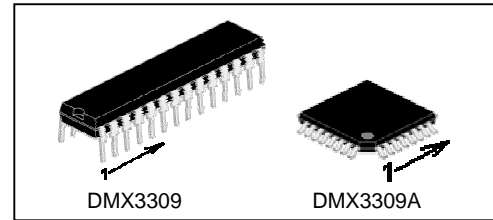


FEATURES

- 5V SUPPLY VOLTAGE
- RECEIVE DMX512 SIGNAL
- 9 PWM OUTPUTS
- SYNCHRON SIGNAL DECODING (SSD)
- PACKAGE: DIL28S / TQFP32 (RoHS)

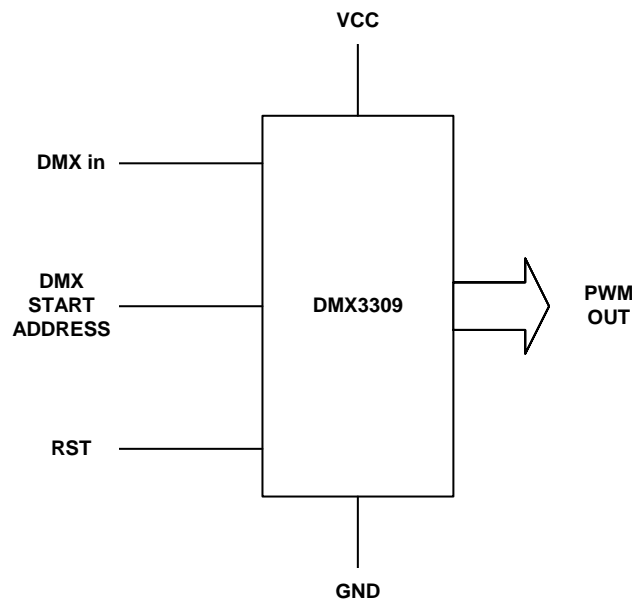


DESCRIPTION

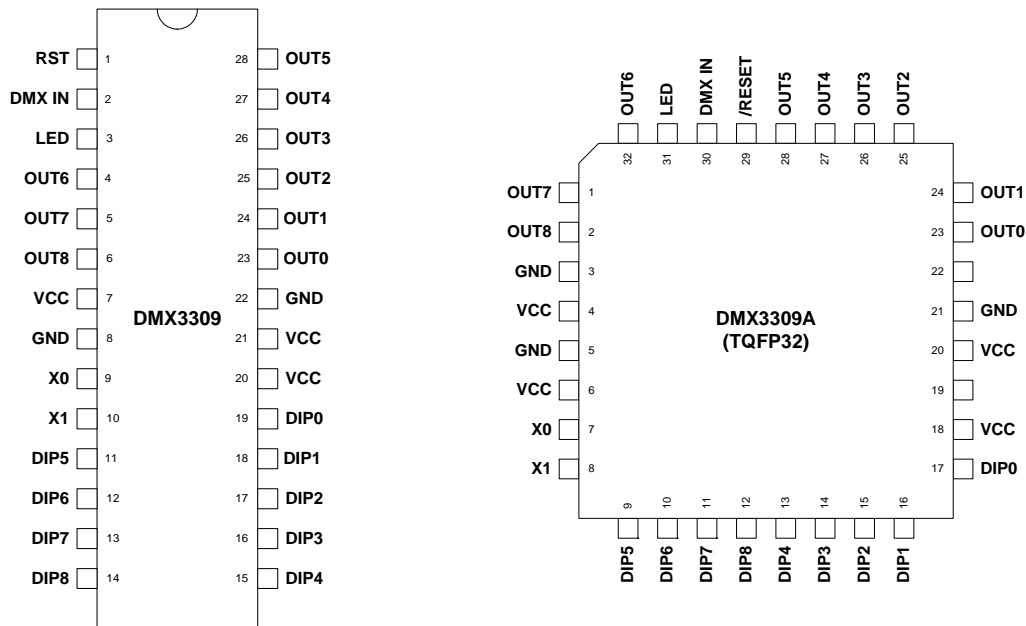
The DMX3309 is a DMX512 receiver with 9 PWM outputs. The received DMX values are buffered to change the outputs synchron for each DMX address (SSD). The PWM waveform is controlled by the level of the received DMX channels.

The address of output 1 is that determined from the address setting, the address for output 2 is the base address plus1 etc.

