

# **ABOUT US**

From a 1-man start-up operating from a government subsidised office to a multi-national company, the modern-day establishment of 4JMSolutions was no easy feat to accomplish within a 15-year timeframe.

It was only made possible through the well-utilised combination of decades of experience within in the automation and integrated solutions industry, as well as its commitment towards customer support.

Offering immediate support through various locations such as Malta, Hungary, Germany, Bulgaria and Morocco, the company's networking directive is a continuous global outreach towards improving our efficiency, meaning you can always find us regardless of which corner of the globe you find yourself needing support.

As Malta's first company to attain full membership with Semicon in 2021, as well as being the nation's first company to exhibit in its renowned conventions, we utilised its platform to familiarise its participants with our services, as well as our regionally secured inventory of products coming from leading OEMs around the world.

This has gathered the interest and led to several active relationships within the Semiconductor, SMT, Automotive, Pharmaceutical, and Food & Beverage industries, after proving ourselves time and time again, as the ideal one-stop-shop for all our customers, catering toward their automation, service, and Industry 4.0 needs.

We are a valued partner with our existing customers and are broadening our customer base all the time.

Please contact us for further details, alongside any questions you may have.

We look forward to meeting you.



**Automotive** 



Consumer Electronics



Industrial & Medical



Internet of Things



Internet of Vehicles



LED



Mobility

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# **MANAGING DIRECTOR**

This is one of the beliefs that we strongly stand by to deliver excellence to our customers, as we base our driving force towards your vision.

We have been welcoming new ideas and collaborations since opening our doors in Malta in 2008 and we intend to welcome many more as we open our doors in Germany and Bulgaria in 2023, making them as our fourth and fifth European branches, helping us achieve Globalisation through Localisation, bringing us ever closer to our partners. SEMICON '23 – Taking place between 14th to 17th November 2023 in Munich, with our own larger booth.

In 2022, we displayed for the first time ever, the first Maltese Company as a member of Semicon. The booth is a point of introduction towards our experience in turnkey solutions and a networking launchpad as we go beyond the show and into your production areas with the best solutions that the industry can offer.

I, as Managing Director of 4JM Solutions, guarantee nothing less than the best support within our industry.

We look forward to elevating your vision and exceeding your expectations.



# **CTO**

We take great pride in our comprehensive support services. From installation and training to maintenance and troubleshooting, we stand by your side throughout the entire product lifecycle. Our goal is to exceed your expectations by providing a seamless experience, ensuring maximum uptime, productivity, and operational efficiency for your business.

At the core of our company culture is a strong emphasis on customer-centricity. Your success is our success, and we are dedicated to providing tailored solutions that address your specific challenges.

We are always ready to listen, understand your requirements, and offer personalised assistance to help you achieve your goals.

Looking ahead, we are excited about the opportunities that lie ahead in the semiconductor manufacturing industry. The demand for innovative solutions continues to grow, driven by emerging technologies such as artificial intelligence, 5G, and Internet of Things. Our team is constantly monitoring industry trends and advancements, continually adopting to stay ahead of the curve in order to ensure we offer the very best solutions. As your trusted partner, we are dedicated to supporting your growth, elevating your vision and helping you navigate these exciting times.



# **SERVICES**

### Field Service Engineering Teams in

Malta Morocco Hungary Bulgaria Germany

Repair Centre.

Proof-Of-Concept in Malta.

New Repair Centre opening 2023 Q4 in Malta.

Loadboard and Burn-In Board high-level test and repairs.

Research & Development in Malta.

Advanced Test Program Development in Malta.

Sales & Marketing in Malta and Hungary.



