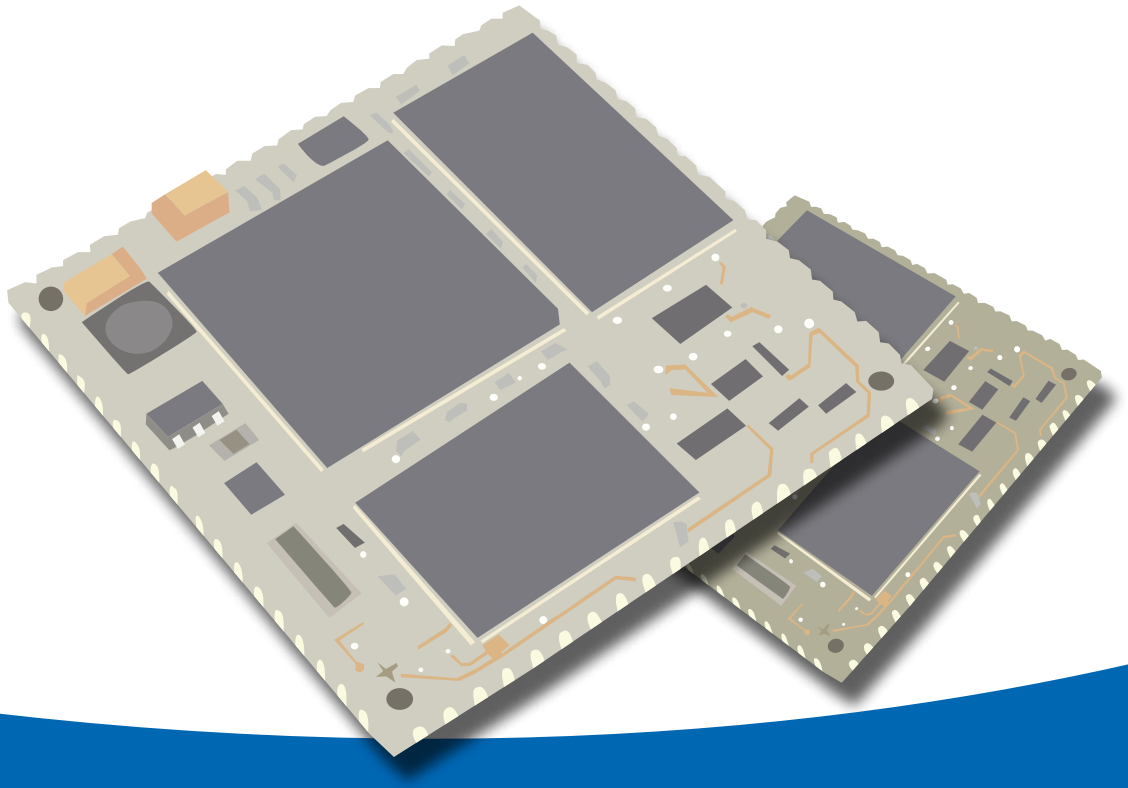
BLUE TECHNIX



i.MX Products

...maximum performance at minimum space

Core Modules

		CM-i.MX27C	CM-i.MX31C/B
CPU		Freescale i.MX27 (based on ARM926-S)	Freescale i.MX31 (based on ARM1136JF-S)
CLOCK		up to 400MHz	up to 532MHz
RAM		128MByte DDR SDRAM	up to 256MByte DDR SDRAM
FLASH		512MByte NAND flash	up to 32MByte NOR / up to 256MByte NAND
INTERFACES	**CAMERA**	1	1
	LCD	1	1
	ETHERNET	1x10/100MBit Ethernet PHY	1x10/100MBit Ethernet PHY
	SSI	2	1
	SDCARD	1	2
	SPI	2	1
	TWI/I²C	2	1
	UART	3	1
	USB 2.0	1	1 (OTG PHY)
	VIDEO	H.264, MPEG-4, H.263 HW En-/Decoder	-
	AUDIO	Headphones, Microphone, LineOut	Headphones, Microphone, LineOut
SOFTWARE		Linux Kernel 2.6.22	Linux Kernel 2.6.22
VERSIONS		Connector	Connector, BGA (on request)
DIMENSIONS		55x45mm	55x45mm

Development Boards

	DEV-i.MX27	DEV-i.MX31
COMPATIBLE WITH	CM-i.MX27C	CM-i.MX31C
JTAG CONNECTOR	✓	✓
USB TO UART	✓	✓
ETHERNET	2x10/100MBit	2x10/100MBit
USB	1xUSB OTG, 1xUSB Host	1xUSB OTG, 1xUSB Host
UART	2xUSB-B	1xRS232, 1xUSB-B
AUDIO	Mic-In, Line-In, Headset/Line-Out	Mic-In, Line-In, Headset-Out
DISPLAY	18bit RGB Interface (IPU)	18bit RGB Interface (IPU)
VIDEO IN	1xCSI (Camera/NXP SAA7154)	1xCSI (Camera/TVP5150)
GPIO	LEDs, push button, Keypad Port	LEDs, push button, Keypad Port
SD CARD	1	1
DIMENSIONS	120x200mm	120x200mm

