

**MOTOROLA SOLUTIONS**

CERTIFICATE 2518.05

DECLARATION OF COMPLIANCE: MPE ASSESSMENT Part 2 of 2**Motorola Solutions Inc.****EME Test Laboratory**

Motorola Solutions Malaysia Sdn Bhd

Plot 2A, Medan Bayan Lepas,

Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

Date of Report: 04/09/2025**Report Revision:** D

Responsible Engineer: Alfred Hoe (EME Senior Engineer)
Report author: Alfred Hoe (EME Senior Engineer)
Date(s) Tested: 2/17/2017-3/17/2017; 07/28/2024-07/31/2024, 08/02/2024, 08/16/2024, 08/20/2024
Manufacturer: Futurecom System Group
Manufacturer Location: Futurecom Systems Group, ULC. 3277 Langstaff Rd, Concord, ON L4K 5P8, Canada.
Date submitted for test: 01/13/2017; 05/10/2024
DUT Description: DVR VHF (136-174 MHz), Digital Vehicular Repeater
Companion Mobile: APX 8500 mobile All Bands (VHF, UHF, 7/800)
Test TX mode(s): CW, Bluetooth, Bluetooth LE, WLAN 2.4GHz & WLAN 5GHz
Max. Power output: Refer to Table 6 (Report Part 1 of 2)
TX Frequency Bands: Refer to Table 6 (Report Part 1 of 2)
Signaling type: FM, TDMA, FHSS(Bluetooth), WLAN 2.4GHz 802.11b/g/n & WLAN 5GHz 802.11a/n/ac
Model(s) Tested: DVR: MOBEXCOM DVRS VHF (DQPM DV3000P)
Companion Mobile: M37TSS9PW1CN (PHUW2000D)
Model(s) Certified: Refer Section 1.0 Introduction (Report Part 1 of 2)
(HVIN/PMN)
Serial Number(s): 16082232 (DVR), 681IZN6305(Companion Mobile)
Classification: Occupational/Controlled Environment
Firmware Version (FVIN): D32.50.27 (Companion Mobile)
Applicant Name: Motorola Solutions Inc.
Applicant Address: Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
FCC ID: DVR: LO6-DVRSVHF (150.8 – 173.4MHz)
Companion Mobile: AZ492FT7180 (150.8-173.4 MHz, 406.1-512 MHz, 769-775 MHz, 799-824 MHz, 851-869 MHz, 2402-2480 MHz, 2412-2462 MHz & 5180 – 5825)
This report contains results that are immaterial for FCC equipment approval, which are clearly identified.
FCC Test Firm 823256
Registration Number:
IC: DVR:2098B-DVRSVHF (138 – 174MHz)
Companion Mobile: 109U-92FT7180 (138-174 MHz, 406.1 – 430 MHz, 450-470MHz, 768-775 MHz, 798-824 MHz, 851-869 MHz, 2402-2480 MHz, 2412-2462 MHz & 5180 – 5825)
This report contains results that are immaterial for ISCED Canada equipment approval, which are clearly identified.
ISCED Test Site 24843
registration:

The MPE results clearly demonstrate compliance with FCC/ISED Occupational/Controlled RF Exposure limits. FCC/ISED rules require compliance for Passengers and Bystanders to the FCC/ISED General Population/Uncontrolled limits.

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 4.0 of this report (no deviation from standard methods). This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc. EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. The results and statements contained in this report pertain only to the device(s) evaluated herein.

Saw Sun Hock (Approval Signatory)**Approved Date: 04/09/2025**

Appendix D - MPE Test Results Summary for DVR VHF

Table D.1**MPE assessment for DVR VHF - trunk mounted antenna – Bystander**

Note:

Blue fonts: Frequencies not regulated by FCC.

