

# BR9010-W/F-W/FV-W <Under development>

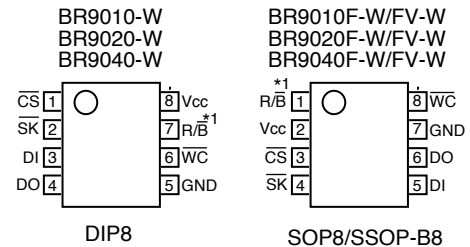
## BR9020-W/F-W/FV-W <Under development>

### BR9040-W/F-W/FV-W <Under development>

#### Features

- 1k bit serial EEPROM organized as  $64 \times 16\text{bit}$  (BR9010)
- 2k bit serial EEPROM organized as  $128 \times 6\text{bit}$  (BR9020)
- 4k bit serial EEPROM organized as  $256 \times 16\text{bit}$  (BR9040)
- Low operating voltage
  - Read : 2.0~5.5V
  - Write : 2.7~5.5V
- Low current consumption
  - Active : 1.5mA MAX ( $V_{cc}=3V$ ), 2mA MAX ( $V_{cc}=5V$ )
  - Standby : 2 $\mu$ A MAX ( $V_{cc}=3V$ ), 3 $\mu$ A MAX ( $V_{cc}=5V$ )
- Clock frequency : 1MHz MAX ( $V_{cc}=3V$ , 5V)
- Write cycle time : 15ms MAX ( $V_{cc}=3V$ ), 10ms MAX ( $V_{cc}=5V$ )  
BR9040 ; 10ms MAX ( $V_{cc}=3V$ , 5V)
- Automatic erase-before-write function during write operation
- Prevent inadvertent writing
  - Defaults to power up with write-disabled state
  - Software instructions for write-enable/disable
  - Write inhibit at low  $V_{cc}$
  - WC pin to write protection
- READY/BUSY Status indicator function ( $R/\bar{B}$  pin, DO pin)
- Schmitt trigger circuit & noise filter are built into  $\overline{CS}$ ,  $\overline{SK}$ , DI pin
- 100,000 write cycle typical
- 10 years data retention
- Operating temperature range : -40~85°C

