

 MOTOROLA SOLUTIONS	    SMM 826 CERTIFICATE 2518.05																																												
MPE TEST REPORT																																													
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: 05/06/2026 Report Revision: B																																												
<table border="0"> <tr> <td style="vertical-align: top;">Responsible Engineer:</td> <td>Alfred Hoe Kean Loon (EME Engineer)</td> </tr> <tr> <td style="vertical-align: top;">Report Author:</td> <td>Hamidi Bin Ismail (EME Technician)</td> </tr> <tr> <td style="vertical-align: top;">Date/s Tested:</td> <td>01/21/2026</td> </tr> <tr> <td style="vertical-align: top;">Test Location:</td> <td>Penang EME Laboratory</td> </tr> <tr> <td style="vertical-align: top;">Manufacturer:</td> <td>Motorola Solutions Malaysia Sdn Bhd.</td> </tr> <tr> <td style="vertical-align: top;">Manufacturer Location:</td> <td>Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td> </tr> <tr> <td style="vertical-align: top;">Hardware Receive Date:</td> <td>N/A</td> </tr> <tr> <td style="vertical-align: top;">DUT Description:</td> <td>CHGR VEHICULAR ADAPTER IMPRES 2 RF HARD WIRED</td> </tr> <tr> <td style="vertical-align: top;">Test TX mode(s):</td> <td>Refer to Table 4</td> </tr> <tr> <td style="vertical-align: top;">Max. Power output:</td> <td>Refer to Table 4</td> </tr> <tr> <td style="vertical-align: top;">Tx Frequency Bands:</td> <td>Refer to Table 4</td> </tr> <tr> <td style="vertical-align: top;">Signaling type:</td> <td>Refer to Table 4</td> </tr> <tr> <td style="vertical-align: top;">Model(s) Certified:</td> <td>Refer 1.0 Introduction</td> </tr> <tr> <td style="vertical-align: top;">(HVIN/PMN)</td> <td></td> </tr> <tr> <td style="vertical-align: top;">Classification:</td> <td>Occupational/Controlled Environment</td> </tr> <tr> <td style="vertical-align: top;">Applicant Name:</td> <td>Motorola Solutions Inc.</td> </tr> <tr> <td style="vertical-align: top;">Applicant Address:</td> <td>Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td> </tr> <tr> <td style="vertical-align: top;">Firmware Version (FVIN):</td> <td>APX NEXT (D37.00.17, D37.00.02) APX NEXT XE (D38.01.08, D38.01.26)</td> </tr> <tr> <td style="vertical-align: top;">FCC ID:</td> <td>AZ489FT7184 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.</td> </tr> <tr> <td style="vertical-align: top;">FCC Test Firm Registration Number:</td> <td>823256</td> </tr> <tr> <td style="vertical-align: top;">IC:</td> <td>109U-89FT7184 This report contains results that are immaterial for IC equipment approval, which are clearly identified.</td> </tr> <tr> <td style="vertical-align: top;">ISED Test Site registration:</td> <td>24843</td> </tr> </table>		Responsible Engineer:	Alfred Hoe Kean Loon (EME Engineer)	Report Author:	Hamidi Bin Ismail (EME Technician)	Date/s Tested:	01/21/2026	Test Location:	Penang EME Laboratory	Manufacturer:	Motorola Solutions Malaysia Sdn Bhd.	Manufacturer Location:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia	Hardware Receive Date:	N/A	DUT Description:	CHGR VEHICULAR ADAPTER IMPRES 2 RF HARD WIRED	Test TX mode(s):	Refer to Table 4	Max. Power output:	Refer to Table 4	Tx Frequency Bands:	Refer to Table 4	Signaling type:	Refer to Table 4	Model(s) Certified:	Refer 1.0 Introduction	(HVIN/PMN)		Classification:	Occupational/Controlled Environment	Applicant Name:	Motorola Solutions Inc.	Applicant Address:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia	Firmware Version (FVIN):	APX NEXT (D37.00.17, D37.00.02) APX NEXT XE (D38.01.08, D38.01.26)	FCC ID:	AZ489FT7184 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.	FCC Test Firm Registration Number:	823256	IC:	109U-89FT7184 This report contains results that are immaterial for IC equipment approval, which are clearly identified.	ISED Test Site registration:	24843
Responsible Engineer:	Alfred Hoe Kean Loon (EME Engineer)																																												
Report Author:	Hamidi Bin Ismail (EME Technician)																																												
Date/s Tested:	01/21/2026																																												
Test Location:	Penang EME Laboratory																																												
Manufacturer:	Motorola Solutions Malaysia Sdn Bhd.																																												
Manufacturer Location:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia																																												
Hardware Receive Date:	N/A																																												
DUT Description:	CHGR VEHICULAR ADAPTER IMPRES 2 RF HARD WIRED																																												
Test TX mode(s):	Refer to Table 4																																												
Max. Power output:	Refer to Table 4																																												
Tx Frequency Bands:	Refer to Table 4																																												
Signaling type:	Refer to Table 4																																												
Model(s) Certified:	Refer 1.0 Introduction																																												
(HVIN/PMN)																																													
Classification:	Occupational/Controlled Environment																																												
Applicant Name:	Motorola Solutions Inc.																																												
Applicant Address:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia																																												
Firmware Version (FVIN):	APX NEXT (D37.00.17, D37.00.02) APX NEXT XE (D38.01.08, D38.01.26)																																												
FCC ID:	AZ489FT7184 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.																																												
FCC Test Firm Registration Number:	823256																																												
IC:	109U-89FT7184 This report contains results that are immaterial for IC equipment approval, which are clearly identified.																																												
ISED Test Site registration:	24843																																												
The test results clearly demonstrate compliance with FCC 47 CFR § 2.1093 and RSS-102 (Issue 6)																																													
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.																																													
 (Approval Signatory) Approved Date: 05/07/2026																																													

Table of Contents

1.0	Introduction	3
2.0	MPE Summary	4
3.0	Abbreviations / Definitions	5
4.0	Referenced Standards and Guidelines	5
5.0	Power Density Limits	6
6.0	Product and System Description	8
7.0	Additional Options and Accessories	11
8.0	MPE Assessment	12
9.0	Total Exposure Ratio.....	33
10.0	Simultaneous Transmission.....	34
11.0	Conclusion.....	34

Report Revision History

Date	Revision	Comments
04/27/2026	A	Initial release
05/06/2026	B	Change APX Next Refresh to APX Next and APX Next Refresh XE to APX Next XE at cover page, Section 1.0 Introduction and Section 11.0 Conclusion

1.0 Introduction

This report contains calculated Maximum Permissible Exposure (MPE) results for product family APX Next and APX Next XE with APX Next vehicular adapter part number PMPN5044A. Table 1 shows the certified model for the product family.

Model	Hardware Version ID Number (HVIN)	Product Marketing Name (PMN)	Description
H55TGT9PW8BN	H55TGT9PW8BN	APX Next	APX NEXT REFRESH ALL BAND MODEL 4.5 PORTABLE
H55TGT9PW8BN	NUW4100A	APX Next XE	APX NEXT XE, BLACK, REFRESH ALL BAND MODEL 4.5 PORTABLE
H55TGT9PW8BN	NUW4101A	APX Next XE	APX NEXT XE, IMPACT GREEN, REFRESH ALL BAND MODEL 4.5 PORTABLE

2.0MPE Summary**Table 1**

Equipment Class	Frequency Band (MHz)	Power Density (mW/cm ²)	FCC Limit (mW/cm ²)	ISED Limit (mW/cm ²)
TNF	136-174 (VHF)	0.106	53.06	82.20
	380-470 (UHF R1)	0.145	53.60	91.41
	450-520 (UHF R2)	0.103	34.28	60.37
	762-870 (7/800)	0.058	10.70	22.71
DSS	2402-2480MHz (Bluetooth)	0.001	0.13	0.23
DXX	NFC 13.56MHz	0.000	0.02	0.10
PCF	LTE B2	0.003	0.029	0.65
	LTE B4	0.001	0.13	0.31
	LTE B5	0.002	0.45	0.96
	LTE B12	0.002	0.53	1.07
	LTE B13	0.002	0.33	0.69
	LTE B14	0.002	0.32	0.67
	LTE B17	0.002	0.53	1.07
	LTE B25	0.003	0.29	0.65
	LTE B66	0.001	0.13	0.31
	LTE B71	0.003	0.57	1.14
PCF	5G NR N2	0.002	0.25	0.55
	5G NR N5	0.002	0.45	0.96
	5G NR N25	0.002	0.25	0.55
	5G NR N41	0.002	0.25	0.45
	5G NR N66	0.002	0.25	0.58
	5G NR N71	0.002	0.56	1.11
	5G NR N77	0.002	0.25	0.37
	5G NR N78	0.002	0.25	0.37
DTS	2412 – 2462 MHz (WLAN 2.4 GHz)	0.003	0.32	0.60
NII	5180 – 5825 MHz (WLAN 5 GHz)	0.002	0.16	0.17
6CD	5955 – 7115 (WLAN 6/6E)	0.001	0.09	0.14

3.0 Abbreviations / Definitions

DUT: Device Under Test
EME: Electromagnetic Energy
MPE: Maximum Permissible Exposure

4.0 Referenced Standards and Guidelines

This product is designed to comply with the following applicable national and international standards and guidelines.