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	BS1	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.013	0.20	6.5	0.13	10.1
						5.83	144.0000	0.012	0.20	6.1	0.13	9.5
Trunk	BS1	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.012	0.20	5.8	0.13	9.0
						5.83	144.0000	0.010	0.20	5.1	0.13	7.9
Trunk	BS2	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.020	0.20	10.0	0.13	15.5
						5.83	144.0000	0.015	0.20	7.3	0.13	11.4
Trunk	BS2	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.019	0.20	9.6	0.13	14.8
						5.83	144.0000	0.019	0.20	9.5	0.13	14.8
Trunk	BS3	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.029	0.20	14.7	0.13	22.8
						5.83	144.0000	0.026	0.20	13.2	0.13	20.4
Trunk	BS3	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.023	0.20	11.6	0.13	18.0
						5.83	144.0000	0.015	0.20	7.6	0.13	11.8
Trunk	BS4	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.027	0.20	13.7	0.13	21.3
						5.83	144.0000	0.025	0.20	12.5	0.13	19.4
Trunk	BS4	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.022	0.20	11.1	0.13	17.1
						5.83	144.0000	0.017	0.20	8.6	0.13	13.3
Trunk	BS5	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.019	0.20	9.7	0.13	15.1
						5.83	144.0000	0.021	0.20	10.4	0.13	16.2
Trunk	BS5	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.018	0.20	9.1	0.13	14.1
						5.83	144.0000	0.019	0.20	9.3	0.13	14.3
Trunk	BS1	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.015	0.20	7.5	0.13	11.6
						5.81	150.8000	0.006	0.20	3.1	0.13	4.7
Trunk	BS1	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.010	0.20	5.1	0.13	7.9
						5.81	150.8000	0.012	0.20	5.9	0.13	9.1
Trunk	BS2	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.017	0.20	8.5	0.13	13.1
						5.81	150.8000	0.012	0.20	5.8	0.13	9.0

Table D.1 (Continued)**MPE assessment for DVR VHF - trunk mounted antenna – Bystander**

Note:

Blue fonts: Frequencies not regulated by FCC.

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	BS2	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.018	0.20	8.8	0.13	13.7
						5.81	150.8000	0.015	0.20	7.3	0.13	11.4
Trunk	BS3	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.028	0.20	13.9	0.13	21.5
						5.81	150.8000	0.029	0.20	14.7	0.13	22.8
Trunk	BS3	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.016	0.20	8.0	0.13	12.3
						5.81	150.8000	0.024	0.20	11.8	0.13	18.3
Trunk	BS4	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.027	0.20	13.5	0.13	20.9
						5.81	150.8000	0.034	0.20	17.1	0.13	26.5
Trunk	BS4	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.017	0.20	8.5	0.13	13.2
						5.81	150.8000	0.027	0.20	13.4	0.13	20.8
Trunk	BS5	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.022	0.20	11.0	0.13	17.0
						5.81	150.8000	0.015	0.20	7.6	0.13	11.7
Trunk	BS5	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.019	0.20	9.4	0.13	14.6
						5.81	150.8000	0.019	0.20	9.7	0.13	15.1
Trunk	BS1	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.007	0.20	3.4	0.13	5.2
						5.92	156.4000	0.005	0.20	2.6	0.13	4.0
						5.88	162.0000	0.005	0.20	2.3	0.13	3.5
Trunk	BS1	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.012	0.20	6.0	0.13	9.3
						5.92	156.4000	0.011	0.20	5.3	0.13	8.2
						5.88	162.0000	0.013	0.20	6.4	0.13	9.9
Trunk	BS2	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.011	0.20	5.6	0.13	8.6
						5.92	156.4000	0.016	0.20	8.2	0.13	12.7
						5.88	162.0000	0.022	0.20	10.9	0.13	16.8
Trunk	BS2	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.013	0.20	6.7	0.13	10.5
						5.92	156.4000	0.015	0.20	7.5	0.13	11.6
						5.88	162.0000	0.017	0.20	8.7	0.13	13.6

Table D.1 (Continued)**MPE assessment for DVR VHF - trunk mounted antenna – Bystander**

Notes:

Results in bold font are configurations with highest percentage of limits.

