



Test Report Serial Number:

45461356NAR1.0

Test Report Date:

7 October 2016

Project Number:

1359

SAR Test Summary

Applicant:



Harris Corporation
221 Jefferson Ridge Parkway
Lynchburg, VA, 24501
USA

FCC ID:

OWDTR-0133E

w/ BV8BBPBM214

Product Model Number / HVIN

XL-200P w/ LTE

Maximum Reported 1g SAR

FCC	FACE:	0.71	W/kg
	BODY:	1.78	
IC	FACE:	0.77	
	BODY:	1.90	
Occupational Limit:		8.00	

IC Registration Number

3636B-0133E

Product Name / PMN

Eclipse

In Accordance With:

FCC 47 CFR §2.1093

Radiofrequency Radiation Exposure Evaluation: Portable Devices

IC RSS-102 Issue 5

Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

Approved By:

Ben Hewson, President

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Test Lab Certificate: 2470.01



Industry
Canada

IC Registration 3874A-1



FCC Registration: 714830

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1.0 DOCUMENT CONTROL

Tested By:	Art Voss		
Prepared By:	Art Voss		
Reviewed By:	Ben Hewson		
Issue Number	Description	By	Issue Date
1.0	Initial Release	Art Voss	7 Oct 2016

2.0 NORMATIVE REFERENCES

Normative References*	
ANSI / ISO 17025:2005	General Requirements for competence of testing and calibration laboratories
FCC CFR Title 47 Part 2	Code of Federal Regulations
Title 47:	Telecommunication
Part 2.1093:	Radiofrequency Radiation Exposure Evaluation: Portable Devices
Health Canada	
Safety Code 6 (2015)	Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3kHz to 300GHz
Industry Canada Spectrum Management & Telecommunications Policy	
RSS-102 Issue 5:	Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
IEEE International Committee on Electromagnetic Safety	
IEEE 1528-2013:	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
IEC International Standard	
IEC 62209-2	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 2
FCC KDB	
KDB 865664	SAR Measurement Requirements for 100MHz to 6GHz
FCC KDB	
KDB 447498	Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies
* When the issue number or issue date is omitted, the latest version is assumed.	

8.0 ACCESSORIES EVALUATED

Table 8.1

Change History			
Change ID	Date	Change Type	Description of Change
1	30 Mar 2012	Initial	Initial Filing
2	13 Feb 2013	C2PC	Added BlueTooth and WiFi Features
3	29 Jun 2015	C2PC	Added 14035-4440-01 Antenna and Other Accessories
4	09 Oct 2015	C1PC	Added 14035-4440-02 Antenna (Identical to KRE1011506/2 Antenna)
			Added Modified 14035-4440-01 Antenna (Identical to KRE1011506/1 Antenna)
5	31-Dec-15	C1PC	Added 14035-4420-01 Antenna
6	04-Jun-16	C1PC	Added 12082-0600-03 Antenna/Spr/MIC
7	19-Aug-16	C1PC	Added 14035-4010-04 Li-Ion Battery

Table 8.2

Manufacturer's Accessory List							
Test Report ID Number	Manufacturer's Part Number	Description	Change ID ⁽¹⁾	UDC Group ⁽²⁾	Type II Group ⁽³⁾	SAR ⁽⁴⁾ Evaluated	SAR ⁽⁵⁾ Tested
Antenna							
T1	KRE1011506/1	1/2 Wave Whip Antenna, (764-870 MHz)	1			Y	Y
T2	KRE1011506/2	1/4 Wave Stub Antenna, (764-870 MHz)	1			Y	Y
T3	KRE1011219/2	Helical VHF	1			Y	Y
T4	14035-4420-01	Wideband Whip, UHF, 7/800 MHz	5			Y	Y
T5	14035-4000-01	Full Spectrum Whip Antenna	1			Y	Y
T6	14035-4440-01	1/2 Wave Whip Antenna, 7/800 MHz	4			Y	Y
T7	14035-4440-02	1/4 Wave Stub Antenna, 7/800 MHz	4			Y	Y
Battery							
P1	14034-4010-01	Li-Ion Battery 7.2VDC, 3300mAh	1			Y	Y
P2	14034-4010-04	Li-Ion Battery 7.2VDC, 3100mAh, 22Wh	7			Y	Y

