阅读申明

1. 本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
2. 本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
3. 本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描叙上的差异，建议读者做出适当判断。
4. 如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有"数据手册"字样。

Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.

2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.

3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.

4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets".

XC74WL240ASR

CMOS Logic

CMOS Logic Dual Bus Buffer
(Inverted 3-state outputs)
Operating Voltage Range : 2V ~ 5.5V
High Speed Operations   : tpd = 3.8ns (TYP.)
Low Power Consumption : 2μ A(MAX.)
MSOP-8B Package

APPLICATIONS

Palmtops

Digital equipment

GENERAL DESCRIPTION

XC74WL240ASR is dual bus buffer manufactured using silicon gate CMOS processes.   The small supply current, which is one of the features of the CMOS logic, gives way to high speed operations which enables LS-TTL.

With wave forming buffers connected internally, stabilized output can be achieved as the series offers high noise immunity.

As the series is integrated into a mini molded, MSOP-8B package, high density mounting is possible.
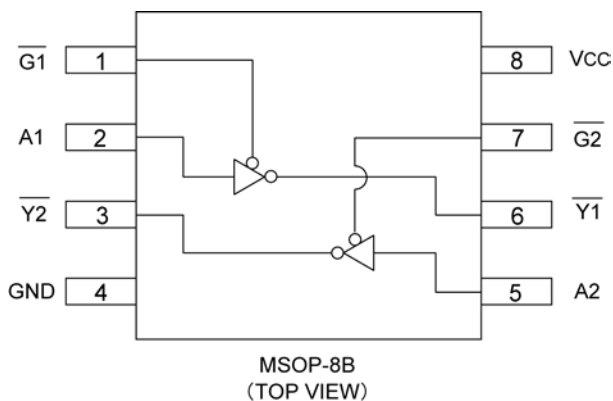
FEATURES

High Speed Operations   : tpd = 3.8ns (TYP.) (Vcc=5V)
Operating Voltage Range : 2V ~ 5.5V
Low Power Consumption: 2μ A (MAX.)
Small Package   : MSOP-8B

PIN CONFIGURATION

MSOP-8B
(TOP VIEW)

FUNCTIONS

INPUT		OUTPUT
$\overline{G}$	A	$\overline{Y}$
H	X	Z
L	H	L
L	L	H

H=High level
L=Low level
X=Don't care
Z=High impedance

ABSOLUTE MAXIMUM RATINGS

Ta=-40 ~85

PARAMETER	SYMBOL	RATINGS	UNITS
Supply Voltage	Vcc	-0.5~+6.0	V
Input Voltage	VIN	-0.5~+6.0	V
Output Voltage	VOUT	-0.5~Vcc+0.5	V
Input Diode Current	IIK	-20	mA
Output Diode Current	IOK	± 20	mA
Switch Output Current	IOUT	± 25	mA
Vcc,GND Current	ICC,IGND	± 50	mA
Power Dissipation (Ta = 25)	Pd	300	mW
Storage Temperature Range	Tstg	-65~+150	

Note : Voltage is all ground standardized.

XC74WL240ASR

RECOMMENDED OPERATING CONDITIONS

PARAMETER	SYMBOL	CONDITIONS	UNITS
Supply Voltage	V_{CC}	2~5.5	V
Input Voltage	V_{IN}	0~5.5	V
Output Voltage	V_{OUT}	0~VCC	V
Operating Temperature Range	Topr	-40~+85	
Input Rise and Fall Time	tr,tf	0~200 VCC=3.3V	ns
		0~100 VCC=5V	

