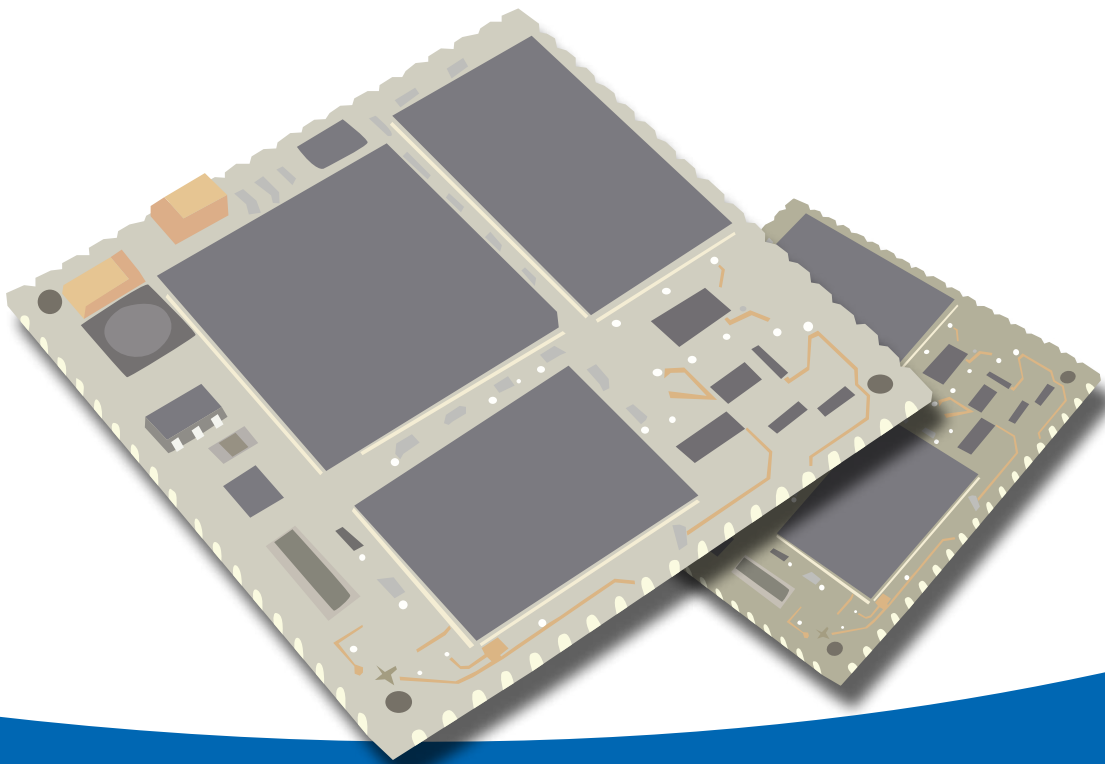





BLUE
TECHNIX






Blackfin Products



...maximum performance at minimum space

Core Modules




	TCM-BF518 	CM-BF527 	CM-BF533 
CPU	Analog Devices BF518 @ 400MHz	Analog Devices BF527 @ 600MHz	Analog Devices BF533 @ 600MHz
RAM	32MByte SDRAM up to 133MHz	32MByte SDRAM up to 133MHz	32MByte SDRAM up to 133MHz
FLASH	2MByte up to 8MByte	8MByte	2MByte
INTERFACES	CAN	-	-
	ETHERNET	1x10/100 MBit Ethernet MII/RMII	1x10/100 MBit Ethernet
	PPI	1	1
	SD/SDIO	-	-
	SPI	2	1
	SPI	2	1
	SPORT	2	2
	TWI/I²C	1	1
UART	2	2	1
USB 2.0	-	1 (OTG)	-
ADDITIONAL FEATURES	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Commercial Temp. Range	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Commercial Temp. Range	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Commercial / Industrial Temp. Range
VERSIONS	Connector	Connector	Connector
DIMENSIONS	28x28mm	31x36mm	31x36mm



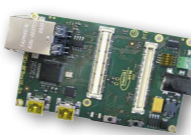
	CM-BF537 	CM-BF537U 	TCM-BF537 
CPU	Analog Devices BF537 @ 600MHz	Analog Devices BF537 @ 600MHz	Analog Devices BF537 @ 500MHz
RAM	32MByte SDRAM up to 133MHz	32MByte SDRAM up to 133MHz	32MByte SDRAM up to 133MHz
FLASH	4MByte up to 8MByte	4MByte	8MByte
INTERFACES	CAN	1	1
	ETHERNET	1x10/100 MBit Ethernet	-
	PPI	1	1
	SD/SDIO	-	-
	SPI	1	1
	SPI	1	1
	SPORT	2	2
	TWI/I²C	1	1
UART	2	2	2
USB 2.0	-	1 (Device)	-
ADDITIONAL FEATURES	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Commercial / Industrial Temp. Range	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Commercial Temp. Range	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Industrial Temp. Range
VERSIONS	Connector	Connector	Connector, Ball Grid Array, Border Pad
DIMENSIONS	31x36mm	31x36mm	28x28mm