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	BS3	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.027	0.20	13.4	0.13	20.8
						5.92	156.4000	0.035	0.20	17.3	0.13	26.8
						5.88	162.0000	0.042	0.20	21.0	0.13	32.5
Trunk	BS3	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.021	0.20	10.6	0.13	16.4
						5.92	156.4000	0.016	0.20	8.2	0.13	12.7
						5.88	162.0000	0.027	0.20	13.7	0.13	21.2
Trunk	BS4	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.030	0.20	15.1	0.13	23.3
						5.92	156.4000	0.028	0.20	13.8	0.13	21.4
						5.88	162.0000	0.041	0.20	20.5	0.13	31.7
Trunk	BS4	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.027	0.20	13.4	0.13	20.8
						5.92	156.4000	0.023	0.20	11.5	0.13	17.8
						5.88	162.0000	0.029	0.20	14.7	0.13	22.7
Trunk	BS5	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.014	0.20	6.9	0.13	10.7
						5.92	156.4000	0.020	0.20	9.8	0.13	15.2
						5.88	162.0000	0.020	0.20	10.0	0.13	15.6
Trunk	BS5	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.019	0.20	9.5	0.13	14.7
						5.92	156.4000	0.021	0.20	10.7	0.13	16.6
						5.88	162.0000	0.022	0.20	10.9	0.13	16.9
Trunk	BS1	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.005	0.20	2.5	0.13	3.9
						5.95	167.7000	0.004	0.20	1.8	0.13	2.8
						5.91	173.4000	0.007	0.20	3.4	0.13	5.2
Trunk	BS1	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.010	0.20	5.1	0.13	7.9
						5.95	167.7000	0.010	0.20	5.2	0.13	8.0
						5.91	173.4000	0.011	0.20	5.5	0.13	8.5
Trunk	BS2	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.015	0.20	7.4	0.13	11.4
						5.95	167.7000	0.019	0.20	9.4	0.13	14.6
						5.91	173.4000	0.014	0.20	6.8	0.13	10.5

Table D.1 (Continued)**MPE assessment for DVR VHF - trunk mounted antenna - Bystander**

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	BS2	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.015	0.20	7.5	0.13	11.6
						5.95	167.7000	0.013	0.20	6.4	0.13	9.9
						5.91	173.4000	0.013	0.20	6.5	0.13	10.1
Trunk	BS3	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.029	0.20	14.7	0.13	22.8
						5.95	167.7000	0.040	0.20	19.9	0.13	30.8
						5.91	173.4000	0.033	0.20	16.3	0.13	25.2
Trunk	BS3	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.020	0.20	9.9	0.13	15.4
						5.95	167.7000	0.027	0.20	13.5	0.13	21.0
						5.91	173.4000	0.026	0.20	13.0	0.13	20.1
Trunk	BS4	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.029	0.20	14.3	0.13	22.2
						5.95	167.7000	0.041	0.20	20.3	0.13	31.4
						5.91	173.4000	0.034	0.20	17.0	0.13	26.3
Trunk	BS4	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.020	0.20	10.2	0.13	15.8
						5.95	167.7000	0.031	0.20	15.4	0.13	23.9
						5.91	173.4000	0.031	0.20	15.5	0.13	24.0
Trunk	BS5	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.014	0.20	7.0	0.13	10.9
						5.95	167.7000	0.020	0.20	10.2	0.13	15.8
						5.91	173.4000	0.012	0.20	6.2	0.13	9.6
Trunk	BS5	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.017	0.20	8.3	0.13	12.8
						5.95	167.7000	0.019	0.20	9.4	0.13	14.5
						5.91	173.4000	0.016	0.20	8.2	0.13	12.8

Table D.2**MPE assessment for DVR VHF– trunk mounted antenna – Passenger**

Notes:

Blue fonts: Frequencies not regulated by FCC.

Results in bold font are configurations with highest percentage of limits.

