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Understanding Embedded - Microcontroller, Microprocessor, FPGA Modules

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

Applications of Embedded - Microcontroller,

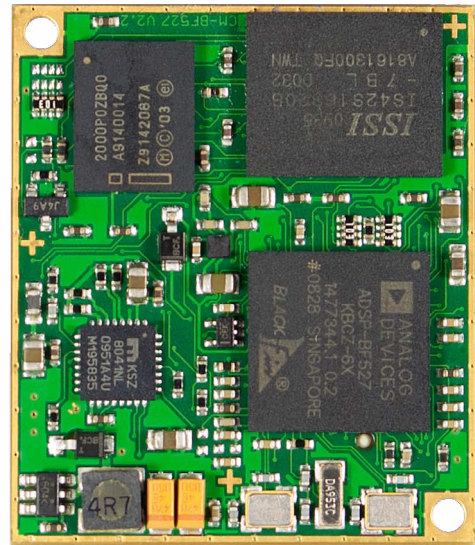| Details	
Product Status	Active
Module/Board Type	MPU Core
Core Processor	CM-BF527
Co-Processor	-
Speed	600MHz
Flash Size	8MB
RAM Size	64MB
Connector Type	Expansion 2 x 60
Size / Dimension	1.22" x 1.42" (31mm x 36mm)
Operating Temperature	0°C ~ 70°C
Purchase URL	https://www.e-xfl.com/product-detail/bluetechnix/100-1254-2

CM-BF527

Blackfin® Core Module

The CM-BF527 is optimized for performance and functionality. The module integrates processor, RAM, flash, external peripheral controllers and power supply at a size of 31.5x36.5mm! It is based on the high performance ADSP-BF527 from Analog Devices.

The Core Module is designed for commercial usage (commercial temperature range). It addresses up to 64MByte SDRAM via its 16bit wide SDRAM bus and has an onboard NOR-flash of 8MByte. The processor features a built in USB-OTG 2.0 unit and has the physical Ethernet transceiver onboard.

Features

CPU		Analog Devices BF527 @ 600MHz
RAM*		32/64MByte SDRAM up to 133MHz
FLASH		8MByte
INTERFACES	**ETHERNET**	1x10/100 Mbit Ethernet
	PPI	1
	SPI	1
	SPORT	2
	TWI/I²C	1
	UART	2
	USB 2.0	1 (OTG)
ADDITIONAL FEATURES		Single 3.3V supply voltage On-board core voltage regulator Low voltage reset circuit NAND Flash Interface
TEMP. RANGE		0°C to +70°C
VERSIONS		Connector
DIMENSIONS		31x36mm

* depends on version - see ordering information

Development Support

- » EVAL-BF5xx Evaluation Board
- » DEV-BF5xx Development Board
- » DEV-BF5xxDA-Lite Development Board
- » BLACKSheep® OS
- » uClinux Port available

Applications

- » Mobile Embedded Device
- » Network connected embedded system
- » Industrial control
- » Voice over IP (VoIP)
- » Multi-media application processor
- » Multi-media accessories - e.g. docks
- » Networked audio
- » Instrumentation
- » Imaging

Ordering Information

Order No.	Info
100-1253-2	CM-BF527-C-C-Q50S32F8 (CM-BF527)
100-1254-2	CM-BF527-C-C-Q50S64F8 (CM-BF527-64SD)

BLUE TECHNIX