PCB Assembly Specification

1.	General Quality criteria
1.1	Quality management according to ISO 9001.
1.2	PCBA Acceptability in accordance with IPC-A-610 Class 2.
1.3	Shipping PCBAs that deviate from standards specified in this document without prior written authorization is strictly prohibited.
2.	**Solder**
2.1	Alloy composition of ≥96% Sn, ≥2.5% Ag.
2.2	Halide/Halogen free, RoHS compliant.
2.3	-
3.	**Flux**
3.1	Flux type ROL0 (water soluble no-clean, halogen free rosin) according to IPC J-STD-004B.
3.2	-
4.	**Soldering process**
4.1	PCBA shall be soldered using following technology: (selective) wave solder, reflow, manual.
4.2	Soldering profile shall be dictated by the used solder paste manufacturer's datasheet, with the exception that cooling speed shall not exceed 4°C/s.
4.3	Alternations to these processes must be authorized by Krakul OÜ in written form.
5.	**Testing**
5.1	-
5.2	-

6.	Cleanliness
6.1	PCBAs allowed to have trace amounts of soldering materials (Class 1&2 / no conformal coating)
6.2	Boards not deemed clean according to IPC-A-610 shall be cleaned using a dedicated process, e.g. ultrasonic isopropanol immersion.
	-
7.	**Additional assembly processes**
7.1	Through-hole component terminals shall be trimmed to not exceed 2mm protrusion
8.	**Mechanical tolerances**
8.1	The mechanical dimension deviations must not exceed the limits specified on page 3.
8.2	-
9.	**Environmental**
9.1	RoHS Compliance for processes and soldering materials. Documentation must be provided on request.
9.2	REACH Compliance for processes and soldering materials. Documentation must be provided on request.

Title:	*KR-Df-01-EL-00_ASSY.PCBDwf*		Size: A3	Sheet: 1 of 5
Project:	KR-Df-01-EL-00	Revision: v1	Date: 2024-10-24	
Variant:	Master	Revision R&D: IK,KK	Last modified: 19/12/2024	
		Checked By: KK	Date: 2024-02-23	

