.50                       | N/A             | 1.094          | 0.503                | 0.550    |               |
| 19100                                                               | 1900        | 50%RB      | Right         | 22.11                 | 22.50                       | N/A             | 1.094          | 0.450                | 0.492    |               |
| 19100                                                               | 1900        | 50%RB      | Top           | 22.11                 | 22.50                       | N/A             | 1.094          | 0.413                | 0.452    |               |

**SAR Values [LTE Band 4]**

| SAR values [LTE Band 4]                                             |             |            |               |                       |                             |                 |                |                      |          |               |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 20300                                                               | 1745        | 1RB        | Front         | 23.76                 | 24.00                       | N/A             | 1.057          | 0.422                | 0.446    | Plot 7        |
| 20300                                                               | 1745        | 1RB        | Rear          | 23.76                 | 24.00                       | N/A             | 1.057          | 0.479                | 0.506    |               |
| 20300                                                               | 1745        | 1RB        | Right         | 23.76                 | 24.00                       | N/A             | 1.057          | 0.379                | 0.401    |               |
| 20300                                                               | 1745        | 1RB        | Top           | 23.76                 | 24.00                       | N/A             | 1.057          | 0.341                | 0.360    |               |
| 20300                                                               | 1745        | 50%RB      | Front         | 22.65                 | 23.00                       | N/A             | 1.084          | 0.401                | 0.435    |               |
| 20300                                                               | 1745        | 50%RB      | Rear          | 22.65                 | 23.00                       | N/A             | 1.084          | 0.441                | 0.478    |               |
| 20300                                                               | 1745        | 50%RB      | Right         | 22.65                 | 23.00                       | N/A             | 1.084          | 0.326                | 0.353    |               |
| 20300                                                               | 1745        | 50%RB      | Top           | 22.65                 | 23.00                       | 1.99            | 1.084          | 0.302                | 0.327    |               |

**SAR Values [LTE Band 5]**

| SAR values [LTE Band 5]                                             |             |            |               |                       |                             |                 |                |                      |          |               |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 20450                                                               | 836.5       | 1RB        | Front         | 25.95                 | 26.00                       | N/A             | 1.012          | 0.413                | 0.418    | Plot 8        |
| 20450                                                               | 836.5       | 1RB        | Rear          | 25.95                 | 26.00                       | N/A             | 1.012          | 0.451                | 0.456    |               |
| 20450                                                               | 836.5       | 1RB        | Right         | 25.95                 | 26.00                       | N/A             | 1.012          | 0.362                | 0.366    |               |
| 20450                                                               | 836.5       | 1RB        | Top           | 25.95                 | 26.00                       | N/A             | 1.012          | 0.327                | 0.331    |               |
| 20450                                                               | 836.5       | 50%RB      | Front         | 24.90                 | 25.00                       | N/A             | 1.023          | 0.366                | 0.375    |               |
| 20450                                                               | 836.5       | 50%RB      | Rear          | 24.90                 | 25.00                       | N/A             | 1.023          | 0.414                | 0.424    |               |
| 20450                                                               | 836.5       | 50%RB      | Left          | 24.90                 | 25.00                       | N/A             | 1.023          | 0.322                | 0.330    |               |
| 20450                                                               | 836.5       | 50%RB      | Top           | 24.90                 | 25.00                       | N/A             | 1.023          | 0.291                | 0.298    |               |

**SAR Values [LTE Band 7]**

| SAR values [LTE Band 7]                                             |             |            |               |                       |                             |                 |                |                      |          |               |
|---------------------------------------------------------------------|-------------|------------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|---------------|
| Ch.                                                                 | Freq. (MHz) | Time slots | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|                                                                     |             |            |               |                       |                             |                 |                | Measured             | Reported |               |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |            |               |                       |                             |                 |                |                      |          |               |
| 20850                                                               | 2510        | 1RB        | Front         | 23.26                 | 23.50                       | N/A             | 1.057          | 0.480                | 0.507    |               |
| 20850                                                               | 2510        | 1RB        | Rear          | 23.26                 | 23.50                       | N/A             | 1.057          | 0.524                | 0.554    | Plot 9        |

|       |      |       |       |       |       |     |       |       |       |  |
|-------|------|-------|-------|-------|-------|-----|-------|-------|-------|--|
| 20850 | 2510 | 1RB   | Right | 23.26 | 23.50 | N/A | 1.057 | 0.431 | 0.455 |  |
| 20850 | 2510 | 1RB   | Top   | 23.26 | 23.50 | N/A | 1.057 | 0.393 | 0.415 |  |
| 20850 | 2510 | 50%RB | Front | 22.11 | 22.50 | N/A | 1.094 | 0.461 | 0.504 |  |
| 20850 | 2510 | 50%RB | Rear  | 22.11 | 22.50 | N/A | 1.094 | 0.487 | 0.533 |  |
| 20850 | 2510 | 50%RB | Right | 22.11 | 22.50 | N/A | 1.094 | 0.393 | 0.430 |  |
| 20850 | 2510 | 50%RB | Top   | 22.11 | 22.50 | N/A | 1.094 | 0.342 | 0.374 |  |

#### SAR Values [LTE Band 12]

| Ch.                                                                 | Freq.<br>(MHz) | Time<br>slots | Test<br>Position | Conducted<br>Power<br>(dBm) | Maximum<br>Allowed<br>Power<br>(dBm) | Power<br>Drift<br>(%) | Scaling<br>Factor | SAR1-g<br>results(W/kg) |          | Graph<br>Results |
|---------------------------------------------------------------------|----------------|---------------|------------------|-----------------------------|--------------------------------------|-----------------------|-------------------|-------------------------|----------|------------------|
|                                                                     |                |               |                  |                             |                                      |                       |                   | Measured                | Reported |                  |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |                |               |                  |                             |                                      |                       |                   |                         |          |                  |
| 23060                                                               | 704.0          | 1RB           | Front            | 22.75                       | 23.00                                | N/A                   | 1.059             | 0.241                   | 0.255    |                  |
| 23060                                                               | 704.0          | 1RB           | Rear             | 22.75                       | 23.00                                | N/A                   | 1.059             | <b>0.298</b>            | 0.316    | <b>Plot 10</b>   |
| 23060                                                               | 704.0          | 1RB           | Right            | 22.75                       | 23.00                                | N/A                   | 1.059             | 0.203                   | 0.215    |                  |
| 23060                                                               | 704.0          | 1RB           | Top              | 22.75                       | 23.00                                | N/A                   | 1.059             | 0.165                   | 0.175    |                  |
| 23060                                                               | 704.0          | 50%RB         | Front            | 22.01                       | 22.50                                | N/A                   | 1.119             | 0.200                   | 0.224    |                  |
| 23060                                                               | 704.0          | 50%RB         | Rear             | 22.01                       | 22.50                                | N/A                   | 1.119             | 0.246                   | 0.275    |                  |
| 23060                                                               | 704.0          | 50%RB         | Right            | 22.01                       | 22.50                                | N/A                   | 1.119             | 0.163                   | 0.182    |                  |
| 23060                                                               | 704.0          | 50%RB         | Top              | 22.01                       | 22.50                                | N/A                   | 1.119             | 0.122                   | 0.137    |                  |

#### SAR Values [LTE Band 17]

| Ch.                                                                 | Freq.<br>(MHz) | Time<br>slots | Test<br>Position | Conducted<br>Power<br>(dBm) | Maximum<br>Allowed<br>Power<br>(dBm) | Power<br>Drift<br>(%) | Scaling<br>Factor | SAR1-g<br>results(W/kg) |          | Graph<br>Results |
|---------------------------------------------------------------------|----------------|---------------|------------------|-----------------------------|--------------------------------------|-----------------------|-------------------|-------------------------|----------|------------------|
|                                                                     |                |               |                  |                             |                                      |                       |                   | Measured                | Reported |                  |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |                |               |                  |                             |                                      |                       |                   |                         |          |                  |
| 23780                                                               | 709.0          | 1RB           | Front            | 22.86                       | 23.00                                | N/A                   | 1.033             | 0.263                   | 0.272    |                  |
| 23780                                                               | 709.0          | 1RB           | Rear             | 22.86                       | 23.00                                | N/A                   | 1.033             | <b>0.309</b>            | 0.319    | <b>Plot 11</b>   |
| 23780                                                               | 709.0          | 1RB           | Right            | 22.86                       | 23.00                                | N/A                   | 1.033             | 0.215                   | 0.222    |                  |
| 23780                                                               | 709.0          | 1RB           | Top              | 22.86                       | 23.00                                | N/A                   | 1.033             | 0.164                   | 0.169    |                  |
| 23780                                                               | 709.0          | 50%RB         | Front            | 21.69                       | 22.00                                | N/A                   | 1.074             | 0.213                   | 0.229    |                  |
| 23780                                                               | 709.0          | 50%RB         | Rear             | 21.69                       | 22.00                                | N/A                   | 1.074             | 0.241                   | 0.259    |                  |
| 23780                                                               | 709.0          | 50%RB         | Right            | 21.69                       | 22.00                                | N/A                   | 1.074             | 0.168                   | 0.180    |                  |
| 23780                                                               | 709.0          | 50%RB         | Top              | 21.69                       | 22.00                                | N/A                   | 1.074             | 0.120                   | 0.129    |                  |

