**Auto-focus&Zoom PC board**

**Technical specifications**

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| --- | --- |
| Product Series | Continuous zoom lens circuit panel |
| Product Description | 1. focusing double motor control, support photoelectric one-click focusing, focusing function customization; |
| 2.5 V/12V Motor optional; |
| 3. position servo, single-end zoom or focus adjustment, clear imaging point calibration and other functions; |
| Name |  | FO-H617-D05/FO-H617-D12 |
| Main functions | Set the variable position | Set the variable position independently |
| Set the focusing position | Set the focusing position independently |
| Double focus with one key | At the same time set up the zoom |
| Two-way manual focusing | Select the focusing direction to manually stop |
| Double manual | Select Change Direction Manual Stop |
| Speed gear setting | Change the zoom 4 gear setting |
| One key focus | Set to Best Clear Point |
| Focus | The process is clear |
| Auxiliary functions | Border self-inspection | Automatic inspection of physical boundaries |
| One-click diagnosis | Check potentiometer connection failure |
| Clear Point Calibration Table | -40℃~60℃ Eight Temperature Section Clear Point Calibration Table |
| External Temperature Transmission Board | Scope of work | -40℃~60℃ |
| Precision | ±2℃ |
| Communications | Mode of communication | R S232/RS 422 |
| Type of communication | baud rate :57600(N,8,1) |
| Upgrade | Firmware upgrade | Manufacturer J TAG upgrade |
| Hardware features | Power supply | Power supply reverse does not damage hardware |
| One key focus | Focus time ≤5 seconds |
| Focus | Fuzzy state and clear state can follow the focus |
| Average position control accuracy | Average position control accuracy ≤6 |
| Clear Point Calibration Table | Single table clear points up to 24 data |
| High precision position reference source | 0.2% Reference Power Supply |
| Motor | DC motor | 5V/12V motor optional |
| Interface | External integrated interface | FWF12504-S12B24W5M |
| Integrated Motor Interface | FWF12504-S10B24W5M |
| Temperature Transmission Interface | FWF12504-S 04B24W5M |
| Debugging interface | FWF12506-S06S24W5B |
| Power supply | DC12V |
| Power consumption | 0.4 W@12v、25℃ |
| Mechanical | Weight | g ≤10 |
| Dimensions | 45 mmx38mm |
| Environmental standards | Working temperature | -40℃～+60℃ |
| Working humidity | ~90% RH 0 |
| Storage temperature | -40℃～+60℃ |
| Storage humidity | ~90% RH 0 |
| Packaging content | Standard packing list | Servo X1 Board |
| Inner liner |
| Quality Assurance Card |
| QA test report |
| Corrugated box (lined with foam) |
| desiccant |

# II. External description of the interface

## 2.1 External integrated interface

Connector Type: FWF12504-S12B24W5M (12PIN/1.25mm spacing/slope)

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| **External debugging interface (12 pins)** |
| Pin number | Signal name | Signal definition |
| J2.1、J2.2 | 12V\_IN | External Power Supply |
| J2.2、J2.3 | PGND | External Power Supply |
| J2.5 | RS422\_A | 422 serial A |
| J2.6 | RS422\_B | 422 serial B |
| J2.7 | RS422\_Z | 422 serial Z |
| J2.8 | RS422\_Y | 422 serial Y |
| J 2.9 | GND | Digital |
| J 2.10 | RS232\_TX | 232 Serial Transmission (Local) |
| J2.11 | RS232\_RX | 232 Serial Receiving (Local) |
| J2.12 | GND | Digital |

## 2.2 Integrated Motor Interface

Connector Type: FWF12504-S10B24W5M (10PIN/1.25mm spacing/slope)

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| --- |
| **External lens interface (10 stitches)** |
| Pin number | Signal name | Signal definition |
| J1.1 | OUT\_FOCUS- | Motor focusing output |
| J1.2 | OUT\_FOCUS+ | Motor focusing output |
| J1.3 | OUT\_ZOOM- | Motor Variable Output |
| J1.4 | OUT\_ZOOM+ | Motor Variable Output |
| J1.5 | VREF | potentiometer baseline |
| J1.6 | GND | Digital |
| J1.7 | ADC1 | ADC feedback |
| J1.8 | VREF | potentiometer baseline |
| J1.9 | GND | Digital |
| J1.10 | ADC2 | ADC feedback |

## 2.3 Temperature interface

Connector Type: FWF12504-S 04B24W5M (4PIN/1.25mm spacing/slope)

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| --- |
| **Temperature transfer interface (4 pins)** |
| Pin number | Signal name | Signal definition |
| J5.1 | MCU\_3V3 | 3.3 V Power |
| J5.2 | MCU\_I2C1\_SCL | SCL |
| J5.3 | MCU\_I2C1\_SDA | SDA |
| J5.4 | GND | Digital |

## 2.4 Debugging interface

Manufacturer reserve.

## .5 2. Overall external interface diagram

The overall external interface diagram of the hardware is shown in figure 1:



Figure 1. The overall external interface diagram of the hardware