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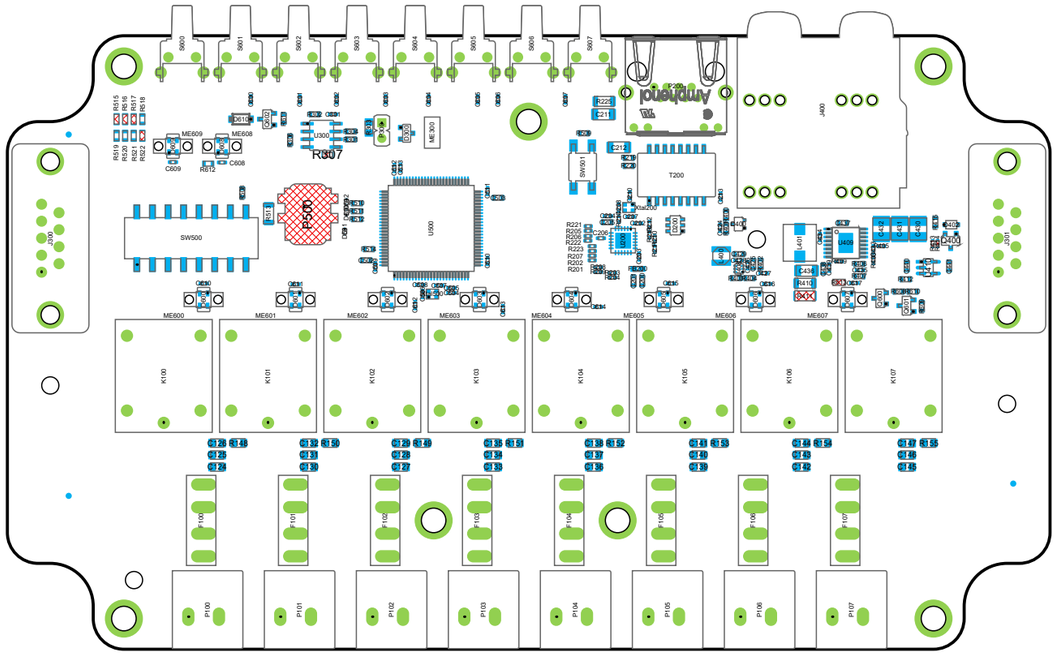
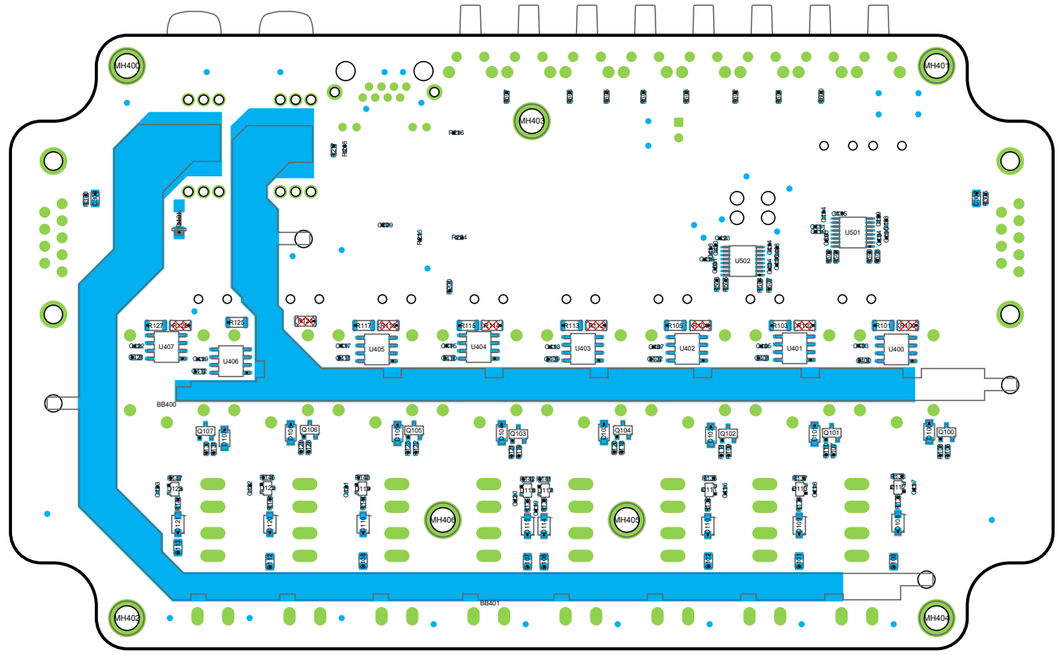
Assembly view

View from Top side (Scale 1:1)



View from Bottom side (Scale 1:1)



Note regarding RGB LED - IN-PI22TAT5R5G5B
The cut corner on the enclosure does not show pin1. But the dots on the silkscreen should align the cut corner of the enclosure.

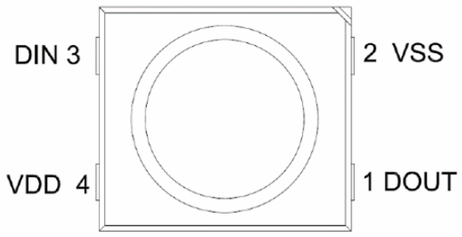
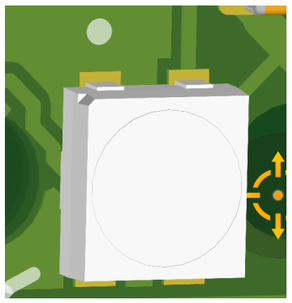


Figure 2. IN- PI22TAT5R5G5B Pin Configuration



Title:	*KR-Df-01-EL-00_ASSY.PCBDwf*		Size: A3	Sheet: 2 of 5
Project:	KR-Df-01-EL-00.PrjPcb	Revision: v1	Date: 2024-10-24	
Variant:	Master	Revision R&D: IK,KK	Last modified: 19/12/2024	
		Checked By: KK	Date: 2024-02-23	