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	PB	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.196	0.20	97.8	0.13	151.5
						5.83	144.0000	0.168	0.20	83.8	0.13	129.8
Trunk	PB	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.111	0.20	55.4	0.13	85.8
						5.83	144.0000	0.093	0.20	46.6	0.13	72.2
Trunk	PB	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.146	0.20	73.0	0.13	113.0
						5.81	150.8000	0.103	0.20	51.4	0.13	79.7
Trunk	PB	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.074	0.20	37.2	0.13	57.6
						5.81	150.8000	0.096	0.20	47.9	0.13	74.2
Trunk	PB	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.098	0.20	49.0	0.13	75.9
						5.92	156.4000	0.137	0.20	68.4	0.13	106.0
						5.88	162.0000	0.230	0.20	114.8	0.13	177.9
Trunk	PB	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.076	0.20	37.8	0.13	58.6
						5.92	156.4000	0.142	0.20	71.2	0.13	110.3
						5.88	162.0000	0.175	0.20	87.3	0.13	135.2
Trunk	PB	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.172	0.20	86.2	0.13	133.6
						5.95	167.7000	0.161	0.20	80.3	0.13	124.4
						5.91	173.4000	0.185	0.20	92.3	0.13	143.0
Trunk	PB	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.119	0.20	59.5	0.13	92.2
						5.95	167.7000	0.159	0.20	79.3	0.13	122.9
						5.91	173.4000	0.093	0.20	46.5	0.13	72.0

Table D.2 (Continued)**MPE assessment for DVR VHF– trunk mounted antenna – Passenger**

Notes:

Blue fonts: Frequencies not regulated by FCC.

Results in bold font are configurations with highest percentage of limits.

Trunk / Roof	Test Post.	E/H Field	Antenna No.	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/cm ²)	FCC Limit	% To FCC Spec Limit	ISED Limit	% To ISED Spec Limit
Trunk	PF	E	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.014	0.20	7.2	0.13	11.1
						5.83	144.0000	0.018	0.20	9.1	0.13	14.1
Trunk	PF	H	1	HAD4006A, 1/4 Wave (136-144MHz)	6.0	5.82	140.0000	0.021	0.20	10.7	0.13	16.6
						5.83	144.0000	0.024	0.20	12.1	0.13	18.7
Trunk	PF	E	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.021	0.20	10.3	0.13	16.0
						5.81	150.8000	0.023	0.20	11.4	0.13	17.7
Trunk	PF	H	2	HAD4007A, 1/4 Wave (144-150.8MHz)	6.0	5.83	144.0000	0.025	0.20	12.3	0.13	19.1
						5.81	150.8000	0.029	0.20	14.5	0.13	22.4
Trunk	PF	E	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.025	0.20	12.3	0.13	19.0
						5.92	156.4000	0.033	0.20	16.5	0.13	25.6
						5.88	162.0000	0.033	0.20	16.5	0.13	25.5
Trunk	PF	H	3	HAD4008A, 1/4 Wave (150.8-162MHz)	6.0	5.81	150.8000	0.028	0.20	13.9	0.13	21.5
						5.92	156.4000	0.036	0.20	18.0	0.13	27.8
						5.88	162.0000	0.035	0.20	17.4	0.13	27.0
Trunk	PF	E	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.023	0.20	11.6	0.13	18.0
						5.95	167.7000	0.024	0.20	12.2	0.13	18.9
						5.91	173.4000	0.027	0.20	13.5	0.13	20.9
Trunk	PF	H	4	HAD4009A, 1/4 Wave (162-174MHz)	6.0	5.88	162.0000	0.028	0.20	14.0	0.13	21.6
						5.95	167.7000	0.033	0.20	16.5	0.13	25.6
						5.91	173.4000	0.021	0.20	10.6	0.13	16.4

Table D.3
DVR VHF MPE Results for FCC

Note:

Blue fonts: Frequencies not regulated by FCC.

