

Maximum Permissible Exposure

Equipment : Plustek eScan
Brand Name : Plustek
Model No. : eScan A150, eScan A250, eScan A350, eScan A450, eScan A550, eScan A650, eScan A180, eScan A280, eScan A380, eScan A480, eScan A580, eScan A680, ASFA4601-531, Network Scanner, eScan A*****
(The " * " can be 0-9 , A-Z, blank, Plus ,+ , Pro, Corporate, Enterprise or Ultimate for marketing purpose)
FCC ID : 2AEXE-ESCANA150
Standard : IEEE C95.1
Applicant / Manufacturer : Plustek Inc.
13F-1, No.3 , Yuan Qu St., 115 Nankang, Taipei, Taiwan

The product sample received on May 09, 2016 and completely tested on Jul. 12, 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:


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Revision History

[illegible]

1 Human Exposure Assessment

1.1 Maximum Permissible Exposure

1.1.1 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				

1.1.2 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)

1.1.3 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]	1	12.14
2400-2483.5	11g	2412-2462	1-11 [11]	1	6.71
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	6.74
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	1	6.06
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	1	12.14	2.00	14.14	0.00516
Maximum Permissible Exposure Limit (mW/cm ²)					1
Note 1: N _{TX} = Number of Transmit Chains					