- United States Federal Communications Commission, Code of Federal Regulations; Rule Part 47CFR § 1.1310, § 2.1091 (d) and § 2.1093 for RF Exposure, where applicable.
- Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65 (Edition 97-01), FCC, Washington, D.C.: August 1997.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1999
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992. Specific to FCC rules and regulations.
- Institute of Electrical and Electronics Engineers (IEEE) C95.3-2002
- Ministry of Health (Canada) Safety Code 6 (2015), Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- RSS-102 (Issue 6) – Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)
- FCC KDB – 447498 D01 General RF Exposure Guidance v06
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02

5.0 Power Density Limits

Table 2 – Occupational / Controlled Exposure Limits

Frequency Range (MHz)	FCC OET Bulletin 65	IEEE C95.1 1992/1999	IEEE C95.1 2005	RSS-102 Issue 6
	mW/cm ²	mW/cm ²	W/m ²	W/m ²
10 – 20				10.0
20 – 48				$44.72 / f^{0.5}$
30 – 300	1.0			
48 – 100				6.455
10 – 400				
100 – 300		1.0	10.0	
100 – 6,000				$0.6455 f^{0.5}$
300 – 1,500	$f/300$			
300 – 3,000		$f/300$	$f/30$	
400 – 2,000				
1,500 – 15,000				
1,500 – 100,000	5.0			
2,000 – 300,000				
3,000 – 300,000		10.0	100.0	
6,000 – 15,000				50.0
15000 – 150,000				50.0
150000 – 300,000				$3.33 \times 10^{-4} f$

Table 3 – General Population / Uncontrolled Exposure Limits

Frequency Range (MHz)	FCC OET Bulletin 65	IEEE C95.1 1992/1999	IEEE C95.1 2005	RSS-102 Issue 6
	mW/cm ²	mW/cm ²	W/m ²	W/m ²
10 – 20				2.0
20 – 48				$8.944 / f^{0.5}$
30 – 300	0.2			
48 – 300				1.291
10 – 400				
100 – 300		0.2		
100 – 400			2.0	
300 – 1,500	$f/1,500$			
300 – 6000				$0.02619 f^{0.6834}$
400 – 2,000			$f/200$	
300 – 15,000		$f/1,500$		
1,500 – 15,000				
1,500 – 100,000	1.0			
2,000 – 100,000			10.0	
2,000 – 300,000				
6,000 – 15,000				10.0
15,000 – 150,000				10.0
150,000 – 300,000				$6.67 \times 10^{-5} f$

6.0 Product and System Description**Table 4**

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)
LMR	136-174	FM	*50	6.60
	380-520	FM	*50	5.70
	762-776; 792-806	FM	*50	2.99
	806-825; 851-870	FM	*50	3.60
LTE Band 2	1850-1910	QPSK, 16QAM	100	251.19 mW
LTE Band 4	1710-1755		100	
LTE Band 5	824 - 849		100	
LTE Band 12	699-716		100	
LTE Band 13	777-787		100	
LTE Band 14	788-798		100	
LTE Band 17	704 -716		100	
LTE Band 25	1850 - 1915		100	
LTE Band 66	1710 - 1780		100	
LTE Band 71	663 - 698		100	
5G NR N2	1850 - 1910	Pi/2BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	100	251.19 mW
5G NR N5	824 - 849		100	
5G NR N25	1850 - 1915		100	
5G NR N41	2496 - 2690		100	
5G NR N66	1710 - 1780		100	
5G NR N71	663 - 698		100	
5G NR N77	3300 - 4200		100	
5G NR N78	3300 - 3800		100	
NFC	13.56	NFC	10	200 mW
BT 1.5	2402 - 2480	GFSK	77.26	89.2 mW
BT LE 4.0	2402 - 2480	GFSK	62.68	7.94 mW
BT LE 5.0	2402 - 2480	GFSK	33.13	7.94 mW

Note – * includes 50% PTT operation

Table 4 (Continued)

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)		
				Ant 0	Ant 1	Ant 0 + 1 (MIMO)
WLAN 802.11 b (22 MHz)	2412-2462	DSSS	99.2	89.13mw	89.13mw	177.83 mW
WLAN 802.11 g (20 MHz)		OFDM	94.9	70.79mW	70.79mW	141.25 mW
WLAN 802.11 n (20 MHz)			94.36	70.79mW	70.79mW	141.25 mW
WLAN 802.11 n (40 MHz)			89.08	70.79mW	70.79mW	141.25 mW
WLAN 802.11 ax (20 MHz)			90	Ch1-70.79mW, Ch6-89.13mw, Ch11-50.12mw	Ch1,6-70.79mW, Ch11-50.12mw	Others - 158.49mW, Ch1-141.25mW, Ch11-100mw
WLAN 802.11 ax (40 MHz)			90	70.79mW	70.79mW	141.25 mW
WLAN 802.11 a (20 MHz)	5180-5825	OFDM	100	Others - 44.67mW, Ch157,165 - 39.81mW Ch52,56,60,64 - 35.48mW, Ch36,40,44,48 - 31.62mW	Others - 44.67mW, Ch36,40,44,48,157,165 - 39.81mW	Others - 89.13mW Ch36,40,44,48 - 70.79mW, Ch52,56,60,64,157,165 - 79.43mw,
WLAN 802.11n (20 MHz)				Others - 39.81mW, Ch36,40,52,56,60,64,165 - 31.62mW, Ch44,48 - 28.18mW	Others - 39.81mW, Ch52,56,60,64,100,120,144,149,157,165 - 31.62mW, Ch44, 48 - 28.18mW	Others - 79.43mw, Ch44,48 - 56.23mW, Ch36,40 - 63.10mW, Ch52,56,60,64,165 - 70.79mW
WLAN 802.11n (40 MHz)				Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 19.95mW, Ch62 - 12.59mW	Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 15.85mW, Ch62 - 12.59mW	Others - 79.43mw, Ch62 - 25.12mW, Ch102 - 35.48mW, Ch38 - 44.67mW, Ch46 - 63.10mW, Ch54,151,159 - 70.79mW
WLAN 802.11ac (20 MHz)				Others - 39.81mW, Ch36,40,52,56,60,64,165 - 31.62mW, Ch44,48 - 28.18mW	Others - 39.81mW, Ch52,56,60,64,100,120,144,149,157,165 - 31.62mW, Ch44, 48 - 28.18mW	Others - 79.43mw, Ch44,48 - 56.23mW, Ch36,40 - 63.10mW, Ch52,56,60,64,165 - 70.79mW
WLAN 802.11ac (40 MHz)				Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 19.95mW, Ch62 - 12.59mW	Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 15.85mW, Ch62 - 12.59mW	Others - 79.43mw, Ch62 - 25.12mW, Ch102 - 35.48mW, Ch38 - 44.67mW, Ch46 - 63.10mW, Ch54,151,159 - 70.79mW
WLAN 802.11ac (80 MHz)				Others - 31.62mW, Ch42 - 19.95mW, Ch106 - 15.85mW, Ch58 - 12.59mW	Others - 31.62mW, Ch42 - 19.95mW, Ch58,106 - 12.59mW	Others - 63.10mW, Ch58 - 25.12mW, Ch106 - 28.18mW, Ch42 - 39.81mW
WLAN 802.11ac (160 MHz)				Ch114 - 25.12mW, Ch50 - 22.39mW	Ch50- 28.18mW, Ch114 - 25.12mW	22.39mW
WLAN 802.11 ax (20 MHz)				Others - 35.48mW, Ch36,40,44,48,52,56,60 - 31.62mW, Ch64 - 19.95mW	Others - 39.81mW, Ch120,144,149,157,165 - 35.48mW, Ch100 - 25.12mW, Ch64 - 19.95mW	Others - 70.79mW, Ch64 - 39.81mW, Ch100 - 56.23mW
WLAN 802.11 ax (40 MHz)				Others - 39.81mW, Ch159 - 31.62mW, Ch46,54 - 28.18mW, Ch38 - 25.12mW, Ch102 - 15.85mW, Ch62 - 10mW	Others - 39.81mW, Ch46,54 - 28.18mW, Ch38 - 25.12mW, Ch102 - 15.85mW, Ch62 - 10mW	Others - 79.43mW, Ch62 - 19.95mW, Ch102 - 31.62mW, Ch38 - 50.12mW, Ch46,54 - 63.10mW, Ch159 - 70.79mW
WLAN 802.11 ax (80 MHz)				Others - 31.62mW, Ch138 - 28.18mW, Ch42,106 - 25.12mW, Ch58 - 19.95mW	Others - 35.48mW, Ch42,122,155 - 31.62mW, Ch58,106 - 19.95mW	Others - 63.10mW, Ch58 - 39.81mW, Ch106 - 44.67mW, Ch42 - 56.23mW
WLAN 802.11 ax (160 MHz)				Others - 11.22mW, Ch114 - 10mW	Others - 11.22mW, Ch114 - 10mW	Others - 22.39mW, Ch114 - 19.95mW

Table 4 (Continued)

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)		
				Ant 0	Ant 1	Ant 0 + 1 (MIMO)
WLAN 802.11 a (20 MHz)	5955-7115	OFDMA	100	25.12mW(SP), 2mW(LPI)	25.12mW(SP), 2mW(LPI)	50.12mW (SP) Others - 6.31mW(LPI), Ch113, 233 - 3.98mW (LPI)
WLAN 802.11 ax (20 MHz)				25.12mW(SP), Ch233 - 5.01mW(LPI), Ch113 - 2.24mW(LPI)	25.12mW(SP), Ch233 - 5.01mW(LPI), Ch113 - 2.24mW(LPI)	50.12mW (SP) 5.01mW(LPI)
WLAN 802.11 ax (40 MHz)				25.12mW(SP), Ch107,227 - 3.98mW(LPI),	25.12mW(SP), Ch107 - 5.01mW(LPI), Ch227 - 3.98mW(LPI)	Others - 50.12mW, (SP), Ch171 - 39.81mW (SP), Others - 12.59mW(LPI), Ch107 - 8.91mW(LPI), Ch227 - 7.54mW(LPI)
WLAN 802.11 ax (80 MHz)				Others - 22.39mW(SP), Ch7 - 19.95mW(SP), Ch167 - 12.59mW(SP), Ch215 - 7.94mW(LPI), Ch119 - 6.31mW(LPI),	Others - 28.18mW(SP), Ch7 - 25.12mW(SP), Ch167 - 19.95mW(SP), Ch119 - 10mW(LPI), Ch215 - 7.94mW(LPI),	Others - 50.12mW(SP), Ch7,167 - 39.81mW(SP), Others - 19.95mW(LPI), Ch215 - 15.85mW(LPI)
WLAN 802.11 ax (160 MHz)				15.85mW(SP & LPI)	15.85mW(SP & LPI)	31.62mW(SP), Others - 39.81mW(LPI), Ch113,207 - 31.62mW(LPI)

Note: SP= Standard Power; LPI = Low Power Indoor

7.0 Additional Options and Accessories

Refer to Table 5 for complete list of tested antennas.