Pmax (W)	6	Pinitial (W)	5.82	5.83	5.81	5.92	5.88	5.95	5.91
FCCLimit (mW/cm^2)			0.20	0.20	0.20	0.20	0.20	0.20	0.20

Table	Test Post.	Angle	Trunk / Roof	E/H Field	Antenna No.	f1	f2	f3	f4	f5	f6	f7
						140.0000	144.0000	150.8000	156.4000	162.0000	167.7000	173.4000
D.1	BS1		Trunk	E	1	0.013	0.012					
D.1	BS1		Trunk	H	1	0.012	0.010					
D.1	BS2		Trunk	E	1	0.020	0.015					
D.1	BS2		Trunk	H	1	0.019	0.019					
D.1	BS3		Trunk	E	1	0.029	0.026					
D.1	BS3		Trunk	H	1	0.023	0.015					
D.1	BS4		Trunk	E	1	0.027	0.025					
D.1	BS4		Trunk	H	1	0.022	0.017					
D.1	BS5		Trunk	E	1	0.019	0.021					
D.1	BS5		Trunk	H	1	0.018	0.019					
D.1	BS1		Trunk	E	2		0.015	0.006				
D.1	BS1		Trunk	H	2		0.010	0.012				
D.1	BS2		Trunk	E	2		0.017	0.012				
D.1	BS2		Trunk	H	2		0.018	0.015				
D.1	BS3		Trunk	E	2		0.028	0.029				
D.1	BS3		Trunk	H	2		0.016	0.024				
D.1	BS4		Trunk	E	2		0.027	0.034				
D.1	BS4		Trunk	H	2		0.017	0.027				
D.1	BS5		Trunk	E	2		0.022	0.015				
D.1	BS5		Trunk	H	2		0.019	0.019				
D.1	BS1		Trunk	E	3			0.007	0.005	0.005		
D.1	BS1		Trunk	H	3			0.012	0.011	0.013		
D.1	BS2		Trunk	E	3			0.011	0.016	0.022		
D.1	BS2		Trunk	H	3			0.013	0.015	0.017		
D.1	BS3		Trunk	E	3			0.027	0.035	0.042		
D.1	BS3		Trunk	H	3			0.021	0.016	0.027		
D.1	BS4		Trunk	E	3			0.030	0.028	0.041		
D.1	BS4		Trunk	H	3			0.027	0.023	0.029		
D.1	BS5		Trunk	E	3			0.014	0.020	0.020		
D.1	BS5		Trunk	H	3			0.019	0.021	0.022		
D.1	BS1		Trunk	E	4					0.005	0.004	0.007
D.1	BS1		Trunk	H	4					0.010	0.010	0.011
D.1	BS2		Trunk	E	4					0.015	0.019	0.014
D.1	BS2		Trunk	H	4					0.015	0.013	0.013
D.1	BS3		Trunk	E	4					0.029	0.040	0.033
D.1	BS3		Trunk	H	4					0.020	0.027	0.026
D.1	BS4		Trunk	E	4					0.029	0.041	0.034
D.1	BS4		Trunk	H	4					0.020	0.031	0.031
D.1	BS5		Trunk	E	4					0.014	0.020	0.012
D.1	BS5		Trunk	H	4					0.017	0.019	0.016

Table D.3 (Continued)
DVR VHF MPE Results for FCC

Note:

Blue fonts: Frequencies not regulated by FCC.

P_{max} (W)	6	P_{initial} (W)	5.82	5.83	5.81	5.92	5.88	5.95	5.91
		FCC Limit (mW/cm²)	0.20	0.20	0.20	0.20	0.20	0.20	0.54