DC ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	VCC(V)	CONDITIONS		Ta=25			Ta=-40 ~85		UNITS
					MIN.	TYP.	MAX.	MIN.	MAX.	
Input Voltage	V_{IH}	2.0			1.50			1.50		V
		3.0			2.10			2.10		
		5.5			3.85			3.85		
	V_{IL}	2.0					0.50		0.50	V
		3.0					0.90		0.90	
		5.5					1.65		1.65	
Output Voltage	V_{OH}	2.0	$V_{IN}=V_{IL}$	$I_{OH}=-50\mu A$	1.90	2.00		1.90		V
		3.0			2.90	3.00		2.90		
		4.5			4.40	4.50		4.40		
		3.0		$I_{OH}=-4mA$	2.58			2.48		
		4.5		$I_{OH}=-8mA$	3.94			3.80		
	V_{OL}	2.0	$V_{IN}=V_{IH}$	$I_{OL}=50\mu A$			0.10		0.10	V
		3.0					0.10		0.10	
		4.5					0.10		0.10	
		3.0		$I_{OL}=4mA$			0.36		0.44	
		4.5		$I_{OL}=8mA$			0.36		0.44	
3 State Off-Leak Current	I_{OZ}	5.0	$V_{IN}=V_{IL}$ or V_{IH}, $V_{OUT}=V_{CC}$ or GND		-0.25		0.25	-2.50	2.50	μA
Input Current	I_{IN}	0~5.5	$V_{IN}=V_{CC}$ or GND		-0.10		0.1	-1.00	1.00	μA
Static Supply Current	I_{CC}	5.5	$V_{IN}=V_{CC}$ or GND				2.0		20.0	μA

SWITCHING ELECTRICAL CHARACTERISTICS

(tr=tf=3ns)

PARAMETER	SYMBOL	CL	VCC(V)	CONDITIONS	Ta=25			Ta=-40 ~85		UNITS
					MIN.	TYP.	MAX.	MIN.	MAX.	
Delay Time	tPLH	15pF	3.3			5.6	8.0	1.0	9.5	ns
			5.0			3.8	5.5	1.0	6.5	
		50pF	3.3			8.1	11.5	1.0	13.0	ns
			5.0			5.3	7.5	1.0	8.5	
	tPHL	15pF	3.3			5.6	8.0	1.0	9.5	ns
			5.0			3.8	5.5	1.0	6.5	
		50pF	3.3			8.1	11.5	1.0	13.0	ns
			5.0			5.3	7.5	1.0	8.5	
Output Enable Time	tZL	15pF	3.3	R_L=1k		5.4	8.0	1.0	9.5	ns
			5.0			3.6	5.1	1.0	6.0	
		50pF	3.3			7.9	11.5	1.0	13.0	ns
			5.0			5.1	7.1	1.0	8.0	
	tZH	15pF	3.3	R_L=1k		5.4	8.0	1.0	9.5	ns
			5.0			3.6	5.1	1.0	6.0	
		50pF	3.3			7.9	11.5	1.0	13.0	ns
			5.0			5.1	7.1	1.0	8.0	
Output Disable Time	tLZ	50pF	3.3	R_L=1k		9.5	13.2	1.0	15.0	ns
			5.0			6.1	8.8	1.0	10.0	
	tHZ	50pF	3.3	R_L=1k		9.5	13.2	1.0	15.0	ns
			5.0			6.1	8.8	1.0	10.0	
Output Pin Skew (Note)	tosLH	50pF	3.3				1.5		1.5	ns
			5.0				1.0		1.0	
	tosHL	50pF	3.3				1.5		1.5	ns
			5.0				1.0		1.0	
Input Capacitance	CIN					4	10		10	pF
Output Capacitance	COUT					6				pF
Power Dissipation Capacitance	Cpd					17				pF

Note: tosLH and tosHL are the guaranteed parameters.

tosLH = I tPLHm – tPHLn I , tosHL = I tPHLm – tPHLn I

NOISE CHARACTERISTICS

(tr=tf=3ns)

PARAMETER	SYMBOL	CL	VCC(V)	CONDITIONS	Ta=25			UNITS
					MIN.	TYP.	MAX.	
Non Functional Output Maximum Dynamic VOL	VOLP	50pF	5.0			0.3	0.8	V
Non Functional Output Minimum Dynamic VOL	VOLV	50pF	5.0		-0.8	-0.3		V
Minimum Dnamic VIH	VIHD	50pF	5.0				3.5	V
Maximum Dnamic VIL	VILD	50pF	5.0				1.5	V

