



## **PRESS RELEASE: Catching with ARTNet Pro**

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By Dan Beaulieu

Recently I had the time to catch up with my old friend Meir Polack the co-owner with Rony Hod of Artnet Pro which is a high tech equipment sales and service company with office in the U.S. China, and South America, and ask him about his new line of Direct Imaging equipment Altix. Since working with one of the Direct Imaging manufacturers a few years ago, I have become fascinated with what I think is the true game-changing technology of the past twenty-five years. So, I am always interested when a new company (new to me that is) comes up. Besides its always fun to have a talk with Meir and get his very interesting global perspective on the PCB industry. I am sure you will agree.

**Dan:** Good to see you again Meir, especially since you have a new line to talk about. So, let's get started by telling me about Altix.

**Meir:** Good to see you as well. Okay, Altix is a well-established/experimented and dynamic company with good imaging product line in the market. Altix is a very good fit to Artnet way of doing business, flexibility to make fast decision and implement them on the field. Altix management understand the market needs of today and working accordingly, try to provide customers with the best technology available in the market at a reasonable price for service and support. I believe that this kind of cooperation between our companies will be a win win situation for us and for our customers.

**Dan:** Please tell me their new revolutionary Altix DI Adix-SA machine and why you are so excited about it.

**Meir:** The Altix DI Adix-SA is a great product for our market, with a renovated user interface and with the DMD LED UV light source, which is gradually replacing the older laser technology. In my opinion, the market is starving for new products that will be more affordable to buy and to maintain. Until two years ago, Orbotech's LDI was the dominate machine in the market.

And since there was no real competition prices to buy and prices to maintain those machines were very high to being almost prohibitive for your normal sized PCB shop. So, with no good alternatives on the market companies, did not have any other choices but to go with Orbotech.

But today we can announce proudly that the Altix DI is a product that can compete with Orbotech LDI in all aspects, stability, performance, price, and maintenance choices for the customers.



**Dan:** I know that your team has done an extensive search to find the best Direct Imaging equipment possible to bring to your customer base. Tell me why you decided on the Altix DI equipment?

**Meir:** Artnet, during the long years of servicing our customers and the market has always been looking to give the best possible service and solution at a best price, without compromising the quality and the level of services we could provide to our customers. We feel that we have finally found this with the Altix equipment. We have always believed as we know you do Dan, that the best-selling point is to believe in the product you are selling and supporting. And for that reason, up to now we choose to support only the Orbotech products. For the longest time they were the best. But now we believe that the Altix DI is the ideal machine to add to our line of products we are selling and servicing. We know believe that this is the best value in DI equipment on the market today.

**Dan:** Let me ask you though Meir, will you still support your customers who have Orbotech equipment?

**Meir:** Yes absolutely, Artnet will keep supporting our current customers who have Orbotech equipment. Additionally, we will keep selling second-hand Orbotech equipment, but we have now added Altix products for customers who want to buy new machines and have special demands for such technology. For those customers we believe that the Altix DI is the right product that can challenge the Orbotech LDI products, performance and quality wise, but beat them when it comes to price and service. I can look in my customer's eyes and tell them that this is truly the next generation product for their shops

**Dan:** Okay tell me exactly why you feel that way. Please describe some of the equipment's features

**Meir:** The Altix Adix-SA model can do any color of solder mask materials, inner/outer layers and LPI. The machine is also great for processing , flex and rigid-flex PCBs because of a special and unique clamp mechanism on the table in addition to a standard vacuum table. The printing heads are sealed and protected from dust and fumes, and are further protected because they are seating in a closed box with internal environment condition right inside the machine, which leads to better stability, and longer life expectation of the print heads. Each print head has a 4 wavelength LED light source of 365, 380,395and 405 nm. This feature provides the ability for this machine to work sufficiently with almost any material available currently on the market. Adix-SA have a great human interface with a great deal of the detailed information needed during the imaging process. The machine application is easy to learn. Additionally, machine accuracy and performances equal to the Orbotech LDI and in some areas better.

