



» Reliable embedded KISS family «

Reliable embedded IPC Family

- » Low noise design
- » Reduced time to market
- » Long life support
- » Reduced TCO
- » Customizable design

KONTRON
INDUSTRIAL
SILENT
SERVER

KISS





KISS Benefits



Low Noise Design



Life-Cycle Management



Extended Warranty



System Availability 5 to 7 years



Extended Temperature



Designed for Continuous Operation



High Reliability

Generic specifications*

Temperature

- » Operating:
0 to 50°C (32°F to 122°F) up to 55°C (131°F) at 10% POH per month
- » Non operating:
-20°C to 70°C (-4°F to 158°F)

Humidity

- » Operating:
10-90 % rel. humidity, non condensing
- » Non operating:
10-95% rel. humidity, non condensing

Shock

- » Operating:
15g, 11ms, half sine, 3 shocks per axis
- » Non operating:
30g, 11ms, half sine, 3 shocks per axis

Vibration

- » Operating:
10-500 Hz, 1g, 1 oct/min, duration 8 sweeps/4 cycles
- » Non operating:
10-500 Hz, 2g, 1 oct/min, duration 8 sweeps/4 cycles

Protection Class

- » Front: IP 20, optional IP 52

Noise

- » 35 dBA ~ 40 dBA for redundant PSU

MTBF

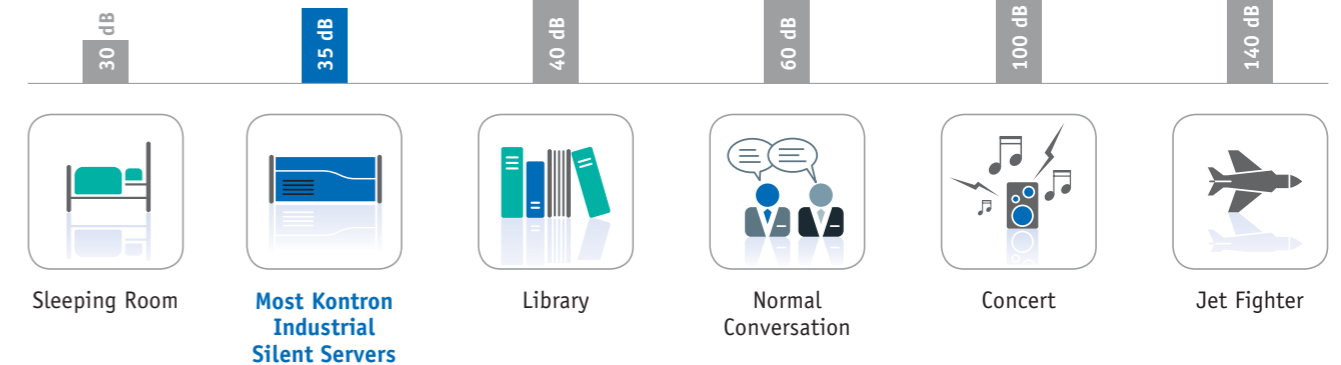
- » 50,000 h

Certification

- » CE, designed to meet UL



... not louder than a whisper!



Automation

- » CE mark
- » Environmental simulations according 60068-xx

Energy

- » Continuous performance
- » Connectivity

Military

- » MIL-STD-461 E
- » MIL-STD-810 F

Transportation

- » EMC according EN50121-3-2:2006
- » EN50155:2001
- » Environmental simulations according EN50155

Image Processing

- » Full integration service

KISS family



Building Automation

- » Application SW ready

Medical

- » Medical grade components

* applies to most KISS systems



KISS Vertical

When generic doesn't fit

Based on generic specification and configurations the KISS family fits into many applications. By adding certain vertical specifications, approvals and needed functionality, some KISS systems can be approved for vertical tasks.

Automation

Powerful All Around

- » Industrial grade
- » Less maintenance
- » Continuous operation
- » Connectivity



Building Automation

Facility Management

- » Low noise
- » Optimized price/performance ratio
- » Application-SW ready



Energy

Central Data Acquisition

- » Continuous performance
- » Reduced downtime
- » Low maintenance
- » Enables connectivity



Image-processing

Full Integration Services

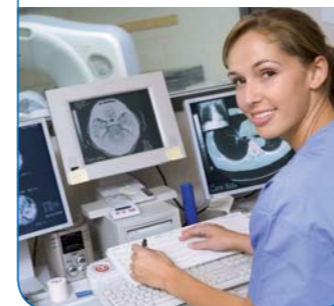
- » Graphic cards
- » Illumination hardware
- » Cameras
- » Cable design
- » Software driver development



