

MechaTronix in LED

XSA-96 Pin Fin Heat Sink ø 111mm for Xicato



Features & Benefits

- Designed for Xicato XSM LED spot modules
- Xicato thermal class Q (60° tilt angle, 40°C ambient)
- Thermal resistance Rth 1.07°C/W
- Forged from highly conductive aluminum AL-1070
- Diameter 111mm - height 80mm- weight 567.2g
- Standard colors - clear anodised - black anodised
- Other colors and finishings on request
(all RAL/Pantone colors available)



Order Information



Example : XSA-96-M3-B

XSA-96 - **1** - **2** - **3**

- 1** XSM Mounting
"M3" - M3 screw threads
- 2** Finishing
"B" - Black Anodised
"C" - Clear Anodised
"Z" - Custom (specify)
- 3** Mounting Options - see graphics for details
Combinations available
Ex. order code - 13
means option 1 and 3 combined

| MOUNTING OPTION | THREAD | THREAD DEPTH |
|-----------------|-------------|--------------|
| NONE/BLANC | NONE | NONE |
| 1 | M14x1.5 | 10mm MIN. |
| 2 | #9/16-12UNC | 0.394" MIN. |
| 3 | M111 x 2 | Base contour |

MechaTronix in LED

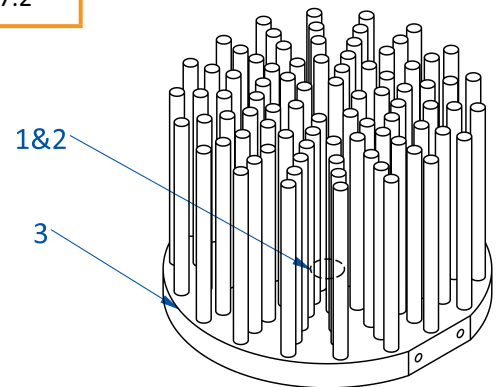
XSA-96 Pin Fin Heat Sink \varnothing 111mm for Xicato



Product Details

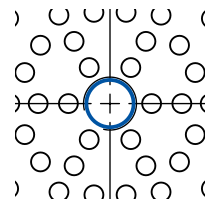
| | Total Height ^{mm} | Rth(°C/W) | Volume ^{mm³} | Cooling Surface ^{mm²} | Weight ^{gr} |
|--------|----------------------------|-----------|----------------------------------|---|----------------------|
| XSA-96 | 80 | 1.07 | 210075.17 | 115637.47 | 567.2 |

Mounting Options



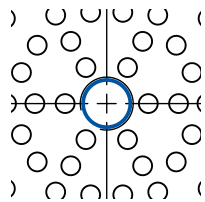
Notes:

1. MechaTronix reserves the right to change products or specifications without prior notice.
2. Mentioned models are an extraction of the full product range. For specific mechanical adaptations please contact MechaTronix.
3. All these types are made by forging process from highly conductive aluminum type AL1070 with a typical Thermal Conductivity of 209W/m-K.



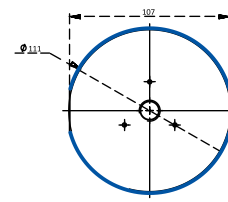
1 Mechanical version
Center hole tapping

M14x1.5
Through out 10mm base



2 Mechanical version
Center hole tapping

#9/16-12UNC
Through out 10mm base

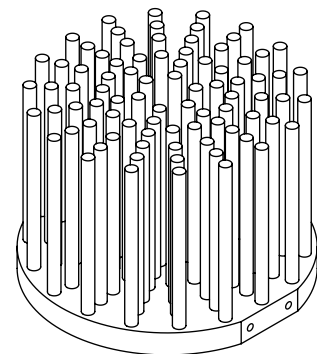
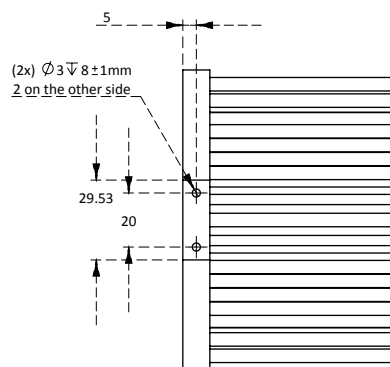
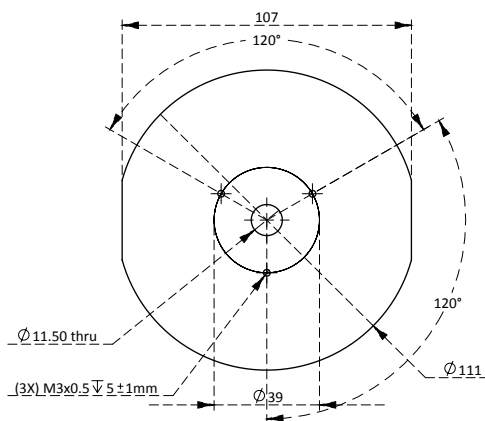


3 Mechanical version
M11x2

Screw thread around
base contour

Drawings & Dimensions

Example: XSA-96-M3



MechaTronix in LED

XSA-96 Pin Fin Heat Sink ϕ 111mm for Xicato



Thermal Data

Heat sink base to ambient thermal resistance, R_{hs-amb} [K/W]