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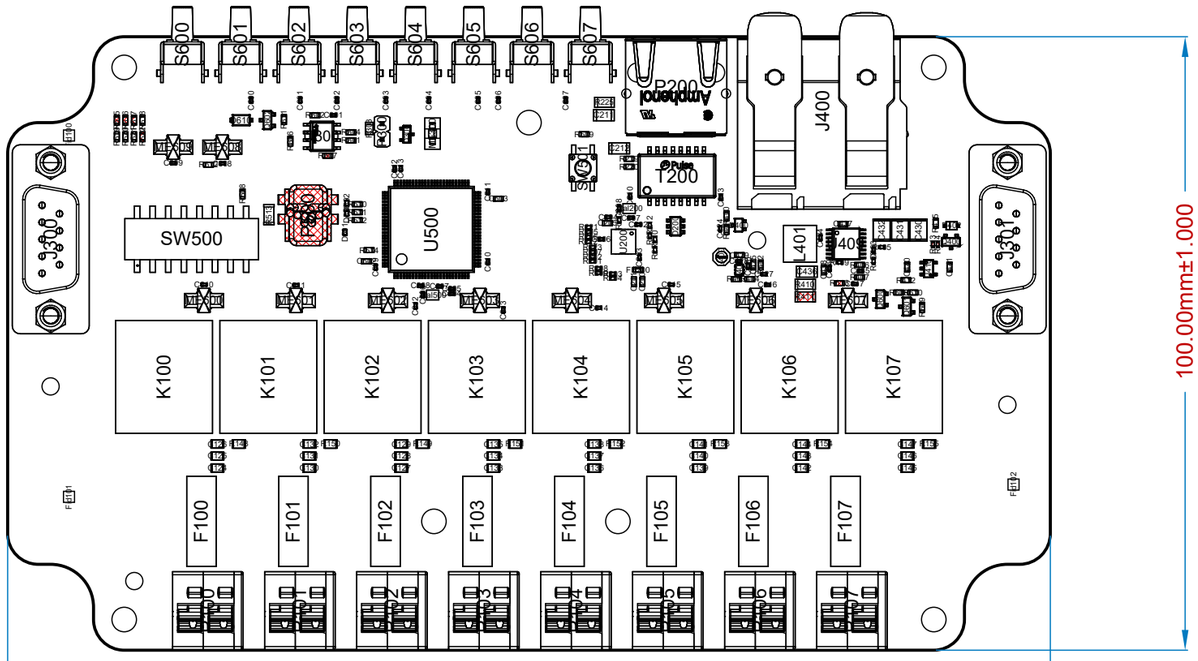
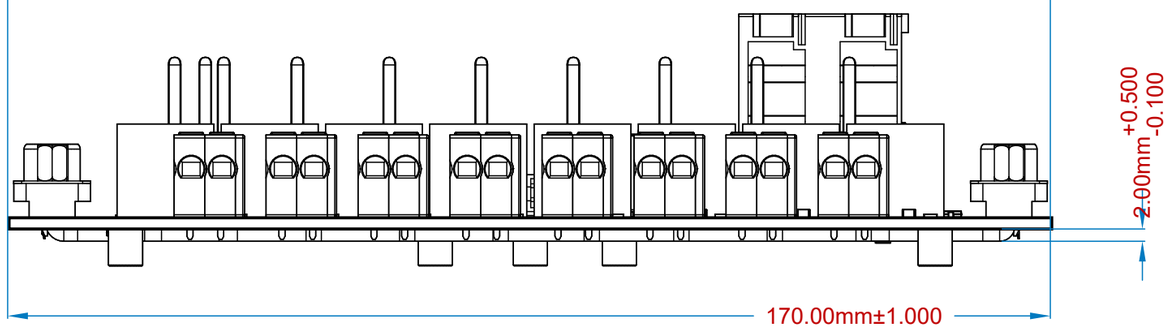
Mechanical Tolerances

View from Top side (Scale 1:1)



View from Front side (Scale 1:1)