Medical

Visualization and Control Subsystem

- » Medical LAN card
- » Medical rated power supplies
- » Low noise
- » Life-cycle management



Military

Rugged Servers for Harsh Environments

- » MIL Std 810F
- » MIL Std 461E
- » Military grade



Transportation

Passenger Infotainment

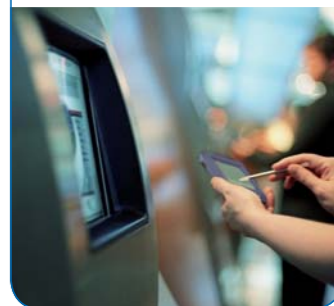
- » High performance
- » Extreme shock and vibration resistance
- » EN50155 Certified



Infotainment

Gaming / POS/POI

- » Video walls up to 16 Monitors
- » Multiplayer
- » SBG/VLC Server





Application Stories

Stage Tec Servers Now Even More Silent

Kontron Industrial Silent Server for use in recording studios and broadcast vehicles

For use in the recording studio, Stage Tec sought a rackmount server that was not only extremely robust and supported a long life cycle, but also were particularly quiet.

In use today is the whisper-quiet Kontron Industrial Silent Server that has been made even more quiet for Stage Tec as a customized solution.

The developers at Stage Tec were so impressed that they now use the server even in broadcast vehicles, as the Stage Tech developers have determined its performance significantly exceeds all other known systems.

Single Fastjet Pilot Flies Multiple Aircrafts

Rugged VME and CompactPCI hardware platform controls multiple unmanned aircraft

During March 2007, a series of QinetiQ research activities culminated with a Royal Air Force (RAF) pilot successfully controlling multiple unmanned aircraft from the cockpit of a Tornado military jet.

For this series of flight trials, QinetiQ's sophisticated control software was hosted on a dedicated Kontron platform comprising of a mix of standard, off-the-shelf boards based on 3U CompactPCI® and VME embedded computing form factors as well as Kontron Industrial Silent Servers.

Agent Software from Asentics with Multicore Kontron Industrial Silent Servers

A successful symbiosis for industrial image processing

The new agent-based software architecture from Asentics for industrial image processing on surface inspection applications, such as PCB inspection, takes full advantage of the performance offered by Kontron Industrial Silent Servers equipped with x86-based multicore processors.

At the same time, the highly flexible agent-based software architecture accelerates the application-specific configuration of Asentics' image processing systems. The combined solution is a successful example of the mutually beneficial relationship created by the combination of Asentics imaging software and Kontron latest hardware technology.

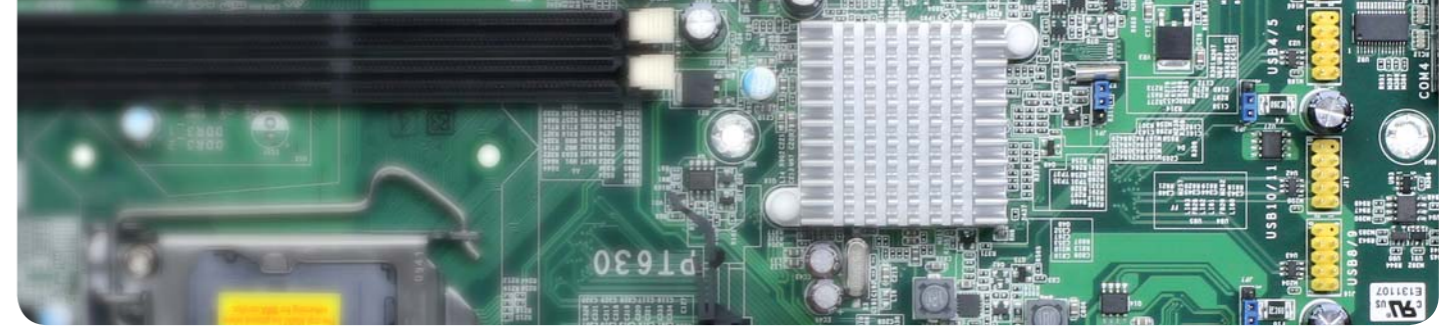
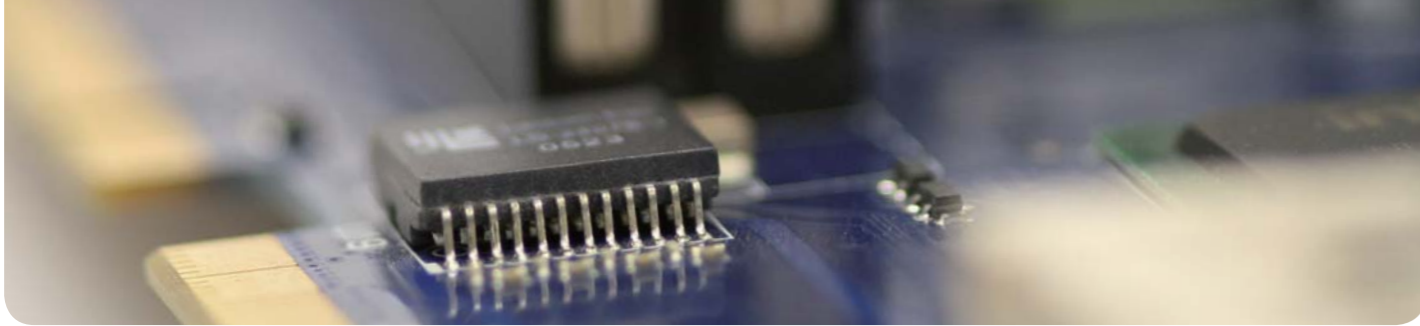
Highly Available Embedded Server for Secure Teleservices

