

## RU150 | USB 2.0 | USB Flash Drive

SMART's RU150 USB Flash drives provide low power, high capacity mass storage for embedded applications. RU150 USB Flash drives use an injection molding process to fit the smallest form factor requirements. 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.

RU150 USB Flash drives are offered with Single-Level Cell (SLC) NAND Flash in capacities of 1GB to 16GB. SLC NAND provides superior durability and reliability over Multi-Level Cell (MLC) NAND technology. The RU150 USB Flash drives are an ideal choice for mission-critical enterprise IT and field service applications.



### Features & Benefits

- SLC NAND Technology
- Zero Seek Time
- Noiseless Operation
- Low Power Dissipation
- Field Upgradeable Firmware via USB Bus
- Small Form Factor

### Applications

- Server Firmware Upgrades
- Specialized Industrial Applications

### Product Family Overview

| Form Factor | Capacity    | Sequential Performance                  |
|-------------|-------------|---|
| USB 2.0     | 1GB to 16GB | Up to 34MB/s Read<br>Up to 27MB/s Write |

## Specifications

| RU150   USB 2.0   USB Flash Drive |   |
|-----------------------------------|---|
| NAND Type                         | SLC   |
| Performance                       |   |
| Sequential Read (maximum)         | 34MB/s  |
| Sequential Write (maximum)        | 27MB/s  |
| Reliability                       |   |
| Data Retention                    | 10 years > 90% life remaining   |
|                                   | 1 year < 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: 100 mA   |
|                                   | Maximum: 130 mA   |
| Write                             | Typical: 100 mA   |
|                                   | Maximum: 130 mA   |
| Idle                              | Typical: 50 mA  |
|                                   | Maximum: 60 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  |
| Storage Temperature               | -40°C to +85°C  |
| Humidity                          | 5% to 95%, non-condensing, relative humidity  |
| Physical                          |   |
| Length                            | 54.55 mm  |
| Width                             | 15.49 mm  |
| Height                            | 8.3 mm  |

## Ordering Information

| Part Number  | Density |
|--|---------|
| RU150   USB 2.0   USB Flash Drive<br>Commercial Operating Temperature (0°C to +70°C) |         |
| SH9MK16GQDU  | 16GB    |
| SH9MK8GQCU   | 8GB     |
| SH9MK4GQBU   | 4GB     |
| SH9MK2GQAU   | 2GB     |
| SH9MK1GQ9U   | 1GB     |



For more information, please visit: [www.smartm.com](http://www.smartm.com)

*\*Product images are for promotional purposes only. Labels may not be representative of the actual product.*

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