TOREX

XC74WL240ASR

DELAY TIME

Test Circuit

Waveform

PRR=1MHz
duty cycle 50%
tr=tf=3ns
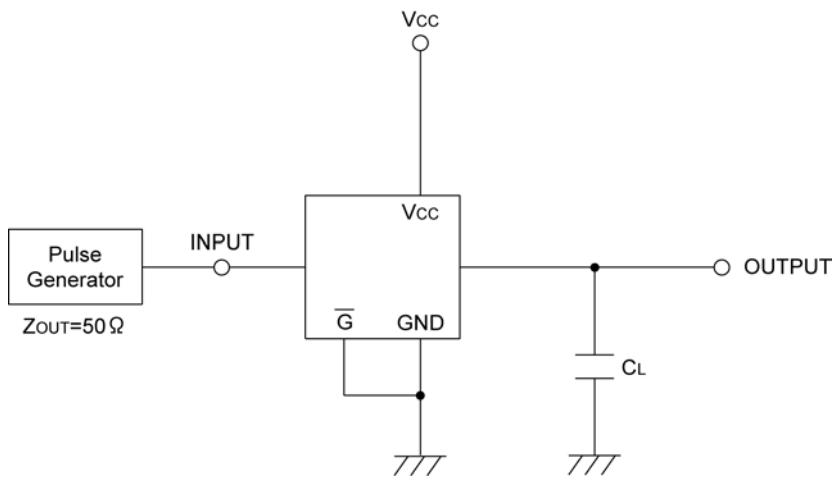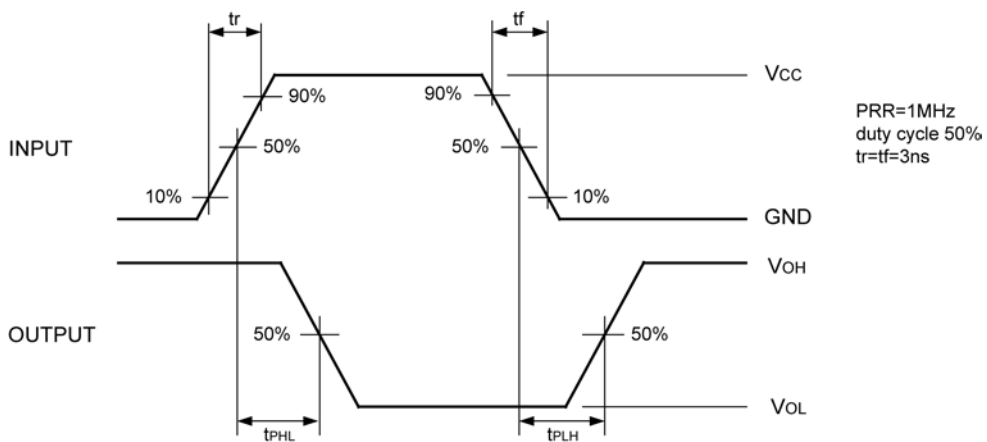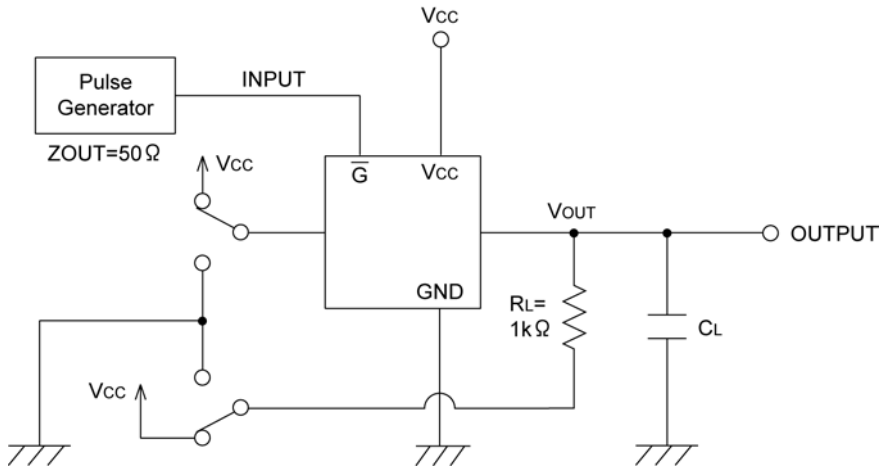
OUTPUT ENABLE TIME, OUTPUT DISABLE TIME

Test Circuit

Waveform

PRR=1MHz
duty cycle 50%
tr=tf=3ns