#### SAR Values [BT]

| Ch                                                                  | Freq. (MHz) | Service | Test Position | Conducted Power (dBm) | Maximum Allowed Power (dBm) | Power Drift (%) | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results  |
|---------------------------------------------------------------------|-------------|---------|---------------|-----------------------|-----------------------------|-----------------|----------------|----------------------|----------|----------------|
|                                                                     |             |         |               |                       |                             |                 |                | Measured             | Reported |                |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |             |         |               |                       |                             |                 |                |                      |          |                |
| 19                                                                  | 2441.0      | GFSK    | Front         | 2.40                  | 2.50                        | N/A             | 1.023          | 0.089                | 0.091    |                |
| 19                                                                  | 2441.0      | GFSK    | Rear          | 2.40                  | 2.50                        | N/A             | 1.023          | <b>0.121</b>         | 0.124    | <b>Plot 12</b> |
| 19                                                                  | 2441.0      | GFSK    | Left          | 2.40                  | 2.50                        | N/A             | 1.023          | 0.074                | 0.076    |                |
| 19                                                                  | 2441.0      | GFSK    | Top           | 2.40                  | 2.50                        | N/A             | 1.023          | 0.060                | 0.061    |                |

#### SAR Values [WIFI2.4G]

| Ch. | Freq. (MHz) | Service | Test Position | Conducted Power | Maximum Allowed Power | Power Drift | Scaling Factor | SAR1-g results(W/kg) |          | Graph Results |
|-----|-------------|---------|---------------|-----------------|-----------------------|-------------|----------------|----------------------|----------|---------------|
|     |             |         |               |                 |                       |             |                | Measured             | Reported |               |

|                                                                     |      |     |       | (dBm) | (dBm) | (%) |       |              |       |                |
|---------------------------------------------------------------------|------|-----|-------|-------|-------|-----|-------|--------------|-------|----------------|
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |      |     |       |       |       |     |       |              |       |                |
| 6                                                                   | 2437 | 11b | Front | 15.61 | 16.00 | N/A | 1.094 | 0.216        | 0.236 |                |
| 6                                                                   | 2437 | 11b | Rear  | 15.61 | 16.00 | N/A | 1.094 | <b>0.267</b> | 0.292 | <b>Plot 13</b> |
| 6                                                                   | 2437 | 11b | Left  | 15.61 | 16.00 | N/A | 1.094 | 0.156        | 0.171 |                |
| 6                                                                   | 2437 | 11b | Top   | 15.61 | 16.00 | N/A | 1.094 | 0.123        | 0.135 |                |

**SAR Values [WIFI5.1G]**

| Ch                                                                  | Freq.<br>(MHz) | Service | Test<br>Position | Conducted<br>Power<br>(dBm) | Maximum<br>Allowed<br>Power<br>(dBm) | Power<br>Drift<br>(%) | Scaling<br>Factor | SAR1-g<br>results(W/kg) |          | Graph<br>Results |
|---------------------------------------------------------------------|----------------|---------|------------------|-----------------------------|--------------------------------------|-----------------------|-------------------|-------------------------|----------|------------------|
|                                                                     |                |         |                  |                             |                                      |                       |                   | Measured                | Reported |                  |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |                |         |                  |                             |                                      |                       |                   |                         |          |                  |
| 36                                                                  | 5180           | 11A     | Front            | 13.31                       | 13.50                                | N/A                   | 1.045             | 0.365                   | 0.381    |                  |
| 36                                                                  | 5180           | 11A     | Rear             | 13.31                       | 13.50                                | N/A                   | 1.045             | <b>0.438</b>            | 0.458    | <b>Plot 14</b>   |
| 36                                                                  | 5180           | 11A     | Left             | 13.31                       | 13.50                                | N/A                   | 1.045             | 0.302                   | 0.316    |                  |
| 36                                                                  | 5180           | 11A     | Top              | 13.31                       | 13.50                                | N/A                   | 1.045             | 0.256                   | 0.267    |                  |

**SAR Values [WIFI5.8G]**

| Ch.                                                                 | Freq.<br>(MHz) | Service | Test<br>Position | Conducted<br>Power<br>(dBm) | Maximum<br>Allowed<br>Power<br>(dBm) | Power<br>Drift<br>(%) | Scaling<br>Factor | SAR1-g<br>results(W/kg) |          | Graph<br>Results |
|---------------------------------------------------------------------|----------------|---------|------------------|-----------------------------|--------------------------------------|-----------------------|-------------------|-------------------------|----------|------------------|
|                                                                     |                |         |                  |                             |                                      |                       |                   | Measured                | Reported |                  |
| measured / reported SAR numbers - Body (hotspot open, distance 0mm) |                |         |                  |                             |                                      |                       |                   |                         |          |                  |
| 149                                                                 | 5745           | 11A     | Front            | 7.30                        | 7.50                                 | N/A                   | 1.047             | 0.302                   | 0.316    |                  |
| 149                                                                 | 5745           | 11A     | Rear             | 7.30                        | 7.50                                 | N/A                   | 1.047             | <b>0.357</b>            | 0.374    | <b>Plot 15</b>   |
| 149                                                                 | 5745           | 11A     | Left             | 7.30                        | 7.50                                 | N/A                   | 1.047             | 0.274                   | 0.287    |                  |
| 149                                                                 | 5745           | 11A     | Top              | 7.30                        | 7.50                                 | N/A                   | 1.047             | 0.216                   | 0.226    |                  |

## 14.4 Standalone SAR Test Exclusion Considerations and Estimated SAR

Per KDB447498 requires when the standalone SAR test exclusion of section 4.3.1 is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion;

- (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [ $\sqrt{f(\text{GHz})/x}$ ] W/kg for test separation distances  $\leq 50$  mm; where  $x = 7.5$  for 1-g SAR, and  $x = 18.75$  for 10-g SAR.

- 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is  $> 50$  mm

Per FCC KD B447498 D01, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the transmitting antenna in a specific a physical test configuration is  $\leq 1.6$  W/Kg. When the sum is greater than the SAR limit, SAR test exclusion is determined by the SAR to peak location separation ratio.

$$\text{Ratio} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{(\text{peak location separation, mm})} < 0.04$$

| Estimated stand alone SAR |                 |               |                     |                          |                         |
|---------------------------|-----------------|---------------|---------------------|--------------------------|-------------------------|
| Communication system      | Frequency (MHz) | Configuration | Maximum Power (dBm) | Separation Distance (mm) | Estimated SAR1-g (W/kg) |
| Bluetooth*                | 2450            | Body-worn     | N/A                 | 5                        | N/A                     |

Remark:

1. Bluetooth\*- Including Lower power Bluetooth
2. Maximum average power including tune-up tolerance;
3. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion
4. Body as body use distance is 5mm from manufacturer declaration of user manual

## 14.5 Simultaneous TX SAR Considerations

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. The device has 1 antenna, WWAN main antenna.;

Application Simultaneous Transmission information:

| Combination No. | Mode      |
|-----------------|-----------|
| 1               | WWAN+WIFI |

The maximum value of simultaneous emission is 1.180W/kg.

