

swissbit®

Product fact sheet

Industrial
USB Flash Drive

unitedCONTRAST II
USB2.0 high speed



USB FLASH DRIVE UNITEDCONTRAST II

512MB TO 16GBYTE

Main Features

- USB2.0 Stick with USB-A connector
 - Fully compliant with USB specification 2.0 (High-Speed, 480Mb/s burst)
 - Fully backward compliant with USB 1.1 systems (Full speed, 12Mb/s burst)
 - Dimension of 67.85 x 18.0 x 8.35 (with cap)
 - FAT32 preformatted
 - Diagnostic features with Life Time Monitoring tool support
- High performance 2.0 specification
 - Up to 29 and 9MByte/sec sequential read and write speed
- Power Supply: (Low-power CMOS technology)
 - 4.5 to 5.5V operating voltage
- Optimized FW algorithms
 - Patented power-off reliability technology
 - 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
 - UBER 10^{-14}
- High reliability
 - SLC NAND Flash with highest program erase cycles per block
 - Designed with sophisticated firmware architecture for industrial and netcom market
 - Commercial and Industrial Temperature range, 0° up to 70°C and -40° up to 85°C
- Customized options like registers, removable device, connector options, write protect switch, grounded mounting hole, conformal coating, densities, uploads, label, ...
- Plug&Play
- Bootable, Removeble Drive
- LED for operation indicaton
- FAT32 format
- Unique serial number
- USB-IF high speed certified
- Controlled BOM & PCN process
- RoHS, China-RoHS, REACH compatible, WEEE, CE, FCC compliant



Options

- Customized logo
- Removable or fixed drive
- Customer specified strings and IDs
- FAT16, FAT32 format or customer file system, default FAT32
- Preload service
- CD partition
- Auto run option
- Other software tools for synchronization password detection on request
- Dongle functionality
- Secured area (password protected, API available)
- SDK for developers
- Industrial and Commercial Temperature range



Order Information for United Contrast Series

Density	Part Number	Temp. Range	Flash Technology
512MB	SFU20512EgBP2xx-t-xx-1f1-STD	t = C -0°C to 70°C t = I -40°C to 85°C	SLC NAND Flash
1GB	SFU21024EgBP2xx-t-xx-1f1-STD		
2GB	SFU22048EgBP2xx-t-xx-1f1-STD		
4GB	SFU24096EgBP2xx-t-xx-1f1-STD		
8GB	SFU28192EgBP2xx-t-xx-1f1-STD		
16GB	SFU216GBEgBP2xx-t-xx-1f1-STD		

g = generation; x = options, firmware and custom configuration

System Performance

System Performance	typ	max	unit
Burst Data transfer Rate (480Mb/s)	60		MB/s
Sustained Sequential Read	28	30	
Sustained Sequential Write 512MB-2GB/2-16GB	10/22	13/26	

Current Consumption @5V (±10%)	typ	max	unit
Write	80	120	mA
Read	80	120	
Idle	45	60	
Suspend	0.3	0.5	

Physical Dimensions

Physical Dimensions	value	unit
Length	67.85±0.2 with cap	mm
Width	18.0±0.2	
Thickness with lens	8.35±0.2	
Weight (typ.)	10	g

Recommended Temperature Conditions

Parameter	min	typ	max	unit
Commercial Operating Temperature	0	25	70*)	°C
Industrial Operating Temperature	-40	25	85*)	°C
Storage Temperature	-40	25	100*)	°C

*) high temperature storage and operating reduces the data retention

Durability / Environmental conditions

Parameter	methode
Free fall / Drop test	1m free fall
Shock / Vibration (peak -to-peak)	1,500G (JESD22-B110/B104) / 20G (JESD22-B103)
Humidity	85°C, 85% RH (JESD22-A101)

For more information on USB drive specification, please visit USB implementer's forum (<http://www.usb.org>)

Why Swissbit?

Swissbit strives to create innovative technologies for future market opportunities utilizing a highly skilled in-house product research and development team. Swissbit maintains a marketing edge by continuing to manufacture world-class high quality memory products and providing customers with both high value and low cost of ownership achieved through efficient processes and procedures.