



### FAN HEAT SINK COMBOS

Aavid BGA fan heat sink combinations are optimized, easy to use full thermal solutions for BGA and FPGA applications. These standard, off the shelf components are available with a variety of footprints, fans, interface materials and attachment methods. For additional footprints and custom options visit [aavid.com](http://aavid.com).

### OPTIONS

**Attachment:** *Spring Anchor (Z-clip), Tape Attach*

**Thermal Interface Materials:** *Chomerics T-405R Tape, Chomerics T-411 Tape, Chomerics Thermflow T66*

**Fans:** *High and Medium performance in 5V and 12V (see below for details)*



### BENEFITS

- Decreased Assembly Time
- Improved Thermal Performance
- Variety of Mounting Types to fit your PCB

### BGA FHS4010- COMBINATION PART NUMBERS & OPTIONS

Medium 5V					Medium 12V				
Part Number	Adhesive Tape 405R	Adhesive Tape 411	Spring Anchor	Thermflow	Part Number	Adhesive Tape 405R	Adhesive Tape 411	Spring Anchor	Thermflow
3749320-PAM04010-P0	●				3749320-PAM14010-P0	●			
3749350-PAM04010-P0		●			3749350-PAM14010-P0		●		
3749241-PAM04010-P0			●	●	3749241-PAM14010-P0			●	●
High 5V					High 12V				
Part Number	Adhesive Tape 405R	Adhesive Tape 411	Spring Anchor	Thermflow	Part Number	Adhesive Tape 405R	Adhesive Tape 411	Spring Anchor	Thermflow
3749320-PSH04010-P0	●				3749320-PAH14010-P0	●			
3749350-PSH04010-P0		●			3749350-PAH14010-P0		●		
3749241-PSH04010-P0			●	●	3749241-PAH14010-P0			●	●



BGA HEAT SINK DETAILS

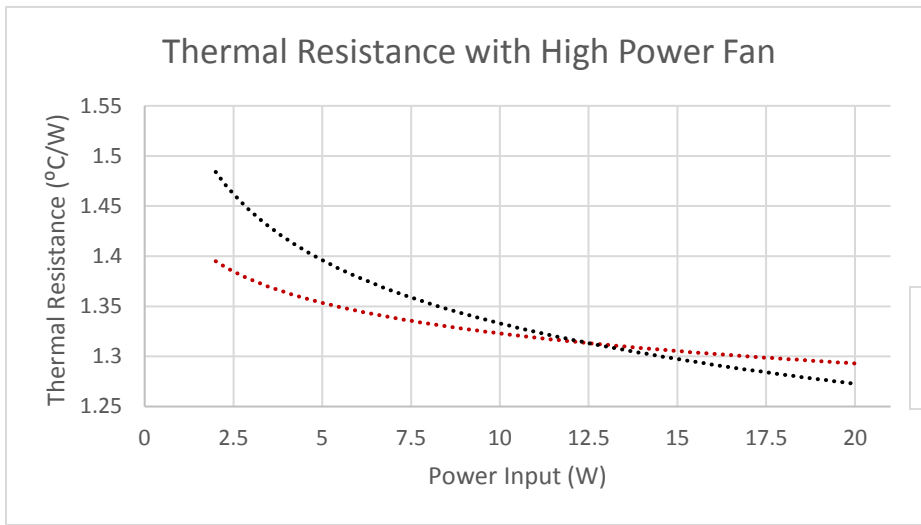
Property	Details	Property	Measurements
Base Part Number (Heat Sink Only)	374924B00000G	Heat Sink Width (mm)	40
Fin Type	Pin Fin	Heat Sink Length (mm)	40
Material	Aluminum 6063	Base Thickness (mm)	1.5
Finish	Black Anodize	Total Heat Sink Height (mm)	10
Attachment Options	Chomerics T-405R Tape, Chomerics T-411 Tape, or Spring Anchor		
Thermal Interface Material (if not tape attach)	Chomerics Thermflow T66		

FAN DETAILS

Property	Fan 1	Fan 2	Fan 3	Fan 4
Part Number (Fan Only)	PSAD04010BH P000	PAAD04010BM P000	PAAD14010BH P000	PAAD14010BM P000
Fan Type	Axial	Axial	Axial	Axial
Bearing Type	Ball	Ball	Ball	Ball
Material	Black ABS	Black ABS	Black ABS	Black ABS
Fan Width (mm)	40	40	40	40
Fan Length (mm)	40	40	40	40
Fan Depth (mm)	10	10	10	10
Nominal Wire Length (mm)	160	160	160	160
Rated Voltage DC	5V	5V	12V	12V
Operating Voltage DC	4~5.75	4~5.75	6~13	6~13.8
Rated Current (Amp)	0.24	0.19	0.18	0.16
Input Current (Amp)	0.16	0.16	0.12	0.1
Input Power (Watts)	0.8	0.8	1.44	1.2
Rated Speed (RPM)	8300	6600	7700	6600
Air Flow (CMM)	0.28	0.23	0.26	0.23
Air Flow (CFM)	10	7.97	9.22	7.97
Air Pressure (mmH2O)	7.24	4.41	5.88	4.41
Air Pressure (InH2O)	0.29	0.17	0.23	0.17
Noise (dBA)	35.5	29.5	34	29.5
Max Noise (dBA)	37.1	32.3	36.16	32.3
MTFB (hrs. @ 45 °C)	70 000	70 000	70 000	70 000