## 14.6 SAR Measurement Variability

According to KDB865664, Repeated measurements are required only when the measured SAR is  $\geq 0.80$  W/kg. If the measured SAR value of the initial repeated measurement is  $< 1.45$  W/kg with  $\leq 20\%$  variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same procedures should be adapted for measurements according to extremity and occupational exposure limits

by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.<sup>19</sup> The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB 690783. Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

- 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
- 2) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is  $> 1.20$  or when the original or repeated measurement is  $\geq 1.45$  W/kg (~ 10% from the 1-g SAR limit).
- 3) Perform a third repeated measurement only if the original, first or second repeated measurement is  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

| Frequency Band (MHz) | Air Interface | RF Exposure Configuration | Test Position | Repeated SAR (yes/no) | Highest Measured SAR1-g (W/Kg) | First Repeated         |                               |
|----------------------|---------------|---------------------------|---------------|-----------------------|--------------------------------|------------------------|-------------------------------|
|                      |               |                           |               |                       |                                | Measured SAR1-g (W/Kg) | Largest to Smallest SAR Ratio |
| 750                  | LTE Band 12   | Standalone                | Body-Rear     | no                    | 0.298                          | n/a                    | n/a                           |
|                      | LTE Band 17   | Standalone                | Body-Rear     | no                    | 0.309                          | n/a                    | n/a                           |
| 850                  | GSM 850       | Standalone                | Body-Rear     | no                    | 0.432                          | n/a                    | n/a                           |
|                      | WCDMA Band V  | Standalone                | Body-Rear     | no                    | 0.464                          | n/a                    | n/a                           |
|                      | LTE Band 5    | Standalone                | Body-Rear     | no                    | 0.451                          | n/a                    | n/a                           |
| 1800                 | LTE Band 4    | Standalone                | Body-Rear     | no                    | 0.479                          | n/a                    | n/a                           |
|                      | WCDMA Band IV | Standalone                | Head-Left     | no                    | 0.605                          | n/a                    | n/a                           |
| 1900                 | GSM 1900      | Standalone                | Head-Left     | no                    | 0.648                          | n/a                    | n/a                           |
|                      | WCDMA Band II | Standalone                | Body-Rear     | no                    | 0.598                          | n/a                    | n/a                           |
|                      | LTE Band 2    | Standalone                | Body-Rear     | no                    | 0.548                          | n/a                    | n/a                           |
| 2440                 | BT            | Standalone                | Body-Rear     | no                    | 0.121                          | n/a                    | n/a                           |
|                      | WIFI2.4G      | Standalone                | Body-Rear     | no                    | 0.267                          | n/a                    | n/a                           |
| 2600                 | LTE Band 7    | Standalone                | Body-Rear     | no                    | 0.524                          | n/a                    | n/a                           |
| 5200                 | WIFI5.1G      | Standalone                | Body-Rear     | no                    | 0.438                          | n/a                    | n/a                           |
| 5800                 | WIFI5.8G      | Standalone                | Body-Rear     | no                    | 0.357                          | n/a                    | n/a                           |

Remark:

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not  $> 1.20$  or 3 (1-g or 10-g respectively)

## 14.7 General description of test procedures

1. The DUT is tested using CMU 200 communications testers as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power.
2. Test positions as described in the tables above are in accordance with the specified test standard.
3. Tests in body position were performed in that configuration, which generates the highest time based averaged output power (see conducted power results).
4. Tests in head position with GSM were performed in voice mode with 1 timeslot unless GPRS/EGPRS/DTM function allows parallel voice and data traffic on 2 or more timeslots.
5. UMTS was tested in RMC mode with 12.2 kbit/s and TPC bits set to 'all 1'.

6. WiFi was tested in 802.11b/g/n mode with 1 Mbit/s and 6 Mbit/s. According to KDB 248227 the SAR testing for 802.11g/n is not required since When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.
7. Required WiFi test channels were selected according to KDB 248227
8. According to FCC KDB pub 248227 D01, When there are multiple test channels with the same measured maximum output power, the channel closest to mid-band frequency is selected for SAR measurement and when there are multiple test channels with the same measured maximum output power and equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.
9. According to FCC KDB pub 941225 D06 this device has been tested with 10 mm distance to the phantom for operation in WiFi hot spot mode.
10. Per FCC KDB pub 941225 D06 the edges with antennas within 2.5 cm are required to be evaluated for SAR to cover WiFi hot spot function.
11. According to IEEE 1528 the SAR test shall be performed at middle channel. Testing of top and bottom channel is optional.
12. According to KDB 447498 D01 testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
  - $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
  - $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz
13. IEEE 1528 require the middle channel to be tested first. This generally applies to wireless devices that are designed to operate in technologies with tight tolerances for maximum output power variations across channels in the band.
14. Per KDB648474 D04 require when the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is  $< 1.2$  W/kg.
15. Per KDB648474 D04 require when the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, such as UMTS, LTE and Wi-Fi, and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface)
16. 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR  $> 1.2$  W/kg.
17. Per KDB648474 D04 require for phablet SAR test considerations · For Smart phones with a display diagonal dimension  $> 15.0$  cm or an overall diagonal dimension  $> 16.0$  cm, When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg.
18. 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR  $> 1.2$  W/kg.

## 15. Test Plots

### 15.1 System Performance Check

System check at 835 MHz

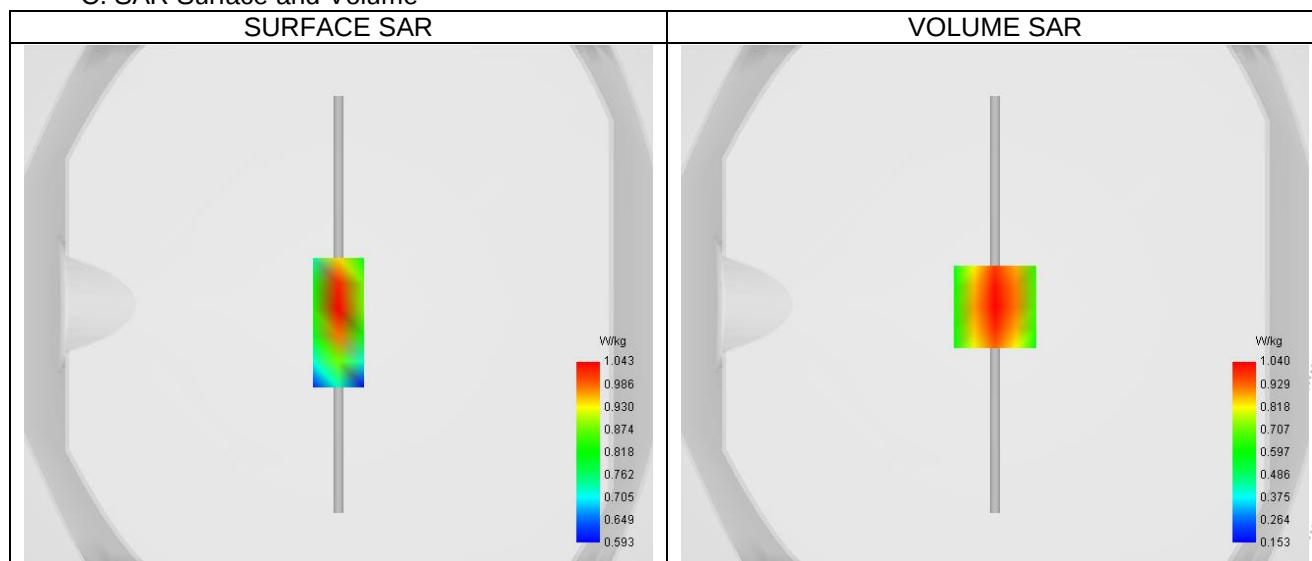
#### A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 25.00                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW835                                  |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

#### B. Permittivity

|                                        |         |
|----------------------------------------|---------|
| Frequency (MHz)                        | 835.000 |
| Relative permittivity (real part)      | 40.830  |
| Relative permittivity (imaginary part) | 20.910  |
| Conductivity (S/m)                     | 0.970   |

#### C. SAR Surface and Volume



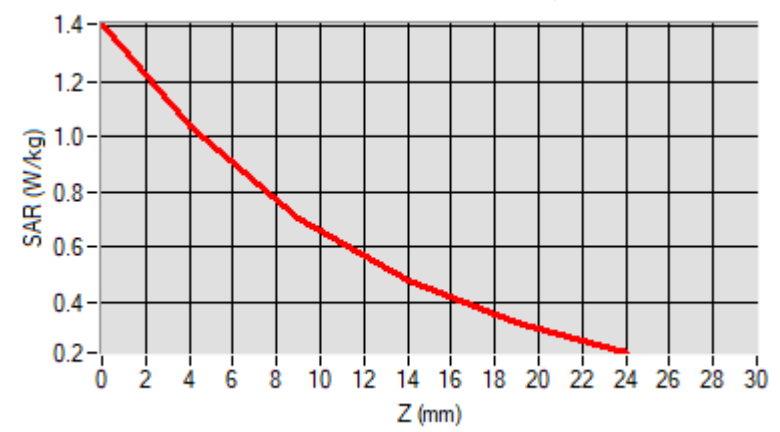
Maximum location: X=0.00, Y=-1.00 ; SAR Peak: 1.41 W/kg