Kontron Industrial Silent Servers in use as a high-end firewall and VPN gateway for industrial teleservices

For secure remote maintenance and diagnosis of machines and systems via the Internet, Innominate has developed a highly-available 19-inch network security solution that is used in service centers as a high-end firewall and VPN gateway. The solution handles the specific requirements for building VPNs and then maintains these secure virtual private network connections to remote industrial systems.

Because this node is responsible for up to 1,000 simultaneous VPN connections, the highest reliability requirements are placed on it. For this reason, server hardware from Kontron is utilized. It meets reliability requirements that are usually only found in carrier-grade telecommunications platforms, but at a budget-friendly price.















Flexible KISS Systems





Performance and configuration are based on Kontron's extensive range of CPU boards and backplanes, which allows them to be adapted to meet a very wide range of requirements.



Mainboards	 KTQ45 Flex	 KTQ45 ATX	 X9SCM-F	 X9SCA-F	 KTQ67 Flex
System					
CPU	Intel® Core™2 Duo and Intel® Core™2 Quad processors	Intel® Core™2 Duo and Intel® Core™2 Quad processors	Intel® Xeon® E3-1200 family, Intel® 2nd Generation Core i3 and Intel® Pentium® family processors	Intel® Xeon® E3-1200 family, Intel® 2nd Generation Core i3 and Intel® Pentium® family processors	Intel® i3/i5/i7 Dual- / Quadcore processors
KISS 2U V2	X		X		X
KISS 2U Short V2	X				X
KISS 4U		X		X	
KISS 4U Short	X				X

Mainboards	 KTQ67 ATX	 KTQM67/mITX	 KTGM45/mITX	 Q57ATX	 KTC5520 ATX	 X9DR6
System						
CPU	Intel® i3/i5/i7 Dual-/Quadcore processors	2nd Generation Intel® i3/i5/i7 Dual-/Quadcore processors	Intel® Core™2 Duo P8400, Intel® Core™2 Duo T9400	1st Generation Core™ i7 / i5 / i3, Pentium G6950 processors	Intel® Xeon® processor E5504/E5540/E5645	Intel® Xeon® E5 family
KISS 1U Short		X	X			
KISS 4U	X			X	X	X

Slot CPUs	 PCI-760	 PCI-759	 PCI-761
System			
CPU	Intel® Core™2 Duo and Intel® Core™2 Quad processors	Intel® Core™2 Duo	Intel® Core™ i7/i5/i3 and Pentium® processors
KISS 1U	X		X
KISS 2U V2	X	X	X
KISS 4U	X	X	X

Backplanes	 xBP-6E5P0	 xBP-6E2P3	 xBP-13E8P3	 xBP-13E5P7_2	Others on Request
System					
KISS 2U V2	X	X			X
KISS 4U			X	X	X



Certified KISS Accessories

Rugged Hardware RAID subsystems

KISS Stor 1

High-performance/extremely flexible solution for RAID 1 disk mirroring.



- » RAID 1 Subsystem
- » SATA 1.5Gb/s
- » Integrated RAID Controller
- » Industrial Specification
- » Plug and Play

KISS Stor 0/5

High-performance and extremely flexible solution for RAID 0/5.