# **LOCATIONS**



# **CERTIFICATIONS & AWARDS**





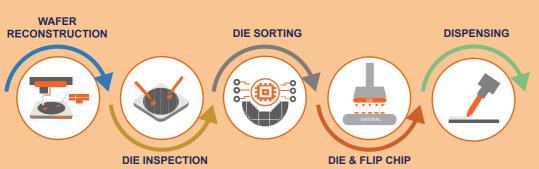
# **INDEX**

Process & Features	Categories	Industry	Packages
Burn-In	Accelerometer	Automotive	BGA SO8
Die Bonding	• Gyroscope	Consumer Electronics	DIP SOD
Dual Temp	Humidity	Industrial & Medical	Discrete SOJ
High Speed	IGBT	Internet of Things	LED SOT
Industry 4.0	LIDAR	Internet of Vehicles	LQFP SSOP
Laser	Memory	- 🖺 - LED	PDIP TFBG-80
Map Read Write	ورون الله الله الله الله الله الله الله الل	Mobility	PDIP 8 TFBGA-208
Pick & Place	Microphone		PLCC Through Hole
Test Page	Optics		Power Module TO 1
Tri Temp	Pressure		QFN TO2
Vision Inspection	Temperature		QFP TSOP
Wireless			SIP TSSOP
			SMT Wafer
			so WLCSP

## WAFER LEVEL PROCESS



# **DIE LEVEL PROCESS**



# **PACKAGE LEVEL PROCESS**



# **Wafer Level Process**

Wafer Level Process. Providing leading equipment for front-end processes all the way from Wafer Test, Wafer Level Burn-In, Wafer Inspection, Wafer Sorting to Die Bonding. At 4JMSolutions we offer Wafer-Level VCSEL as well as sorters, inspection systems, measurement systems, bonding systems, wafer reconstruction and flip-chip.

## **Die Level Process**

Wafer reconstruction, Die Inspection, Die Sorting, Die & Flip Chip, Dispensing.

# **Package Level Process**

Aiming to provide a turnkey solution towards our customers. With various equipment ranging from Laser Marking and Cutting, Singulation, Alignment Assembly, Dispensing and more. Always going a step further and providing custom-made equipment for a rapidly ever-changing industry making our customers' issues a thing of the past.

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### **Wafer Test**

- Trooper-T optical VCSEL Wafer Tester Trooper-BI Wafer-Level VCSEL/LED/Micro LED Burn-in - Test System
- Equipment Front End Module Wafer Robot Handler







### **Laser Application System**

- UV Cutting System Trooper-L Wafer Level Laser Marking Handler
- Laser Repair Application
- Laser Direct Patterning System with IR Laser
- CO2 Cutting System











### Wafer Level Burn In

- Trooper BI Wafer Level VCSEL/LED/Micro LED Burn-in Test System







#### **Wafer Sorter with AOI**

- C530 Wafer to Tape and Reel
- C330 Wafer to Tape and Reel
- FS600 Die Transfer Wafer to JEDEC Tray
- FS500 Die Transfer Wafer to JEDEC Tray
- Optimus MR3 Wafer to Wafer
- Optimus 2 Wafer to Wafer [Single Input Dual Output]











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- Trooper-V Wafer-Level AOI Handler



















#### **Die Sorters with AOI**

- C340 Wafer to Tape and Reel
- C530 Wafer to Tape and Reel
- FS600 Die Transfer Wafer to JEDEC Tray
- Optimus MR3 Wafer to Wafer
- Optimus 2 Wafer to Wafer [Single Input Dual Output]





















#### **Die Bonders**

Flip Chip

- FC-1210 Chip to Substrate or Lead frame
- FC-1250 Chip to Substrate or Lead frame











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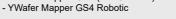




### **Wafer Mapper**

- YWafer Mapper GS4 (2 to 4" wafer) - YWafer Mapper GS4 (2 to 8" wafer)

- Eagle A3000 Flip Chip Placer - WLCSP T&R – Eagle V3500



















### **Laser Marking**

- PM91 Strip Level Laser Marking Handler
- PM92 Tray Level Laser Marking Handler
- PM91-2D Singulated Module/Component Laser Marking















### **Laser Cutting and Deburr**

- Laser Cutting and Deburr Handler
- CO2 Cutting system Eagle X5200G - TM51-CCM Fully Automated Component Cutting
- UV Cutting System Eagle X5065C















