



APPROVAL SHEET

MODEL NO.: SP517-1U

FAN MODEL NO.: FD07015C1H3-Blower

Article No.	: 200601017	Audited by Shine
Issue Date	: Jan 23, 2006	
Version	: 2	

Checked by Jake	Drafted by Ryan
------------------------	------------------------

Spire Corp.

Tel.: +86-775-8212-4815/82127449 Fax: +86-775-8212-4814

[Http:// www. Spirecoolers.com](http://www.Spirecoolers.com)



Spire Corp.

CONTENTS

1. COMPONENT LIST.....	03
2. DESCRIPTION AND COMPONENT PHOTO.....	04
3. ASSEMBLY DRAWING.....	05
3.1 HEAT SINK.....	06
3.2 ALUMINUM COVER.....	07
3.2 CLIP.....	08
3.3 FAN.....	09
3.5 BACKPLATE.....	10
4. INSTALLATION GUIDE.....	11
5. CHARACTERISTIC CURVES.....	12
6. FAN SPECIFICATIONS.....	13



Spire Corp.

1. COMPONENT LIST

Item	Part Name	Part No.	Quantity	Material	Description
1	HEAT SINK	0604574-1A	1	METAL	CU
2	ALUMINUM COVER	0604575-31	1	METAL	AL
3	CLIP	0608009+0607181-2	4	METAL	Fe
4	FAN	FD07015C1H3-Blower	1	PLASTIC	PC
5	BACKPLATE	0306168	1	PLASTIC	PC



Spire Corp.

2. DESCRIPTION AND PRODUCT PHOTO



Picture 1 : Top view



Picture 2 : Side view



Picture 3 : Outline

(1) Description

This thermal solution is intended for use on Intel Prescott (LG775) processors.

This document is a specification for defining this thermal solution.



Spire Corp.

3. ASSEMBLY DRAWING

MATERIALS

3.1 HEAT SINK: 0604574-1A

3.2 ALUMINUM COVER: 0604575-31

3.3 CLIP: 0608009+0607181-2

3.4 FAN: FD07015C1H3-Blower

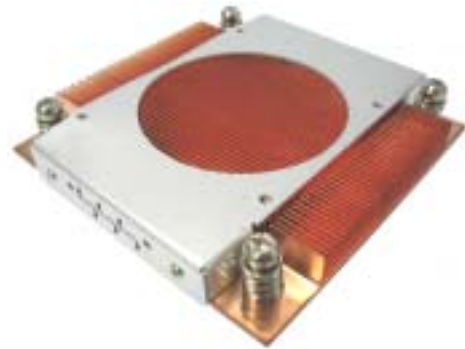
3.5 BACKPLATE: 0306168

SCREW: 18*2.7-4 (DRAWING OMIT)



Electrical Performance

- OPERATING VOLTAGE RANGE = 10.2-13.8VDC
- RATED SPEED = 4200RPM $\pm$ 10%
- RATED POWER = 3.6W



Mechanical Characteristics

- NOISE LEVEL = 31.8dB(A)
- OPERATION TEMPERATURE = -10~70 Deg. C
- COOLER WEIGHT = 456.0g



[illegible]

[illegible]



Technical drawing of a mechanical part, likely a clip, showing front, top, and side views with dimensions.

Front View (Top): Shows a cylindrical body with a total length of 27.5. The main body has a diameter of $\phi 7.0$ and a length of 15.5. A smaller section at the end has a diameter of $\phi 3.5$ and a length of 1.2. The base has a diameter of $\phi 7.0$ and a length of 4.0. A fillet radius of R1.0 is indicated at the base. The top section has a diameter of $\phi 3.5$ and a length of 1.5. A small hole at the very end has a diameter of $\phi 3.0$ and a depth of 3.5.

Top View (Bottom): Shows a circular cross-section with an outer diameter of $\phi 15.5$ and an inner diameter of $\phi 8.5$.

