

**MC8200/MC7200 Series**

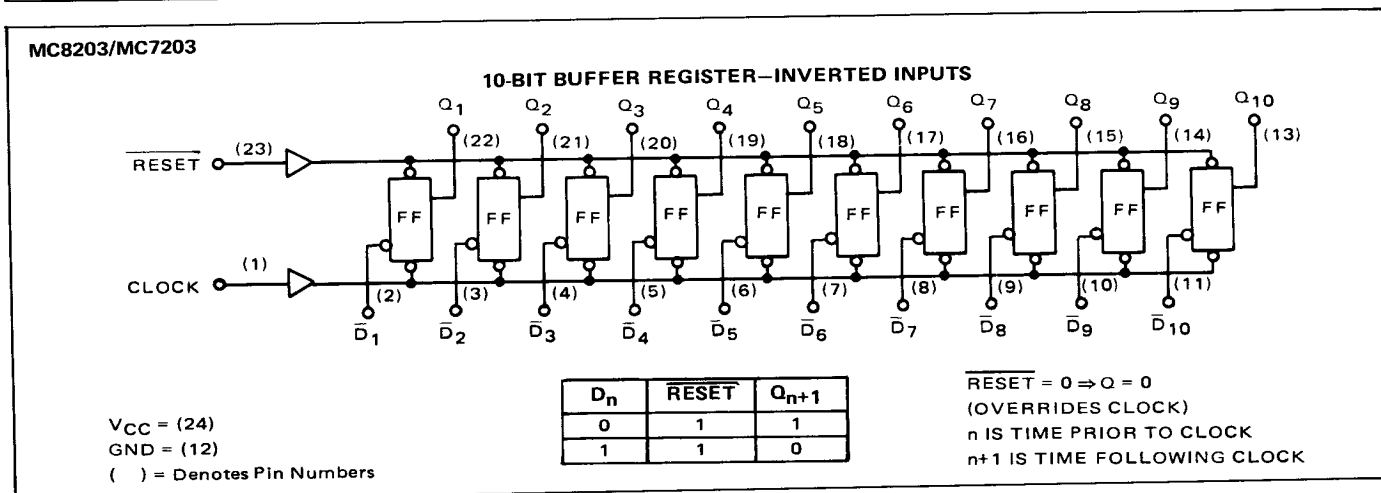
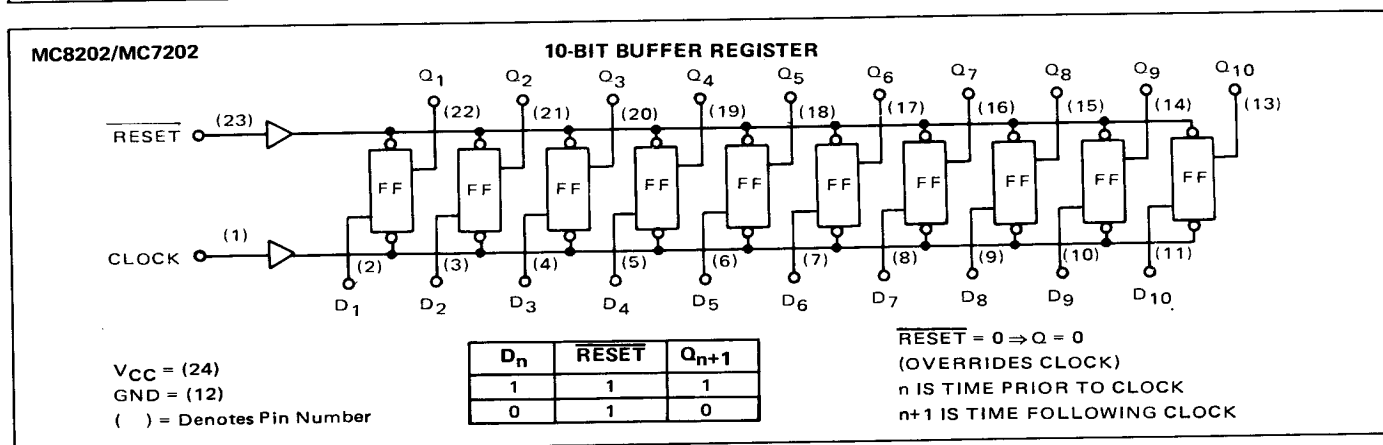
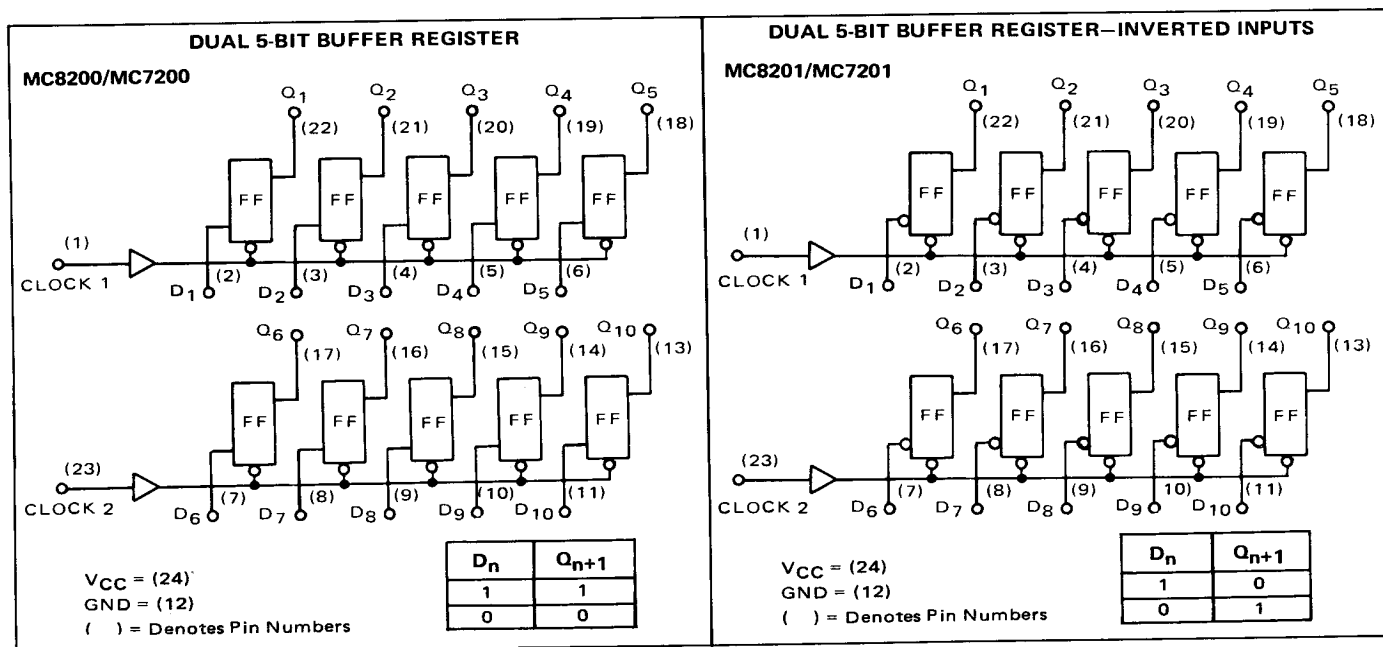
The MTTL complex functions are designed for digital applications in the medium to high-speed range.

