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COMPANY PROFILES

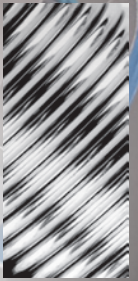
**Whizz Systems / NPI**

**Advanced Precision  
Distribution**

**Averatek**

# LTS

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SOLDERING  
CONFERENCE



CONFERENCE PROGRAM



INTERVIEW INSIDE

**Rainer Kurtz,  
Ersa Chairman**



## COMPANY PROFILE

# Partner for Life(cycle): Whizz Systems Takes NPI to a New Level

BY HUMZA BABAR

Located in the heart of the Silicon Valley, Whizz Systems provides electronics product design, development and manufacturing services. With a reputation for providing the most efficient path to launching products, the company takes an idea and turns it into a workable, shippable product. Customers are in good hands with Whizz Systems because the team manages the entire process of a product from development to prototypes and manufacturing.

Co-founded in 1999 by Muhammad Irfan and Manny Karim, the company began as an advanced engineering and high-mix/low-volume EMS provider. Irfan and Karim invested in the best technologies and practices so that the company could continue providing the best service and products in the industry. Today, Whizz Systems is equipped to successfully design and develop the products that customers need to remain successful in the current rapidly advancing market. The company has the technical expertise, flexibility, competency and scalable capacity to finish a project successfully and cost-efficiently.

They are strategically positioned to service companies targeting solutions for Artificial Intelligence (AI), the Internet of Things (IoT) industry, embedded, FPGA, high-performance computing, and wireless. The company has the needed in-house infrastructure and expertise to provide solutions for integrating a wide variety of sensors, technical expertise around RF/antenna design for connected sensors/beacons and embedded/mobile connected gateways. “We are built for today’s complexity and changing requirements and offer our customers a comprehensive set of value-added product realization services,” said Dan Williams, Director of Sales and Marketing. “Regardless if a customer has small needs or an entire product design and development project, we are here for them as a partner

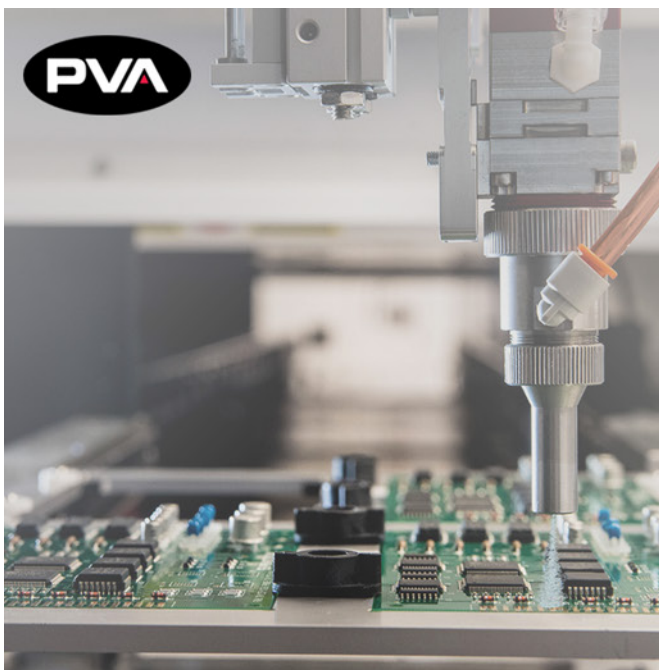


■ For more than 20 years, Whizz Systems has maintained a consistent reputation for providing quality electronics product design, development and manufacturing services.

and an extension of their resources at every step of the process.”

With a global presence across three continents, Whizz Systems’ customers include industry leaders in the computing, storage, networking, security, consumer, semiconductor, instrumen-

tation, medical and defense industries. The company’s team of design engineers, operations, materials and PCB assembly professionals are committed to excellence, which has earned the company its reputation of success and maximum efficiency without compromising on quality. The



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■ Dan Williams, Director of Sales & Marketing, said that Whizz strives to broaden its efforts in connecting to clients worldwide. The company's best technologies and practices provide the best service and products in the industry.

team has developed processes and procedures that emphasize continuous improvement in every phase of the manufacturing operation that includes four state-of-the-art assembly lines in Santa Clara with a similar infrastructure in the Malaysia facility. Additionally, the company provides customers with a cost-reduction path once quantity and projects have been determined.

As part of its successful New Product Introduction (NPI) business, Whizz Systems provides solutions from concept to completion, including the following:

- Engineering: FPGA design, board and system design, signal integrity and simulation, PCB layout and DFX, and simulation, mechanical and thermal design, and JDM
- Manufacturing: Material sourcing and procurement, NPI and quick turn prototypes (board and systems design, PCB fabrication, material procurement, PCB assembly, rework), production, and complete box build services
- Firmware/Software: The company provides firmware and software as it relates to board bring up and debugging. Software design services and capabilities include Cloud, security, RTL for FPGAs, micro controllers, DSP, RF/wireless, USB, porting of operating systems, and connect products.
- Testing: Flying probe, In-Circuit Test (ICT), functional test, burn-in, rework and Engineering Change Order (ECO), and redesigns for EOL parts.
- IoT Design: Whizz Systems offers an expansive choice of engineering services pertaining to IoT networks that are sensor-driven, ranging from IoT architecture design and development to manufacturing. These include edge devices, base station design, sensor networking and cloud connectivity.