Single-Board Computer

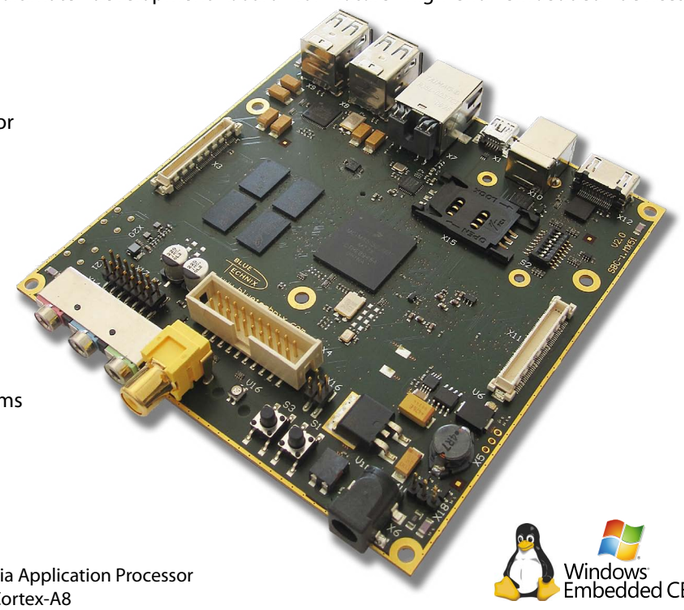
The Single-Board Computer SBC-i.MX51 is based on Freescale's high-performance i.MX51 mobile platform, incorporating an ARM Cortex-A8 CPU, an Image Processing Unit (IPUv3EX), a Video Processing Unit (VPU) and a Graphical Processing Unit (GPU). The IPUv3EX provides comprehensive support for connectivity to displays and cameras. The VPU supports hardware encoding and decoding of MPEG-4, H.263, H.264 and many more standards. The GPU serves 3D and 2Dacceleration in hardware. The board's memory capabilities (NAND Flash, DDR2) and numerous interfaces like Ethernet, HDMI,4xUSB and USB-OTG turn the SBC-i.MX51 into the ultimate development board for future high-end embedded devices.

Advantages

- Tiny, low-cost i.MX51 board
- High-performance embedded ARM processor
- Multimedia video hardware en-/decoder
- Numerous peripheral interfaces
- Linux and WinCE support

Target Applications

- Industrial applications
- Automation and control systems
- Multimedia consumer devices (Netbooks)
- Rapid Development Kit for embedded systems



Windows Embedded CE

Hardware Features

PROCESSOR	Freescale i.MX51 Multimedia Application Processor incorporating 32 bit ARM Cortex-A8
CLOCK	Up to 800MHz
L1/L2 CACHE	32kB instruction + 32kB data / 256kB shared
MEMORY	512MByte DDR2 SDRAM 2GByte NAND Flash
POWER MANAGEMENT	MC13892VK power management IC
INTERFACES	1-Wire, Audio, Camera, CVBS, Ethernet, HDMI, I²C, JTAG, Keypad, LCD, LEDs, PWM, SD-Card, SPI, 3xUART, 4xUSB, USB-OTG
TEMP. RANGE	0°C to +85°C
DIMENSIONS	120x120mm
OPERATING SYSTEMS	Linux (Kernel 2.6.31), Windows CE 6.0
AVAILABLE LINUX IMAGES	QtEmbedded 4.6.2., GNOME 2.30, Console

Extender Hardware for SBC-i.MX51

Productname	**Specification**
EXT-SBC-i.MX51-COMM	Communication Extender Board for SBC-i.MX51
EXT-SBC-i.MX51-DISP	Display Extender Board for SBC-i.MX51
EXT-SBC-i.MX51-EXP	Experimental Extender Board for SBC-i.MX51