These MTTL devices provide significant reduction in package count and increased logic per function over devices in the basic MTTL and MDTL families.

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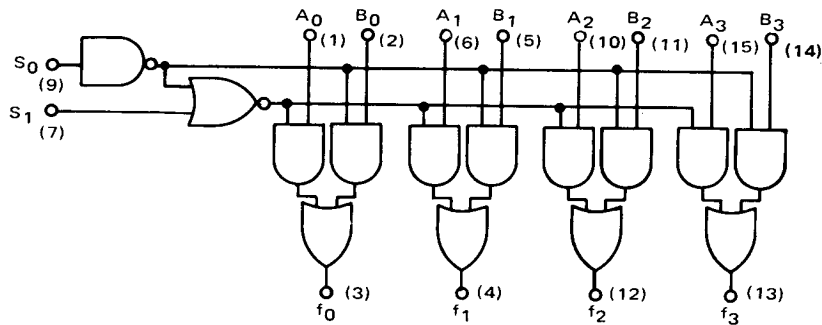
Function	Operating Temperature Range		Packages		
			Dual-in-line		Flat
	-55°C TO +125°C	0°C TO +70°C	Plastic	Ceramic	
Dual 5 Bit Buffer Register	MC8200	MC7200	P	L	F
Dual 5 Bit Buffer Register W/D Inputs	MC8201	MC7201	P	L	F
10 Bit Buffer Register	MC8202	MC7202	P	L	F
10 Bit Buffer Register W/D Inputs	MC8203	MC7203	P	L	F
2 Input 4-Bit Digital Multiplexer	MC8233	MC7233	P	L	F
2 Input 4-Bit Digital Multiplexer	MC8234	MC7234	P	L	F
2 Input 4-Bit Digital Multiplexer	MC8235	MC7235	P	L	F
Quad Exclusive OR	MC8241	MC7241	P	L	F
Quad Exclusive NOR	MC8242	MC7242	P	L	F
Binary To Octal Decoder	MC8250	MC7250	P	L	F
BCD To Decimal Decoder	MC8251	MC7251	P	L	F
Arithmetic Logic Unit	MC8260	MC7260	P	L	F
Fast Carry Extender	MC8361 /	MC7261	P	L	F
2 Input 4-Bit Digital Multiplexer	MC8266	MC7266	P	L	F
2 Input 4-Bit Digital Multiplexer	MC8267	MC7267	P	L	F
4 Bit Shift Register	MC8270	MC7270	P	L	F
4 Bit Shift Register	MC8271	MC7271	P	L	F
Presetable Decode Counter	MC8280	MC7280	P	L	F
Presetable Binary Counter	MC8281	MC7281	P	L	F
Binary Up/Down Counter	MC8284	MC7284	P	L	F
Decade Up/Down Counter	MC8285	MC7285	P	L	F
Divide by Twelve Counter	MC8288	MC7288	P	L	F
Presetable High Speed Decade Counter	MC8290	MC7290	P	L	F
Presetable High Speed Binary Counter	MC8291	MC7291	P	L	F

MC8200 • MC8201 • MC8202 • MC8203 BUFFER REGISTERS



MC8233 • MC8234 • MC8235 2-INPUT 4-BIT DIGITAL MULTIPLEXER

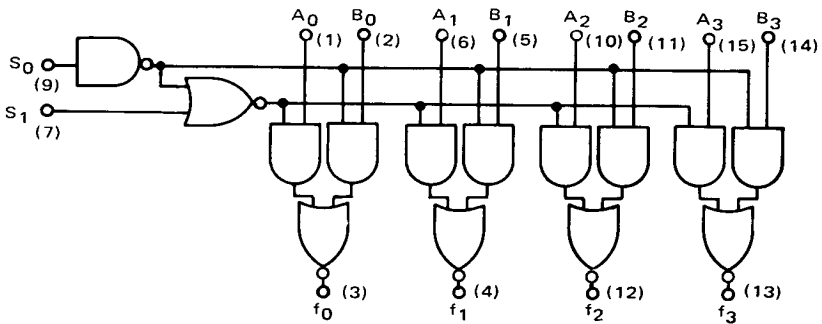
MC8233/MC7233 (ACTIVE PULL-UP)



S ₀	S ₁	f _n
0	0	B
1	0	A
0	1	B
1	1	0

V_{CC} = (16)
GND = (8)
() = Denotes Pin Numbers

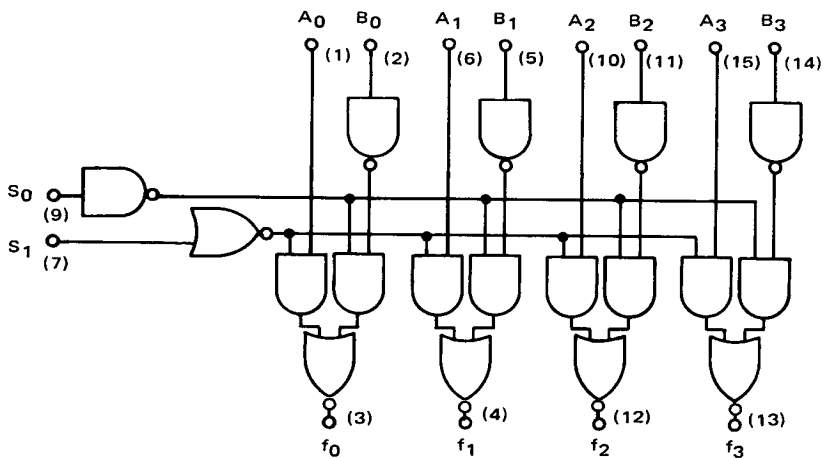
MC8234/MC7234 (OPEN COLLECTOR)



