

TEST REPORT

Product Name : CARE BEAR MOONLIGHT MIRROR LAMP WITH BT SPEAKER
Model Number : IBM-103
FCC ID : 2BEO7-IBM-103

Prepared for : Dongguan Synst Electronics Co.,Ltd
Address : No.20, Fudong Road, Houjie Town, Dongguan City,
Guangdong Province, China

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1. TEST RESULT CERTIFICATION

Applicant : Dongguan Synst Electronics Co.,Ltd
Address : No.20, Fudong Road, Houjie Town, Dongguan City, Guangdong Province, China
Manufacturer : Dongguan Synst Electronics Co.,Ltd
Address : No.20, Fudong Road, Houjie Town, Dongguan City, Guangdong Province, China
Factory : Dongguan Synst Electronics Co.,Ltd
Address : No.20, Fudong Road, Houjie Town, Dongguan City, Guangdong Province, China
EUT : CARE BEAR MOONLIGHT MIRROR LAMP WITH BT SPEAKER
Model Name : IBM-103
Trademark : N/A

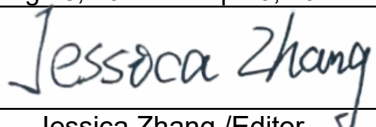
Measurement Procedure Used:

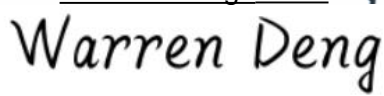
APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 1.1310: §1.1307(b)	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC 1.1310: §1.1307(b).

The test results of this report relate only to the tested sample identified in this report

Date of Test : Aug 28, 2024 to Sep 19, 2024

Prepared by : 
Jessica Zhang /Editor

Reviewer : 
Warren Deng /Supervisor

Approve & Authorized Signer : 
Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2408280183E00102R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	CARE BEAR MOONLIGHT MIRROR LAMP WITH BT SPEAKER
Model Number:	IBM-103
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	79 channels
Transmit Power Max:	1.65 dBm(0.001462W)
Antenna Gain:	-6.04 dBi
Power supply:	DC 9V from adapter Adapter:Model:AK18WG-0900200U INPUT:100-240V~50/60Hz 0.5A OUTPUT:9V/2A
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission 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 = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

Antenna gain: -6.04 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	-1.93	-1±1	0	1.000	-6.04	0.25	0.0000	1
2441		-1.26	-1±1	0	1.000	-6.04	0.25	0.0000	1
2480		0.15	0±1	1	1.259	-6.04	0.25	0.0001	1
2402	π/4-DQPSK	-0.72	0±1	1	1.259	-6.04	0.25	0.0001	1
2441		0.53	0±1	1	1.259	-6.04	0.25	0.0001	1
2480		1.17	1±1	2	1.585	-6.04	0.25	0.0001	1
2402	8-DPSK	0.78	1±1	2	1.585	-6.04	0.25	0.0001	1
2441		1.06	1±1	2	1.585	-6.04	0.25	0.0001	1
2480		1.65	2±1	3	1.995	-6.04	0.25	0.0001	1

*** End of Report ***