

FCC RF EXPOSURE REPORT

FCC ID: MCLCS-E340W

Project No. : 1308C100E
Equipment : Cisco Edge 340
Model : CS-E340W
Applicant : HON HAI Precision Ind. Co., Ltd.
Address : 5F-1, 5, Hsin-An Road, Hsinchu
Science-Based Industrial Park,
Hsinchu, 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

Band 1

Group 1

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	FOXCONN	FX01G64-0G-EF	Integral Antenna	N/A	3.7
2	FOXCONN	FX01G65-0G-EF	Integral Antenna	N/A	2.3

Group 2

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
3	FOXCONN	FX01G67-0G-EF	Dipole Antenna	SMA Connector	3.59
4	FOXCONN	FX01G67-0G-EF	Dipole Antenna	SMA Connector	3.59

Band 4

Group 1

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	FOXCONN	FX01G64-0G-EF	Integral	N/A	3.2
2	FOXCONN	FX01G65-0G-EF	Integral	N/A	3.6

Group 2

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
3	FOXCONN	FX01G67-0G-EF	Dipole	N/A	2.82
4	FOXCONN	FX01G67-0G-EF	Dipole	N/A	2.82

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R). all transmit signals are completely uncorrelated, then, Direction gain = GANT, that is Directional gain=3.59 for Dipole antenna and Directional gain=3.7 for Integral Antenna.

This external dipole antenna can be connected to the EUT either directly or by a external cable, after assessing it is the worst case when the antenna is connected to the EUT by the external cable.

TEST RESULTS

Band 1

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature :	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A 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
3.7	2.3442	15.06	32.0627	0.01496	1	Complies
3.7	2.3442	15.13	32.5837	0.01520	1	Complies
3.7	2.3442	14.82	30.3389	0.01416	1	Complies

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature :	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N20 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
3.7	2.3442	16.10	40.7380	0.01901	1	Complies
3.7	2.3442	15.89	38.8150	0.01811	1	Complies
3.7	2.3442	15.90	38.9045	0.01815	1	Complies

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 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
3.7	2.3442	10.21	10.4954	0.00490	1	Complies
3.7	2.3442	10.41	10.9901	0.00513	1	Complies

Band 4

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A 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
3.6	2.2909	12.39	17.3380	0.00791	1	Complies
3.6	2.2909	12.13	16.3305	0.00745	1	Complies
3.6	2.2909	11.63	14.5546	0.00664	1	Complies

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N20 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
3.6	2.2909	12.00	15.8489	0.00723	1	Complies
3.6	2.2909	11.43	13.8995	0.00634	1	Complies
3.6	2.2909	11.19	13.1522	0.00600	1	Complies

EUT :	Cisco Edge 340	Model Name :	CS-E340W
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 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
3.6	2.2909	14.39	27.4789	0.01253	1	Complies
3.6	2.2909	13.56	22.6986	0.01035	1	Complies

Note: the calculated distance is 20 cm.