

Product Environmental Profile

Wireless XBEE Transmitter





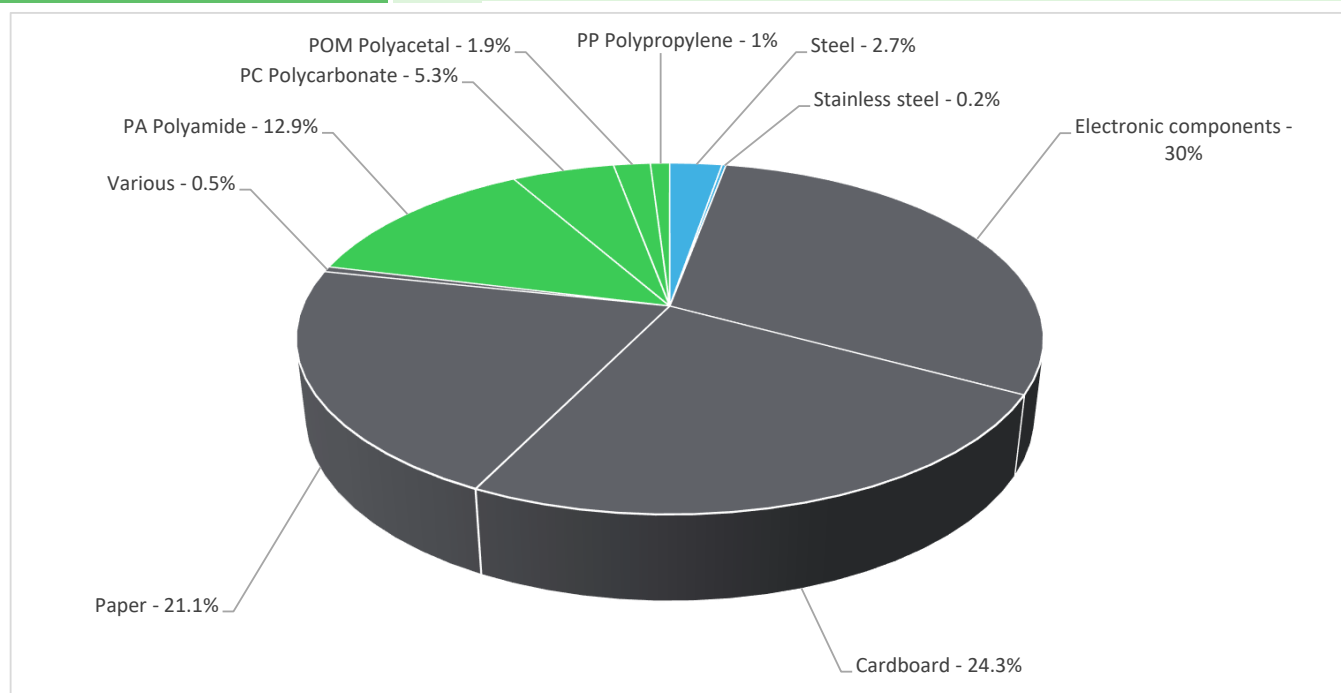
General information

Representative product	Wireless XBEE Transmitter - ZBRT1
Description of the product	ZBRT1 used to transmit a radio signal to radio receiver over a period of 10 years. It combines simplicity of installation, flexibility, and robustness. It meets the requirements of the majority of industrial applications.
Functional unit	The ZBRT1 is a wireless switch block which can be mounted with an actuation head. When the head is actuated through the action of an operator the product will generate electricity in order to send a radio signal to a radio receiver for 10 years.



Constituent materials

Reference product mass	18.75 g including the product, its packaging and additional elements and accessories
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Plastics	21.1%
Metals	2.9%
Others	75.9%



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate - BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) as mentioned in the Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>



Additional environmental information

The Wireless XBEE Transmitter presents the following relevant environmental aspects

