

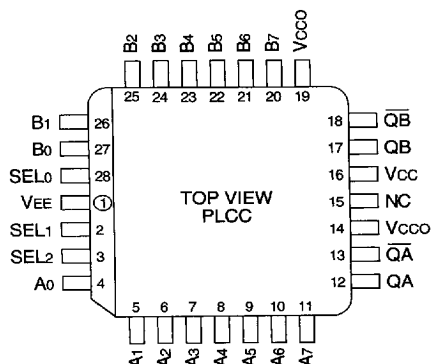
FEATURES

- 850ps max. propagation delay
- Extended 100E VEE range of -4.2V to -5.5V
- Differential outputs
- Internal 75K Ω input pulldown resistors
- Fully compatible with industry standard 10KH, 100K ECL levels
- ESD protection of 2000V
- Fully compatible with Motorola MC10E/100E163

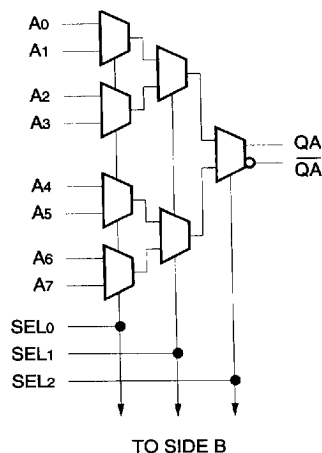
DESCRIPTION

The SY10/100E163 offer two 8:1 multiplexers designed for use in new, high-performance ECL systems. The E163 has differential outputs and common select inputs. The select inputs (SEL0, SEL1, SEL2) determine which one of the eight data inputs (A0-A7, B0-B7) is propagated to the output.

PIN CONFIGURATION



BLOCK DIAGRAM



PIN NAMES

Pin	Function
A0-A7	A Data Inputs (D)
B0-B7	B Data Inputs (D)
SEL0, 1, 2	Select Inputs
QA, QB	True Outputs
QA, QB	Inverting Outputs
Vcco	Vcc to Output

TRUTH TABLE

SEL ₂	SEL ₁	SEL ₀	A/B Data
L	L	L	0
L	L	H	1
L	H	L	2
L	H	H	3
H	L	L	4
H	L	H	5
H	H	L	6
H	H	H	7

DC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = GND

Symbol	Parameter	TA = 0°C			TA = +25°C			TA = +85°C			Unit	Condition
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.		
I _{IH}	Input HIGH Current	—	—	150	—	—	150	—	—	150	μA	—
I _{EE}	Power Supply Current	—	—	—	—	—	—	—	—	—	mA	—
	10E	—	73	88	—	73	88	—	73	88		
	100E	—	73	88	—	73	88	—	83	100		

AC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = GND

Symbol	Parameter	TA = 0°C			TA = +25°C			TA = +85°C			Unit	Condition
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.		
t _{PLH} t _{PHL}	Propagation Delay to Output D SEL ₀ SEL ₁ SEL ₂	400 525 425 350	550 725 625 525	800 950 850 725	400 525 425 350	550 725 625 525	800 950 850 725	400 525 425 350	550 725 625 525	800 950 850 725	ps	—
t _{skew}	Within-Device Skew A _n , B _n to Q A _n , A _m to QA B _n , B _m to QB	— — — —	40 30 30 —	— — — —	— — — —	40 30 30 —	— — — —	— — — —	40 30 30 —	— — — —	ps	1
t _r t _f	Rise/Fall Time 20% to 80%	275	375	575	275	375	575	275	375	575	ps	—

NOTE:

1. Within-device skew is defined as identical transition on similar paths through a device; n = 0-7, m ≠ n, m = 0-7.

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range
SY10E163JC	J28-1	Commercial
SY10E163JCTR	J28-1	Commercial
SY100E163JC	J28-1	Commercial
SY100E163JCTR	J28-1	Commercial

9001381 0002015 391