# eBAY CONTROLLER Test Data SHEET

P/N: 414-8005 Date: 13/03/2017

S/N: 184 Tested by: DANIEL Z.

Hardware Rev: BLDC\_60A\_V6 Approved by: Eli Talias

Software Rev: 5.3.9

**Equipments Used**

**Equipments Model No Serial No**

Power Supply

Digital Multimeter

CAN Interface

Resistance Decade Box

PC

AHU-L (47) P/N 413-8005-1

AHU-R (63) P/N 413-8005-2

| **Para.** | **Test Description** | **Verification Parameter** | **Expected** | **Accept** | **Reject** |
| --- | --- | --- | --- | --- | --- |
| 6.1.1 | Verification of Components Not Installed | N/A | No DNP Components Placed | **✓** |  |
| 6.1.2 | Manufacturing Defects | N/A | No Defects | **✓** |  |
| 6.2.1 | Input Current Drawn | DC Input Current | < 150 mA | **✓** |  |
| 6.2.2 | Power Supply Voltages | +12V  +5V  +3.3V  +1.8V | ± 0.5V  ± 0.2V  ± 0.1V  ± 0.1V | **✓** |  |
| 7.1 | Physical Dimensional Check and Weight | N/A | Dimensions and weight within specified tolerance | **✓** |  |
| 7.2 | Insulation Resistance Test | J3.B to Chassis  J1.16 to Chassis | > 1MΩ  > 100KΩ | **✓** |  |
|  | Bonding Test | J1 Body to Chassis  J2 Body to Chassis  J3 Body to Chassis | <2mΩ  <2mΩ  <2mΩ | **✓** |  |
| 7.2.1 | CANbus Resisance Test | J2.17 to J2.18 | >10KΩ | **✓** |  |
| 7.3 | Sealing Test | N/A | No leakage for specified condition | **✓** |  |
| 7.4.1 | Serial RS-232 Communication Test | N/A | Communication verified | **✓** |  |
| 7.4.2 | CAN Bus Communication Test | N/A | Communication verified | **✓** |  |
| 7.5.1 | Reverse Polarity Test | DC Input Current | < 1 mA | **✓** |  |
| 7.5.2 | Enable Test | Fan Speed at Opened Enable  Fan Speed at Closed Enable | 0 RPM  6000 ± 200 RPM | **✓** |  |
| 7.5.2 | Motor Rotation Direction | Rotation Direction | Counter-clockwise (Inlet) | **✓** |  |
| 7.5.3 | Stop Time Test | Motor Stop time | < 50 sec | **✓** |  |
| 7.5.4 | Speed Command Test | Fan Speed | 6000 ± 200 rpm  11500 ± 200 rpm  15100 ± 200 rpm | **✓** |  |

| **Para** | **Test Description** | **Verification Parameter** | **Expected** | **Measured** | **Accept** | **Reject** |
| --- | --- | --- | --- | --- | --- | --- |
| 7.5.5 | Temperature Sensor Calibration Test | Sensor Reading  Analog Offset | -0.1<x <0.1 | Offset =0.012 | **✓** |  |
| 7.5.6 | Temperature Control Algorithm Test | Fan Speed at:  Tair < 68 ± 2 oC  Tair >= 68 ± 2 oC  Tair >= 88 ± 2 oC  Tair <= 80 ± 2 oC  Tair <= 60 ± 2 oC | 6000 ± 200 rpm  11500 ± 200 rpm  15100 ± 400 rpm  11500 ± 200 rpm  6000 ± 200 rpm | 5990  11510  15090  11512  6000 | **✓** |  |
| 7.5.7 | Burn-in Test | DC Input Current  Ambient Temperature  After 10 min of operation  After 20 min of operation  After 30 min of operation  Auxiliary Cooling Fan | 50± 5 ADC  25 ± 13 C°  < 25 C° Above Ambient Temperature  After 30 min  On@60± 2 C°  Off@55± 2 C° | Idc = 47  Tambient  = 15  Tcontroller = 24  Tcontroller = 29  Tcontroller = 31  Ton = 59  Toff = 54 | **✓** |  |

# APPENDIX B – kty83/110 silicon Temperature SEnsor resistance table

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| --- |
| KTY83-110 Table |
| Figure 3: KTY83/110 Silicon Temperature Sensor Resistance vs. Temperature Table |