#### Pin Configurations

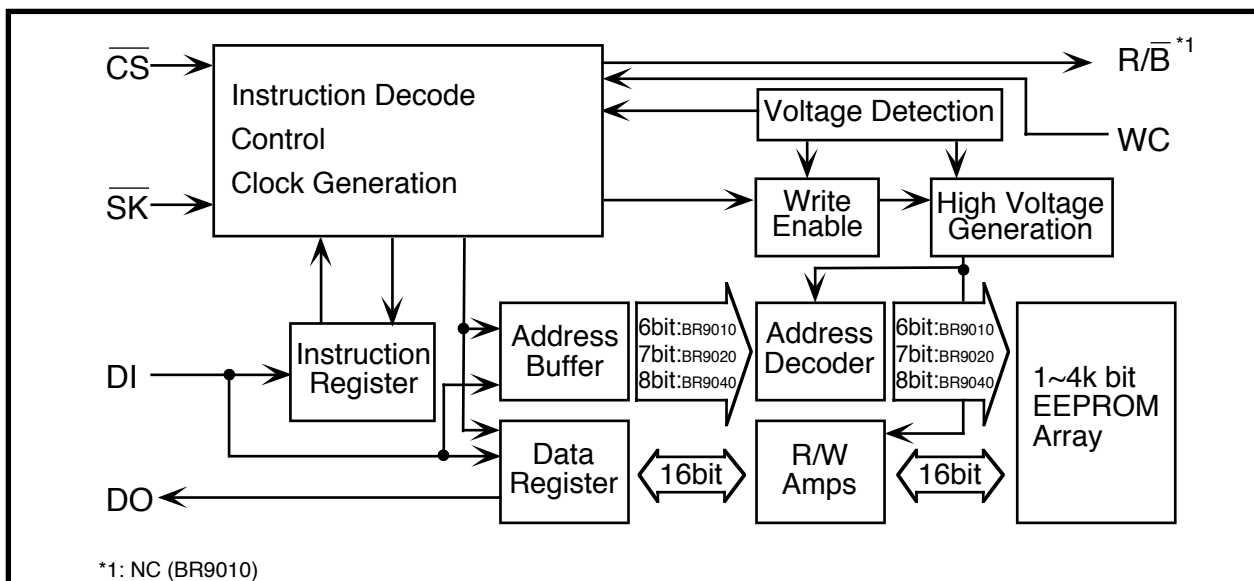


#### Pin Functions

| Pin Names       | Functions                       |
|-----------------|---------------------------------|
| $\overline{CS}$ | Chip Select                     |
| $\overline{SK}$ | Serial Data Clock               |
| DI              | Serial Data Input               |
| DO              | Serial Data Output              |
| GND             | Ground                          |
| $\overline{WC}$ | Write Control Input             |
| $R/\bar{B}$     | READY/BUSY Status Signal Output |
| $V_{cc}$        | Power Supply                    |

\*1: NC (BR9010)

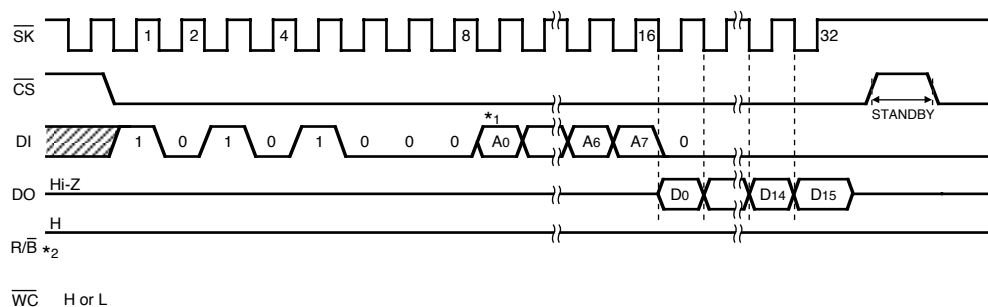
#### Block Diagram



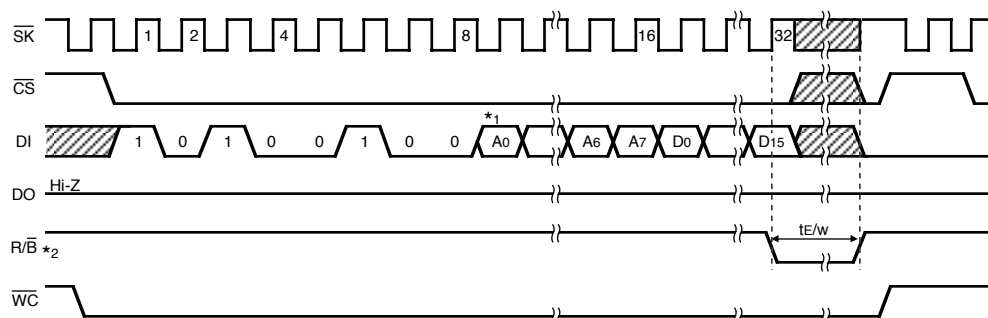
## Serial 3 Wire (Direct Connection Serial Port Type)

### Timing chart

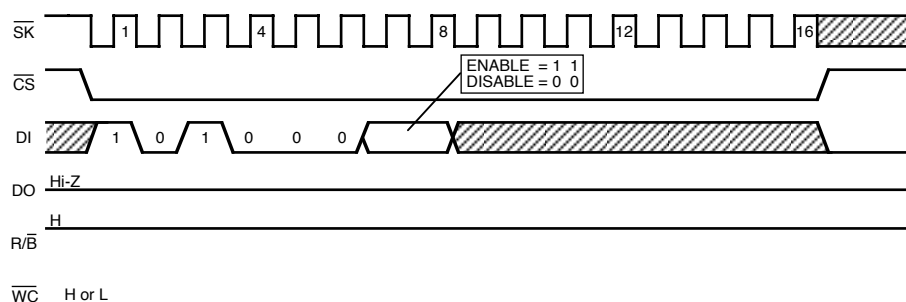
#### ■ Read cycle



#### ■ Write cycle



#### ■ Writing enable / disabled cycle



\*1 : BR9010:  $A_6, A_7=0$

: BR9020:  $A_7=0$

\*2 : NC (BR9010)

Note : Single-cell types (BR9010/F/FV, BR9020/F).  
"-W" means double-cell type.