

# RF Exposure Evaluation

E.U.T. : Transceiver

Model Number : 5BCR14RE

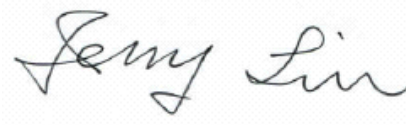
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Project Engineer :  Approved :   
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## 1 RF Exposure Evaluation

### Maximum measured transmitter power

| Frequency Range (MHz) | Continuous transmit power (dBm) | Averaging factor (dB) | Transmit power (dBm) | Tune-up power tolerance (dB) | Total Maximum power |        |
|-----------------------|---------------------------------|-----------------------|----------------------|------------------------------|---------------------|--------|
|                       |                                 |                       |                      |                              | (dBm)               | (mW)   |
| 909.6                 | 15.45                           | -12.55                | 2.9                  | (±)2                         | 4.9                 | 3.0903 |
| 913.8                 | 15.4                            | -12.55                | 2.85                 | (±)2                         | 4.85                | 3.0549 |
| 918.0                 | 15.33                           | -12.55                | 2.78                 | (±)2                         | 4.78                | 3.0061 |

Averaging factor in dB =  $20 \log$  (duty cycle)

The duration of one cycle = 561.6ms

Duty Cycle = Ton/duration = 132.4 ms / 561.6ms

Therefore, the averaging factor is found by  $20 \log 0.23575 = -12.55$  dB

### Portable Device

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB 447498\_D01\_V06 4.3.1(1)

SAR exclusion thresholds by:

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

### Calculation

$$(3.0903/5) \times (\sqrt{0.9096}) = 0.58946 \leq 7.5$$

### Conclusion

No SAR is required.

### Simultaneous Transmission Evaluation

N/A

