

# Thermal Resistance Test Report

Date: 2020/07/07

Engineer: Steven

## Test Condition

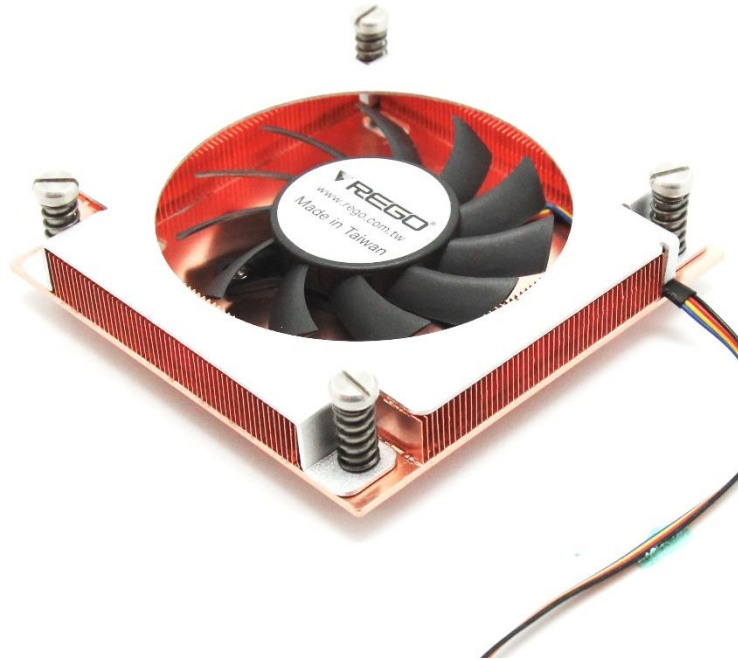
| Heat Flux    | Pressure       | Test Duration | Ambient Temp | Convection         |
|--------------|----------------|---------------|--------------|--------------------|
| 45/ 54 Watts | 28lbf /12.7kgf | 120minutes    | 60°C         | Natural Convection |

## Test Data

| Sample | Tc (°C) | Ta (°C) | Fan Speed (RPM) | F (kgf) | Q (W) | R (°C/W) |
|--------|---------|---------|-----------------|---------|-------|----------|
| 1      | 88.93   | 59.50   | 4475            | 7.69    | 45    | 0.65     |
| 2      | 94.45   | 59.30   | 4450            | 7.78    | 53.98 | 0.65     |

## Test Result

| Q (W) | Tc (°C) | R (°C/W) |
|-------|---------|----------|
| 45    | 88.93   | 0.65     |
| 54    | 94.45   | 0.65     |



Part Number:

**RG3118**

Description:

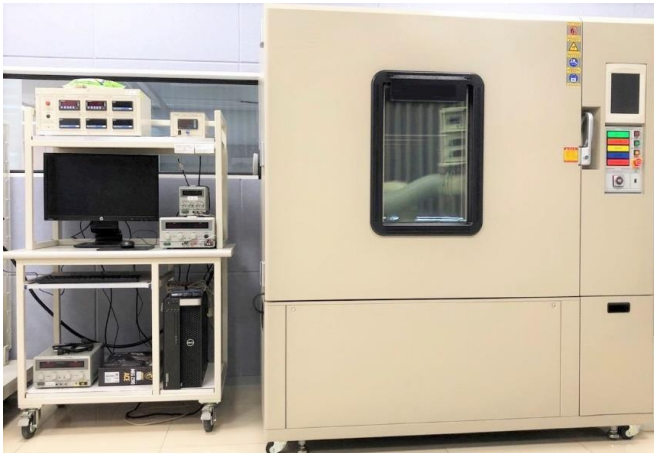
**1U CPU COOLER FOR MOBILE**

**BGA PACKAGE PROCESSORS**

# Thermal Resistance Test Report



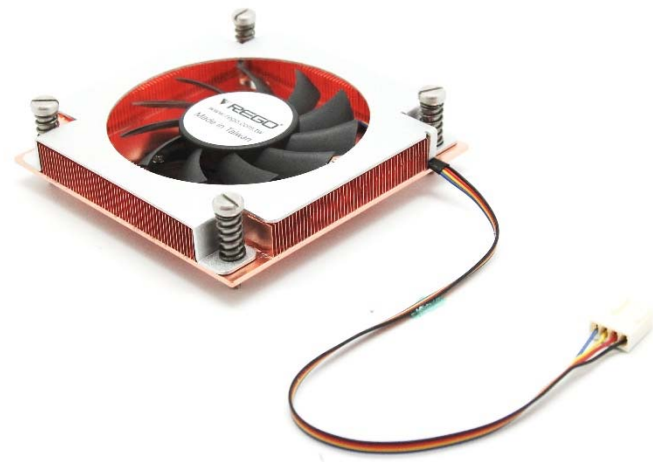
## NATURAL CONVECTION



## CIRCULATING CONVECTION

- CPU Cooler Thermal Resistance Measurement Apparatus with Natural Convection Chamber ,4 sets of 650 watts Infrared Radiation Heaters.
- Operating Temperature : Room Temperature ~ 70°C
- CPU Cooler Thermal Resistance Measurement Apparatus with Programmable temperature and humidity chamber, Through a mechanical circulation system, using fans and heating coils.
- Operating Temperature : -40°C ~ 150°C

# Compression Force Test Report



Date: 2022/10/14  
Engineer: Vic

Part Number:

**RG3118A-A-002**

Description:

**1U CPU COOLER FOR MOBILE  
BGA PACKAGE PROCESSORS**

### Test Criterion

| Total Force of CPU Cooler |           |           |
|---------------------------|-----------|-----------|
| Typical                   | Maximum   | Minimum   |
| 15.48 lbf                 | 17.03 lbf | 13.93 lbf |

### Test Condition

| PCB Thickness | CPU Height (about PCB) |
|---------------|------------------------|
| 1.6mm         | 1.3mm                  |

### Test Data

| Sample | Compression Force |
|--------|-------------------|
| 1      | 16.5 lbf          |
| 2      | 15.6 lbf          |
| 3      | 14.5 lbf          |
| AVG    | 15.53 lbf         |

### Test Result

|      |   |
|------|---|
| Pass | Compression Force of CPU Cooler = 15.53 lbf |
|------|---|

# Compression Force Test Report



Date: 2022/10/14  
Engineer: Vic

Part Number:

**RG3118A-A-002**

Description:

**1U CPU COOLER FOR MOBILE  
BGA PACKAGE PROCESSORS**

### Test Criterion

| Total Force of CPU Cooler |           |           |
|---------------------------|-----------|-----------|
| Typical                   | Maximum   | Minimum   |
| 19.21 lbf                 | 21.13 lbf | 17.29 lbf |

### Test Condition

| PCB Thickness | CPU Height (about PCB) |
|---------------|------------------------|
| 1.6mm         | 1.8mm                  |

### Test Data

| Sample | Compression Force |
|--------|-------------------|
| 1      | 18.0 lbf          |
| 2      | 19.9 lbf          |
| 3      | 19.3 lbf          |
| AVG    | 19.07 lbf         |

### Test Result

|      |   |
|------|---|
| Pass | Compression Force of CPU Cooler = 19.07 lbf |
|------|---|

# Compression Force Test Report



- The universal clip force measuring device is a tool for measuring the clip holding force for the clip on the CPU Cooler.
- Measuring pressure range 0~220lbf,: accuracy 0.1%FS