Table	Test Post.	Angle	Trunk / Roof	E/H Field	Antenna No.	f1	f2	f3	f4	f5	f6	f7
						140.0000	144.0000	150.8000	156.4000	162.0000	167.7000	173.4000
D.2	PB		Trunk	E	1	0.196	0.168					
D.2	PB		Trunk	H	1	0.011	0.093					
D.2	PB		Trunk	E	2		0.146	0.103				
D.2	PB		Trunk	H	2		0.074	0.096				
D.2	PB		Trunk	E	3			0.098	0.137	0.230		
D.2	PB		Trunk	H	3			0.076	0.142	0.175		
D.2	PB		Trunk	E	4					0.172	0.161	0.185
D.2	PB		Trunk	H	4					0.119	0.159	0.093
D.2	PF		Trunk	E	1	0.014	0.018					
D.2	PF		Trunk	H	1	0.021	0.024					
D.2	PF		Trunk	E	2		0.021	0.023				
D.2	PF		Trunk	H	2		0.025	0.029				
D.2	PF		Trunk	E	3			0.025	0.033	0.033		
D.2	PF		Trunk	H	3			0.028	0.036	0.035		
D.2	PF		Trunk	E	4					0.023	0.024	0.027
D.2	PF		Trunk	H	4					0.028	0.033	0.021

**Appendix E - MPE Test Results Summary for Companion Mobile LMR
(VHF, UHF 1, UHF 2 & 7/800)**

The previous highest configuration from reference model M37TSS9PW1AN with FCC ID: AZ492FT7089/ IC ID: 109U-92FT7089 has been performed spot check. Table below indicated the reference model and spot check results.

Table E.1**MPE assessment for Companion Mobile LMR VHF (FCC)**

Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	FCC Limit	% To FCC Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	H	HAD4016A, 1/4 Wave (136-162MHz)	60.0	58.6	150.8000	0.095	0.20	47.70	Reference Configuration
					58.9		0.062	0.20	30.80	Measured
Roof	BS2	E	HAD4008A, 1/4 Wave (150.8-162MHz)	60.0	58.7	156.4000	0.084	0.20	42.10	Reference Configuration
					59.3		0.061	0.20	30.70	Measured
Roof	BS3	E	HAD4008A, 1/4 Wave (150.8-162MHz)	60.0	58.7	156.4000	0.071	0.20	35.70	Reference Configuration
					59.3		0.057	0.20	28.70	Measured
Roof	BS4	E	HAD4007A, 1/4 Wave (144-150.8MHz)	60.0	58.6	150.8000	0.061	0.20	30.30	Reference Configuration
					58.9		0.052	0.20	26.00	Measured
Roof	BS5	H	HAD4016A, 1/4 Wave (136-162MHz)	60.0	58.7	156.4000	0.032	0.20	16.10	Reference Configuration
					59.3		0.031	0.20	15.60	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAD4021A, 1/4 Wave (136-174MHz)	60.0	58.6	158.0125	0.140	0.20	69.30	Reference Configuration
					59.3		0.140	0.20	69.50	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	H	HAD4017A, 1/4 Wave (146-174MHz)	60.0	59.0	165.0125	0.086	0.20	42.9	Reference Configuration
					59.6		0.037	0.20	18.3	Measured

Table E.2**MPE assessment for Companion Mobile LMR UHF1 (FCC)**

UHF1 (406.1 - 470MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	FCC Limit	% To FCC Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.071	0.31	23.30	Reference Configuration
					52.7		0.076	0.31	24.90	Measured
Roof	BS2	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.045	0.31	14.80	Reference Configuration
					52.7		0.049	0.31	15.80	Measured
Roof	BS3	E	HAE6011A, 5/8 Wave (380-433MHz)	54.0	53.4	406.5000	0.034	0.27	12.60	Reference Configuration
					53.9		0.022	0.27	8.10	Measured
Roof	BS4	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.1	460.0000	0.025	0.31	8.10	Reference Configuration
					52.7		0.019	0.31	6.10	Measured
Roof	BS5	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.3	469.9875	0.020	0.31	6.50	Reference Configuration
					52.6		0.020	0.31	6.20	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAE6010A, 1/2 Wave (380-433MHz)	54.0	53.4	406.5000	0.060	0.27	23.30	Reference Configuration
					53.9		0.050	0.27	17.10	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.050	0.30	17.50	Reference Configuration
					53.4		0.040	0.30	12.80	Measured

