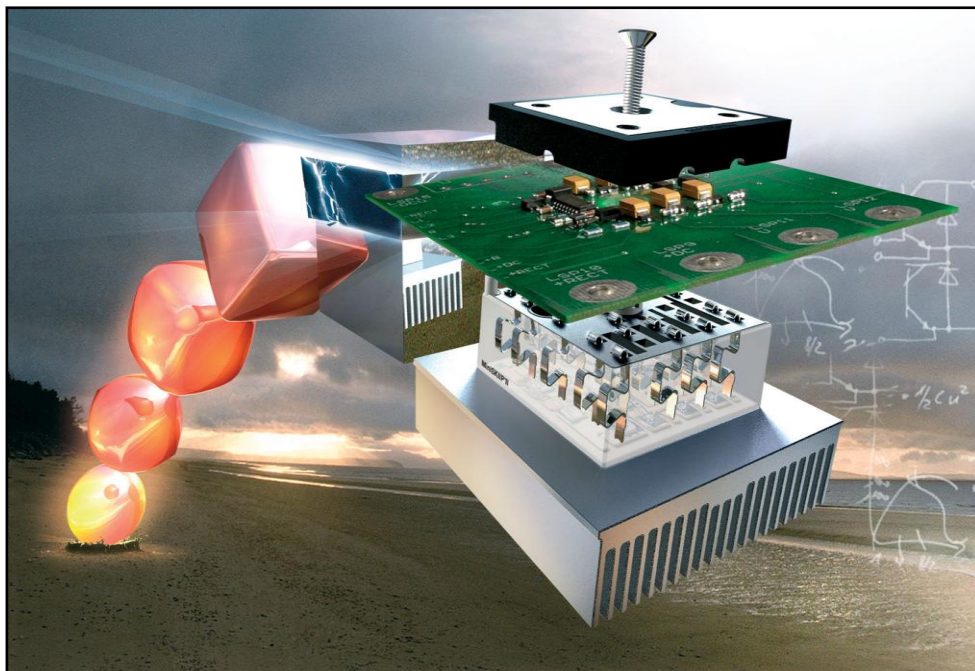


Technical Information MiniSKiiP[®] II Generation



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1 Accessories

1.1 Evaluation board MiniSKiiP® 2nd generation

The evaluation boards (example Fig. 1.1) are offered to customers for design support to enable a fast and convenient way to connect the MiniSKiiP® with a lab or breadboard circuit.

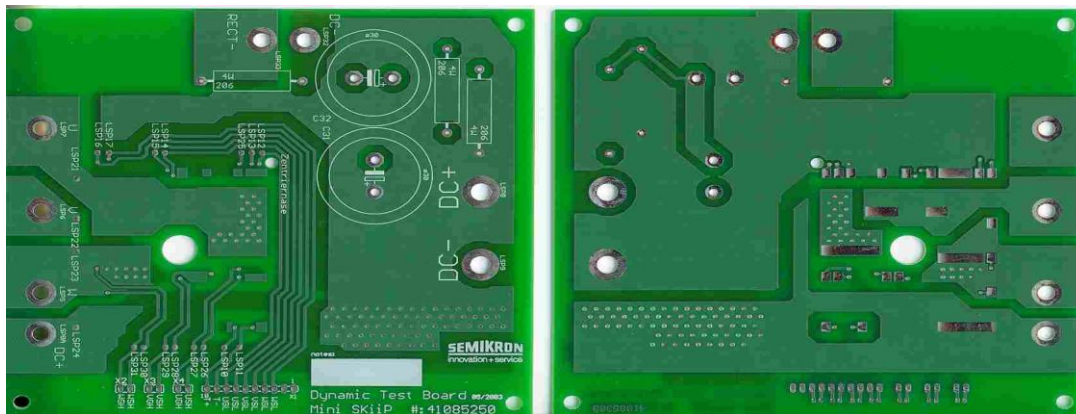


Fig. 1.1: Dynamic Evaluation Board for MiniSKiiP®2 “AC” Types

Generic Specification

- Material: FR4 2 layer board.
- Dimensions: specific to board, see below
- Thickness: 1.5mm
- Conductor: 70µm Cu, PbSn plating
- Mounting: all 4 corners prepared for klipp on feet stand offs, Ø 4mm or therated stand offs, screw Ø 4mm

Auxiliary terminals: prepared for use of solder pins, board to wire connectors or board to board connectors.

Static board connectors:

- 5pol single in line, grid dimension 5mm, pin Ø 2mm
- 7pol single in line, grid dimension 5mm, pin Ø 2mm

Dynamic board connectors:

- 2pol single in line, grid dimension 2.54mm, pin Ø1 mm;
- 10pol single in line, grid dimension 2.54mm, pin Ø1 mm

Main terminals of static and dynamic boards are prepared for use of cable sockets and screws:

- +/- DC connection: Ø 5mm
- Phase out (U,V,W) connection: Ø 4mm.

