

ARM BASED MULTICORE QSEVEN WITH SINGLE CABLE PCAP TOUCH PANEL SOLUTION

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AGENDA

- Short Facts, Data Modul
- Markets
- Multi Core Cortex A9, new Interfaces
- Qseven: x86 and ARM compatibility
- New Panel/Touch Interface
- New Qseven Module
- Questions & Answers

SHORT FACTS

EUROPEAN MARKET LEADER IN THE SEGMENT OF DISPLAY TECHNOLOGY.

- Headquarters: Munich, Factory: Weikersheim
- Sales offices: Germany, France, Spain, USA, Italy, UK, Denmark, Scandinavia, Singapore, Dubai, South Africa, Switzerland
- Products: Flat panel displays, Embedded computer systems, complete information systems
- Business segments: Displays and Systems
- Formation: 1972, listed on German stock exchange since 1989
- Turnover: 140,9 Mio. Euro (2011)
- Employees: 294 (2011)



DATA MODUL IN MUNICH & WEIKERSHEIM



MARKETS



Automation / Robotics

Displays and Touch Solutions as HMI for a wide range of industrial applications



Home Appliances

Cooking, laundry, dishwashing & cooling devices and microwave ovens



Control Systems for lightning & music

Mainly used in theatres, operas, churches, mosques, stadiums, hotels and conference centers as well as open air festivals



Medical

Display devices for diagnostics (MRT, CT), patient monitoring and mobile control



Energy Efficiency

Industrial Flat Panel Displays for renewable solar and wind energy applications



Automotive

Broad range of optical Encoder and Displays with Touch for Automotive applications



Communications

Video conferencing systems & desk phones



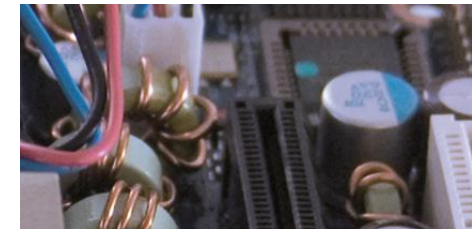
Transportation

Passenger Information systems for airports bus stations and railways as well as cabin entertainment systems



Command & Control

Solutions for monitoring, control and communication



Services / Maintenance

Technical service concepts, maintenance & service contracts, individual solutions, support packages



Infotainment

Large size displays for POS / POI solutions, Digital Signage and Gaming



Marine

Displays and Embedded Systems for Radar, Navigation, ECDIS and Ship Automation



Software

FIDS / PIDS software generating timely and accurate information when and where required

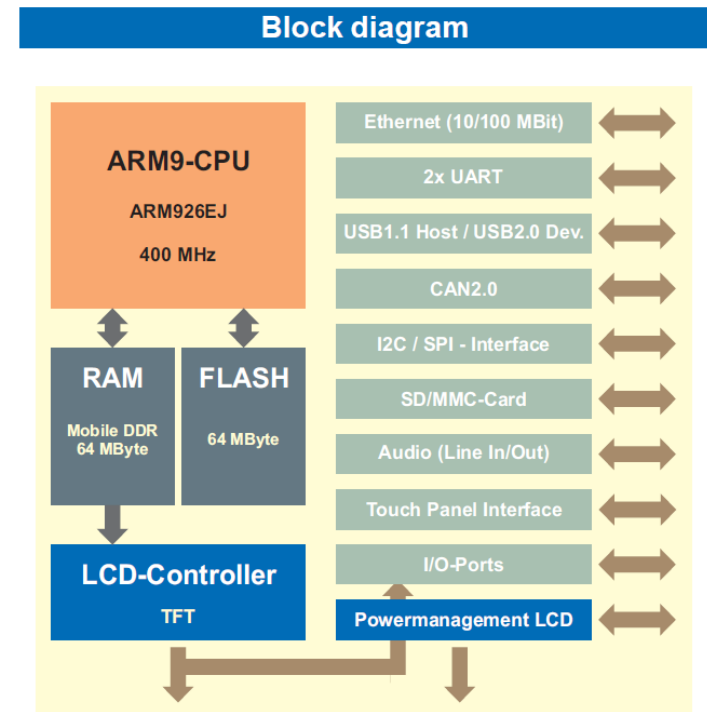
MULTI CORE CORTEX A9, NEW INTERFACES

Known and Common Interfaces in “x86-World”

