Continental
The Future in Motion

Use Automotive Know-How

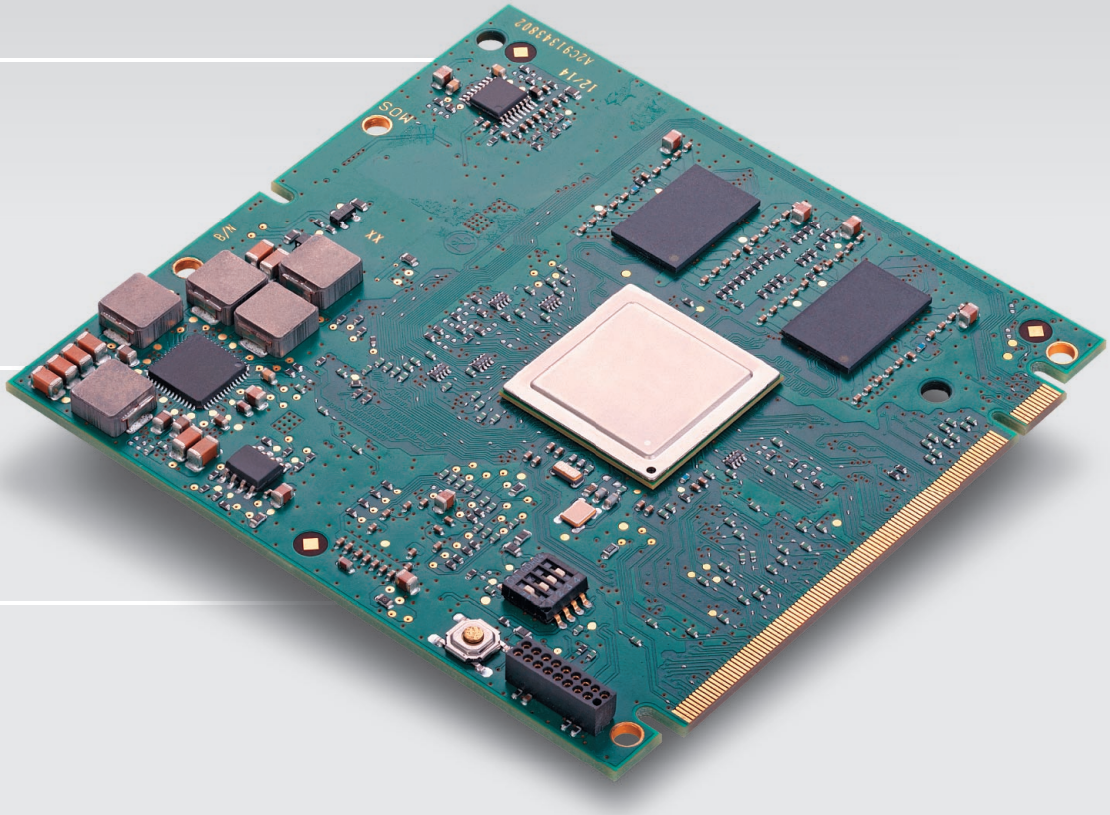
On account of the efficient use of existing automotive-solutions the development of embedded applications becomes easier.

Save Time

The use of SystemOnModules and Board Support Packages will allow a shorter development time.

Reduce Costs

Development costs will be reduced by using standardised SystemOnModules and Board Support Packages.



CES automotive CoreBoard based on the Freescale® i.MX6 ARM Processor

Continental Engineering Services offers a compact SystemOnModule solution based on a Freescale® i.MX6 ARM SoC with diverse interfaces for a use in automotive multimedia and infotainment applications with its CES automotive CoreBoard.
The flexibility and strength of the architecture allows the additional use in other areas of embedded applications.

Therefore the expanded temperature range and the exclusive use of automotive-components the module is suitable for the use in harsh environments.

Multiple Interfaces, Scalability, Computing Power with Memory Technology

With a 2 x USB 2.0 interfaces, 2 x UART and 2 x CAN the Core Board has an Ethernet and PCIe interface. For additional periphery there are 3 x SPI and 3 x 12C, as well as 16 x GPIO signals. The computing power is from ARM® CortexTM-A9 Single to Quad Core within the i.MX6 family, up to 2 GB DDR3 RAM are used depending on the requirements. In order to deal with complex memory scenarios, there are eMMC Flash; RAW NAND and Serial Flash available. For the sophisticated 2D and 3D applications there are three display-interfaces, which enable a hardware-accelerated HD video material representation.

Compact form factor

On account of the very compact design the CES automotive board can be used as a Piggy-Back in a customer oriented circuit board, this is an ideal customer specified solution for the development. It also includes In-Vehicle devices, small portable solutions or stationary embedded applications in different areas (Automotive/Industrial/Medical/Railway).

