

SERVO DRIVER SOLUTIONS FOR OPTICAL SCANNING

光学扫描振镜驱动板



模拟系列 ANALOG SERIES



产品特点 FEATURES



基于PID的控制方式
性能稳定, 精度高, 速度快

Based on PID control mode, stable performance, high precision, fast speed.



负载尺寸3-50mm孔径镜片

Load size 3-50mm aperture mirrors.



尺寸紧凑, 针对不同的应用场景,
多种不同性能的驱动板可选

Compact size, for different application scenarios. A variety of different performance of the driver board optional.



输入输出配置丰富

支持 $\pm 3V$ - $\pm 10V$ 模拟信号输入
支持振镜位置, 误差, 速度和电流信号输出

Rich I/O configurations
Support $\pm 3V$ to $\pm 10V$ analog signal input
Support for galvanometer position, error, speed and current signal output.



适配思特光学UltraGalvo系列和
STGalvo系列振镜电机

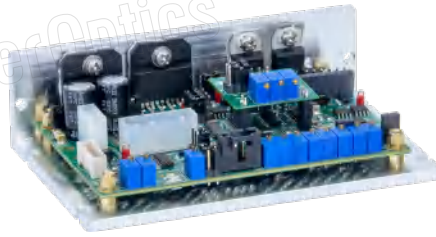
Suitable for Scanner Optics UltraGalvo series and STGalvo series galvanometers.

STSERVO SERIES

ST 系列



STServo I



STServo II



STServo III

技术参数

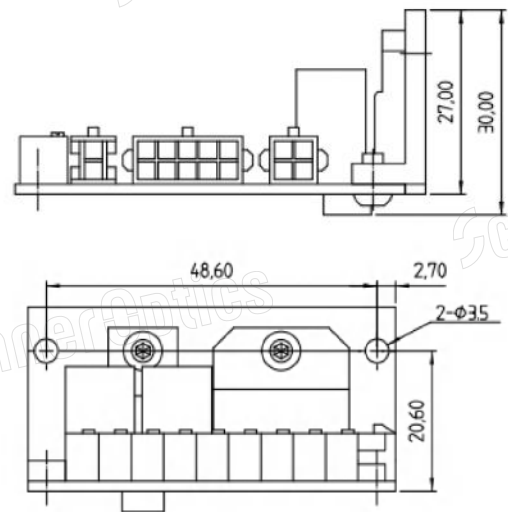
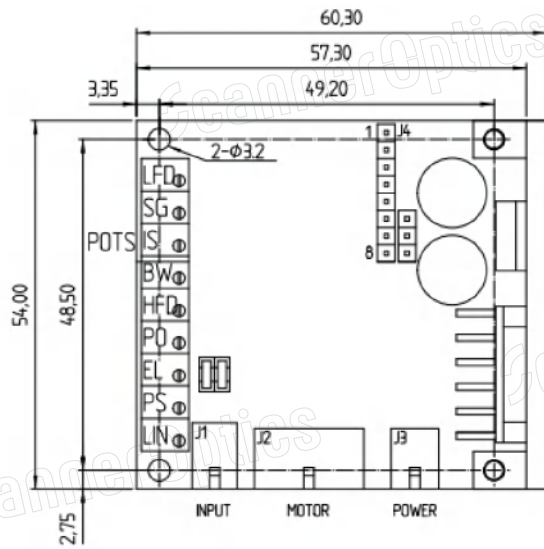
TECHNICAL PARAMETERS