Table E.3**MPE assessment for Companion Mobile LMR UHF2 (FCC)**

UHF2 (450 - 512MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	FCC Limit	% To FCC Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.071	0.31	23.30	Reference Configuration
					52.7		0.076	0.31	24.90	Measured
Roof	BS2	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.045	0.31	14.80	Reference Configuration
					52.7		0.049	0.31	15.80	Measured
Roof	BS3	E	HAE6015A, 1/2 Wave (450-520MHz)	54.0	53.5	482.5000	0.044	0.32	13.80	Reference Configuration
					52.7		0.035	0.32	10.90	Measured
Roof	BS4	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.1	460.0000	0.025	0.31	8.10	Reference Configuration
					52.7		0.019	0.31	6.10	Measured
Roof	BS5	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.3	469.9875	0.020	0.31	6.50	Reference Configuration
					52.6		0.020	0.31	6.20	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.054	0.30	18.10	Reference Configuration
					53.4		0.046	0.30	15.20	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.052	0.30	17.50	Reference Configuration
					53.4		0.029	0.30	9.60	Measured

Table E.4**MPE assessment for Companion Mobile LMR 7/800 (FCC)**

7/800 (769 - 775MHz; 799 - 824MHz; 851 - 869MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	FCC Limit	% To FCC Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	770.0125	0.045	0.51	8.80	Reference Configuration
					35.2		0.032	0.51	6.20	Measured
Roof	BS2	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.042	0.52	8.00	Reference Configuration
					35.9		0.029	0.52	5.50	Measured
Roof	BS3	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.028	0.52	5.50	Reference Configuration
					35.9		0.018	0.52	3.40	Measured
Roof	BS4	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.023	0.52	4.40	Reference Configuration
					35.9		0.019	0.52	3.60	Measured
Roof	BS5	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.019	0.54	3.50	Reference Configuration
					41.2		0.011	0.54	2.00	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PB	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.060	0.54	10.20	Reference Configuration
					41.2		0.030	0.54	6.00	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.020	0.54	3.90	Reference Configuration
					41.2		0.020	0.54	3.10	Measured

Table E.5**MPE assessment for Companion Mobile LMR VHF (ISED Canada)**

VHF (138 - 174MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	ISED Limit	% To ISED Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	H	HAD4016A, 1/4 Wave (136-162MHz)	60.0	58.6	150.8000	0.095	0.13	73.90	Reference Configuration
					58.9		0.062	0.13	47.60	Measured
Roof	BS2	E	HAD4006A, 1/4 Wave (136-144MHz)	60.0	58.4	144.0000	0.084	0.13	71.10	Reference Configuration
					59.4		0.061	0.13	62.30	Measured
Roof	BS3	E	HAD4008A, 1/4 Wave (150.8-162MHz)	60.0	58.7	156.4000	0.071	0.13	55.20	Reference Configuration
					59.3		0.057	0.13	44.50	Measured
Roof	BS4	E	HAD4007A, 1/4 Wave (144-150.8MHz)	60.0	58.6	150.8000	0.061	0.13	47.00	Reference Configuration
					58.9		0.052	0.13	40.20	Measured
Roof	BS5	H	HAD4016A, 1/4 Wave (136-162MHz)	60.0	58.7	156.4000	0.032	0.13	25.00	Reference Configuration
					59.3		0.031	0.13	24.10	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAD4021A, 1/4 Wave (136-174MHz)	60.0	58.6	158.0125	0.140	0.13	107.3	Reference Configuration
					59.3		0.140	0.13	107.6	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	H	HAD4017A, 1/4 Wave (146-174MHz)	60.0	59.0	165.0125	0.086	0.13	66.40	Reference Configuration
					59.6		0.037	0.13	28.40	Measured