Table 5

No.	Antenna Models	Description	Tested	Comments
1	HAD4006A	UNITY GAIN ANTENNA QUARTERWAVE VHF 136-144 - ROOF MOUNT	No	MPE Calculation
2	HAD4007A	UNITY GAIN ANTENNA QUARTERWAVE VHF 144-150.8 - ROOF MOUNT	No	MPE Calculation
3	HAD4008A	MOBILE ANTENNA, ROOF MOUNT, 1/4 WAVE, 151-162 MHZ	No	MPE Calculation
4	HAD4009A	MOBILE ANTENNA, ROOF MOUNT, 1/4 WAVE, 162-174 MHZ	No	MPE Calculation
5	HAD4021A	MOBILE ANTENNA, WIDEBAND, 136-174 MHZ	No	MPE Calculation
6	HAD4022A	MOBILE ANTENNA, 3DB GAIN, 136-174 MHZ	No	MPE Calculation
7	HAE4003A	MOBILE ANTENNA, ROOF MOUNT, 1/4 WAVE, 450-470 MHZ	No	MPE Calculation
8	HAE4004A	UNITY GAIN ANTENNA UHF 470-512 QUARTERWAVE - ROOF MOUNT	No	MPE Calculation
9	HAE4011AA	ANTENNA ROOF TOP 3.5DB UHF	No	MPE Calculation
10	HAE4013A	ANTENNA ROOF TOP 3.5DB UHF	No	MPE Calculation
11	HAE6010A	ANT 3.5DB GAIN 380-433MHZ	No	MPE Calculation
12	HAE6011A	ANT 5.0DB GAIN 380-433MHZ	No	MPE Calculation
13	HAE6012A	UNITY GAIN ANTENNA UHF 380-433 QUARTERWAVE - ROOF MOUNT	No	MPE Calculation
14	HAE6013A	ANT WIDEBAND 2.0DB GAIN 380-470 MHZ	No	MPE Calculation
15	HAF4013A	MOBILE ANTENNA, LOW PROFILE, 762-870 MHZ	No	MPE Calculation
16	HAF4014A	ANT 3DB ELEVATED FEED 762-870	No	MPE Calculation
17	HAF4016A	MOBILE ANTENNA, ROOF MOUNT, 1/4 WAVE, 762-870 MHZ	No	MPE Calculation
18	HAF4017A	ANT 3DB COLLINEAR 762-870MHZ	No	MPE Calculation
19	HAE4012A	ANT ROOF TOP 3.5 dB 470-495 MHZ	No	MPE Calculation
20	HAD4016A	ANT ROOF MT WB VHF 136/162	No	MPE Calculation
21	HAD4017A	MOBILE ANTENNA, ROOF MOUNT, 146-174 MHZ	No	MPE Calculation
22	HAE6031A	ANT, 2DB WIDEBAND 380-520 MHZ	No	MPE Calculation
23	HAE6016A	MOBILE ANTENNA, LOW PROFILE, 450-512 MHZ	No	MPE Calculation
24	AN000131A02	MOBILE ANTENNA, WHIP, ALL BAND	No	MPE Calculation
25	AN000131A03	MOBILE ANTENNA, WHIP, ALL BAND (replacement whip for AN000131A02)	No	MPE Calculation
26	AN000476A01	Antenna Main, 617-698 MHz (0.1dBi), 699-746 MHz (0dBi), 746-787MHz (-1.6dBi), 758-798MHz (-1.7dBi), 824-894MHz (-1.7dBi), 1710-2200MHz (-2.7dBi), 1930-1995MHz (0.7dBi), 1850-1995(07dBi), 3300-4200 (-0.6dBi)	No	MPE Calculation
27	AN000476A03	Antenna WLAN Chain1, n77/78 DIV, 2412-2462MHz (2.7dBi), 5180-5825MHz (2.5dBi), 3300-4200MHz (0dBi), 5935-7115MHz (2.4dBi)	No	MPE Calculation
28	AN000476A02	Antenna GNSS, WLAN Chain2, 2412-2462MHz (0dBi), 5180-5825MHz (-4.9dBi), 5935-7115MHz (-4dBi)	No	MPE Calculation
29	AN000477A01	Diversity Low Band, Antenna Secondary, 777-787MHz(-7.9dBi), 824-849MHz(-10.7dBi)	No	MPE Calculation

8.0MPE Assessment

MPE calculations were used to determine the RF exposure for this device. According to FCC's OET Bulletin 65 Edition 97-01 Section 2, calculations can be made to predict RF field strength and power density levels around typical RF sources. Equation below was used to show compliance for this device:

$$S = \frac{P_t G}{4\pi d^2} F \quad \text{Equation (1)}$$

Equation (1) account for the maximum duty cycle of the signal, and the factor, F, to provide a conservative power density prediction.

Where:

S = power density

P_t = maximum output power scaled by the maximum duty cycle of the signal

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

d = distance from antenna

F = Enhancement factor [1 or 2.56 for predicting ground-level field strength]

Table 6

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
LMR												
VHF(136-174MHz)												
HAD4006A(136-144MHz)												
HAD4006A	6.6000	50.00%	138.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4006A	6.6000	50.00%	140.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4006A	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4007A(144-150.8MHz)												
HAD4007A	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4007A	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4008A(151-162MHz)												
HAD4008A	6.6000	50.00%	151.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4008A	6.6000	50.00%	156.4000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4008A	6.6000	50.00%	162.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4009A(162-174MHz)												
HAD4009A	6.6000	50.00%	162.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4009A	6.6000	50.00%	165.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4009A	6.6000	50.00%	173.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4021A(136-174MHz)												
HAD4021A	6.6000	50.00%	138.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4021A	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4021A	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4021A	6.6000	50.00%	158.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4021A	6.6000	50.00%	165.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4021A	6.6000	50.00%	173.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4022A(136-174MHz)												
HAD4022A	6.6000	50.00%	138.0000	5.15	0.00	90	1.00	0.106	0.20	NA	0.13	82.20
HAD4022A	6.6000	50.00%	144.0000	5.15	0.00	90	1.00	0.106	0.20	NA	0.13	82.20
HAD4022A	6.6000	50.00%	150.8000	5.15	0.00	90	1.00	0.106	0.20	53.06	0.13	82.20
HAD4022A	6.6000	50.00%	158.0125	5.15	0.00	90	1.00	0.106	0.20	53.06	0.13	82.20
HAD4022A	6.6000	50.00%	165.0125	5.15	0.00	90	1.00	0.106	0.20	53.06	0.13	82.20
HAD4022A	6.6000	50.00%	173.0125	5.15	0.00	90	1.00	0.106	0.20	53.06	0.13	82.20

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
HAD4016A(136-162MHz)												
HAD4016A	6.6000	50.00%	138.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4016A	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4016A	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4016A	6.6000	50.00%	156.4000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4016A	6.6000	50.00%	162.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4017A(146-174MHz)												
HAD4017A	6.6000	50.00%	146.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	NA
HAD4017A	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
HAD4017A	6.6000	50.00%	158.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4017A	6.6000	50.00%	165.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
HAD4017A	6.6000	50.00%	173.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02(136-174MHz)												
AN000131A02	6.6000	50.00%	138.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	NA
AN000131A02	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
AN000131A02	6.6000	50.00%	146.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	NA
AN000131A02	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02	6.6000	50.00%	156.4000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02	6.6000	50.00%	158.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02	6.6000	50.00%	162.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02	6.6000	50.00%	165.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A02	6.6000	50.00%	173.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03(136-174MHz)												
AN000131A03	6.6000	50.00%	138.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	NA
AN000131A03	6.6000	50.00%	144.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	41.20
AN000131A03	6.6000	50.00%	146.0000	2.15	0.00	90	1.00	0.053	0.20	NA	0.13	NA
AN000131A03	6.6000	50.00%	150.8000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03	6.6000	50.00%	156.4000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03	6.6000	50.00%	158.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03	6.6000	50.00%	162.0000	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03	6.6000	50.00%	165.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20
AN000131A03	6.6000	50.00%	173.0125	2.15	0.00	90	1.00	0.053	0.20	26.59	0.13	41.20

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
UHF 1(380-470MHz)												
HAE6010A(380-433MHz)												
HAE6010A	5.7000	50.00%	380.0125	5.65	0.00	90	1.00	0.103	0.25	NA	0.15	NA
HAE6010A	5.7000	50.00%	393.0125	5.65	0.00	90	1.00	0.103	0.26	NA	0.16	NA
HAE6010A	5.7000	50.00%	406.5000	5.65	0.00	90	1.00	0.103	0.27	37.95	0.16	64.71
HAE6010A	5.7000	50.00%	419.5000	5.65	0.00	90	1.00	0.103	0.28	36.77	0.16	63.33
HAE6010A	5.7000	50.00%	432.9875	5.65	0.00	90	1.00	0.103	0.29	35.63	0.17	NA
HAE6011A(380-433MHz)												
HAE6011A	5.7000	50.00%	380.0125	7.15	0.00	90	1.00	0.145	0.25	NA	0.15	NA
HAE6011A	5.7000	50.00%	393.0125	7.15	0.00	90	1.00	0.145	0.26	NA	0.16	NA
HAE6011A	5.7000	50.00%	406.5000	7.15	0.00	90	1.00	0.145	0.27	53.60	0.16	91.41
HAE6011A	5.7000	50.00%	419.5000	7.15	0.00	90	1.00	0.145	0.28	51.94	0.16	89.46
HAE6011A	5.7000	50.00%	432.9875	7.15	0.00	90	1.00	0.145	0.29	50.32	0.17	NA
HAE6012A(380-433MHz)												
HAE6012A	5.7000	50.00%	380.0125	2.15	0.00	90	1.00	0.046	0.25	NA	0.15	NA
HAE6012A	5.7000	50.00%	393.0125	2.15	0.00	90	1.00	0.046	0.26	NA	0.16	NA
HAE6012A	5.7000	50.00%	406.5000	2.15	0.00	90	1.00	0.046	0.27	16.95	0.16	28.91
HAE6012A	5.7000	50.00%	419.5000	2.15	0.00	90	1.00	0.046	0.28	16.43	0.16	28.29
HAE6012A	5.7000	50.00%	432.9875	2.15	0.00	90	1.00	0.046	0.29	15.91	0.17	NA
HAE6013A(380-470MHz)												
HAE6013A	5.7000	50.00%	380.0125	4.15	0.00	90	1.00	0.073	0.25	NA	0.15	NA
HAE6013A	5.7000	50.00%	393.0125	4.15	0.00	90	1.00	0.073	0.26	NA	0.16	NA
HAE6013A	5.7000	50.00%	406.5000	4.15	0.00	90	1.00	0.073	0.27	26.86	0.16	45.81
HAE6013A	5.7000	50.00%	422.0125	4.15	0.00	90	1.00	0.073	0.28	25.88	0.16	44.65
HAE6013A	5.7000	50.00%	438.0125	4.15	0.00	90	1.00	0.073	0.29	24.93	0.17	NA
HAE6013A	5.7000	50.00%	450.0125	4.15	0.00	90	1.00	0.073	0.30	24.27	0.17	42.74
HAE6013A	5.7000	50.00%	469.9875	4.15	0.00	90	1.00	0.073	0.31	23.24	0.18	41.49
HAE4003A(450-470MHz)												
HAE4003A	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
HAE4003A	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
HAE4003A	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
HAE4011AA(450-470MHz)												
HAE4011AA	5.7000	50.00%	450.0125	5.65	0.00	90	1.00	0.103	0.30	34.28	0.17	60.37
HAE4011AA	5.7000	50.00%	460.0000	5.65	0.00	90	1.00	0.103	0.31	33.53	0.17	59.47
HAE4011AA	5.7000	50.00%	469.9875	5.65	0.00	90	1.00	0.103	0.31	32.82	0.18	58.60