- » RAID 0/5 Subsystem
- » SATA 1.5Gb/s
- » Integrated RAID Controller
- » Industrial Specification
- » Plug and Play

KISS Stor slim

Compact 3.5" size RAID 1 Subsystem for 2.5" HDD or SSD



- » Ultra Slim Industrial RAID 1 Solution
- » Just 3.5" size
- » HW RAID Controller Integrated
- » Plug and Play

KISS DA235CF

Flexible solution for KISS



- » 2x Hot Swap 3.5" HDD
- » CF reader
- » Fits in 2U

KISS DA335

Flexible solution for KISS



- » Fan cooled
- » Over temperature indicator
- » Over temperature alarm
- » Fan speed control

Delivers a flexible solution for KISS, to expand its data storage capacity within limited space. The compact size only requires 2x 5.25" drive bay for KISS DA335.

KISS DA425

A unique drive cage solution



- » Plug & Play
- » Hot swappable
- » Point to point, free from master/slave setting
- » Cooling fan: two 40x40x20mm fans

Designed to fit inside the space of a standard 5.25" drive bay, the new KISS DA425 Disk Array is a unique drive cage solution that can accommodate up to four 2.5" SATA hard drives.

KISS DA135

A better place for HDDs

This HDD cannister is made for the deployment of an additional SATA HDD in the KISS server.



- » Fanless cooled
- » Durable aluminium construction
- » SATA Interface
- » Plug & Play and Hot Swappable

KISS DA225

Fanless hot swap drive bay



- » Plug & Play
- » Hot Swap
- » No cooling fans
- » 2.5" SATA HDD or SSD

KISS DA435

Ultra compact Disk Array



- » Space-saving Disk Array
- » 4* 3.5" SATA HDDs
- » Active cooled
- » Light weight durable aluminum



PC CONDITION MONITORING



PCCM – PC Condition Monitoring

PCCM for Industrial PCs – Detecting Errors Before They Occur



Avoiding System Failures with Dynamic Maintenance Intervals

Automatic monitoring was once only available on expensive server systems. Now, PCCM brings professional monitoring capabilities to today's industrial systems.

Constant Monitoring

Only constant monitoring of vital operating parameters such as processor temperature, fan speeds, system voltages, power supply units and hard drive condition allows for early detection of possible malfunctions in hardware and software and for suitable measures to be taken quickly.

Customized solutions can also be drawn up for OEMs in order to satisfy the OEM product range and the special needs of its clientele. Thus, the OEM user gets increased reliability without additional expense.

MONITORING

- » System temperatures
- » Fan speed
- » Hard drives
- » KISS Stor RAID status
- » All supply voltages
- » Redundant power supply units

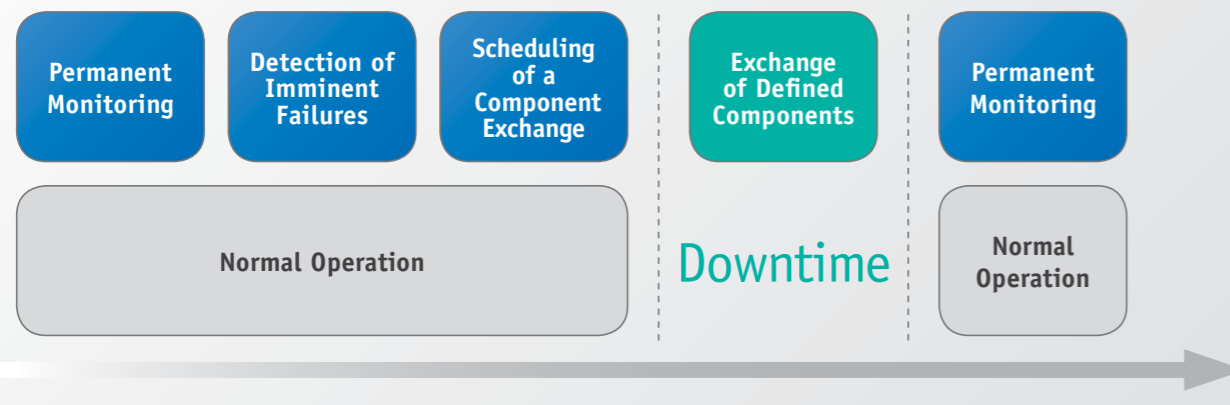
REPORTING

- » SNMP
- » SMS
- » POPup
- » Mail
- » Local: acoustically and visually

EVALUATION

- » Access to historical data
- » Memory: min/max/average values
- » Graphic representation

Planned Maintenance = Reduced Downtime with PCCM



Uncalculable Downtime without PCCM





Total Integration Management (TIM)

A complete solution for Control, Deployment and Management of business critical computer systems

System Definition

TIM starts with defining the most suitable and cost-effective platform to meet your application requirements. Kontron will work with you to identify the system configuration that satisfies both your budgetary and technical criteria.