S ₀	S ₁	f _n
0	0	$\bar{B}$
1	0	$\bar{A}$
0	1	$\bar{B}$
1	1	1

V_{CC} = (16)
GND = (8)
() = Denotes Pin Numbers

MC8235/MC7235 (OPEN COLLECTOR)



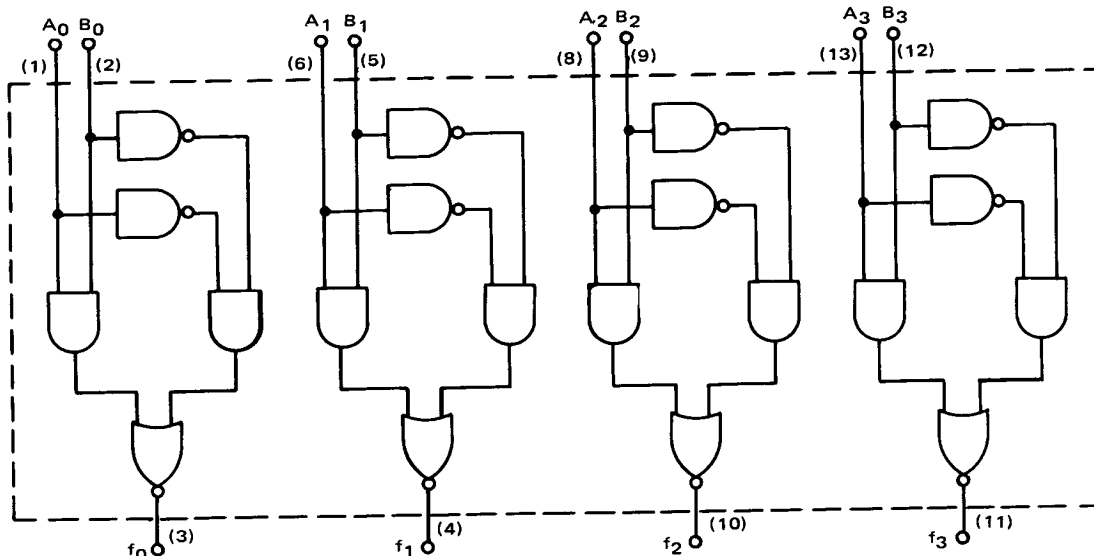
S ₀	S ₁	f _n
0	0	$\bar{A}_n \bar{B}_n$
0	1	$\bar{B}_n$
1	0	$\bar{A}_n$
1	1	1

V_{CC} = (16)
GND = (8)
() = Denotes Pin Numbers

MC8341 QUAD EXCLUSIVE OR • MC8242 QUAD EXCLUSIVE NOR

MC8241/MC7241

QUAD EXCLUSIVE – OR



A	B	f
0	0	0
1	0	1
0	1	1
1	1	0

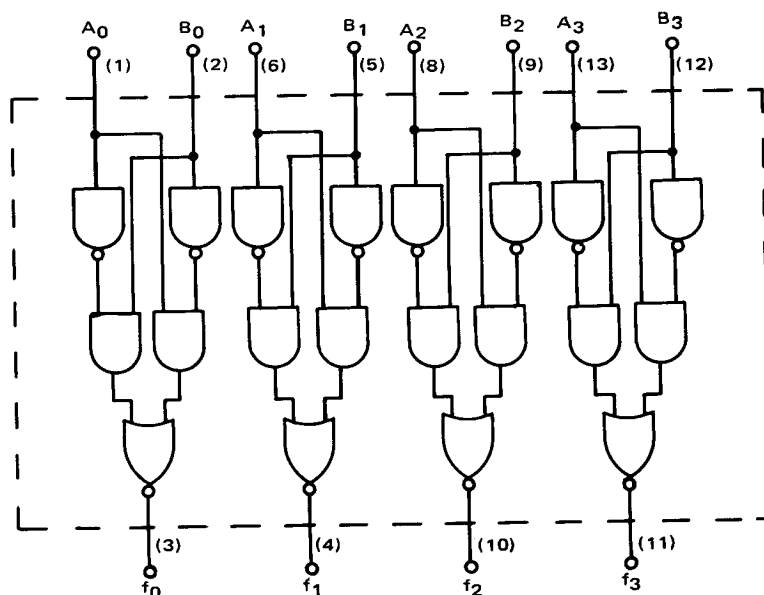
V_{CC} = (14)

GND = (7)

() = Denotes Pin Numbers for
14 pin Dual-in-Line
Package

MC8242/MC7242

4-BIT DIGITAL COMPARATOR (OPEN COLLECTOR)



