

EMF TEST REPORT

Test Report No. : OT-234-RWD-032
Reception No. : 2304001031
Applicant : Samsung Electronics Co Ltd
Address : 19 Chapin Rd., Building D, Pine Brook, New Jersey, United States, 07058
Manufacturer : Samsung Electronics Co., Ltd.
Address : 129 Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea
Type of Equipment : SMART CONTROL
FCC ID. : A3LVGTM2365E
Model Name : VG-TM2365E
Multiple Model Name : N/A
Serial number : N/A
Total page of Report : 7 pages (including this page)
Date of Incoming : March 31, 2023
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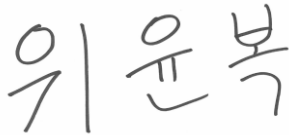
SUMMARY

The equipment complies with the regulation; *FCC CFR 47 Part 2.1093*

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

This report is not correlated with the "KS Q ISO/IEC 17025 and KOLAS accreditation" of Korean Laboratory Accreditation Scheme.





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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-234-RWD-032	April 21, 2023	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : Samsung Electronics Co Ltd
 Address : 19 Chapin Rd., Building D, Pine Brook, New Jersey, United States, 07058
 Contact Person : Jenni Chun / General Manager
 Telephone No. : +973-808-6375
 FCC ID : A3LVGTM2365E
 Model Name : VG-TM2365E
 Brand Name : Samsung
 Serial Number : N/A
 Date : April 21, 2023

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM
E.U.T. DESCRIPTION	SMART CONTROL
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	KDB 447498 D01 General RF Exposure Guidance v06
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
Modifications on the Equipment to Achieve Compliance	None

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The Samsung Electronics Co Ltd, Model VG-TM2365E (referred to as the EUT in this report) is a SMART CONTROL.

The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	SMART CONTROL
OPERATING FREQUENCY	2 402 MHz ~ 2 480 MHz
MODULATION TYPE	GFSK
RF OUTPUT POWER	4.35 dBm
ANTENNA TYPE	Chip Antenna
ANTENNA GAIN	0.97 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	40 MHz
RATED SUPPLY VOLTAGE	DC 5.0 V

2.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3. EUT MODIFICATIONS

-. None

4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission’s guideline.

This is a Portable device with its physical nature to be used nearby, the distance between radiating structure and human is less than 20 cm.

As per KDB 447498 D01, The 1-g and 10-g SAR test exclusion thesholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are detrmined by:

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

F(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 one decimal place for comparison.

4.2 EUT Description

Kind of EUT	SMART CONTROL
Device Category	<input checked="" type="checkbox"/> Portable (< 20 cm separation) <input type="checkbox"/> Mobile (> 20 cm separation) <input type="checkbox"/> Others
Exposure Evaluation Applied	<input type="checkbox"/> MPE <input type="checkbox"/> SAR <input checked="" type="checkbox"/> N/A

4.3 Calculated RF Exposure

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Mim. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3$$

$$= (3.43/5) \times \sqrt{2.402} = 1.062$$

Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
2 402.00	4.35 ± 1	5.35	3.43	5	1.062

Conclusion:

SAR evaluation for general population exposure conditions by measurement or numerical simulation is not required.