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微信公众号



官方网站



晶圆装载系统
LOADPORT

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无锡富创得智能科技有限公司
WUXI FORTREND INTELLGENT TECHNOLOGY CO.,LTD

公司简介

Company Profile

无锡富创得智能科技有限公司是半导体自动化传输设备及核心部件提供商，为行业提供稳定可靠的产品，包含有: 晶圆传输机器人ROBOT、晶圆装载系统 LOAD PORT、OCS、晶圆寻边器 ALIGNER等半导体产品，广泛应用在半导体和泛半导体传输制程中。

Wuxi FORTREND Intelligent technology Co., Ltd. is a semiconductor automatic transfer equipment and core components provider, to provide the industry with stable and reliable products, including: wafer transfer ROBOT, wafer loading system LOAD PORT, wafer finder ALIGNER, etc., widely used in semiconductor and universal semiconductor transfer process.

核心优势

Core advantage

45+

45年半导体行业经验
45 years of experience in semiconductor industry

12.5%

研发支出约占公司收入的12.5%
R&D spending accounts for about 12.5% of the company's revenue

36%

研发人员占比36%
Research and development personnel accounted for 36%

1800+

年产能超1800台
The annual production capacity exceeds 1800 units

全球专利

Global Patent

关键核心专利自有 | 全球专利超100项

Key core patents have more than 100 global patents



坚守品质
采用国际标准

全球售后无忧

Global after-sales

24

24个当地客服中心
24 local call centers

2-4H

最快2-4小时内响应
The fastest response within 2-4h



富创得 LOADPORT 选型规则

Fortrend LoadPort Selection Rules

FLP T-3 0 1-I S M-N Ra E-OCA-BC-K

LP工位数

- 1: G1 LP
- 2: G2 LP
- 3: G3 LP

FOUP旋转角度

- Ra:旋转180°
- Ra: Rotate 180°
- Rb: 旋转115°
- Rb: Rotate 115°
- 无记号:无
- No mark: None

LoadPort 类型

- 0:Standard(标准型)
- T:Table(桌上型)
- R:Rotate(旋转型)
- S:Sealing(密封型)

N2 Purge

- N:带N2 Purge
- N: with N2 Purge
- 无记号: 无
- No mark: None

客制化需求

- K:客制化订单
- K: Customized
- 无记号:无(标准订单)
- No mark: None (standard order)

Wafer种类

- 1:150mm(6")
- 2:200mm(8")
- 3:300mm(12")

Mapping

- M:带Mapping功能
- M: With Mapping function
- 无记号: 不带Mapping功能
- No mark: Without Mapping function

载具读取器

- BC:Bar Code
- RD1:RFID 1套
- RD1: 1 set of RFID
- RD2:RFID 2套
- RD2: two sets of RFID

Wafer 类型

- T: Frame Wafer
- 无记号:常规Wafer
- No mark: regular Wafer

凸片检知

- G:透明片(兼容非透明片)
- G: Transparent wafer
- (Compatible with non-transparent wafer)
- S:非透明片
- S: Non-transparent wafer

载具对接平台

- OCA:8" Open Cassette Adapter
- MCA :12" Metal Carrier Adapter
- (注:Adapetr为单独料号)

Info Pad

- I: Info Pad
- 无记号: 无
- No mark: None

E84通讯

- E84 Communication
- E:带E84
- E: With E84
- 无记号:无
- No mark: None

客制化方案

CUSTOMIZED SOLUTIONS

客户信息			
CUSTOM INFO			
公司名称		公司地址	
Company name		Company address	
技术联系人		商务联系人（可选）	
Technical contact		Business Contact (optional)	
电话		电话	
telephone		telephone	
电子邮箱		电子邮箱	
Email address		Email address	

客户需求配置表		
CUSTOM REQUIREMENTS CONFIG		
配置信息	晶圆尺寸	Wafer size
	晶圆类型	Wafer type
	晶圆材质	Wafer material
	载具类型	Carrier type
	上料方式	Loading method
	标签类型	Tag type
选配功能	氮气置换功能	
	自动物料搬运系统通讯接口(E84)	
	Info Pad	
	8寸卡匣适配器	
	线缆(默认标配5M电源线)	
	备注事项	

300mm晶圆装载系统

300mm LoadPort

富创得300mm LoadPort 适用于晶圆自动化传输的设备接口,能够高效、洁净地实现FOUP盒与设备之间的自动化晶圆传输,适用于各类半导体设备EFEM、Sorter、清洗设备、检测设备等。

Fortrend 300mm LoadPort is an equipment interface designed for automated wafer transfer. It enables efficient and clean automated wafer transfer between FOUP (Front Opening Unified Pod) containers and equipment, suitable for various semiconductor equipment such as EFEM (Equipment Front End Module), Sorter, cleaning equipment, inspection equipment, etc.