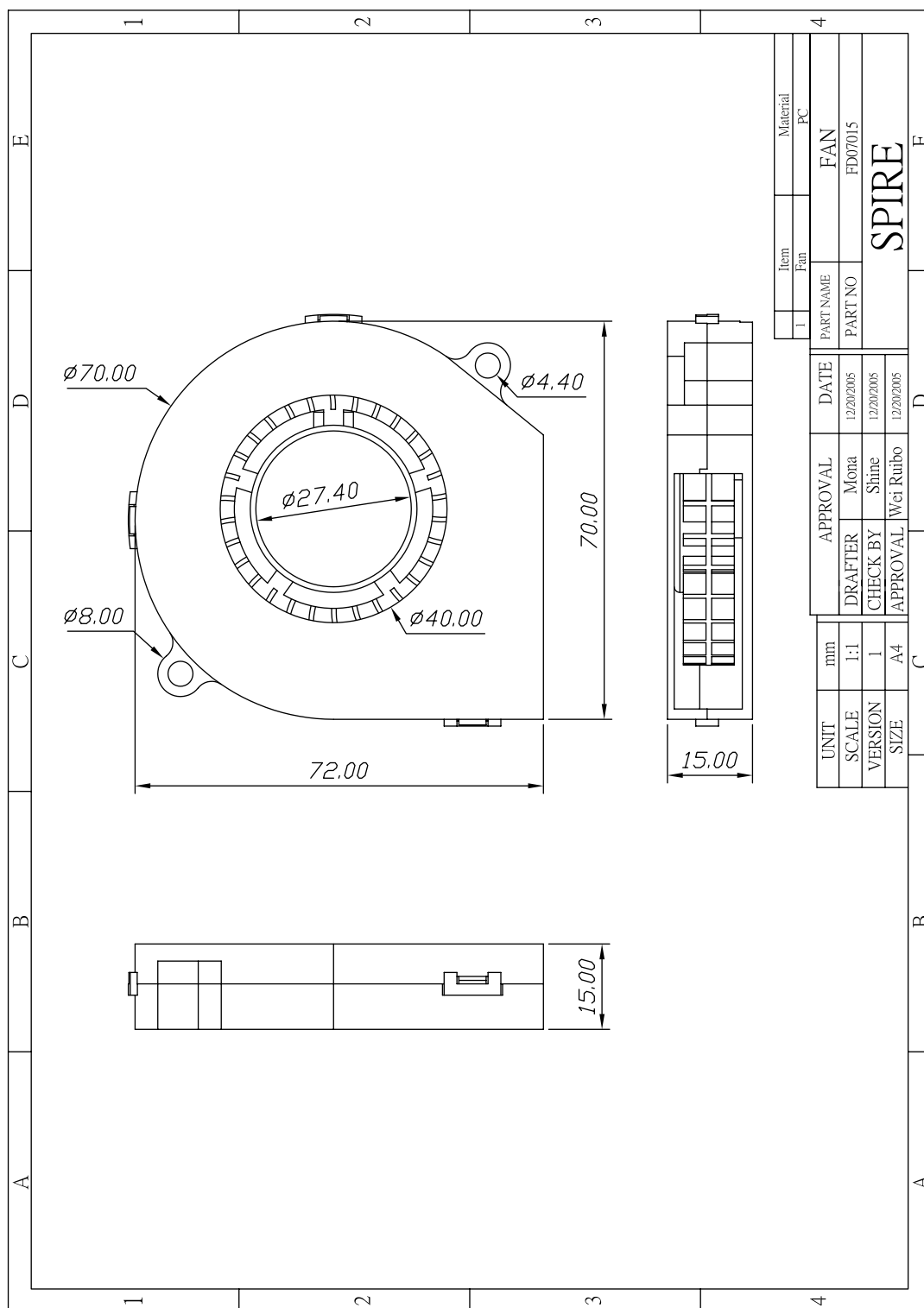
Side View (Right): Shows a cross-section of the body with a total width of 10.0. The body has a thickness of 3.2. The inner diameter is $\phi 1.5$.

Detail View (Bottom Right): A circular detail view showing a cross-section of the base with a diameter of $\phi 7.0$ and a thickness of 1.0. A fillet radius of R0.2 is indicated.



Spire Corp.

3.4 FD07015C1H3-Blower





Technical drawing of a SPIRE BLACKPLATE, showing top, side, and detail views with dimensions and a title block.

Top View: Dimensions include $\phi 50.0$, $\phi 25.4$, $\phi 27.3$, $\phi 42.0$, $\phi 54.0$, $\phi 72.0$, $\phi 10.0$, and $\phi 12.0$. Section lines A-A and B-B are indicated.

Side View: Dimensions include $\phi 3.7$, $\phi 2.8$, and $\phi 5.0$.

Detail B: Dimensions include $\phi 2.0$, $\phi 3.8 \pm 0.05$, and $\phi 191.3 \pm 0.15$.

Section A-A: Shows the cross-section of the plate.

Section B-B: Shows the cross-section of the plate.

