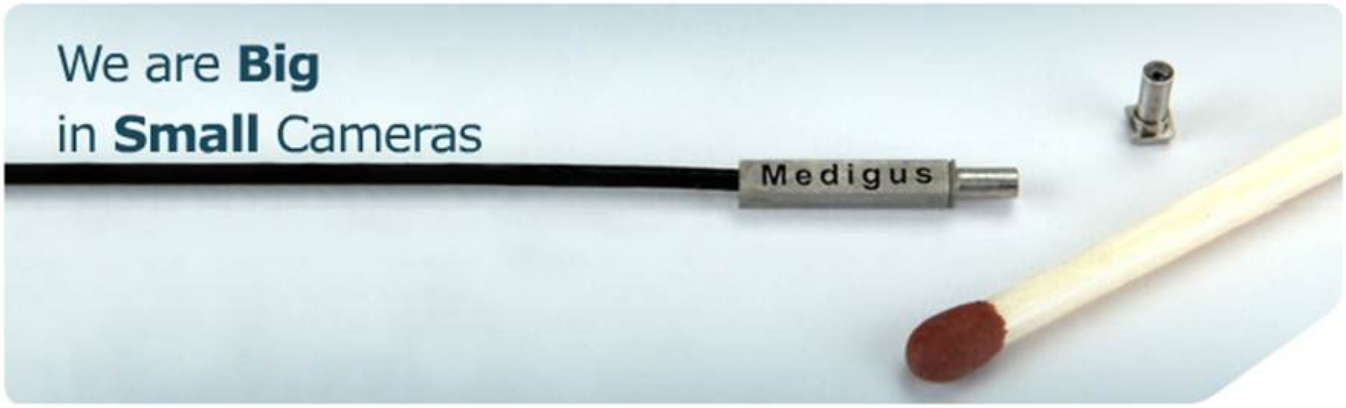
Medigus presents world?s smallest camera for medical endoscopy based on TSV Packaging

I-Micronews

Medigus Ltd., a leading developer of endoscopic and visualization medical devices, and TowerJazz, announced successful sampling of the second generation of TowerJazz's CMOS imager that serves in Medigus' line of disposable miniature cameras.



The image sensor, a high performance product at a low cost, combines superb sensitivity, high resolution and dynamic versatility, allowing customers a variety of potential medical applications in growing markets such as cardiology, bronchoscopy, gastroenterology, gynecology, and orthopedic and robotic surgery. The use of disposable cameras eliminates the need for the very expensive and time consuming sterilization process commonly associated with endoscopic procedures.

The imager was developed using TowerJazz's best-in-class sensor design and production technologies, while the camera was developed using Medigus' electronic, optic and integration platform technologies. The disposable camera sensor will be manufactured in TowerJazz’s Fab2 using its 0.18-micron CMOS image sensor process and will be integrated into the camera produced in Medigus' manufacturing facilities.

In this second generation miniature camera, Medigus and TowerJazz are using advanced technologies, including TSV (through silicon via) for packaging which minimizes the camera’s size and reduces production costs in high volumes. The camera’s diameter is only 0.99 mm, the first video camera in the world with a diameter smaller than 1 mm. The camera includes a dedicated image sensor, measuring 0.66x0.66 mm and its resolution remains high with 45K pixels. The camera features dedicated bio-compatible components suitable for medical device applications and will enable new medical diagnostic and therapeutic markets in which the use of current video cameras is not feasible due to their size.

Medigus will begin supplying samples of the camera to customers in Japan and in the US for cardiology procedures. The camera will be integrated in Medigus' other endoscopy products and will also be sold to third-party medical equipment manufacturers.

"*We are excited to release our second generation disposable camera with advanced features to further progress the medical endoscopic field*," said **Dr. Elazar Sonnenschein**, CEO for Medigus Ltd. "*Due to our collaboration with TowerJazz, we are able to produce the world's smallest camera to allow a variety of medical procedures that were previously not possible. In addition, our breakthrough technology provides the medical community and patients with quality and cost-effective diagnostics*."

"*We are proud to work with Medigus to jointly develop such an important tool to the medical market. By using our advanced sensor technology combined with Medigus' expertise in visualization medical devices, we enable not only the smallest, but the highest performance disposable camera*," said **Dr. Avi Strum**, Vice President & General Manager, Specialty Business Unit at TowerJazz. "*Our best-in-class sensor design capabilities and pixel performance have allowed us to maintain a leading position in this growing, high margin market*."

About Medigus Ltd.
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