

PZT thick film for high frequency medical imaging

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In recent years there has been a drive towards developing smaller, lower cost electronics. This drive is obviously present in the piezo industry and it calls for novel manufacturing techniques such as thin and thick film technology.

To address this call Meggitt A/S has developed a process to deposit piezoceramic thick film on various substrates.

The most successful business case for piezoceramic thick film within Meggitt A/S is the high frequency ultrasonic transducer for medical imaging, currently used in a cosmetic application. The thick film technology offers ultrasonic devices with competitive and in some cases superior properties compared to devices made in the conventional way and the manufacturing lends itself to high volume and low cost.

The development history and the functionality of the imaging transducer, associated with the unique manufacturing technology will be presented along with technical characteristics and imaging properties.

Also a brief history of up-scaling the manufacturing capability will be presented, going from labor intensive manual work to various degrees of automation.