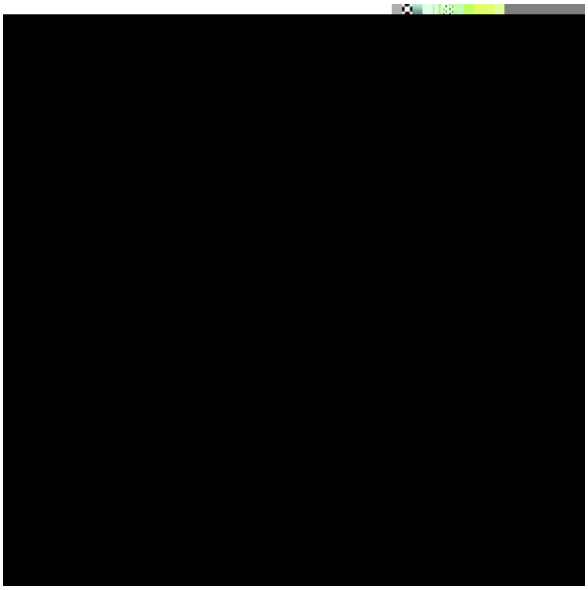
Is Now Part of



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www.onsemi.com

Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

May 2002
Revised June 2005

74LCXH16245
Low Voltage 16-Bit Bidirectional Transceiver with Bushold

General Description

The LCXH16245 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_{CC} applications with capability of interfacing to a 5V signal environment. The device is byte controlled. Each byte has separate control inputs which could be shorted together for full 16-bit operation. The T/$\overline{R}$ inputs determine the direction of data flow through the device. The $\overline{OE}$ inputs dx006 156.technology to achieve high speed operation while maintaining CMOS low power dissipation.

Features

- 2.3V–3.6V V_{CC} specifications provided
- 4.5 ns t_{PD} max (V_{CC} = 3.3V), 20 μA I_{CC} max
- Power-down high impedance outputs
- Bushold on inputs eliminates the need for external pull-up/pull-down resistors
- ±24 mA output drive (V_{CC} = 3.0V)
- Implements patented noise/EMI reduction circuitry
- Latch-up performance conforms to the requirements of JESD78
- ESD performance:
  - Human body model > 2000V
  - Machine model > 200V
- Also packaged in plastic Fine-Pitch Ball Grid Array (FBGA)

Ordering Code:

Order Number	Package Number	Package Description
74LCXH16245G (Note 1) (Note 2)	BGA54A	54-Ball Fine-Pitch Ball Grid Array (FBGA), JEDEC MO-205, 5.5mm Wide
74LCXH16245MTD (Note 2)	MTD48	48-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 6.1mm Wide74 F40/f f

Note 1: Ordering Code "G" indicates Trays.

Note 2: Devices also available in Tape and Reel. Specify by appending the suffix letter "X" to the ordering code.

