

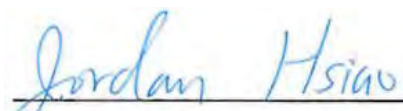
Maximum Permissible Exposure

Equipment : Wireless Presentation System
Model No. : WGA-510P
FCC ID : SQ3WGA510P16
Standard : IEEE C95.1
**Applicant /
Manufacturer** : Awind Inc.
33F., No. 16, Xinzhan Rd., Banqiao Dist., New Taipei
City 220, Taiwan

The product sample received on Nov. 21, 2016 and completely tested on Dec. 20, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in IEEE C95.1 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:



Jordan Hsiao / Manager





Table of Contents

1	HUMAN EXPOSURE ASSESSMENT	4
1.1	Product Details	4
1.2	Maximum Permissible Exposure	4
1.2.1	Limit of Maximum Permissible Exposure	4
1.2.2	MPE Calculation Method	4
1.2.3	Result of Maximum Permissible Exposure (2.4G)	5
1.2.4	Result of Maximum Permissible Exposure (5.2G)	6
1.2.5	Result of Maximum Permissible Exposure (5.8G)	7



Revision History

Report No.	Version	Description	Issued Date
FA6N1731-01	Rev. 01	Initial issue of report	Feb. 13, 2017



1 Human Exposure Assessment

1.1 Product Details

The difference between the report no. : FA6N1731	
The Difference	Enclosure is replaced

Evaluated Test Items	N/A
----------------------	-----

1.2 Maximum Permissible Exposure

1.2.1 Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	F/300	6
1500-100,000	-	-	5	6
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	F/1500	30
1500-100,000	-	-	1.0	30
Note 1: f = frequency in MHz ; *Plane-wave equivalent power density				
Note 2: For the applicable limit, see FCC 1.1310				

1.2.2 MPE Calculation Method

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

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

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



1.2.3 Result of Maximum Permissible Exposure (2.4G)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11 Protocol	Ch. Frequency (MHz)	Channel Number	Number of Transmit Chains (N _{TX})	RF Output Power (dBm)
2400-2483.5	11b	2412-2462	1-11 [11]	2	18.45
2400-2483.5	11g	2412-2462	1-11 [11]	2	16.93
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	2	15.97
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	2	15.82

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.

Worst Maximum RF Output Power Result					
Exposure Environment		General Population / Uncontrolled Exposure			
Separation Distance (cm)		20			
Condition		RF Output Power (dBm)			
Modulation Mode	N _{TX}	RF Output Power	DG (dBi)	EIRP Power	PD (S) (mW/cm ²)
11b	2	18.45	2.00	20.45	0.02207
Maximum Permissible Exposure Limit (mW/cm²)					1

Note 1: N_{TX} = Number of Transmit Chains



1.2.4 Result of Maximum Permissible Exposure (5.2G)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11 Protocol	Ch. Frequency (MHz)	Channel Number	Number of Transmit Chains (N _{TX})	RF Output Power (dBm)
5150-5250	11a	5180-5240	36-48 [4]	2	16.74
5150-5250	n (HT20)	5180-5240	36-48 [4]	2	15.96
5150-5250	n (HT40)	5190-5230	38-46 [2]	2	15.85

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.

Worst Maximum RF Output Power Result					
Exposure Environment		General Population / Uncontrolled Exposure			
Separation Distance (cm)		20			
Condition		RF Output Power (dBm)			
Modulation Mode	N _{TX}	RF Output Power	DG (dBi)	EIRP Power	PD (S) (mW/cm ²)
11a	2	16.74	5.01	21.75	0.02977
Maximum Permissible Exposure Limit (mW/cm²)					1

Note 1: N_{TX} = Number of Transmit Chains



1.2.5 Result of Maximum Permissible Exposure (5.8G)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11 Protocol	Ch. Frequency (MHz)	Channel Number	Number of Transmit Chains (N _{TX})	RF Output Power (dBm)
5725-5850	11a	5745-5825	149-165 [5]	2	16.76
5725-5850	n (HT20)	5745-5825	149-165 [5]	2	15.83
5725-5850	n (HT40)	5755-5795	151-159 [2]	2	15.90

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.

Worst Maximum RF Output Power Result					
Exposure Environment		General Population / Uncontrolled Exposure			
Separation Distance (cm)		20			
Condition		RF Output Power (dBm)			
Modulation Mode	N _{TX}	RF Output Power	DG (dBi)	EIRP Power	PD (S) (mW/cm ²)
11a	2	16.76	5.01	21.77	0.02990
Maximum Permissible Exposure Limit (mW/cm²)					1

Note 1: N_{TX} = Number of Transmit Chains