

CONTENTS

Page

1. EUT (EQUIPMENT UNDER TEST) INFORMATION	4
1.1 GENERAL DESCRIPTION	4
1.2 ADDITIONAL MODEL	4
2. TEST RESULT	5
2.1 MEASURED RF OUTPUT LEVEL	5
2.2 TEST RESULT	5

Release Control Record

Issue Report No.	Issued Date	Revisions	Effect Section
TR-W2104-007	2021-04-22	Initial Release	All

1. EUT (Equipment Under Test) INFORMATION

1.1 General Description

The GASIAN, Model GPBL-2.0 (referred to as the EUT in this report) is a Smart Pillbox L, which helps people to take their medicine on time by their own alarm setting with a smart phone using function of Bluetooth low energy. The product specification described herein was obtained from product data sheet or user's manual.

Operating Frequency	2 402 MHz ~ 2 480 MHz
Kind of Class	DTS – Digital Transmission System
Max. RF Output Power	-2.69 dBm
Modulation Types	GFSK
Number of Channels	40 CH
Channel Bandwidth	2 MHz
Generated or used Freq. in EUT	32.768 kHz, 32 MHz
Type of Antenna	☒ Integrated Type ☐ Dedicated Type
Antenna Gain	-6.88 dBi
Normal Test Voltage	DC 3.7 V
Electrical Rating	DC 3.7 V
Test SW Version	Direct Test Mode Tool/Version:1.0.0
RF power setting in TEST SW	4 dBm

1.2 Additional Model

None

2. TEST RESULT

2.1 Measured RF Output Level

Operating Mode	Data Rate	Channel	Frequency (MHz)	Output Power (dBm)
Bluetooth Low Energy	1 Mbps	Low	2 402	-2.69
		Middle	2 440	-2.74
		High	2 480	-2.70

2.2 Test result

According to FCC KDB 447498 D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,

where,

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to two decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

For the present device, the conducted output power is -2.69 dBm at Low Channel.

So, max. power of channel, including tune-up tolerance = 0.54 mW, min. test separation distance is considered 5 mm and $f(\text{GHz}) = 2.402$

$(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \times [\sqrt{f(\text{GHz})}]$

$= (1 / 5) \times (\sqrt{2.402}) = 0.24 \leq 3.00$

Hence the SAR Exclusion Threshold condition is satisfied and the SAR evaluation for general population exposure conditions is not required.