Title Block:

Item	Item	Material
1	BLACKPLATE	PC

UNIT	mm
SCALE	1:1
VERSION	1
SIZE	A4

APPROVAL	DATE
DRAFTER	01/20/2006
CHECK BY	01/20/2006
APPROVAL	01/20/2006

DETAIL B
SCALE 2:1

SECTION A-A

SECTION B-B

SPIRE

BLACKPLATE

PART NAME

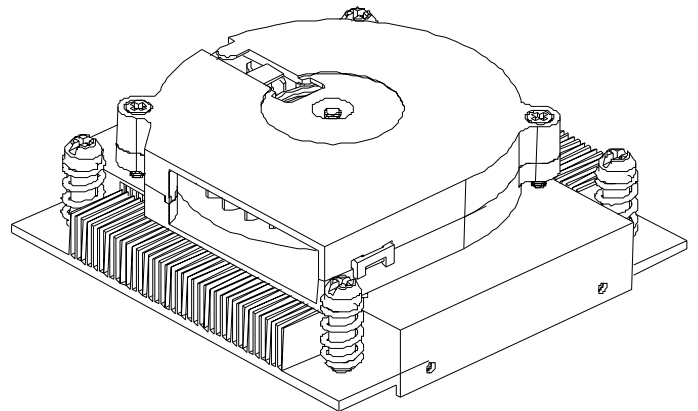
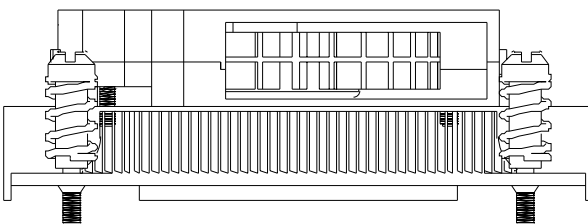
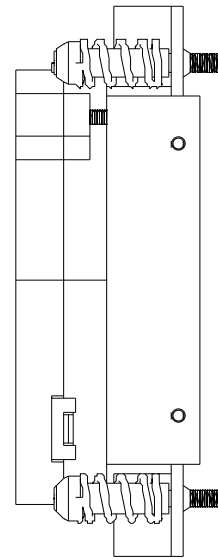
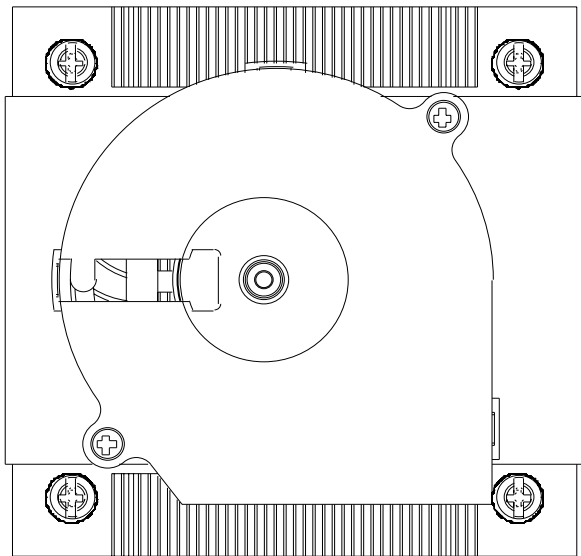
PART NO

0306168



Spire Corp.

4. INSTALLATION GUIDE





The graph shows the relationship between Air Flow (CFM) and Pressure (mm-Aq) for a 4200 CFM fan. The x-axis represents Air Flow (CFM) from 0 to 40, with major ticks every 8 units. The y-axis represents Pressure (mm-Aq) from 0 to 0.188, with major ticks every 0.039 units. A curve is plotted, starting at approximately 0.14 mm-Aq at 0 CFM and decreasing to 0 mm-Aq at 32 CFM. A point on the curve is labeled '4200'.

Air Flow (CFM)	Pressure (mm-Aq)
0	0.14
8	0.11
16	0.07
24	0.04
32	0.00



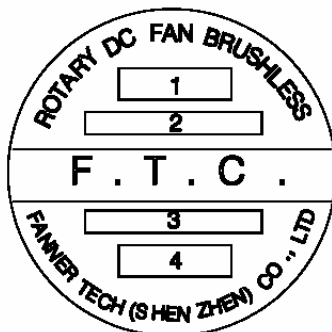
Spire Corp.

6. FAN SPECIFICATIONS

FAN MODEL: FD07015C1H3-Blower

1. Rated Voltage	: 12VDC
2. Operating Voltage Range	: 10.2 ~13.8VDC
3. Rated Speed	: 4200RPM $\pm$ 10 %
4. Static Pressure	: 3.58 mm-H ₂ O
5. Air Flow	: 33.8CFM
6. Rated Current	: 0.3 AMP
7. Rated Power	: 3.6 WATTS
8. Noise Level	: 31.8 dB(A)
9. Operating Temperature	: -10 to 70 Deg. C
10. Storage Temperature	: -40 to 70 Deg. C
11. Bearing System	: Dual Ball Bearing
12. Connector	: 3 pin
13. Weight	: 65.0 g

Label marking



1	Safety Approval
2	Model NO.
3	Bearing
4	Rated Voltage,Current