- SATA, SDIO
- 3D graphics , dual independent graphics
- LVDS, HDMI, Displayport
- Gigabit Ethernet
- Multiple USB 2.0
- PCI-Express

Now available in the “ARM-World”

- e.g. F&S PicoCOM4 Block diagram:

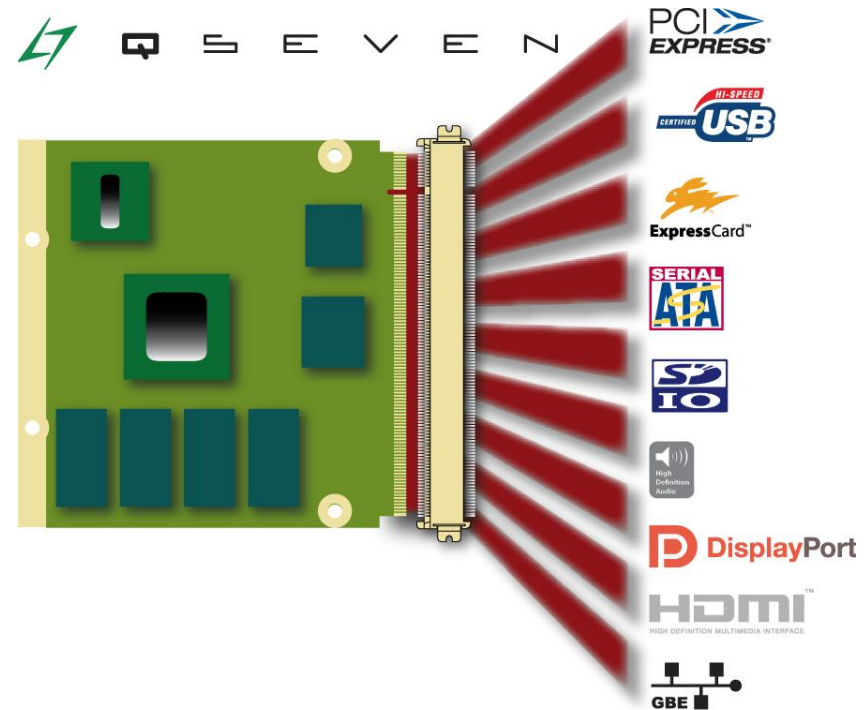


QSEVEN: X86 AND ARM COMPATIBILITY

Qseven:

- Up to 4x PCI Express lanes
- Up to 2x SATA, 8x USB 2.0
- SDIO, I²C Bus
- 2x RS232 (only Rx/Tx)
- High Definition Audio (HDA)
- Gigabit Ethernet
- LVDS 2x24 Bit
- DisplayPort / HDMI (shared)

→ Now it's possible to combine x86 and ARM in one Standard



NEW PANEL/TOUCH INTERFACE: DUI

Market Trend of different Touch Technologies:



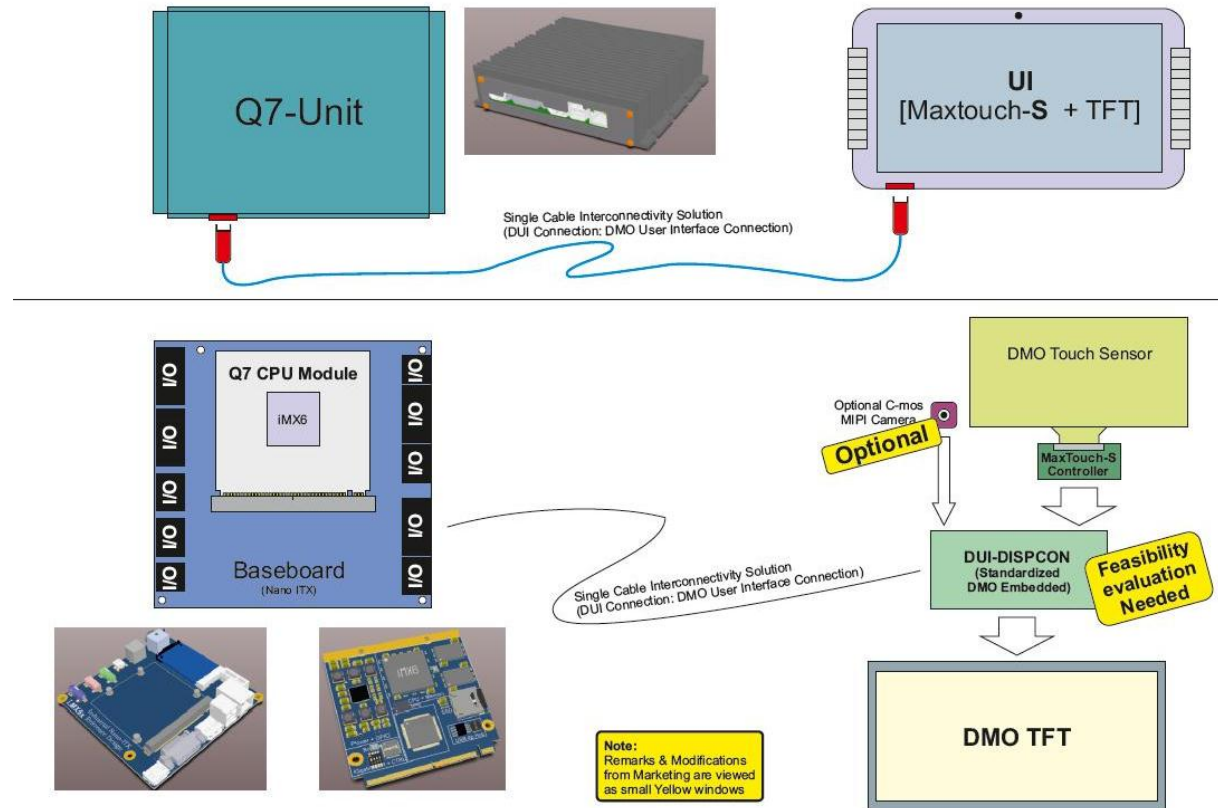
➔ Biggest growth: Projective Capacitive Touches

NEW PANEL/TOUCH INTERFACE: DUI

DUI: Data Modul User Interface Connection

- Single Cable
- Displayport 1.1
- AUX-signals
- I²C-Bus
- Easytouch-Controller
- LVDS Converter

→ DUI DISPCON



NEW QSEVEN MODULE: EDM-QMX6

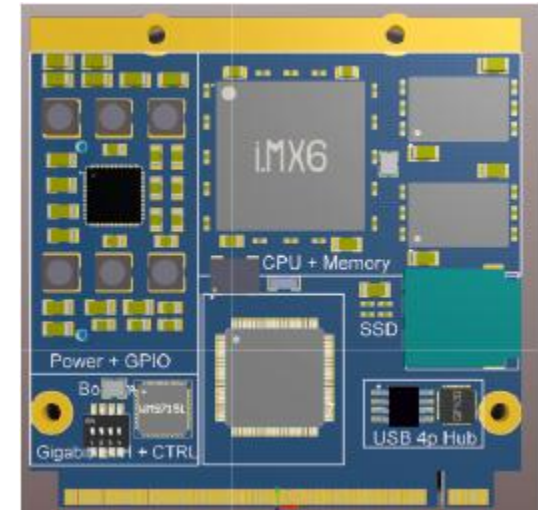
eDM-QMX6

- First “real” Qseven compatible ARM based CPU-Module
- Displayport 1.1
- Pcap-Controller accessible through “DP- Aux Channel“

