

RF Exposure Evaluation

E.U.T. : Transceiver

Model Number : 5BCR14RE

Applicant : **Nutek Corporation**

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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:

$[\text{max. power of channel, including tune-up tolerance, mW}] / (\text{min, test separation distances, mm})^2 \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Calculation

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

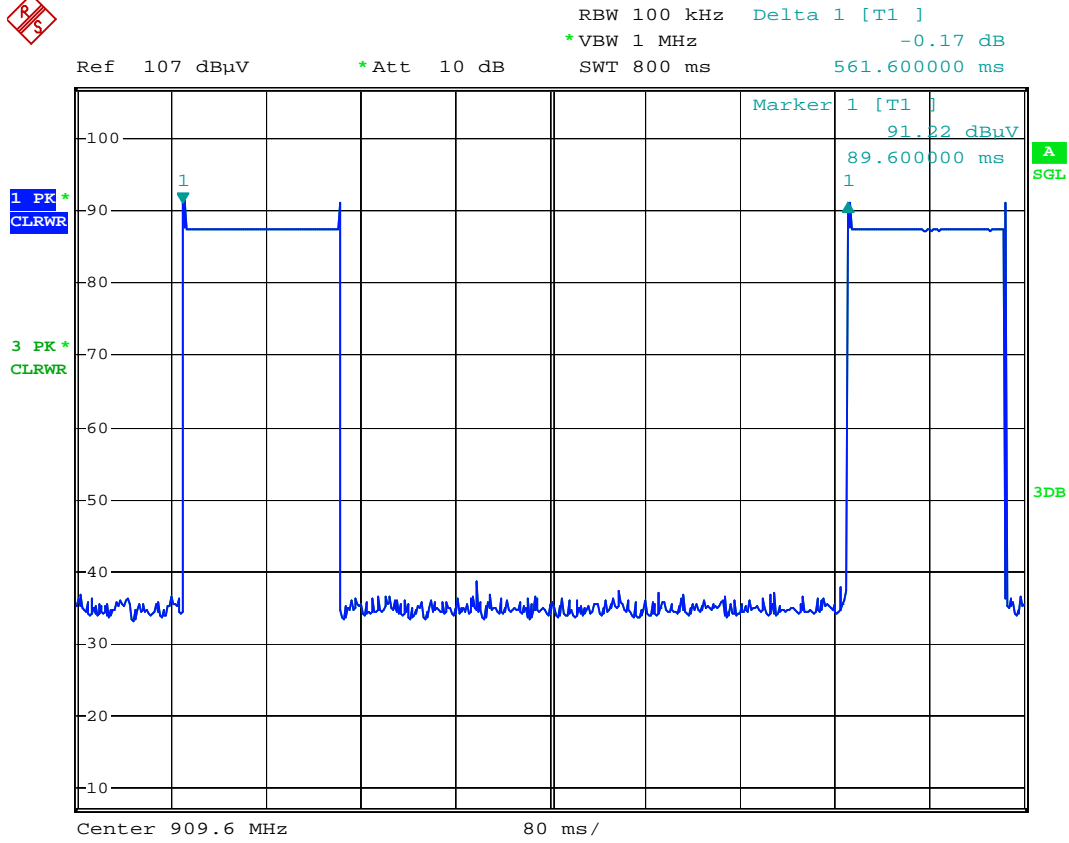
Conclusion

No SAR is required.

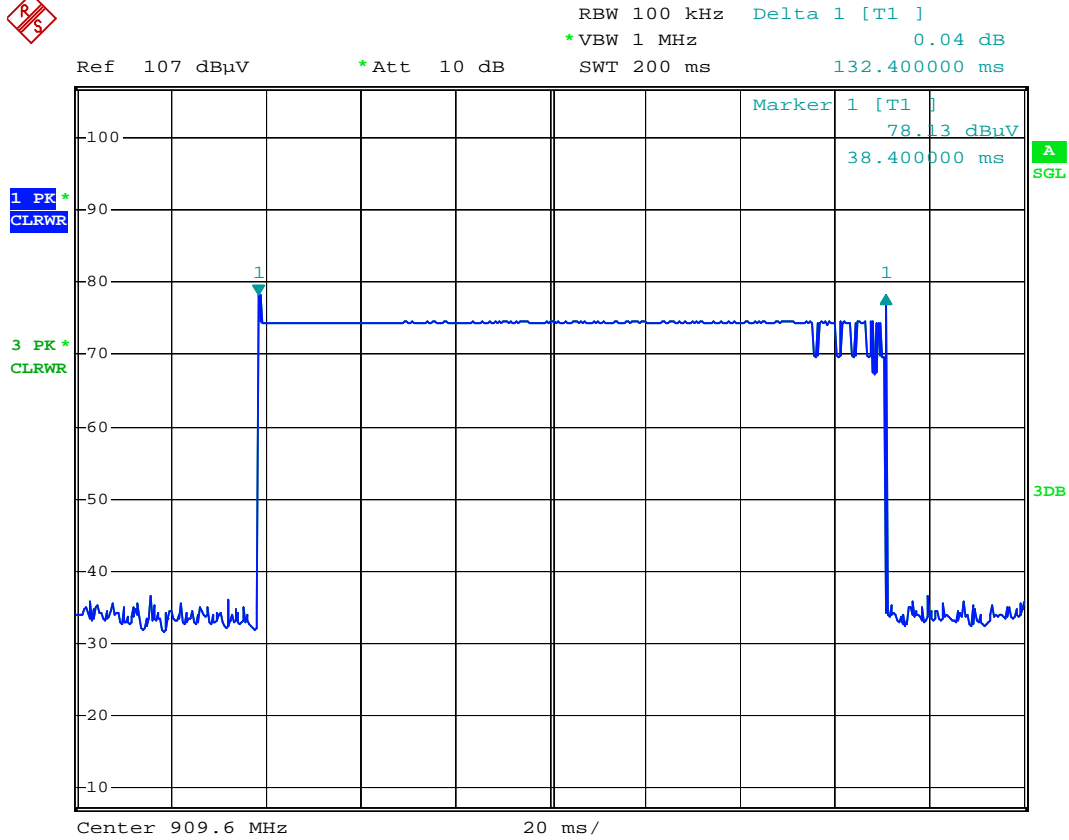
Simultaneous Transmission Evaluation

N/A

Duty Cycle



Duration



Time Slot