

# Q3

1U Active Air Cooler

**PRODUCT SPECIFICATIONS**

**Q3 | Socket LGA 1700****Model Number: Q3**

- Recommend for Intel® CPU as following
  - Intel® Alder Lake S Processor, Socket LGA 1700
- Active Cooler for 1U Server & Up

**Overall Specification**

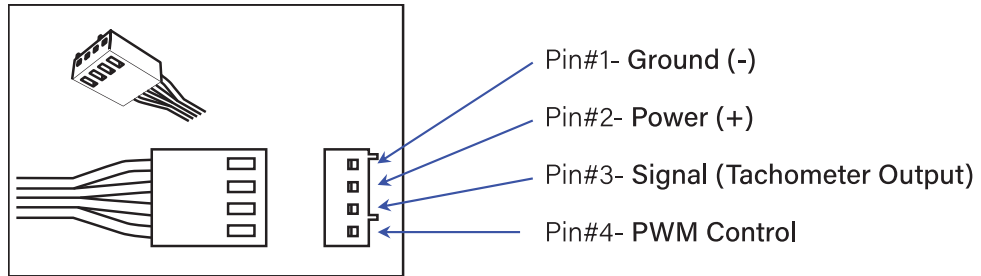
|                |                                                    |
|----------------|----------------------------------------------------|
| Dimension      | 92.0 x 90.0 x 28 mm                                |
| Weight         | 444 ± 5 g                                          |
| Material       | Copper Heat Sink with Skiving Fins                 |
| Orientations   | Switchable without On-board Component Interference |
| Back Strip Set | Included                                           |
| Thermal Grease | SHIN-ETSU 7762 Pre-printed                         |
| TDP            | Up to 125 Watts CPU Power Heat Dissipation         |

**Cooling Fan Specification**

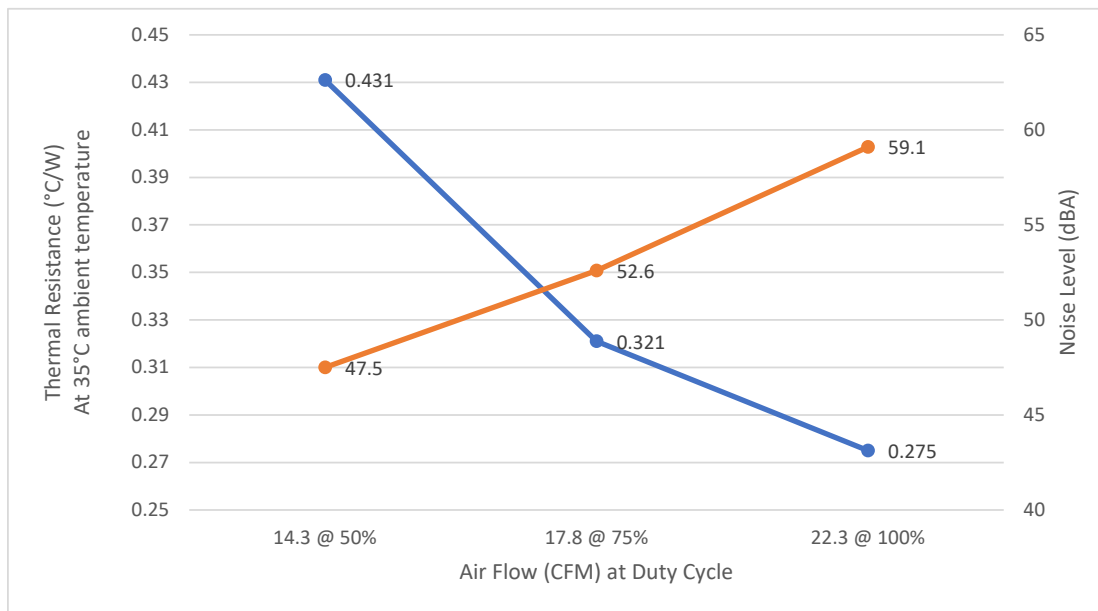
|                       |                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Number          | DB128015BU-PWMG                                                                                                                                |
| Dimension             | Ø80 x 15 mm                                                                                                                                    |
| Bearing               | Double Ball                                                                                                                                    |
| Rated Voltage         | 12V                                                                                                                                            |
| Rated Speed           | At Duty Cycle 0~20%: 1000±200 RPM<br>At Duty Cycle 50%: 3500±10% RPM<br>At Duty Cycle 100%: 7000 RPM                                           |
| Rated Input Power     | At Duty Cycle 0~20%: 0.60 W<br>At Duty Cycle 50%: 3.84 W<br>At Duty Cycle 100%: 19.2 W                                                         |
| Rated Airflow         | At Duty Cycle 0~20%: 6.5 CFM<br>At Duty Cycle 50%: 11.2 CFM<br>At Duty Cycle 100%: 22.28 CFM                                                   |
| Rated Static Pressure | At Duty Cycle 0~20%: 2.27 mm-H <sub>2</sub> O<br>At Duty Cycle 50%: 18.56 mm-H <sub>2</sub> O<br>At Duty Cycle 100%: 74.18 mm-H <sub>2</sub> O |
| Acoustical Noise      | At Duty Cycle 0~20%: 21.5 dBA<br>At Duty Cycle 50%: 43.0 dBA<br>At Duty Cycle 100%: 59.14 dBA                                                  |
| Lead Wire Pin Out     | Pin#1- Black(-)<br>Pin#2- Yellow(+)<br>Pin#3- Green(Tachometer/ Signal Output)<br>Pin#4- Blue (PWM)                                            |