Logic Symbol

Connection Diagrams

Pin Assignment for SSOP and TSSOP

Pin Descriptions

FBGA Pin Assignments

Truth Tables

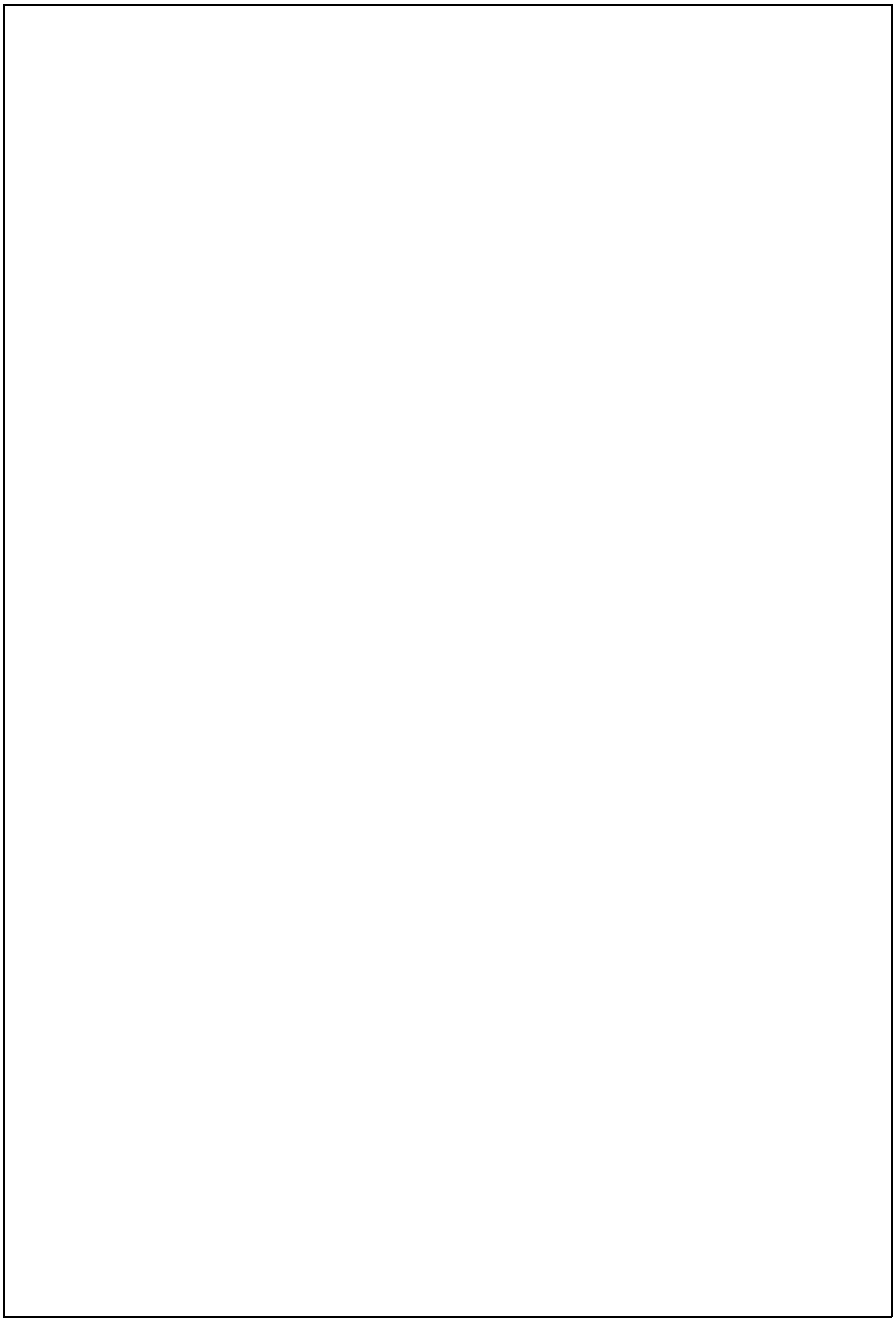
Pin Assignment for FBGA

H HIGH Voltage Level
L

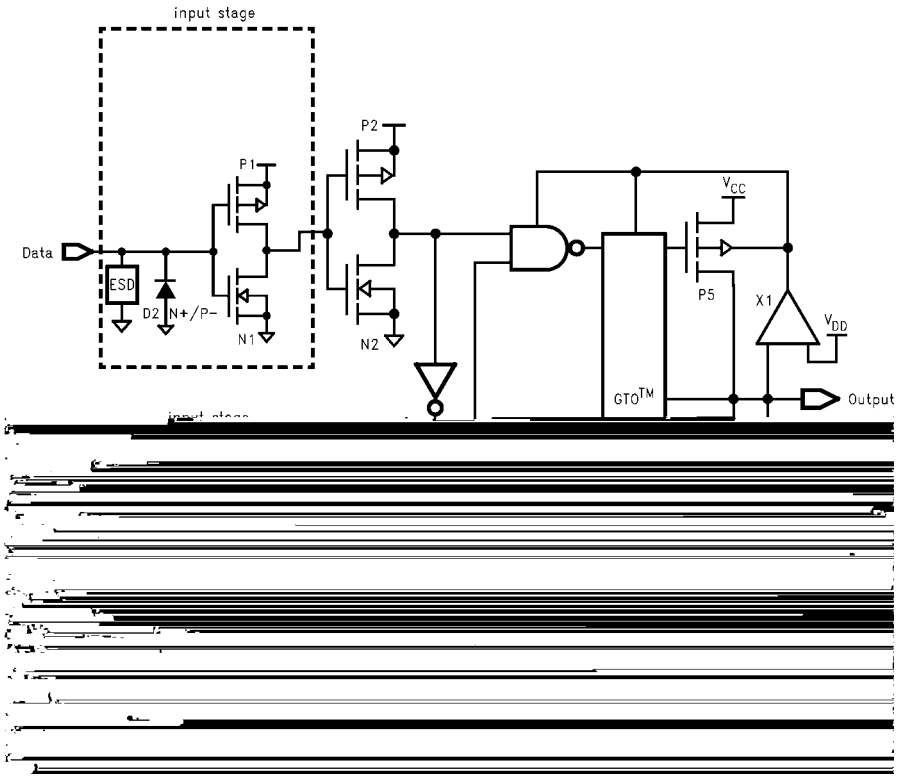
(Top Thru View)

