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Press Release

Modernization for Competitive Advantage

Cell manufacturer replaces laser edge isolation with ten-lane wet-chemical edge isolation

The photovoltaics market has become a buyer's market. The consumers decide on the prices now and the race between the providers for higher efficiencies is in full swing. At the end of July, the Taiwanese industry information service, Digitimes, reported on slackening demand for solar cells with an efficiency of lower than approximately 16.4%¹. Manufacturers who cannot produce cells of higher efficiency face the prospect of sinking revenues and a marked decline in orders. "Modernize to survive", is the dictate of the day.

Against this backdrop, the Schmid Group has announced the first order for a ten-lane wet-chemical edge-isolation unit to replace the client's current laser edge isolation. Under the typical efficiency distribution ranges of standard cell production, the resulting efficiency increase of 0.2% over the substituted technology means an increase in marketable products by 4-5% and, consequently, an increase in profits of nearly the same percentage.

The return on investment is achieved within a mere two to three months for each line replaced due to the low costs. The extension of wet-chemical edge isolation with Schmid's selective emitter technology will be even more attractive. Both combined will allow efficiency increases of 0.5% for multi-crystalline cells and up to 1% for mono-crystalline cells. Under these conditions, cell manufacturers will boost their profits by increasing the quantities of all marketable products, even by an outstanding margin of 10-20%.

With a throughput of up to 7,600 wafers/h, Schmid's ten-track edge-isolation can replace seven conventional systems for laser edge isolation. The compact dimensions of the wet-chemical system allow its ready integration into existing production halls with limited space. It is the optimum solution for the modernization of standard production lines. Schmid is currently the only supplier offering systems with a throughput up to 7,600 wafers/h.

¹Solar cell conversion efficiency below 16.4% facing below-market prices. Digitimes, 28 July 2011



Picture caption: kantenisolation.jpg

Detail 10 lane edge isolation

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