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Report No.: 1709RSU035-U2  
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## RF Exposure Evaluation Declaration

**FCC ID:** DD4MXW6W

**APPLICANT:** Shure Incorporated

**Application Type:** Certification

**Product:** Boundary Transmitter (DECT)

**Model No.:** MXW6/C Z10, MXW6/O Z10,  
MXW6W/C Z10, MXW6W/O Z10

**Brand Name:** SHURE

**FCC Classification:** Unlicensed PCS Base Station (PUB)

Reviewed By : Jame Yuan  
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Approved By : Robin Wu  
                  ( Robin Wu )



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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## Revision History

Report No.	Version	Description	Issue Date	Note
1709RSU035-U2	Rev. 01	Initial Report	04-26-2018	Valid

## 1. PRODUCT INFORMATION

Product Name:	Boundary Transmitter (DECT)
Model No.:	MXW6/C Z10, MXW6/O Z10, MXW6W/C Z10, MXW6W/O Z10
Brand Name:	SHURE

Note1: The difference between MXW6/C and MXW6/O is that the EUT has different built-in MIC.

Note2: MXW6/C Z10 and MXW6/O Z10 housing colour are black, but MXW6W/C Z10 and MXW6W/O Z10 housing colour is white, any others are same.

### 1.1. Product Specification Subjective to this Report

Frequency Range:	1921.536 ~ 1928.448MHz
Number of Channels:	5
Maximum Output Power:	21.09dBm
Type of Modulation:	Digital (Gaussian Frequency Shift Keying)
Antenna Gain:	-0.86dBi

### 1.2. Working Frequencies

UPCS Channel	Frequency (MHz)
<b>Upper Band Edge</b>	<b>1930.000</b>
0 (Highest)	1928.448
1	1926.720
2	1924.992
3	1923.264
4 (Lowest)	1921.536
<b>Lowest Band Edge</b>	<b>1920.000</b>

## 2. RF Exposure Evaluation

### 2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula:  $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 2.2. Test Result of RF Exposure Evaluation

Product	Boundary Transmitter (DECT)
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to Clause 1.1 of antenna description.

Frequency Band (MHz)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
1921.536 ~ 1928.448	20.23	0.0210	1

### CONCLUSION:

Therefore, the Max Power Density at R (20 cm) = 0.0210mW/cm<sup>2</sup> < 1mW/cm<sup>2</sup>.

So the EUT complies with the requirement.

The End