



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: I38WL580E

Project No. : 1312C200
Equipment : Wireless Repeater
Model Name : WL580E
Applicant : Aztech Technologies Pte Ltd.
Address : 31 UBI Road 1, Aztech Building, Singapore 408694
Manufacturer : Aztech Technologies Pte Ltd.
Address : 31 UBI Road 1, Aztech Building, Singapore 408694

According: : **FCC Guidelines for Human Exposure IEEE C92.76**

Neutron Engineering Inc.

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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

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	Internal	N/A	2	TX/RX
2	N/A	N/A	Internal	N/A	2	TX/RX

Note: The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R).

Operating Mode TX Mode	1TX	2TX
802.11b	V (ANT 1 or ANT 2)	-
802.11g	V (ANT 1 or ANT 2)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)



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TEST RESULTS

EUT:	Wireless Repeater	Model Name :	WL580E
Temperature:	25 °C	Relative Humidity:	55 %
Pressure:	AC 120V/60Hz		
Test Mode :	TX B Mode		

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
2	1.5849	20.73	118.3042	0.03732075	1	Complies
2	1.5849	20.93	123.8797	0.03907962	1	Complies
2	1.5849	20.86	121.8990	0.03845478	1	Complies

EUT:	Wireless Repeater	Model Name :	WL580E
Temperature:	25 °C	Relative Humidity:	55 %
Pressure:	AC 120V/60Hz		
Test Mode :	TX G Mode		

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
2	1.5849	22.56	180.3018	0.05687879	1	Complies
2	1.5849	23.94	247.7422	0.07815385	1	Complies
2	1.5849	20.38	109.1440	0.03443106	1	Complies

EUT:	Wireless Repeater	Model Name :	WL580E
Temperature:	25 °C	Relative Humidity:	55 %
Pressure:	AC 120V/60Hz		
Test Mode :	TX N-20M 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
2	1.5849	24.04	253.5129	0.07997429	1	Complies
2	1.5849	24.03	252.9298	0.07979035	1	Complies
2	1.5849	21.33	135.8313	0.04284995	1	Complies



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EUT:	Wireless Repeater	Model Name :	WL580E
Temperature:	25 °C	Relative Humidity:	55 %
Pressure:	AC 120V/60Hz		
Test Mode :	TX N-40M 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
2	1.5849	22.22	166.7247	0.05259572	1	Complies
2	1.5849	23.82	240.9905	0.07602394	1	Complies
2	1.5849	21.65	146.2177	0.04612649	1	Complies

Note: The calculated distance is 20cm.



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EUT:	AC750 Wireless Dual Band Router	Model Name :	WF2710
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 ANT 1		

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
5.28	3.3729	16.73	47.0977	0.03161916	1	Complies
5.28	3.3729	16.93	49.3174	0.03310933	1	Complies
5.28	3.3729	16.72	46.9894	0.03154644	1	Complies

EUT:	AC750 Wireless Dual Band Router	Model Name :	WF2710
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 ANT 1		

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
5.28	3.3729	16.73	47.0977	0.03161916	1	Complies
5.28	3.3729	16.93	49.3174	0.03310933	1	Complies
5.28	3.3729	16.72	46.9894	0.03154644	1	Complies

EUT:	AC750 Wireless Dual Band Router	Model Name :	WF2710
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 ANT 2		

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
5.28	3.3729	17.42	55.2077	0.03706384	1	Complies
5.28	3.3729	17.35	54.3250	0.03647123	1	Complies
5.28	3.3729	17.21	52.6017	0.03531428	1	Complies



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EUT:	AC750 Wireless Dual Band Router	Model Name :	WF2710
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09		

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
5.28	3.3729	20.1	102.3293	0.06869899	1	Complies
5.28	3.3729	20.16	103.7528	0.06965469	1	Complies
5.28	3.3729	19.98	99.5405	0.06682675	1	Complies

Note: The calculated distance is 20cm