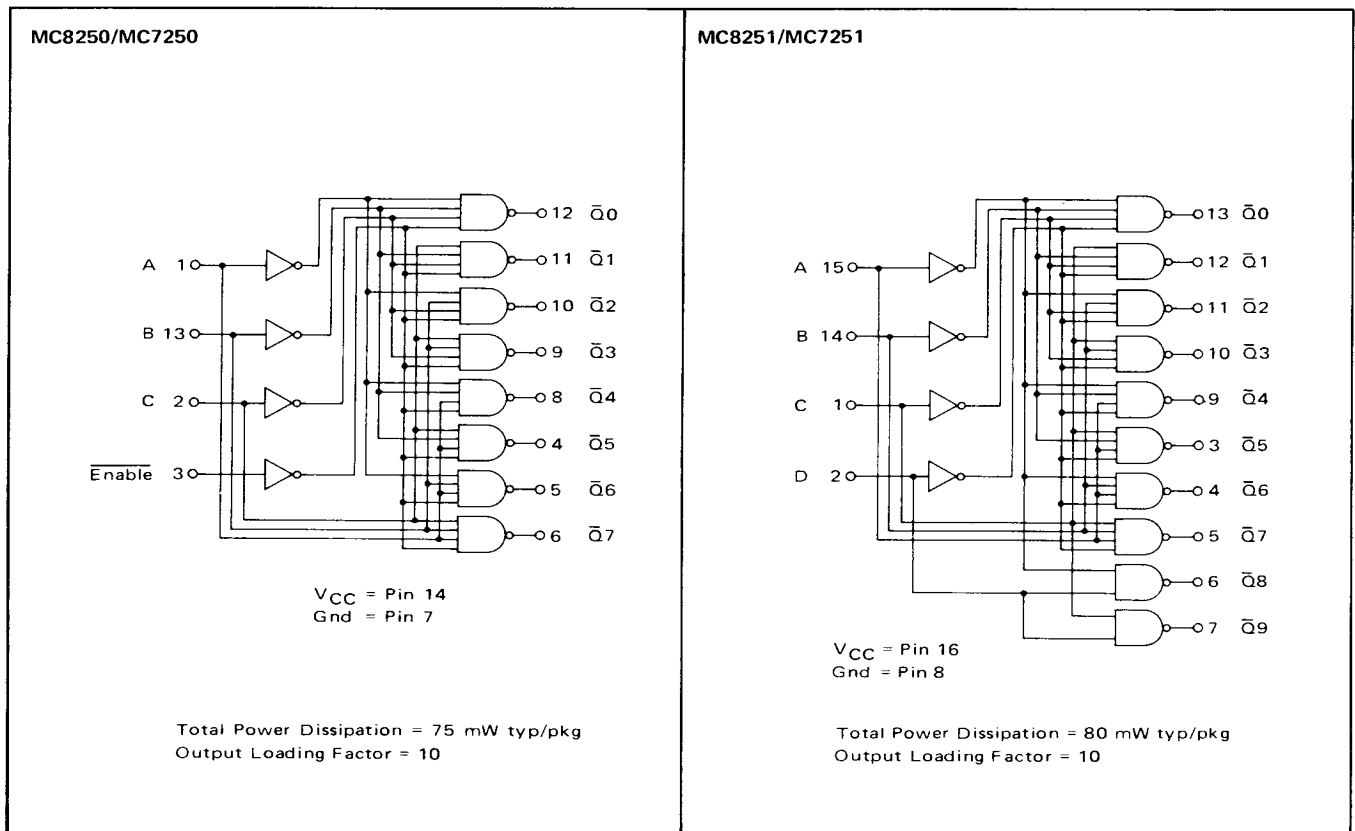
A	B	f
0	0	1
1	0	0
0	1	0
1	1	1

V_{CC} = (14)

GND = (7)

() = Denotes Pin Numbers for
14 pin Dual-in-Line
Package

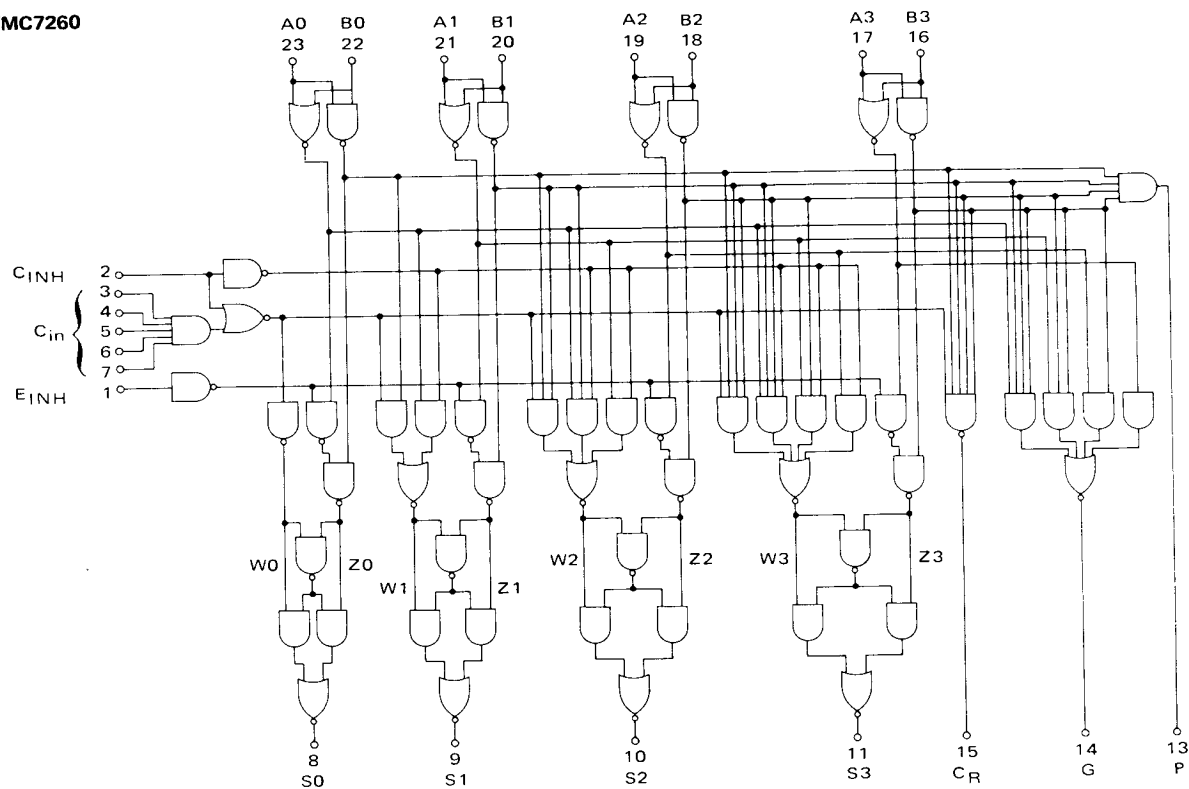
MC8250 BINARY TO ONE-OF-EIGHT DECODER • MC8251 BINARY TO ONE-OF-TEN DECODER



BOTH TYPES INPUT				MC8250/MC7250 OUTPUT								MC8251/MC7251 OUTPUT									
$\bar{E}/D$	C	B	A	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0
0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1
0	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1
0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1
0	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1
0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

