

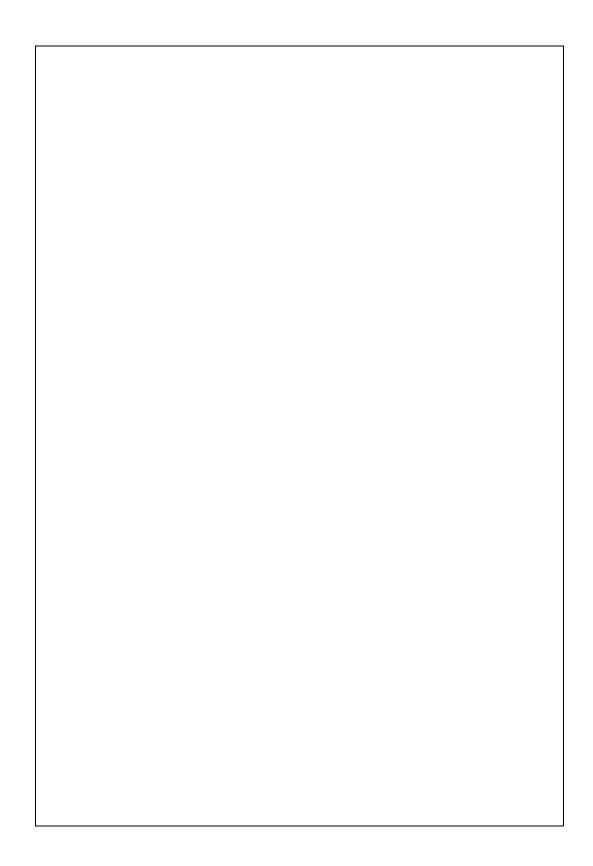
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## 74LCXR162245

# Low Voltage 16-Bit Bidirectional Transceiver with 5V Tolerant Inputs/Outputs and 26 $\Omega$ Series Resistors in the Outputs

#### **General Description**

The LCXR162245 contains sixteen non-inverting bidirectional buffers with 3-STATE outputs and is intended for bus oriented applications. The device is designed for low voltage (2.5V or 3.3V)  $V_{\rm CC}$  applications with capability of inter-



## Absolute Maximum Ratings(Note 3)

Symbol	Parameter	Value	Conditions	Units
V <sub>CC</sub>	Supply Voltage	-0.5 to +7.0		V
VI	DC Input Voltage	-0.5 to +7.0		V
Vo	DC Output Voltage	-0.5 to +7.0	Output in 3-STATE	V
		$-0.5$ to $V_{CC} + 0.5$	Output in HIGH or LOW State (Note 4)	V
I <sub>IK</sub>	DC Input Diode Current	-50	$V_I < GND$	mA
I <sub>OK</sub>	DC Output Diode Current	-50	V <sub>O</sub> < GND	mA
		+50	$V_O > V_{CC}$	mA
Io	DC Output Source/Sink Current	±50		mA
I <sub>CC</sub>	DC Supply Current per Supply Pin	±100		mA
I <sub>GND</sub>	DC Ground Current per Ground Pin	±100		mA
T <sub>STG</sub>	Storage Temperature	-65 to +150		°C

## **Recommended Operating Conditions** (Note 5)

Symbol	Parameter		Min	Max	Units
V <sub>CC</sub>	Supply Voltage	Operating	2.0	3.6	V
		Data Retention	1.5	3.6	V
VI	Input Voltage		0	5.5	V
Vo	Output Voltage	HIGH or LOW State	0	$V_{CC}$	V
		3-STATE	0	5.5	V
I <sub>OH</sub> /I <sub>OL</sub>	Output Current	$V_{CC} = 3.0V - 3.6V$		±12	
		$V_{CC} = 2.7V - 3.0V$		±8	mA
		$V_{CC} = 2.3V - 2.7V$		±4	
T <sub>A</sub>	Free-Air Operating Temperature		-40	85	°C
$\Delta t / \Delta V$	Input Edge Rate, $V_{IN} = 0.8V-2.0V$ , $V_{CC} = 3.0V$		0	10	ns/V

Note 3: The Absolute Maximum Ratings are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the Electrical Characteristics tables are not guaranteed at the Absolute Maximum Ratings. The "Recommended Operating Conditions" table will define the conditions for actual device operation.

Note 4: I<sub>O</sub> Absolute Maximum Rating must be observed.

Note 5: Unused pins (Inputs or I/O's) must be held HIGH or LOW. They may not Float.

## **DC Electrical Characteristics**

Symbol	Parameter	Conditions	V <sub>CC</sub>	$T_A = -40^{\circ}C \text{ to } +85^{\circ}C$		Units	
		Conditions	(V)	Min	Max	Ullits	
	$V_{IH}$	HIGH Level Input Voltage		2.3 – 2.7	1.7		V
				2.7 - 61 Tt/0GFt V.04 VVI-0.93t		93t	V