300mm LoadPort 内关键结构与设计均为富创得自主专利,设计与生产均在富创得自有生产基地内进行。软硬件垂直整合,保证设备的标准性与一致性

The key structures and designs of the 300mm LoadPort are all independently patented by Fortrend, and both the design and production are carried out within Fortrend's own production base. Integration of hardware and software ensures the standardization and consistency of the equipment

符合 SEMI 相关标准,运用 RS-232 HEX 通信协议与对接设备通讯,也可拓展多种通讯与对接方式

Compliant with SEMI standards, utilizing the RS-232 HEX communication protocol for communication with interfacing equipment, and also capable of expanding to various communication and interfacing methods

原厂自带的 Wafer Mapping, 利用自研的先进控制算法,可以实现晶圆有 / 无、叠片、斜片检测。可选的 E84 通讯协议、氮气置换等功能,满足各种现场需求

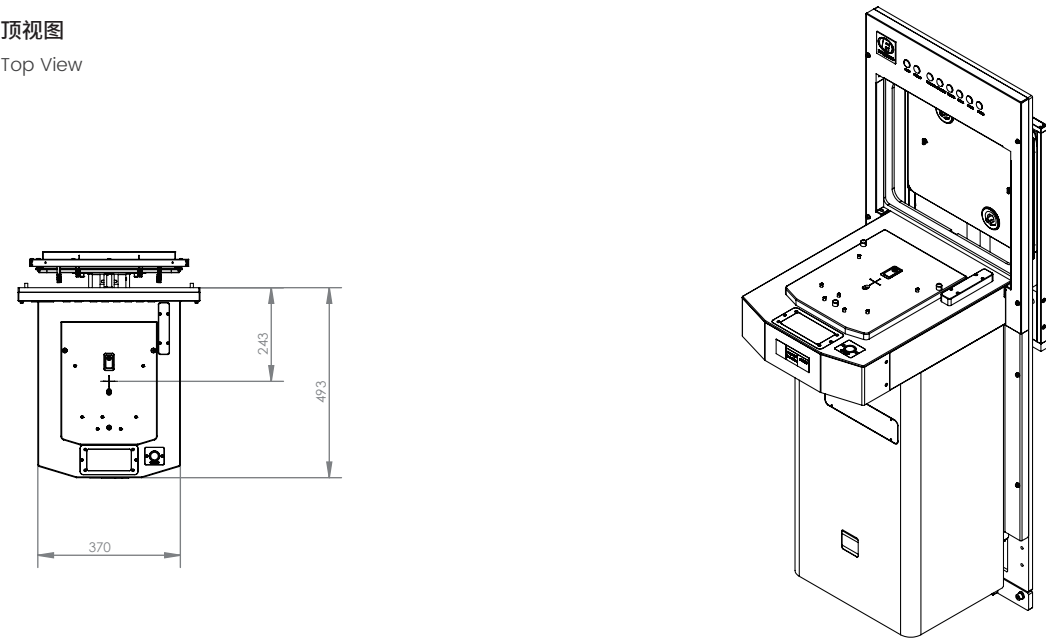
The original Wafer Mapping system utilizes proprietary advanced control algorithms to enable detection of wafer presence, absence, stacking, and tilting. Optional functions such as the E84 communication protocol and N2 purge can meet various on-site requirements

规格参数 specifications parameter		
机身尺寸	H 1349 mm * W 472 mm * L 586mm	
整备质量	66 kg ± 0.5 kg (依配置不同而变化)	
额定电压	DC 24 V	
额定电流	6 A	
额定功率	144W	
通讯方式	串口通讯RS-232C,并行通讯I/O	
通讯协议	HEX、ASCII	
载体尺寸	符合SEMI标准的300 mm / 200 mm (选配) FOUP	
负载高度	900 mm ± 10 mm	
动作循环时间	FOUP开启	11 sec (with mapping)
	FOUP关闭	8 sec (without mapping)
厂务需求	正压	0.5 ~ 0.6 MPa (Ø 6 air tube)
	负压	< - 80 kPa (Ø 6 air tube)
	氮气(选配)	0.1 ~ 0.2 MPa (Ø 8 air tube)
选配组件	氮气置换功能	
	自动物料搬运系统通讯接口 (E84)	
	8寸卡匣适配器	
	机械/电子式	
	线缆(PIO线、485调试线、RS232调试线)	

