

eUSB Flash Module: Kiwi, Lychee, & Plum

KEY FEATURES

General

- eUSB Form Factor with Hirose, 2.54mm and 2.00mm (Pitch) Connectors
- USB 3.1, 2.0 and 1.0/1.1 Compliance
- Windows 11/10/7/XP/2000/NT/Me/ and Linux Kernel 5.4 Support
- LED indicator when USB Flash Drive in Ready/Working mode
- RoHS Compliant
- Firmware Upgradeable

High Performance Throughput

- Typical Read: 79 MB/s
- Typical Write: 54MB/s

Available Storage Capacities

- Type: 2GB, 4GB, 8GB, and 16GB

High Reliability and Long Life

- High Endurance SLC Flash with 100K P/E Cycles
- Flexible 96-Bit/1K BCH Internal ECC results in high data reliability
- Static, Dynamic and Global wear leveling algorithm

Temperature Range

- -40C to 85C (I-Temp)



Unigen's Product Line of embedded USB, or eUSB, form factor is a USB based Disk-on-Module and a suitable storage solution for industrial, networking and embedded markets. Based upon the Modern Hyperstone U9 Controller, it provides a low-cost, small form-factor, low power-consumption and efficient data-transfer solution. It is compliant with the industry USB standard and can be used as boot media, data-logger or storage device. A 10-pin female connector is provided on the PCB of the eUSB device, as well as a mounting hole to ensure a stable connection to the main board. The eUSB module can be used as the boot drive for operating systems or BIOS. It can also be a substitute for SSDs as data storage device. Unigen offers three different form factors each with two different voltages (3.3, 5V) with capacities from 2GB to 16GB.

ORDERING INFORMATION

Product Name	Part Number	Description
Kiwi	UB90H032000ICS1	eUSB, 2GB, Hirose connector, 3.3V
	UB90H034000ICS1	eUSB, 4GB, Hirose connector, 3.3V
	UB90H038000ICS1	eUSB, 8GB, Hirose connector, 3.3V
	UB90H0316H0ICS1	eUSB, 16GB, Hirose connector, 3.3V
	UB90H032000IDS1	eUSB, 2GB, Hirose connector, 5.0V
	UB90H034000IDS1	eUSB, 4GB, Hirose connector, 5.0V
	UB90H038000IDS1	eUSB, 8GB, Hirose connector, 5.0V
	UB90H0316H0IDS1	eUSB, 16GB, Hirose connector, 5.0V
Lychee	UB91H032000ICS1	eUSB, 2GB, 2.00mm connector, 3.3V
	UB91H034000ICS1	eUSB, 4GB, 2.00mm connector, 3.3V
	UB91H038000ICS1	eUSB, 8GB, 2.00mm connector, 3.3V
	UB91H0316H0ICS1	eUSB, 16GB, 2.00mm connector, 3.3V
	UB91H032000IDS1	eUSB, 2GB, 2.00mm connector, 5.0V
	UB91H034000IDS1	eUSB, 4GB, 2.00mm connector, 5.0V
	UB91H038000IDS1	eUSB, 8GB, 2.00mm connector, 5.0V
	UB91H0316H0IDS1	eUSB, 16GB, 2.00mm connector, 5.0V
Plum	UB92H032000ICS1	eUSB, 2GB, 2.54mm connector, 3.3V
	UB92H034000ICS1	eUSB, 4GB, 2.54mm connector, 3.3V
	UB92H038000ICS1	eUSB, 8GB, 2.54mm connector, 3.3V
	UB92H0316H0ICS1	eUSB, 16GB, 2.54mm connector, 3.3V
	UB92H032000IDS1	eUSB, 2GB, 2.54mm connector, 5.0V
	UB92H034000IDS1	eUSB, 4GB, 2.54mm connector, 5.0V
	UB92H0316H0IDS1	eUSB, 16GB, 2.54mm connector, 5.0V
	UB92H038000IDS1	eUSB, 8GB, 2.54mm connector, 5.0V

PERFORMANCE SPECIFICATIONS

Device	Parameter		16GB	8GB	4GB	2GB
UB90H03 SERIES Hirose Connector (Kiwi)	Sequential (MB/S)	Read	43.0	43.9	36.8	35.5
		Write	28.7	28.9	24.0	19.8
	Random (MB/S)	Read	9.7	9.8	8.0	8.2
		Write	3.4	3.4	2.2	3.9
UB91H03 SERIES 2.00mm Pitch Connector (Lychee)	Sequential (MB/S)	Read	73.0	79.3	54.5	43.2
		Write	52.6	43.7	31.3	24.3
	Random (MB/S)	Read	9.1	9.4	8.5	7.6
		Write	2.0	2.6	4.1	3.8
UB92H03 SERIES 2.54mm Pitch Connector (Plum)	Sequential (MB/S)	Read	70.2	79.2	54.7	43.3
		Write	53.0	44.1	32.1	27.5
	Random (MB/S)	Read	9.7	9.3	9.6	8.3
		Write	3.6	3.4	3.6	4.2

