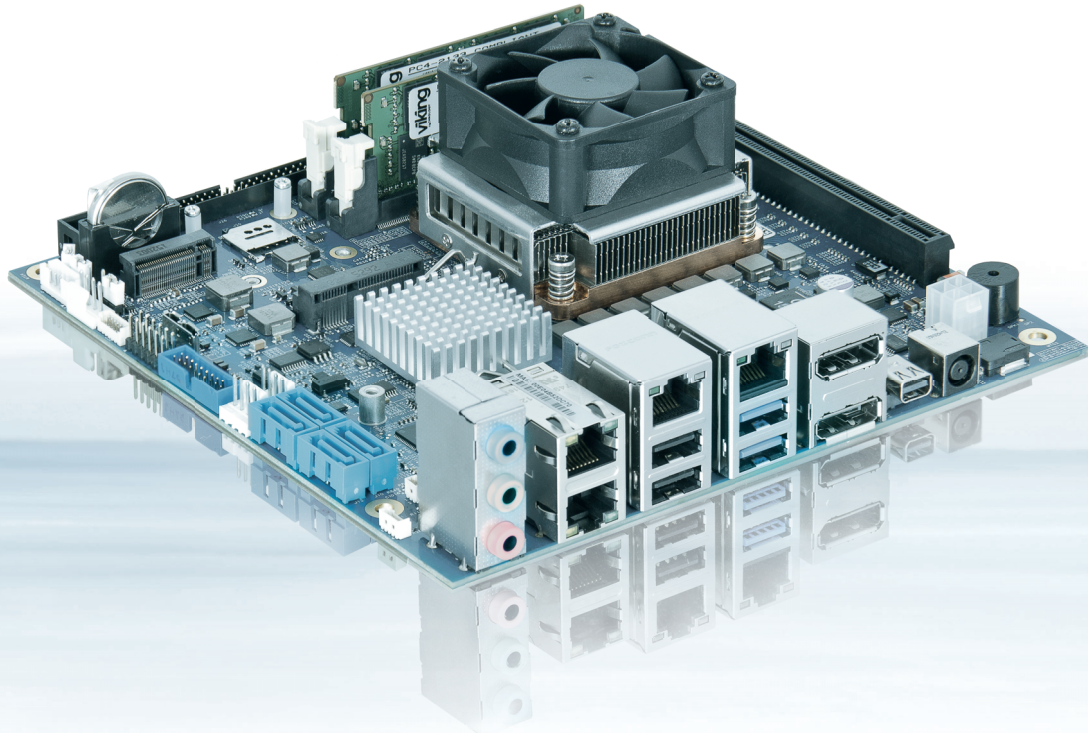# mITX-KBL-H-CM238

▼

EMBEDDED mITX MOBILE MOTHERBOARD WITH
7th GEN Intel® 14NM QUAD CORE™ i3/i5/i7, XEON® E3

▶ long term available embedded mITX mobile class motherboard

▶ Intel® HD graphics with 3 independent ports

▶ SO-DIMM socket DDR4-2133 memory (up to 32 GByte)

