

armStoneMX8MP Heatspreader MHS.AS8MP.1 & Heatsink MHS.AS8MP.2 Datasheet



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2 Change History

Version #	Changed Section	Author	Date	Change description
001		TM	29.03.2023	Initial Version

3 About this document

This document describes the individual components of article "MHS.AS8MP.1" and "MHS.AS8MP.2" on a technical and thermal level for the armStoneMX8MP.

4 Technical Specifications

4.1 Heatspreader



Figure 1: Heatspreader TOP

Heatspreader		Unit	Test Method	Remarks
Material	EN AW-6061	-		
Coating	Black anodized	-		
Thermal conductivity	170-200	W/mK		@ 20°C
Weight	33	Grams		Heatspreader only
Thermal resistance	TBD	W/mK		

4.2 Heatsink



Figure 2: Heatsink

Heatspreader		Unit	Test Method	Remarks
Material	EN AW-6061	-		
Coating	Black anodized	-		
Thermal conductivity	170-200	W/mK		@ 20°C
Weight	20	Grams		Heatsink only
Thermal resistance	TBD	W/mK		

4.3 Thermal Interface Material (TIM) Heatspreader



Figure 3: Thermal Interface Pad Heatspreader

Thermal Interface Material (TIM)		Unit	Test Method	Remarks
Color	Gray	-	Visual	
Thermal conductivity	12	W/mK	ASTM D5470	
Dielectric Breakdown Voltage	>9,0	kV/mm	ASTM D 149	
Volume Resistivity	1,0x10 ¹³	Ohm-cm	ASTM D 257	
Density	3,3	g / cm ³	ASTM D 792	
Tensile strength	<13,8	PSI	ASTM D 412	
Continuous Use Temperature	-60 – 200	°C	-	
Hardness Bulk Rubber	45-70	Shore 00	ASTM D 2240	
Flame Rating	UL 94V-0	-	UL 94	

4.4 Thermal Interface Material (TIM) Heatsink



Figure 4: Thermal Interface Pad Heatsink

Thermal Interface Material (TIM)		Unit	Test Method	Remarks
Color	Light Pink	-	Visual	
Thermal conductivity	8	W/mK	ASTM D5470	
Dielectric Breakdown Voltage	>9,0	kV/mm	ASTM D 149	
Volume Resistivity	1,5x10 ¹¹	Ohm-cm	ASTM D 257	
Density	3,2	g / cm ³	ASTM D 792	
Tensile strength	<15	PSI	ASTM D 412	
Continuous Use Temperature	-60 – 200	°C	-	
Hardness Bulk Rubber	15-70	Shore 00	ASTM D 2240	
Flame Rating	UL 94V-0	-	UL 94	