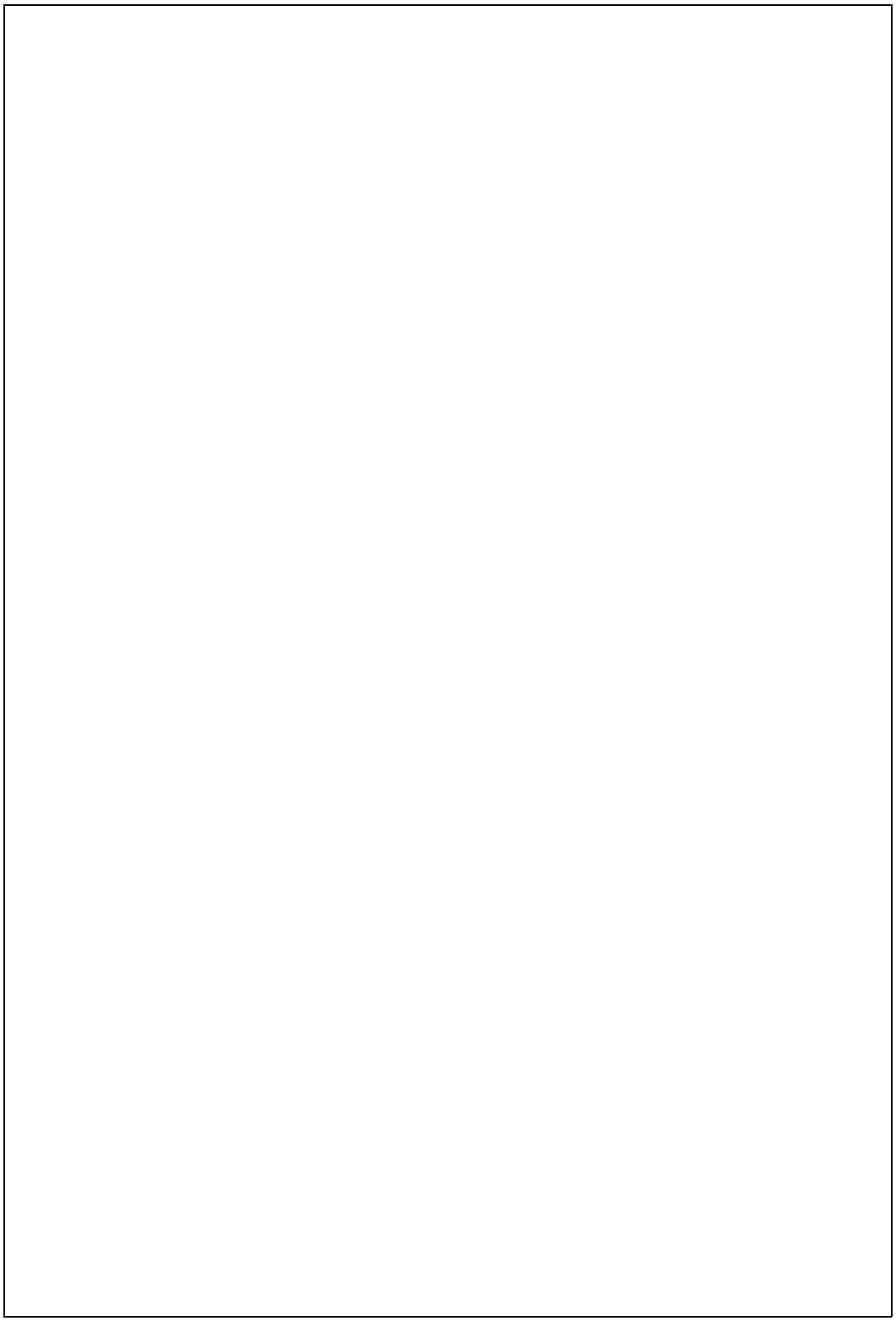
Absolute Maximum Ratings(Note 3)