Power (W)

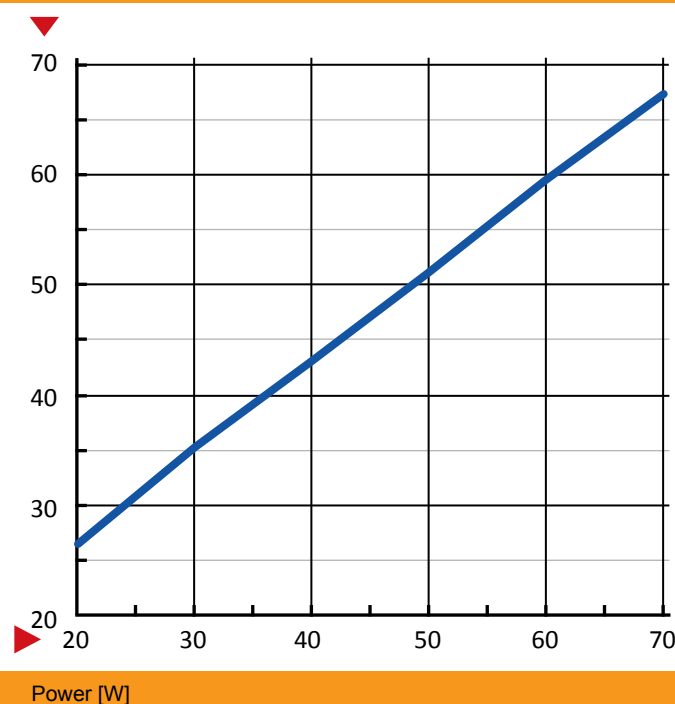
LPF11180-ZHE

| | |
|----|------|
| 20 | 1.25 |
| 30 | 1.18 |
| 40 | 1.12 |
| 50 | 1.06 |
| 60 | 1.00 |
| 70 | 0.94 |

$R_{th Av}$

Heat sink to ambient
temperature difference [$^{\circ}$ C]

XSA-96-M3



Spreading resistance, R_{sp} [K/W]

Base thickness

$t=2mm$

$t=3mm$

$t=5mm$

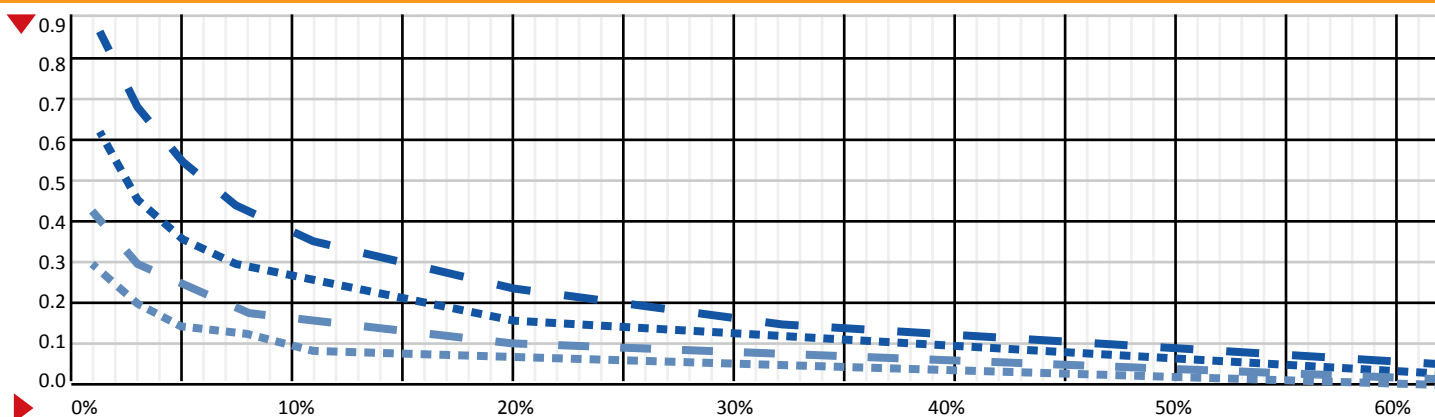
$t=10mm$

| | | | | | |
|---|-----|------|------|------|------|
| Ratio of light engine (LE) area over heat sink base area, ALE/Ahs [%] | 1% | 0.87 | 0.61 | 0.41 | 0.30 |
| | 3% | 0.68 | 0.47 | 0.30 | 0.20 |
| | 5% | 0.54 | 0.37 | 0.24 | 0.15 |
| | 8% | 0.44 | 0.30 | 0.19 | 0.12 |
| | 11% | 0.36 | 0.24 | 0.15 | 0.09 |
| | 20% | 0.24 | 0.17 | 0.10 | 0.06 |
| | 32% | 0.16 | 0.11 | 0.07 | 0.04 |
| | 62% | 0.06 | 0.04 | 0.03 | 0.01 |

Heat sink base spreading resistance, R_{sp} [K/W], based on base thickness, t

Spreading resistance,
 R_{sp} [K/W]

$t=2mm$ $t=3mm$
 $t=5mm$ $t=10mm$



Ratio of light engine (LE) area over heat sink base area, ALE/Ahs [%]