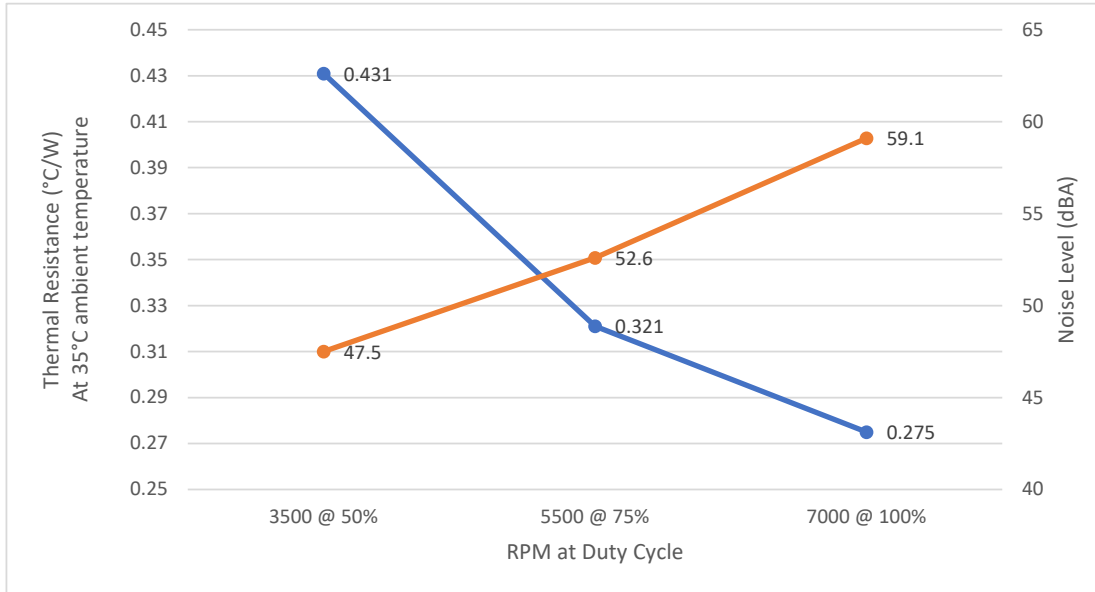
### Q3 | Socket LGA 1700

Lead Wire Pin Out Diagram :