产品视图 PRODUCT VIEW

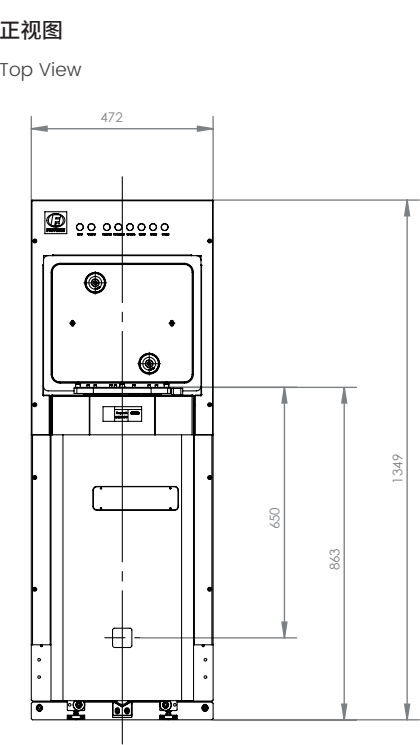
顶视图

Top View



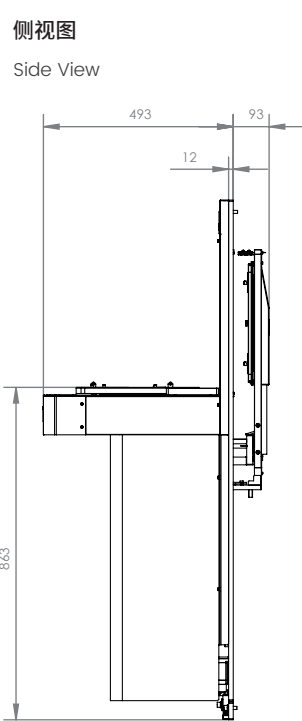
正视图

Top View



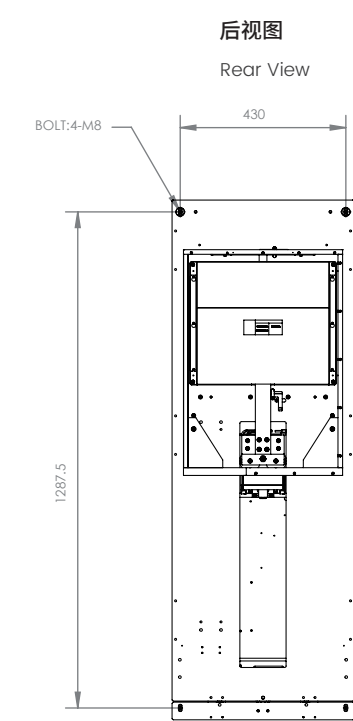
侧视图

Side View



后视图

Rear View



Frame 晶圆装载系统

Frame LoadPort

富创得 Frame LoadPort 适用于晶圆自动化传输的设备接口,能够高效、洁净地实现FOUP盒与设备之间的自动化晶圆传输,适用于各类半导体设备EFEM、Sorter等,可适配中勤、硕顶等 Frame FOUP。

Fortrend Frame LoadPort is an interface for automated wafer transfer designed for equipment. It efficiently and cleanly facilitates automated wafer transfer between FOUP (Front Opening Unified Pod) boxes and equipment, suitable for various semiconductor devices like EFEM (Equipment Front End Module), Sorter, etc., and can accommodate Frame FOUPs from manufacturers such as Zhongqin and Shuoding.