#### D. SAR 1g & 10g

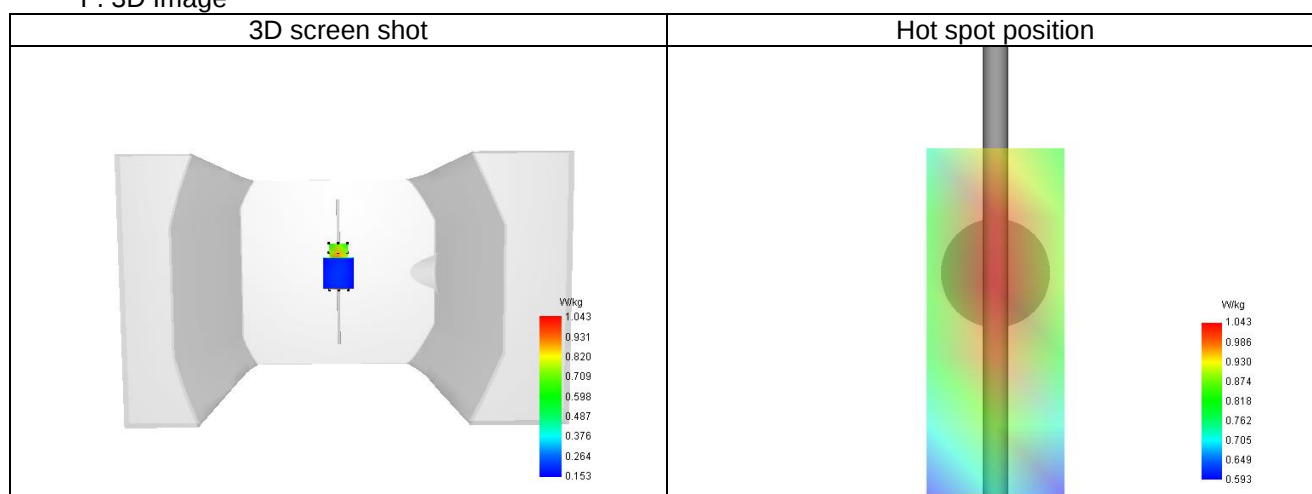
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 0.638    |
| SAR 1g (W/Kg)                                         | 0.987    |
| Variation (%)                                         | -0.330   |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

#### E. Z Axis Scan

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| Z (mm)     | 0.00  | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 1.411 | 1.040 | 0.704 | 0.477 | 0.325 |



F. 3D Image



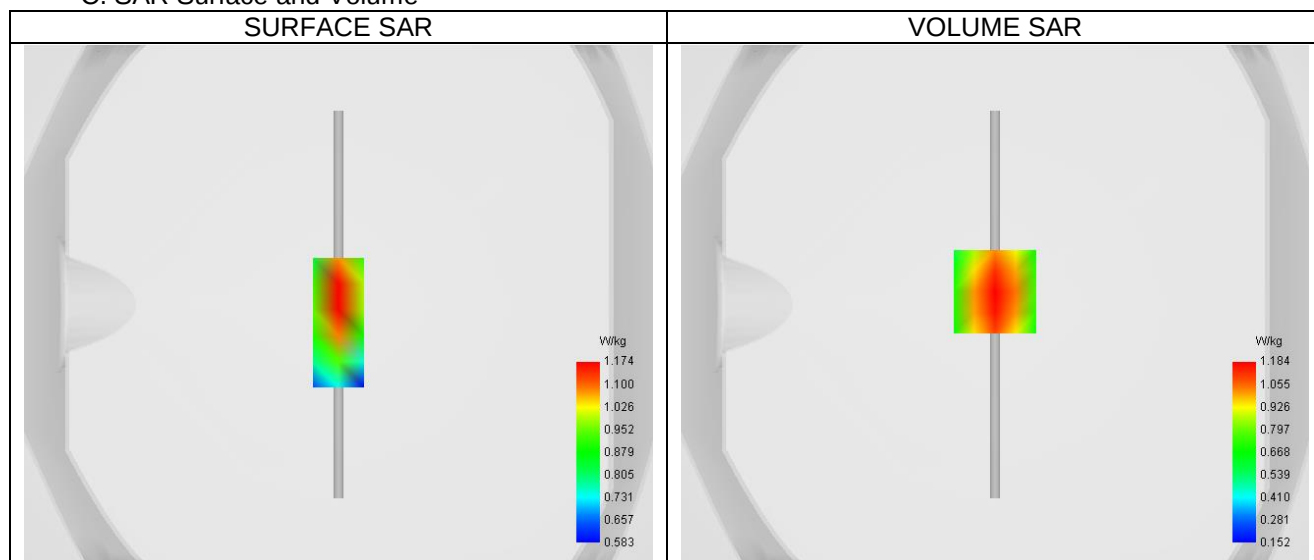
## A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 23.97                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW900                                  |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

## B. Permittivity

|                                        |         |
|----------------------------------------|---------|
| Frequency (MHz)                        | 900.000 |
| Relative permittivity (real part)      | 40.900  |
| Relative permittivity (imaginary part) | 21.000  |
| Conductivity (S/m)                     | 1.050   |

## C. SAR Surface and Volume

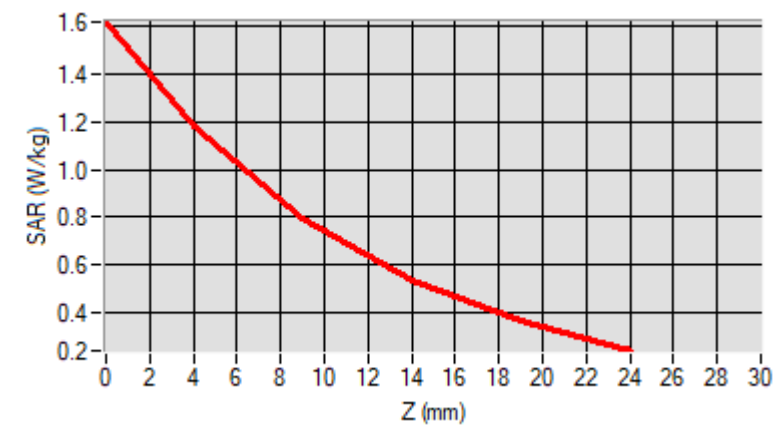


## D. SAR 1g &amp; 10g

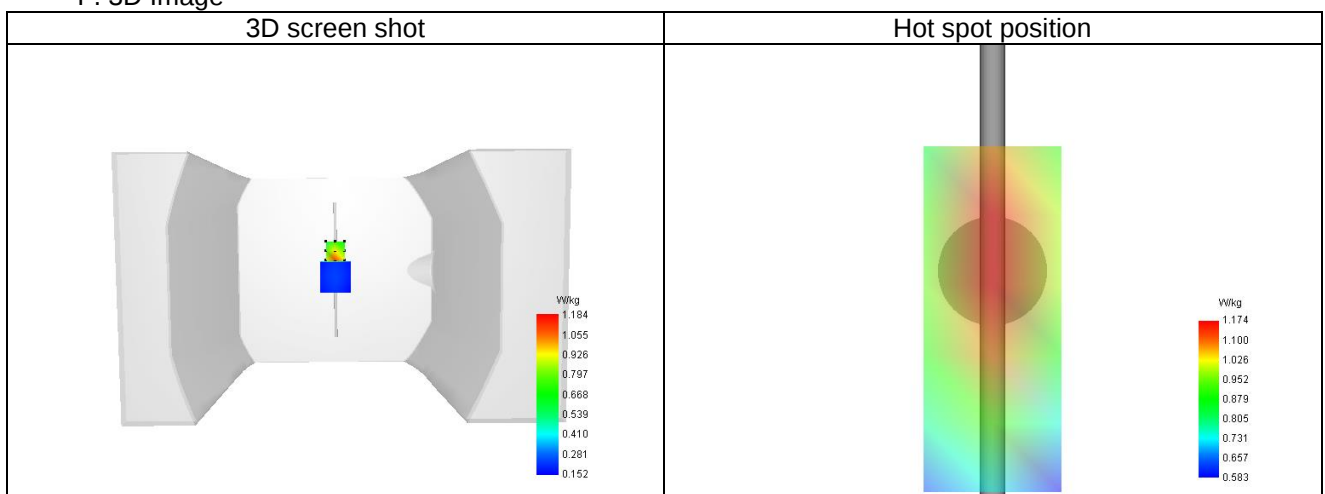
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 0.719    |
| SAR 1g (W/Kg)                                         | 1.124    |
| Variation (%)                                         | -0.360   |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

## E. Z Axis Scan

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| Z (mm)     | 0.00  | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 1.616 | 1.184 | 0.796 | 0.537 | 0.366 |



