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NTE1758 Integrated Circuit CMOS, 27 Command TV Remote Control Transmitter

Description:

The NTE1758 is a CMOS integrated circuit in a 16-Lead DIP type package designed for controlling the transmitter of remote control systems for TV sets, etc. By using this device in combination with the NTE1759 receiver control IC, a direct channel control system can be obtained. When an infrared emitting diode is used as a transmitter element, this system will be very stable against any interference.

Features:

- Capable of Transmitting 27 Commands:

Channel 1–20	Channel UP/DOWN	Volume UP/DOWN
Mute ON/OFF	Power ON/OFF	Option (Note 1)
- Minimum Misoperation by Infrared Transmission
- Wide Operating Voltage Range: $V_{CC} = 2.2V$ to $7.2V$
- Low Power Consumption: $I_{DD} = 1\mu A$ at KEY OFF Condition

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

Supply Voltage, $V_{DD} - V_{SS}$	-0.3 to +8.0V
Input Voltage, $V_{IN} - V_{SS}$	0.3 to V_{DD} V
Output Current, $I_{OH}(REM)$	-10mA
Power Dissipation, P_D	360mW
Operating Temperature Range, T_{opr}	-20° to +75°C
Storage Temperature Range, T_{stg}	-40° to +125°C

Note 1. The NTE1759 is **not** able to decode this option code.

Electrical Characteristics: ($T_A = -20^\circ$ to $+75^\circ C$, $V_{DD} = 6V$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	V_{DD}		2.2	6.0	7.2	V
Supply Current	$I_{DD}(OP)$	OSC = 455kHz	–	0.3	1.0	mA
	$I_{DD}(ST)$	OSC STOP, $T_A = +25^\circ C$	–	–	1.0	μA
Input High Voltage	$V_{IH}(KI)$		$0.7 V_{DD}$	–	V_{DD}	V
Input Low Voltage	$V_{IL}(KI)$		0	–	$0.3 V_{DD}$	V
Output High Voltage	$V_{OH}(REM)$	$I_{OL} = -1.0mA$	$V_{DD} - 1$	–	V_{DD}	V
Input Pulldown Current	$I_{IL}(KI)$	$V_{IN} = V_{DD}$, $T_A = +25^\circ C$	-10	–	-100	μA

Data Bit Code:

Connection		Function		Data Bit Code				
K IN	K OUT			MSB		LSB		
KI0	K 0	CH 1	Direct Address Channel 1	0	0	0	0	0
KI1	K 0	CH 2	Direct Address Channel 2	0	0	0	0	1
KI2	K 0	CH 3	Direct Address Channel 3	0	0	0	1	0
KI3	K 0	CH 4	Direct Address Channel 4	0	0	0	1	1
KI0	K 1	CH 5	Direct Address Channel 5	0	0	1	0	0
KI1	K 1	CH 6	Direct Address Channel 6	0	0	1	0	1
KI2	K 1	CH 7	Direct Address Channel 7	0	0	1	1	0
KI3	K 1	CH 8	Direct Address Channel 8	0	0	1	1	1
KI0	K 2	CH 9	Direct Address Channel 9	0	1	0	0	0
KI1	K 2	CH 10	Direct Address Channel 10	0	1	0	0	1
KI2	K 2	CH 11	Direct Address Channel 11	0	1	0	1	0
KI3	K 2	CH 12	Direct Address Channel 12	0	1	0	1	1
KI0	K 3	CH 13	Direct Address Channel 13	0	1	1	0	0
KI1	K 3	CH 14	Direct Address Channel 14	0	1	1	0	1
KI2	K 3	CH 15	Direct Address Channel 15	0	1	1	1	0
KI3	K 3	CH 16	Direct Address Channel 16	0	1	1	1	1
KI0	K 4	CH 17	Direct Address Channel 17	1	0	0	0	0
KI1	K 4	CH 18	Direct Address Channel 18	1	0	0	0	1
KI2	K 4	CH 19	Direct Address Channel 19	1	0	0	1	0
KI3	K 4	CH 20	Direct Address Channel 20	1	0	0	1	1
KI0	K 5	VOLD	Volume DOWN	1	1	0	0	0
KI1	K 5	VOLU	Volume UP	1	1	0	0	1
KI2	K 5	CHD	Channel DOWN	1	1	0	1	0
KI3	K 5	CHU	Channel UP	1	1	0	1	1
KI1	K 6	MUTE	Mute ON/OFF	1	1	1	0	1
KI2	K 6	OPT	Option (Note 1)	1	1	1	0	0
KI3	K 6	POW	Power ON/OFF	1	1	1	1	1

Note 1. The NTE1759 is **not** able to decode this option code.

Pin Connection Diagram

