



Evaluation & Prototyping Tool for EM8900

General Description

The EMEVB8900 is the development tool used for the evaluation and prototyping of EM8900 the ultra-low DCDC converter specifically designed for the Thermal Electrical Generators (TEG) and integrated energy harvesting solutions. The EMEVB8900 consists of a flexible board existing in different configurations (from wearable to industrial applications).



Main Features

- | Flexible architecture for prototyping, test and customer application
- | Transformer, feedback capacitor, AC coupling capacitor and harvester capacitor
- | Ready to measure nodes for lab equipment (oscilloscope, power analyzer, ...)
- | Expansion header and external connection (compliant with other EM harvesting solutions)

Main Feature Comparison

Main Feature	EMEVB8900M	EMEVB900W	EMEVB900I	EMEVB900C
Suitable for mid-range application <i>Compromise between low input voltage and high efficiency at mid power level</i>	✓			
Suitable for wearable application <i>Ultra low input voltage and high efficiency at low power level</i>		✓		
Suitable for industrial application <i>High efficiency at mid-high power level</i>			✓	
Configurable solution				✓
Common parts assembled	✓	✓	✓	✓
Specific parts for the variant mid-range application	✓ (1)			
Specific parts for the variant wearable application		✓ (2)		
Specific parts for the variant industrial application			✓ (3)	
Specific parts for the variant configurable solution				No parts assembled (4)

(1) Coupling capacitor (CFB) from transformer to DCDC boost and Transformer (TR) specific for mid range application:

- CFB = 22pF
- Tr = Transformer with turn ration 1:50 Coilcraft LPR6235-123QMRC

(2) Coupling capacitor (CFB) from transformer to DCDC boost and Transformer (TR) specific for wearable application:

- CFB = 270pF
- Tr = Transformer with turn ration 1:100 Coilcraft LPR6235-752SMRB

(3) Coupling capacitor (CFB) from transformer to DCDC boost and Transformer (TR) specific for industrial application:

- CFB = 33pF
- Tr = Transformer with turn ration 1:20 Coilcraft LPR6235-253PMRB

(4) Coupling capacitor (CFB) from transformer to DCDC boost and Transformer (TR) are not assembled on this configurable solution.

By contacting EM Microelectronic Marin SA at support.ips@emmicroelectronic.com our team support may help you to define and optimize your configurable solution.

Ordering Information

Product	Part Number	Ordering Number
EM8900 Evaluation board for mid-range application	EMEVB8900M	SV-1320
EM8900 Evaluation board for wearable application	EMEVB8900W	SV-1321
EM8900 Evaluation board for industrial application	EMEVB8900I	SV-1322
EM8900 Evaluation board configurable	EMEVB8900C	SV-1323