F. 3D Image



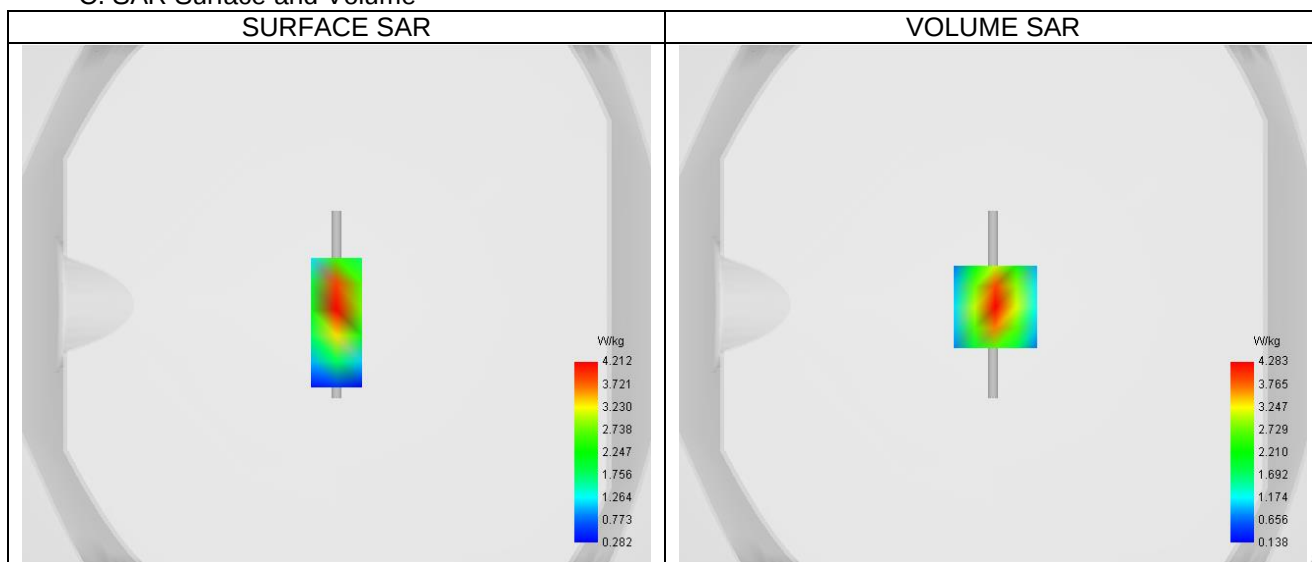
## A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 24.68                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW1800                                 |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

## B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 1800.000 |
| Relative permittivity (real part)      | 39.200   |
| Relative permittivity (imaginary part) | 15.200   |
| Conductivity (S/m)                     | 1.520    |

## C. SAR Surface and Volume

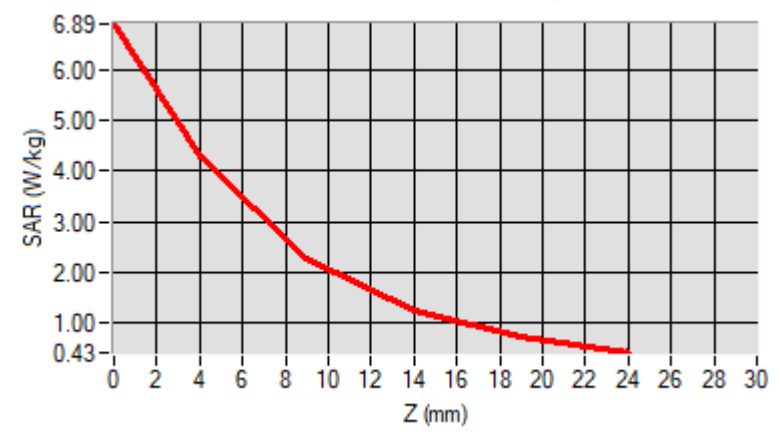


## D. SAR 1g &amp; 10g

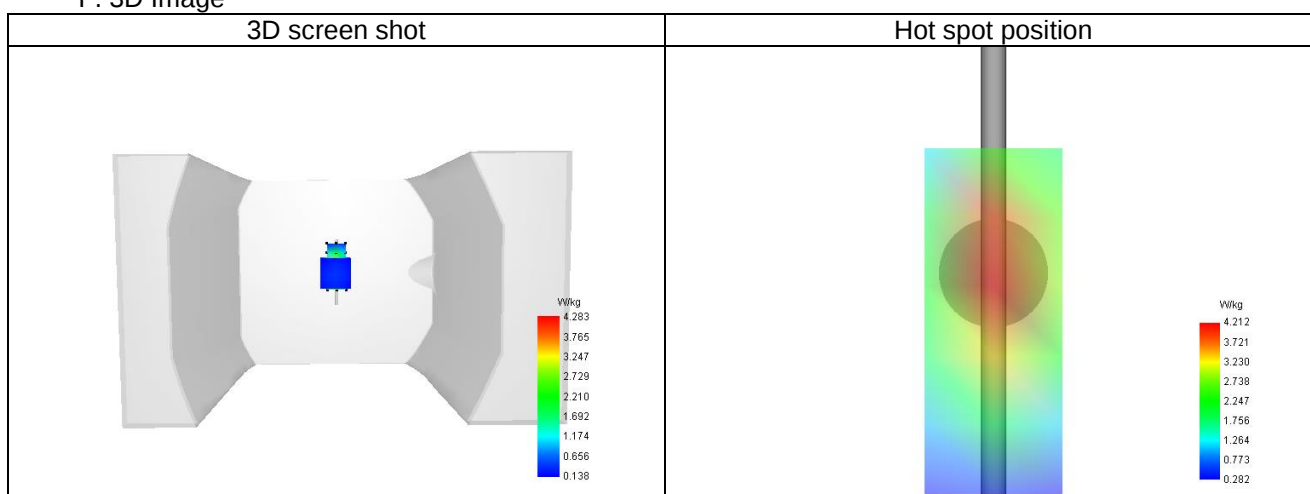
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 1.995    |
| SAR 1g (W/Kg)                                         | 3.940    |
| Variation (%)                                         | 0.070    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

## E. Z Axis Scan

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| Z (mm)     | 0.00  | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 6.889 | 4.283 | 2.298 | 1.249 | 0.726 |



F. 3D Image



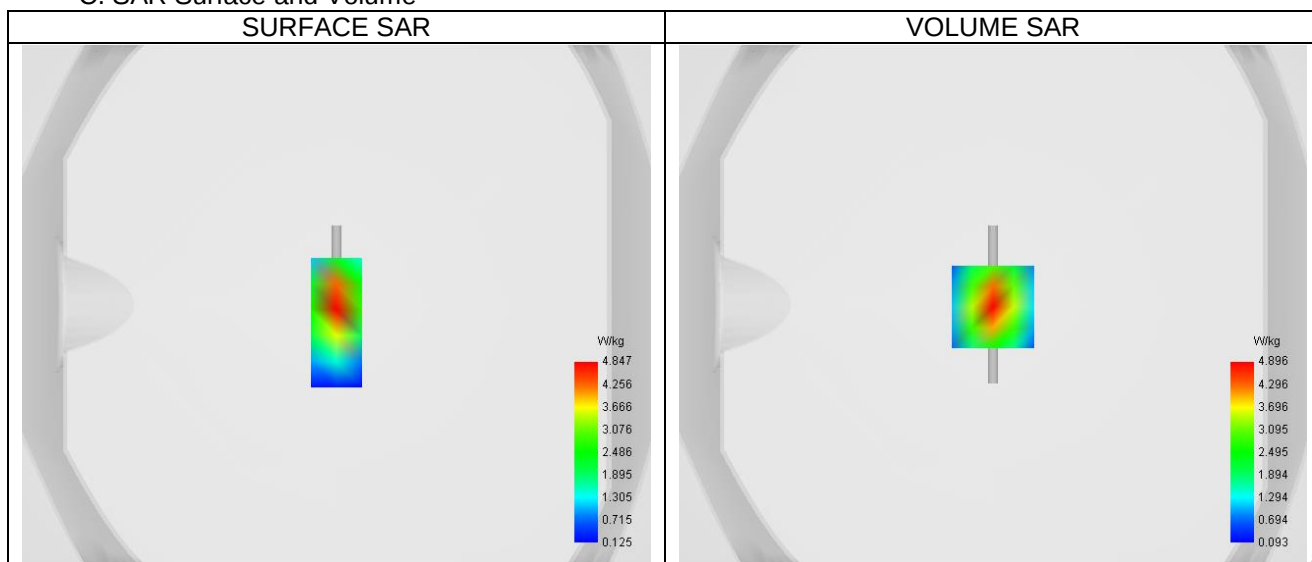
#### A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 26.52                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW2100                                 |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

#### B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 2100.000 |
| Relative permittivity (real part)      | 38.521   |
| Relative permittivity (imaginary part) | 13.824   |
| Conductivity (S/m)                     | 1.613    |

