

# OnSpec

## xSil 259B Hi-Speed USB NAND Flash Controller Chip Product Data Sheet

The xSil 259B is designed to connect an IDE/ATA device or NAND flash to USB. It contains the following:

- 48-pin 7mm x 7mm LQFP package
- Single chip with integrated USB 2.0 PHY
- Serial EEPROM port
- Supports NAND, NAND MLC media
- NOP=1 support for MLC NAND
- 4-byte FEC (Forward Error Correction) in hardware (real time)
- Firmware enhancements can be stored on On-board NAND
- Serial port
- Two General Purpose Timers
- Watchdog Timer
- 16 bit Processor
- Internal RAM for supporting enhancements
- ROM with BIOS and Application code.
- Programmable Read and Write widths
- Optimum hardware controlled transfer for speed and scalability
- NAND/ NAND MLC
- Up to 4 Chip selects to allow extended addressing
- FEC Error detection and correction, which can correct up to 4-bytes of error per sector.
- Firmware enhancements can be stored on On-board NAND when populated.

### Packaging

The xSil 259B is a 48-pin LQFP package.

### USB Engine

The xSil 259B meets the Universal Serial Bus (USB) specification V2.0 and V1.1.

### Support for NAND SLC / NAND MLC Flash

Widespread support for popular NAND SLC / NAND MLC flash media is available. The xSil 259B processor comes with a 4-Byte FEC Error correction algorithm that detects and corrects up to 4 Bytes in a 512 byte block. A programmable clock speed is provided to set the clock speed based on the media's capabilities. The processor can load firmware from the NAND media itself thus obviating the need for an I2C component.

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**Patents:**

This product is covered by one or more of the following patents:

US Pat. 5784584, 5809336, 5841424, 6438638, 6598148, 6832281, 6859361, 6859369

Taiwan Pat. I 222564

China Pat. CN 018152163

S. Korea Pat. KR 476817

Other Foreign & US Patents Pending

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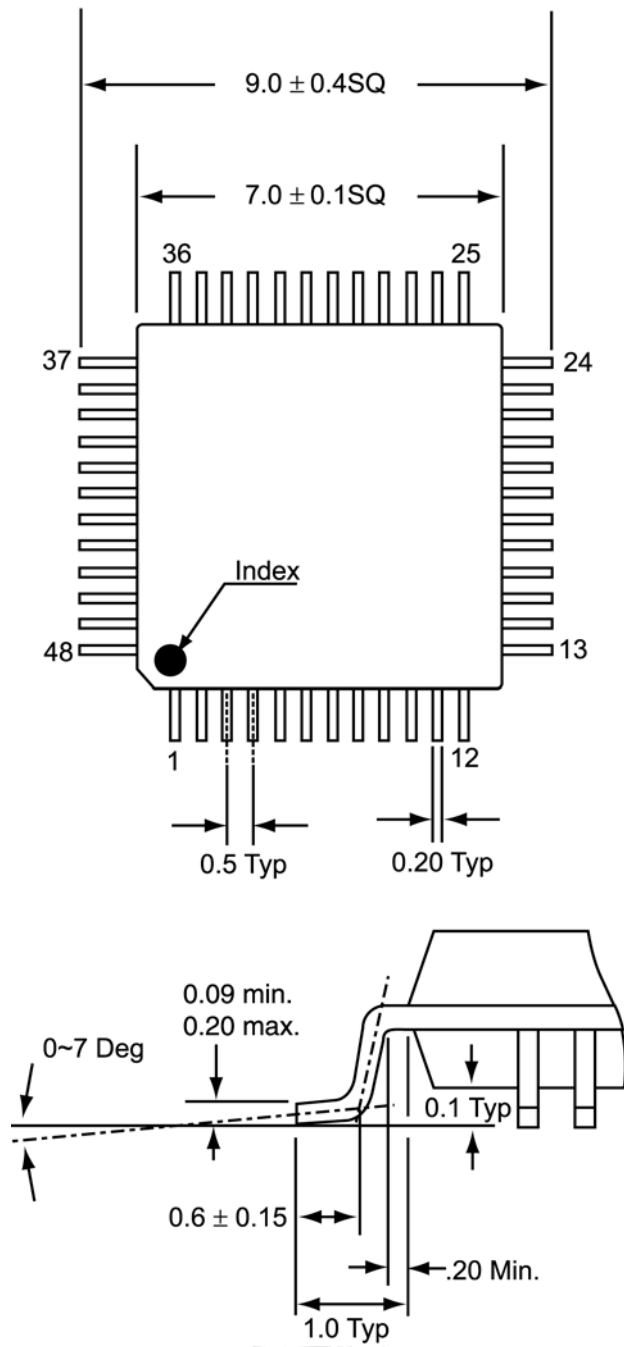
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## Mechanical Dimensions



Note: All Dimensions in mm