Additional solutions include FPGA design, hardware design, CAD & SI/PI, mechanical, thermal, firmware/software, manufacturing, and testing emerging technologies in AI, HPC, IoT. With

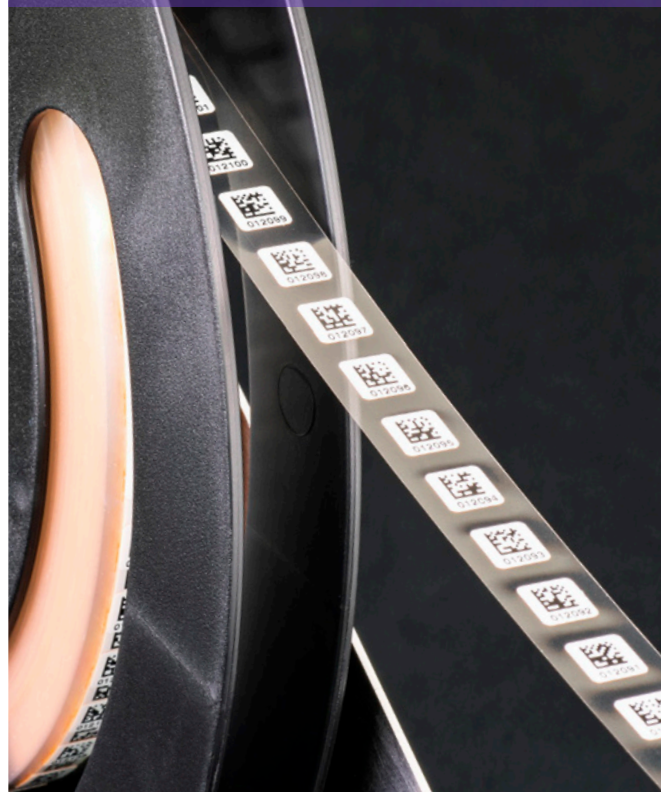
its high-end Signal Integrity (SI), Power Integrity (PI) simulation and thermal simulation expertise in-house, the company greatly improves the first pass success of complex designs. Also, with its materials team providing real-time feedback to engineers during the design phase, Whizz Systems can rule out material availability issues while optimizing cost and performance.

Through its world-class supply chain partners, They provide global sourcing, materials management and logistics tailored to meet customers' unique needs. The company prides itself on having developed sophisticated tools to help manage its inventory, generate customized reports, handle MRP functions and manage prototype and production builds. Coupled with its capability to add new functions, improvements and customer-required formats to its MRP system, Whizz Systems also works with engineering BOMS without part numbers and produces a production BOM with specs for all parts chosen with customer approval. Williams said Whizz Systems has an extensive inventory of commonly used parts in-house and are closely tied with Tier 1 distributors and brokers all over the world to get the parts in time for quick turns, and that this is



■ With in-house world-class manufacturing, the company is equipped to successfully design, develop and manufacture the products that customers need in today's rapidly advancing market.

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what makes the company cost competitive and cost-efficient.

Whizz Systems uses the turnkey manufacturing model to support NPI, quick-turn prototypes, and mid-volume manufacturing. “Our expertise in working with engineering groups doing the designs, building prototypes and providing precise documentation is invaluable,” added Williams. “We decrease burn rates and get our customers to market sooner with a more reliable product.”

The company is known as the time-to-market leader for PCB requirements. When working with startups, it understands that speed is crucial at all points of production. When working with large companies, it understands that multi-tasking is crucial to be attentive to AVL considerations, while interfacing with multiple groups within the customers’ organization, all while keeping the project on track. Its turnkey manufacturing model bridges the gap between engineering and operations.

While most companies have the manufacturing equipment necessary, few actually have a materials team that performs well on quick-turns. They have both. Its materials team closely interfaces with its in-house design team during the design phase to identify long lead time parts, recommend packages readily available, and raise the flag on EOL parts. The process tracks the daily changes made by engineers during the design phase and transmits the BOM changes to the materials team. This precise coordination is crucial to the successful delivery of quick turn prototypes and a smooth transition into production. Williams added that the company’s long-term relationships with key suppliers allows Whizz Systems to circumvent long lead time and secure critical components.

Additionally, the company runs four state-of-the-art SMT lines in-house and is RoHS compliant. They have extensive experience assembling complex

boards with more than 16,000 components, 2800 pin count BGA packages and equipment capable of placing 0201 0105 components and 0.3 mil pitch ICs. “Quick turn is a norm in our business,” said Williams. “Our yields are well above industry average and we have steadily improved the yields of well-known customers during NPI from the high 80s to 99 percent. With proper DFX during the design phase and good manufacturing processes, we are hitting 99 percent yields on most of our programs. The pressure on our factory to maintain both the highest yield products and timely deliveries is consistent and on-going, 24 hours a day, seven days a week.” 

For more information about Whizz Systems, contact Humza Babar, Marketing Associate, at the North American Corporate Headquarters at 3240 Scott Blvd., Santa Clara, CA 95054; 408-980-0400; E-mail: [dwilliams@whizzsystems.com](mailto:dwilliams@whizzsystems.com); Web site: [www.whizzsystems.com](http://www.whizzsystems.com).

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