Table E.6**MPE assessment for Companion Mobile LMR UHF1 (ISED Canada)**

UHF1 (406.1 - 430MHz, 450 - 470MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	ISED Limit	% To ISED Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.071	0.17	41.30	Reference Configuration
					52.7		0.076	0.17	44.10	Measured
Roof	BS2	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.045	0.17	26.20	Reference Configuration
					52.7		0.049	0.17	28.10	Measured
Roof	BS3	E	HAE6011A, 5/8 Wave (380-433MHz)	54.0	53.4	406.5000	0.034	0.16	21.50	Reference Configuration
					53.9		0.022	0.16	13.90	Measured
Roof	BS4	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.1	460.0000	0.025	0.17	14.40	Reference Configuration
					52.7		0.019	0.17	10.80	Measured
Roof	BS5	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.3	469.9875	0.020	0.18	11.60	Reference Configuration
					52.6		0.020	0.18	11.20	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAE6010A, 1/2 Wave (380-433MHz)	54.0	53.4	406.5000	0.060	0.16	39.80	Reference Configuration
					53.9		0.050	0.16	29.20	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.050	0.17	30.80	Reference Configuration
					53.4		0.040	0.17	22.60	Measured

Table E.7**MPE assessment for Companion Mobile LMR UHF2 (ISED Canada)**

UHF2 (450 - 470MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	ISED Limit	% To ISED Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.071	0.17	41.30	Reference Configuration
					52.7		0.076	0.17	44.10	Measured
Roof	BS2	E	HAE6013A, 1/2 Wave (380-470MHz)	54.0	53.1	460.0000	0.045	0.17	26.20	Reference Configuration
					52.7		0.049	0.17	28.10	Measured
Roof	BS3	E	HAE6015A, 1/2 Wave (450-520MHz)	54.0	53.5	482.5000	0.044	0.18	24.80	Reference Configuration
					52.7		0.035	0.18	19.60	Measured
Roof	BS4	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.1	460.0000	0.025	0.17	14.40	Reference Configuration
					52.7		0.019	0.17	10.80	Measured
Roof	BS5	E	RAE4014ARB, 5/8 Wave (445-470MHz)	54.0	53.3	469.9875	0.020	0.18	11.60	Reference Configuration
					52.6		0.020	0.18	11.20	Measured
Spot Check - Highest Configuration Passenger Back										
Roof	PB	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.054	0.17	31.90	Reference Configuration
					53.4		0.046	0.17	26.80	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAE6031A, 1/2 Wave (380-520MHz)	54.0	53.2	450.0125	0.052	0.17	30.80	Reference Configuration
					53.4		0.029	0.17	16.80	Measured

Table E.8**MPE assessment for Companion Mobile LMR 7/800 (ISED Canada)**

7/800 (768 - 776MHz; 798 - 824MHz; 851 - 869MHz)										
Trunk/ Roof	Test Position	E/H Field	Antenna Model	Max Pwr (W)	Initial Pwr (W)	Tx Freq (MHz)	Max Calc. P.D. (mW/ cm^2)	ISED Limit	% To ISED Spec Limit	Remark
Spot Check - Highest Configuration ByStander										
Roof	BS1	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	770.0125	0.045	0.25	18.30	Reference Configuration
					35.2		0.032	0.25	12.90	Measured
Roof	BS2	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.042	0.25	16.80	Reference Configuration
					35.9		0.029	0.25	11.50	Measured
Roof	BS3	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.028	0.25	11.50	Reference Configuration
					35.9		0.018	0.25	7.10	Measured
Roof	BS4	E	HAF4017A, 1/4 Wave (764-870MHz)	36.0	36.0	775.9125	0.023	0.25	9.20	Reference Configuration
					35.9		0.019	0.25	7.60	Measured
Roof	BS5	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.019	0.25	7.40	Reference Configuration
					41.2		0.011	0.25	4.20	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PB	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.060	0.25	21.70	Reference Configuration
					41.2		0.030	0.25	12.80	Measured
Spot Check - Highest Configuration Passenger Front										
Roof	PF	E	HAF4017A, 1/4 Wave (764-870MHz)	42.0	41.6	806.0125	0.020	0.25	8.20	Reference Configuration
					41.2		0.020	0.25	6.50	Measured