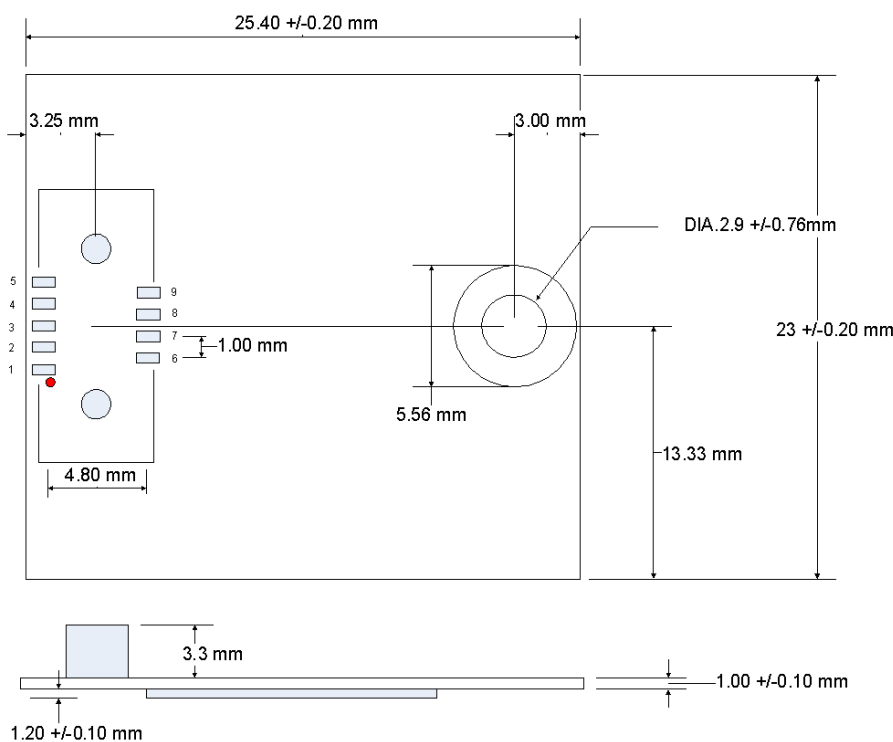
ELECTRICAL SPECIFICATIONS

Parameters	Symbol	Min	Max	Unit
Storage Temperature	Tstg	-40	85	°C
Input Power (5V Version)	Vcc	-0.3	6.0	V
Input Power (3.3V Version)	Vcc	-0.3	3.6	V
Voltage on USB2 signals with respect to GND	Vusb2	-0.3	5.0	V
Voltage on USB3 signals with respect to GND	Vusb3	-0.3	1.8	V

PHYSICAL DIMENSIONS

UB90H03 Series (Kiwi)

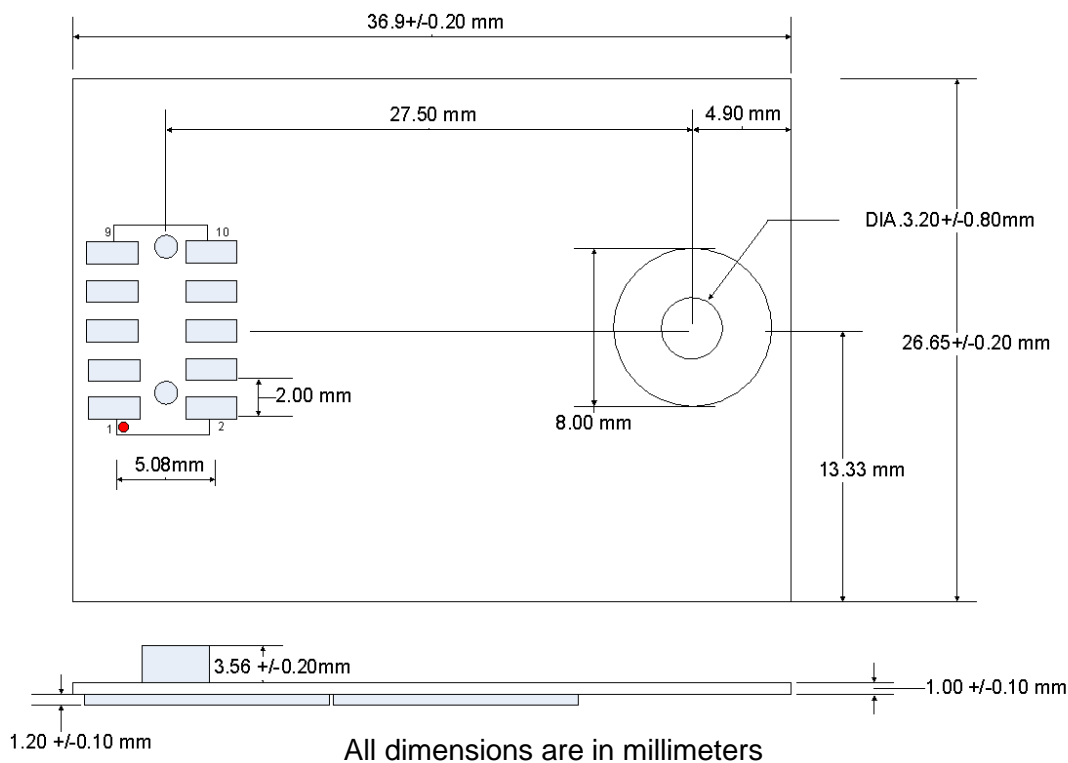
Parameter	Value
Length	25.40 +/- 0.20mm
Width	23.00 +/- 0.20mm
Height	5.50 +/- 0.20mm



All dimensions are in millimeters

UB91H03 Series (Lychee)

Parameter	Value
Length	36.90 +/- 0.20mm
Width	26.65 +/- 0.20mm
Height	5.76 +/- 0.20mm



UB92H03 Series (Plum)

Parameter	Value
Length	36.90 +/- 0.20mm
Width	26.65 +/- 0.20mm
Height	9.80 +/- 0.20mm