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
HAE6031A(380-520MHz)												
HAE6031A	5.7000	50.00%	380.0125	4.15	0.00	90	1.00	0.073	0.25	NA	0.15	NA
HAE6031A	5.7000	50.00%	393.0125	4.15	0.00	90	1.00	0.073	0.26	NA	0.16	NA
HAE6031A	5.7000	50.00%	406.5000	4.15	0.00	90	1.00	0.073	0.27	26.86	0.16	45.81
HAE6031A	5.7000	50.00%	422.0125	4.15	0.00	90	1.00	0.073	0.28	25.88	0.16	44.65
HAE6031A	5.7000	50.00%	438.0125	4.15	0.00	90	1.00	0.073	0.29	24.93	0.17	NA
HAE6031A	5.7000	50.00%	450.0125	4.15	0.00	90	1.00	0.073	0.30	24.27	0.17	42.74
HAE6031A	5.7000	50.00%	469.9875	4.15	0.00	90	1.00	0.073	0.31	23.24	0.18	41.49
HAE6016A(450-512MHz)												
HAE6016A	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
HAE6016A	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
AN000131A02(380-520MHz)												
AN000131A02	5.7000	50.00%	380.0125	2.15	0.00	90	1.00	0.046	0.25	NA	0.15	NA
AN000131A02	5.7000	50.00%	393.0125	2.15	0.00	90	1.00	0.046	0.26	NA	0.16	NA
AN000131A02	5.7000	50.00%	406.5000	2.15	0.00	90	1.00	0.046	0.27	16.95	0.16	28.91
AN000131A02	5.7000	50.00%	419.5000	2.15	0.00	90	1.00	0.046	0.28	16.43	0.16	28.29
AN000131A02	5.7000	50.00%	422.0125	2.15	0.00	90	1.00	0.046	0.28	16.33	0.16	28.18
AN000131A02	5.7000	50.00%	432.9875	2.15	0.00	90	1.00	0.046	0.29	15.91	0.17	NA
AN000131A02	5.7000	50.00%	438.0125	2.15	0.00	90	1.00	0.046	0.29	15.73	0.17	NA
AN000131A02	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
AN000131A02	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
AN000131A02	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
AN000131A03(380-520MHz)												
AN000131A03	5.7000	50.00%	380.0125	2.15	0.00	90	1.00	0.046	0.25	NA	0.15	NA
AN000131A03	5.7000	50.00%	393.0125	2.15	0.00	90	1.00	0.046	0.26	NA	0.16	NA
AN000131A03	5.7000	50.00%	406.5000	2.15	0.00	90	1.00	0.046	0.27	16.95	0.16	28.91
AN000131A03	5.7000	50.00%	419.5000	2.15	0.00	90	1.00	0.046	0.28	16.43	0.16	28.29
AN000131A03	5.7000	50.00%	422.0125	2.15	0.00	90	1.00	0.046	0.28	16.33	0.16	28.18
AN000131A03	5.7000	50.00%	432.9875	2.15	0.00	90	1.00	0.046	0.29	15.91	0.17	NA
AN000131A03	5.7000	50.00%	438.0125	2.15	0.00	90	1.00	0.046	0.29	15.73	0.17	NA
AN000131A03	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
AN000131A03	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
AN000131A03	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
UHF 2(450-520MHz)												
HAE4003A(450-470MHz)												
HAE4003A	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
HAE4003A	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
HAE4003A	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
HAE4004A(470-512MHz)												
HAE4004A	5.7000	50.00%	470.0125	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	NA
HAE4004A	5.7000	50.00%	482.5000	2.15	0.00	90	1.00	0.046	0.32	14.28	0.18	NA
HAE4004A	5.7000	50.00%	496.5000	2.15	0.00	90	1.00	0.046	0.33	13.88	0.18	NA
HAE4004A	5.7000	50.00%	511.9875	2.15	0.00	90	1.00	0.046	0.34	13.46	0.19	NA
HAE4004A	5.7000	50.00%	519.9875	2.15	0.00	90	1.00	0.046	0.35	13.25	0.19	NA
HAE4011AA(450-470MHz)												
HAE4011AA	5.7000	50.00%	450.0125	5.65	0.00	90	1.00	0.103	0.30	34.28	0.17	60.37
HAE4011AA	5.7000	50.00%	460.0000	5.65	0.00	90	1.00	0.103	0.31	33.53	0.17	59.47
HAE4011AA	5.7000	50.00%	469.9875	5.65	0.00	90	1.00	0.103	0.31	32.82	0.18	58.60
HAE4012A(470-495MHz)												
HAE4012A	5.7000	50.00%	470.0125	5.65	0.00	90	1.00	0.103	0.31	32.82	0.18	NA
HAE4012A	5.7000	50.00%	482.5000	5.65	0.00	90	1.00	0.103	0.32	31.97	0.18	NA
HAE4012A	5.7000	50.00%	494.9875	5.65	0.00	90	1.00	0.103	0.33	31.16	0.18	NA
HAE4013A(494-512MHz)												
HAE4013A	5.7000	50.00%	494.9875	5.65	0.00	90	1.00	0.103	0.33	31.16	0.18	NA
HAE4013A	5.7000	50.00%	503.0000	5.65	0.00	90	1.00	0.103	0.34	30.67	0.18	NA
HAE4013A	5.7000	50.00%	511.9875	5.65	0.00	90	1.00	0.103	0.34	30.13	0.19	NA
HAE6013A(380-470MHz)												
HAE6013A	5.7000	50.00%	450.0125	4.15	0.00	90	1.00	0.073	0.30	24.27	0.17	42.74
HAE6013A	5.7000	50.00%	469.9875	4.15	0.00	90	1.00	0.073	0.31	23.24	0.18	41.49
HAE6031A(380-520MHz)												
HAE6031A	5.7000	50.00%	450.0125	4.15	0.00	90	1.00	0.073	0.30	24.27	0.17	42.74
HAE6031A	5.7000	50.00%	469.9875	4.15	0.00	90	1.00	0.073	0.31	23.24	0.18	41.49
HAE6031A	5.7000	50.00%	482.5000	4.15	0.00	90	1.00	0.073	0.32	22.63	0.18	NA
HAE6031A	5.7000	50.00%	496.5000	4.15	0.00	90	1.00	0.073	0.33	21.99	0.18	NA
HAE6031A	5.7000	50.00%	511.9875	4.15	0.00	90	1.00	0.073	0.34	21.33	0.19	NA
HAE6031A	5.7000	50.00%	519.9875	4.15	0.00	90	1.00	0.073	0.35	21.00	0.19	NA
HAE6016A(450-512MHz)												
HAE6016A	5.7000	50.00%	482.5000	2.15	0.00	90	1.00	0.046	0.32	14.28	0.18	NA
HAE6016A	5.7000	50.00%	496.5000	2.15	0.00	90	1.00	0.046	0.33	13.88	0.18	NA
HAE6016A	5.7000	50.00%	511.9875	2.15	0.00	90	1.00	0.046	0.34	13.46	0.19	NA

