## MPE

## 1 PREDICTION OF MPE LIMIT AT A GIVEN DISTANCE EQUATION FROM PAGE 18 OF OET BULLETIN 65, EDITION 97-01

## **2 MPE CALCULATION METHOD**

Calculation Method of RF Safety Distance:

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

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

## **3 TEST RESULTS**

| EUT:         | SurroundBar 6000 Instant Home<br>Theater | Model Name:        | AM1600       |
|--------------|--|--------------------|--------------|
| Temperature: | 25 ℃                                     | Relative Humidity: | 60 %         |
| Pressure:    | 1012 hPa                                 | Test Voltage:      | AC 120V/60Hz |
| Test Mode:   | CH00/ CH19 /CH37                         |                    |              |

| Antenna<br>Gain (dBi) | Antenna Gain<br>(numeric) | Peak Output<br>Power (dBm) | Peak Output<br>Power (mW) | Power<br>Density (S)<br>(mW/cm²) | Limit of Power<br>Density (S)<br>(mW/cm²) | Test Result |
|-----------------------|---------------------------|----------------------------|---------------------------|----------------------------------|---|-------------|
| 3.30                  | 2.1380                    | 13.78                      | 23.8781                   | 0.01016133                       | 1   | Complies    |
| 3.30                  | 2.1380                    | 14.16                      | 26.0615                   | 0.01109048                       | 1   | Complies    |
| 3.30                  | 2.1380                    | 13.86                      | 24.3220                   | 0.01035024                       | 1   | Complies    |