National Semiconductor

54FCT/74FCT521A
8-Bit Identity Comparator

General Description

The 'FCT521A is an expandable 8-bit comparator. It compares two words of up to eight bits each and provides a LOW output when the two words match bit for bit. The expansion input $\bar{I}_{A = B}$ also serves as an active LOW enable input.
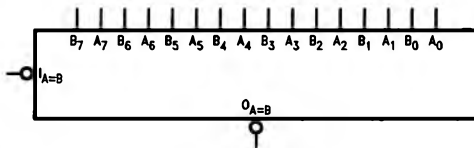
FACT™ FCTA utilizes NSC quiet series technology to provide improved quiet output switching and dynamic threshold performance.

FACT FCTA features undershoot correction and split ground bus for superior performance.
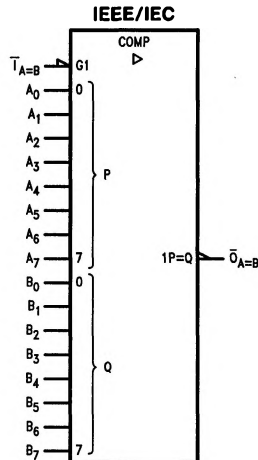
Features

- NSC 54FCT/74FCT521A is pin and functionally equivalent to IDT 54FCT/74FCT521A
- Input clamp diodes to limit bus reflections
- TTL/CMOS input and output level compatible
- $I_{OL} = 48$ mA (Com), 32 mA (Mil)
- CMOS power levels
- 4 kV minimum ESD immunity
- Military Product compliant to MIL-STD 883

Logic Symbols

TL/F/10663–1
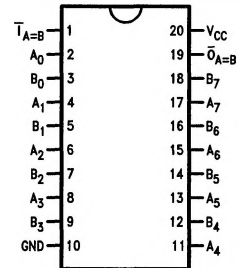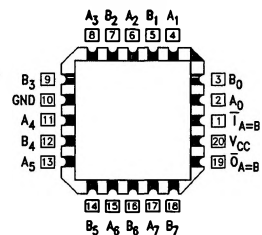

TL/F/10663–3

Connection Diagrams

Pin Assignment for DIP, Flatpak and SOIC

TL/F/10663–2

Pin Assignment for LCC

TL/F/10663–4

Pin Names	Description
$A_0 - A_7$	Word A Inputs
$B_0 - B_7$	Word B Inputs
$\bar{I}_{A = B}$	Expansion or Enable Input
$\bar{O}_{A = B}$	Identity Output