Maximum continuous current: Idmax = 30Amp*

* limited by the current capability of the narrowest part of the conductor path. Not all evaluation board layouts are suitable for full current rating of the corresponding MiniSKiiP® type! New

generation boards lead free and with higher current capability are in preparation.

1.1.1 Static Test Boards

For static measurements only. This layout is optimized to have the shortest connection between the Terminal and the Chips/Springs. The static test board allows an easy and fast connection to the MiniSKiiP® in a lab circuit to valuate the static values like VCEsat, Vf, Rth, etc.

1.1.2 Dynamic Test Boards

The dynamic board layout is optimized for dynamic operation. Therefore a low stray inductance design was realized. The boards allow as well the use of capacitors and resistors for a DC link pre-charge circuit.

Recommendation: 2 electrolytic capacitors 330µF / 400V, Ø 30mm
2 resistors 68KΩ/ 4W, 1 resistor 330Ω/ 4W

Dynamic test boards are for use under application near conditions for breadboard constructions but with limited current.

As stated above the dynamic test boards are not designed for use in the final customer product and not for use of max module current.

1.1.3 Order Codes for Test Boards

1.1.3.1 Evaluation Board Mini0 "AC" type

Static Board	IdentNo: 41085315 Dimension: 160 mm * 100 mm
Dynamic Board	Ident No: 41085310 Dimension: 130 mm * 132 mm

1.1.3.2 Evaluation Board Mini0 "NAC" type

Static Board	Ident No: 41094855 Dimension: 160 mm * 100 mm
Dynamic Board	Ident No: 41094850 Dimension: 130 mm * 132 mm

1.1.3.3 Evaluation Board Mini0 "NEB" type

Static Board	Ident No: 41094875 Dimension: 160 mm * 100 mm
Dynamic Board	Ident No: 41094870 Dimension: 130 mm * 132 mm

1.1.3.4 Evaluation Board Mini1 "AC" type

Static Board	Ident No: 41085245 Dimension: 160 mm * 100 mm
Dynamic Board	Ident No: 41085240 Dimension: 135 mm * 105 mm

1.1.3.5 Evaluation Board Mini1 "NAB" type

Static Board	Ident No: 41085295 Dimension: 160 mm * 100 mm
Dynamic Board	Ident No: 41085290 Dimension: 125 mm * 135 mm

1.1.3.6 Evaluation Board Mini2 "AC" type

Static Board	Ident No: 41085255 Dimension: 160 mm * 100 mm
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	Dynamic Board	Ident No: 41085250 Dimension: 130 mm * 140 mm
1.1.3.7	Evaluation Board Mini2 “NAB” type	
	Static Board	Ident No: 41085305 Dimension: 160 mm * 100 mm
	Dynamic Board	Ident No: 41085300 Dimension: 130 mm * 140 mm
1.1.3.8	Evaluation Board Mini2 “MLI” type	
	Static/Dynamic Board	Ident No: 45103600 Dimension: 120 mm * 105 mm
1.1.3.9	Evaluation Board Mini3 “AC” type	
	for all IGBT technologies except “12T4”	
	Static Board	Ident No: 41085335 Dimension: 160 mm * 100 mm
	Dynamic Board	Ident No: 41085330 Dimension: 163 mm * 114 mm
	for IGBT technology “12T4”	
	Static/Dynamic Board	Ident No: L5047100 Dimension: 160 mm * 125 mm
1.1.3.10	Evaluation Board Mini3 “NAB” type	
	Static Board	Ident No: 41085235 Dimension: 160 mm * 100 mm
	Dynamic Board	Ident No: 41085230 Dimension: 163 mm * 114 mm
1.1.3.11	Evaluation Board Mini3 “MLI” type	
	Static/Dynamic Board	Ident No: 45102900 Dimension: 145 mm * 105 mm

Additional boards for special types may be available on request. Please direct all requests and questions to Alexander.Langensbucher@Semikron.com

1.2 Pressure Lid order codes

With the introduction of MiniSKiiP 2nd generation, the order procedure for the pressure lids changes. The lids are no longer part of the MiniSKiiP itself. They have to be ordered and booked separately.

1.2.1 Standard Lids

The following order codes are worldwide present in the NAVISION system:

25121000 standard lid for MiniSKiiP II housing size 0
25121010 standard lid for MiniSKiiP II housing size 1
25121020 standard lid for MiniSKiiP II housing size 2
25121030 standard lid for MiniSKiiP II housing size 3

1.2.2 Slim Lids

The following order codes are worldwide present in the NAVISION system:

25121040 slim lid for MiniSKiiP II housing size 0

25121050 slim lid for MiniSKiiP II housing size 1
25121060 slim lid for MiniSKiiP II housing size 2
25121070 slim lid for MiniSKiiP II housing size 3

1.3 Mechanical Samples

The following order codes for Mechanical Samples are worldwide present in the NAVISION system:

25221100 mechanical sample MiniSKiiP II housing size 0

25221110 mechanical sample MiniSKiiP II housing size 1

25221120 mechanical sample MiniSKiiP II housing size 2

25221130 mechanical sample MiniSKiiP II housing size 3

2 Disclaimer

The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.