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Product Fact Sheet

Industrial
USB Flash Drive Module

U-110 Series
USB2.0 high speed
2.54mm and 2.0mm connector

made in germany
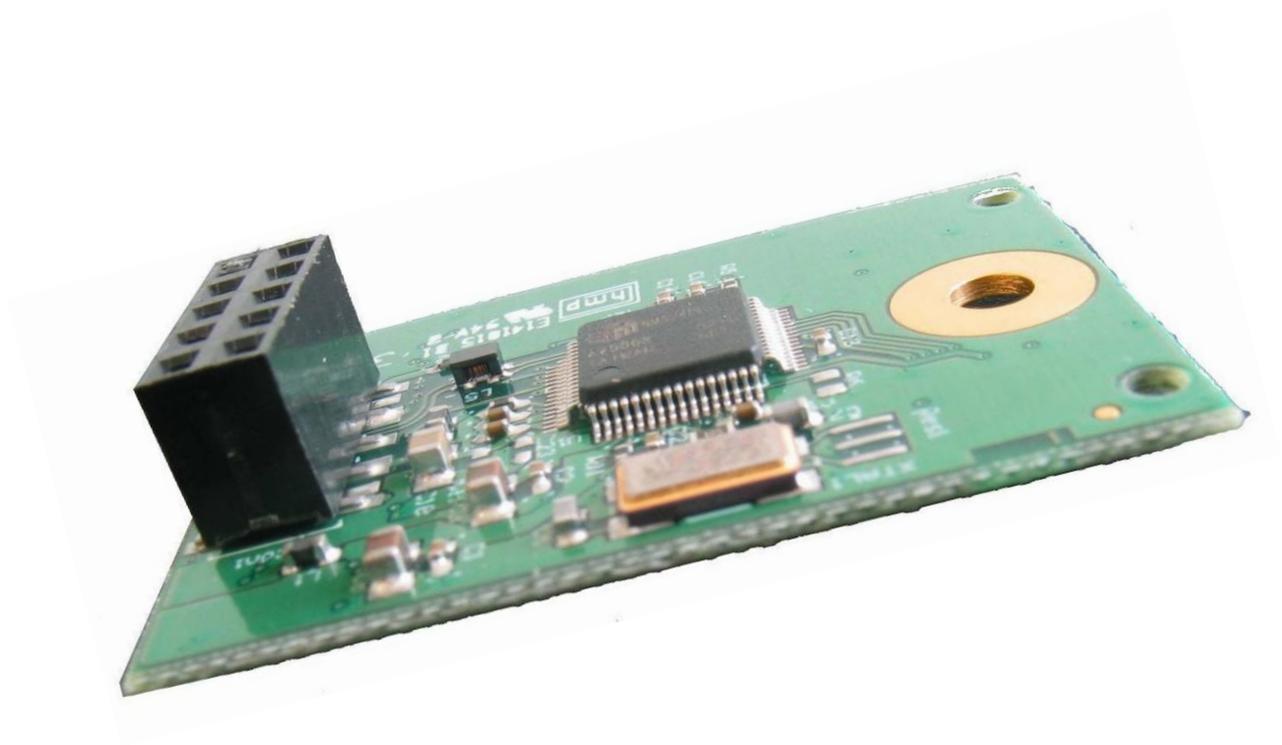
U-110 Series (USB2.0, high speed)

Industrial USB Flash Drive Module (eUSB) – 1 to 16GByte

Main Features

- USB2.0 solid state flash drive for internal 9(10)-pin USB connector terminal
  - 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 26.65 x 36.8mm
  - 2.54mm or 2.00mm connector with keyed pin9
    (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

- 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

- Plug&Play
- Bootable, Fix Drive
- LED indicator
- FAT32 format
- Unique serial number
- Controlled BOM & PCN process
- RoHS, China-RoHS, REACH compatible, WEEE, CE, FCC compliant

Options

- Customized options like registers, removable device, connector options, write protect switch, grounded mounting hole, conformal coating, densities, uploads, label, CD partition, ...

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Order Information for United Contrast Series

Density	Part Number	Connector	Temp. Range	Flash Technology
1GB	SFUI 1024cgBP2xx-t-xx-2f1-STD			
2GB	SFUI 2048cgBP2xx-t-xx-2f1-STD	c = J 2.54mm pitch	t = C -0°C to 70°C	
4GB	SFUI 4096cgBP2xx-t-xx-2f1-STD	c = K 2.00mm pitch	t = I -40°C to 85°C	SLC NAND Flash
8GB	SFUI 8192cgBP2xx-t-xx-2f1-STD			
16GB	SFUI 16GBcgBP2xx-t-xx-2f1-STD			

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

System Performance

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

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

Physical Dimensions

Physical Dimensions	value	unit
Length	36.8±0.2	
Width	26.65±0.2	
Thickness (PCB)	1.0±0.1	mm
2.54mm or 2.00mm pitch connector length	7.5 or 3.6	
Weight (typ.)	8	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.

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