RF Exposure Evaluation

Applicant Name: **Zebra Enterprise Solutions Corp**.
FCC ID: XWX-TFF2005
IC: 8701A-TFF2005
Model : TFF-2005, WhereTag IV Module
RFID, Real Time Locating System
Equipment Class: DTS

Portable application

Exhibit documents:
- FCC/IC test report ETSD21-U1
- Duty cycle measurements and calculations for WhereTag IV Module, TFF-2005

Max. measured peak output powers in CW:
- P_{max} (802.11b mode, 2412-2462 MHz) = 41.8 mW
- P_{max} (802.11g mode, 2412-2462 MHz) = 39.8 mW
- P_{max} (DSSS mode, 2441.75 MHz) = 31.0 mW
- P_{max} (OOK mode, 2446.519 MHz) = 1.4 mW

Duty Cycle Correction Factors:
- 802.11b mode = 3.6%
- 802.11g mode = 0.72%
- DSSS mode = 2.55%
- OOK mode = 13%

The source-based time-averaged output power calculates to:
- P_{source} (802.11b mode) = 41.8 mW x 0.036 = 1.5 mW
- P_{spurce} (802.11g mode) = 39.8 mW x 0.0072 = 0.29 mW
- P_{source} (DSSS mode) = 31.0 mW x 0.0255 = 0.79 mW
- P_{source} (OOK mode) = 1.4 mW x 0.13 = 0.18 mW

The low threshold value is determined by (60/f[GHz]) = 60/2.462 = 24.4 mW.

Based on the evaluation using sourced-based time-averaged output power the product output power is below the threshold value and therefore no SAR evaluation is required.