## Performance Chart: Active Cooler Q3 Thermal Resistance Active Cooler Q3 Cooling Performance vs. Airflow

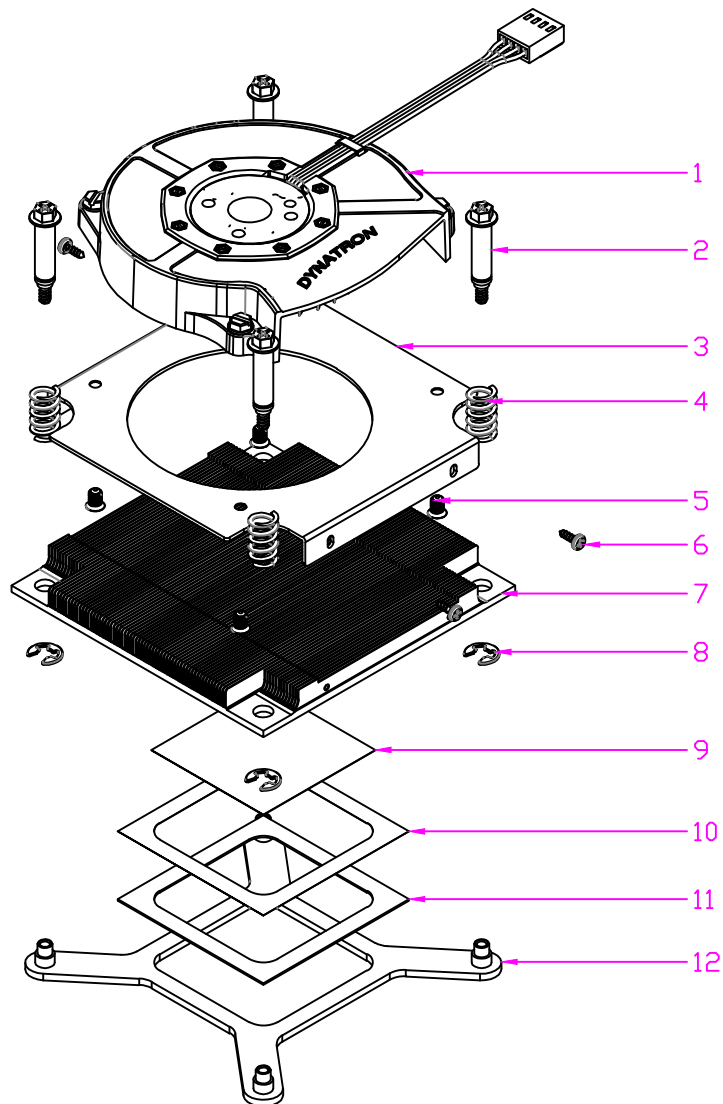


**Q3 | Socket LGA 1700****Active Cooler Q3 Cooling Performance vs. Fan Speed**

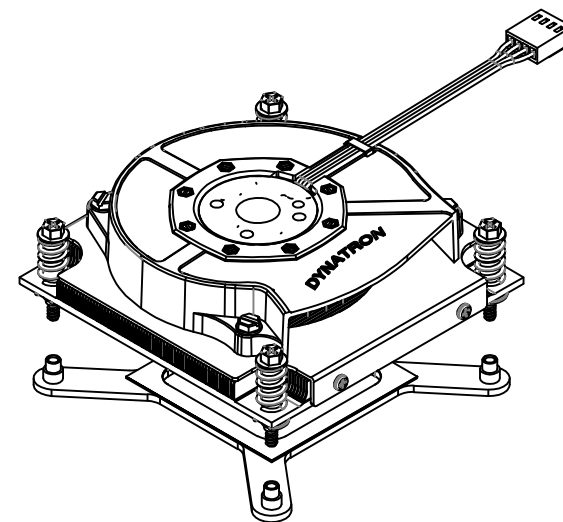
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| REV# | DESCRIPTION      | CHECKER | DATE     |
|------|------------------|---------|----------|
| 0.0  | INITIAL RELEASE  | JOY     | 02/24/21 |
| 1.0  | BACKPLATE UPDATE | JOY     | 10/07/21 |



