



RoHS Certificate of Compliance

Yoctopuce hereby certifies that it has assessed the compliance of the product **Mini-Battery-Supervisor (MUSBLDOO)** with the requirements of European Directive RoHS 2015/863 according to the methodology recommended by the European Standard EN 50581:2012 "*Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*", in conformity with Module A of Decision 768/2008/EC.

For each and every component used to build the **Mini-Battery-Supervisor**, Yoctopuce has obtained from the manufacturer a document that demonstrates the compliance with the directive. The quality and trustworthiness of the documents has been evaluated, and additional information has been requested in case of doubt on the thoroughness of the documents or on the manufacturer's knowledge of the directive. Wherever evidence was lacking, components have been replaced by similar components from other manufacturers compliant with the directive.

Based on the collected evidence, Yoctopuce certifies that the **Mini-Battery-Supervisor** is compliant with the restricted substance requirements of European Directive RoHS 2015/863, using the following exemptions:

- 6(c): Copper alloy containing up to 4% lead by weight
- 7(c)-I: Electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors

For all intents and purposes, the complete list of components and materials currently used is attached, with an indication of the directive version taken into account by the manufacturer, the type of the supporting document, and the list of exemptions required for each component. Whenever alternative components have been used in the past, variants are also listed separately. This document is therefore updated on a regular basis.

Yoctopuce keeps abreast of the legislative adaptations, in particular concerning the evolution of and the renewal of expiring exemptions. If need be, the products will be adapted according to the new standards.

Cartigny, 1 July 2019

Marc Vuilleumier Stükelberg
Partner



Exhaustive list of components and materials currently used to build the Mini-Battery-Supervisor

Component	Manufacturer	Type	Compliance	Exemptions	Evidence
C2012X7R1V225K125AE	TDK	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
C2012X7R2E472K085AA	TDK	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
CGA3E2X8R1E104K080AA	TDK	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
CGA4C2COG1H103J060AA	TDK	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
MUSB-K552-30	Amphenol	Connecteur	RoHS 2011/65/UE	-	Manufacturer Certificate of Compliance
M52-5000445	Harwin	Connecteur	RoHS 2015/863	6(c)	Manufacturer Certificate of Compliance
691_210_910_002	Würth Electronic	Connecteur	RoHS 2015/863	6(c)	Analytical test results
LP38692SD-5.0/NOPB	Texas Instruments	LDO	RoHS 2015/863	-	Manufacturer Certificate of Compliance
DMP3098L-7	Diodes Incorporated	P-fet	RoHS 2015/863	-	Manufacturer Certificate of Compliance
FR4-ENIG	Multi-cb	PCB	RoHS 2015/863	-	Manufacturer Certificate of Compliance
PMBTA64,215	Nexperia	PNP	RoHS 2015/863	-	Manufacturer Material Declaration
RK73H1JTTD4R70F	KOA speer electronics	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
RN731JTTD1583B25	KOA speer electronics	Res	RoHS 2015/863	-	Manufacturer Certificate of Compliance
RN731JTTD1782B25	KOA speer electronics	Res	RoHS 2015/863	-	Manufacturer Certificate of Compliance
ERJ-PA3F2490V	Panasonic	Res	RoHS 2011/65/UE	7(c)-I	Manufacturer Certificate of Compliance
RG1608P-563-B-T5	Susumu	Res	RoHS 2015/863	-	Manufacturer Certificate of Compliance
RG1608P-9312-B-T5	Susumu	Res	RoHS 2015/863	-	Manufacturer Certificate of Compliance
RC0603FR-07100KL	Yageo	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
RC0603FR-0711KL	Yageo	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
RC0603FR-0711ML	Yageo	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
BAT54CWT1G	ON Semiconductor	Schottky	RoHS 2015/863	-	Manufacturer Material Declaration
TPS3711DDCR	Texas Instruments	Sensor	RoHS 2015/863	-	Manufacturer Certificate of Compliance
SB6N58-M500SI	KOKI	Solder paste	RoHS 2015/863	-	Manufacturer Certificate of Compliance
24-7068-7603	Kester	Solder wire	RoHS 2015/863	-	Analytical test results
TPS2115ADRBR	Texas Instruments	Switch	RoHS 2015/863	-	Manufacturer Certificate of Compliance
416_131_160_802	Würth Electronic	Switch	RoHS 2015/863	-	Manufacturer Certificate of Compliance

Alternate components that may have been used in the past to build the Mini-Battery-Supervisor

Component	Manufacturer	Type	Compliance	Exemptions	Evidence
GRM188R71E104KA01D	Murata	Cap	RoHS 2011/65/UE	-	Manufacturer Certificate of Compliance
GRM216R71E103KA01D	Murata	Cap	RoHS 2011/65/UE	-	Manufacturer Certificate of Compliance
GRM21BR61E225KA12L	Murata	Cap	RoHS 2011/65/UE	-	Manufacturer Certificate of Compliance
C2012X7R2E472KT5	TDK	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
885_012_206_071	Würth Electronic	Cap	RoHS 2015/863	-	Manufacturer Certificate of Compliance
ERA-3AED2490V	Panasonic	Res	RoHS 2011/65/UE	7(c)-I	Manufacturer Certificate of Compliance
CRCW0603100KFKEA	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
CRCW0603100KJNEA	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
CRCW06031K00FKEA	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
CRCW06031K00JNEB	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
CRCW06031M00FKEA	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
CRCW06031M00JNEB	Vishay	Res	RoHS 2015/863	7(c)-I	Manufacturer Certificate of Compliance
BAT54C	Fairchild (On Semiconductor)	Schottky	RoHS 2015/863	-	Manufacturer Certificate of Compliance