Frame LoadPort 内关键结构与设计均为富创得自主专利,设计与生产均在富创得自有生产基地内进行。软硬件垂直整合,保证设备的标准性与一致性

The key structures and designs of the Frame mm LoadPort are all independently patented by Fortrend, and both the design and production are carried out within Fortrend's own production base. Integration of hardware and software ensures the standardization and consistency of the equipment

符合 SEMI 相关标准,运用 RS-232 HEX 通信协议与对接设备通讯,也可拓展多种通讯与对接方式

Compliant with SEMI standards, utilizing the RS-232 HEX communication protocol for communication with interfacing equipment, and also capable of expanding to various communication and interfacing methods

原厂自带的 Wafer Mapping, 利用自研的先进控制算法,可以实现晶圆有 / 无、叠片、斜片检测。可选的 E84 通讯协议,可应用于 AMHS/AGV 自动化传输需求

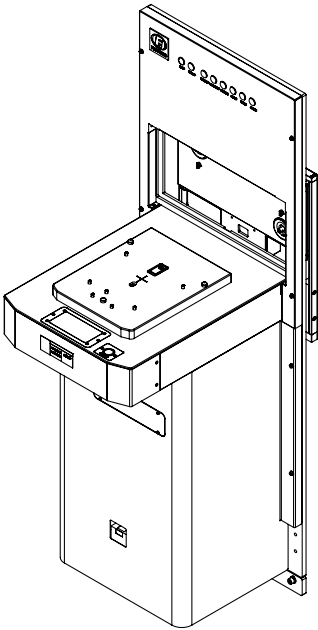
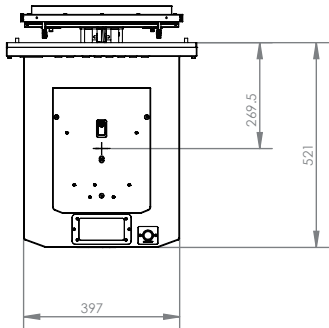
The original Wafer Mapping system utilizes proprietary advanced control algorithms to enable detection of wafer presence, absence, stacking, and tilting. The optional E84 communication protocol can be applied to AMHS/AGV automated transportation

规格参数 specifications parameter		
机身尺寸	H 1349 mm * W 485 mm * L 594mm	
整备质量	70 kg ± 0.5 kg (依配置不同而变化)	
额定电压	DC 24 V	
额定电流	6 A	
额定功率	144W	
通讯方式	串口通讯RS-232C,并行通讯I/O	
通讯协议	HEX、ASCII	
载体尺寸	Frame FOUP	
负载高度	900 mm ± 10 mm	
动作循环时间	FOUP开启	11 sec (with mapping)
	FOUP关闭	8 sec (without mapping)
厂务需求	正压	0.5 ~ 0.6 MPa (Ø 6 air tube)
	负压	< - 80 kPa (Ø 6 air tube)
选配组件	自动物料搬运系统通讯接口 (E84)	
	机械/电子式 Info Pad(默认标配电子式)	
	线缆(PIO线、485调试线、RS232调试线)	

产品视图 PRODUCT VIEW

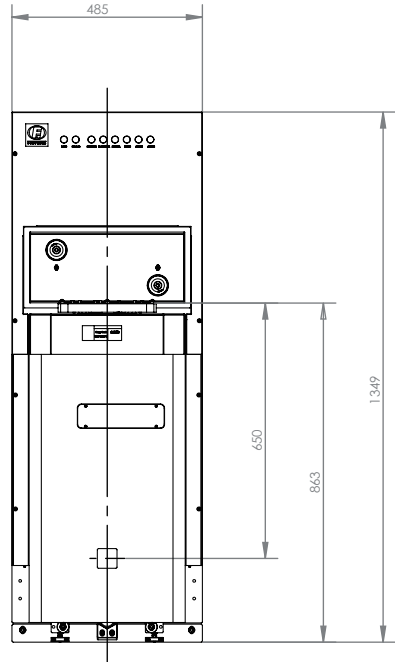
顶视图

Top View



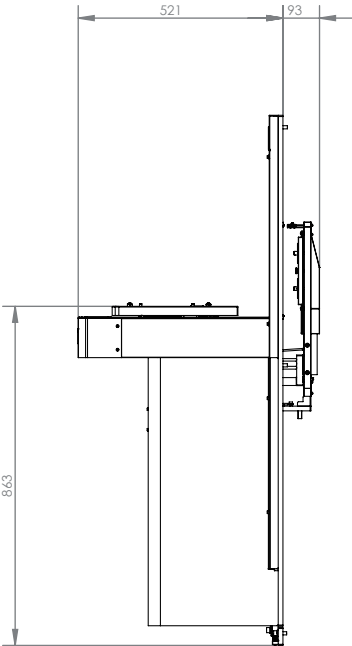
正视图

Top View



侧视图

Side View



后视图

Rear View