Title:	*KR-Df-01-EL-00_ASSY.PCBDwf*			Size: A3	Sheet: 3 of 5
Project:	KR-Df-01-EL-00	Revision: v1	Date: 2024-10-24		
Variant:	Master	Revision R&D: IK,KK	Last modified: 19/12/2024		
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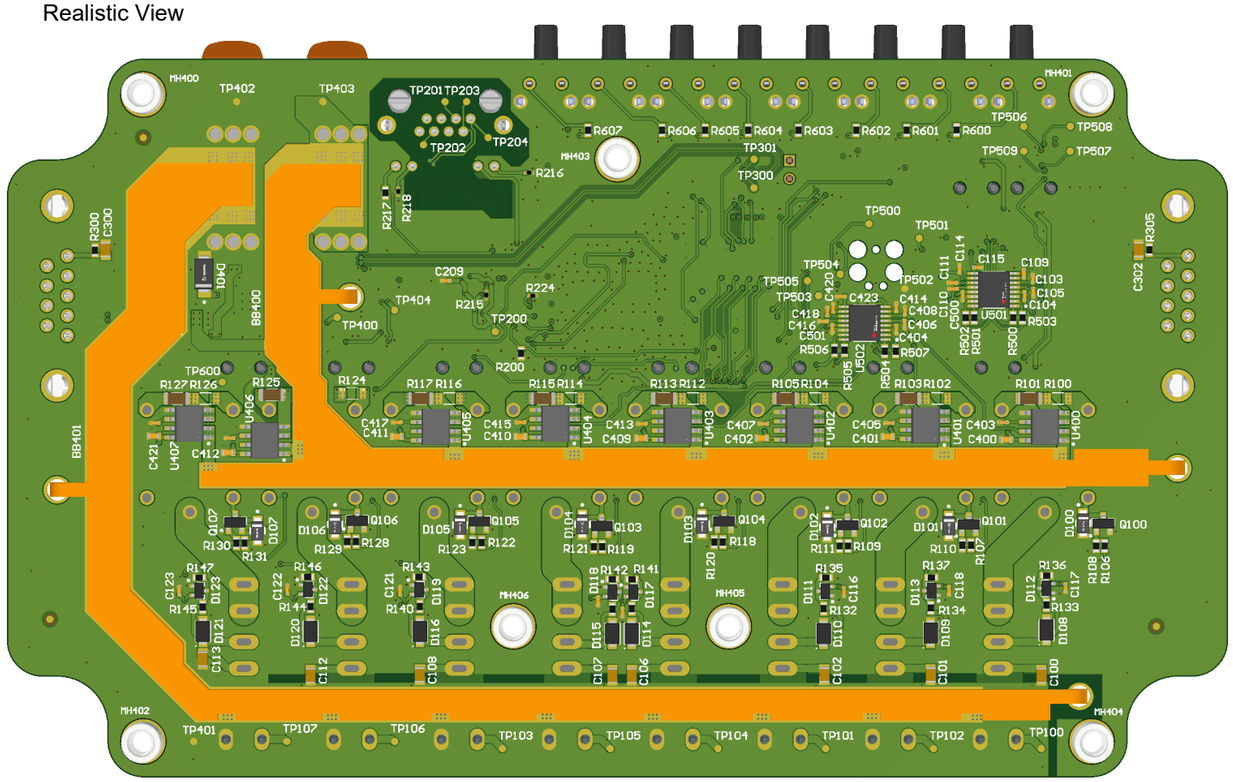
Realistic View