CPU

- Freescale® i.MX6 Solo ARM Cortex A9, 1.0GHz, 512B L2 cache
- Freescale® i.MX6 Dual ARM Cortex A9, 1.2GHz, 1MB L2 cache
- Freescale® i.MX6 Quad ARM Cortex A9, 1.2GHz, 1MB L2 cache

- Up to 2 GByte DDR3 memory



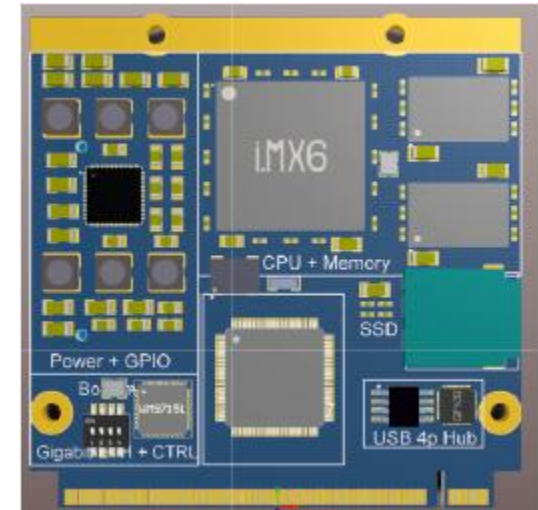
NEW QSEVEN MODULE: EDM-QMX6

I/O

- 1 x PCIe 2.0 (for WIFI, COM-Ports, CAN, 3G-Modules,)
- 1 x UART & JTAG
- 7 x USB 2.0 , 1 x USB OTG
- 1 x I²C Bus
- 1 x SMB
- 1 x LPC bus (opt.)
- 1 x SPI
- 1 x CAN Bus
- 1 x Camera Interface (e-tech i OM5G40)
- 16 x General Purpose I/O, Android buttons (extra connector)

Audio

- AC97 compatible HD Audio interface SPDIF IN & OUT



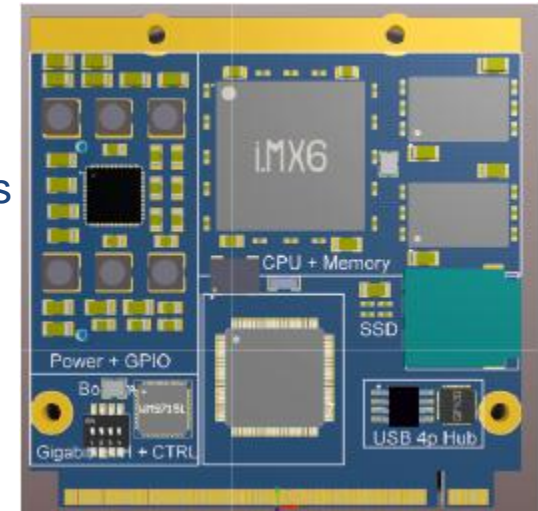
NEW QSEVEN MODULE: EDM-QMX6

Display

- Integrated in Freescale i.MX6 Series Video (VPU), 2D Graphics and 3D Graphics , dual stream 1080p/720p decoder/encoder, OpenVG 1.1 processing unit
- Up to WUXGA resolution 1920 x 1200 and HD1080
- 1 x dual channel 24 Bit LVDS
- 1 x Displayport 1.1

Storage

- Onboard Solid State Drive up to 16 GByte (optional)
- 1 x SATA 2.0 (3GB/s)



LAUNCH OF NEW EDM-QMX6

DATA MODUL

- Electronica, Munich
13.-16. Nov. 2012



QUESTIONS & ANSWERS

THANK YOU!
www.data-modul.com