Table 8.3

Manufacturer's Accessory List							
Test Report ID Number	Manufacturer's Part Number	Description	Change ID ⁽¹⁾	UDC Group ⁽²⁾	Type II Group ⁽³⁾	SAR ⁽⁴⁾ Evaluated	SAR ⁽⁵⁾ Tested
Audio Accessory							
A1	12082-0600-01	Standard Speaker Microphone	1	7A	PB	Y	Y
A2	12082-0600-02	Storm Speaker Microphone	1	7A	PB	Y	Y
A28	12082-0600-03	Storm Speaker Microphone	6	7A	PB	Y	Y
A3	12150-1000-01	Premium Speaker MIC, Fire, NC	1	9	PB	Y	Y
A4	12082-0650-01	Microphone, Palm, 2-Wire Black	1	7A	IL	Y	Y
A5	12082-0650-02	Microphone, Palm, 2-Wire Beige	3	7A	IL	Y	-
A6	12082-0650-03	Microphone, Mini Lapel, 3-Wire Black	1	7A	IL	Y	Y
A7	12082-0650-04	Microphone, Mini Lapel, 3-Wire Beige	3	7A	IL	Y	-
A8	12082-0650-05	Earphone Kit, Black, XG-100P	**			Y	-
A9	12082-0650-06	Earphone Kit, Beige, XG-100P	**			Y	-
A10	12082-0650-07	Headset, In-Ear, Boom MIC, In-Line PTT	3	7A	IL	Y	-
A11	12082-0650-08	Headset, LTWT, OTH, Single Ear, IN-Line PTT	3	7A	IL	Y	-
A12	12082-0650-09	Headset, LTWT, BTH, Dual Ear, In_Line PTT	3	7A	IL	Y	-
A13	12082-0650-10	Headset, LTWT, BTH, Dual Ear, Pig Tail PTT	3	7A	PT	Y	Y
A14	12082-0650-11	Headset, LTWT, BTH, Dual In-Ear, In_Line PTT	3	7A	IL	Y	-
A15	12082-0650-12	Headset, LTWT, BTH, Dual In-Ear, Pig Tail PTT	3	7A	PT	Y	Y
A16	12082-0650-13	Headset, Heavy Duty, BTH, w/PTT, XG-100P	3	7A	IL	Y	Y
A17	12082-0650-14	Headset, Heavy Duty, OTH, w/PTT, XG-100P	3	7A	IL	Y	-
A18	12082-0650-15	Headset, BTH, Boom MIC, Earpiece, w/PTT	**			Y	-
A19	12082-0650-16	Headset, Tactical, Boom MIC, Earpiece, w/PTT	3	7A	PT	Y	-
A20	12082-0650-17	Skull MIC, w/Body PTT, Earcup, XG-100P	3	9	BB	Y	Y
A21	12082-0650-18	Throat MIC, w/Acoustic Tube, Body PTT	3	9	BB	Y	-
A22	12082-0650-19	Throat MIC, w/Acoustic Tube, Body & Ring PTT	3	9	RB	Y	-
A23	12082-0681-01	Speaker MIC, Wireless Bluetooth	3	BT	PB	Y	-
A24	12082-0684-01	BlueTooth, Covert, Earpiece, MIC, PTT	3	BT	n/a	Y	-
A25	14002-0197-01	Hirose to Unity Adapter	1	7B	n/a	Y	Y
A26	LS103239V1	Earphone, Lapel MIC, 2.5mm	3	n/a	n/a	Y	Y
A27	LS103239V2	Earphone, Lapel MIC, 2.5mm, Right Angle	4	n/a	n/a	Y	-

Table 8.4

Manufacturer's Accessory List							
Test Report ID Number	Manufacturer's Part Number	Description	Change ID ⁽¹⁾	UDC Group ⁽²⁾	Type II Group ⁽³⁾	SAR ⁽⁴⁾ Evaluated	SAR ⁽⁵⁾ Tested
Body-Worn Accessory							
B1	12082-1290-01	Metal Belt Clip	1			Y	Y
B2	12082-3230-01	D-Swivel (Used w/ 14002-0218-01 and KRY 1011609/1)	1			Y	Y
B3	14002-0218-01	Premium Belt Loop	1			Y	Y
B4	14035-4200-01	Holster, Leather, Radio, Premium	3			Y	Y
B5	14035-4200-02	Holster, Leather w/Rings for Shoulder Strap, Radio, Premium	3			Y	Y
B6	14035-4200-03	Holster, Nylon, Black, Radio, Premium	**			Y	-
B7	14035-4200-04	Holster, Ring, Leather, Radio, Premium	**			Y	-
B8	14035-4201-01	Kit, 14035-4200-01 Holster Assy w/ 14002-0218-01 Belt Loop	**			Y	-
B9	14035-4202-02	Kit, 14035-4200-02 Holster Assy w/ 14002-0218-01 Belt Loop	**			Y	-
B10	14035-4202-01	Holster, Leather, Radio, Standard	**			Y	-
B11	14035-4202-02	Holster, Leather w/Rings for Shoulder Strap, Radio, Standard	**			Y	-
B12	14035-4202-03	Holster, Nylon, Black, Radio, Standard	**			Y	-
B13	14035-4202-04	Holster, Ring, Leather, Radio, Standard	**			Y	-
B14	CC103333V1	Shoulder Strap	1			Y	Y
B15	KRY 1011609/1	Leather Belt Loop	1			Y	Y

(1) From Table 6.0 - Indicates which change the item was introduced or tested. A "***" in this column indicates these accessories were evaluated on similar product and are deemed compliant.

