kontron

About Kontron

Kontron is a global leader in embedded computing technology. With more than 40 % 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 exchanges under the symbol "KBC". For more information, please visit: **www.kontron.com**

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kontron

» Simply connected «

Managed. Reliable. Secure.

» High performance M2M devices
» Ready-to-run platforms
» Strong ecosystem with validated solutions

The pulse of innovation

» Preintegrated M2M platform «

Kontron's new M2M platforms simplify and accelerate the development and time-to-market of new M2M applications featuring broad connectivity and high performance.

In the next 10 years, literally billions of devices for collecting or transmitting data will be connect up to the net. And this will not just affect markets such as medical, automation, transportation, energy or home automation. OEMs who want to participate in this new market segment by providing intelligent services for M2M devices need a simple but nevertheless powerful M2M platform in order to test the performance and connectivity of their application. For exactly this reason,

Kontron has developed ready-to-run M2M platforms in cooperation with Intel, which supports OEMs in accelerating their solutions' time-to-market. The Kontron M2M systems offer integrated WLAN and are ready to use for WPAN. Optionally, 3G WWAN comes pre-installed. Thanks to the modular set up of the M2M platform it can be upgraded with extensions and application-specific options providing even more flexibility.

Technical Information	KM2M Developer Kit	KM2M806XT Deployment System
Product	Kontron M2M Smart Services Developer Kit	Kontron M2M Smart Services Deployment System for industrial and extended temperature range Applications
Chassis Dimensions (H x W x D)	67mm x 100mm x 27mm (92mm x 100mm x 62mm with mounting brackets)	Industrial Rated Cast Aluminum Case
Interfaces Top	SIM slot	-
Interfaces Left	USB 2.0 (Type A), MicroUSB 2.0 (Type B), Power, RJ-45 Ethernet, 2x antenna connectors	2x HDMI, MicroSD slot, 2x antenna connectors, SIM slot
Interfaces Right	Microphone, Headphone/Line Out, 2x MicroHDMI, MicroSD slot, MicroUSB 2.0, 2x antenna connectors	2x USB 2.0 (Type A), Power, RJ-45 Ethernet, 2x antenna connectors
Controls on top	Reset button, user input button/software enabled, LED status indicators	-
Internal Data Storage capacity	4 GB via internal MicroSD card	4 GB via internal MicroSD card
External Power Supply	VDC, 2A operating input/rating	12 VDC, 2A operating input/rating
Processor/Chipset	Intel® Atom™ processor E620T 600 MHz/Intel® Platform Controller Hub EG20T	Intel® Atom™ processor E640T 600 MHz/Intel® Platform Controller Hub EG20T
Cache	32 KB instruction cache + 24 KB L1 cache, 512 KB L2 cache	32 KB instruction cache + 24 KB L1 cache, 512 KB L2 cache
Memory	1 GB DDR2	1 GB DDR2
Wi-Fi WLAN (802.11a/b/g/n)	Intel® Centrino® Advanced N Wi-Fi module installed	Intel® Centrino® Advanced N Wi-Fi module installed
WPAN (802.15.4)	TI CC2531 SOC; ready for ZigBee® certification	TI CC2531 SOC; ready for ZigBee® certification
3G/4G WWAN	Options with 3G and 4G modem available	Options with 3G and 4G modem available
Accelerometer	Ultra low-power high performance three axis linear accelerometer	Ultra low-power high performance three axis linear accelerometer
Weight	0.8 lb/0.36 kg system; 2.35 lb/1.1 kg packaged kit	0.8 lb/0.36 kg system; 2.35 lb/1.1 kg packaged kit
Temperature	Operating: -0°C to +50°C Storage: -25°C to +70°C (-13°F to 158°F)	Operating: -25°C to +70°C Storage: -40°C to +85°C
Humidity	Operating: 5 to 95 % RH @ 25-35°C non condensing	Operating: 5 to 95 % RH @ 25-35°C non condensing
Shock	Operating: 2G 11ms duration, 6 directions (half-sine) Non-operating: 25G 11ms duration, 6 directions (half-sine) Packaged: 2G 5-40 Hz: sloping to 0.00015 g2/Hz@ 500 Hz	Operating: 2G 11ms duration, 6 directions (half-sine) Non-operating: 25G 11ms duration, 6 directions (half-sine) Packaged: 2G 5-40 Hz: sloping to 0.00015 g2/Hz@ 500 Hz
Vibration	Unpackaged system: 5-500 Hz: 0.5G sine / 3 axis	Unpackaged system: 5-500 Hz: 0.5G sine / 3 axis
Approvals	Nemko NRTL 60950-1, FCC Class B, CE	Nemko NRTL 60950-1, FCC Class B, CE
OS	Wind River Linux 4.1 – 90 day trial	Wind River Linux 4.1 – 90 day trial
Also in the box	2x 3G antennas (including cabling) 2x 802.11/802.15.4 antennas, 16 GB USB Memory stick with Wind River Linux LiveUSB and USB adapter, 90-240VAC PSU	2x 802.11/802.15.4 antennas, 16 GB USB Memory stick with Wind River Linux LiveUSB and USB adapter, 90-240VAC PSU

» M2M Smart Services Applications «

Transportation entertainment, security and control

Public-transit busses and trains are being equipped with up to date information and entertainment technology allowing the operator to focus on the environment. In addition to providing comfort features, M2M platforms also offer electronic payment capabilities to further save operator time and video surveillance to enhance security. Fleet management systems and telematics help with equipment monitoring and management, improving the transportation system's overall productivity.

Remote maintenance and control for medical equipment

Calibration is crucial to successful operation of advanced medical equipment and down-time can risk lives if backup systems are unavailable. Smart services delivered via an M2M gateway can signal alerts if the equipment isn't functioning properly; track consumable supplies, order replenishments; and schedule routine maintenance without operator involvement. Security and privacy protection functionality can also be implemented to further protect the patient.

Energy asset control and usage monitoring

Energy companies must carefully control their assets from the point of creation through usage. M2M gateways with smart services help aggregate sensor data for energy assets. Fleet and asset management smart services help control assets and manage logistical delivery from initial mining, or creation, through transport to users. M2M smart meters monitor energy consumption and can shift available supply based on prioritization, geographic and time of day needs to reduce costs and carbon footprints.

Ordering Information

Article	Description
KM2M806-01	Kontron M2M Smart Services Developer Kit, 600 MHz (no WWAN installed)
KM2M806-02	Kontron M2M Smart Services Developer Kit, 600 MHz (3G module installed and 3G antennas)*
KM2M806XT-01	Kontron M2M Smart Services Deployment Kit extended temperature, 600 MHz (no WWAN installed)
KM2M806XT-02	Kontron M2M Smart Services Deployment Kit extended temperature, 600 MHz (3G module installed and 3G antennas)*