5 Mechanical Dimensions

5.1 Mechanical Dimensions of Heatspreader

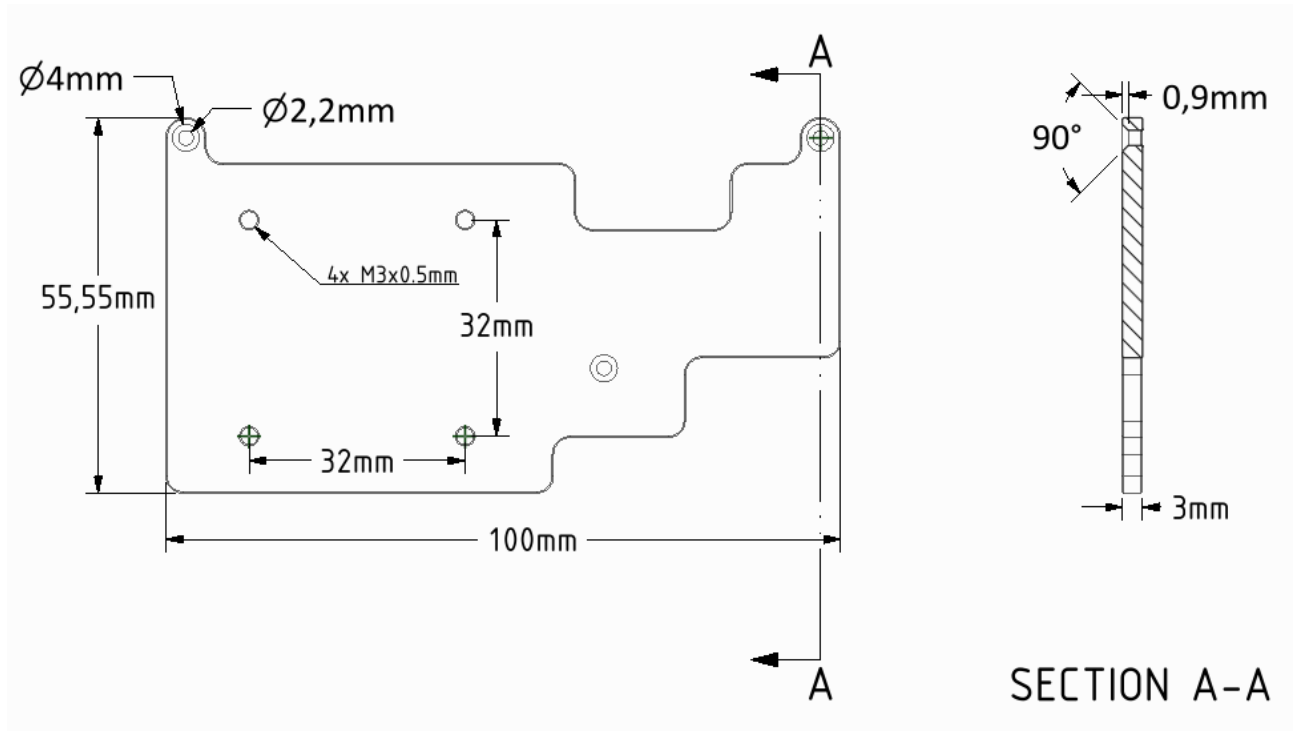


Figure 5: Mechanical dimensions of heatspreader

5.2 Mechanical Dimensions of Heatsink

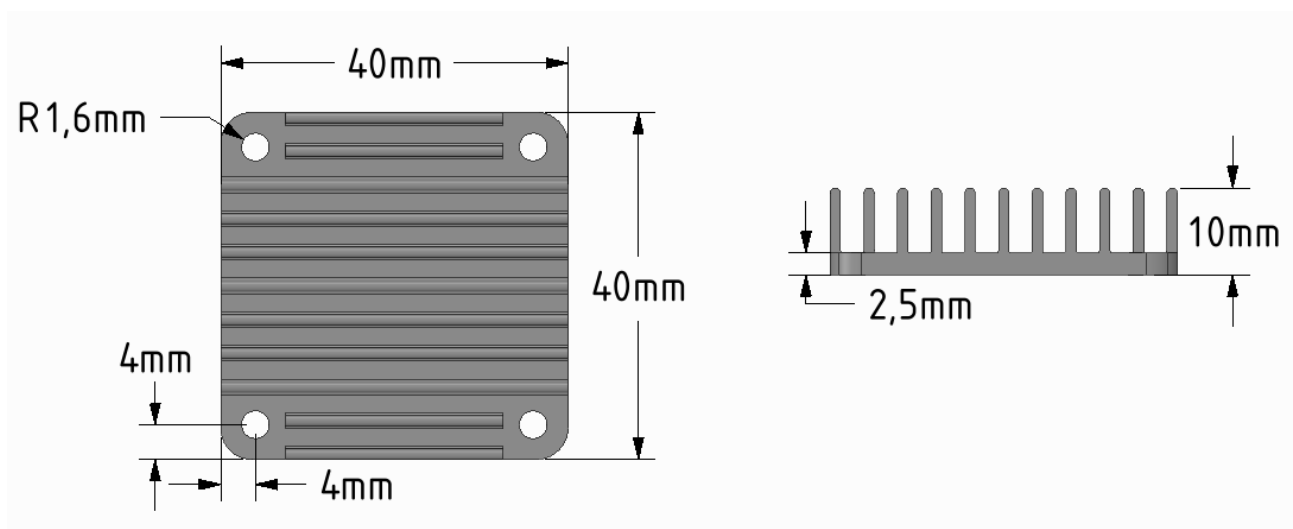


Figure 6: Mechanical dimensions of heatsink

5.3 Mechanical Dimensions of TIM (Heatspreader)

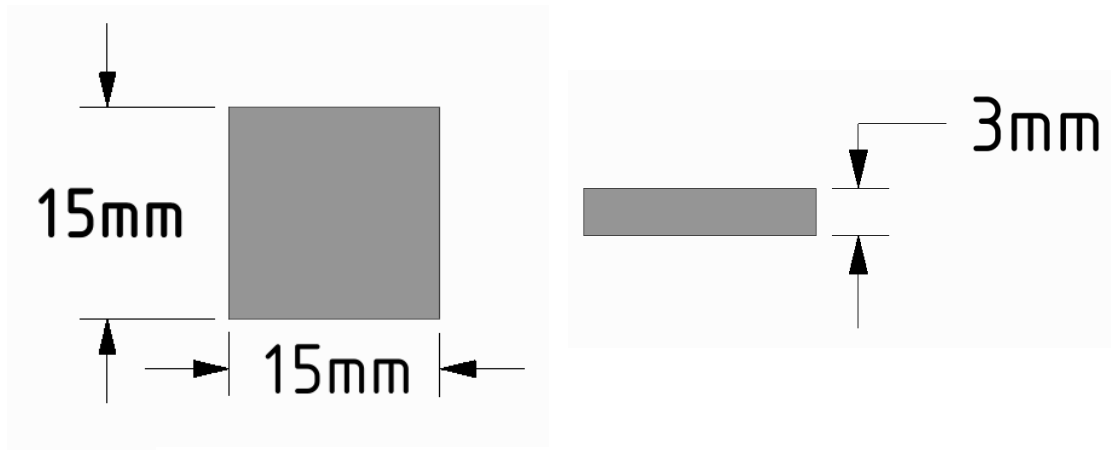


Figure 7: Mechanical dimensions TIM heatspreader

5.4 Mechanical Dimensions of TIM (Heatsink)