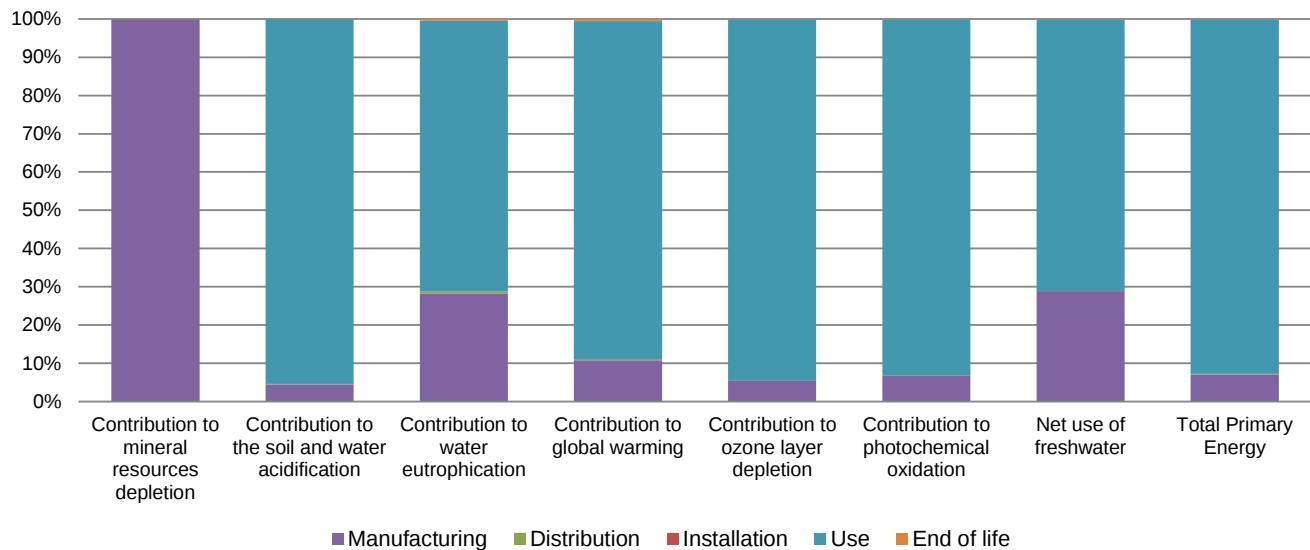
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 9.2 g, consisting of Paper(44.836),Cardboard(51.6304),Polyster(1.1),Polypropylene(2.4336) Product distribution optimised by setting up local distribution centres
Installation	ZBRT1 does not require any installation operations.
Use	The product does not require special maintenance operations.
End of life	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials This product contains Product contains electronic components so EoLi required and follow circularity profile instructions that should be separated from the stream of waste so as to optimize end-of-life treatment. The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website Recyclability potential: 47% Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).



Environmental impacts

Reference life time	10 years			
Product category	Other equipments - Active product			
Installation elements	No special components needed			
Use scenario	The product is in active mode 30% of the time with a power use of 0.0902W and in stand-by mode 70% of the time without a power use for 10 years.			
Geographical representativeness	Europe			
Technological representativeness	ZBRT1 used to transmit a radio signal to radio receiver over a period of 10 years.It combines simplicity of installation, flexibility, and robustness. It meets the requirements of the majority of industrial applications.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: France	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		Wireless XBEE Transmitter - ZBRT1					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5.82E-05	5.81E-05	0*	0*	6.38E-08	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.11E-02	4.97E-04	1.40E-05	2.09E-06	1.06E-02	5.63E-06
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	5.62E-04	1.58E-04	3.24E-06	5.35E-07	3.97E-04	2.92E-06
Contribution to global warming	kg CO ₂ eq	1.58E+00	1.71E-01	2.96E-03	5.00E-04	1.40E+00	9.36E-03
Contribution to ozone layer depletion	kg CFC11 eq	3.60E-07	1.96E-08	0*	0*	3.40E-07	3.27E-10
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	5.38E-04	3.59E-05	1.01E-06	1.56E-07	5.00E-04	4.54E-07
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	5.14E-03	1.48E-03	0*	0*	3.65E-03	4.64E-06
Total Primary Energy	MJ	3.06E+01	2.17E+00	4.18E-02	6.53E-03	2.84E+01	2.38E-02



Optional indicators		Wireless XBEE Transmitter - ZBRT1					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.59E+01	1.43E+00	4.15E-02	6.47E-03	1.44E+01	1.95E-02
Contribution to air pollution	m³	7.72E+01	1.69E+01	1.36E-01	2.06E-02	6.00E+01	1.71E-01
Contribution to water pollution	m³	8.62E+01	2.65E+01	4.86E-01	7.57E-02	5.87E+01	3.92E-01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.77E-04	1.77E-04	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	2.24E+00	2.08E-01	0*	0*	2.03E+00	0*
Total use of non-renewable primary energy resources	MJ	2.84E+01	1.96E+00	4.18E-02	6.52E-03	2.63E+01	2.38E-02
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.08E+00	4.62E-02	0*	0*	2.03E+00	0*
Use of renewable primary energy resources used as raw material	MJ	1.62E-01	1.62E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.81E+01	1.74E+00	4.18E-02	6.52E-03	2.63E+01	2.38E-02
Use of non renewable primary energy resources used as raw material	MJ	2.21E-01	2.21E-01	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	1.03E-01	8.13E-02	0*	0*	0*	2.18E-02
Non hazardous waste disposed	kg	5.29E+00	5.60E-02	0*	0*	5.24E+00	0*
Radioactive waste disposed	kg	4.31E-03	4.65E-05	0*	0*	4.27E-03	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.53E-02	1.37E-03	0*	9.04E-03	0*	4.90E-03
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.58E-03	0*	0*	0*	0*	2.58E-03
Exported Energy	MJ	2.80E-05	2.60E-06	0*	2.54E-05	0*	0*

* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators), except Abiotic depletion (elements, ultimate ultimate reserves) (ADPe for EN15804) which has more impact in manufacturing phase.

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number	ENVPEP2009013_V1-EN	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	11/2020	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Validity period	5 years	Information and reference documents	www.pep-ecopassport.org
Independent verification of the declaration and data			
Internal	X	External	
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »			

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Published by Schneider Electric

ENVPEP2009013_V1-EN

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11/2020