Core Modules




	CM-BF548 	CM-BF561 	eCM-BF561  NEW
CPU	Analog Devices BF548 @ 533MHz	Analog Devices BF561 @ 2x600MHz	Analog Devices BF561 @ 2x600MHz
RAM	64MByte DDR SDRAM up to 266MHz	64MByte SDRAM up to 133MHz	128MByte SDRAM up to 133MHz
FLASH	8MByte	8MByte	32MByte
INTERFACES	CAN	2	-
	PPI	3 (EPPI)	2
	SD/SDIO	1	-
	SPI	3	1
	SPORT	4	2
	TWI/I²C	2	emulation by GPIO
	UART	4	1
	USB 2.0	1 (OTG)	-
ADDITIONAL FEATURES	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit NAND Flash Interface Keypad Interface Industrial Temp. Range	Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit Dual Core Processor Commercial Temp. Range	Single 3.3V supply voltage On-Board core voltage regulator Low voltage reset circuit Dual Core Processor Commercial / Industrial Temp. Range
VERSIONS	Connector	Connector	Connector
DIMENSIONS	31x41mm	31x36mm	44x33mm

Development Boards




	DEV-BF5xxDA-Lite 	EVAL-BF5xx 	eDEV-BF5xx  NEW
COMPATIBLE WITH*	TCM-BF518 CM-BF527 CM-BF533 CM-BF537E	CM-BF537U TCM-BF537 CM-BF561	TCM-BF518 CM-BF527 CM-BF533 CM-BF537E
ON-BOARD DEBUG AGENT	✓	-	Connector for ADI-SADA
USB TO UART CONVERTER	✓	✓	✓
CAN TRANSCEIVER	CM-BF537E, CM-BF537U, TCM-BF537	CM-BF537E, CM-BF537U, TCM-BF537	-
ETHERNET CONNECTOR	CM-BF527, CM-BF537E	CM-BF527, CM-BF537E	✓
USB 2.0 OTG CONNECTOR	CM-BF527, CM-BF537U	CM-BF527, CM-BF537U	✓
SD CARD SOCKET	✓	✓	✓
TFT CONNECTOR	-	-	EDT G-TFT Family Concept (3,5" - 7")
ADDITIONAL FEATURES	JTAG Interface Connector	JTAG Interface Connector	Connector for camera CM pins on solder pads
DIMENSIONS	75x75mm	75x75mm	120x120mm



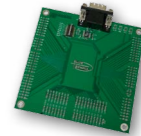
	DEV-BF548DA-Lite 	DEV-BF548-Lite 	CDEV-BF5xx 
COMPATIBLE WITH*	CM-BF548	CM-BF548	eCM-BF561 <small>*Further CMs are supported by adapters</small>
ON-BOARD DEBUG AGENT	✓	-	-
USB TO UART CONVERTER	✓	✓	✓
CAN TRANSCEIVER	✓	✓	✓
ETHERNET CONNECTOR	✓	✓	✓
USB 2.0 OTG CONNECTOR	✓	✓	✓
SD CARD SOCKET	✓	✓	Micro SD Card socket
ADDITIONAL FEATURES	JTAG Interface Connector	JTAG Interface Connector	BLT-ISM-Connector ISM-MT9M024 Support
DIMENSIONS	100x100mm	100x100mm	80x50mm



	EXT-BF5xx-CAM 	EXT-BF5xx-EXP-TR 	EXT-BF5xx-USB-ETH2 
FEATURES	Stackable Expansion Board 2x Camera connectors: - Camera OV2640 (1600x1200px) - 2 nd camera only on BF561 1x TFT Display connector: - Supports Hitachi 3,5" Displays 1x Touchscreen controller	Stackable Expansion Board All 120 pins of the connectors are available on solder pads Shiftable terminating resistors on A/D bus	Stackable Expansion Board Ethernet Physical Transceiver: - Micrel KS8721 for TCM-BF537 - 1x RJ45 connector Ethernet Controller: - SMSC LAN9218 for CM-BF533, CM-BF561 - 1x RJ45 connector USB2.0 Device: - NET2272 - 1x USB2.0 connector
DEVELOPMENT PLATFORM	DEV-BF5xxDA-Lite, EVAL-BF5xx, DEV-BF548DA-Lite, DEV-BF548-Lite	DEV-BF5xxDA-Lite, EVAL-BF5xx	DEV-BF5xxDA-Lite, EVAL-BF5xx
CORE MODULES	TCM-BF518, CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF548, CM-BF561	TCM-BF518, CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF561	CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF561
DIMENSIONS	75x75mm	75x75mm	75x75mm