## PERFORMANCE

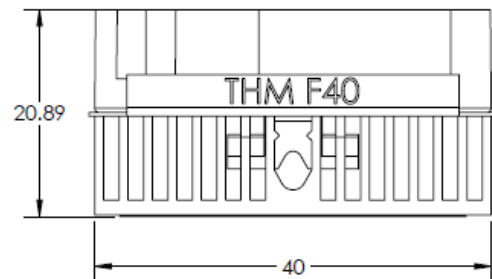
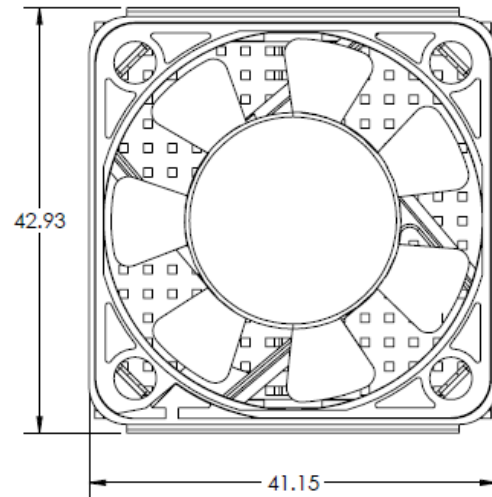
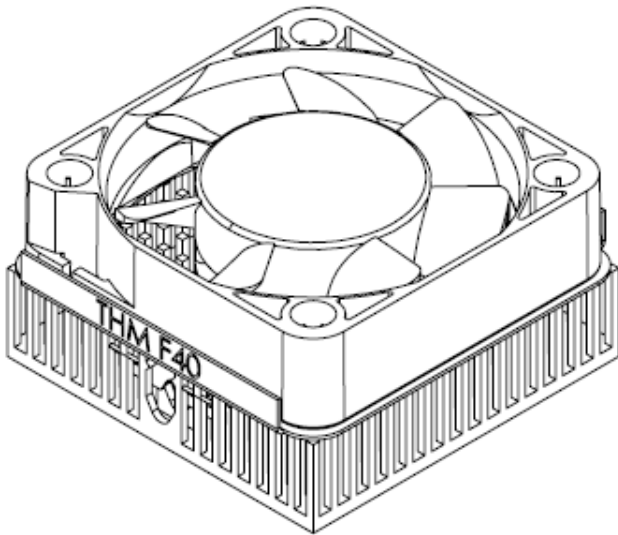


Average Thermal Resistance:

$$\theta_{TH} = 1.33$$

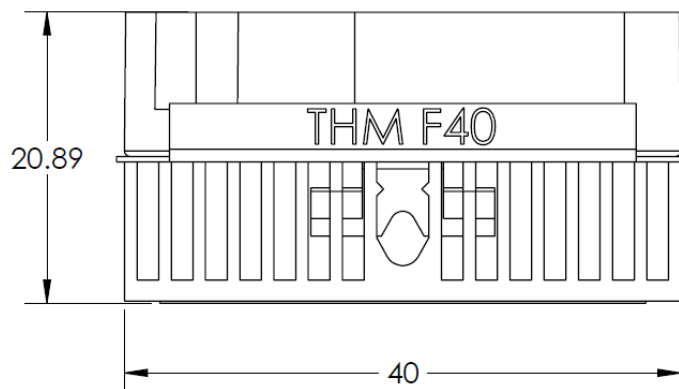
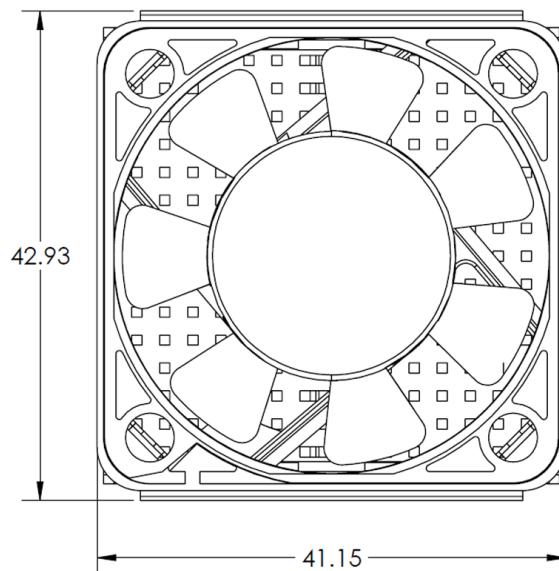
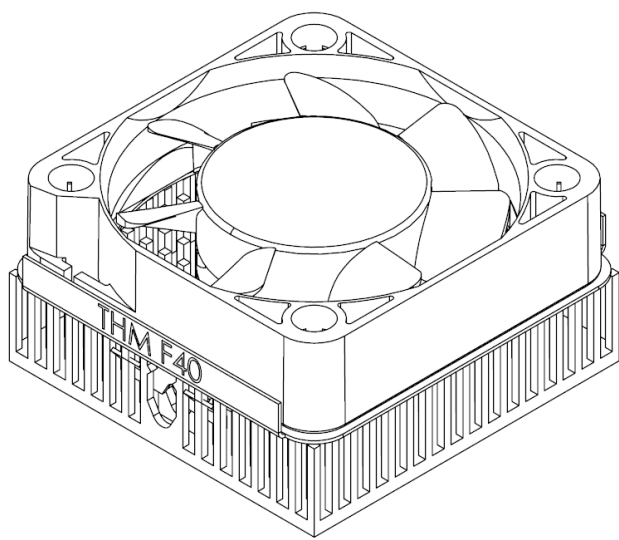
--- 5V  
 --- 12V

## MECHANICAL – SOLDER ANCHOR





## MECHANICAL – TAPE



Aavid reserves the right to make changes to the products or information contained herein without notice. For additional information, please contact Aavid directly.