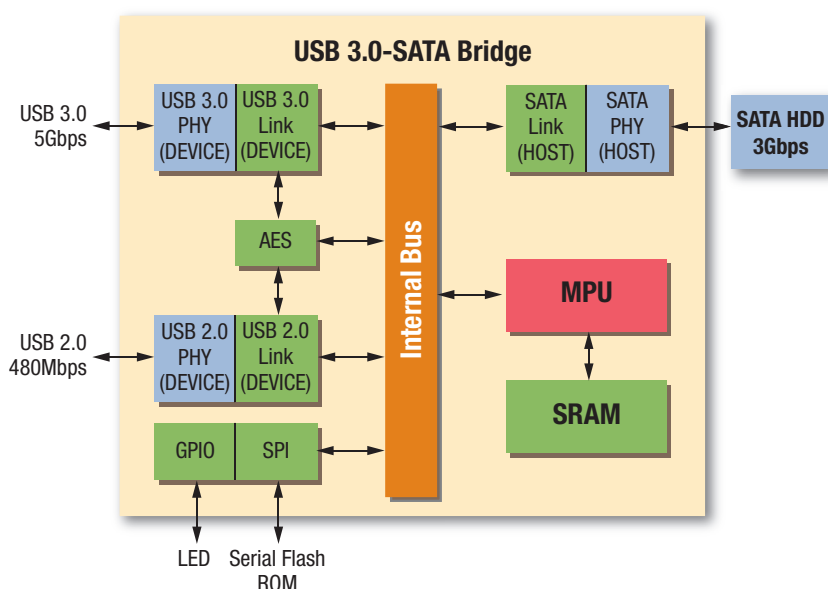


FACTSHEET
MB86C30A
USB 3.0 TO SATA BRIDGE

MB86C30A USB 3.0 to SATA Bridge



MB86C30A block diagram

Features

MB86C30A		
USB	Standard	Universal Serial Bus Specification 3.0 Universal Serial Bus Specification 2.0
	Bit rate	5Gbps (SuperSpeed) / 480Mbps (Hi-Speed)
	Device Class	Mass Storage Class Bulk-Only Transport, Revision 1.0
SATA	Standard	Serial ATA Specification Revision 2.6
	Bit rate	3Gbps (Gen2i) / 1.5Gbps (Gen1i)
	ATA/ATAPI device	HDD / SSD/Blu-ray / DVD / CD
Encryption hardware	Algorithm	AES
	Mode	CBC / XTS
	Block size	128-bit
	Key length	128-bit/256-bit (CBC mode) 128-bit+128-bit / 256-bit+256-bit (XTS mode)
	Throughput	200MB/s (CBC mode, 128-bit) 150MB/s (CBC mode, 256-bit) 300MB/s (XTS mode, 128-bit+128-bit) 270MB/s (XTS mode, 256-bit+256-bit)
MPU	Core	ARM7TDMI-S™
	Max. operating frequency	75MHz
	RAM size	64kByte
Package		LQFP 64 pin, 7mm x 7mm (0.4mm pitch)
Process technology		65nm CMOS

Description

MB86C30A is Fujitsu Microelectronics' USB 3.0 external storage solution that complies with Universal Serial Bus Specification 3.0 and Universal Serial Bus Specification 2.0.

MB86C30A integrates USB 3.0/ USB 2.0/ SATA Links and PHYs and 32-bit RISC processor to respond to the requests from the USB host.

The device supports the new SuperSpeed USB 3.0 standard with a transfer rate of 5Gbps and is fully backward compatible to all USB 2.0 Host solutions.

In addition to the bridge functionality the MB86C30A contains an embedded AES engine for high-speed data encryption/decryption, which provides a high security of stored data on hard disk drives without impairing the high-speed performance of USB 3.0.

Application

- USB 3.0 external storage
 - HDD, SSD, Blu-ray, DVD and CD

ARM7TDMI-S is a trademark of ARM Limited in the EU and other countries.

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