RF Exposure Evaluation

FCC ID	:	**2A8TK-ANAL1168EX**
Applicant	:	**G-TECH INSTRUMENTS INC.**
Application Type	:	**Certification**
Product	:	**Portable Analyzer**
Model No.	:	**CMVA 90-EX, CMVA 90, impaq Plus-EX, impaq Plus**
Brand Name	:	**G-TECH, SKF, Benstone**
FCC Rule Part(s)	:	**Part 2.1093 (Portable)**
Received Date	:	**June 07, 2024**

Tested By : Kaunaz Lee
(Kaunaz Lee)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

Revision History

Report No.	Version	Description	Issue Date	Note
2406TW3801-U3	1.0	Original Report	2024-12-19	

CONTENTS

Description Page

General Information

Applicant	G-TECH INSTRUMENTS INC.
Applicant Address	2F.-2, No. 83, Sec. 2, Gongdao 5th Rd., East Dist., Hsinchu City 30070, Taiwan (R.O.C.)
Manufacturer	G-TECH INSTRUMENTS INC.
Manufacturer Address	2F.-2, No. 83, Sec. 2, Gongdao 5th Rd., East Dist., Hsinchu City 30070, Taiwan (R.O.C.)
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
MRT IC Registration No.	21723
Test Device Serial No.	N/A ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

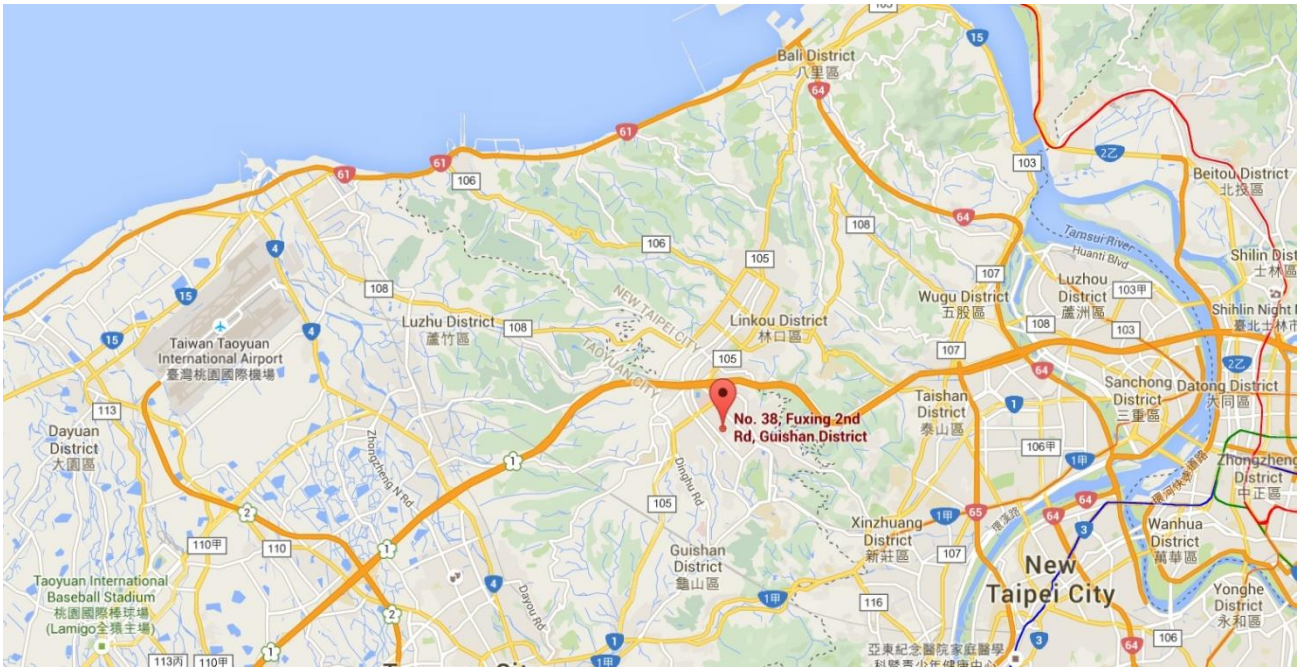
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name:	Portable Analyzer
Model No.:	G-TECH, SKF, Benstone
Brand Name:	CMVA 90-EX, CMVA 90, impaq Plus-EX, impaq Plus
RFID Specification	13.56MHz
Accessory	
Power Adapter	Brand: FSP GROUP INC. Model No: FSP060-DHAN3 Input: AC 100-240V~1.8A, 50-60Hz Output: DC 12V, 5A 60.0W Cable Out: Non-shielding, 1.2m with Core*1

Note: Model Difference can refer as below, the other hardware was the same. (declared by the manufacturer)

Model	Brand Name
impaq Plus-EX, impaq Plus	G-TECH
CMVA 90-EX, CMVA 90	SKF
impaq Plus-EX, impaq Plus	Benstone
The test was performed base on CMVA 90-EX	

2.2. Description of Available Antennas

Antenna Type	PCB Antenna

3. RF Exposure Evaluation

3.1. Limits

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.
The 1 mW blanket exemption applies at separation distances less than 0.5 cm, including where there is no separation. This exemption shall not be used in conjunction with other exemption criteria other than those for multiple RF sources in paragraph § 1.1307(b)(3)(ii)(A).
The 1 mW exemption is independent of service type and covers the full range of 100 kHz to 100 GHz, but it shall not be used in conjunction with other exemption criteria or in devices with higher-power transmitters operating in the same time-averaging period. Exposure from such higher-power transmitters would invalidate the underlying assumption that exposure from the lower-power transmitter is the only contributor to SAR in the relevant volume of tissue.

3.2. Test Result of RF Exposure Evaluation

Product	Portable Analyzer
Test Item	RF Exposure Evaluation

Mode	Frequency Band (MHz)	EIRP Output Power (dBm)	EIRP Output Power (mW)	SAR Test Exclusion Limit (mW)
NFC	13.56	-36.84	0.000207	1

So, this device can complies the SAR test exclusion.

Note:
Output power reference the following report: NFC report number is 2406TW3801-U2.

The End