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
AN000131A02(380-520MHz)												
AN000131A02	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
AN000131A02	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
AN000131A02	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
AN000131A02	5.7000	50.00%	470.0125	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	NA
AN000131A02	5.7000	50.00%	482.5000	2.15	0.00	90	1.00	0.046	0.32	14.28	0.18	NA
AN000131A02	5.7000	50.00%	493.9875	2.15	0.00	90	1.00	0.046	0.33	13.95	0.18	NA
AN000131A02	5.7000	50.00%	494.9875	2.15	0.00	90	1.00	0.046	0.33	13.92	0.18	NA
AN000131A02	5.7000	50.00%	496.5000	2.15	0.00	90	1.00	0.046	0.33	13.88	0.18	NA
AN000131A02	5.7000	50.00%	503.0000	2.15	0.00	90	1.00	0.046	0.34	13.70	0.18	NA
AN000131A02	5.7000	50.00%	511.9875	2.15	0.00	90	1.00	0.046	0.34	13.46	0.19	NA
AN000131A02	5.7000	50.00%	519.9875	2.15	0.00	90	1.00	0.046	0.35	13.25	0.19	NA
AN000131A03(380-520MHz)												
AN000131A03	5.7000	50.00%	450.0125	2.15	0.00	90	1.00	0.046	0.30	15.31	0.17	26.97
AN000131A03	5.7000	50.00%	460.0000	2.15	0.00	90	1.00	0.046	0.31	14.98	0.17	26.56
AN000131A03	5.7000	50.00%	469.9875	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	26.18
AN000131A03	5.7000	50.00%	470.0125	2.15	0.00	90	1.00	0.046	0.31	14.66	0.18	NA
AN000131A03	5.7000	50.00%	482.5000	2.15	0.00	90	1.00	0.046	0.32	14.28	0.18	NA
AN000131A03	5.7000	50.00%	493.9875	2.15	0.00	90	1.00	0.046	0.33	13.95	0.18	NA
AN000131A03	5.7000	50.00%	494.9875	2.15	0.00	90	1.00	0.046	0.33	13.92	0.18	NA
AN000131A03	5.7000	50.00%	496.5000	2.15	0.00	90	1.00	0.046	0.33	13.88	0.18	NA
AN000131A03	5.7000	50.00%	503.0000	2.15	0.00	90	1.00	0.046	0.34	13.70	0.18	NA
AN000131A03	5.7000	50.00%	511.9875	2.15	0.00	90	1.00	0.046	0.34	13.46	0.19	NA
AN000131A03	5.7000	50.00%	519.9875	2.15	0.00	90	1.00	0.046	0.35	13.25	0.19	NA
7/800												
HAF4013A(762-870MHz)												
HAF4013A	2.9900	50.00%	762.0125	5.15	0.00	90	1.00	0.048	0.51	NA	0.24	NA
HAF4013A	2.9900	50.00%	769.0125	5.15	0.00	90	1.00	0.048	0.51	9.38	0.25	19.57
HAF4013A	2.9900	50.00%	772.0000	5.15	0.00	90	1.00	0.048	0.51	9.34	0.25	19.52
HAF4013A	2.9900	50.00%	774.9875	5.15	0.00	90	1.00	0.048	0.52	9.31	0.25	19.47
HAF4013A	2.9900	50.00%	794.0125	5.15	0.00	90	1.00	0.048	0.53	NA	0.25	NA
HAF4013A	2.9900	50.00%	799.0125	5.15	0.00	90	1.00	0.048	0.53	9.03	0.25	19.06
HAF4013A	3.6000	50.00%	811.5000	5.15	0.00	90	1.00	0.058	0.54	10.70	0.25	22.71
HAF4013A	3.6000	50.00%	823.9875	5.15	0.00	90	1.00	0.058	0.55	10.54	0.26	22.48
HAF4013A	3.6000	50.00%	851.0125	5.15	0.00	90	1.00	0.058	0.57	10.20	0.26	21.98
HAF4013A	3.6000	50.00%	860.5000	5.15	0.00	90	1.00	0.058	0.57	10.09	0.27	21.82
HAF4013A	3.6000	50.00%	868.9875	5.15	0.00	90	1.00	0.058	0.58	9.99	0.27	21.67

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
HAF4014A(762-870MHz)												
HAF4014A	2.9900	50.00%	762.0125	5.15	0.00	90	1.00	0.048	0.51	NA	0.24	NA
HAF4014A	2.9900	50.00%	769.0125	5.15	0.00	90	1.00	0.048	0.51	9.38	0.25	19.57
HAF4014A	2.9900	50.00%	772.0000	5.15	0.00	90	1.00	0.048	0.51	9.34	0.25	19.52
HAF4014A	2.9900	50.00%	774.9875	5.15	0.00	90	1.00	0.048	0.52	9.31	0.25	19.47
HAF4014A	2.9900	50.00%	794.0125	5.15	0.00	90	1.00	0.048	0.53	NA	0.25	NA
HAF4014A	2.9900	50.00%	799.0125	5.15	0.00	90	1.00	0.048	0.53	9.03	0.25	19.06
HAF4014A	3.6000	50.00%	811.5000	5.15	0.00	90	1.00	0.058	0.54	10.70	0.25	22.71
HAF4014A	3.6000	50.00%	823.9875	5.15	0.00	90	1.00	0.058	0.55	10.54	0.26	22.48
HAF4014A	3.6000	50.00%	851.0125	5.15	0.00	90	1.00	0.058	0.57	10.20	0.26	21.98
HAF4014A	3.6000	50.00%	860.5000	5.15	0.00	90	1.00	0.058	0.57	10.09	0.27	21.82
HAF4014A	3.6000	50.00%	868.9875	5.15	0.00	90	1.00	0.058	0.58	9.99	0.27	21.67
HAF4016A(762-870MHz)												
HAF4016A	2.9900	50.00%	762.0125	2.15	0.00	90	1.00	0.024	0.51	NA	0.24	NA
HAF4016A	2.9900	50.00%	769.0125	2.15	0.00	90	1.00	0.024	0.51	4.70	0.25	9.81
HAF4016A	2.9900	50.00%	772.0000	2.15	0.00	90	1.00	0.024	0.51	4.68	0.25	9.78
HAF4016A	2.9900	50.00%	774.9875	2.15	0.00	90	1.00	0.024	0.52	4.66	0.25	9.76
HAF4016A	2.9900	50.00%	794.0125	2.15	0.00	90	1.00	0.024	0.53	NA	0.25	NA
HAF4016A	2.9900	50.00%	799.0125	2.15	0.00	90	1.00	0.024	0.53	4.52	0.25	9.55
HAF4016A	3.6000	50.00%	811.5000	2.15	0.00	90	1.00	0.029	0.54	5.36	0.25	11.38
HAF4016A	3.6000	50.00%	823.9875	2.15	0.00	90	1.00	0.029	0.55	5.28	0.26	11.26
HAF4016A	3.6000	50.00%	851.0125	2.15	0.00	90	1.00	0.029	0.57	5.11	0.26	11.02
HAF4016A	3.6000	50.00%	860.5000	2.15	0.00	90	1.00	0.029	0.57	5.06	0.27	10.94
HAF4016A	3.6000	50.00%	868.9875	2.15	0.00	90	1.00	0.029	0.58	5.01	0.27	10.86
HAF4017A(762-870MHz)												
HAF4017A	2.9900	50.00%	762.0125	5.15	0.00	90	1.00	0.048	0.51	NA	0.24	NA
HAF4017A	2.9900	50.00%	769.0125	5.15	0.00	90	1.00	0.048	0.51	9.38	0.25	19.57
HAF4017A	2.9900	50.00%	772.0000	5.15	0.00	90	1.00	0.048	0.51	9.34	0.25	19.52
HAF4017A	2.9900	50.00%	774.9875	5.15	0.00	90	1.00	0.048	0.52	9.31	0.25	19.47
HAF4017A	2.9900	50.00%	794.0125	5.15	0.00	90	1.00	0.048	0.53	NA	0.25	NA
HAF4017A	2.9900	50.00%	799.0125	5.15	0.00	90	1.00	0.048	0.53	9.03	0.25	19.06
HAF4017A	3.6000	50.00%	811.5000	5.15	0.00	90	1.00	0.058	0.54	10.70	0.25	22.71
HAF4017A	3.6000	50.00%	823.9875	5.15	0.00	90	1.00	0.058	0.55	10.54	0.26	22.48
HAF4017A	3.6000	50.00%	851.0125	5.15	0.00	90	1.00	0.058	0.57	10.20	0.26	21.98
HAF4017A	3.6000	50.00%	860.5000	5.15	0.00	90	1.00	0.058	0.57	10.09	0.27	21.82
HAF4017A	3.6000	50.00%	868.9875	5.15	0.00	90	1.00	0.058	0.58	9.99	0.27	21.67

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
AN000131A02(698-870MHz)												
AN000131A02	2.9900	50.00%	762.0125	2.15	0.00	90	1.00	0.024	0.51	NA	0.24	NA
AN000131A02	2.9900	50.00%	769.0125	2.15	0.00	90	1.00	0.024	0.51	4.70	0.25	9.81
AN000131A02	2.9900	50.00%	772.0000	2.15	0.00	90	1.00	0.024	0.51	4.68	0.25	9.78
AN000131A02	2.9900	50.00%	774.9875	2.15	0.00	90	1.00	0.024	0.52	4.66	0.25	9.76
AN000131A02	2.9900	50.00%	794.0125	2.15	0.00	90	1.00	0.024	0.53	NA	0.25	NA
AN000131A02	2.9900	50.00%	799.0125	2.15	0.00	90	1.00	0.024	0.53	4.52	0.25	9.55
AN000131A02	3.6000	50.00%	811.5000	2.15	0.00	90	1.00	0.029	0.54	5.36	0.25	11.38
AN000131A02	3.6000	50.00%	823.9875	2.15	0.00	90	1.00	0.029	0.55	5.28	0.26	11.26
AN000131A02	3.6000	50.00%	851.0125	2.15	0.00	90	1.00	0.029	0.57	5.11	0.26	11.02
AN000131A02	3.6000	50.00%	860.5000	2.15	0.00	90	1.00	0.029	0.57	5.06	0.27	10.94
AN000131A02	3.6000	50.00%	868.9875	2.15	0.00	90	1.00	0.029	0.58	5.01	0.27	10.86
AN000131A03(698-870MHz)												
AN000131A03	2.9900	50.00%	762.0125	2.15	0.00	90	1.00	0.024	0.51	NA	0.24	NA
AN000131A03	2.9900	50.00%	769.0125	2.15	0.00	90	1.00	0.024	0.51	4.70	0.25	9.81
AN000131A03	2.9900	50.00%	772.0000	2.15	0.00	90	1.00	0.024	0.51	4.68	0.25	9.78
AN000131A03	2.9900	50.00%	774.9875	2.15	0.00	90	1.00	0.024	0.52	4.66	0.25	9.76
AN000131A03	2.9900	50.00%	794.0125	2.15	0.00	90	1.00	0.024	0.53	NA	0.25	NA
AN000131A03	2.9900	50.00%	799.0125	2.15	0.00	90	1.00	0.024	0.53	4.52	0.25	9.55
AN000131A03	3.6000	50.00%	811.5000	2.15	0.00	90	1.00	0.029	0.54	5.36	0.25	11.38
AN000131A03	3.6000	50.00%	823.9875	2.15	0.00	90	1.00	0.029	0.55	5.28	0.26	11.26
AN000131A03	3.6000	50.00%	851.0125	2.15	0.00	90	1.00	0.029	0.57	5.11	0.26	11.02
AN000131A03	3.6000	50.00%	860.5000	2.15	0.00	90	1.00	0.029	0.57	5.06	0.27	10.94
AN000131A03	3.6000	50.00%	868.9875	2.15	0.00	90	1.00	0.029	0.58	5.01	0.27	10.86

