

RF Exposure Evaluation

E.U.T. : Transceiver

Model Number : REC-2N9-3D

Applicant : **Nutek Corporation**

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Issued By : Interocean EMC Technology Corp.

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Project Engineer : 

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Approved: 

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1 RF Exposure Evaluation

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	15.72	-9.78	5.94	(±)2	7.94	6.2230
913.8	15.78	-9.78	6.00	(±)2	8.00	6.3096
918.0	15.82	-9.78	6.04	(±)2	8.04	6.3680

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

The duration of one cycle = 310.8ms

Duty Cycle = Ton/duration = 100.82 ms / 310.8ms

Therefore, the averaging factor is found by $20\log$ 0.3244 = -9.78 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:

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

and ≤ 7.5 for 10-g extremity SAR.

Calculation

$$(6.3680/5)*(\sqrt{0.918})=1.22026 \leq 3$$

Conclusion:

No SAR is required.

SIMULTANEOUS TRANSMISSION EVALUATION

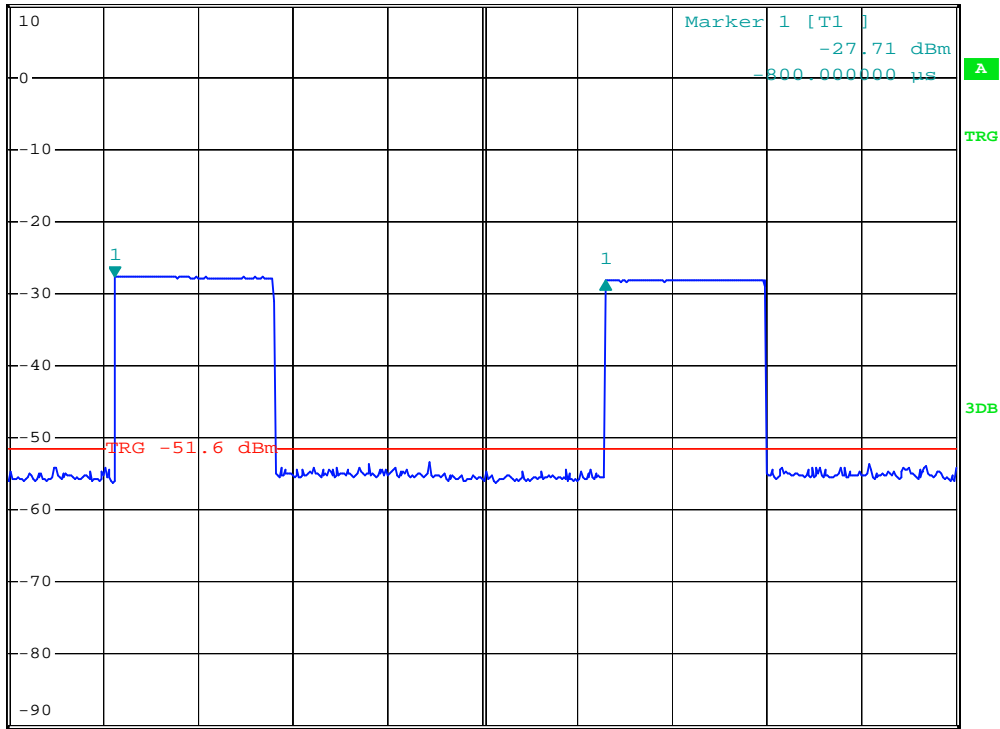
N/A

Duty Cycle



RBW 1 MHz Delta 1 [T1]
*VBW 1 MHz -0.59 dB
Ref 10 dBm *Att 30 dB SWT 600 ms 310.800000 ms

1 PK
VIEW

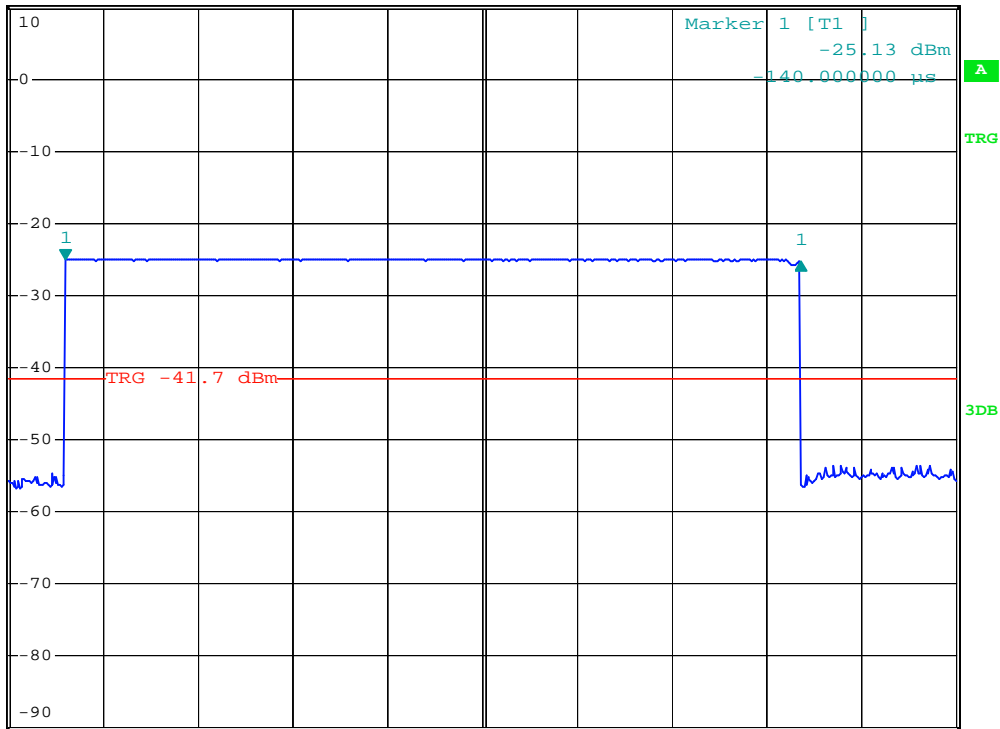


Duration



RBW 1 MHz Delta 1 [T1]
*VBW 1 MHz -0.12 dB
Ref 10 dBm *Att 30 dB SWT 130 ms 100.820000 ms

1 PK
VIEW



Time Slot