**Dan:** Is there more than one model available from Altix?

**Meir.** Yes, there are currently several models. There is Adix SA is a semi auto version where the operator loads the panel himself. Then there are ADIX PT/PTF (*Pass Through / Pass Through Flip*) and CS/F [*Compact Standardized / Flip*] integrate automation for medium and high-



volume production. Automation is either standardized or customized. And finally, ADIX RtR [Roll to Roll] is dedicated for high volume web production

**Dan:** So far you have talked about how the machine rates against Orbotech. How is it better than the other machines in its field?

**Meir:** Looking at other products in the market, and compare it to Adix, you can clearly see that this product was designed very carefully with a lot investigation of the the market demands. The Adix SA has it all under one hood, you don't need 2 or three models to do the job for you. You do not have to worry if the demand during working day is first inner layers, outer layers, solder mask or LPI, one machine is capable to do it all with the best stability and quality at its class. Most of the products available in the market can be used for inner/outer layers or Solder mask/LPI. With the flexibility of this machine you can build Rigid, rigid-flex or flex boards and use this machine for any purpose you need at any given time during your process

**Dan:** What does it do better? What makes it outstanding?

**Meir:** There are a number of things that make it head and shoulders over the competition:

First the ADIX has a unique design for the table with an adjustable vacuum and an automated clamping system that provides outstanding results in terms of registration and resolution.

The, the machine has fixed photo heads that ensure much greater stability over time in terms of quality of panels and maintenance. Our competitors have moveable heads that will cost more maintenance and calibration, and the lifetime of the heads will be reduce, this will be add tremendously to the cost of ownership to the customer.

Moreover, this machine is self-contained, so there is no chiller, or other components outside that contaminate the clean room. All our competitors require extra space around the machine;

And finally, the user interface is very user-friendly, and it enables the operators to use easily the machine. The HMI integrates different languages such as English, Spanish, Chinese, and many others that can speed up the learning curve ;

**Dan:** You have told me that it has the best in class registration. Please explain that statement.

**Meir:** This machine has one of a kind registration system and proof results on site for best registration top to bottom and image to panel With a very good and accurate table stage movement at a very high accuracy, together with high-definition cameras to detect the targets on your panels, and the printing heads with a very high tolerances of image positioning on the table, this task can



be achieved. Side to side accuracy is +/- 12um (0.5 mil) and Image panel registration is +/- 8um (0.3 mil).

**Dan:** And you said it can handle flex and rigid flex as well?

**Meir:** Beside the unique clamping and vacuum system I talked about earlier, the dynamic autofocus range on the Adix-SA is 8mm (+/-0.3 inches) and the depth of focus is 200um (8mils) which are helping with the uniformity of Image quality on the flex material's flatness issues.

**Dan:** What is real time scaling and positioning exactly?

**Meir:** Real time scaling and positioning means that the scaling calculation and positioning of the image are done during the imaging process, based on target location comparison between the CCD system on the machine and the actual digital data.

**Dan:** How big is the footprint? How much space does it take?

**Meir:** Due to machine structure to achieve the best accuracy, machine is built on a granite table. Also, table movement on a linear stage to achieve the accuracy needed to be the best of its class, are demanding a larger foot print than some of the other competitors in the market. Comparing the Adix SA to its main serious competitor it is smaller than the latest Orbotech platforms (6' X 9' X 6.5').

**Dan:** Does it have to be in a clean room?

**Meir:** This is a good question and it is depending on each customer's products and specifications. If a product is required a 1mil line it is for the customer's benefit that the clean room will be fitting to achieve good line quality without dust particles that will affect this goal. So, to your question, the machine needs a normal basic clean room with temperature and humidity control to achieve good registration and stability. The Adix DI have a self-contained chamber with controlled environment, with hepa filters and a trap door on the operating side. But if the panels will be dusted and dirty you are going to see it on the results after imaging if the dust particles are too big.