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
BT/BTLE												
AN000131A03	0.0892	77.26%	2412.0000	2.70	0.00	90	1.00	0.001	1.00	0.13	0.54	0.23
AN000131A03	0.0892	77.26%	2437.0000	2.70	0.00	90	1.00	0.001	1.00	0.13	0.54	0.23
AN000131A03	0.0892	77.26%	2462.0000	2.70	0.00	90	1.00	0.001	1.00	0.13	0.54	0.23
AN000131A02	0.0892	77.26%	2412.0000	0.00	0.00	90	1.00	0.001	1.00	0.07	0.54	0.13
AN000131A02	0.0892	77.26%	2437.0000	0.00	0.00	90	1.00	0.001	1.00	0.07	0.54	0.13
AN000131A02	0.0892	77.26%	2462.0000	0.00	0.00	90	1.00	0.001	1.00	0.07	0.54	0.12
NFC												
NFC Antenna	0.2000	10.00%	13.5600	0.00	0.00	90	1.00	0.000	0.98	0.02	0.20	0.10
LTE(4G)												
Band 2												
AN000476A01	0.2512	100.00%	1850.0000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.45	0.65
AN000476A01	0.2512	100.00%	1880.0000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.45	0.64
AN000476A01	0.2512	100.00%	1910.0000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.46	0.63
Band 4												
AN000476A01	0.2512	100.00%	1710.0000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.42	0.31
AN000476A01	0.2512	100.00%	1732.5000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.43	0.31
AN000476A01	0.2512	100.00%	1755.0000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.43	0.31
Band 5												
AN000477A01	0.2512	100.00%	824.0000	0.00	0.00	90	1.00	0.002	0.55	0.45	0.26	0.96
AN000477A01	0.2512	100.00%	836.5000	0.00	0.00	90	1.00	0.002	0.56	0.44	0.26	0.95
AN000477A01	0.2512	100.00%	849.0000	0.00	0.00	90	1.00	0.002	0.57	0.44	0.26	0.94
Band 12												
AN000476A01	0.2512	100.00%	699.0000	0.00	0.00	90	1.00	0.002	0.47	0.53	0.23	1.07
AN000476A01	0.2512	100.00%	707.5000	0.00	0.00	90	1.00	0.002	0.47	0.52	0.23	1.06
AN000476A01	0.2512	100.00%	716.0000	0.00	0.00	90	1.00	0.002	0.48	0.52	0.23	1.05
Band 13												
AN000477A01	0.2512	100.00%	777.0000	-7.90	0.00	90	1.00	0.000	0.52	0.08	0.25	0.16
AN000477A01	0.2512	100.00%	782.0000	-7.90	0.00	90	1.00	0.000	0.52	0.08	0.25	0.16
AN000477A01	0.2512	100.00%	787.0000	-7.90	0.00	90	1.00	0.000	0.52	0.08	0.25	0.16
AN000476A01	0.2512	100.00%	777.0000	-1.60	0.00	90	1.00	0.002	0.52	0.33	0.25	0.69
AN000476A01	0.2512	100.00%	782.0000	-1.60	0.00	90	1.00	0.002	0.52	0.33	0.25	0.69
AN000476A01	0.2512	100.00%	787.0000	-1.60	0.00	90	1.00	0.002	0.52	0.33	0.25	0.68
Band 14												
AN000476A01	0.2512	100.00%	788.0000	-1.70	0.00	90	1.00	0.002	0.53	0.32	0.25	0.67
AN000476A01	0.2512	100.00%	793.0000	-1.70	0.00	90	1.00	0.002	0.53	0.32	0.25	0.66
AN000476A01	0.2512	100.00%	798.0000	-1.70	0.00	90	1.00	0.002	0.53	0.31	0.25	0.66

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
Band 17												
AN000476A01	0.2512	100.00%	704.0000	0.00	0.00	90	1.00	0.002	0.47	0.53	0.23	1.07
AN000476A01	0.2512	100.00%	710.0000	0.00	0.00	90	1.00	0.002	0.47	0.52	0.23	1.06
AN000476A01	0.2512	100.00%	716.0000	0.00	0.00	90	1.00	0.002	0.48	0.52	0.23	1.05
Band 25												
AN000476A01	0.2512	100.00%	1850.0000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.45	0.65
AN000476A01	0.2512	100.00%	1882.5000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.45	0.64
AN000476A01	0.2512	100.00%	1915.0000	0.70	0.00	90	1.00	0.003	1.00	0.29	0.46	0.63
Band 66												
AN000476A01	0.2512	100.00%	1710.0000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.42	0.31
AN000476A01	0.2512	100.00%	1745.0000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.43	0.31
AN000476A01	0.2512	100.00%	1780.0000	-2.70	0.00	90	1.00	0.001	1.00	0.13	0.44	0.30
Band 71												
AN000476A01	0.2512	100.00%	663.0000	0.10	0.00	90	1.00	0.003	0.44	0.57	0.22	1.14
AN000476A01	0.2512	100.00%	680.5000	0.10	0.00	90	1.00	0.003	0.45	0.56	0.23	1.12
AN000476A01	0.2512	100.00%	698.0000	0.10	0.00	90	1.00	0.003	0.47	0.54	0.23	1.10
5GNR												
Band 2												
AN000476A01	0.2512	100.00%	1850.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.45	0.55
AN000476A01	0.2512	100.00%	1880.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.45	0.55
AN000476A01	0.2512	100.00%	1910.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.46	0.54
Band 5												
AN000477A01	0.2512	100.00%	824.0000	0.00	0.00	90	1.00	0.002	0.55	0.45	0.26	0.96
AN000477A01	0.2512	100.00%	836.5000	0.00	0.00	90	1.00	0.002	0.56	0.44	0.26	0.95
AN000477A01	0.2512	100.00%	849.0000	0.00	0.00	90	1.00	0.002	0.57	0.44	0.26	0.94
AN000476A01	0.2512	100.00%	824.0000	0.00	0.00	90	1.00	0.002	0.55	0.45	0.26	0.96
AN000476A01	0.2512	100.00%	836.5000	0.00	0.00	90	1.00	0.002	0.56	0.44	0.26	0.95
AN000476A01	0.2512	100.00%	849.0000	0.00	0.00	90	1.00	0.002	0.57	0.44	0.26	0.94
Band 25												
AN000476A01	0.2512	100.00%	1850.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.45	0.55
AN000476A01	0.2512	100.00%	1882.5000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.45	0.54
AN000476A01	0.2512	100.00%	1915.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.46	0.54
Band 41												
AN000476A01	0.2512	100.00%	2496.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.55	0.45
AN000476A01	0.2512	100.00%	2593.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.56	0.44
AN000476A01	0.2512	100.00%	2690.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.58	0.43
Band 66												
AN000476A01	0.2512	100.00%	1710.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.42	0.58
AN000476A01	0.2512	100.00%	1745.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.43	0.57
AN000476A01	0.2512	100.00%	1780.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.44	0.57

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
Band 71												
AN000476A01	0.2512	100.00%	663.0000	0.00	0.00	90	1.00	0.002	0.44	0.56	0.22	1.11
AN000476A01	0.2512	100.00%	680.5000	0.00	0.00	90	1.00	0.002	0.45	0.54	0.23	1.09
AN000476A01	0.2512	100.00%	698.0000	0.00	0.00	90	1.00	0.002	0.47	0.53	0.23	1.07
Band 77												
AN000476A03	0.2512	100.00%	3300.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.66	0.37
AN000476A03	0.2512	100.00%	3750.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.73	0.34
AN000476A03	0.2512	100.00%	4200.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.78	0.31
Band 78												
AN000476A03	0.2512	100.00%	3300.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.66	0.37
AN000476A03	0.2512	100.00%	3550.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.70	0.35
AN000476A03	0.2512	100.00%	3800.0000	0.00	0.00	90	1.00	0.002	1.00	0.25	0.73	0.34
Wifi 2.4GHz												
802.11b												
AN000476A03	0.1778	99.20%	2412.0000	2.70	0.00	90	1.00	0.003	1.00	0.32	0.54	0.60
AN000476A03	0.1778	99.20%	2437.0000	2.70	0.00	90	1.00	0.003	1.00	0.32	0.54	0.60
AN000476A03	0.1778	99.20%	2462.0000	2.70	0.00	90	1.00	0.003	1.00	0.32	0.54	0.59
AN000416A02	0.1778	99.20%	2412.0000	0.00	0.00	90	1.00	0.002	1.00	0.17	0.54	0.32
AN000416A02	0.1778	99.20%	2437.0000	0.00	0.00	90	1.00	0.002	1.00	0.17	0.54	0.32
AN000416A02	0.1778	99.20%	2462.0000	0.00	0.00	90	1.00	0.002	1.00	0.17	0.54	0.32
802.11g												
AN000476A03	0.1413	94.90%	2412.0000	2.70	0.00	90	1.00	0.002	1.00	0.25	0.54	0.46
AN000476A03	0.1413	94.90%	2437.0000	2.70	0.00	90	1.00	0.002	1.00	0.25	0.54	0.45
AN000476A03	0.1413	94.90%	2462.0000	2.70	0.00	90	1.00	0.002	1.00	0.25	0.54	0.45
AN000416A02	0.1413	94.90%	2412.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.25
AN000416A02	0.1413	94.90%	2437.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.24
AN000416A02	0.1413	94.90%	2462.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.24
802.11n(20 MHz)												
AN000476A03	0.1413	94.36%	2412.0000	2.70	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000476A03	0.1413	94.36%	2437.0000	2.70	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000476A03	0.1413	94.36%	2462.0000	2.70	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000416A02	0.1413	94.36%	2412.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.24
AN000416A02	0.1413	94.36%	2437.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.24
AN000416A02	0.1413	94.36%	2462.0000	0.00	0.00	90	1.00	0.001	1.00	0.13	0.54	0.24
802.11n(40 MHz)												
AN000476A03	0.1413	89.08%	2437.0000	2.70	0.00	90	1.00	0.002	1.00	0.23	0.54	0.43
AN000416A02	0.1413	89.08%	2437.0000	0.00	0.00	90	1.00	0.001	1.00	0.12	0.54	0.23