	STServo I	STServo II	STServo III
轴数 Number of Axes	single	single	single
模拟输入阻抗 Analog Input Impedance	200K +/- 1% ohms (Differential) 100K +/- 1% ohms (Single Ended)	200K +/- 1% ohms (Differential) 100K +/- 1% ohms (Single Ended)	200K +/- 1% ohms (Differential) 100K +/- 1% ohms (Single Ended)
位置输出阻抗 Position Output Impedance	1K +/- 1% ohms (for all other observation outputs)	1K +/- 1% ohms (for all other observation outputs)	1K +/- 1% ohms (for all other observation outputs)
位置输入比例 Position Input Scale Factor	0.5V/mech degree 1V/mech degree 2V/mech degree	0.5V/mech degree 1V/mech degree 2V/mech degree	0.5V/mech degree 1V/mech degree 2V/mech degree
位置输入范围 Position Input Range	±10V Max	±10V Max	±10V Max
位置偏移范围 Position Offset Range	±5%	±5%	±5%
数字信号输入范围 Digital Signal Input Range	16bit DAC	16bit DAC	16bit DAC
数字信号输入非线性度 Non Linearity of 16-Bit Digital Input	0.006%	0.006%	0.006%
位置输出比例因子 Position Output Scale Factor	0.5V/degree, 1V/degree	0.5V/degree, 1V/degree	0.5V/degree, 1V/degree
电子元件温度稳定性 Temperature Stability of Electronics	20 ppm/°C	20 ppm/°C	20 ppm/°C
电源电压 Power Supply Requirements	±15V - ±28V	±15V - ±28V	±15V - ±28V
最大输出电流 Maximum Drive Current Limit	6A peak power supply and load dependent	10A peak power supply and load dependent	12A peak power supply and load dependent
工作温度范围 Operating Temperature Range	0-50°C	0-50°C	0-50°C

外形尺寸图

TECHNICAL DRAWING

STServo I



- J4**
Signal Test End
1: J4-1
2: POS_FB
3: GND
4: CMD-ERR
5: V-CRT
6: V_LED
7: J4-7
8: J4-8

- J3**
Pow Input Interface
1-2: GND
3: +15V
4: -15V

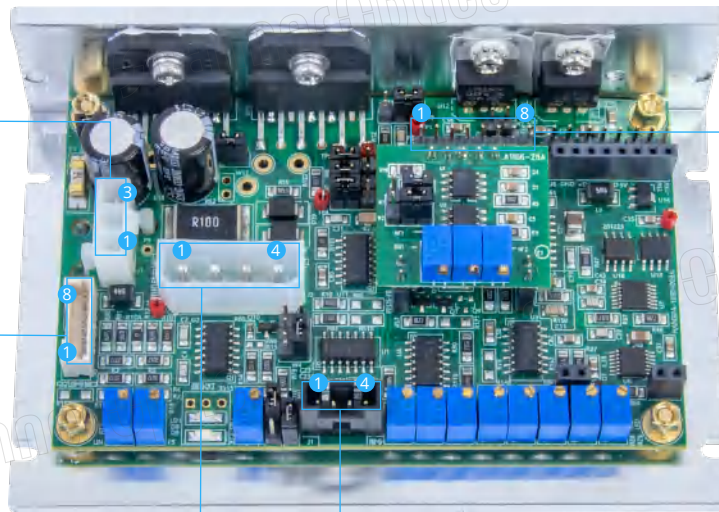
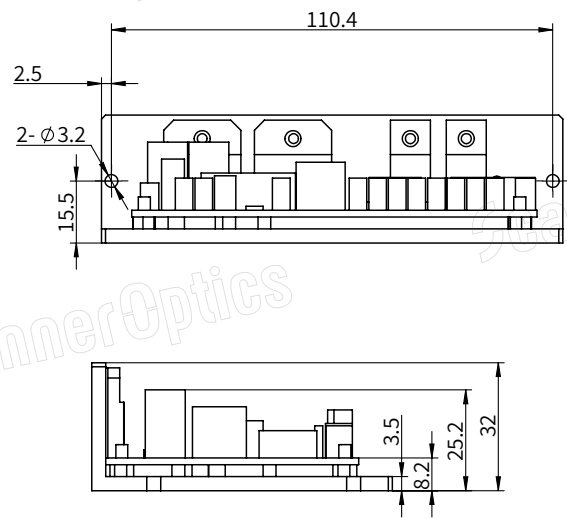
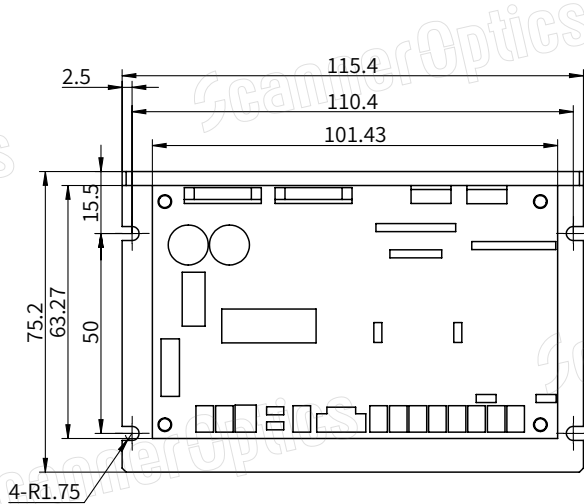
- J2**
Galvo Interface
1-4: GND
5: POS1
6: POS2
7: AGC(LED+)
8: GND
9: MOTOR-
10: MOTOR+

