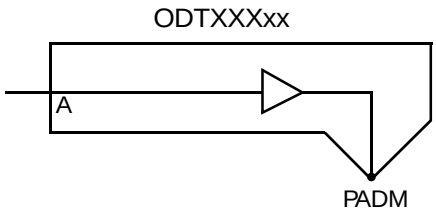
Description

ODTXXXxx is a family of 1 to 24 mA, non-inverting, TTL-level output buffer pieces.

Logic Symbol



Truth Table

A	PADM
L	L
H	H

HDL Syntax

Verilog **.....** ODTXXXxx *inst_name* (PADM, A);

VHDL*.....* *inst_name*: ODTXXXxx port map (PADM, A);

Pin Loading

Pin Name	Load						
	ODTXXX01	ODTXXX02	ODTXXX04	ODTXXX08	ODTXXX12	ODTXXX16	ODTXXX24
A (eq-load)	4.3	4.3	6.2	8.3	8.2	8.2	10.3

Power Characteristics

Cell	Output Drive (mA)	Power Characteristics[a]	
		Static I_{DD} (T_J = 85°C) (nA)	EQL_{pd} (Eq-load)
ODTXXX01	1	TBD	149.5
ODTXXX02	2	TBD	155.0
ODTXXX04	4	TBD	165.6
ODTXXX08	8	TBD	189.8
ODTXXX12	12	TBD	210.7
ODTXXX16	16	TBD	234.8
ODTXXX24	24	TBD	248.2

a. See page 2-15 for power equation.

Propagation Delays (ns)

Conditions: T_J = 25°C, V_{DD} = 5.0V, Typical Process

ODTXXX01	Capacitive Load (pF)		15	25	35	50	75 (max)
	From: A To: PADM	t_{PLH} t_{PHL}	2.52 7.11	3.69 10.44	4.86 13.76	6.58 18.75	9.33 27.11

AMI5HG 0.5 micron CMOS Gate Array

ODTXXX02	**Capacitive Load (pF)**		**15**	**50**	**75**	**100**	**150 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	1.63 3.87	3.59 9.51	4.99 13.53	6.38 17.54	9.20 25.55
ODTXXX04	**Capacitive Load (pF)**		**15**	**50**	**100**	**200**	**300 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	1.02 2.18	2.04 4.90	3.46 8.88	6.31 16.87	9.18 24.84
ODTXXX08	**Capacitive Load (pF)**		**15**	**50**	**100**	**200**	**300 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	0.91 1.50	1.45 2.87	2.15 4.82	3.57 8.75	5.02 12.69
ODTXXX12	**Capacitive Load (pF)**		**15**	**50**	**100**	**200**	**300 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	0.97 1.40	1.37 2.35	1.87 3.66	2.85 6.27	3.84 8.91
ODTXXX16	**Capacitive Load (pF)**		**15**	**50**	**100**	**200**	**300 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	1.10 1.59	1.41 2.33	1.80 3.33	2.58 5.29	3.34 7.24
ODTXXX24	**Capacitive Load (pF)**		**15**	**50**	**100**	**200**	**300 (max)**
	From: A To: PADM	t_{PLH} t_{PHL}	1.05 1.26	1.39 1.80	1.80 2.53	2.54 3.88	3.27 5.17

Delay will vary with input conditions. See page 2-17 for interconnect estimates.