(2) UDC Group: 9 = 9 Pin, 7A = 7 Pin, 7B = 7 Pin Modified

(3) Type II Group: PB = Palm Button, IL = In-Line Pushbutton, PT = Pigtail Pushbutton, RB = Ring Pushbutton, BB = Body Button, BT = BlueTooth

(4) Accessories are categorized into groups of similar design and construction. Samples of individual groups are SAR Tested and the SAR results apply to ALL members of the Accessory Group. A "Y" in this column indicates the accessory is deemed acceptable.

(5) Accessories and/or Accessory Group members SAR Tested.

9.0 SAR MEASUREMENT SUMMARY

Project 1359 - Eclipse LTE Test

Test Date	Plot Number	Test Type	DUT Type	Freq	Batt Type or Number	Antenna Number	DUT Spacing		Measured SAR (W/kg)				Power Drift
				DUT			Antenna	100% Duty Cycle		50% Duty Cycle			
	F B E						mm	mm	1g	10g	1g	10g	dB
FACE - VHF													
20 Sep 2016	F1	Face	Scan	162	P2	T3			2.940	2.300	1.470	1.150	-0.263
20 Sep 2016	F2	Face	Sys	162	P2	T3			2.930	2.280	1.465	1.140	-0.623
20 Sep 2016	F3	Face	Scan	162	P2	T4			0.474	0.360	0.237	0.180	-1.890
20 Sep 2016	F4	Face	Sys	162	P2	T4			0.551	0.402	0.276	0.201	-1.100
BODY - VHF													
20 Sep 2016	B1	Body	Scan	156.8	P2	T3			9.980	5.350	4.990	2.675	-0.210
20 Sep 2016	B2	Body	Sys	156.8	P2	T3			9.660	5.050	4.830	2.525	-0.250
20 Sep 2016	B3	Body	Scan	156.8	P2	T4			3.670	1.960	1.835	0.980	-0.381
20 Sep 2016	B4	Body	Sys	156.8	P2	T4			3.690	1.970	1.845	0.985	-0.278
BODY - UHF													
20 Sep 2016	B5	Body	Scan	406	P2	T4			9.310	6.880	4.655	3.440	-0.210
20 Sep 2016	B6	Body	Sys	406	P2	T4			8.720	6.450	4.830	2.525	-0.250
FACE - UHF													
20 Sep 2016	F5	Face	Scan	406	P2	T4			4.240	3.280	2.120	1.640	-0.123
20 Sep 2016	F6	Face	Sys	406	P2	T4			3.960	3.060	1.980	1.530	-0.228
BODY - 7/800													

22 Sep 2016	B7	Body	Scan	776	P2	T4	3.380	2.470	1.690	1.235	-0.479
22 Sep 2016	B8	Body	Sys	776	P2	T4	4.510	3.290	2.255	1.645	-0.200
22 Sep 2016	B9	Body	Scan	851	P2	4440-01	6.020	4.290	3.010	2.145	0.812

FACE - 7/800

22 Sep 2016	F7	Face	Scan	768	P2	T4	2.290	1.590	1.145	0.795	
22 Sep 2016	F8	Face	Sys	768	P2	T4	2.620	1.980	1.310	0.990	
22 Sep 2016	F9	Face	Scan	806	P2	T4	2.090	1.560	1.045	0.780	
23 Sep 2016	F10	Face	Sys	851	P2	506/2	1.780	1.310	0.890	0.655	-0.157

BODY - 2450 WiFi

24 Sep 2016	B10	Body	Sys	2437	P2	T4	0.004		0.002		
24 Sep 2016	B11	Body	Scan	2437	P2	T4	0.004		0.002		

FACE - 2450 WiFi

25 Sep 2016	F11	Face	Sys	2412	P2	T4	0.006		0.003		
25 Sep 2016	F12	Face	Scan	2412	P2	T4	0.005		0.003		

BODY - 5260 WiFi

25 Sep 2016	B12	See	File	5260	P2	T4	0.000				
25 Sep 2016	B13	See	File	5260	P2	T4	0.004		0.002		

FACE - 5240 WiFi

25 Sep 2016	F13	Face	Sys	5240	P2	T4	0.006		0.003		
25 Sep 2016	F14	Face	Scan	5240	P2	T4	0.005		0.003		