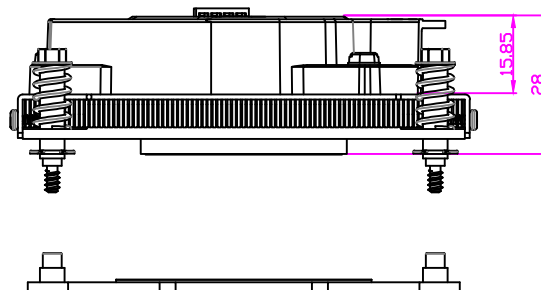
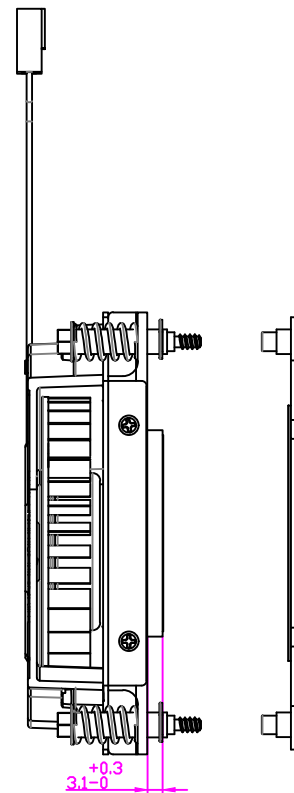
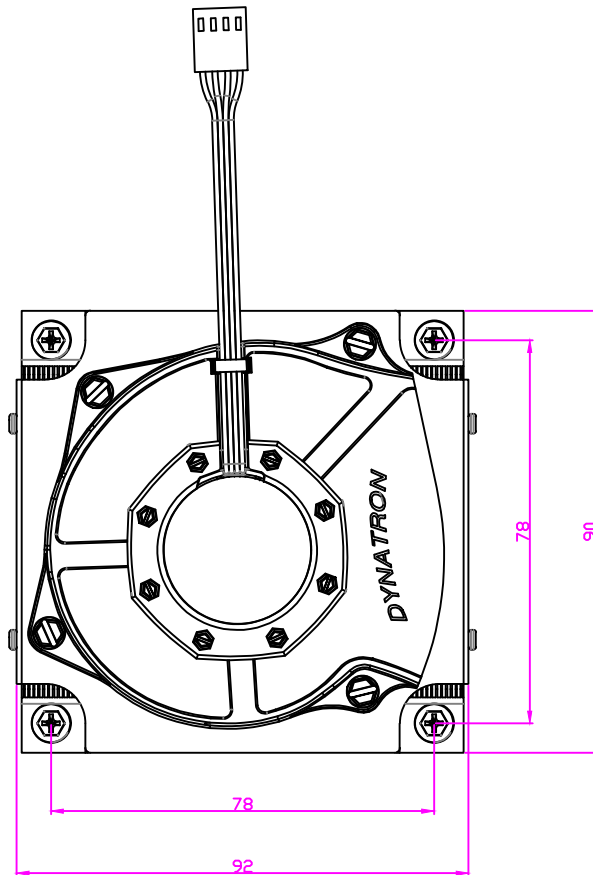
- NOTES:  
1. OVERALL DIMENSION: 90.0x90.0x28 mm  
2. THE FIGURE IS FOR REFERENCE ONLY, AND NOT FOR SCALE



|        |                                |                |      |
|--------|--------------------------------|----------------|------|
| 12     | BACKPLATE                      | SPCC           | 1    |
| 11     | INSULATOR                      | FORMEX GK-17   | 1    |
| 10     | ADHESIVE TAPE                  | 3M             | 1    |
| 9      | THERMAL GREASE                 | SHIN-ETSU 7762 | 1    |
| 8      | C-RING                         | STEEL          | 4    |
| 7      | HEATSINK                       | COPPER 1100    | 1    |
| 6      | COVER SCREW                    | STEEL          | 4    |
| 5      | BLOWER SCREW                   | STEEL          | 4    |
| 4      | SPRING                         | SUS 304        | 4    |
| 3      | BLOWER COVER                   | AL 5052        | 1    |
| 2      | HEATSINK SCREW                 | STEEL          | 4    |
| 1      | BLOWER, DB128015BUKAL)-7000RPM | ALUMINUM       | 1    |
| ITEM # | DESCRIPTION                    | MATERIAL       | QTY. |

|            |  |          |      |                                                                                                            |
|------------|--|----------|------|------------------------------------------------------------------------------------------------------------|
|            |  | DATE     | NAME |  DYNATRON CORPORATION |
| DRAWN      |  | 02/24/21 | enr. |                                                                                                            |
| CHECKED    |  | 02/24/21 | Joy  | TITLE:<br>1U Active Cooler Q3<br>BOM & Exploded Assembly Drawing                                           |
| ENG. APPR. |  |          |      |                                                                                                            |
| MFG. APPR. |  |          |      | DWG. No:<br>DYN-EP-Q3                                                                                      |
| QA         |  |          |      |                                                                                                            |
| COMMENTS:  |  |          |      | REV<br>1.0                                                                                                 |

| REV# | DESCRIPTION      | CHECKER | DATE     |
|------|------------------|---------|----------|
| 0.0  | INITIAL RELEASE  | JDY     | 02/24/21 |
| 1.0  | BACKPLATE UPDATE | JDY     | 12/07/21 |



|              | NAME | DATE       |
|--------------|------|------------|
| DRAWN BY     | ENGR | 02/24/2021 |
| CHECKED BY   | ENGR | 02/24/2021 |
| ENG.APPROVED |      |            |
| MFG.APPROVED | -    | -          |



**DYNATRON CORPORATION**

TITLE: 1U ACTIVE COOLER  
Q3  
Overall Dimension Drawing

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|       |    |
|-------|----|
| VIEW  |    |
| UNITS | MM |

|           |      |
|-----------|------|
| DWG. No:  | REV. |
| DYN-BD-Q3 | 1.0  |