MC8260 ARITHMETIC LOGIC ELEMENT • MC8261 FAST CARRY EXTENDER

MC8260/MC7260



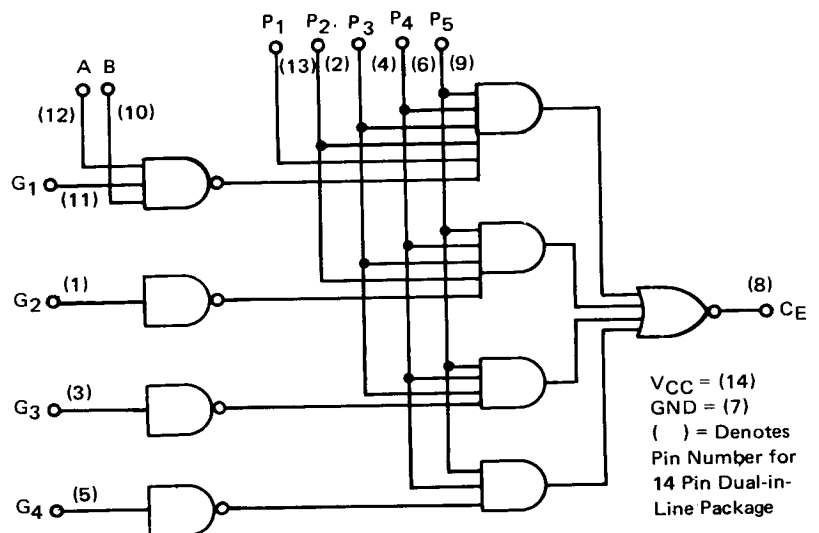
Input Loading Factor
Data, C_{INH} = 2
Other Inputs = 1
Output Loading Factor = 6
Power Dissipation = 400 mW typ/pkg

V_{CC} = Pin 24
GND = Pin 12

MC8261/MC7261

DESCRIPTION

The MC8261 Fast Carry Extender is a monolithic gate array designed specifically to be used in conjunction with the MC8260 Arithmetic Logic element. A MC8260/MC8261 combination facilitates the implementation of the look-ahead technique in adder systems, thus considerably improving propagation times. The circuit structure of this array is of the familiar TTL type.

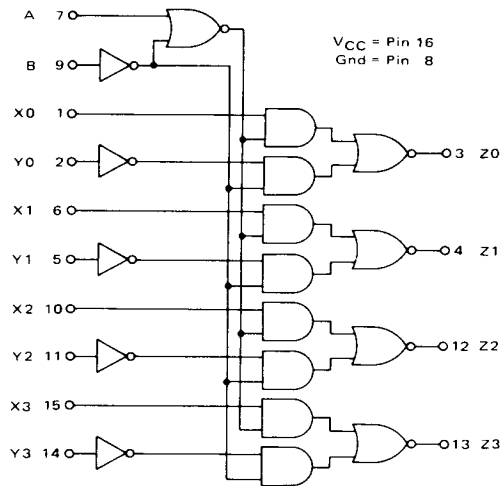


V_{CC} = (14)
GND = (7)
() = Denotes
Pin Number for
14 Pin Dual-in-
Line Package

**MC8266 2-INPUT, 4-BIT DATA SELECTOR • MC8267 2-INPUT, 4-BIT DATA SELECTOR
MC8270 • MC8271 4-BIT SHIFT REGISTERS**

MC8266/MC7266

MC8267/MC7267 (Open Collector)

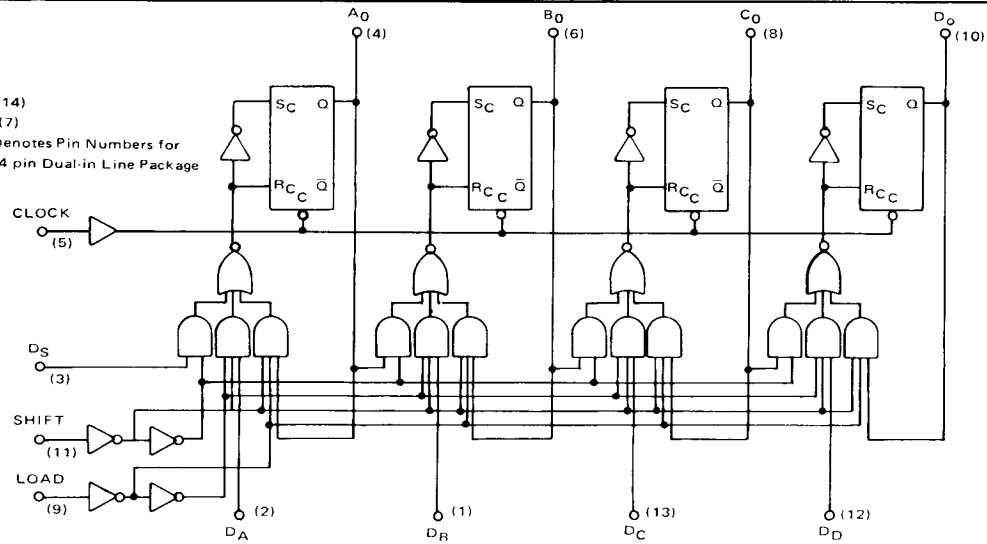


B	A	X _n	Y _n	Z _n
0	0	φ	1	1
0	0	φ	0	0
0	1	φ	1	1
0	1	φ	0	0
1	0	1	φ	0
1	0	0	φ	1
1	1	1	φ	1

