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NTE1679 Integrated Circuit Mode Detector

Features:

- Remote-Control for 2 Line System
- Able to Set for on Remote and Apparatus

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Power Supply Voltage, V_{CC}	15V
Power Dissipation, P_D (Note 1)	500mA
Operating Temperature Range, T_{opr}	-20 to +75°C
Storage Temperature Range, T_{stg}	-55 to +125°C

Note 1 When $T_A \geq 25^\circ\text{C}$, $V_{CC} = 9.0\text{V}$

Electrical Characteristics: ($T_A = 25^\circ\text{C}$, $V_{CC} = 9.0\text{V}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Operational Range	V_{CC}		8.0	9.0	15.0	V
Circuit Current 1	I_{CC1}	2,3,4,5,11, 12, 13, 14 Pin Input Low	-	1.8	3.0	mA
Circuit Current 3	I_{CC3}	2 ~ 5, 11 ~ 14 Pin, Input High	-	6.8	12.0	mA
Input Threshold Voltage	V_{TH}	5 Pin Typ value	0.26	0.8	1.6	V
Input Current	I_{IN}	2 ~ 5, 11 ~ 14 Pin, Input High	0.2	0.5	1.0	mA
6 Pin High Voltage	V_{6H}	11 Pin, Input High	9.9	9.0	-	V
6 Pin Low Voltage 1	V_{L1}	2 ~ 5, 11 ~ 14 Pin, All Inputs Low, $I_{6out} = 0\text{mA}$	-	0.1	0.3	V
6 Pin Low Voltage	V_{L2}	2 ~ 5, 11 ~ 14 Pin, Input Low Connect 100kΩ between V_{CC} & 6 Pin	-	0.2	0.5	V
6 Pin Drain Current	I_{6Pin}	11 Pin Input High 6 Pin - GND	0.4	0.8	2.0	mA
10 Pin Output Voltage	V_{10pin}	Connect 120kΩ between GND & 10 Pin	3.2	3.9	4.6	V
8 Pin Resistor	R_{8Pin}	8 Pin - GND	0.7	1.05	1.4	kΩ
9 Pin Supply Current	I_{9Pin}	Connect 100kΩ between V_{CC} & 9 Pin	-	1	5	μA
Step Voltage Error	E_{0000}	0000 Mode, Star from 2,3,4,5 Pin (0 - L, 1 - H)	-	-	-	%

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
2,3,4,5 Pin Accuracy						
Step Voltage Error	E ₀₀₀₁	0001 Mode	-4.6	0	+4.6	%
Step Voltage Error	E ₀₀₁₀	0010 Mode	-2.1	0	+2.1	%
Step Voltage Error	E ₀₀₁₁	0011 Mode	-13.3	0	+13.3	%
Step Voltage Error	E ₀₁₀₀	0100 Mode	-9.3	0	+9.3	%
Step Voltage Error	E ₀₁₀₁	0101 Mode	-7.0	0	+7.0	%
Step Voltage Error	E ₀₁₁₀	0110 Mode	-5.5	0	+5.5	%
Step Voltage Error	E ₀₁₁₁	0111 Mode	-4.6	0	+4.6	%
Step Voltage Error	E ₁₀₀₀	1000 Mode	-3.9	0	+3.9	%
Step Voltage Error	E ₁₀₀₁	1001 Mode Star from 2,3,4,5 Pin (0 – L, 1 – H)	-3.4	0	+3.4	%
Step Voltage Error	E ₁₀₁₀	1010 Mode	-3.1	0	+3.1	%
Step Voltage Error	E ₁₀₁₁	1011 Mode	-2.8	0	+2.8	%
Step Voltage Error	E ₁₁₀₀	1100 Mode	-2.7	0	+2.7	%
Step Voltage Error	E ₁₁₀₁	1101 Mode	-2.6	0	+2.6	%
Step Voltage Error	E ₁₁₁₀	1110 Mode	-2.3	0	+2.3	%
Step Voltage Error	E ₁₁₁₁	1111 Mode	-2.2	0	+2.2	%
11,12,13,14 Pin Accuracy						
Step Voltage Error	E ₀₀₀₀	0000 Mode Star from 14, 13, 12, 11 Pin (0 – L, 1 – H)	-	-	-	%
Step Voltage Error	E ₀₀₀₁	0001 Mode	-4.6	0	+4.6	%
Step Voltage Error	E ₀₀₁₀	0010 Mode	-2.1	0	+2.1	%
Step Voltage Error	E ₀₀₁₁	0011 Mode	-1.3	0	+1.3	%
Step Voltage Error	E ₀₁₀₀	0100 Mode	-9.3	0	+9.3	%
Step Voltage Error	E ₀₁₀₁	0101 Mode	-7.0	0	+7.0	%
Step Voltage Error	E ₀₁₁₀	0110 Mode Star from 14,13,12,11 Pin (0 –L, 1 – H)	-5.5	0	+5.5	%
Step Voltage Error	E ₀₁₁₁	0111 Mode	-4.6	0	+4.6	%
Step Voltage Error	E ₁₀₀₀	1000 Mode	-3.9	0	+3.9	%
Step Voltage Error	E ₁₀₀₁	1001 Mode	-3.4	0	+3.4	%
Step Voltage Error	E ₁₀₁₀	1010 Mode	-3.1	0	+3.1	%
Step Voltage Error	E ₁₀₁₁	1011 Mode	-2.8	0	+2.8	%
Step Voltage Error	E ₁₁₀₀	1100 Mode	-2.7	0	+2.7	%
Step Voltage Error	E ₁₁₀₁	1101 Mode	-2.6	0	+2.6	%
Step Voltage Error	E ₁₁₁₀	1110 Mode	-2.3	0	+2.3	%
Step Voltage Error	E ₁₁₁₁	1111 Mode	-2.2	0	+2.2	%

Note 2 Make 9 Pin Terminal Voltage as a standard value when 10 Pin Terminal is connected to a ground through the resistor. Calculate step voltage error of IC 9 Pin Voltage.