Extender Boards

	EXT-BF5xx-ADIS16350 	EXT-BF5xx-AD-DA 	EXT-BF5xx-AUDIO 
FEATURES	Stackable Expansion Board SPI interface Tri-axis gyroscope Tri-axis accelerometer Temperature sensor Auxiliary digital IOs Auxiliary 12-bit DAC and ADC	Stackable Expansion Board Low noise power supply Screw connectors for each terminal ADC Converter: - AD7266 - 12bit, 2MSPS - 12 Channels single ended or 6 Channels differential - 0-5 Volt input range - 2x Analog input filters DAC Converter: - AD5415, serial interface, 12bit - 10 MHz Multiplying Bandwidth - AD5405 parallel interface	Stackable Expansion Board AD1836 Audio Codec - 24-Bit, 96kHz Sigma-Delta Codec 2x Stereo Audio Inputs 3x Stereo Audio Outputs
DEVELOPMENT PLATFORM	DEV-BF5xxDA-Lite, EVAL-BF5xx	DEV-BF5xxDA-Lite, EVAL-BF5xx, DEV-BF548DA-Lite, DEV-BF548-Lite	DEV-BF5xxDA-Lite, EVAL-BF5xx
CORE MODULES	CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF548, CM-BF561	TCM-BF518, CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF548, CM-BF561	CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF561
DIMENSIONS	75x75mm	75x75mm	75x75mm

	EXT-BF5xx-VIDEO 	EXT-BF518-ETH 	EXT-BF548-EXP 
FEATURES	Stackable Expansion Board ADV7183A Video Decoder: - 3x ADCs with 10bit resolution - 54MHz ADC speed ADV7171 Video Encoder: - 4x DACs with 10bit resolution	Stackable Expansion Board Ethernet Physical Transceiver: - Micrel KS8041 for TCM-BF518 - 1x RJ45 Connector	Stackable Expansion Board All 200 pins of the connectors are available on solder pads 1x RS232 serial level shifter 1x Serial Sub-D9 plug
DEVELOPMENT PLATFORM	DEV-BF5xxDA-Lite, EVAL-BF5xx	DEV-BF5xxDA-Lite, EVAL-BF5xx	DEV-BF548-Lite, DEV-BF548DA-Lite
CORE MODULES	CM-BF527, CM-BF533, CM-BF537E, CM-BF537U, TCM-BF537, CM-BF561	TCM-BF518	CM-BF548
DIMENSIONS	75x75mm	75x75mm	100x100mm



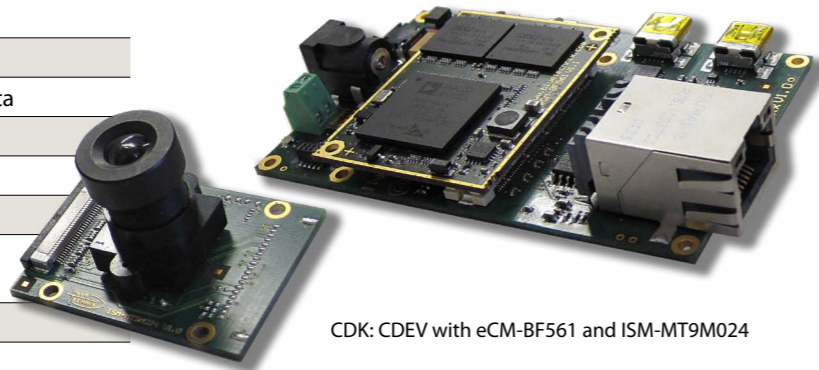
Video surveillance, machine vision, object counting, scientific imaging and other industrial and commercial applications are receiving much attention because of its safety, security and automation potential. Bluetechnix latest product a Camera-Development-Kit (CDK) is especially designed for your future embedded smart camera systems. The kit consists of a development board CDEV-BF5xx, a powerful Blackfin® based Core Module eCM-BF561 and an Image Sensor Module ISM-MT9M024.

Based on Bluetechnix' long experience in industrial and commercial embedded systems design, this kit is suited to the market requirements to decrease time-to-market of your industrial applications. The form factor of CDEV-BF5xx allows an easy integration of the kit into OEM products. Dedicated interfaces such as Ethernet, CAN, USB2.0 and a micro SD-Card slot turn the CDEV-BF5xx into a full-featured development platform for most industrial and commercial camera applications.