Recommended Operating Conditions (Note 5)

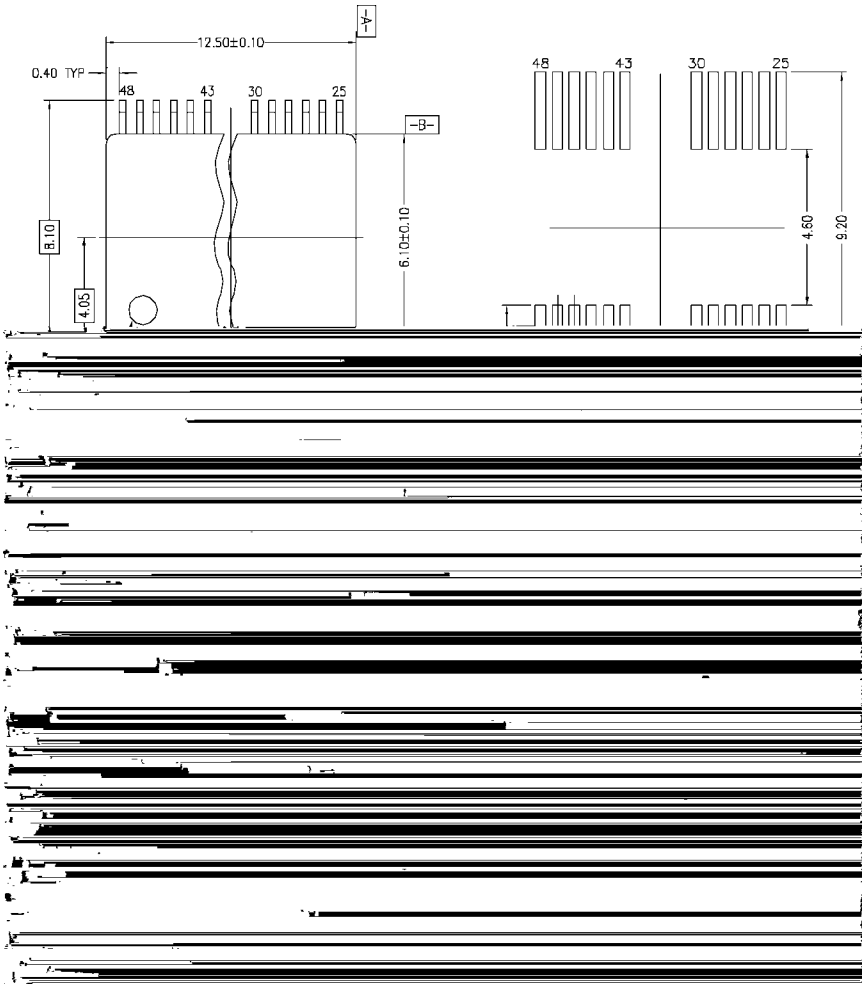


Schematic Diagram Generic for LCX Family





Physical Dimensions inches (millimeters) unless otherwise noted (Continued)



48-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 6.1mm Wide
Package Number MTD48

Fairchild does not assume any responsibility for use of any circuitry described, no circuit patent licenses are implied and

PUBLICATION ORDERING INFORMATION

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