- J1**
Signal Control Interface
Single Ended Signal
1: GND
2: INPUT
Differential Signal
1: INPUT1 -
2: INPUT1 +

外形尺寸图

TECHNICAL DRAWING

STServo II



J7

Galvanometer
Power Interface
1: GND (Ground)
2: MOTOR-
3: MOTOR+

J2

Galvanometer
Signal Interface
1: POS1
2: POS2
3: GND
4: GND
5: AGC
6: GND
7: +15V
8: -15V

J3

Power Interface
1: +15V
2-3: GND
4: -15V

J4

Signal Test
Interface
1: KD_POS-FB
2: POS_FB1
3: GND
4: CMD_ERR
5: V-CRT
6: NC
7: ERR
8: Mute_en

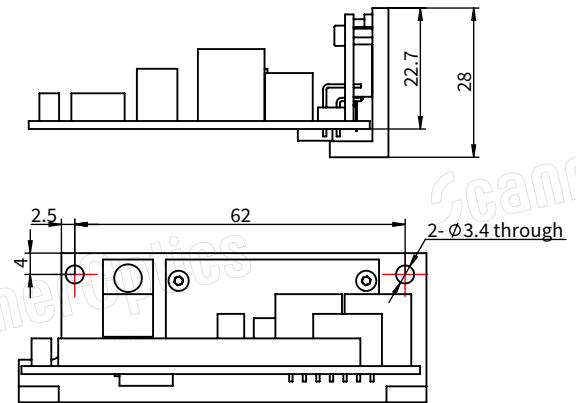
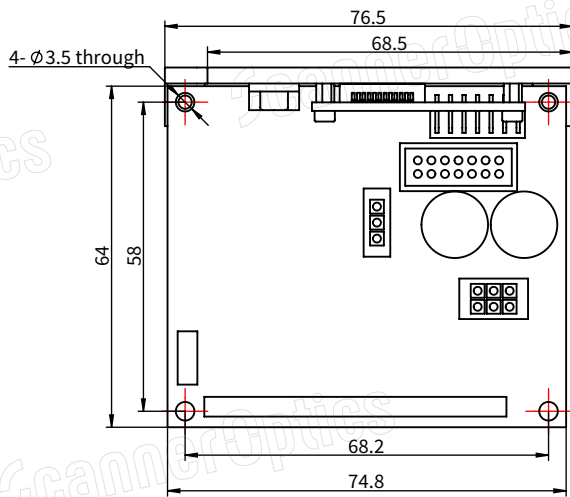
J1

