Signetics

Application Specific Products Series 24

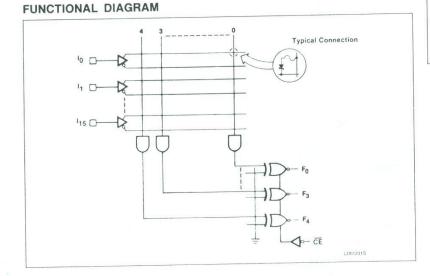
DESCRIPTION

The PLS162 is a bipolar, Field-Programmable Address Decoder. The device consists of five AND/NAND gates which share 16 common inputs. The type of gate is selected by programming the output as active-High (H) or active-Low (L). Each of the 16 inputs $I_0 - I_{15}$ can be programmed to provide the True (H), Complement (L), or Don't Care (-) state to each of the five AND/NAND gates. OR/NOR logic functions can also be implemented by complementing the inputs and outputs via on-chip inverting

The device is field programmable, which means that custom patterns are immediately available.

The PLS162 includes chip-enable control for output strobing and inhibit. It features 3-State outputs for ease of expansion of input variables and application in bus-organized systems.

Order codes are listed in the Ordering Information Table.



PLS162

Field-Programmable Address Decoder (16×5)

Signetics Programmable Logic **Product Specification**

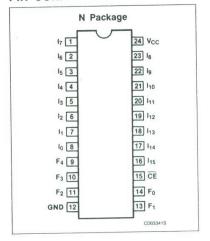
FEATURES

- Field-Programmable (Ni-Cr link)
- 16 input variables
- 5 output functions
- Chip Enable input
- I/O propagation delay: 30ns (max.)
- Power dissipation: 500mW (typ.)
- Input loading: -100μA (max.)
- 3-State outputs
- Output disable function: Hi-Z
- Fully TTL compatible

APPLICATIONS

- Random logic
- Address decoders
- Code detectors
- Peripheral selectors
- Fault monitors
- Machine state decoders

PIN CONFIGURATION



LOGIC FUNCTION

TYPICAL OUTPUT FUNCTIONS: ACTIVE-HIGH

 $X = A \cdot \overline{B} \cdot C \cdot \dots$

ACTIVE-LOW

 $X = \overline{A \cdot \overline{B} \cdot C \cdot \dots}$ $X = \overline{A} + B + \overline{C} + \dots$

- For each of the 5 outputs, either function X (active-High) or \overline{X} (active-Low) is available, but not both. The desired output polarity is programmed via the
- Ex-OR gates.

 2. X, A, B, C, etc. are user defined connections to fixed inputs (I) and output pins (F).