#### C. SAR Surface and Volume

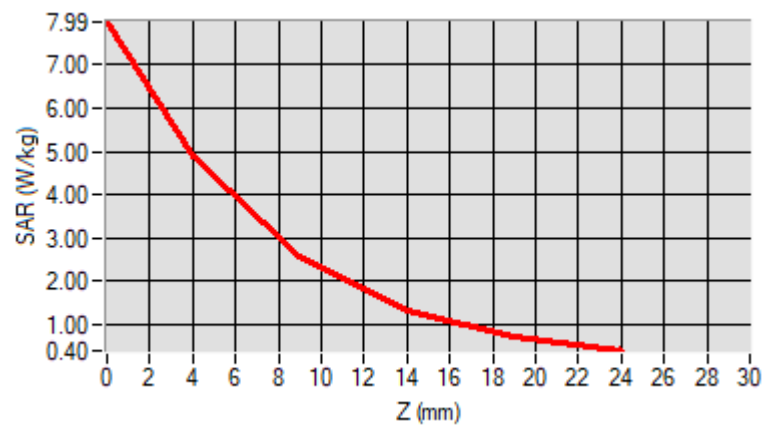


#### D. SAR 1g & 10g

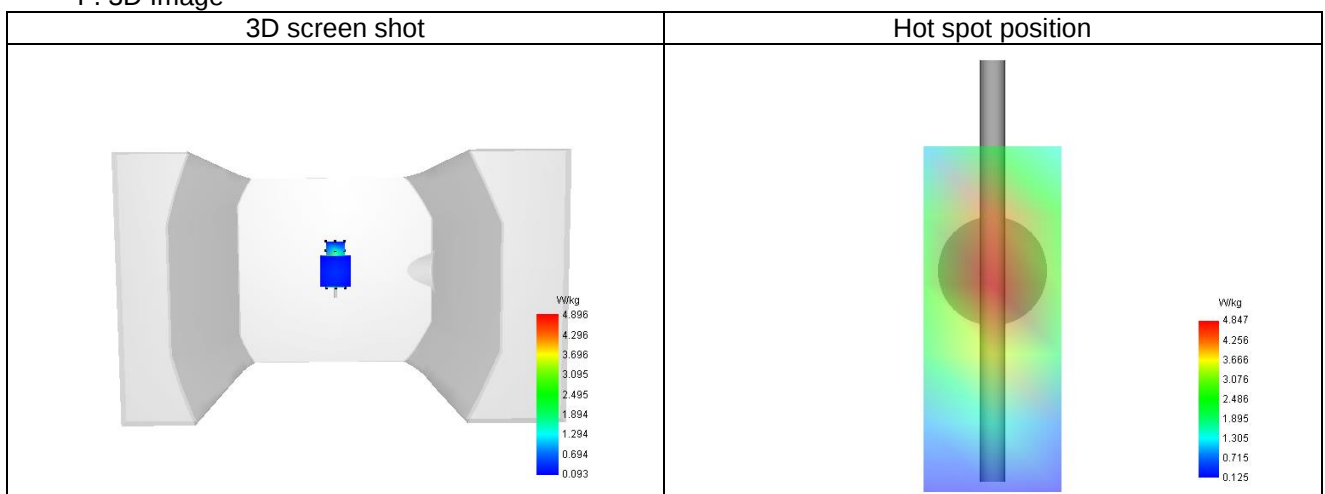
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 2.155    |
| SAR 1g (W/Kg)                                         | 4.458    |
| Variation (%)                                         | 0.100    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

#### E. Z Axis Scan

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| Z (mm)     | 0.00  | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 7.987 | 4.896 | 2.558 | 1.335 | 0.733 |



F. 3D Image



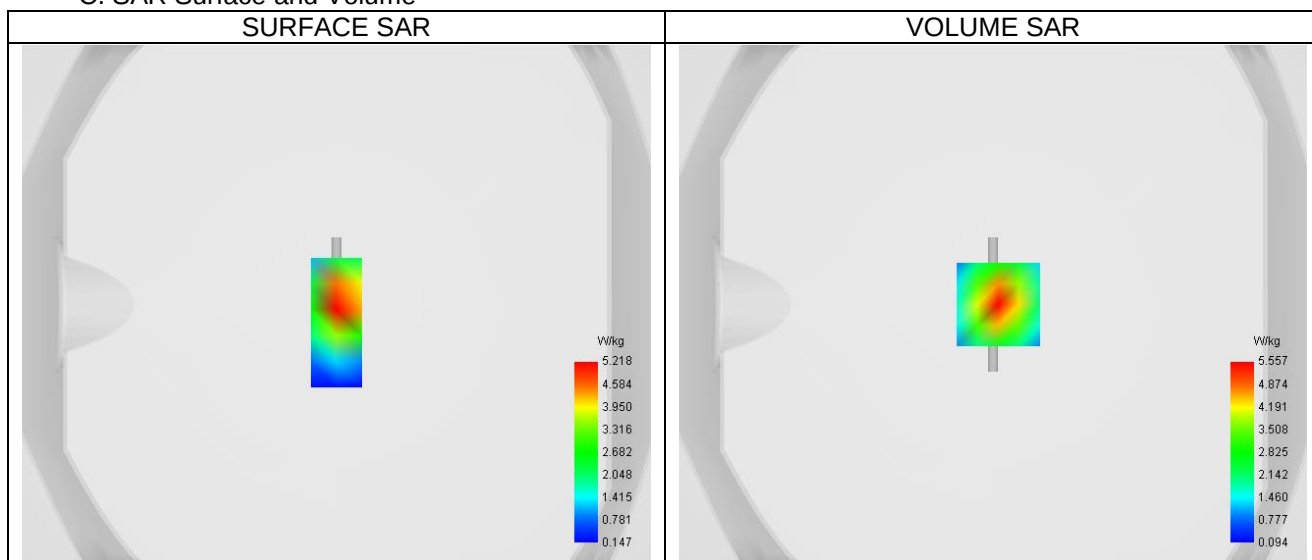
## A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 26.43                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW2450                                 |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

## B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 2450.000 |
| Relative permittivity (real part)      | 38.600   |
| Relative permittivity (imaginary part) | 14.330   |
| Conductivity (S/m)                     | 1.950    |

## C. SAR Surface and Volume

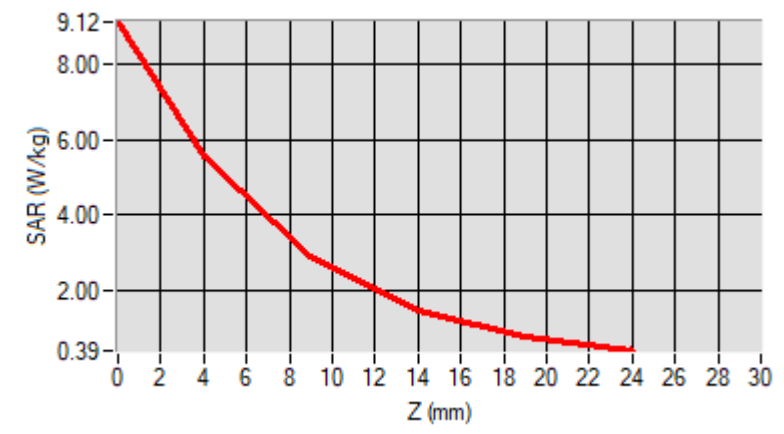


## D. SAR 1g &amp; 10g

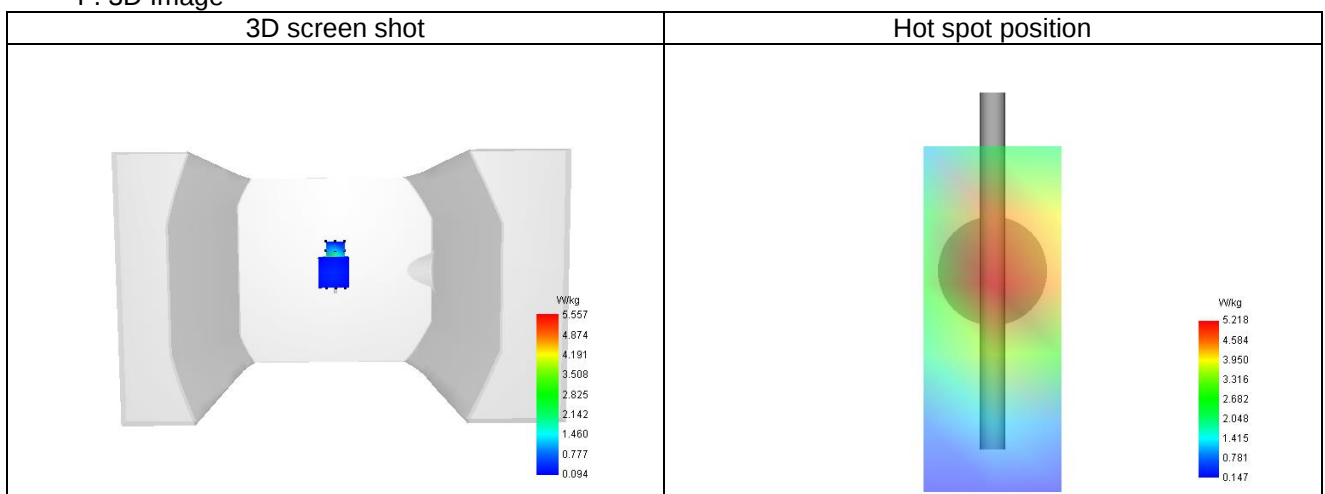
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 2.457    |
| SAR 1g (W/Kg)                                         | 5.085    |
| Variation (%)                                         | 0.360    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