φ = Don't Care

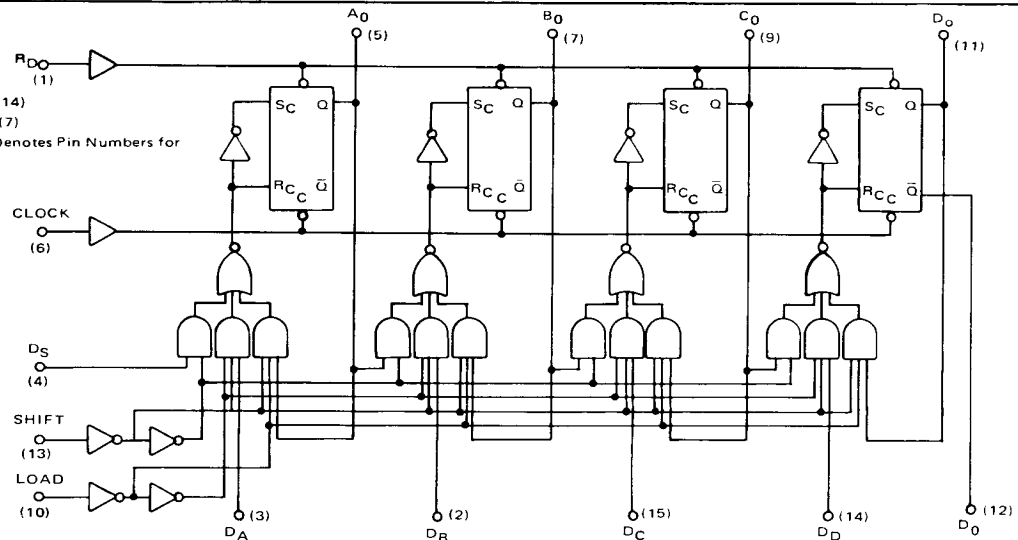
MC8270/MC7270

V_{CC} = (14)
GND = (7)
() = Denotes Pin Numbers for
14 pin Dual-in Line Package



MC8271/MC7271

V_{CC} = (14)
GND = (7)
() = Denotes Pin Numbers for

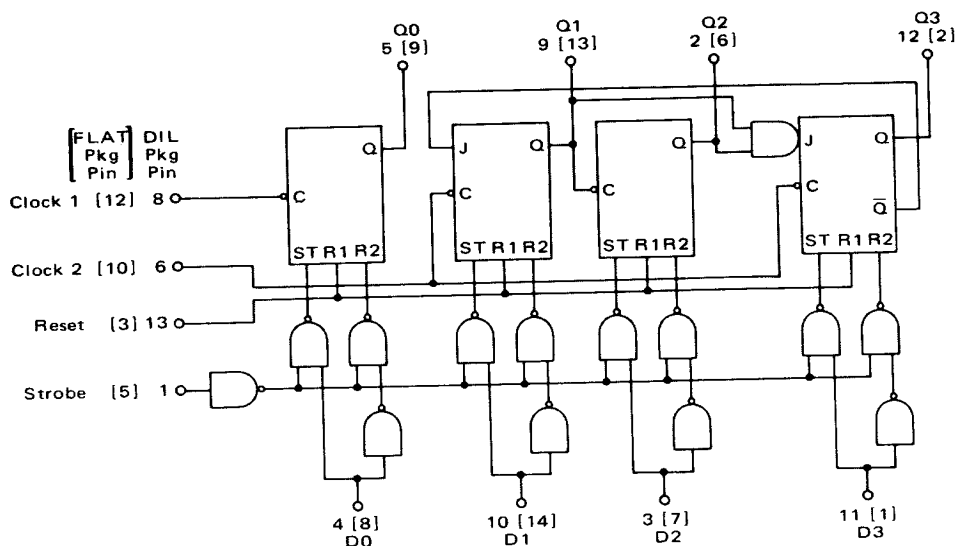


MC8280 PRESETTABLE DECADE COUNTER • MC8281 PRESETTABLE BINARY COUNTER

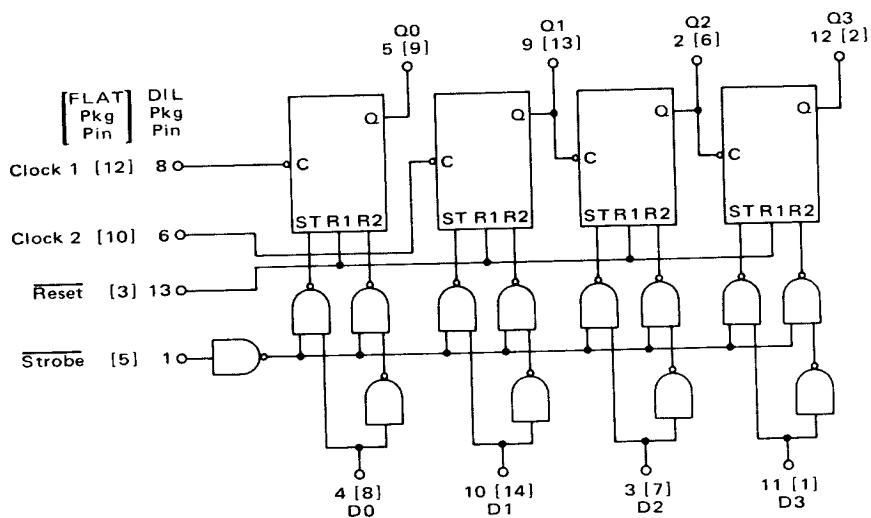
MC8280/MC7280

Output Loading Factor = 4
Total Power Dissipation = 130 mW typ/pkg
Toggle Frequency = 25 MHz typ

V_{CC} = Pin 14 [4]
Gnd = 7 [11]