▶ TPM2.0 and hardware security device to protect applications and licensing

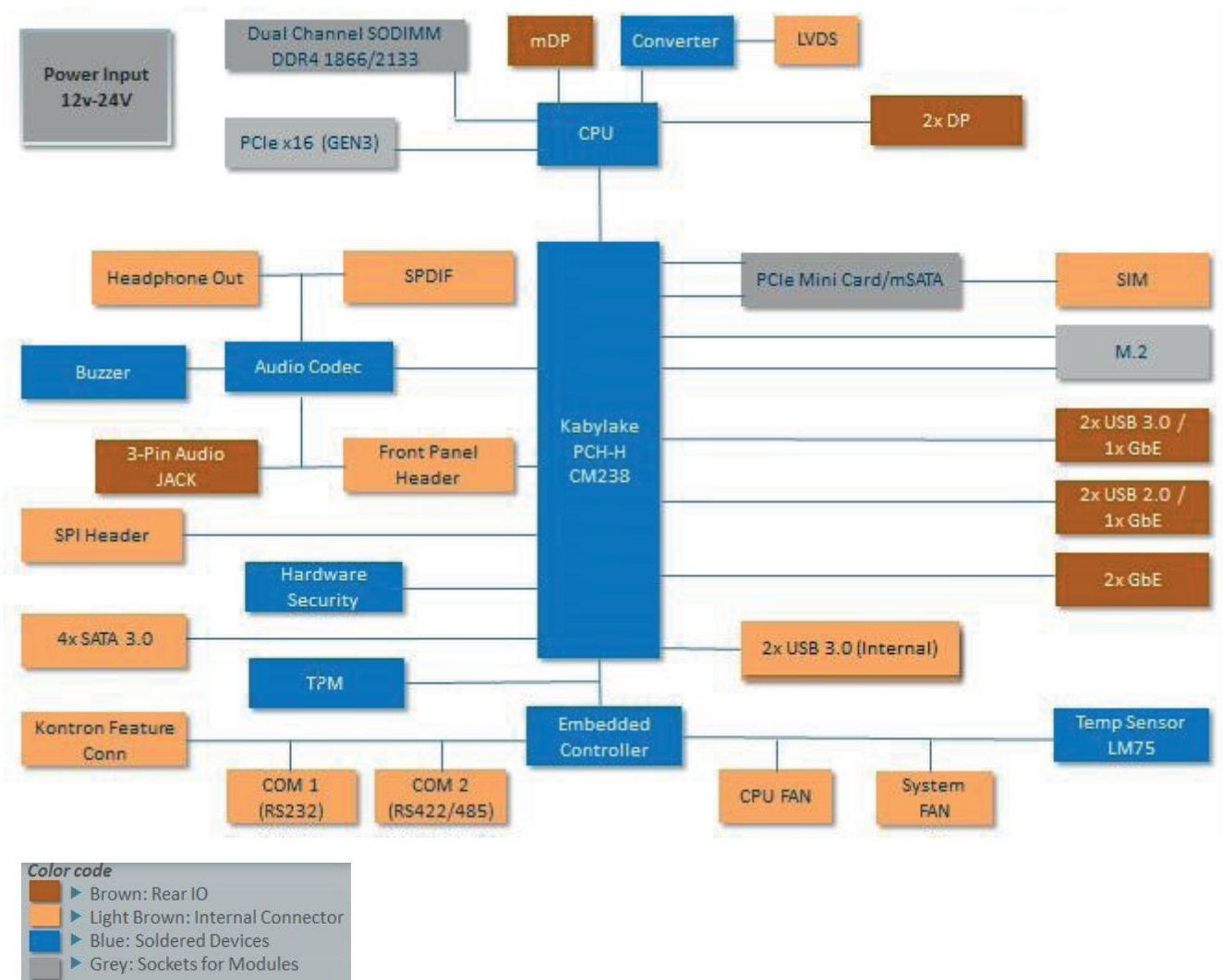▶ up to 4 GBE RJ45 Ethernet LAN ports

POSSIBILITIES START HERE

kontron
S&T Group

mITX-KBL-S-C236

Typical Applications

▶ POS/POI: Higher Graphics and CPU core performance, Low power, multi display support

▶ Medical/Connectivity: Higher Graphics and CPU core performance, longevity

▶ Industrial Automation: Wide range of I/Os, compact size, longevity

▶ Digital signage: Multi display support, low power, wide range of I/Os

▶ Future-oriented Devices: Display Port and LVDS, low power, compact size

The mITX-KBL-H-CM238 is part of the Security Solution Product Line the motherboard is prepared for Application Protection, License Creation, Delivery, Management and Tracking, Implementation of license models as well as the assignment of privileges and access levels.

▶ BLOCK DIAGRAM MITX-KBL-H-CM238

Color code
▶ Brown: Rear IO
▶ Light Brown: Internal Connector
▶ Blue: Soldered Devices
▶ Grey: Sockets for Modules

▶ TECHNICAL INFORMATION

PROCESSOR	Intel® Xeon® E3, Core™ i7/i5/i3
MEMORY	2x DDR4 SODIMM 2133 MHz (up to 32 GByte)
GRAPHICS INTERFACE	3x Independent Displays (3x DP)
SPECIAL	TPM2.0, hardware security device, M.2 (2280, Socket 3, M-Key), SPI Fast Interface, SIM
SATA PORTS	4x SATA Gen 3.0
MPCIE / MSATA SLOT	1x Mini-PCIe with USB2.0/PCI/SATA and external to SIM
SERIAL PORTS	1xRS232; 1xRS485 Half duplex /2 pairs RS422
LAN PORTS	4x Ethernet on front IO Gigabit-LAN (10/100/1000MBit), 2x optional
USB PORTS	2x USB 3.0 (Internal)+ 1x USB3.0 (Client) + 2x USB 3.0 (Rear)+ 2x USB 2.0 (Rear) + 2x USB 2.0 (Front) + 1x USB 2.0 (mPCIe)
AUDIO	HD Analog audio interface (Line-In, Line-Out, Mic-In, SPDIF)
PCIE SLOTS	1x PCIe x16 (Gen 3)
TPM	TPM2.0, Hardware Security Device
POWER SUPPLY	Single supply 12-24 V DC
MTBF	TBD
SAFETY	IEC 60950-1: 2005, 2nd Edition UL 60950-1, CSA C22.2 No. 60950-1
COOLING SOLUTIONS	Passive and active cooling solutions
OPERATING TEMPERATURE	-25 °C to +70 °C
REGULATORY	Comply with Emission: EN55022
ROHS COMPLIANCE (CE)	ROHS II Compliant (Directive 2011/65/EU)
DIMENSIONS	Mini-ITX, 170 x 170 mm
OPERATING SYSTEMS	Win10, Linux
BIOS	AMI Aptio V UEFI

▶ GLOBAL HEADQUARTERS

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