

Features

- Direct replacement for the industry standard 74FCT280T
- RoHS Compliant
- Available in the 16 pin, 150 mil QSOP package
- 48 mA output drive strength on all outputs.
- TTL compatible.
- Schmitt trigger inputs
- Industrial temperature range.
- Low power
- Manufactured on 0.35u triple metal CMOS technology.

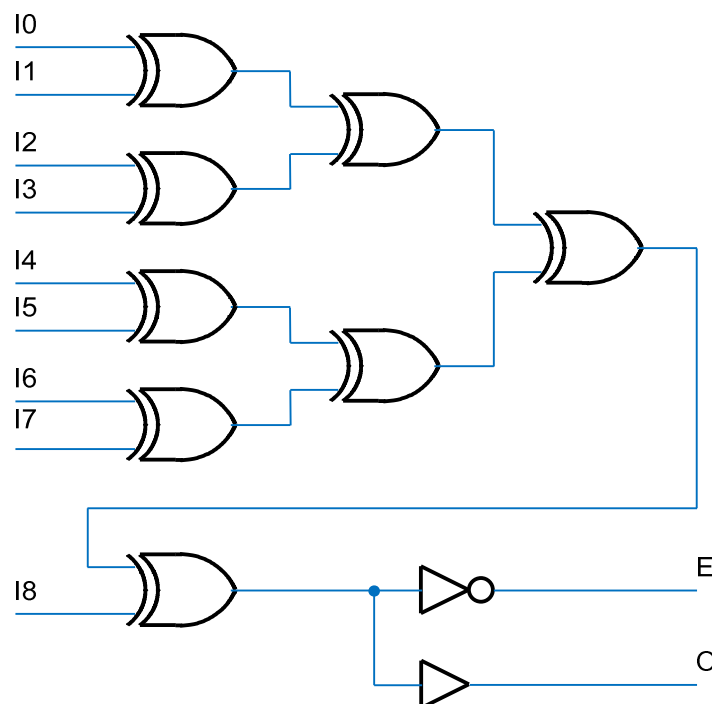
General Description

The Tekmos TK74FCT280T is a nine-bit, high speed parity generator checker. Complimentary outputs are provided to generate even and odd parity.

The TK74FCT280T is manufactured in a 0.35u, triple metal process which provides both high performance and 5 volt operation.

The TK74FCT280T may be used to replace similar part from IDT and Pericom.

TK74FCT280T Logic Diagram



Pin Descriptions

Pin	Name	Description
1	I6	Data input 6
2	I7	Data input 7
3	NC	No Connect
4	I8	Data input 8
5	E	Even Parity Output
6	O	Odd Parity Output
7	NC	No connect
8	Gnd	Ground
9	NC	Port A
10	I0	Data input 0
11	I1	Data input 1
12	I2	Data input 2
13	I3	Data input 3
14	I4	Data input 4
15	I5	Data input 5
16	Vdd	Positive Supply

Truth Table

Input Pins High	E	O
0	1	0
1	0	1
2	1	0
3	0	1
4	1	0
5	0	1
6	1	0
7	0	1
8	1	0
9	0	1

E (Even) is high for an even number of input pins high. O (Odd) is the complement of even.

Electrical Specifications

Maximum Ratings

Characteristics	Symbol	Min	Max	Unit
Supply Voltage	Vdd	-0.5	5.0	V
Input Voltage	Vin	Vss – 0.3	Vdd + 0.3	V
Current Drain per Pin	I _{max}		90	mA
Operating Temperature Range	T _a	-40	85	°C
Storage Temperature range	T _{stg}	-55	+150	°C

DC Electrical Specifications (Vdd = 5.0 V +/- 5%, Vss = 0 V, Ta = -40°C to +85°C)

Characteristics	Symbol	Min	Max	Unit
Input high level	V _{IH}	2.0	Vdd	V
Input low level	V _{IL}	0.0	0.8	V
Output high level @ I _{oh} = 15 mA	V _{OH}	2.4	Vdd	V
Output low level @ I _{ol} = 48 mA	V _{OL}	0	0.5	V
Supply current, Active mode, CLK = 10 MHz	I _{CCA}		15	mA
Input Leakage current	I _L	-10	10	uA
Supply current, standby mode	I _{CCS}		10	uA

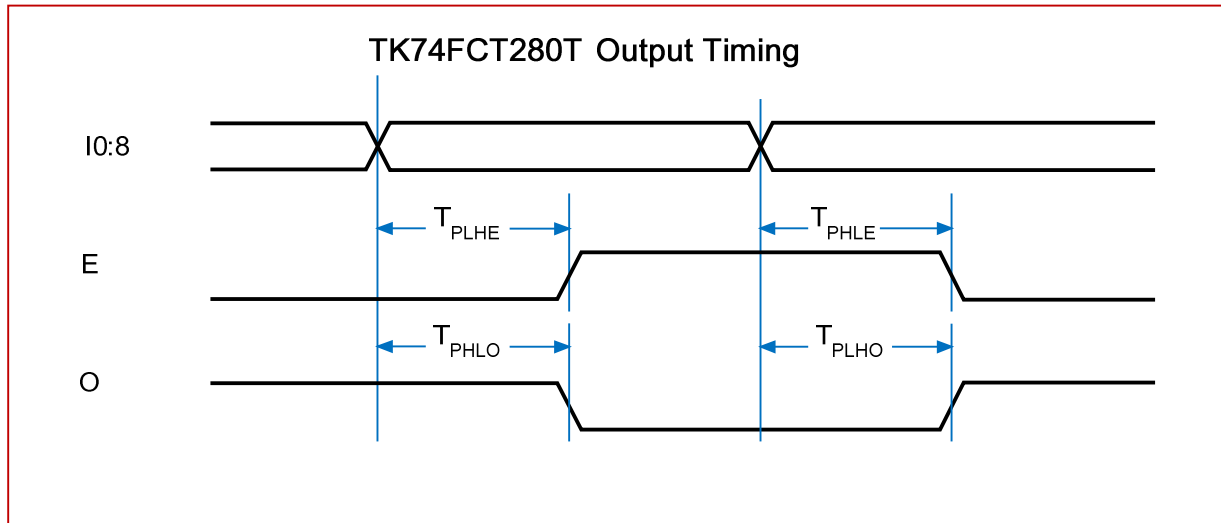
AC Electrical Specifications (Vdd = 5.0 V +/- 5%, Vss = 0 V, Ta = -40°C to +85°C)

Characteristics	Symbol	Min	Max	Unit
Propagation Delay to E (Even) – High to Low	T _{PHLE}	3	10	ns
Propagation Delay to E (Even) – Low to High	T _{PLHE}	3	10	ns
Propagation Delay to O (Odd) – High to Low	T _{PHLO}	3	10	ns
Propagation Delay to O (Odd) – Low to High	T _{PLHO}	3	10	ns

Notes:

1. AC measurements made with a 50 pF load, at 1.5V signal voltage level.

Timing Diagrams



Ordering Information

Device	Temperature Specification	Package
TK74FCT280TQ	-40 C – 85 C	QSOP 16 (150 mil)

Contact Information

The TK74FCT280T may be ordered directly from Tekmos

Tekmos, Inc.
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Revision History

Date	Revision	Description
2/2/09	1.0	Initial release
2/3/09	1.1	Fix typo in supply voltage specification

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