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ax(20 MHz)												
AN000476A03	0.1585	90.00%	2412.0000	2.40	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000476A03	0.1585	90.00%	2437.0000	2.40	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000476A03	0.1585	90.00%	2462.0000	2.40	0.00	90	1.00	0.002	1.00	0.24	0.54	0.45
AN000416A02	0.1585	90.00%	2412.0000	-4.00	0.00	90	1.00	0.001	1.00	0.06	0.54	0.10
AN000416A02	0.1585	90.00%	2437.0000	-4.00	0.00	90	1.00	0.001	1.00	0.06	0.54	0.10
AN000416A02	0.1585	90.00%	2462.0000	-4.00	0.00	90	1.00	0.001	1.00	0.06	0.54	0.10
802.11ax(40 MHz)												
AN000476A03	0.1413	90.00%	2422.0000	2.40	0.00	90	1.00	0.002	1.00	0.22	0.54	0.40
AN000476A03	0.1413	90.00%	2437.0000	2.40	0.00	90	1.00	0.002	1.00	0.22	0.54	0.40
AN000476A03	0.1413	90.00%	2452.0000	2.40	0.00	90	1.00	0.002	1.00	0.22	0.54	0.40
AN000416A02	0.1413	90.00%	2422.0000	-4.00	0.00	90	1.00	0.000	1.00	0.05	0.54	0.09
AN000416A02	0.1413	90.00%	2437.0000	-4.00	0.00	90	1.00	0.000	1.00	0.05	0.54	0.09
AN000416A02	0.1413	90.00%	2452.0000	-4.00	0.00	90	1.00	0.000	1.00	0.05	0.54	0.09
Wifi 5GHz												
UNII-1												
802.11a												
AN000476A03	0.0891	100.00%	5180.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.90	0.17
AN000476A03	0.0891	100.00%	5200.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.91	0.17
AN000476A03	0.0891	100.00%	5240.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.91	0.17
AN000416A02	0.0891	100.00%	5180.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.90	0.03
AN000416A02	0.0891	100.00%	5200.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0891	100.00%	5240.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11n (20MHz)												
AN000476A03	0.0794	100.00%	5180.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.90	0.15
AN000476A03	0.0794	100.00%	5200.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5240.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000416A02	0.0794	100.00%	5180.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.90	0.03
AN000416A02	0.0794	100.00%	5200.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5240.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11n(40 MHz)												
AN000476A03	0.0794	100.00%	5190.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5230.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000416A02	0.0794	100.00%	5190.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5230.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ac(20 MHz)												
AN000476A03	0.0794	100.00%	5180.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.90	0.15
AN000476A03	0.0794	100.00%	5200.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5240.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000416A02	0.0794	100.00%	5180.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.90	0.03
AN000416A02	0.0794	100.00%	5200.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5240.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11ac(40 MHz)												
AN000476A03	0.0794	100.00%	5190.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5230.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000416A02	0.0794	100.00%	5190.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5230.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11ac(80 MHz)												
AN000476A03	0.0631	100.00%	5210.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.91	0.12
AN000416A02	0.0631	100.00%	5210.0000	-4.90	0.00	90	1.00	0.000	1.00	0.02	0.91	0.02
802.11ac(160 MHz)												
AN000476A03	0.0224	100.00%	5250.0000	2.50	0.00	90	1.00	0.000	1.00	0.04	0.91	0.04
AN000416A02	0.0224	100.00%	5250.0000	-4.90	0.00	90	1.00	0.000	1.00	0.01	0.91	0.01
802.11ax(20 MHz)												
AN000476A03	0.0708	100.00%	5180.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.90	0.13
AN000476A03	0.0708	100.00%	5200.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.91	0.13
AN000476A03	0.0708	100.00%	5240.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.91	0.13
AN000416A02	0.0708	100.00%	5180.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.90	0.03
AN000416A02	0.0708	100.00%	5200.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0708	100.00%	5240.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11ax(40 MHz)												
AN000476A03	0.0794	100.00%	5190.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5230.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000416A02	0.0794	100.00%	5190.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5230.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
802.11ax(80 MHz)												
AN000476A03	0.0631	100.00%	5210.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.91	0.12
AN000416A02	0.0631	100.00%	5210.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.91	0.03

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ax(160 MHz)												
AN000476A03	0.0224	100.00%	5250.0000	2.40	0.00	90	1.00	0.000	1.00	0.04	0.91	0.04
AN000416A02	0.0224	100.00%	5250.0000	-4.00	0.00	90	1.00	0.000	1.00	0.01	0.91	0.01
UNII-2A												
802.11a												
AN000476A03	0.0891	100.00%	5260.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.91	0.17
AN000476A03	0.0891	100.00%	5280.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.92	0.17
AN000476A03	0.0891	100.00%	5320.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.92	0.17
AN000416A02	0.0891	100.00%	5260.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0891	100.00%	5280.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	NA
AN000416A02	0.0891	100.00%	5320.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11n (20MHz)												
AN000476A03	0.0794	100.00%	5260.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5280.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000476A03	0.0794	100.00%	5320.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000416A02	0.0794	100.00%	5260.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5280.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0794	100.00%	5320.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11n(40 MHz)												
AN000476A03	0.0794	100.00%	5270.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000476A03	0.0794	100.00%	5310.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000416A02	0.0794	100.00%	5270.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0794	100.00%	5310.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11ac(20 MHz)												
AN000476A03	0.0794	100.00%	5260.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.91	0.15
AN000476A03	0.0794	100.00%	5280.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000476A03	0.0794	100.00%	5320.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000416A02	0.0794	100.00%	5260.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0794	100.00%	5280.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0794	100.00%	5320.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11ac(40 MHz)												
AN000476A03	0.0794	100.00%	5270.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000476A03	0.0794	100.00%	5310.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000416A02	0.0794	100.00%	5270.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0794	100.00%	5310.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ac(80 MHz)												
AN000476A03	0.0631	100.00%	5290.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.92	0.12
AN000416A02	0.0631	100.00%	5290.0000	-4.90	0.00	90	1.00	0.000	1.00	0.02	0.92	0.02
802.11ax(20 MHz)												
AN000476A03	0.0708	100.00%	5260.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.91	0.13
AN000476A03	0.0708	100.00%	5280.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.92	0.13
AN000476A03	0.0708	100.00%	5320.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.92	0.13
AN000416A02	0.0708	100.00%	5260.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.91	0.03
AN000416A02	0.0708	100.00%	5280.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0708	100.00%	5320.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11ax(40 MHz)												
AN000476A03	0.0794	100.00%	5270.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000476A03	0.0794	100.00%	5310.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.92	0.15
AN000416A02	0.0794	100.00%	5270.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
AN000416A02	0.0794	100.00%	5310.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.92	0.03
802.11ax(80 MHz)												
AN000476A03	0.0631	100.00%	5290.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.92	0.12
AN000416A02	0.0631	100.00%	5290.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.92	0.03
UNII-2C												
802.11a												
AN000476A03	0.0891	100.00%	5500.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.94	0.17
AN000476A03	0.0891	100.00%	5600.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.95	0.16
AN000476A03	0.0891	100.00%	5720.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.97	0.16
AN000416A02	0.0891	100.00%	5500.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0891	100.00%	5600.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0891	100.00%	5720.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
802.11n (20MHz)												
AN000476A03	0.0794	100.00%	5500.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.94	0.15
AN000476A03	0.0794	100.00%	5600.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.95	0.15
AN000476A03	0.0794	100.00%	5720.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000416A02	0.0794	100.00%	5500.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0794	100.00%	5600.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0794	100.00%	5720.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11n(40 MHz)												
AN000476A03	0.0794	100.00%	5510.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.94	0.15
AN000476A03	0.0794	100.00%	5590.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.95	0.15
AN000476A03	0.0794	100.00%	5670.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.96	0.14
AN000416A02	0.0794	100.00%	5510.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0794	100.00%	5590.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0794	100.00%	5670.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.96	0.03
802.11ac(20 MHz)												
AN000476A03	0.0794	100.00%	5500.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.94	0.15
AN000476A03	0.0794	100.00%	5600.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.95	0.15
AN000476A03	0.0794	100.00%	5720.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000416A02	0.0794	100.00%	5500.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0794	100.00%	5600.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0794	100.00%	5720.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
802.11ac(40 MHz)												
AN000476A03	0.0794	100.00%	5510.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.94	0.15
AN000476A03	0.0794	100.00%	5590.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.95	0.15
AN000476A03	0.0794	100.00%	5670.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.96	0.14
AN000416A02	0.0794	100.00%	5510.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0794	100.00%	5590.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0794	100.00%	5670.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.96	0.03
802.11ac(80 MHz)												
AN000476A03	0.0631	100.00%	5530.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.95	0.12
AN000476A03	0.0631	100.00%	5610.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.96	0.12
AN000476A03	0.0631	100.00%	5690.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.96	0.11
AN000416A02	0.0631	100.00%	5530.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.95	0.12
AN000416A02	0.0631	100.00%	5610.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.96	0.12
AN000416A02	0.0631	100.00%	5690.0000	-4.90	0.00	90	1.00	0.000	1.00	0.02	0.96	0.02
802.11ac(160 MHz)												
AN000476A03	0.0224	100.00%	5570.0000	2.50	0.00	90	1.00	0.000	1.00	0.04	0.95	0.04
AN000416A02	0.0224	100.00%	5570.0000	-4.90	0.00	90	1.00	0.000	1.00	0.01	0.95	0.01