EXT-SBC-i.MX51-DISP with 5.0" WVGA TFT

BLUETECHNIX - YOUR Embedded Systems Development Partner

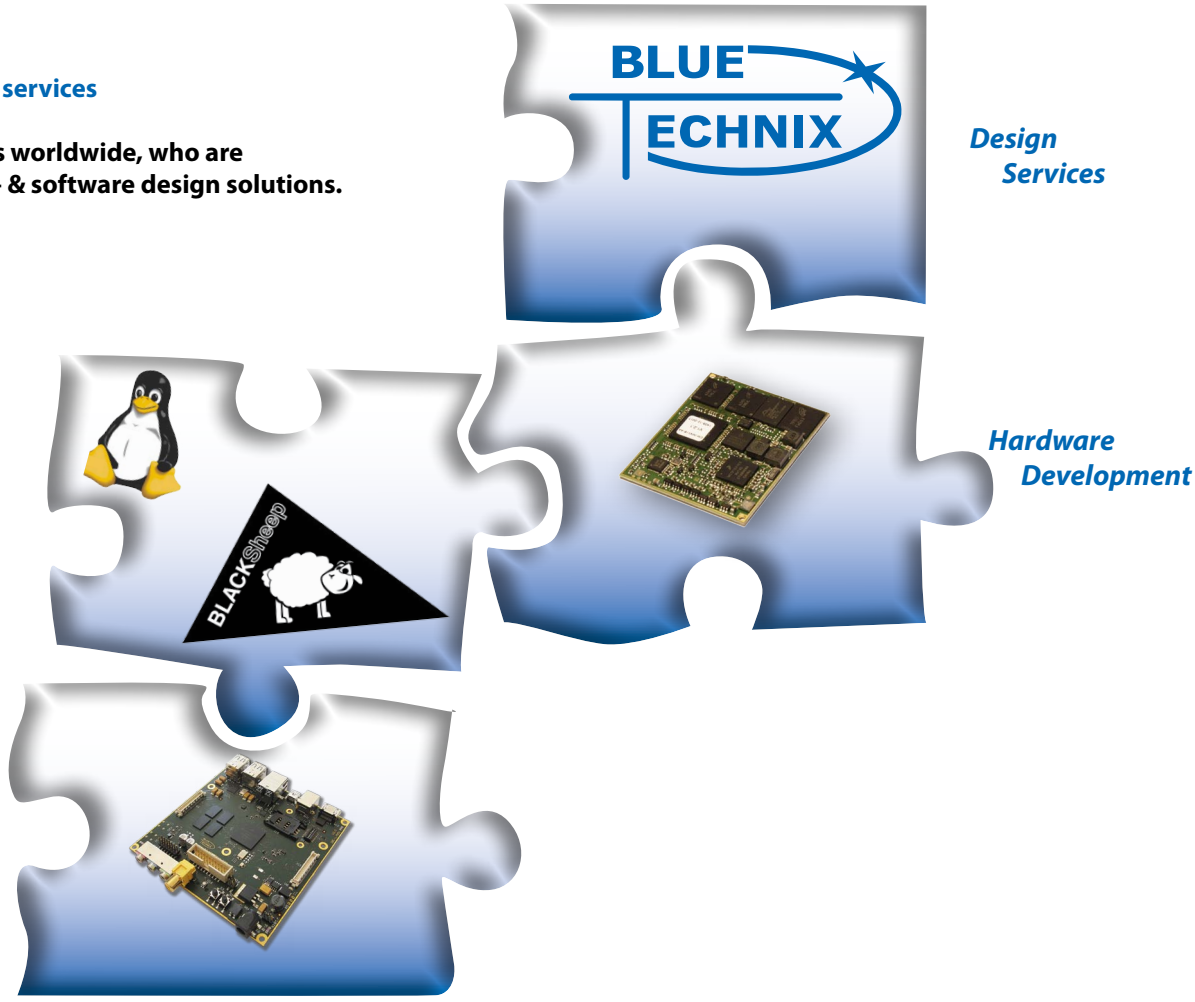
Bluetechnix, established in September 2004, with headquarters in Vienna, is a spin-off of the Vienna University of Technology. Bluetechnix' core business focuses on design and development of embedded systems. Bluetechnix has many years of experience in individual development services of customers' designs. Additionally we have gained long experience in low-level software development for embedded systems. Client satisfaction, innovation and quality of products and services have been the cornerstones of Bluetechnix' success. Our motivated employees know what it takes to deliver services that exceed customers' expectations. Therefore, we are continuously reinventing ourselves and use our technological expertise to develop cutting-edge technology for industrial, transport, medical and consumer applications.

Bluetechnix core competencies

» **Hard- & Software development services**
» **Efficient solutions for customers' requirements**
» **Device driver, firmware and application development**

Benefit of Bluetechnix' services

We have 750 customers worldwide, who are satisfied with our hard- & software design solutions.



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BLUETECHNIX Mechatronische Systeme GmbH

Lainzerstraße 162/3
1130 Wien, Austria
www.bluetechnix.com

Tel.: +43 (1) 9142091 x 0
Fax.: +43 (1) 9142091 x 99
Email: office@bluetechnix.at