

# Flash Memory Datasheet

## MONOS eFlash

### Overview

This Renesas MONOS\_eFlash Technology is realized with TSMC standard CMOS process Technology as N40LP by Open Platform. The IP has the following features – large memory capacity , high performance , high reliability. Therefore it will expand to not only MCU also many applications of SoC field.

### Key Features

#### Code flash memory

- Supports versions with up to 4 Mbytes of ROM
- High Speed Read Operation 50MHz(120MHz option)
- User code is programmable by on-board or off-board programming.
- Programming/erasing as background operations (BGOs)

#### Data flash memory

- 64 Kbytes, reprogrammable up to 250,000 times
- Programming/erasing as background operations (BGOs)

### SG-MONOS Flash Specification

	Code Flash	Data Flash
VCC	1.62V-3.6V@READ 2.25V-3.6V@P/E (1.62V~ option)	1.62V-3.6V@READ 2.25V-3.6V@P/E (1.62V~ option)
VDD	1.1V±10%	1.1V±10%
Max capacity	4MB	64KB
Read speed	50MHz (120MHz option)	10MHz
Read Bus	X64/ x128	x32
Block size	32/16KByte	64Byte
Endurance	10K	125K 250K(@3years)
Retention	10years@125°C	10 years@125°C
Tj	-40°C~125°C	-40°C~125°C

*\*This IP is contract design IP. Please contact for detail.*