



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: ACJ-SC-ALL8

Project No. : 1312C279
Equipment : WIRELESS SPEAKER SYSTEM
Model : SC-ALL8
Applicant : Panasonic Corporation of North America
Address : Two Riverfront Plaza, 9th Floor, Newark, New Jersey, United States

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

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.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Internal	N/A	3.7
2	N/A	N/A	Internal	N/A	4.1

Note:

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

Operating Mode TX Mode	1TX	2TX
802.11a	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:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A 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
4.1	2.5704	21.73	148.9361	0.07619919	1	Complies
4.1	2.5704	21.79	151.0080	0.07725923	1	Complies
4.1	2.5704	21.91	155.2387	0.07942375	1	Complies

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC120V/60Hz		
Test Mode :	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
4.1	2.5704	24.27	267.3006	0.13675725	1	Complies
4.1	2.5704	24.33	271.0192	0.13865974	1	Complies
4.1	2.5704	24.38	274.1574	0.14026534	1	Complies

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC120V/60Hz		
Test Mode :	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
4.1	2.5704	23.27	212.3244	0.10863015	1	Complies
4.1	2.5704	23.38	217.7710	0.11141672	1	Complies

Note: the calculation distance is 20cm.