DuraFlash™

RU150e | USB 2.0 | eUSB Flash Drive

SMART's DuraFlash RU150e USB 2.0 eUSB Flash Drives are designed as the main boot and storage device in embedded systems. The small form factor, lower power consumption, and fast access times, offer distinct technical advantages over more traditional mass storage devices. They are an ideal choice for mission-critical enterprise IT and field service applications.

SMART's RU150e USB 2.0 eUSB Flash Drives use a USB 2.0 high speed serial link and provide a simple two wire signaling interface to the host. They are offered with Single-Level Cell (SLC) NAND Flash. They provide enhanced reliability by incorporating onboard error detection and correction, and static and dynamic wear-leveling algorithms that provide reliable operation over a product's life.

Features & Benefits

- SLC NAND Technology
- Supports Bootability with Standard BIOSs
- Low Power Dissipation: Less Than 0.45W Active (0.68W for 5V Version) and Less Than 10mW Standby
- Small Footprint Header: Industry Standard Header or Low Profile Stacking Header Available
- Optional Hardware Reset and Write Protect Support

Applications

- ATCA Compute Blades
- Industry Standard Servers
- Networking
- Single-Board Computers for Defense, Gaming and Industrial Control Applications
- Telecom and Networking Routers and Switches

Product Family Overview

Capacity	Sequential Performance
**RU150e	USB 2.0	eUSB Flash Drive**	
1GB to 32GB	Up to 35MB/s Read; Up to 27MB/s Write

Specifications

	RU150e | USB 2.0 | eUSB Flash Drive
NAND Type	SLC
Performance	
Sequential Read (maximum)	35MB/s
Sequential Write (maximum)	27MB/s
Reliability	
Data Retention	10 years > 90% life remaining 1 years < 10% life remaining
Endurance	3 TBW per GB of capacity
Error Correction	Advanced multi-bit error correction
Power	
Vcc	Typical: 5.0 V Maximum: 5.5 V
Read	Typical: 72 mA Maximum: 226 mA
Write	Typical: 79 mA Maximum: 21 mA
Idle	Typical: 34 mA Maximum: 55 mA
Environmental	
Shock/Acceleration	Operating Half-Sine 70 in/sec, 3 shocks along each axis, X, Y, Z, in each direction
Vibration Operating	0.9 g rms, 10-500 Hz, 30 minutes per side (total of 6 sides)
Vibration Non-Operating	Random 13.6 g rms, 10-500 Hz, 30 minutes per side (total of 6 sides)
Operating Temperature	Commercial: 0°C to +70°C Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	5% to 95%, non-condensing, relative humidity
Physical	
Length	36.9 mm
Width	26.6 mm
Height	7.5 mm

Ordering Information

Part Number	Density
RU150e | USB 2.0 | eUSB Flash Drive **Commercial Operating Temperature (0°C to +70°C)**	
SHEU32U032GQDUC	32GB
SHEU32U016GQCUC	16GB
SHEU32U008GQBUC	8GB
SPEU32U004GQAUC2	4GB
SHEU32U002GQ9UC	2GB
SHEU32U001GQ4UC	1GB
RU150e | USB 2.0 | eUSB Flash Drive **Industrial Operating Temperature (-40°C to +85°C)**	
SHEU32U032GQDUI	32GB
SHEU32U016GQCUI	16GB
SHEU32U008GQBUI	8GB
SPEU32U004GQAUI2	4GB
SHEU32U002GQ9UI	2GB
SHEU32U001GQ4UI	1GB

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