EU – TYPE EXAMINATION CERTIFICATE

RADIO EQUIPMENT DIRECTIVE 2014/53/EU

Annex III Module B

MANUFACTURER

Name	:	Espressif Systems (Shanghai) Co., Ltd.
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PRODUCT DESCRIPTION

Trademark/Trade Name	:	ESPRESSIF
Model Number	:	ESP32-MINI-1
Product Description	:	Wi-Fi & Bluetooth Internet of Things Module

NOTIFIED BODY

Certificate issued by	:	Notified Body 1177, TIMCO Engineering, Inc.		
Certificate number	:	E1177-210044		
Name and Signature	:	Bruno Clavier	Date:	January 27, 2021

The device shall be marked as follows: CE

Based on the evidence presented in the Technical Documentation, TIMCO Engineering, Inc., as appointed Notified Body, has issued this EU-Type Examination Certificate in accordance with Annex III Module B. The product described appears to be in conformity with the essential requirements Article 3.1(a), 3.1(b), and 3.2 of RED 2014/53/EU. This certificate relates only to the documents as provided to Timco Engineering, Inc. and is valid up to (1) the date of cessation of presumption of conformity of any of the superseded standards which were used for testing this product and assessed by Notified Body or (2) the date of modifications to the approved type that may affect the conformity of the apparatus with the essential requirements of this Directive or the conditions for validity of that certificate, whichever comes first.

TIMCO ENGINEERING, INC. P.O. BOX 370 NEWBERRY, FL 32669 www.timcoengr.com	This Certificate is issued under the provision that TIMCO Engineering Inc. nor its subsidiary companies accept any liability concerning the contents of this document other than forced by law. Reproduction of the Certificate (with Annex) in full is allowed. Reproduction of parts of this certificate may only be allowed by written permission of TIMCO Engineering, Inc.

TIMCO ENGINEERING, Inc
AN IIA COMPANY

INDUSTRIAL INSPECTION & ANALYSIS

EU – TYPE EXAMINATION CERTIFICATE
E1177-210044

Date: January 27, 2021

PRODUCT SPECIFICATIONS

Intended Use / Category	:	Wi-Fi
RF output power (type)	:	18.34 dBm (EIRP)
Frequency range (MHz)	:	2412-2472 MHz
Modulation	:	DSSS, OFDM
Antenna type and Gain	:	PCB Antenna, 2.87dBi

Intended Use / Category	:	Bluetooth
RF output power (type)	:	9.92 dBm (EIRP)
Frequency range (MHz)	:	2402-2480MHz
Modulation	:	GFSK, π/4-DQPSK, 8-DPSK
Antenna type and Gain	:	PCB Antenna, 2.87dBi

Intended Use / Category	:	BLE
RF output power (type)	:	7.26 dBm (EIRP)
Frequency range (MHz)	:	2402-2480MHz
Modulation	:	GFSK
Antenna type and Gain	:	PCB Antenna, 2.87dBi

According to the Technical Documentation compiled by the Manufacturer, this radio equipment was assessed for compliance with the following standards, which were applied in full:

ESSENTIAL REQUIREMENTS ASSESSED

Essential Requirement		**Standard Number & Version**
Radio (Article 3.2)	:	ETSI EN 300 328 V2.2.2
EMC (Article 3.1b)	:	EN 55032: 2015 + A11:2020 EN 55035: 2017 + A11:2020 ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Health (Article 3.1a)	:	EN 50665: 2017 EN IEC 62311: 2020
Safety (Article 3.1a)	:	EN IEC 62368-1: 2020+A11: 2020

CERTIFICATE CONDITIONS:

This radio module has been assessed for use in the temperature range of -40°C to +85°C. This radio module is for professional installation only. When installing this radio module permanently into a host product to a create new radio equipment device; the manufacturer responsible for placing the final radio product on the market in the EU must assess if the combination of this radio module and the host product complies with the essential requirements of the RE Directive 2014/53/EU.

LIST OF DOCUMENTS REVIEWED

Item	Exhibit Description			
1	Copy of the Declaration of Conformity			☑
2	Letter from Manufacturer/Applicant authorizing the agent and/or representative, if application is filed by someone other than the Manufacturer.			☑
3	Attestation letter demonstrating compliance with Article 10(2)			☑
4	Letter of Attestation and/or exhibits for compliance with Article 10(10) (i.e. info on packaging with user instructions)			☐
5	A brief description of the radio equipment (e.g. Operational Description)			☑
6	Photographs or illustrations showing external features, marking and internal layout			☑
7	RED Annex VI Point 8 - Where applicable, a description/or declaration statement about the versions of software or accessories and components affecting compliance with essential requirements. Alternatively, indicate whether the manufacturer intends to allow the end-user to change or modify the hardware and software.			☑
8	User information and installation instructions			☑
9	Conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits and other relevant similar elements (i.e. Schematics and Block Diagrams)			☑
10	Descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the radio equipment (i.e. a Circuit Description where applicable)			☑
11	RED Annex III module B - Analysis and assessment of the risk(s)			☑
12	Modification/Standard Update/Applicant or Manufacturer info change letter explaining the changes to the existing version of the product along with supporting exhibits (e.g. photos, schematics, new applicant details, etc.)			☐
13	Copy of the EU-type examination certificate and annexes as delivered by other notified bodies involved in the conformity assessment (e.g. original certificates in case of product modifications, modules certificates, etc.)			☐
14	**Test Reports**			☑
	Radio / EMC / Health / Safety	**Test Report Number**	**Issue Date/ Rev. No**	
	Radio	R2012A0830-R1V1	January 26, 2020	
	EMC	R2012A0830-E1V2	January 26, 2021	
	EMF	R2012A0830-M1V2	January 26, 2021	
	Safety	R2012A0831-L1V1	January 17, 2021	