

English Translation – DL000D to DL030D TTL Logic IC Datasheet

Translated from the original German datasheet for Low-Power Schottky (LS) TTL integrated circuits.

1. Product Overview

Type	Function	Logic Function
DL000D	Quad 2-Input NAND Gate	$Y = \text{NAND}(AB)$
DL002D	Quad 2-Input NOR Gate	$Y = \text{NOR}(A+B)$
DL004D	Hex Inverter	$Y = \text{NOT}(A)$
DL008D	Quad 2-Input AND Gate	$Y = AB$
DL010D	Triple 3-Input NAND Gate	$Y = \text{NAND}(ABC)$
DL011D	Triple 3-Input AND Gate	$Y = ABC$
DL020D	Dual 4-Input NAND Gate	$Y = \text{NAND}(ABCD)$
DL021D	Dual 4-Input AND Gate	$Y = ABCD$
DL030D	Single 8-Input NAND Gate	$Y = \text{NAND}(ABCDEFGH)$

2. Pin Definitions

A, B, C, D, E, F, G, H = Inputs. **Negierende Eingänge** = Inverting Inputs. **Y** = Outputs. **M** = Ground. **Us** = Supply Voltage. Some ICs contain unused pins as indicated in the original datasheet.

3. Operating Conditions

Parameter	Min	Typ	Max	Unit
Supply Voltage	4.75	5	5.25	V
High-Level Output Current	-	-	400	μA
Low-Level Output Current	-	-	8	mA
Ambient Temperature	0	-	+70	$^{\circ}\text{C}$

4. Static Characteristics

Parameter	Value
High-Level Input Voltage	$\geq 2 \text{ V}$
Low-Level Input Voltage	$\leq 0.8 \text{ V}$
Input Clamp Voltage	1.5 V
High-Level Output Voltage	2.7 V

5. Dynamic Characteristics

Propagation delay (Low-to-High): approximately 15 ns. Propagation delay (High-to-Low): approximately 15–20 ns depending on the IC type. Test Conditions: CL = 15 pF, RL = 2 kΩ.

6. Manufacturer Information

VEB Halbleiterwerk Frankfurt/Oder.
Lead company of Kombinat Mikroelektronik.
German Democratic Republic (East Germany).

Export Company:
Elektronik Export-Import, Berlin.