## **Gpacers Technology**

4th Floor, No.168 Yongji Road, Xinyi District, Taipei 110, Taiwan

### **Cover Letter-Modular Approval**

#### FCC ID: 2ARB9-GPM-RF2021

#### Date: April 8, 2021

Gentlemen:

There's a <u>Gpacers LoRa module</u> that would like to have your authorization as a modular approval. The specific product as below, <u>WiFi+Bluetooth 4.1(HS) System on Module</u> with its designed features and specified description, meets special requirements for <u>Full modular approval</u> on FCC KDB996369 by cross-reference list below.

Company	Gpacers Technology
Equipment Name	Gpacers LoRa module
Model Number	GPM-RF2021
FCC ID	2ARB9-GPM-RF2021

Re	quirement of FCC KDB996369	Comply (Y/N) & Description
1.	The modular transmitter must have its own RF shielding.	Yes. It has its own shielding, please refer to photographs in SGS report No. T210115W01-1.
2.	The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation.	The module use SX1276 transceiver which features the LoRa® long range modem that provides ultra-long range spread spectrum communication and high interference immunity to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation. Please refer to SX1276 datasheet: https://semtech.my.salesforce.com/sfc/p/#E00 00000JelG/a/2R0000001Rbr/6EfVZUorrpoK FfvaF_Fkpgp5kzjiNyiAbqcpqh9qSjE
3.	The modular transmitter must have its own power supply regulation.	The module use TI TPS63030 as its power supply regulation. Please refer to TPS63030 datasheet: https://www.ti.com/lit/gpn/tps63030
4.	The modular transmitter must comply with the antenna and transmission system requirements of Sections 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). The "professional installation" provision of Section 15.203 is not applicable to modules but can	The antenna is permanently attached and irreplaceable by user. please refer to photographs in SGS report No. T210115W01-1.

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	apply to limited modular approvals under	
	paragraph (b) of this section.	
5.	The modular transmitter must be tested in a	SGS, the accredited laboratory, tests in
	stand-alone configuration, i.e., the module	accordance with the regulations, and attaches
	must not be inside another device during	the test report No. T210115W01-RP.
	testing.	
6.	The modular transmitter must be labeled with	It will be labeled on the device in accordance
	its own FCC ID number, and, if the FCC ID is	with the regulations here mentioned, and
	not visible when the module is installed inside	relevant instructions will be provided in the
	another device, then the outside of the device	submitted report No. T210115W01.
	into which the module is installed must also	
	display a label referring to the enclosed	
	module. This exterior label can use wording	
	such as the following: "Contains Transmitter	
	Module FCC ID: 2AKZA-QCA9377" or	
	"Contains FCC ID: 2AKZA-QCA9377" Any	
	similar wording that expresses the same	
	meaning may be used. The Grantee may either	
	provide such a label, an example of which	
	must be included in the application for	
	equipment authorization, or, must provide	
	adequate instructions along with the module	
	which explain this requirement. In the latter	
	case, a copy of these instructions must be	
	included in the application for equipment	
	authorization.	
7.	The modular transmitter must comply with any	Yes. The modular transmitter comply with all
/.	specific rule or operating requirements	specific rule and operating requirements
	applicable to the transmitter and	applicable to the transmitter. SGS, the
	the manufacturer must provide adequate	accredited laboratory, tests in accordance with
	instructions along with the module to explain	the regulations, and attaches the test report
1	any such requirements. A copy of these	No. T210115W01-RP and a copy of these
	instructions must be included in the application	instructions - user guide of the module.
	for equipment authorization.	instructions user guide of the module.
8.	The modular transmitter must comply with any	Yes. The modular transmitter comply with all
0.	applicable RF exposure requirements. For	applicable RF exposure requirements. SGS,
	example, FCC Rules in sections 2.1091,	the accredited laboratory, tests in accordance
	2.1093 and specific Sections of Part 15,	with the regulations, and attaches the test
1	including 15.319(i), 15.407(f), 15.253(f) and	report No. T210115W01-RP.
	15.255(g), require that Unlicensed PCS, UNII	10pon 110. 1210113 W01-KL
1	and millimeter wave devices perform routine	
	-	
1	environmental evaluation for RF Exposure to	
	demonstrate compliance. In addition, spread	

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15.247(b)(4).

Thank you. Sincerely,

Name: YU LUNG WANG

Title: CEO

Signature:

On behalf of Company: Gpacers Technology

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