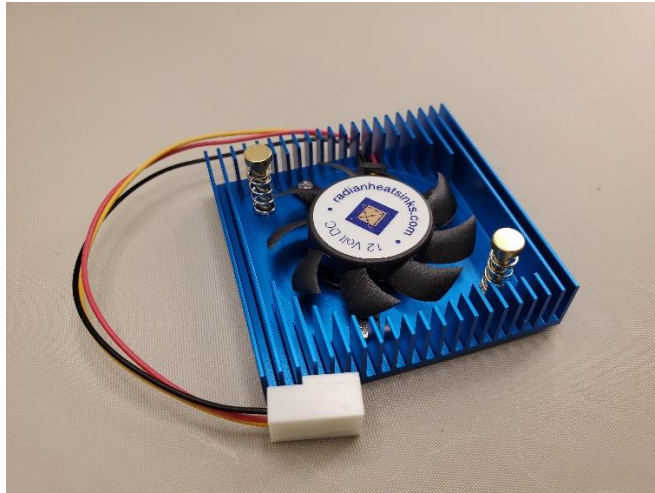




radian

Sub-Zero PCIe Fansink – SZ12S

Radian Thermal Products has been committed to helping our customers with full-service mechanical and thermal solutions since 1974. Radian offers a range of standard PCIe active and passive cooling solutions as well as custom designs to meet customer requirements.



Description:

- Sub-Zero PCIe Fansink, 50 x 50 x 10.5mm, 12V

Buy Online at:

Radianheatsinks.com

PART	SZ12S
MOUNTING	Push Pin
MATERIAL	Aluminum
LENGTH (mm)	50.0
WIDTH (mm)	50.0
HEIGHT (mm)	10.5
VOLTAGE (V DC)	12.0

Model Numbering System

Part numbers can be customized as follows:

SZ12S

+B

+P1814

Series Code

Mounting

- +B: Brass Push Pin
- +P: Plastic Push Pin
- +0: No Push Pins*

Thermal Interface

- +P1814: Laird T-Mate 2905c Phase Change pad
- +P1828: 3M8815 Adhesive Pad

***Must be combined with 3M8815 Adhesive Pad.**

Fansink Specifications

Thermal Data

Θ_{SA}^1 (°C/W)	2.2
TIM Options	3M 8815 Adhesive Pad
	LAIRD T-MATE 2905c
	Contact Radian for other options

Mechanical Data

Assembly Dimensions	See Figure 1
Heatsink Material	Aluminum
Surface Finish	Radian Blue Anodized
Force per Push Pin (lb _f)	Brass: 1.14 ±15% Maximum
	Plastic: 1.68 ±15% Maximum
Push Pin Effective Length (mm) (See Figure 2)	Brass: 13.72 ±0.127
	Plastic: 12.29 ±0.127
Push Pin Extension Length under PCB (mm) (See Figure 2)	Brass: 2.16 ±0.127
	Plastic: 3.2 ±0.127
Recommended PCB Hole Diameter for Push Pin (mm)	Brass: 3.0
	Plastic: 3.2
Connector	Molex 22-01-3037
Connector Receptacle	Mates KK 254 PCB Headers
Mass (g)	23
Noise (dB (A))	34 (Max 37)

Electrical Data

Operating Voltage (V _{DC})	12
	13.8 Max
Connector Pins	08-50-0114 OR EQUIVALENT
Starting Voltage (VDC)	9 (ON/OFF)
Input Current (A)	0.1 (Max 0.12)
Wire Description	See Figure 1
Signal Circuit	See Figure 3
Fan Speed (RPM)	7,500 ±15%

Environmental Data

Operating Temperature (°C)	-10 to +70
Storage Temperature (°C)	-40 to +75
Operating Humidity (%RH)	35 to 85
Storage Humidity (%RH)	35 to 85
Average Life Expectancy	70,000 hours operation at rated voltage in 40°C with 15~65%RH

¹ Typical value, actual performance may vary depending on application environment.