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ax(20 MHz)												
AN000476A03	0.0708	100.00%	5500.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.94	0.13
AN000476A03	0.0708	100.00%	5600.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.95	0.13
AN000476A03	0.0708	100.00%	5720.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.97	0.12
AN000416A02	0.0708	100.00%	5500.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0708	100.00%	5600.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0708	100.00%	5720.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
802.11ax(40 MHz)												
AN000476A03	0.0794	100.00%	5510.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.94	0.14
AN000476A03	0.0794	100.00%	5590.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.95	0.14
AN000476A03	0.0794	100.00%	5670.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.96	0.14
AN000416A02	0.0794	100.00%	5510.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.94	0.03
AN000416A02	0.0794	100.00%	5590.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.95	0.03
AN000416A02	0.0794	100.00%	5670.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.96	0.03
802.11ax(80 MHz)												
AN000476A03	0.0631	100.00%	5530.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.95	0.11
AN000476A03	0.0631	100.00%	5610.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.96	0.11
AN000476A03	0.0631	100.00%	5690.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.96	0.11
AN000416A02	0.0631	100.00%	5530.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.95	0.03
AN000416A02	0.0631	100.00%	5610.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.96	0.03
AN000416A02	0.0631	100.00%	5690.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.96	0.03
802.11ax(160 MHz)												
AN000476A03	0.0224	100.00%	5570.0000	2.40	0.00	90	1.00	0.000	1.00	0.04	0.95	0.04
AN000416A02	0.0224	100.00%	5570.0000	-4.00	0.00	90	1.00	0.000	1.00	0.01	0.95	0.01
UNII-3												
802.11a												
AN000476A03	0.0891	100.00%	5745.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.97	0.16
AN000476A03	0.0891	100.00%	5785.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.98	0.16
AN000476A03	0.0891	100.00%	5825.0000	2.50	0.00	90	1.00	0.002	1.00	0.16	0.98	0.16
AN000416A02	0.0891	100.00%	5745.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0891	100.00%	5785.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
AN000416A02	0.0891	100.00%	5825.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11n (20MHz)												
AN000476A03	0.0794	100.00%	5745.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000476A03	0.0794	100.00%	5785.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000476A03	0.0794	100.00%	5825.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
AN000416A02	0.0794	100.00%	5745.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0794	100.00%	5785.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
AN000416A02	0.0794	100.00%	5825.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11n(40 MHz)												
AN000476A03	0.0794	100.00%	5755.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000476A03	0.0794	100.00%	5795.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000416A02	0.0794	100.00%	5755.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0794	100.00%	5795.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11ac(20 MHz)												
AN000476A03	0.0794	100.00%	5745.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000476A03	0.0794	100.00%	5785.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000476A03	0.0794	100.00%	5825.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000416A02	0.0794	100.00%	5745.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0794	100.00%	5785.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
AN000416A02	0.0794	100.00%	5825.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11ac(40 MHz)												
AN000476A03	0.0794	100.00%	5755.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000476A03	0.0794	100.00%	5795.0000	2.50	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000416A02	0.0794	100.00%	5755.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0794	100.00%	5795.0000	-4.90	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11ac(80 MHz)												
AN000476A03	0.0631	100.00%	5775.0000	2.50	0.00	90	1.00	0.001	1.00	0.11	0.97	0.11
AN000416A02	0.0631	100.00%	5775.0000	-4.90	0.00	90	1.00	0.000	1.00	0.02	0.97	0.02
802.11ax(20 MHz)												
AN000476A03	0.0708	100.00%	5745.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.97	0.12
AN000476A03	0.0708	100.00%	5785.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.98	0.12
AN000476A03	0.0708	100.00%	5825.0000	2.40	0.00	90	1.00	0.001	1.00	0.12	0.98	0.12
AN000416A02	0.0708	100.00%	5745.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0708	100.00%	5785.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
AN000416A02	0.0708	100.00%	5825.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03
802.11ax(40 MHz)												
AN000476A03	0.0794	100.00%	5755.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.97	0.14
AN000476A03	0.0794	100.00%	5795.0000	2.40	0.00	90	1.00	0.001	1.00	0.14	0.98	0.14
AN000416A02	0.0794	100.00%	5755.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.97	0.03
AN000416A02	0.0794	100.00%	5795.0000	-4.00	0.00	90	1.00	0.000	1.00	0.03	0.98	0.03

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm²)	MPE Spec Limit (mW/cm²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ax(80 MHz)												
AN000476A03	0.0631	100.00%	5775.0000	2.40	0.00	90	1.00	0.001	1.00	0.11	0.97	0.11
AN000416A02	0.0631	100.00%	5775.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	0.97	0.03
Wifi 6GHz												
802.11a												
AN000476A03	0.0501	100.00%	5955.0000	2.40	0.00	90	1.00	0.001	1.00	0.09	1.00	0.09
AN000476A03	0.0501	100.00%	6515.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0501	100.00%	7115.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	5955.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	1.00	0.02
AN000416A02	0.0501	100.00%	6515.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	7115.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
802.11ax (20MHz)												
AN000476A03	0.0501	100.00%	5955.0000	2.40	0.00	90	1.00	0.001	1.00	0.09	1.00	0.09
AN000476A03	0.0501	100.00%	6515.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0501	100.00%	7115.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	5955.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	1.00	0.02
AN000416A02	0.0501	100.00%	6515.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	7115.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
802.11ax(40 MHz)												
AN000476A03	0.0501	100.00%	5965.0000	2.40	0.00	90	1.00	0.001	1.00	0.09	1.00	0.09
AN000476A03	0.0501	100.00%	6485.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0501	100.00%	7085.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	5965.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	1.00	0.02
AN000416A02	0.0501	100.00%	6485.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	7085.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
802.11ax(80 MHz)												
AN000476A03	0.0501	100.00%	5985.0000	2.40	0.00	90	1.00	0.001	1.00	0.09	1.00	0.09
AN000476A03	0.0501	100.00%	6545.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0501	100.00%	7025.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	5985.0000	-4.00	0.00	90	1.00	0.000	1.00	0.02	1.00	0.02
AN000416A02	0.0501	100.00%	6545.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0501	100.00%	7025.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!

Table 6 (Continued)

Antenna #	Max Power (W)	Duty Cycle (%)	Tx Frequency (MHz)	Antenna Gain (dBi)	Cable Loss, L (dB)	Dist., d (cm)	Enhancement Factor, F ⁽⁴⁾	Max Calc. MPE (mW/cm ²)	MPE Spec Limit (mW/cm ²)			
									FCC	% of FCC Spec Limit	ISED limit	% of ISED Spec Limit
802.11ax(160 MHz)												
AN000476A03	0.0316	100.00%	6025.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0316	100.00%	6505.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000476A03	0.0316	100.00%	6985.0000	2.40	0.00	90	1.00	0.001	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0316	100.00%	6025.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0316	100.00%	6505.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!
AN000416A02	0.0316	100.00%	6985.0000	-4.00	0.00	90	1.00	0.000	Error	#VALUE!	Error	#VALUE!

9.0 Total Exposure Ratio

The Total Exposure Ratio (TER) is calculated by combining all SAR measurements and power density measurements after normalizing to their respective limits. The general expression is below.

$$TER = \sum_{a=1}^A \frac{SAR_a}{SAR_{a, limit}} + \sum_{b=1}^B \frac{psPD_b}{psPD_{b, limit}} < 1$$

Total Exposure Ratio Uncontrolled Environment for LMR, BT, LTE, 5G NR, and Wifi 6GHz

Table 7 TER for FCC, US

	Exposure Ratio					Applicable region	Total Exposure Ratio (TER) LMR+BT+LTE+Wifi 6	Total Exposure Limit	Applicable Region	Total Exposure Ratio (TER) LMR+BT+5G NR+Wifi 6	Total exposure Limit
	LMR	BT	LTE	5G NR	Wifi 6						
Reported value	0.145	0.001	0.003	0.002	0.001						
Applicable Limit	0.27	1	0.44	0.44	1						
Ratio to Limit	0.537	0.001	0.007	0.005	0.001	FCC	0.546	<1	FCC	0.544	<1

Note: Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable uncontrolled environment SAR and power density limits.

Table 8 TER for ISED, Canada

	Exposure Ratio					Applicable region	Total Exposure Ratio (TER) LMR+BT+LTE+Wifi 6	Total Exposure Limit	Applicable Region	Total Exposure Ratio (TER) LMR+BT+5G NR+Wifi 6	Total exposure Limit
	LMR	BT	LTE	5G NR	Wifi 6						
Reported value	0.145	0.001	0.003	0.002	0.001						
Applicable Limit	0.16	0.54	0.22	0.22	1.12						
Ratio to Limit	0.906	0.001	0.014	0.009	0.00	ISED	0.921	<1	ISED	0.916	<1

Note: Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable uncontrolled environment SAR and power density limits.

10.0 Simultaneous Transmission

Per KDB 447498, simultaneous transmission MPE test exclusion applies when the sum of MPE ratios for all simultaneous transmitting antennas incorporated in a host device is ≤ 1.0 , according to calculated/estimated, numerically modeled, or measured field strengths or power density.

The evaluation here considers LMR, BT, LTE, 5G NR, Wifi 2.4GHz, Wifi 5GHz, and Wifi 6GHz transmitter are transmitting simultaneously. The sum of MPE percentage to the limit is calculated as follows:

Table 9 FCC, US

Simultaneous Transmission Scenario	Highest % to FCC limit								Sum of MPE percentage to the FCC limit
	LMR	BT	NFC	LTE	5G NR	Wifi 2.4GHz	Wifi 5GHz	Wifi 6GHz	
	53.60	0.13	0.02	0.57	0.56	0.32	0.16	0.09	
LMR+BT+LTE+Wifi 2.4GHz	x	x		x		x			54.62
LMR+BT+5G NR+Wifi 2.4GHz	x	x			x	x			54.61
LMR+BT+LTE+Wifi 5GHz	x	x		x			x		54.46
LMR+BT+5G NR+Wifi 5GHz	x	x			x		x		54.44
LMR+BT+LTE+Wifi 6GHz	x	x		x				x	54.38
LMR+BT+5G NR+Wifi 6GHz	x	x			x			x	54.37

Table 10 ISED, Canada

Simultaneous Transmission Scenario	Highest % to ISED limit								Sum of MPE percentage to the ISED limit
	LMR	BT	NFC	LTE	5G NR	Wifi 2.4GHz	Wifi 5GHz	Wifi 6GHz	
	91.41	0.23	0.10	1.14	1.11	0.60	0.17	0.14	
LMR+BT+LTE+Wifi 2.4GHz	x	x		x		x			93.38
LMR+BT+5G NR+Wifi 2.4GHz	x	x			x	x			93.36
LMR+BT+LTE+Wifi 5GHz	x	x		x			x		92.95
LMR+BT+5G NR+Wifi 5GHz	x	x			x		x		92.93
LMR+BT+LTE+Wifi 6GHz	x	x		x				x	92.92
LMR+BT+5G NR+Wifi 6GHz	x	x			x			x	92.89

11.0 Conclusion

The MPE assessment presented in this report concludes that product family APX Next and APX Next XE with APX Next vehicular adapter part number PMPN5044A, when transmitting at a minimum separation distance of 90 cm from the antenna, are compliant to FCC and ISED Canada General Population /Uncontrolled RF exposure limits.