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Report No.: 1709RSU035-U2
Report Version: V01
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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)

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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)
Upper Band Edge	1930.000
0 (Highest)	1928.448
1	1926.720
2	1924.992
3	1923.264
4 (Lowest)	1921.536
Lowest Band Edge	1920.000

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 ²)	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: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1mW/cm². 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 ²)	Limit (mW/cm ²)
1921.536 ~ 1928.448	20.23	0.0210	1

CONCULISON:

Therefore, the Max Power Density at R (20 cm) = $0.0210\text{mW/cm}^2 < 1\text{mW/cm}^2$.

So the EUT complies with the requirement.

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