Core Module eCM-BF561

The Core Module eCM-BF561 is optimized for performance and parallel data processing. It is based on the high performance ADSP-BF561 from Analog Devices. The eCM-BF561 is designed for commercial applications (commercial temperature range). It addresses 128MByte SDRAM via its 32bit wide SDRAM bus and has an onboard NOR-flash of 32MByte.

PROCESSOR	ADSP-BF561SKBCZ-6A Blackfin® embedded processor (Dual Core)
CLOCK	Up to 600MHz
L1 CACHE (per core)	16kByte instruction and 32kByte data
L2 CACHE (shared)	128kByte
RAM	128MByte SDRAM up to 133MHz
FLASH	32MByte NOR
TEMPERATURE RANGE*	Commercial (0°C to +70°C) or Industrial (-40°C to +85°C)
DIMENSION	44x33mm
ADDITIONAL	On-Board core voltage regulator Low voltage reset circuit



CDK: CDEV with eCM-BF561 and ISM-MT9M024

*Industrial on request only (-40° to 85°C)

Image Sensor Module ISM-MT9M024

The MT9M024 CMOS digital image sensor from Aptina is a completely integrated, ultra-low power, cost effective camera system (SoC) which is offering a High-Dynamic-Range and a linear capturing mode.

Optical format	1/3-inch (6mm)	Dynamic range	>115dB
Active pixels	1280H x 960V	Frame rate	60 fps at 1280 x 720p
Imaging Area	3.54mm (H) x 2.69mm (V)		45 fps at 1280 x 960
Resolution	1.2Mp	Automotive qualified	AEC-Q100, Grade 2

Applications

- » Video surveillance
- » Machine vision
- » Object counting
- » Scientific imaging
- » Industrial and commercial applications

KIT Content

- » CDEV-BF5xx Blackfin Camera Development Board
- » eCM-BF561-C-C-Q25S128F32 (eCM-BF561)
- » Image Sensor Module ISM-MT9M024
- » DC power supply
- » USB device cable



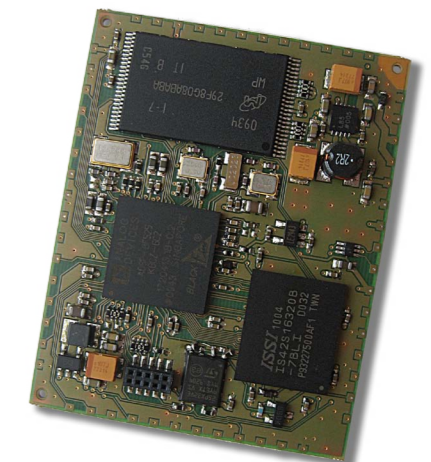
Audio processing, multimedia applications, Voice-over-IP, portable media players and other audio related applications are just some possible applications of Bluetechnix' latest Audio-Development-Kit (ADK). The ADK is especially designed for your future embedded audio applications. The kit consists of a development board ADEV-BF52xC and a powerful Blackfin® based Core Module ACM-BF525C.

Based on Bluetechnix' long experience in industrial and commercial embedded systems design, this kit decreases the time-to-market of your embedded audio applications. The form factor of the ACM-BF525C allows an easy integration of the module into OEM products. Dedicated interfaces such as USB2.0, Line In/Out, headphone out (HP) and an onboard silicon microphone turn the ADEV-BF52xC into a full-featured development platform for most commercial embedded audio applications.

Core Module ACM-BF525C

The Core Module ACM-BF525C is optimized for audio applications and performance. It is based on the high performance ADSP-BF525C from Analog Devices. The ACM-BF525C is designed for commercial applications (commercial temperature range). It addresses 64MByte SDRAM via its 16bit wide SDRAM bus, has an onboard NOR-flash of 4MByte and a NAND-flash with 1024MByte.