Fansink Assembly Drawings

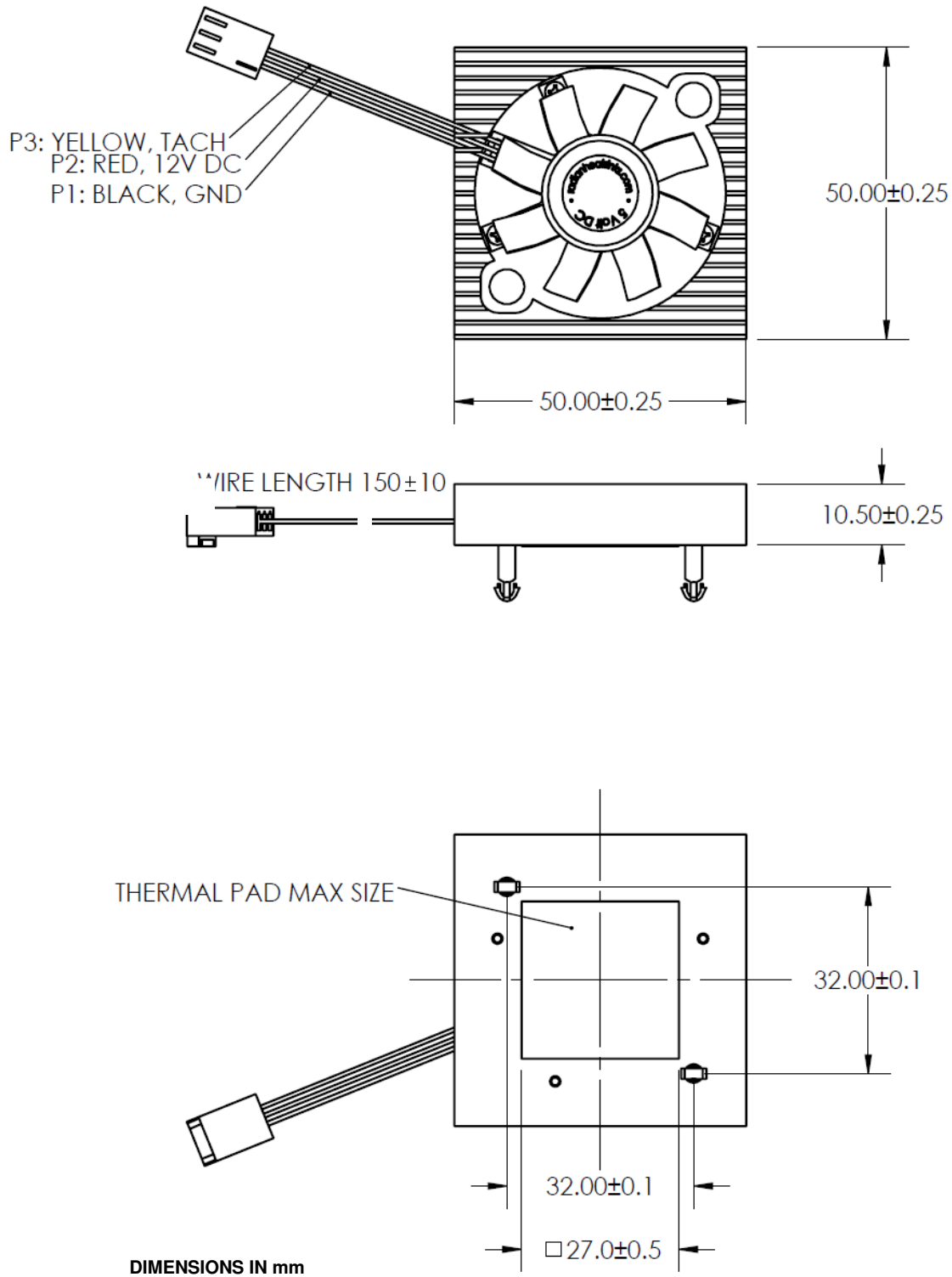


Figure 1: SZ12S Mechanical Drawings

Push Pin Illustration

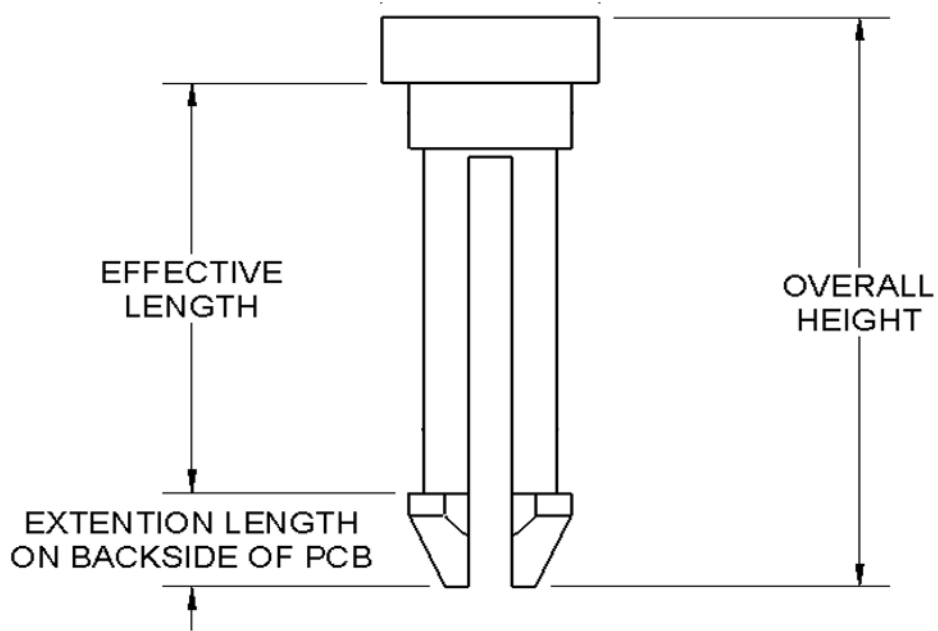
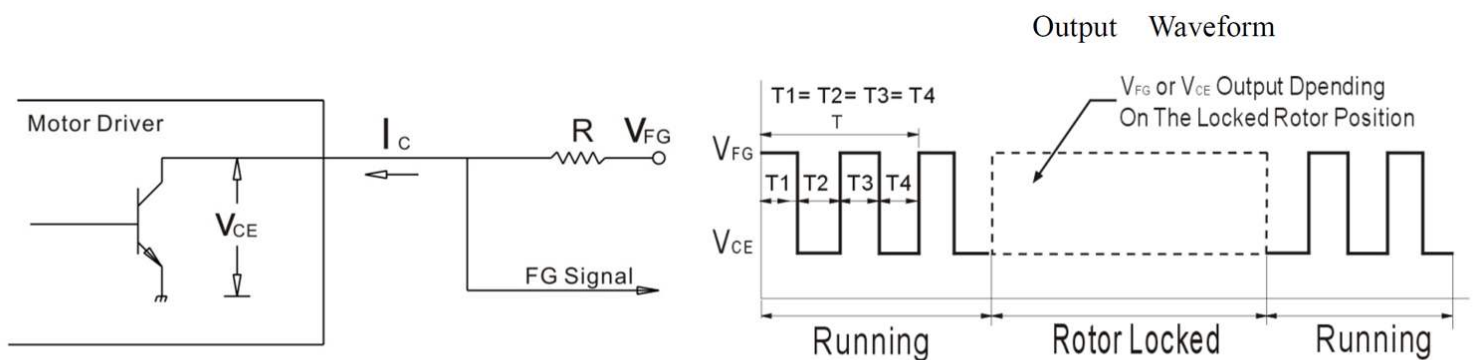


Figure 2: Push Pin Illustration

Fan Circuit Schematic



Output Type : Open Collect

$V_{CE(sat)}=0.5V(\text{Max.})$

$I_C=5mA(\text{Max.})$

$V_{FG}=\text{Maximum operation voltage}$

$R \geq V_{FG} / I_C$

$N=R.P.M ; T= 60/N (\text{Sec.}) ; FG=1/T*2 (\text{Hz}) ; N=FG*30$

Figure 3: SZ12S Signal Circuit Schematic