

swissbit®

Product Fact Sheet

## Industrial USB Flash Drive Module

### U-46 Series

USB2.0, High-Speed, pSLC

everbit™



# U-46 Series (USB2.0, High-Speed, pSLC) Industrial USB Flash Drive Module (eUSB) – 2 to 16GByte

## Product Summary

- USB2.0 solid state flash drive for internal 9(10)-pin USB connector terminal
  - Fully compliant with USB specification 2.0/3.0 (High-Speed, 480Mb/s burst)
  - Fully backward compliant with USB 1.1 systems (Full speed, 12Mb/s burst)
  - Dimension of 26.65 x 36.8mm
  - 2.54mm or 2.00mm connector with keyed ping (optional different key pins and pinouts)
  - Screw hole not connected (optional grounded)
  - Fix drive (optional removable)
  - LED for operation indication
  - Write protect switch (optional)
  - FAT32 preformatted
  - Diagnostic features with Life Time Monitoring tool support
  - Firmware update in field possible
- High performance 2.0 specification
  - **everbit™** firmware optimized for random access (up to 900 IOPS write and 2100 IOPS read (4KByte transfers))
  - Up to 29MBytes/s sequential write and 41MBytes/s read speed
- Power Supply: (Low-power CMOS technology)
  - 3.1 to 5.5V operating voltage
- Optimized FW algorithms especially for high read access and long data retention applications
  - Patented power-off reliability technology
  - Near Miss ECC technology  
Minimize the risk of uncorrectable bit failure over the product life time. Each read command analyzes the ECC margin level and refresh data if necessary.
  - Read Disturb Management  
The read commands are monitored and the content is refreshed when critical levels have occurred.
  - Wear Leveling technology  
Equal wear leveling of static and dynamic data. The wear leveling assures that dynamic data as well as static data is balanced evenly across the memory. With that the maximum write endurance of the device is guaranteed.
  - Data Care Management  
The interruptible background process maintain the user data for Read Disturb effects or Retention degradation due to high temperature effects.
- High reliability
  - MLC NAND Flash with 3000 program erase cycles per block but **everbit™** firmware with reduced write amplification  
for write emphasized applications we recommend the U-400 series with SLC flash
  - Designed with sophisticated firmware architecture for industrial and netcom market especially 24/7 application like networking, base stations, infrastructure systems, POS/POI, medical and general boot medium use case.
  - The product is optimized for highest reliability and power fail safety.
  - Commercial and Industrial Temperature range, 0° up to 70°C and -40° up to 85°C
- Controlled BOM & PCN process
- RoHS, China-RoHS, REACH compatible, WEEE, CE, FCC compliant
- Customized options like registers, removable device, connector options, write protect switch, grounded mounting hole, conformal coating, densities, uploads, label, security controller, ...

## Why Swissbit?

Swissbit is focused on the design, development, manufacture, and support of leading edge memory and storage solutions for the worldwide OEM/ODM marketplace. As a global supplier, Swissbit recognizes and addresses the higher level of application requirements of today's industrial, Netcom, and automotive customers by providing best-in-class products and services, with uncompromised attention to driving overall value and quality.