Realistic View



Title:	*KR-Df-01-EL-00_ASSY.PCBDwf*		Size: A3	Sheet: 4 of 5
Project:	KR-Df-01-EL-00.PrjPcb	Revision: v1	Date: 2024-10-24	
Variant:	Master	Revision R&D: IK,KK	Last modified: 19/12/2024	
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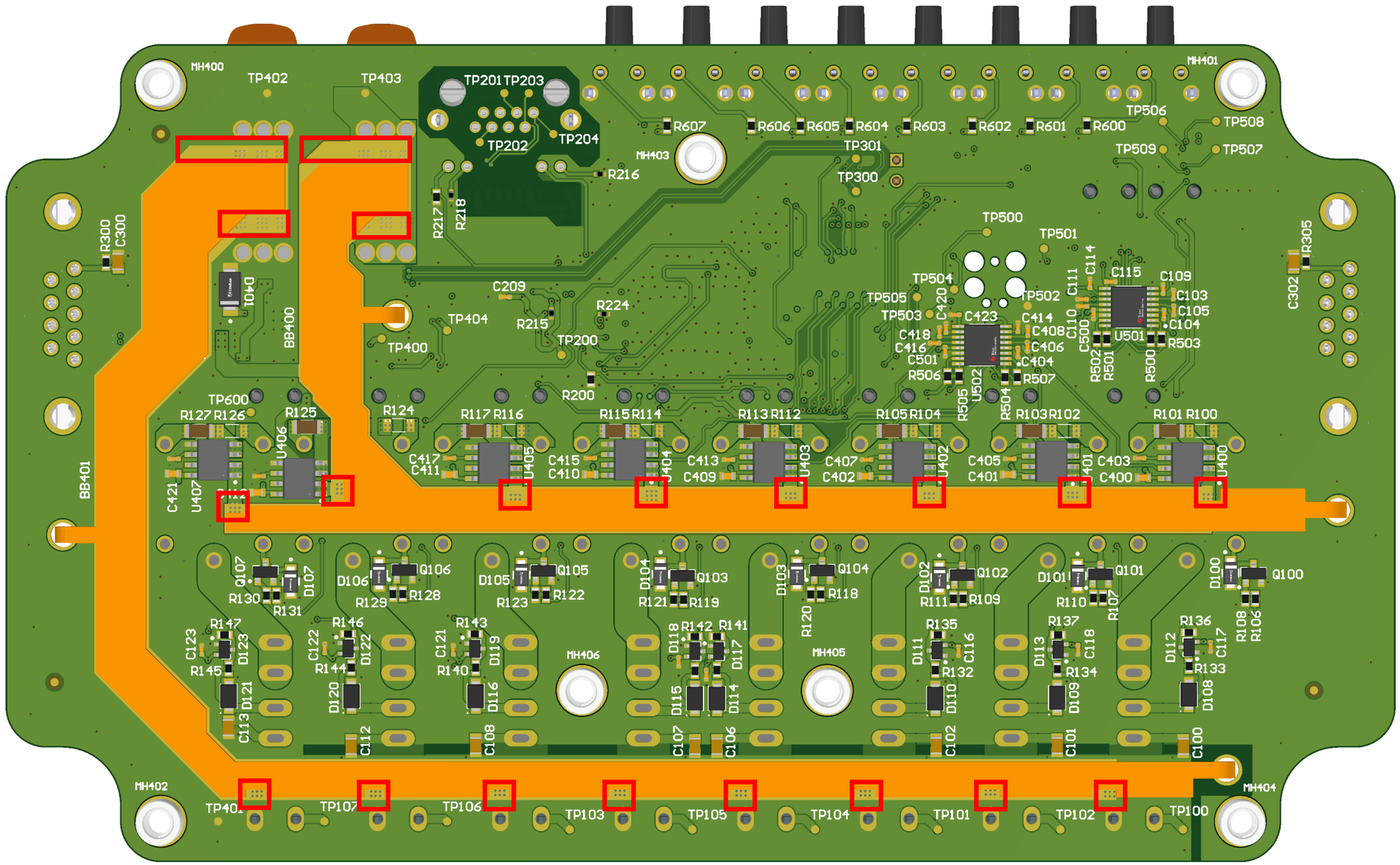
Busbar soldering points

Realistic View



Manual soldering points. Cover all uncovered PCB copper.
Solder paste may be used in the red areas in addition to manual soldering.
Clue drops can be added everywhere outside of the solder areas marked with red.

Title:	*KR-Df-01-EL-00_ASSY.PCBDwf*	Size: A3	Sheet: 5 of 5
Project:	KR-Df-01-EL-00.PrjPcb	Revision: v1	Date: 2024-10-24
Variant:	Master	Revision R&D: IK,KK	Last modified: 19/12/2024
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