Command
Input Interface
1: INPUT-
2: GND
3: INPUT+
4: NC

外形尺寸图

TECHNICAL DRAWING

STServo III



J4

- 1: MOTOR+
- 2: MOTOR-
- 3: GND

J2

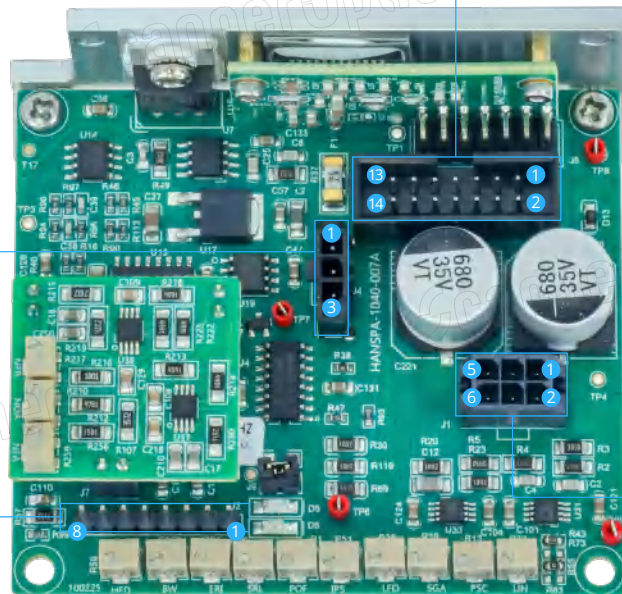
- 1: Velocity
 - 2: POS_FB (position feedback signal)
 - 3: GND
 - 4: Error
 - 5: V_CRT (current signal)
- Other NC
J2 is a test pin, which is not connected in normal use

J3

- 1: +15V/24V
- 2: +15V/24V
- 3: +15V/24V
- 4: GND
