Report of RFTech presentation during Mixdes conference

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Title of presentation:

Image Acquisition Module for uTCA Systems

Presenter:

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A. Mielczarek has presented an Image Acquisition Module dedicated for uTCA-based instrumentation and control systems. As the machine vision is crucial for many industrial processes the presented system may find wide industrial adoption. The module captures video stream over the Camera Link interface, buffers it, provides headers and finally sends to server using Gigabit Ethernet connection.

Abstract: The Micro-Telecommunication Computing Equipment (µTCA) and Advanced Telecommunication Computing Architecture (ATCA) are gradually gaining popularity in the industrial control systems. The number of compatible COTS Advanced Mezzanine Card (AMC) modules increases every year but there is still an important gap on the market. Currently there are no high-speed video acquisition cards available. The machine vision plays an important role in many industrial processes, hence the effort was taken to develop an AMC module offering possibility to interface high-speed high-resolution cameras. The paper presents a prototype of Image Acquisition Module (IAM) dedicated for plasma monitoring. The complete frame grabber together with camera controller, timing and communication interfaces is fitted in one AMC to maintain compatibility with the µTCA standard.

Index Term: image acquisition, frame grabber, mtca, utca, amc

Remarks:

I had an interesting talk with Mr Przemysław Szecówka PhD, who liked to share his experience related to the art of presentation. He have shown me how to provide the content in more interesting and interactive way.

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