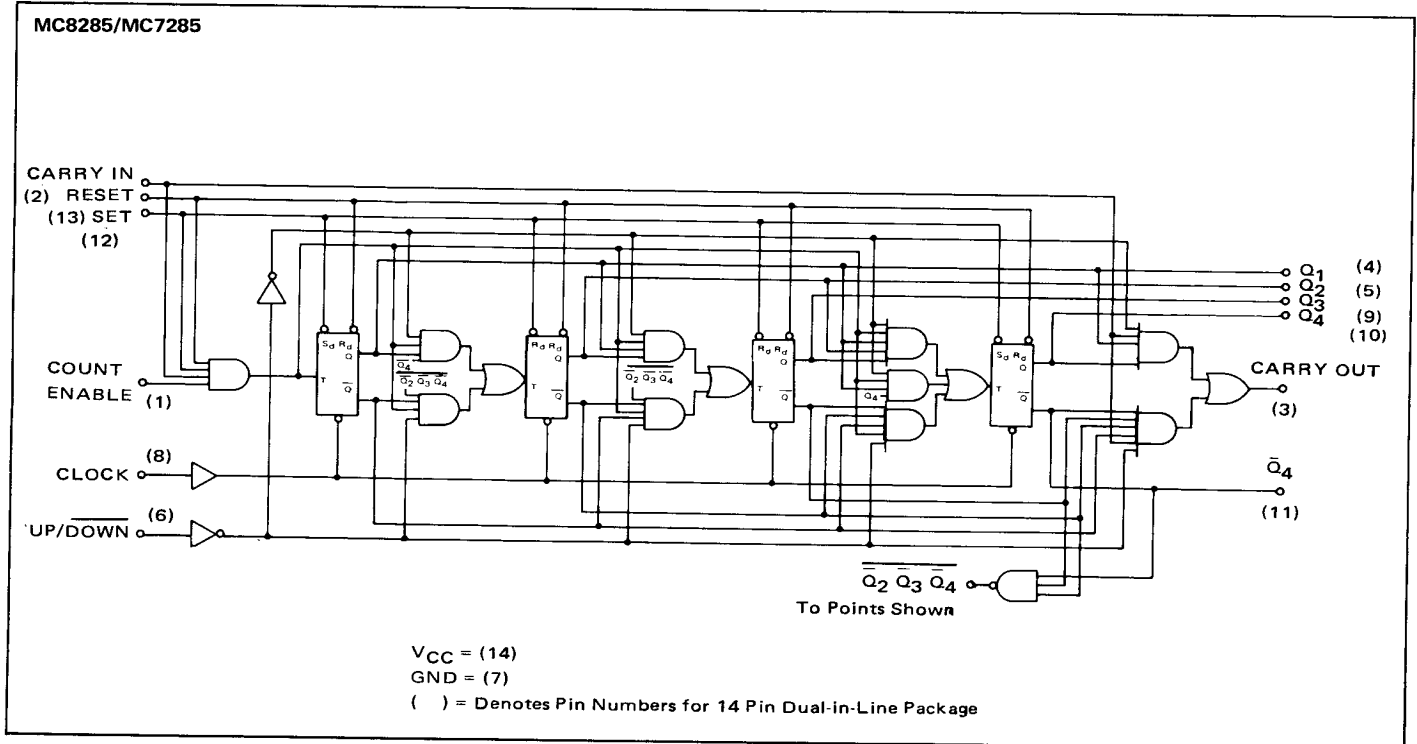
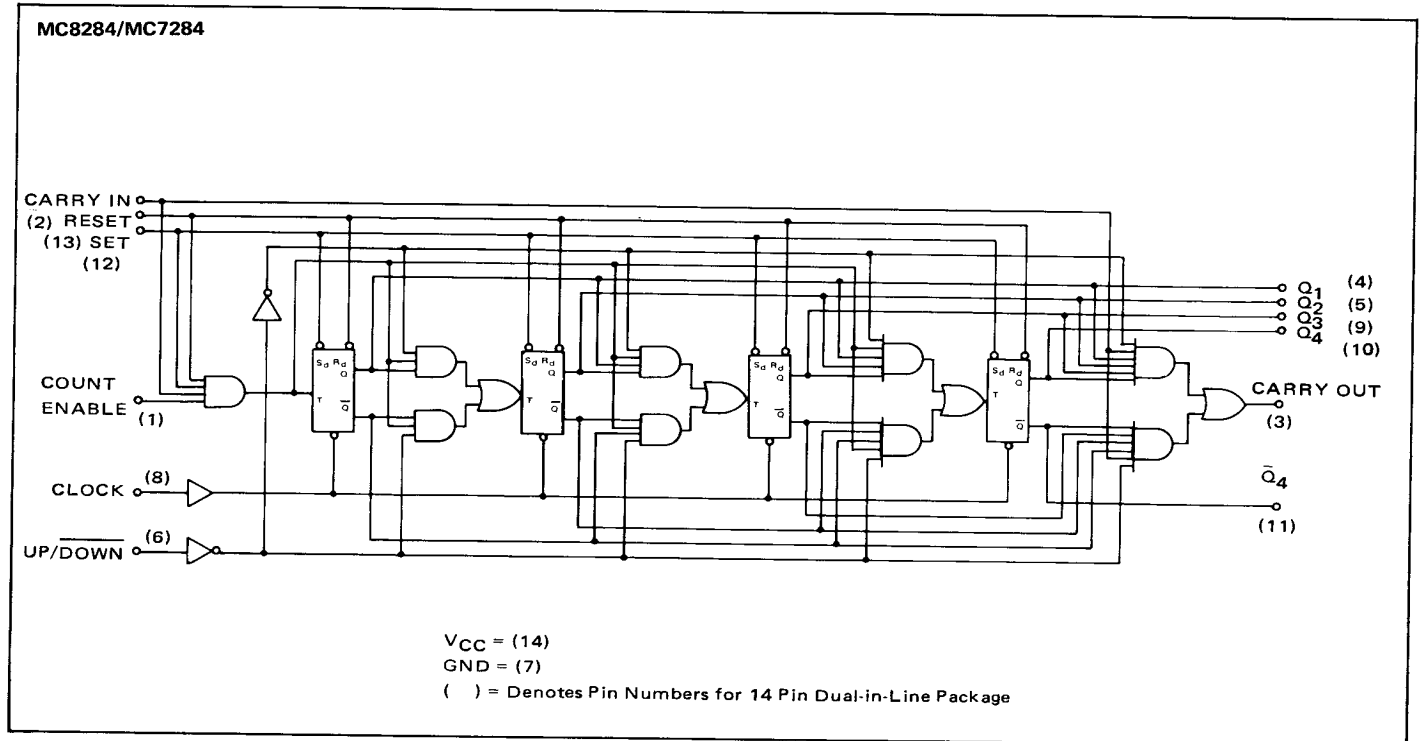


MC8281/MC7281



V_{CC} = Pin 14 [4]
GND = Pin 7 [11]