### **Active Alignment Assembly**

- Queen-AAC AA Collimator Module
- Queen-AAD DOE Module
- Queen-AAL Lens + Inner Housing Assembly
- Queen-AAP AA Projector















### **Dispensing**

- PM52-DCA Epoxy Dispensing/Screwing and Housing Attach











#### **Customized Solutions**

- PM51-OPS Optics Component Sorter
- PM51-OPR Optics Component Reconstruction
- PM51-V Bin Sorter
- More















- Trooper-BI Wafer Level VCSEL/LED Micro LED burn-in Test System
- Wafer Level Power Device Burn-In Test Handler
- Module-Level Power Device Burn-in Test Handler
- JTS-61X0 Burn-in Sorter Loader/Unloader
- JTS-8700 Burn-in Sorter Loader/Unloader
- JTS-30K Burn-in Sorter Loader/Unloader
- JTS-8500 Burn-in Sorter Loader/Unloader - JLU-2002 Burn-in Sorter Loader/Unloader
- Eagle S2200 Burn-in Sorter Loader/Unloader
- Eagle S8800 Burn-in Sorter Loader/Unloader







#### **Test Handlers**

- MEMS and Sensors
- GIDEON Handler
- Edge Emitting Laser Module Handler
- Motion Sensor Handler
- Power
- PM35-T Turret Test and Vision Handler - PM62/63 Ambient/Hot Test and Vision Handler
- PM52-T Power Module Test Handler
- Turret Handlers
- PM31
- PM35
- PM38 - PM38-T
- Pick and Place Handlers
- NS8000 II Series
- NX1032
- System LSI
- JAC-64K
- JLS-3000
- Dumping System - JDP-3800
- JOQ-800
- JTM-3000



### **Automated Vision Inspection**

- PM35-V Turret Base Vision Inspection Handler
- PM36 Glass Turret
- PM42DT Reel to Reel
- PM52-V Final AOI Handler
- Eagle V8500 Vision Inspection
- Eagle V8000 DDI Chip Vision Inspection Inline
- JAI-D302 Vision Inspection
- JAI-2000 2D/3D Vision Inspection
- JAI-3000 2D/3D Vision Inspection
- JAP-3100 Vision Inspection







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### **Material Handling**

- Conveyor Systems
- Industrial Lifters
- High Speed Sortation Systems - Assembly and Test Modules
- Robotics Technology
- Gantry







### **Storage Systems**

- Storage Systems HAIPICK Systems







### **Smart Factory**

- Manufacturing Executive Systems Intelligent Robotic Manufacturing
- I-Hub
- Automatic Guided Vehicle
- I-Work Bench







**FlexyTest Loadboard Tester** 







### **ModusTest & Socket Testing**

- MPT XT Modus Parametric Tester - MPT - LR Modus Parametric Tester
- MTC Thermal Modus Test Cycler
- MTC G5 Modus Test Cycler
- PCBs
- RegularTM Device Simulators
- Cleaning Tool Kit
- Device Pushers







**Push Up Needle** 



**Hybrid Rubber Collet** 





**Suction Cup** 







**Epoxy Dispensing Tool** 





**Epoxy Stamping Tool** 





**Rubber Collet Holder** 

**Rubber Collet** 



**WIRE BONDING** 



**EFO** 





**Wire Hook** 

**BOND TEST TOOL** 





**Capillary Cleaning** 



**Ball/ Die Shear** 





**Capillary Unplugger** 



**Cold Bump Pull** 





**Wire Cutter** 



Wedge







- FRONT END

TOOLS

# **ESD FLAT SUCTION CUP SERIES**



ESD Flat Suction
Cup Series 1



**ESD Flat Suction Cup Series 2** 



# **ESD BELLOWS VACUUM SERIES**



ESD Single Bellows Vacuum Cup Series



ESD Double Bellows Vacuum Cup Series



ESD Multiple Bellows Vacuum Cup Series





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