



RF Exposure Evaluation Declaration

FCC ID: RISKAL215ABT

APPLICANT: ROLDY INC

Application Type: Certification

Product: amplifier of active speaker box

Brand Name KALO

Model No.: KAL215ABT, KAL212ABT, KAL2000, KAL1750,
KAL1600, KAL1350

FCC Classification: Digital Transmission System (DTS)

Test Date: April 14 ~ 16, 2014

Reviewed By : Robin Wu

(Robin Wu)

Approved By : Marlin Chen

(Marlin Chen)

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
1404RSU01702	Rev. 01	Initial report	04-17-2014

1. RF Exposure Evaluation

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

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 (The minimum distance is 20cm)

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.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 25°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	amplifier of active speaker box
Test Item	RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is -1.0dBi in logarithm scale.

Freq. Band (MHz)	Max. Output power (dBm)	Max. Output power (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit S(mW/cm ²)
2402 ~ 2480	3.84	2.42	0.00038	1

————— The End —————