OKI semiconductor

MSM2965RS

65,536 BITS STATIC 64K MASK ROM

GENERAL DESCRIPTION

The MSM2965RS is a 65336-bits static, N channel MOS Read only memory organized as 8,192 words by 8 bits.

The three-state outputs and TTL inputs/outputs level allow for direct interface with common system bus structures.

The MSM2965RS single +5 V power supply and 300 ns access time are both ideal for usage with high performance microcomputers.

CS_1 may be defined by customer and fixed during the masking process.

ROM DATA Accepting flow from customer.
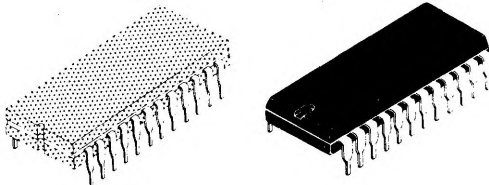
Preparing next two in customer's side

1) Two master devices, programming finished 64K EP. ROM or two 32K EP. ROMs.

2) Chip select CS logic table.

After received customer's ROM DATA, print out ROM DATA in Hex CODE and copy finished 64K EP. ROM or two 32K EP. ROMs send to customer.

Verified ROM DATA in customer's side, OKI send engineering samples mask programed customer's ROM DATA.

FEATURES

- Organization   8192 W x 8 bit
- Static Operation   No clocks required
- Supply Voltage   5 V ± 10%
- Access Time   300 ns Max.
- Power Dissipation   687 mW Max.
- Input Voltage $V_{IH} = 2.0$ V Min.,
                          $V_{IL} = 0.8$ V Max.

- Output Voltage $V_{OH} = 2.4$ V Min.,
                          $V_{OL} = 0.4$ V Max.
- Package   24 PIN DIP

FUNCTIONAL BLOCK DIAGRAM

PIN CONFIGURATION

A_7	1	24	V_{CC}
A_6	2	23	A_8
A_5	3	22	A_9
A_4	4	21	A_{12}
A_3	5	20	CS
A_2	6	19	A_{10}
A_1	7	18	A_{11}
A_0	8	17	D_7
D_0	9	16	D_6
D_1	10	15	D_5
D_2	11	14	D_4
V_{SS}	12	13	D_3

Note: CS is programmable CHIP SELECTS.
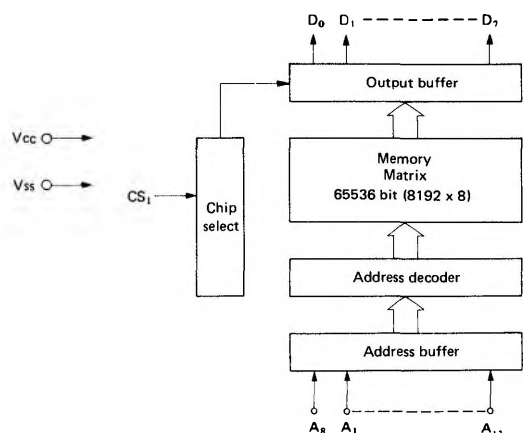
ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	Vcc	−0.5 to +7.0	V
Input Voltage	V_I	−0.5 to +7.0	V
Output Voltage	V_O	−0.5 to +7.0	V
Operating Temperature	Topr	0 to +70	°C
Storage Temperature	Tstg	−55 to +150	°C

RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	Vcc	4.5	5.0	5.5	V
"H" Input Voltage	V_{IH}	2.0		Vcc	V
"L" Input Voltage	V_{IL}	−0.5		0.8	V

AC OPERATING CHARACTERISTICS
(Vcc = 5 V ± 10%, Vss = 0 V, Ta = 0°C to +70°C)

Parameter	Symbol	Min.	Max.	Unit
Read Cycle time	t_{CYC}	300		ns
Address Access time	t_{ACC}		300	ns
Chip Select Access time	t_{CS}		100	ns
Output Disable Delay time	t_{DF}		100	ns

DC CHARACTERISTICS
(Vcc = 5 V ± 10%, Vss = 0 V, Ta = 0°C to +70°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
"H" Input Voltage	V_{IH}		2.0		Vcc	V
"L" Input Voltage	V_{IL}		−0.5		0.8	V
"H" Output Voltage	V_{OH}	I_{OH} = −100μA	2.4			V
"L" Output Voltage	V_{OL}	I_{OL} = 1.6 mA			0.4	V
Input Leak Current	I_{LI}	V_I = 0 ∼ Vcc			10	μA
Output Leak Current	I_{LO}	V_O = 0 ∼ Vcc			10	μA
Power Supply Current	Icc	Vcc = 5.5V			125	mA
Input Capacity	C_i	V_I = 0V, V_O = 0V f = 1 MHz Ta = 25°C			6	pF
Output Capacity	C_0				12	pF

$V_{IH} = 2.0V$, $V_{IL} = 0.8V$, $V_{OH} = 2.0V$, $V_{OL} = 0.8V$

Output Load = 1 TTL GATE + 100PF

ADDRESS ———— 1.5V

CHIP SELECT

t_{ACC}

t_{CS}

t_{DF}

Output   HIGH Z