**Dan:** Your literature mentions photo heads upgradeable on site, what does that mean?

**Meir:** The ADIX SA comes with 1 to 6 printing photo heads which is affecting the machine price and productivity. So, customer can order the machine with 2 heads and start working with the machine on site. If the customer's needs change over time and they need more capacity, we can offer to upgrade on site by adding more heads to increase the machine's capacity.

**Dan:** I know that many DI machines do claim to apply solder-mask, but they do not seem to do it very well. How about this machine can it handle solder mask?



**Meir:** As I mentioned previously, this machine is the best at its class for handling any type of solder mask materials available on the market. It can achieve higher quality dam and smaller size dam due to the unique 4 wave length LED light source on each printing head, 365nm, 380nm, 395nm and 405nm and by its unique table design.

**Dan:** Can it handle all solder mask colors?

**Meir:** Yes, it can handle any available color offered in the market.

**Dan:** How about speed? Is this machine as fast or faster than other machines?

**Meir:** This machine is as fast and better than Orbotech LDI on the market. The big difference between the Orbotech and the Altix machines is the fact that Orbotech is using high power lasers to expose the solder mask materials in order to compensate on using 355nm laser on the 16W product or on the 2-wavelength laser on their newest product. This is causing an inefficient material exposing and waste of a high electricity consumption expensive lasers. The Altix product, due to the 4 wavelength LED light source can expose solder mask material with the highest efficiency possible, without heating and burning the material, and the results are much better.

**Dan:** Will Artnet be providing the servicing and PM for this machine?

**Meir:** Yes, Artnet will support the customers in North America, Vietnam, Thailand and China. People at Artnet will be trained by ALTIX and ALTIX North America service for the ADIX, specifically for machines sold by Artnet. Artnet also will sell spare parts to customers and give all maintenance services for this machine, yearly service agreements, Time & material, yearly basic agreement for 1 or 2 times a year PMs and calibration. So, customers will benefit from ArtNet experience and service quality that we currently provide to all our customers. With both Arnot's experience in maintaining Direct Imaging, and Altix providing high quality direct imaging, customers will benefit of the best value proposition direct imaging in the market. We are very excited!

**Dan:** Honestly, in your own words and looking me in the eye. Why should a company buy this machine?

**Meir:** Looking in your eyes, I can say the Altix ADIX SA is a very good product that can compete and do better than the competitors currently on the market. Orbotech was creating a prestige image of the best product in the market, it was true statement for many years, I do not agree that it is true currently. The Altix DI is a very good alternative to the Orbotech LDI offering the same or better characteristics, built to last for years. There has never been a better time for customers to advance to a new technology from a young and dynamic company that managed to create a great product. It is the right time to change the legacy of Orbotech and move to a new legacy.



**Dan:** How does someone learn more about this equipment?

**Meir:** Customers can contact Artnet pro, Inc in north America to request more information regarding the Altix DI product. We will be glad to arrange demos and testing for customers that want to evaluate this product. Artnet will add soon to our web site more information and technical details regarding the Altix DI product.

**Dan:** Will you be displaying at IPC APEX this year?

**Meir:** Yes, Absolutely! Artnet will join Altix North America's team at the 2019 IPC show in San Diego. We will invite some of our customers to join us at the Altix booth for presentations and discussions regarding Altix DI. And I want to mention that we are running a promotion for APEX 2019 offering a machine at an incredibly deep discount. The company that buys the machine at the show will also receive two air tickets to Paris with 2 nights stay and an opportunity to visit Altix corporation head-quarters in France. We will be glad to give customers more details regarding this offer, if they email us at [mpolack@artnetpro.com](mailto:mpolack@artnetpro.com).

For more information about Artnet, go to [www.artnetpro.com](http://www.artnetpro.com)

For more information about Altix, go to [www.altix.fr](http://www.altix.fr)