## E. Z Axis Scan

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| Z (mm)     | 0.00  | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 9.121 | 5.557 | 2.866 | 1.459 | 0.770 |



### F. 3D Image



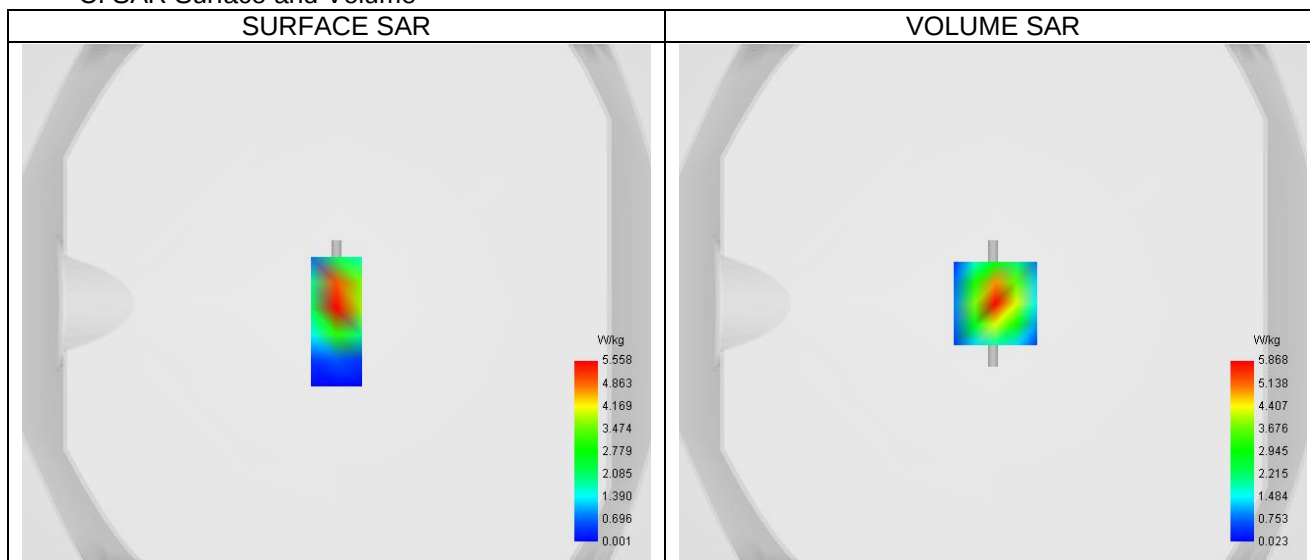
## A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 27.77                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW2600                                 |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

## B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 2600.000 |
| Relative permittivity (real part)      | 52.509   |
| Relative permittivity (imaginary part) | 14.889   |
| Conductivity (S/m)                     | 2.151    |

## C. SAR Surface and Volume

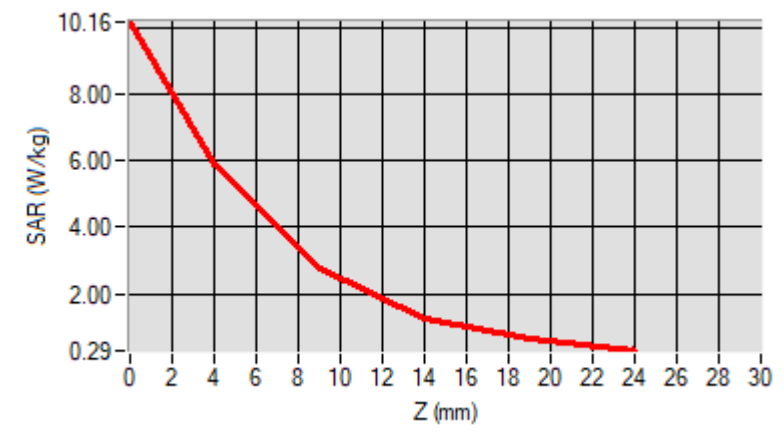


## D. SAR 1g &amp; 10g

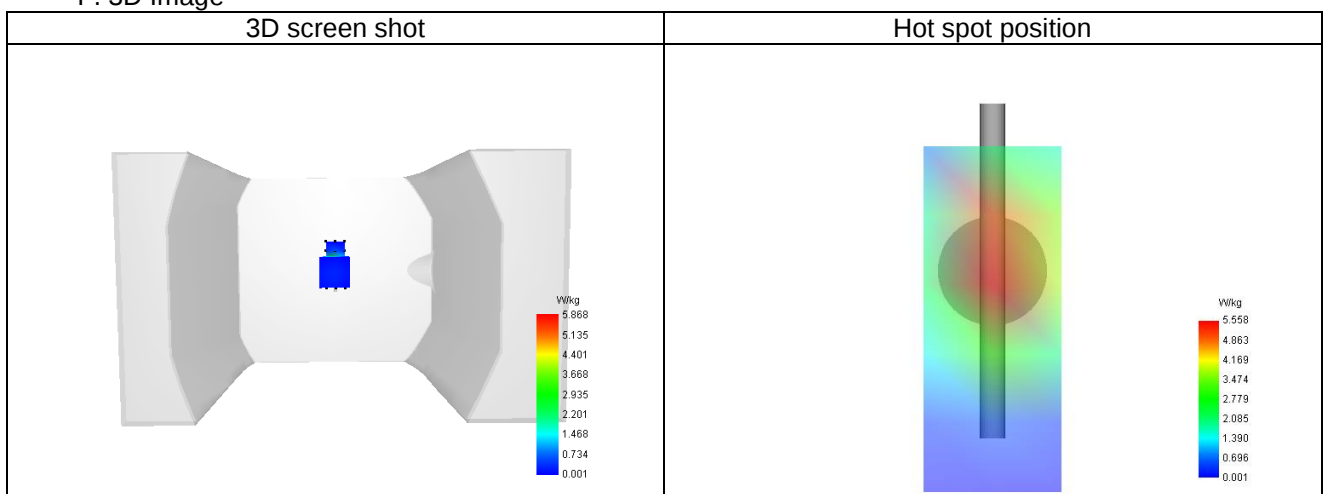
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 2.337    |
| SAR 1g (W/Kg)                                         | 5.302    |
| Variation (%)                                         | 0.230    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

## E. Z Axis Scan

|            |        |       |       |       |       |
|------------|--------|-------|-------|-------|-------|
| Z (mm)     | 0.00   | 4.00  | 9.00  | 14.00 | 19.00 |
| SAR (W/Kg) | 10.164 | 5.868 | 2.777 | 1.281 | 0.618 |



F. 3D Image



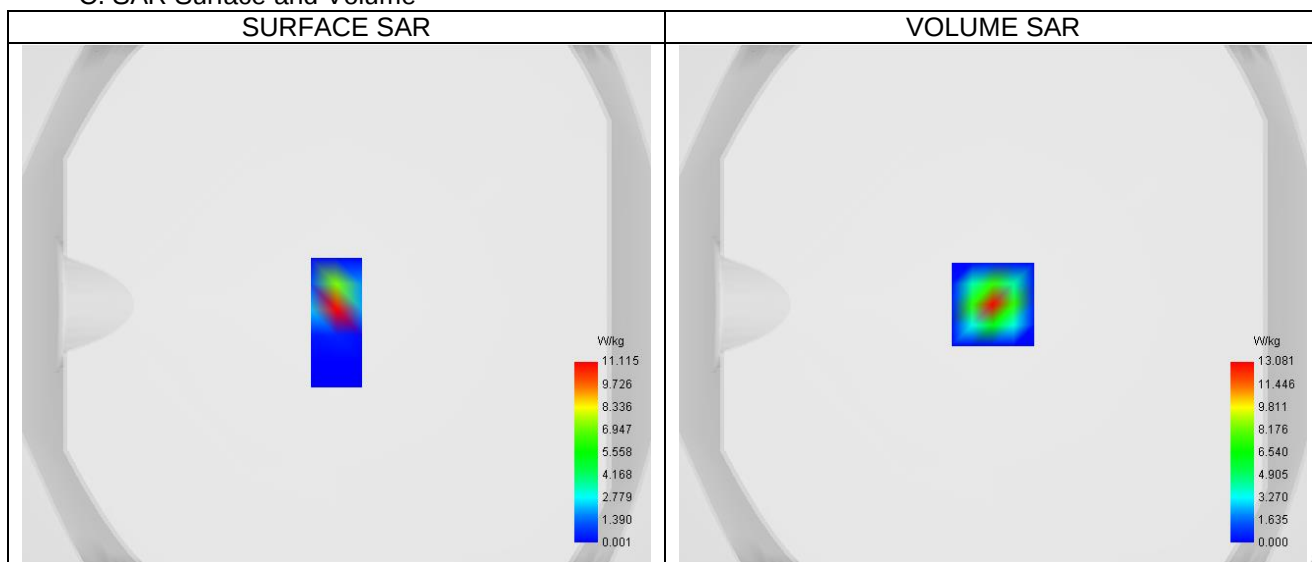
#### A. Experimental conditions.