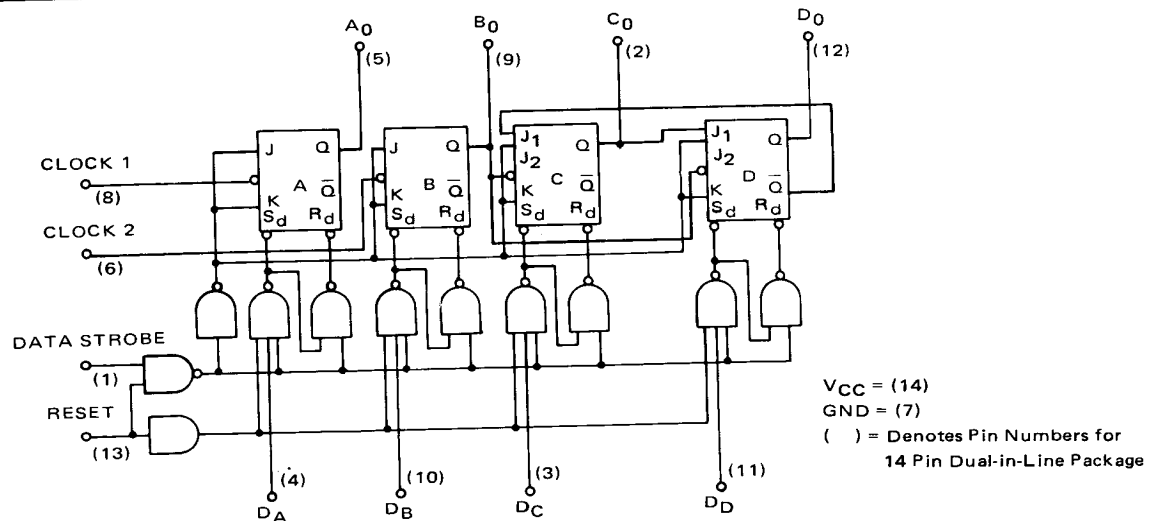
**MC8284 • MC8285 BINARY HEXADECIMAL AND BCD DECADE,
SYNCHRONOUS UP/DOWN COUNTERS**



MC8288 DIVIDE-BY-TWELVE COUNTER/STORAGE ELEMENT

MCM8290 • MC8291 PRESETTABLE HIGH SPEED • DECADE/BINARY COUNTER

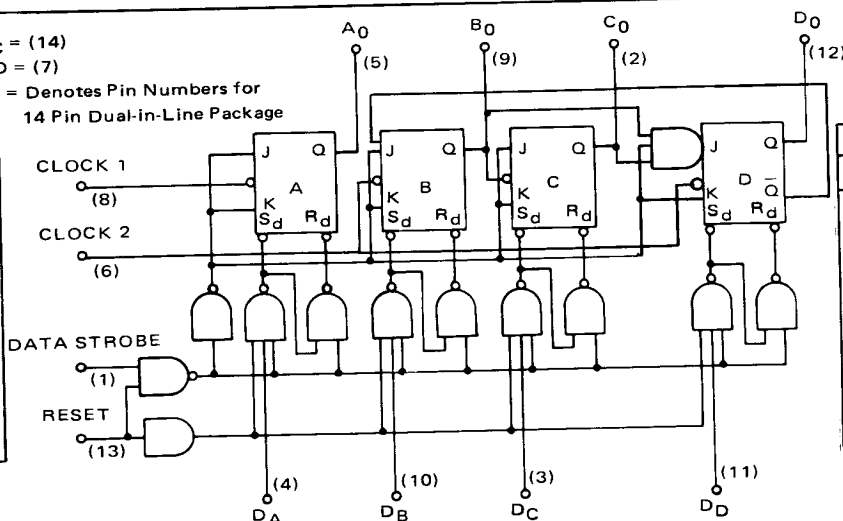
MC8288/MC7288



MC8290/MC7290

V_{CC} = (14)
GND = (7)
() = Denotes Pin Numbers for 14 Pin Dual-in-Line Package

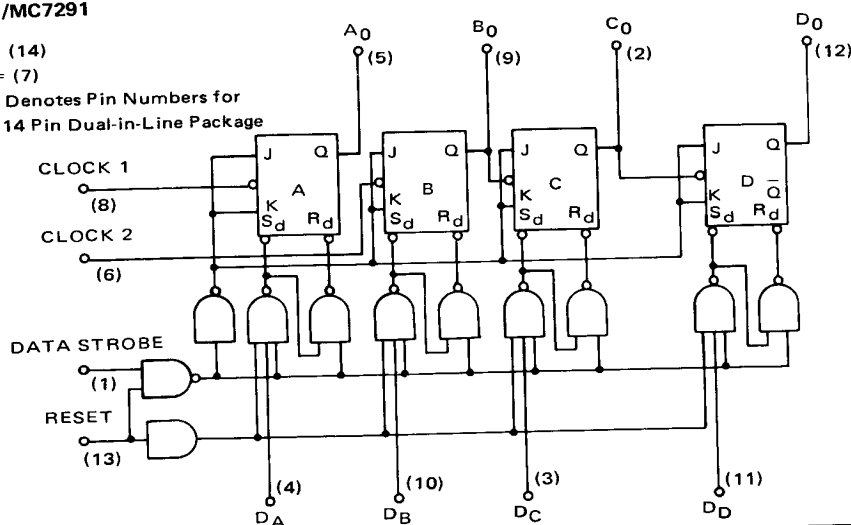
Bi-Quinary (5-2)				
Input	B ₀	C ₀	D ₀	A ₀
0	0	0	0	0
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	0
5	0	0	0	1
6	1	0	0	1
7	0	1	0	1
8	1	1	0	1
9	0	0	1	1



Decade (BCD)				
Input	A ₀	B ₀	C ₀	D ₀
0	0	0	0	0
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	0
5	1	0	1	0
6	0	1	1	0
7	1	1	1	0
8	0	0	0	1
9	1	0	0	1

MC8291/MC7291

V_{CC} = (14)
GND = (7)
() = Denotes Pin Numbers for 14 Pin Dual-in-Line Package



Binary				
Input	A ₀	B ₀	C ₀	D ₀
0	0	0	0	0
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	0
5	1	0	1	0
6	0	1	1	0
7	1	1	1	0
8	0	0	0	1
9	1	0	0	1
10	0	1	0	1
11	1	1	0	1
12	0	0	1	1
13	1	0	1	1
14	0	1	1	1
15	1	1	1	1