



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.

No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.

TEL : (0769) 8318-3000 FAX : (0769) 8319-6000



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	1.5
2	N/A	N/A	Internal	N/A	1.8

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
802.11b	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)



Neutron Engineering Inc.

TEST RESULTS

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	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
1.8	1.5136	16.18	41.4954	0.01250116	1	Complies
1.8	1.5136	16.27	42.3643	0.01276293	1	Complies
1.8	1.5136	16.37	43.3511	0.01306022	1	Complies

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC120V/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
1.8	1.5136	20.62	115.3453	0.03474964	1	Complies
1.8	1.5136	20.90	123.0269	0.03706384	1	Complies
1.8	1.5136	20.33	107.8947	0.03250501	1	Complies

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC120V/60Hz		
Test Mode :	TX N-20 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
1.8	1.5136	22.23	167.1091	0.05034431	1	Complies
1.8	1.5136	21.59	144.2115	0.04344606	1	Complies
1.8	1.5136	20.37	108.8930	0.03280578	1	Complies



Neutron Engineering Inc.

EUT:	Portable Bluetooth Speaker	Model Name	SC-ALL8
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage :	AC120V/60Hz		
Test Mode :	TX N-40 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
1.8	1.5136	21.04	127.0574	0.03827810	1	Complies
1.8	1.5136	21.01	126.1828	0.03801460	1	Complies
1.8	1.5136	19.58	90.7821	0.02734956	1	Complies

Note:the calculation distance is 20cm.