

FCC RF EXPOSURE REPORT

FCC ID: X7D-IP04227

Project No. : 1410C191
Equipment : AC1200 WirelessDual Band Gigabit Router
Model : A2004NS; IP04227
Applicant : ZIONCOM ELECTRONICS (SHENZHEN) LTD.
**Address : Building A1~A2, Lantian Science and
Technology Park, Xinyu Road Xinqiao
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District, Shenzhen City, China**
**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

Ant .	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
3		H001-10164-B	Dipole	N/A	5	90mm
4		H001-10172-B	Dipole	N/A	5	210mm

TEST RESULTS

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX A Mode_Total		

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	9.82	9.5940	0.00603880	1	Complies
5	3.1623	9.81	9.5719	0.00602491	1	Complies
5	3.1623	9.71	9.3541	0.00588776	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX N20 Mode_Total		

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	9.23	8.3753	0.00527170	1	Complies
5	3.1623	9.33	8.5704	0.00539449	1	Complies
5	3.1623	9.31	8.5310	0.00536970	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX N40 Mode_Total		

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	9.75	9.4406	0.00594224	1	Complies
5	3.1623	9.88	9.7275	0.00612280	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/ TX A Mode_Total		

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	9.62	9.1622	0.00576701	1	Complies
5	3.1623	9.9	9.7724	0.00615107	1	Complies
5	3.1623	9.94	9.8628	0.00620798	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX N20 Mode_Total		

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	8.91	7.7804	0.00489723	1	Complies
5	3.1623	9.09	8.1096	0.00510447	1	Complies
5	3.1623	9.2	8.3176	0.00523541	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/ TX N40 Mode_Total		

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	9.51	8.9331	0.00562277	1	Complies
5	3.1623	9.84	9.6383	0.00606667	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX AC20 Mode_Total		

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	9.28	8.4723	0.00533274	1	Complies
5	3.1623	9.05	8.0353	0.00505767	1	Complies
5	3.1623	9.4	8.7096	0.00548214	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX AC40 Mode_Total		

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	10.88	12.2462	0.00770815	1	Complies
5	3.1623	11.08	12.8233	0.00807143	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX AC80 Mode_Total		

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	10.76	11.9124	0.00749809	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX AC20 Mode_Total		

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	9.11	8.1470	0.00512803	1	Complies
5	3.1623	9.49	8.8920	0.00559694	1	Complies
5	3.1623	9.26	8.4333	0.00530824	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX AC40 Mode_Total		

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	11.04	12.7057	0.00799743	1	Complies
5	3.1623	10.89	12.2744	0.00772592	1	Complies

EUT :	A2004NS; IP04227	Model Name :	AC1200 WirelessDual Band Gigabit Router
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX AC80 Mode_Total		

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	10.78	11.9674	0.00753269	1	Complies

Note: the calculated distance is 20 cm.