# **RF Exposure Information – MPE Calculations**



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The total number of pages in this report is 5.



# APPLICANT DETAILS

Table 1 Applicant Details					
Company Name	Assa Abloy Hospitality AS				
Address:	Anolitveien 1-3				
	1400 Ski				
	Norway				
e-mail	info@assaabloy.com				
Telephone:	+47 692 45 000				
Contact Name	Susan Janson				
e-mail	Susan.janson@assaabloy.com				
Telephone:	+46 10 47 48 592				

# 2 DETAILS OF DEVICE

Table 2 Details of device						
Description of device: BLE Module						
Manufacturer:	Assa Abloy Hospitality AS					
Model Name:	681402004					
FCC ID:	Y7V-681402004					
DUT Status	Final prototype					



## 3 EVALUATION

### 3.1 SUMMARY

This device (details found in table 2) is at a distance of 20 cm compliant with the General Population/Uncontrolled Exposure requirements found in FCC rule part 1.1310 Table 1(B). For more details please see chapter 4.

### 3.2 APPLICABLE STANDARDS

FCC 47 CFR §2.1093

FCC 47 CFR §1.1307

FCC 47 CFR §1.1310

FCC KDB 447498 D01 General RF Exposure Guidance v05r02

IEEE C95.1-2005



# 4 DETAILED MPE CALCULATIONS

MPE Calculations for Mobile Equipment  General population/ Uncontrolled use								
Frequency (MHz)	P (dBm)	P (mW)	G (dBi)	G (Numerical)	r (cm)	S (mW/cm²)	Exposure Limit (mW/cm²)	
2450	4.0	2.51	3.5	2.24	20	0.001	1.0	

According to Friis formula:

$$S = \frac{P * G}{4\pi * r^2}$$

Where  $\bf S$  is power density in  $\bf mW/cm^2$ ,  $\bf P$  is power in  $\bf mW$ ,  $\bf G$  is antenna gain numerically and  $\bf r$  is minimum separation distance in  $\bf cm$ .

# AMENDMENT HISTORY

Version	Date	Author(s)/ Function	Reviewed by	Approved by	Nature of Changes
Initial Draft	2015-01-27	Kent Lorentzon			
1.0	2015-02-10	Kent Lorentzon			First Release
1.1	2015-03-06	Kent Lorentzon			Added rule part to 3.2 Revised summary.
1.2	2015-03-09	Kent Lorentzon	Håkan Sjöberg	Håkan Sjöberg	Revised calculation to maximum theoretical power

