ENGINEERING TEST REPORT

PATROL SUITE PMD
Model No.: PMD09
FCC ID: NSNPMD09

Applicant:

G4S Justice Services Canada, Inc.
#103 – 6592, 176 Street
Surrey, BC
Canada V3S 4G5

In Accordance With

Federal Communications Commission (FCC)
Section 2.1093
Radiofrequency radiation exposure evaluation: portable devices

UltraTech's File No.: G4S-006

This Test report is Issued under the Authority of
Tri M. Luu, Professional Engineer,
Vice President of Engineering
UltraTech Group of Labs

Date: May 29, 2009

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Issued Date: May 29, 2009

- *The results in this Test Report apply only to the sample(s) tested, and the sample tested is randomly selected.*
- *This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US Government.*

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ANSI	FC	VCCI	Industry Canada	NVLAP	BSMI	Korea KCC-RRL
0685	91038	1309	46390-2049	200093-0	SL2-IN-E-1119R	CA2049

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EXHIBIT 1. RF Exposure Evaluation

1.1. Radiofrequency radiation exposure evaluation: portable devices [§§ 1.1307 & 2.1093]

1.1.1. Transmitter for use in portable exposure condition that allow simultaneous transmission

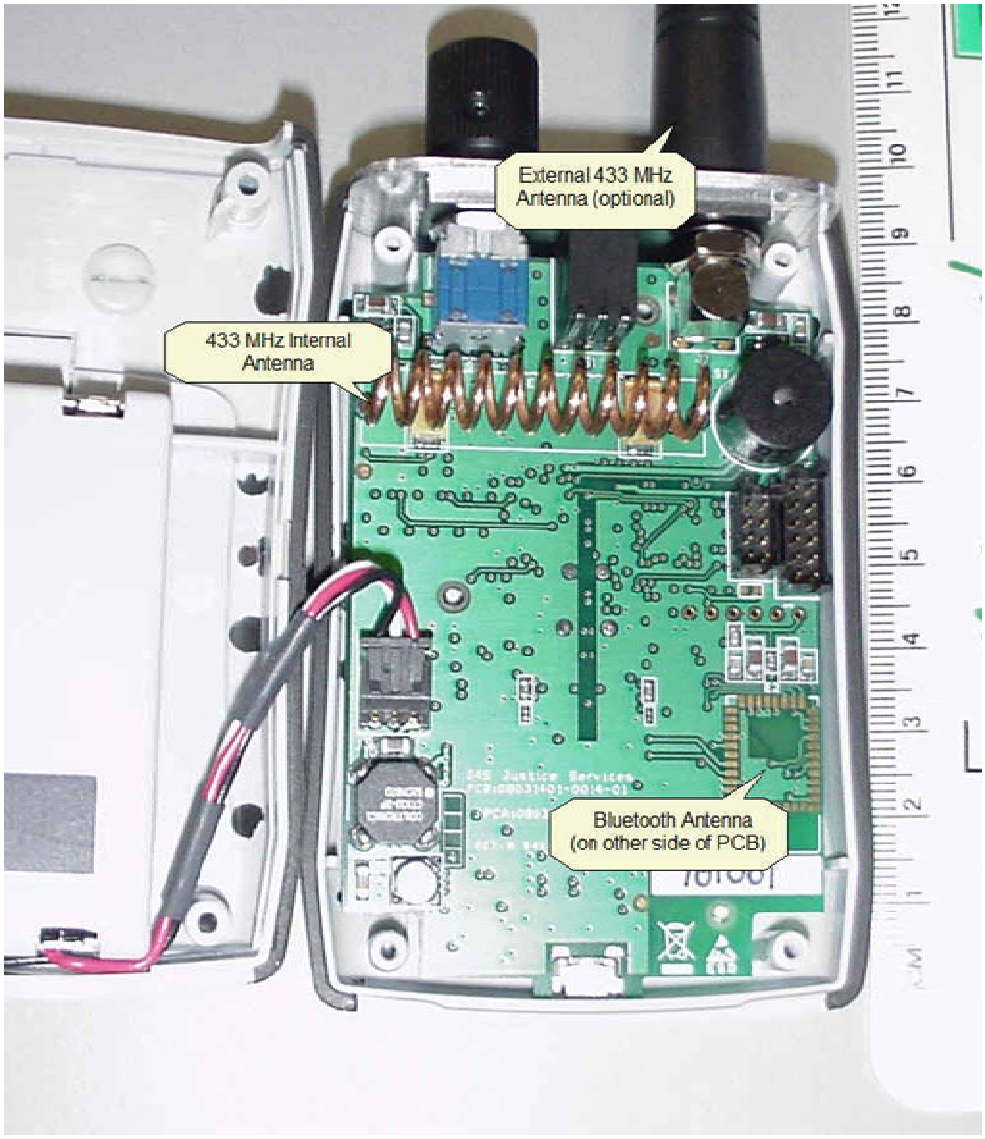
PMD is required to evaluate RF exposure for three incorporated transmitters per KDB 447498 3). PMD has the following three transmitters.

Transmitter 1:	
Operating Frequency	13.56 MHz
RF Output Power	Rated: Less than 100 mW conducted Measured: 46.84 dBuV/m @ 3m
Duty Cycle	100%

Transmitter 2:	
Operating Frequency	433.56 MHz
RF Output Power	Rated: Less than 10 mW peak conducted Measured: 84.98 dBuV/m peak @ 3m
Duty Cycle	15.2%

Transmitter 3:	
Operating Frequency	2402 MHz ~ 2480 MHz
RF Output Power	1.63 mW peak conducted
Duty Cycle	5.39%


13.56 MHz Inductive
Coil Antenna PCB
Bluetooth
Antenna


External 433 MHz Antenna (optional)
433 MHz Internal Antenna
Bluetooth Antenna (on other side of PCB)

1.1.2. Stand-alone SAR evaluations

Transmitter 1:	
Operating Frequency	13.56 MHz
Power Threshold for stand-alone SAR exemption:	60 / 0.013.56 GHz = 4424 mW
Stand-alone SAR is not required.	

Transmitter 2:	
Operating Frequency	433.56 MHz
Power Threshold for stand-alone SAR exemption:	60 / 0.43356 GHz = 138 mW
Stand-alone SAR is not required.	

Transmitter 3:	
Operating Frequency	2402 MHz ~ 2480 MHz
Power Threshold for stand-alone SAR exemption:	60 / 2.48 GHz = 24 mW
Stand-alone SAR is not required.	

1.1.3. Simultaneous transmission SAR

According to operational description of PMD, all three transmitters can transmit simultaneously. Therefore simultaneous transmission SAR evaluation is required to be addressed. However, in general, simultaneous transmission SAR is not required if $\sum_{i=1}^{num\_of\_Tx} \left(\frac{p_i}{60/f_i} \right) < 1.$

$$\left(\frac{100}{60/0.01356} \right) + \left(\frac{10}{60/0.43356} \right) + \left(\frac{1.63}{60/2.480} \right) = 0.023 + 0.072 + 0.067 = 0.162 < 1$$

Therefore, the simultaneous SAR is not required.