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OBC+DCDC : SUBARU SOLTERRA Teardown Report



SUBARU SOLTERRA
https://www.subaru.jp/solterra/



ESU (OBC+DCDC) Overview

Report overview

Toyota Industries Corporation has developed an Electric Supply Unit (ESU) for battery electric vehicles (BEVs), providing functions such as onboard charging and power supply. The new ESU supports multiple power systems for countries and regions with different power infrastructures, while achieving higher power output. Its compact, low-profile design also improves vehicle packaging. The ESU is adopted in the new SOLTERRA, for which Subaru Corporation began accepting orders in Japan on November 27, 2025, as well as the jointly developed new bZ4X.

This report presents a teardown of the ESU (OBC + DC-DC converter) installed in the Japan-market Subaru SOLTERRA, including identification of the major components on its PCBs and a comparison with the ESU installed in the previous-generation bZ4X (2022).

Product Features

Unit dimensions : (W) 465 mm × (L) 300 mm × (H) 120 mm

Unit weight : 21.1 kg

Internal PCBs : OBC PCB, OBC Communication & Power PCB, DC-DC Converter PCB,
Interface PCB, and Smoothing Capacitor PCB
Total: 5 PCBs (1,595 components)

The unit uses Infineon SiC MOSFETs.

Report Contents

- Teardown of the unit
- Investigation of major components of each PCB
- Investigation each PCB size, wight, no. of layer etc.
- Interconnection between PCBs
- Comparison with the previous-generation bZ4X (2022) ESU

Report Pricing

Delivered one week after order placement. Please contact us for report pricing.

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Table of contents

			Page
Summary			
Table 1	Product information	…	3
	bz4X ESU (2022) vs SOLTERRA ESU (2025)	…	5
Overview			
Fig. 1	Product Overview	…	7
Fig. 2-1	Product label/marking	…	8
Fig. 2-2	Label/marking	…	9
Fig. 3-1	Teardown 1	…	10
Fig. 3-2	Teardown 2	…	11
Fig. 3-3	Teardown 3	…	12
Fig. 3-4	Teardown 4	…	13
Fig. 3-5	Teardown 5	…	14
Fig. 3-6	Teardown 6	…	15
Fig. 3-7	Teardown 7	…	16
Fig. 3-8	Teardown 8	…	17
Fig. 4-1	OBC PCB Overview	…	18
Fig. 4-2	OBC Communication & Power PCB Overview	…	19
Fig. 4-3	DC-DC Converter PCB Overview	…	20
Fig. 4-4	Interface PCB Overview	…	21
Fig. 4-5	Smoothing Capacitor PCB Overview	…	22
Fig. 5-1	OBC PCB X-Ray	…	23
Fig. 5-2	OBC Communication & Power PCB Overview X-Ray	…	24
Fig. 5-3	DC-DC Converter PCB X-Ray	…	25
Fig. 5-4	Interface PCB X-Ray	…	26
Fig. 5-5	Smoothing Capacitor PCB X-Ray	…	27
Fig. 6-1	OBC PCB – Major Components (Top View)	…	28
Fig. 6-2	OBC PCB – Major Components (Top View)	…	29
Fig. 6-3	OBC PCB – Major Components (Bottom View)	…	30
Fig. 6-4	OBC Communication & Power – Major Components (Top View)	…	31
Fig. 6-5	OBC Communication & Power – Major Components (Bottom View)	…	32
Fig. 6-6	DC-DC Converter PCB – Major Components (Top View)	…	33
Fig. 6-7	DC-DC Converter PCB – Major Components (Bottom View)	…	34
Fig. 6-8	Interface PCB – Major Components (Bottom View)	…	35
Interconnection Between PCBs			
Fig. 7	PCB Connection Paths	…	36

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