

FCC RF EXPOSURE REPORT

FCC ID: YVR-DC-W50

Project No. : 1412005
Equipment : Wireless Docking
Model : DC-W50
Applicant : Lumens Digital Optics Inc.
Address : 5F, No.35, Sintai Rd., Jhubei City, Hsinchu
County
302, Taiwan

According: : FCC Guidelines for Human Exposure IEEE
C95.1

B T L I N C .

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

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

where:

S = power density

P = power input to the antenna

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

Table for Filed Antenna

2.4G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)	Note
1	RainSun	AN14-000024-W	Internal	N/A	5.00	TX/RX

5G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)	Note
2	RainSun	AN14-000024-B	Internal	N/A	0	TX/RX

TEST RESULTS

2.4G

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX B MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	17.36	54.4503	0.03427286	1	Complies
5	3.1623	19.56	90.3649	0.05687879	1	Complies
5	3.1623	19.65	92.2571	0.05806981	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX G MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	21.41	138.3566	0.08708641	1	Complies
5	3.1623	21.44	139.3157	0.08769006	1	Complies
5	3.1623	21.48	140.6048	0.08850145	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	21.37	137.0882	0.08628799	1	Complies
5	3.1623	21.46	139.9587	0.08809482	1	Complies
5	3.1623	21.42	138.6756	0.08728716	1	Complies

Band 1

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE /CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	20.67	116.6810	0.02322471	1	Complies
0	1.0000	20.63	115.6112	0.02301179	1	Complies
0	1.0000	20.56	113.7627	0.02264386	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	20.77	119.3988	0.02376569	1	Complies
0	1.0000	20.75	118.8502	0.02365649	1	Complies
0	1.0000	20.62	115.3453	0.02295886	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_ Total /CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	20.71	117.7606	0.02343961	1	Complies
0	1.0000	21.03	126.7652	0.02523192	1	Complies

Band 4

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	21.02	126.4736	0.02517389	1	Complies
0	1.0000	20.83	121.0598	0.02409630	1	Complies
0	1.0000	20.7	117.4898	0.02338570	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	20.86	121.8990	0.02426333	1	Complies
0	1.0000	20.84	121.3389	0.02415185	1	Complies
0	1.0000	20.78	119.6741	0.02382047	1	Complies

EUT :	Wireless Docking	Model Name :	DC-W50
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH151, CH159		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	19.91	97.9490	0.01949622	1	Complies
0	1.0000	21.21	132.1296	0.02629967	1	Complies

Note: the calculated distance is 20 cm.