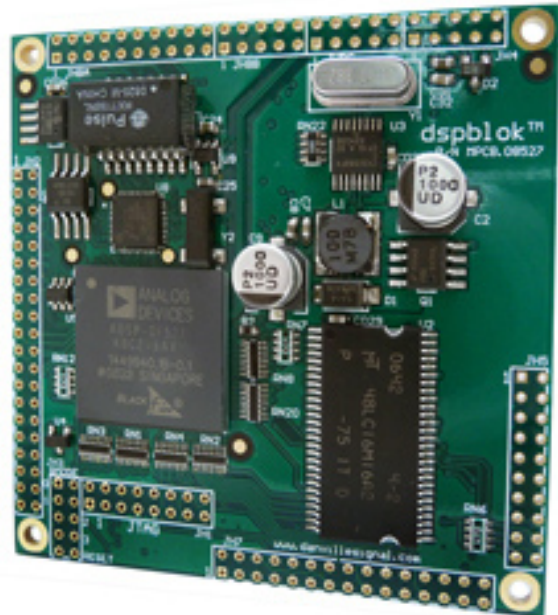


## Introducing the dspblok™ 527

- Analog Devices ADSP-BF527 Blackfin DSP
- Small Size (60mm x 60mm)
- Ethernet & High Speed USB 2.0
- Flash, EEPROM & SDRAM Memory
- Programmable Clock
- 3.3V operation
- 2mm Headers for Easy Integration into Custom PCBs
- Supported by dspblok I/O Modules & Power Supplies



The dspblok™ 527 is a highly integrated DSP module that incorporates an Analog Devices' ADSP-BF527 Blackfin DSP, Flash, EEPROM and SDRAM memory and a switching power supply to support the core voltage requirements. All the connections are brought out to standard 2mm dual row header footprints.

The peripheral rich dspblok 527 includes a high speed USB-On-The-Go interface and a 100BaseT Ethernet controller. To use either of these interfaces, simply add a connector. All the supporting circuits are part of the dspblok, which include the magnetics and the clocks.

The on-board programmable clock is very flexible. In addition to supplying the USB, Ethernet and DSP clocks, the clock can be programmed to an arbitrary frequency to drive external circuits.



**Product Variations:**

600MHz, Comm. Temp P/N A.08527

**Accessories:**

Danville JTAG Adapter P/N A.08153

**Key Components:**

Analog Devices ADSP-BF527KBCZ-6AX	Micron MT48LC16M16
Cypress CY22393 Clock Connector	Atmel AT26DF161A Serial Flash
SMSC LAN8700 Ethernet RMII	Microchip 25LC640 Serial EEPROM

**Exposed I/O (3.3 V):**

PF15 – PF0 (SPORT 0 & 1, PPI)  
PG13 - PG0 (PG4-PG1 assigned to SPI)  
PH15-PH13, PH11  
PPI, PPIFS1  
I2C (TWI)  
RESET# (Open Drain)  
BMODE2-0 (Includes support for onboard flash or external SPI (slave) booting)  
DATA BUS (D15-D0, A19-A0, AMS3-AMS0, AOE, AWE, ARDY, ARE)  
EXT\_WAKE

**External Interfaces:****USB 2.0 – High Speed**

USB-On-The-Go support  
USB Peripheral support  
USB Host support

**Ethernet – 100BaseT**

Status LED Outputs  
On-Board Magnetics  
Ethernet Mode selection  
External connector (RJ-45) required

**Clocks:**

Reference Crystal	24.000 MHz
USB	24.000 MHz
Ethernet RMII	50.000 MHz
DSP	24.000 MHz or 22.1184 MHz
External Clock Out	Software Programmable
RTC	32.768 kHz

**Size:**

60mm x 60mm  
Height: 4mm above PCB, 2mm + 4.3mm (mating header) below PCB  
PCB Thickness 1.6mm

**Connectors:**

Dual row 2mm headers

**Power Requirements:**

3.3V  
Optional Battery input for RTC 3.0V



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