

LEADING THE WAY OF INNOVATION

MILARA



**EFEM  
Wafer Sorters  
Wafer Handlers**

# WAFER HANDLERS



- Highly customizable design for meeting all your production needs.
- Small form factor to minimize the footprint.
- Fully compliant with SEMI standards.
- Industry 4.0 ready.
- Optional SECS/GEM interface.
- High-throughput and reliable Milara single or dual arm robot for fast wafer swapping.
- OCR integrated within the prealigner module reliably track IDs on both sides of the substrate.
- Option to integrate digital scale, measurement, or inspection equipment within the sorter frame
- Variety of end effector options including vacuum gripping and edge gripping. End Effectors include integrated through-beam sensor for quick and reliable wafer mapping and reporting for: occupied slots, empty slots, and cross-slot-substrates.
- Full line of autonomus Wafer Prealigners centering from 50mm to 300mm wafers with 20 microns accuracy or better.
- All materials and components are Class 1 Clean room compatible. Milara's EFEM can include a Fan Filter Unit providing minienvironment laminar flow for maximum cleanliness.
- Reliability - MTBF > 60,000 hours, (MCBF > 10,000,000 cycles).
- Monitor and Keyboard.
- Powder coat or stainless-steel finish.



# WAFER SORTERS



- Innovative fully automated cassette load ports allow loading of new substrates and unloading of processed substrates without interrupting the robot cycle, providing unparalleled throughput of up to 720 wafers per hour.
- Modular design with vibration isolation, ensuring independency from any type of wafer processing, inspection and measurement.
- Highly customizable design for meeting all your production needs.
- Industry-standard BOLTS interface allows for mounting of loadports, process modules, measurement and other equipment.
- Loadport configurations allow processing of up to 24 carriers simultaneously to meet production demands.
- Fully compliant with SEMI standards.
- Optional SECS/GEM interface.
- All materials and components are Class 1 Clean room compatible.
- High-throughput and reliable Milara single or dual arm robot for fast wafer swapping.
- OCR integrated within the prealigner module reliably track IDs on both sides of the substrate.
- Option to integrate digital scale, measurement, or inspection equipment within the sorter frame.
- Variety of end effector options including vacuum gripping and edge gripping. End Effectors include integrated through-beam sensor for quick and reliable wafer mapping and reporting.
- Full line of autonomus Wafer Prealigners centering from 50mm to 300mm wafers with 20 microns accuracy or better.
- Clean Linear track with linear motors.
- Reliability - MTBF > 60,000 hours, (MCBF > 10,000,000 cycles).
- Monitor and Keyboard.

# EQUIPMENT FRONT END MODULES (EFEM)



- Highly customizable design for meeting all your production needs.
- Modular design with vibration isolation, ensuring independency from any type of wafer processing, inspection and measurement.
- One to four 300mm Load Port configuration and/or up to 24 open cassettes for 50mm-200mm wafers. EFEM can be configured as a "bridge tool" for FOUPs and open cassettes of various sizes.
- Industry-standard SEMI BOLTS interface allows for mounting of load ports, process modules, measurement and other equipment.
- All materials and components are Class 1 Clean room compatible. Milara's EFEM can include a Fan Filter Unit providing minienvironment laminar flow for maximum cleanliness.
- Full line of autonomus Wafer Prealigners centering from 50mm to 300mm wafers with 20 microns accuracy or better
- Fully compliant with SEMI standards.
- Through the wall or Ball Room mounting.
- Optional SECS/GEM interface.
- Industry 4.0 ready
- High-throughput and reliable Milara single or dual arm robot for fast wafer swapping.
- OCR integrated within the prealigner module reliably track IDs on both sides of the substrate.
- Option to integrate digital scale, measurement, or inspection equipment within the EFEM frame.
- Variety of end effector options including vacuum gripping and edge gripping. End Effectors include integrated through-beam sensor for quick and reliable wafer mapping as well as reporting for: occupied slots, empty slots, and cross-slotted substrates.
- Clean Linear track with linear motors
- Monitor and Keyboard
- Reliability - MTBF > 60,000 hours, (MCBF > 10,000,000 cycles)
- PTFE ULPA 99.99995% @ 0.1 micro meters efficiency
- Wafer Flipping (optional)
- Powder coat or stainless-steel finish

## Made by Milara, Inc.



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