- 5: GND
- 6: GND
- 7: -15V/24V
- 8: -15V/24V
- 9: -15V/24V
- 10: POSFB
- 11: ERROR
- 12: INPUT+
- 13: NC
- 14: INPUT-

J1

- 1: GND
- 2: POS1
- 3: LED-
- 4: POS2
- 5: GND
- 6: LED+



ULTRASERVO SERIES

ULTRA 系列



UltraServo Mini



UltraServo I



UltraServo II

技术参数

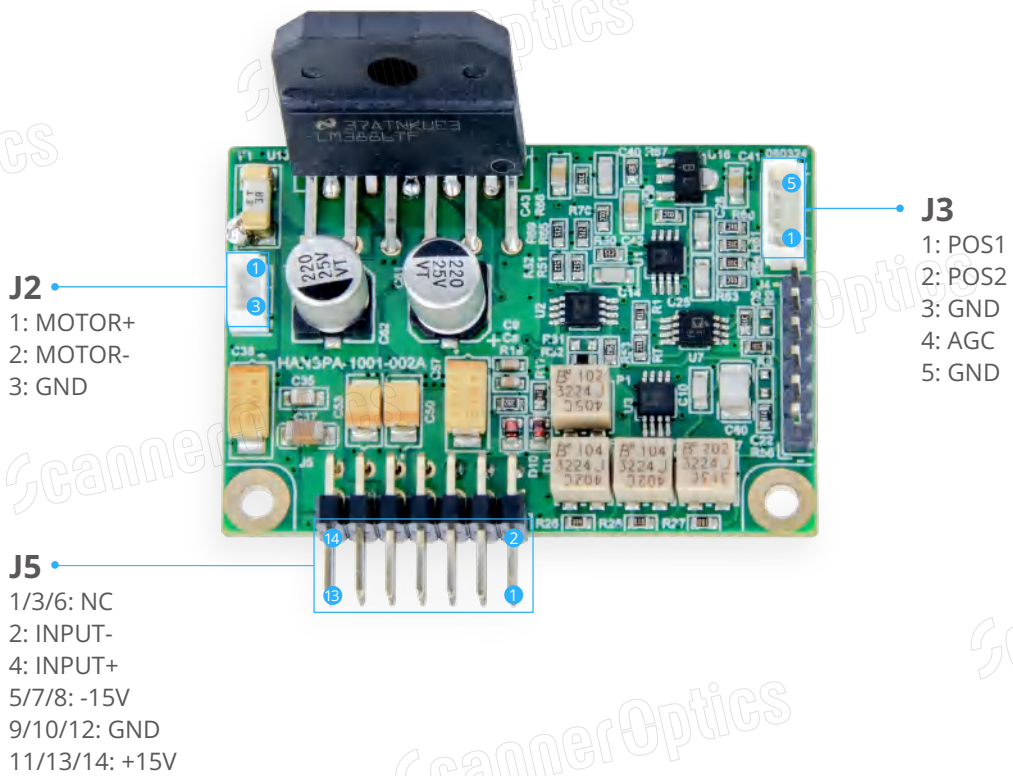
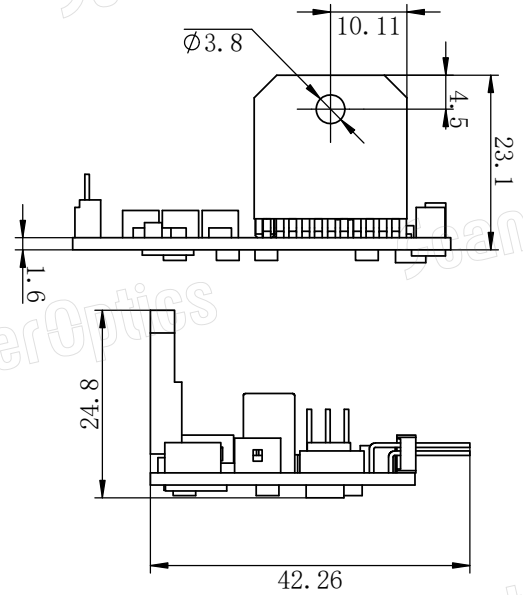
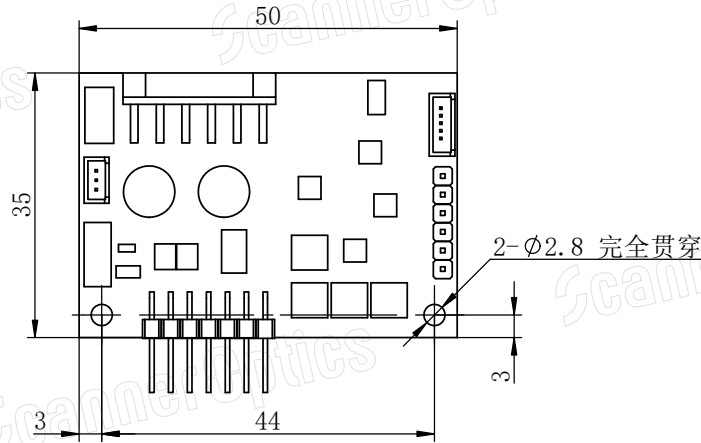
TECHNICAL PARAMETERS