|                 |                                      |
|-----------------|--------------------------------------|
| Probe           | SN EPGO373                           |
| ConvF           | 21.98                                |
| Area Scan       | dx=10mm dy=10mm, Adaptative 2 max    |
| Zoom Scan       | 5x5x7,dx=8mm dy=8mm dz=5mm,Very fast |
| Phantom         | Validation plane                     |
| Device Position | Dipole                               |
| Band            | CW5200                               |
| Channels        | Middle                               |
| Signal          | CW (Crest factor: 1.0)               |

#### B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 5200.000 |
| Relative permittivity (real part)      | 49.014   |
| Relative permittivity (imaginary part) | 18.140   |
| Conductivity (S/m)                     | 5.240    |

#### C. SAR Surface and Volume



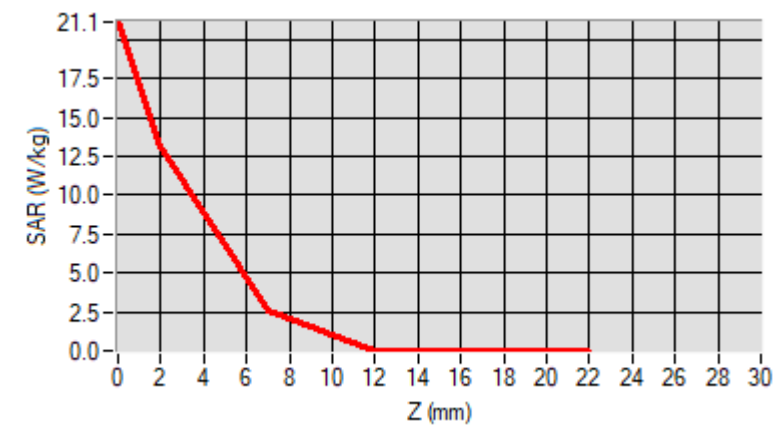
Maximum location: X=0.00, Y=0.00 ; SAR Peak: 22.28 W/kg

#### D. SAR 1g & 10g

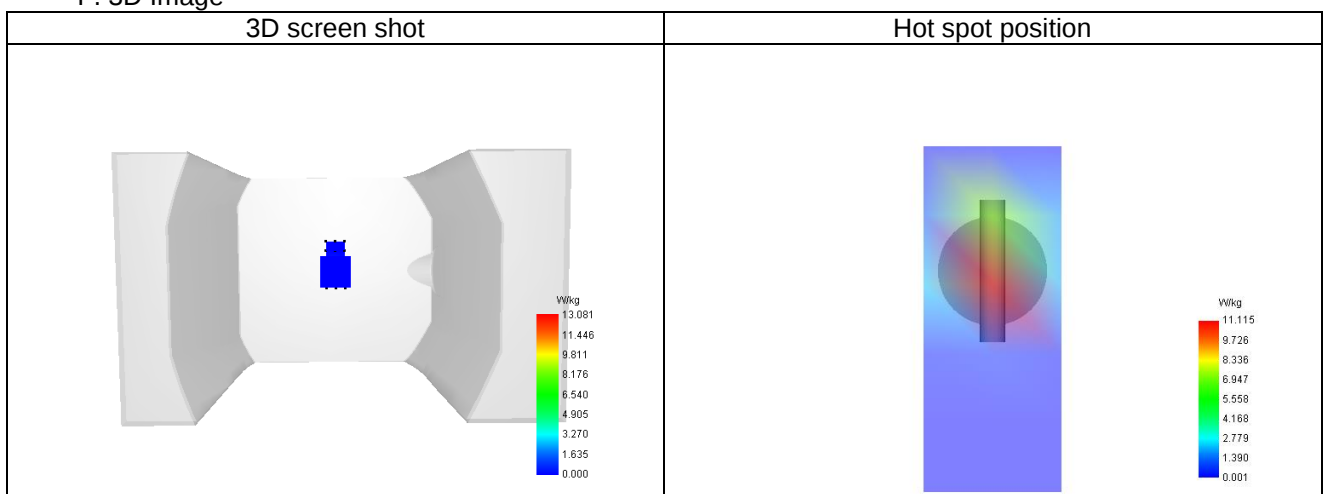
|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 2.041    |
| SAR 1g (W/Kg)                                         | 6.817    |
| Variation (%)                                         | 0.430    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

#### E. Z Axis Scan

|            |        |        |       |       |       |
|------------|--------|--------|-------|-------|-------|
| Z (mm)     | 0.00   | 2.00   | 7.00  | 12.00 | 17.00 |
| SAR (W/Kg) | 21.117 | 13.081 | 2.622 | 0.000 | 0.003 |



F. 3D Image



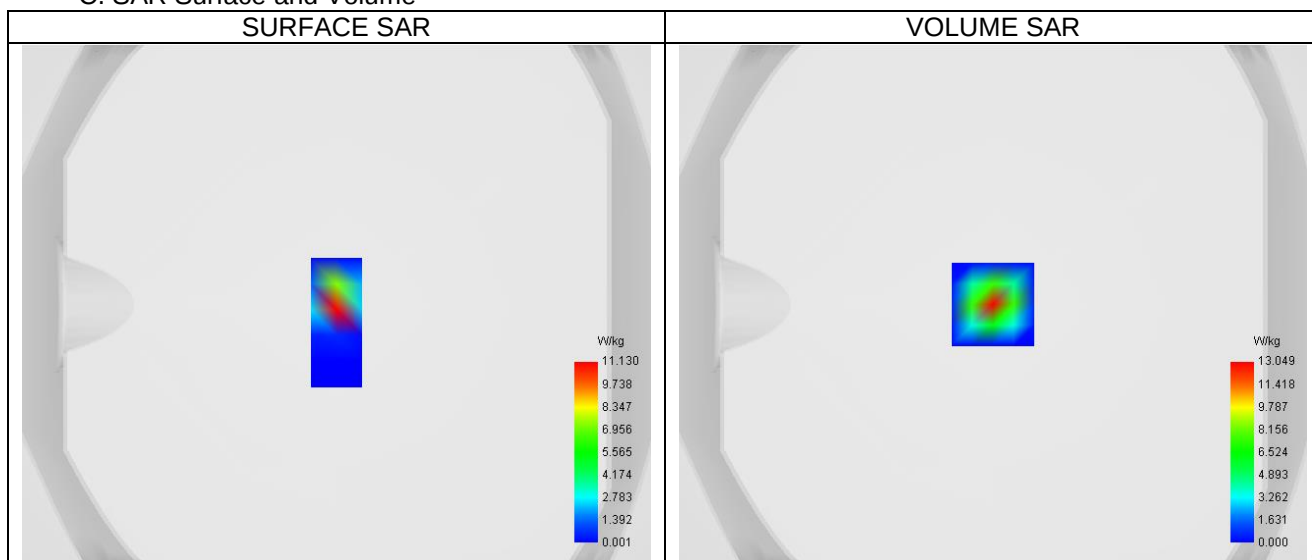
## A. Experimental conditions.

|                 |                                        |
|-----------------|----------------------------------------|
| Probe           | SN EPG0373                             |
| ConvF           | 21.00                                  |
| Area Scan       | dx=10mm dy=10mm, Adaptive 2 max        |
| Zoom Scan       | 5x5x7, dx=8mm dy=8mm dz=5mm, Very fast |
| Phantom         | Validation plane                       |
| Device Position | Dipole                                 |
| Band            | CW5800                                 |
| Channels        | Middle                                 |
| Signal          | CW (Crest factor: 1.0)                 |

## B. Permittivity

|                                        |          |
|----------------------------------------|----------|
| Frequency (MHz)                        | 5800.000 |
| Relative permittivity (real part)      | 48.200   |
| Relative permittivity (imaginary part) | 18.620   |
| Conductivity (S/m)                     | 6.000    |

## C. SAR Surface and Volume



Maximum location: X=0.00, Y=0.00 ; SAR Peak: 22.11 W/kg

## D. SAR 1g &amp; 10g

|                                                       |          |
|-------------------------------------------------------|----------|
| SAR 10g (W/Kg)                                        | 2.063    |
| SAR 1g (W/Kg)                                         | 6.847    |
| Variation (%)                                         | 0.430    |
| Horizontal validation criteria: minimum distance (mm) | 0.000000 |
| Vertical validation criteria: SAR ratio M2/M1 (%)     | 0.000000 |

## E. Z Axis Scan

|            |        |        |       |       |       |
|------------|--------|--------|-------|-------|-------|
| Z (mm)     | 0.00   | 2.00   | 7.00  | 12.00 | 17.00 |
| SAR (W/Kg) | 20.951 | 13.049 | 2.674 | 0.012 | 0.003 |