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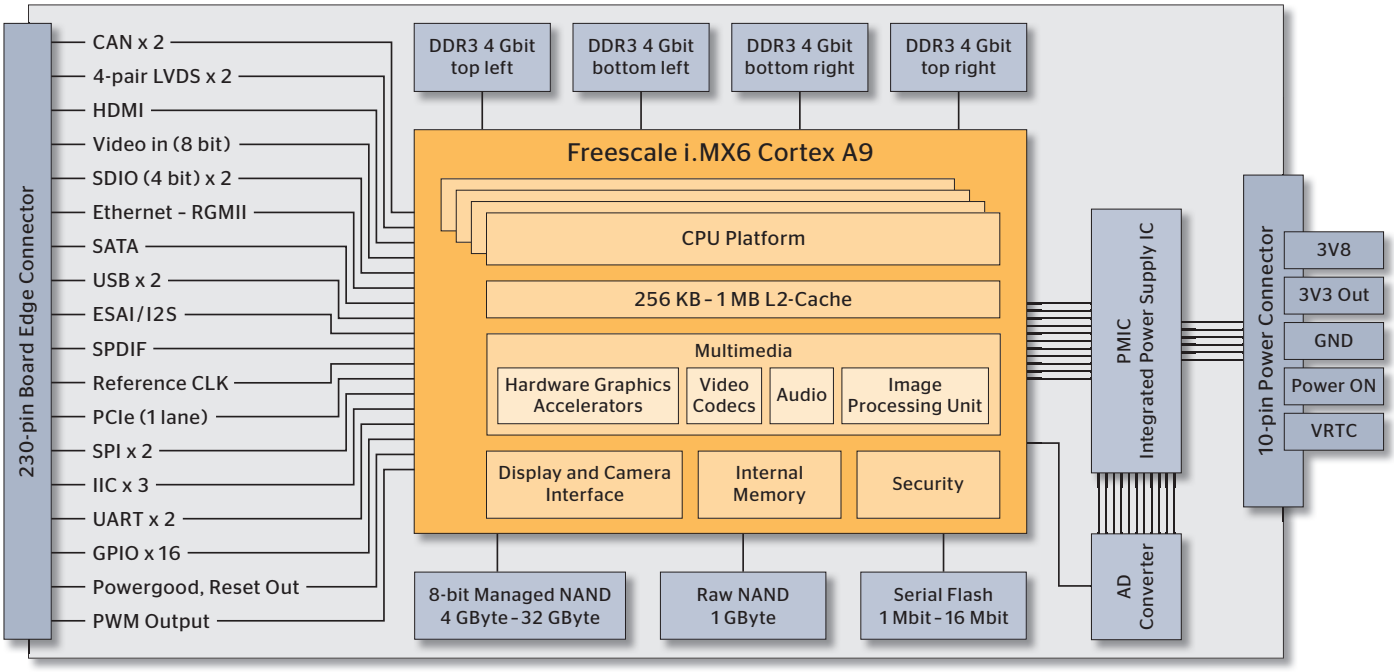

Processor / Performance	
Freescale® i.MX6 Quad ARM Cortex A9 up to 1.0 GHz, 1 MB L2 cache	•
Graphics	
Video, 2D Graphics and 3D Graphics, 3D graphics with 4 shaders up to 200 MT/s, dual stream 1080 p / 720 p decoder/encoder, OpenGL, OpenCL and OpenVG 1.1	•
RAM	
DDR3 RAM, 1066 MT/s	up to 2 GB
Flash	
RAW NAND	1 GB
eMMC Flash	4 GB up to 32 GB
Serial NOR Flash	1 Mb up to 16 Mb
Display	
LVDS 18/24 bit dual channel up to WUXGA 1920 x 1200	2
HDMI v1.4	1
Technical Data	
Dimensions	85 x 80 x 10 mm
Net weight	50 g
Input voltage	3,8 V +/– 10 %
Current consumption typ.	1000 mA
Power consumption typ.	3,8 W
Environmental Conditions	
Operating temperature (ambient)	– 40 up to + 85°C
Storage temperature	– 40 up to + 85°C

Communciation Interfaces	
SATA II	1
USB 2.0 (OTG)	1
USB 2.0 (Host)	1
Ethernet up to 1 Gbit via RGMII	1
RS232 (UART)	2
CAN Bus (Rx-Tx)	2
PCIe	1
ESAI	1
SDHC	2
I²C bus	3
Camera Interface MIPI CSI-2	1
SPI	2
PWM	1
SPDIF (OUT)	1
Features	
Real Time Clock	•
Watchdog Timer	•
Intelligent power management	•
Temperature supervisor	•
GPIOs	16
Operating Systems	
Linux	•
Android	•
Windows Embedded Compact 7	•
uBOOT and BSPs with OS drivers and tools	•

Are you looking for a suitable embedded platform for your application?
Combine the CES automotive CoreBoard with our Know-How of hardware, software and mechanical design, such as the full service of our experts:

- Customer-specified software board support packages and development of applications
- Development of hardware for customer-specified design
- Mechanical integration of solution in a system or case
- Verification and validation of the whole system
- Industrialisation and production of your products

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