	UltraServo Mini	UltraServo I	UltraServo II
轴数 Number of Axes	single	single	single
模拟输入阻抗 Analog Input Impedance	10K +/- 1% ohms (Single Ended)	10K +/- 1% ohms (Single Ended)	10K +/- 1% ohms (Single Ended)
位置输入比例 Position Input Scale Factor	0.5V/mech degree	0.5V/mech degree	0.5V/mech degree
位置输入范围 Position Input Range	±5V Max	±5V Max	±5V Max
位置偏移范围 Position Offset Range	±5%	±5%	±5%
数字信号输入非线性度 Non Linearity of 16-Bit Digital Input	0.006%	0.006%	0.006%
位置输出比例因子 Position Output Scale Factor	0.5V/degree	0.5V/degree	0.5V/degree, 1V/degree
电子元件温度稳定性 Temperature Stability of Electronics	20 ppm/ °C	20 ppm/ °C	20 ppm/ °C
电源电压 Power Supply Requirements	±15V	±15V	±15V
最大输出电流 Maximum Drive Current Limit	6A peak power supply and load dependent	10A peak power supply and load dependent	10A peak power supply and load dependent
工作温度范围 Operating Temperature Range	0-50°C	0-50°C	0-50°C

外形尺寸图

TECHNICAL DRAWING

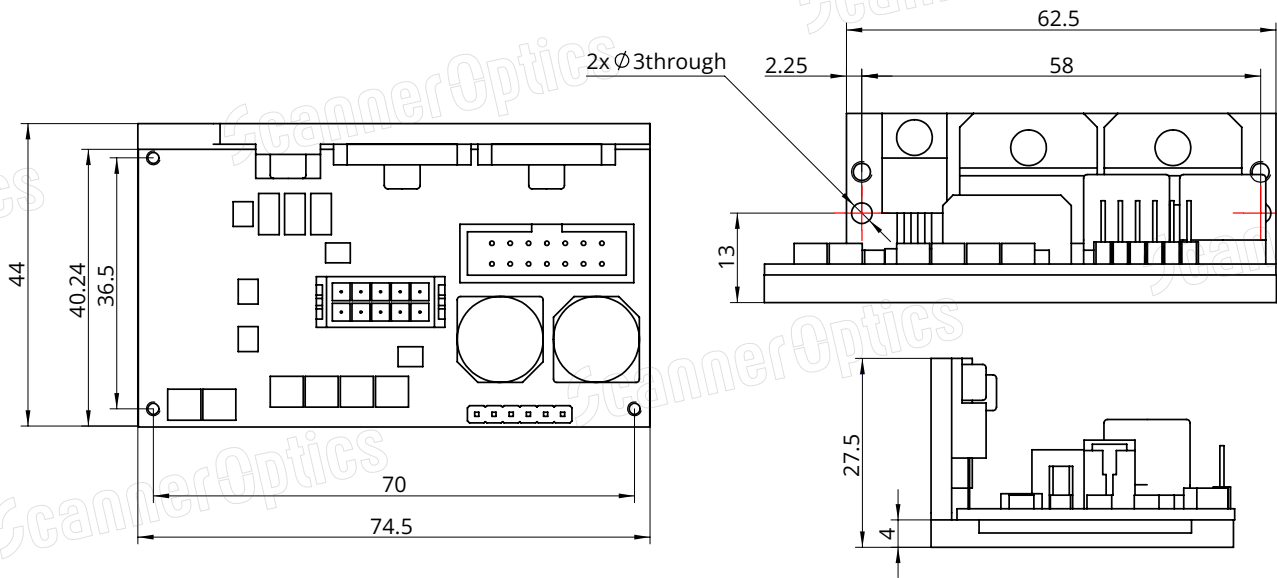
UltraServo Mini



外形尺寸图

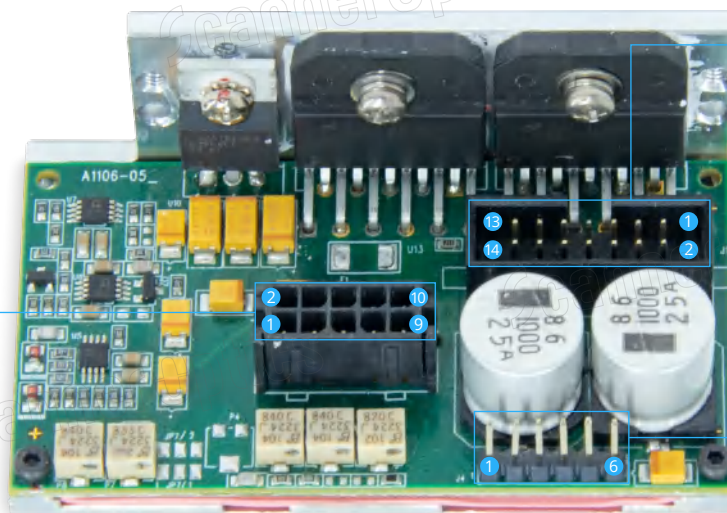
TECHNICAL DRAWING

UltraServo I



J2

- Motor Interface
- 1: NTC
 - 2: POS1
 - 3: GND
 - 4: POS2
 - 5: GND
 - 6: LED_ACG
 - 7-8: GND
 - 9: MOTOR+
 - 10: MOTOR-



J1

- Signal Control Interface
- 1-3: +15V
 - 4-6: GND
 - 7-9: -15V
 - 10: OV_LED-FD
 - 11: POS-X
 - 12: POSA
 - 13: POS_CMD
 - 14: POSB