Revision Control

We understand that the key in deploying business-critical computer systems is to ensure the delivery of both a reliable and consistent configuration. Consider the potential pitfalls of supporting your application in the field without the assurance of having a standard system configuration. TIM offers Kontron's customers the ability to define and control configuration consistency for both the system components and their respective set up. As a manufacturer and Intel® Embedded Alliance Premier member, Kontron is able to control revisions of key system elements such as the CPU card, BIOS and backplane. TIM looks after not only your current requirements, but your future needs as well. On learning of an upcoming component change that will affect your frozen configuration, Kontron will give timely notification to ensure that compatibility testing can be performed in good time. This ensures a seamless transition to the future proposed configuration.

Complete System Integration

Hardware:

TIM has been put together to offer customers not only a consistent configuration, but also a complete integration solution. Our relationships with leading manufacturers in the fields of medical, automation communications, I/O and multimedia enable Kontron to install, configure and provide one stop pre and post sales support.

Operating System and Applications:

If your configuration requires a Microsoft, Sun, Linux or indeed any other main O/S vendor's product to be installed, we will take care of it. Custom application software loads are also possible – so why not let us take responsibility for loading that image as well?



Support and Training

Support:

Having a relationship with a single supplier enables your company to draw on a central point of contact for technical support. With fully integrated systems supplied by Kontron, it's our responsibility to support what we have delivered.

Training:

In addition to our backup technical support, we offer training on the system architecture and how to best support your system configuration in the field.



Global Service Agreements

Customization and OEM Services

However unique your requirements, whether for mechanical and systems engineering, machines or automated systems or for applications in medical or safety technology, we will define and develop a system solution that precisely meets your requirements.

We assume full system development responsibility and guarantee long-term availability to allow you to concentrate on your own core competency. We set the highest quality standards for industrial requirements or sensitive demands in medical technology. Define your requirements. We'll be glad to show you a suitable certified reference system.

From mechanical construction to industrial design, we'll give your product a unique look. A user interface is an important branding element for any OEM customer. Design, ergonomics and functionality shape images and promote sales. For instance, we offer various and individually customized face-plate colors, special housings and freely programmable function keys to meet your specific needs.



Software Competence:

Kontron offers enhanced, complex software support for customers to migrate from single-core to multicore platforms for all important operating systems such as Windows 7, Linux and VxWorks.

Engineering Services at a Glance

- » Consulting
- » Studies / specifications
- » Semi- / full custom designs
- » Assigned project managers
- » Total Integration Management (TIM)
- » Software engineering
- » Certification / approvals
- » Ruggedization, conformal coating
- » Extended temperature qualification
- » Supply chain management
- » Life-cycle management
- » Training
- » Onsite integration support
- » Maintenance, Technical Support
- » Long life time support >5 years

Enabled Technologies at a Glance

- » Intel® vPro™
- » TXT & TMP, AMT, VT
- » Intel® Trusted Execution Technology with TPM
- » Intel® Active Management Technology (AMT)
- » Intel® Virtualization Technology (VT)
- » Hypernate Modi
- » Increased memory space by 64 Bit OS
- » Damage free intelligence
- » IPMI
- » USB 3.0

About Kontron

Kontron is a global leader in embedded computing technology. With more than 30% of its employees in Research and Development, Kontron creates many of the standards that drive the world's embedded computing platforms.

Kontron's product longevity, local engineering and support, and value-added services, helps create a sustainable and viable embedded solution for OEMs and system integrators.

Kontron works closely with its customers on their embedded application-ready platforms and custom solutions, enabling them to focus on their core competencies. The result is an accelerated time-to-market, reduced total-cost-of-ownership and an improved overall application with leading-edge, highly-reliable embedded technology.

Kontron is listed on the German TecDAX stock exchange under the symbol "KBC".

For more information, please visit: <http://www.kontron.com/>



Scan this QR-Code to find out more about our product range or visit:

kontron.com/rackmount

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