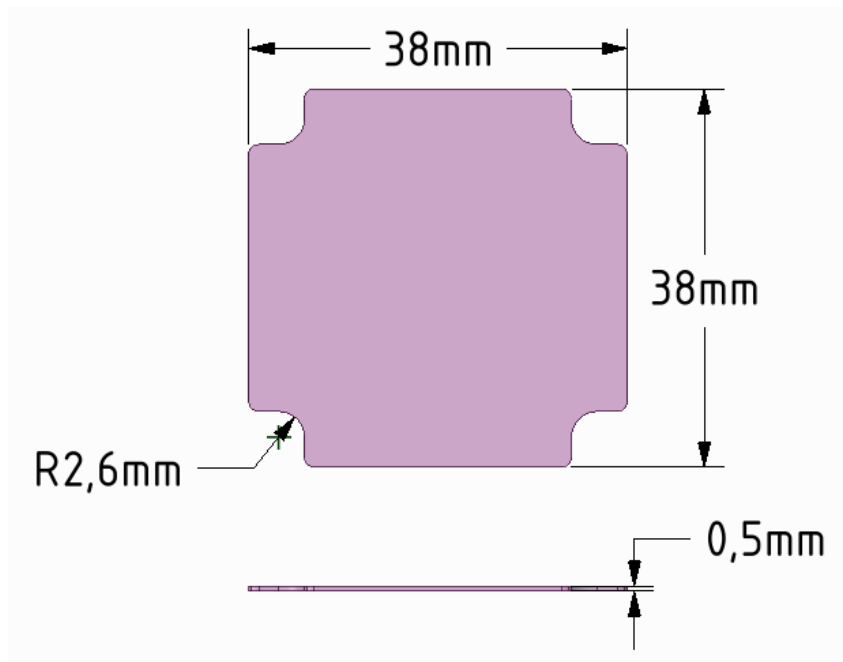


Figure 8: Mechanical dimensions TIM heatsink

6 Scope of delivery

MHS.AS8MP.1:

Article	Quantity
Heatspreader	1
TIM 15x15x3mm	1
4mm Standoffs M2/M3	2
M2x5mm countersunk screws DIN 965	3

MHS.AS8MP.2:

Article	Quantity
Heatsink	1
TIM 38x38x0.5mm	1
M3x5mm screws DIN 7985 A2	4
Heatspreader	1
TIM 15x15x3mm	1
4mm Standoffs M2/M3	2
M2x5mm countersunk screws DIN 965	3

7 Appendix

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