LGAI Technological Center, S.A. (APPLUS)
Campus UAB - Ronda de la Font del Carme s/n
08193 Bellaterra (Barcelona)
T +34 93 567 20 00
www.appluslaboratories.com

EU-TYPE EXAMINATION CERTIFICATE

No. **0370-RED-6954**

ISSUED BY	LGAI Technological Center, SA – NB No. 0370 (APPLUS)	
APPLICANT	**ALTENERGY POWER SYSTEM INC.**	
MANUFACTURER (Name, Address)	**ALTENERGY POWER SYSTEM INC.** Building 2, No.522, Yatai Road, Nanhu District, Jiaxing City, Zhejiang 314050, China	
COMMERCIALISED BY (Brand)	**APsystems**	
PRODUCT	**Grid-tied Microinverter**	
TYPES	**QT2, QT2-EU**	
HW / SW / FMW version	SW: V1 HW: REV3.2	
APPLICABLE DIRECTIVE	DIRECTIVE 2014/53/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 16 APRIL 2014 ON THE HARMONISATION OF THE LAWS OF THE MEMBER STATES RELATING TO THE MAKING AVAILABLE ON THE MARKET OF RADIO EQUIPMENT	
DESCRIPTION	**The device is a Grid-tied Microinverter with Zigbee.**	
MEET ESSENTIAL REQUIREMENTS	Art.3.1 (a) Health & Safety ☒	Art.3.2 Efficient use of Radio spectrum ☒
	Art.3.1 (b) EMC ☒	Art.3.3 Requirements for specific categories or classes of RED (d) ☐ (e) ☐ (f) ☐ (g) ☐

This document in not valid without its technical annex, whose number match with the number of this certificate.
The evaluation of the technical documentation delivered is included in the technical file number: 23/36404417
This Certificate is valid as long as there are no changes in the state of the Art indicating that the approved radio equipment can no longer meet the essential requirements of Directive 2014/53/EU and there are no notifications of the approved type that may affect the accordance with the essential requirements of Directive 2014/53/EU.
Restrictions (if applicable):N/A
Bellaterra, 19th December, 2023

Applus LGAI Technological Center, S.A.

José Luis Medina
Certification Director
Electrical & Electronics

ENAC
CERTIFICACIÓN
ISO 17065
Nº12 / C-PR346

You can check the validity of this certificate in our website

CE

The manufacturer, after the completion of the technical documentation, the conformity assessment procedures and the EU Declaration of conformity, may affix the CE Marking under his responsibility.

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TECHNICAL ANNEX

0370-RED-6954

A. MODEL DESCRIPTION

A.1. GENERAL INFORMATION ON THE RADIO EQUIPMENT:

Manufacturing country: China
Brand: APsystems
Commercial designation: APsystems
Country of commercialization: European Union
Radio service: Zigbee.
Application: Grid-tied Microinverter

A.1.1 TRADE VERSIONS/VARIANTS: QT2，QT2-EU

A.2. FEATURES: Grid-tied Microinverter

A.3. SOFTWARE VERSION(S): V1

A.4. HARDWARE VERSION(S): REV3.2

A.5. OTHER COMPONENTS

Disposable antenna **YES ☐** **Antenna gain (dBi):**
NO ☒

A.6. OPERATING FREQUENCIES AND MAXIMUM POWER EMITTED BY BAND

BAND	SERVICE	Operational frequency (TX)	MAX POWER*	CNAF IR	CNAF/UN-XXX
Band 1	Zigbee	F_min: 2402MHz F_max: 2480MHz	9.851 dBm	IR-163	UN-85

N/A: Not applicable
N/D: Not defined

* Conducted power for mobile technologies and EIRP for other technologies.

A.7. OTHER PARAMETERS OF RADIO INTERFACE SPECIFICATIONS (RI)

Requires license/Use authorization: YES ☐ NO ☒

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B. TEST PROTOCOL

REQUIREMENT	STANDARD	Laboratory	Report no.
Health and Safety Article 3.1(a)	EN 62311:2020	Cerpass Technology (Dongguan) Co., Ltd.	DECJ2310162
	EN 62109-1:2010	BUREAU VERITAS ADT (SHANGHAI) CORPORATION	ZEM-ESH-P22011307-1-R1
	IEC 62109-1:2010		
	EN 62109-2:2011		ZEM-ESH-P22011307-2-R1
	IEC 62109-2:2011		
EMC Article 3.1(b)	EN 55011:2016/A2:2021	Jiangsu TEM-Wave Testing Service Ltd.	TW202310-026
	EN IEC 61000-6-3:2021		
	EN IEC 61000-6-4:2019		
	EN IEC 61000-6-1:2019		
	EN IEC 61000-6-2:2019		
	EN 62920:2017+A1:2021		
	EN IEC 61000-3-2:2019+A1:2021		TW202205-013
	EN 61000-3-3:2013+A1:2019		
	ETSI EN 301 489-1 V2.2.3		
	EN 301 489-17 V3.2.4		
Efficient use of Radio spectrum Article 3.2	ETSI EN 300 328 V2.2.2	Cerpass Technology (Dongguan) Co., Ltd.	DECJ2310162

C. RESTRICTIONS (IF POSITIVE)

Restrictions YES ☐ NO ☒

Describe restrictions: N/A

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TECHNICAL ANNEX

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D. ACTIVITIES CARRIED OUT BY THE NB

Technical Documentation Review

☐ Assembly drawings(s)	☒ Block diagram	☒ Circuit diagram/schematics
☒ External photographs	☒ Label drawing/location	☒ User manual
☒ Internal photographs	☒ Operational description	☒ Risk Assessment
☒ Test set-up photographs	☒ Test reports	☒ EU declaration of conformity
☒ Bill of materials	☒ PCB layout	
☐ Installation diagrams and explanations	☒ List of applied (harmonized and non-harmonized) standards	

Other activities

☒ RIS
☒ EFIS/CNAF
☒ Review Technical Justifications
☒ Analysis report
☒ EU type certification issued

E. ADDITIONAL INFORMATION:

Radio Equipment Directive 2014/53/EU, Article 10.4: Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the radio equipment has been placed on the market.

Radio Equipment Directive 2014/53/EU, Annex III, Module B.7: The manufacturer shall inform the notified body that holds the technical documentation relating to the EU-type examination certificate of all modifications to the approved type that may affect the conformity of the radio equipment with the essential requirements of this Directive or the conditions for validity of that certificate. Such modifications shall require additional approval in the form of an addition to the original EU-type examination certificate.

This review includes draft standards, deviations from the standards and technical justification for compliance.

LGAI Technological Center, S.A. C.I.F A63207492