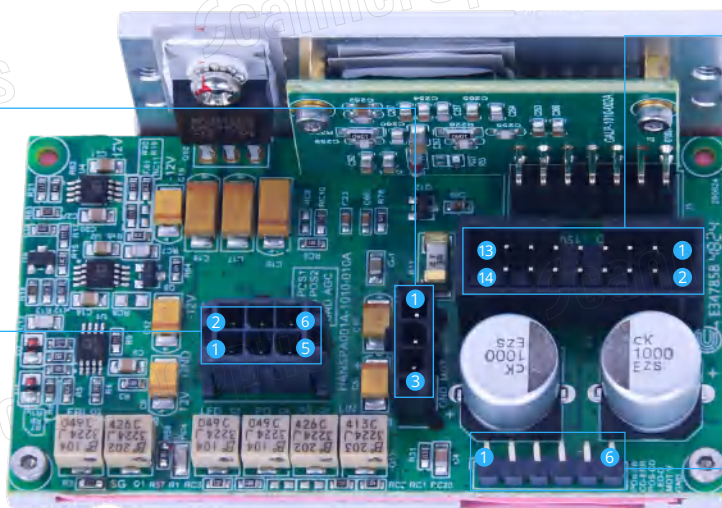
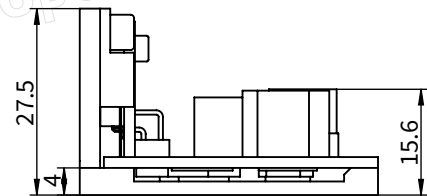
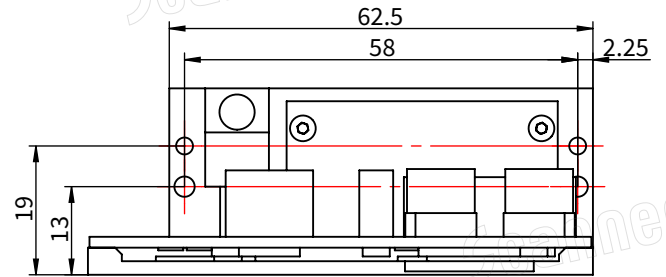
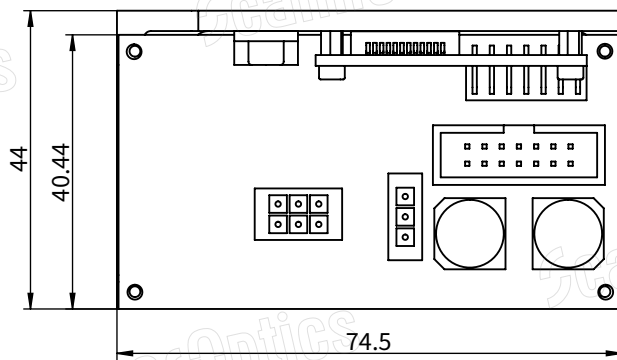
J4

- Signal Test Interface
- 1: POS_FB
 - 2: CMD_ERR
 - 3: POS_CMD
 - 4: LED-D
 - 5: MOTOR-V
 - 6: GND

外形尺寸图

TECHNICAL DRAWING

UltraServo II



- J3**
Motor Interface
1: MOTOR+
2: MOTOR-
3: Shield GND

- J2**
Motor Interface
1: Shield
2: POS1
3: GND
4: POS2
5: LED-
6: LED+

- J1**
Signal Control Interface
1-3: +15V
4-6: GND
7-9: -15V
10: POS-FB
(位置反馈 Position Feedback)
11: NTC-ERR
(温度报警 Temperature Alarm)
12: input+
13: VCC-ERR
(电压报警 Voltage Alarm)
14: input-

- J4**
Signal Test Interface
1: POS_FB
2: CMD_ERR
3: POS_CMD
4: LED-D
5: MOTOR-V
6: GND

适配电机

ADAPTIVE MOTOR

	STServo I	STServo II	STServo III	UltraServo Mini	UltraServo I	UltraServo II
ST201	√					
ST200	√	√				
ST210	√	√				
ST215	√	√	√			
ST218	√	√	√			
ST220		√	√		√	√
ST231		√	√			
ST230		√	√			
ST240		√	√			
ST250		√	√			√
ST260		√	√			
UltraGalvo 10mm				√	√	√
UltraGalvo 14mm						√
UltraGalvo 20mm						√
UltraGalvo 30mm						√

ScannerOptics 思特光学

深圳市思特光学科技股份有限公司
Scanner Optics Co., Ltd.

广东省深圳市宝安区西乡街道桃花源科技创新园B2&B10栋
Building B2&B10, Taohuayuan Science and Technology Innovation Park,
Xixiang Street, Bao'an District, Shenzhen City, Guangdong Province, China.



www.scanneroptics.cn / www.scanneroptics.com
+86-0755-2304 1055
scanner@scanneroptics.com