

# **FCC RF EXPOSURE REPORT**

**FCC ID: ACJ-SU-G30**

**Project No. : 1510C009A**  
**Equipment : Network Audio amplifier**  
**Model : SU-G30**  
**Applicant : Panasonic Corporation of North America**  
**Address : Two Riverfront Plaza,9th Floor Newark New Jersey**  
**United States 07102-5490**

**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:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

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

### 2.4G

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	SANSEI ELECTRIC CO.,Ltd.	N/A	Dipole	N/A	-1.77
2	SANSEI ELECTRIC CO.,Ltd.	N/A	Dipole	N/A	-0.55

### 5G

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	SANSEI ELECTRIC CO.,Ltd.	N/A	Dipole	N/A	-1.01
2	SANSEI ELECTRIC CO.,Ltd.	N/A	Dipole	N/A	-0.82

# TEST RESULTS

## 2.4G

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX B MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.55	0.8810	13.55	22.6464	0.00397146	1	Complies
-0.55	0.8810	13.85	24.2661	0.00425550	1	Complies
-0.55	0.8810	13.69	23.3884	0.00410157	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX G MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.55	0.8810	17.76	59.7035	0.01047009	1	Complies
-0.55	0.8810	16.81	47.9733	0.00841299	1	Complies
-0.55	0.8810	16.69	46.6659	0.00818371	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.55	0.8810	17.92	61.9441	0.01086301	1	Complies
-0.55	0.8810	17.31	53.8270	0.00943953	1	Complies
-0.55	0.8810	17.11	51.4044	0.00901468	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_ Total /CH03, CH06, CH09		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.55	0.8810	15.19	33.0370	0.00579362	1	Complies
-0.55	0.8810	16.18	41.4954	0.00727697	1	Complies
-0.55	0.8810	16.42	43.8531	0.00769043	1	Complies

**UNII-1**

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE /CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	6.54	4.5082	0.00074293	1	Complies
-0.82	0.8279	6.41	4.3752	0.00072103	1	Complies
-0.82	0.8279	6.70	4.6774	0.00077082	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	6.63	4.6026	0.00075849	1	Complies
-0.82	0.8279	6.44	4.4055	0.00072602	1	Complies
-0.82	0.8279	6.82	4.8084	0.00079241	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	9.40	8.7096	0.00143533	1	Complies
-0.82	0.8279	9.67	9.2683	0.00152739	1	Complies

**UNII-3**

EUT :	Network Audio amplifier	Model Name :	SU-G30
Temperature:	24 °C	Relative Humidity:	52 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE /CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	7.18	5.2240	0.00086090	1	Complies
-0.82	0.8279	6.20	4.1687	0.00068699	1	Complies
-0.82	0.8279	6.91	4.9091	0.00080900	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	7.24	5.2966	0.00087287	1	Complies
-0.82	0.8279	6.36	4.3251	0.00071277	1	Complies
-0.82	0.8279	6.14	4.1115	0.00067756	1	Complies

EUT :	Network Audio amplifier	Model Name :	SU-G30
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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
-0.82	0.8279	9.50	8.9125	0.00146876	1	Complies
-0.82	0.8279	9.55	9.0157	0.00148577	1	Complies

Note: the calculated distance is 20 cm.