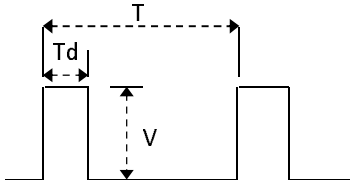
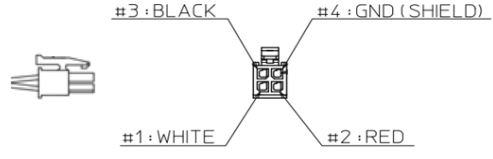


BLA1HH21 Technical Specification

Update Number

(THIS DATA IS JUST A REFERENCE. IT IS NOT A GUARANTEED DATA.)

160419-04

| Item | | Specification | | | | Remark | |
|------|-----------------------------|---|------------------|-------|-------------|---|---|
| 1 | Communication Interface | PWM | | | | Signal Voltage:V | HIGH : min. 2.0V max. Vcc |
| | | | | | | | LOW : min. 0.0V max. 0.45V |
| | | | | | | Frame Rate:T | 3.0~30ms (Default 14.25ms) |
| | | | | | | Left/Center/Right:Td | 2120/1520/920μs (Resolution recommends less than 1μs.) |
| | | | | | |  | |
| | | S.BUS | | | | Futaba Serial Protocol (Please ask us for more information.) | |
| 2 | Rated Voltage | 6.0~7.4V DC | | | | - | |
| 3 | Operating Voltage | 4.0~8.4V DC | | | | - | |
| 4 | Standby Current | ≤ 45mA | | | | at 6.0~7.4V | |
| 5 | Consumption Current* | LL | Me | UL | unit | at 7.4V , No-Load | |
| | | 235 | 365 | 545 | mA | LL : Low Limit Me : Medium Value UL : Upper Limit | |
| 6 | Max. Torque* | LL | Me | UL | unit | at 7.4V | |
| | | 25.9 | 37.0 | 48.1 | kgf-cm | | |
| | | 2.54 | 3.63 | 4.72 | N-m | | |
| | | 359.7 | 513.8 | 668.0 | ozf-in | | |
| 7 | Rated Torque* | LL | Me | UL | unit | at 7.4V 20% of Max. Torque | |
| | | 5.2 | 7.4 | 9.6 | kgf-cm | | |
| | | 0.51 | 0.73 | 0.94 | N-m | | |
| | | 71.9 | 102.8 | 133.6 | ozf-in | | |
| 8 | No Load Speed* | LL | Me | UL | unit | at 7.4V | |
| | | 0.08 | 0.11 | 0.14 | sec/60° | | |
| | | 428.6 | 545.5 | 750.0 | °/sec | | |
| | | 71.4 | 90.9 | 125.0 | rpm | | |
| 9 | Default Travel Angle | CW 60° (920μs) CCW 60° (2120μs) | | | | - | |
| 10 | Max Travel Angle | CW 90° (920μs) CCW 90° (2120μs) | | | | Programming tool (CIU-2,S-Link) required. | |
| 11 | BackLash* | ≤ 0.5° | | | | - | |
| 12 | Operating Temperature Range | -30~+70°C (-22~158°F) | | | | - | |
| 13 | Storage Temperature Range | -40~+80°C (-40~176°F) | | | | - | |
| 14 | Outer Dimension | 1.59 x 0.83 x 1.51 inch (40.5 x 21.0 x 38.4mm) | | | | - | |
| 15 | Weight | 3.07oz (87g) | | | | - | |
| 16 | Case Material | Upper : AL / Middle : AL / Bottom : AL | | | | - | |
| 17 | Gear Set Material | 1st,2nd,3rd,4th(Final) : Metal | | | | - | |
| 18 | Cable | Shielded Cable | | | | Cable Length : 15.75 inch (400mm) | |
| 19 | Connector | Manufacture | Tyco Electronics | | |  | |
| | | Type | TE794617-4 | | | | |
| | | Mating | TE794616-4 etc. | | | | |
| | | Pin Assignment | 1 | White | S.BUS / PWM | | |
| 2 | Red | | Vcc | | | | |
| 3 | Black | | GND | | | | |
| 4 | Shield | | Case Shield Line | | | | |
| 20 | MTT(B)F* | 300h (Calculated by Weibull analysis.) | | | | Test Condition at 7.4V / Load : 20% of Max. Torque / 0.5Hz sweep (± 60°) | |
| 21 | Vibration Resistance * | Operating time ≥ 50h (at 7.4V) | | | | Test Condition | |
| | | | | | | Frequency range | 80 to 400Hz |
| | | | | | | Acceleration | 30G (294m/s ²) |
| | | | | | | Sweep rate | 1.2 min / single-sweep |
| | | | | | | Vibration axis | X, Y, Z |

* Initial Performance Data at 23±5°C

All Specifications are subject to change without prior notice.

■ Caution

This product **SHOULD NOT** be used for the devices that is directly related to human life and/or harmful devices for human body such as below applications.

- (1) Medical Devices
- (2) Aerospace/Aviation Related Devices
- (3) Nuclear Related Devices e.t.c.

Outer Dimension

