

NB 1857

**Radio Equipment Directive 2014/53/EU — Notified Body
EU-Type Examination Certificate**

No 07036/31.10.2016

This is to certify that OTC Ltd. did undertake the relevant EU-type examination procedures for the equipment identified below which was found to be in compliance with the essential requirements of the Radio Equipment Directive 2014/53/EU.

Certificate Owner: Allterco Robotics Ltd., 109 Bulgaria Blvd., 8th Floor, 1404 Sofia, Bulgaria

Radio Equipment: Shelly Wi-Fi two-way switch

Equipment Manufacturer: Allterco Robotics Ltd., 109 Bulgaria Blvd., 8th Floor, 1404 Sofia, Bulgaria

The radio equipment is described in detail in the Annex to this Certificate and in the documents referred to. EU-Type Examination of the equipment was carried out according to Module B (Annex III of Directive 2014/53/EU). The examination and its results are recorded in Report No 04/28.10.2016

The compliance with the essential requirements was assessed on the basis of the following documents:

Directive 2014/53/EC	Requirements for	Harmonized Standard	Applicant's document
Article 3.1. a)	Safety (incl. EMF)	EN 60950-1:2006+A11:2009 +A1:2010+A12:2011+A2:2013 EN 61010-1:2010 EN 50491-1:2014 EN 50491-3:2009	Test Report No. 16.0003/02.005 and No. 16.0003/02.006 of 25.03.2016; No. 16.0011/02.17 of 9.06.2016, Elprom ILEP Ltd, Sofia, Bulgaria
Article 3.1.b)	Electromagnetic compatibility (EMC)	EN 301 489-1 V1.9.2 EN 55022:2010 EN 61000-3-2/3 EN 61000-4-3	Test Report No. 965/965a/ 11.04.2016 of EMC Test Laboratory at Bulgarian Institute on Metrology
Article 3.2	Radio frequency spectrum usage	For WiFi Module ESP8266EX of ESPRESSIF SYSTEMS (SHANGHAI) PTE LTD	Opinion TCF-1933CC14/29.10.2014 of TIMCO Engineering, Inc., NB 1177

Signed:



On Behalf of OTC Ltd.

Issue Date: 31.10.2016

**ANNEX to
Radio Equipment Directive 2014/53/EU — Notified Body EU-Type Examination Certificate
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Description of the Equipment:

Shelly Wi-Fi two-way switch is remotely controlled device for switching on/turning off power lines, main sockets, lights, appliances and any other main powered devices up to 2 x 1500 VA (220 VAC).



Shelly Wi-Fi two-way switch is part of *She™* home automation system with integrated temperature, light, humidity and air purity sensors. The main features of the switch within the *She™* system are:

- Remotely control any electrical device plugged into the socket.
- Remote control from anywhere or upon conditions and/or events - time, sensors or actions.
- Can be manually managed by a Push button and a serial key.
- Saving energy by controlling heating and cooling, based on room temperature and the state of the premises.
- Sending information for current power consumption
- Sending notifications when an appliance has finished operation, consumption is more than expected or appliances were accidentally left on.
- Delay OFF functionality build-in.
- React automatically in Emergency events without Hub or Internet connection.
- Peer-to-Peer communication with other Shelly Wi-Fi modules.
- 3-th Party API is available upon request.
- Possibility of integration with the web-based service IFTTT.

Main technical data:

WiFi Parameters	WiFi Module	ESP8266EX
	WiFi Protocols	802.11 b/g/n
	Frequency range	2400-2483.5 MHz
	TX Power	802.11 b: + 20 dBm
		802.11 g: + 17 dBm
802.11 n: + 14 dBm		

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	RX Sensitivity	802.11 b: - 91 dBm (11 Mbit/s)
		802.11 g: - 75 dBm (54 Mbit/s)
		802.11 n: - 72 dBm (MCS7)
Type of Antenna		PCB trace
Operating Voltage		60 - 220 VAC
Power Relay Data (FUJITSU JV-KS)	Numbers of Relays	2
	Number of Contacts per Relay	1
	Contact Form	A (SPST-NO)
	Contact Rating	10A/250VAC / 24 VDC (resistive load)
	Max. Switching Voltage	250VAC / 150VDC
	Max. Switching Current	10A
	Max. Switching Power	2500VA / 240W
Protocols		HTTP, UDP
Dimensions		40 x 35 x 17 mm

Typical application diagrams

Independent control of two separate devices	One-button control of motor's direction of rotation	Two-buttons control of motor's direction of rotation

List of relevant documents:

	Document
Technical description	Shelly WiFiSpecs. docx
User instructions	User Instruction.docx
WiFi module datasheet	Oa-esp8266ex_datasheet_en.pdf
Power relay datasheet	JV12S-KT.pdf
Safety test report	ILEP_16.0003_02.005.pdf; ILEP_16.0003_02.006.pdf ILEP_16.0011_02.17.pdf
EMC test report	EMCLab_965.pdf; EMCLab_965a.pdf EMCLab_965_Annex.pdf
TIMKO's Radio certificate	Certificate-ESP8266EX Module-CE.pdf
Manufacturer's declaration of conformity	EU_DoC.pdf

Notes:

- This EC-Type Examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 2014/53/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- The manufacturer shall keep a copy of the EU-type examination certificate, its annexes and additions together with the technical documentation at the disposal of the national authorities for 10 years after the equipment has been placed on the market.
- The manufacturer shall take all measures so that the manufacturing process and its monitoring ensure conformity of the manufactured equipment with the examined type described in this EU-type examination certificate and with the requirements of the above Directive that apply to them.
- The manufacturer shall affix the CE marking to each individual equipment that is in conformity with the type described in this EU-type examination certificate and satisfies the requirements of this Directive.
- The manufacturer shall draw up a written EU declaration of conformity for each apparatus model and keep it at the disposal of the national authorities for 10 years after the apparatus has been placed on the market.
- This certificate is valid from 31.10.2016 until no later than 30.10.2021.
- This certificate will not be valid if the manufacturer makes any changes or modifications to the examined equipment, which have not been notified to, and agreed with OTC Ltd.
- Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reexamined prior to it/them been placed on the market.