PROZESSOR	ADSP-BF525C Blackfin® DSP
CLOCK	600MHz
LOCKBOX SECURE TECHNOLOGY	✓
I²C / SPI / UART / SPORT	1 / 1 / 1 / 1
USB2.0 OTG	1
INTEGRATED AUDIO CODEC	Stereo, 24-bit ADCs and DACs
RAM	64MByte SDRAM
FLASH	4MByte NOR und 1024MByte NAND
TEMPERATURE RANGE	Commercial (0°C to 70°C)
ADDITIONAL FEATURES	Mic., Line In / Out and HP interface On-Board core voltage regulator Low voltage reset circuit
DIMENSIONS	38x48mm



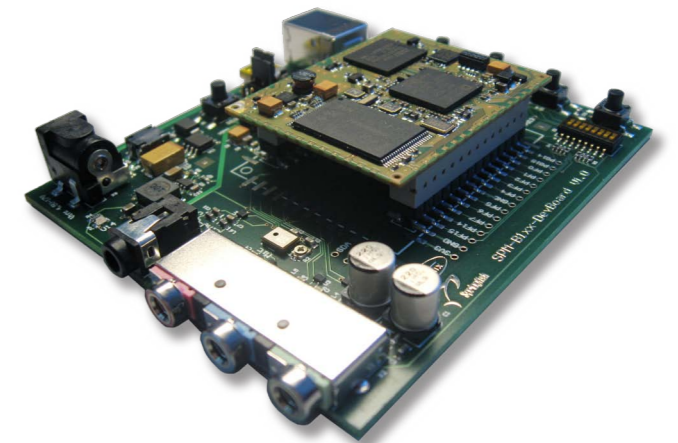
ACM-BF525C

Applications

- » Audio processing
- » Multimedia applications
- » Voice-over-IP applications
- » Portable media players

KIT Content

- » ADEV-BF52xC Blackfin Audio Development Board
- » ACM-BF525C-C-C-Q25S64F4N1024
- » DC power supply
- » USB device cable



ADK: ADEV-BF52xC with ACM-BF525C

BLUETECHNIX - YOUR Embedded Systems Development Partner

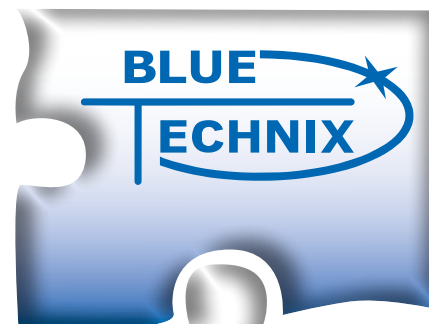
Bluetechnix, established in September 2004, with headquarters in Vienna, is a spin-off of the Vienna University of Technology. Bluetechnix' core business focuses on design and development of embedded systems. Bluetechnix has many years of experience in individual development services of customers' designs. 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

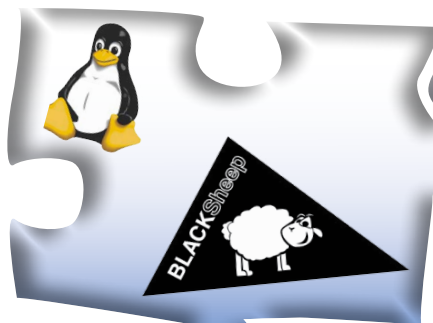
- » **Hard- & Software development services**
- » **Efficient solutions for customers' requirements**
- » **Device driver, firmware and application development**

Benefit of Bluetechnix' services

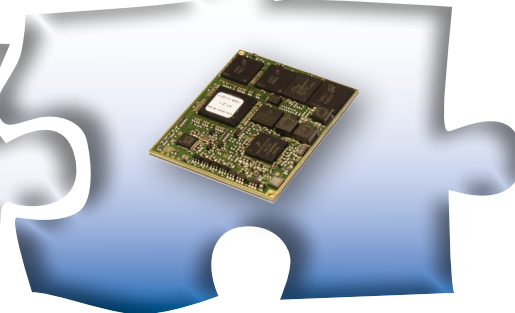
We have 750 customers worldwide, who are satisfied with our hard- & software design solutions.



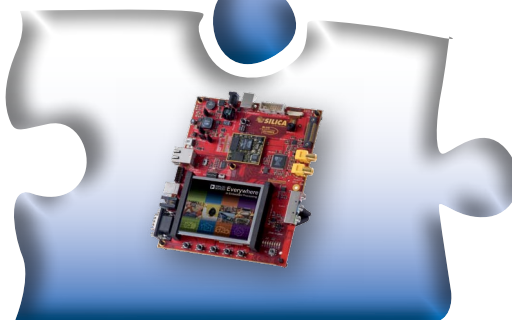
*Design
Services*



*Software
Development*
*Embedded Linux,
BLACKSheep® OS,
Custom Software*



*Hardware
Development*



Product

Copyright © 2011 Bluetechnix, February 2011
Bluetechnix reserves the right to make changes to any specifications and products at any time without notice. Product illustrations are not binding.

BLUETECHNIX MECHATRONISCHE SYSTEME GMBH

Waidhausenstraße 3/19
1140 Wien, Austria
www.bluetechnix.com

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