LOGIC SYMBOL



PIN CONFIGURATION



PIN DESCRIPTION

| MNEMONIC | PIN (DIL28S) | PIN (TQFP32) | TYPE | NAME AND FUNCTION |
|----------|----------------------------------|---------------------------------|------|--|
| RST | 1 | 29 | I | RESET Reset input. A low level on this pin for more then 50ns will generate a reset, even if the clock is not running. Shorter pulses are not guaranteed to generate a reset |
| DMX IN | 2 | 30 | I | DMX-SIGNAL Input for the DMX512 signal |
| LED | 3 | 31 | O | STATUS LED LED output. This pin can sink 20mA to drive a LED |
| VCC | 7;20;21 | 4;6;18;20 | I | POWER This is the power supply |
| GND | 8;22 | 3;5;21 | I | GROUND 0V reference |
| X0 | 9 | 7 | I | X0 Input from the inverting oscillator amplifier |
| X1 | 10 | 8 | O | X1 Output from the inverting oscillator amplifier |
| PWM0-8 | 23;24;25 26;27;28 4;5;6 | 23;24;25 26;27;28 32;1;2 | O | DIGITAL PWM OUTPUT Output for the PWM signal controlled by DMX value |
| DIP0-8 | 19;18;17 16;15;11 12;13;14 | 17;16;15 14;13;9 10;11;12 | I | ADDRESS INPUT Input for the DMX start address setting |

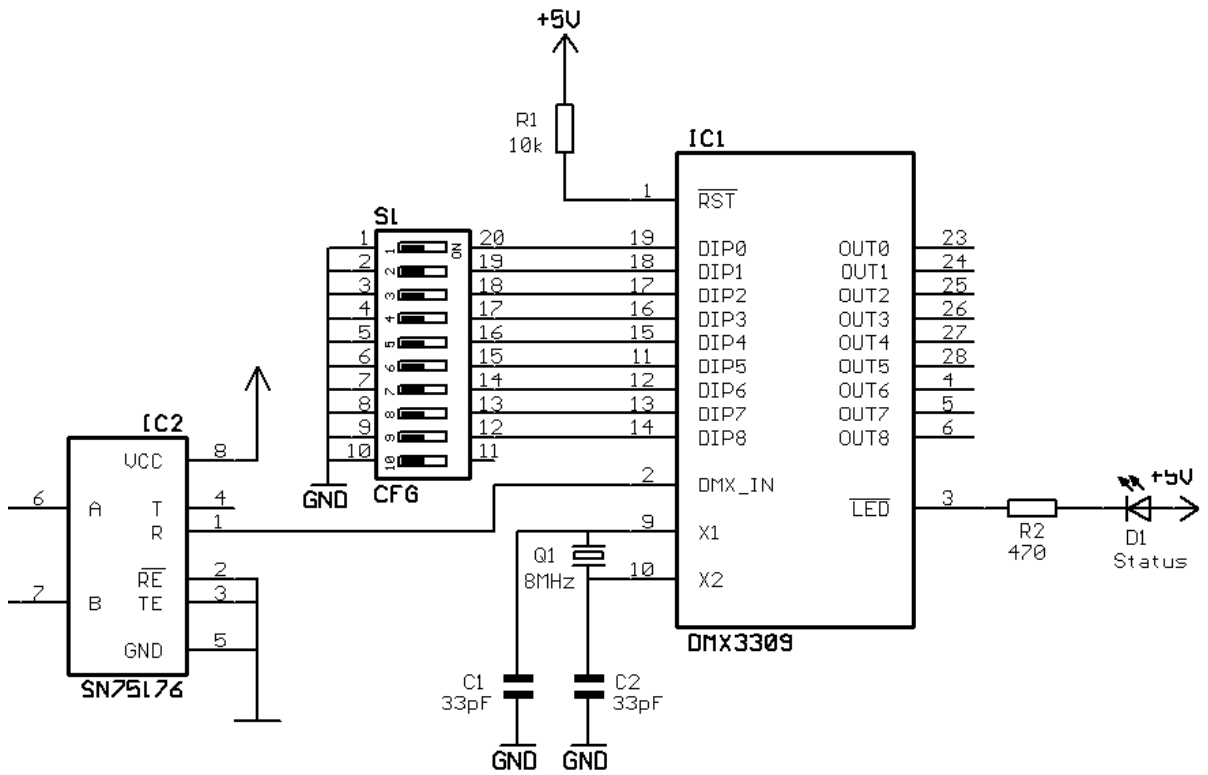
ELECTRICAL CHARACTERISTICS

| Parameter | Description | Min | Typ | Max | Units | Conditions |
|-----------|--------------------------|------|-----|---------|-------|------------|
| VCC | Operating Supply Voltage | 3,5 | 5 | 5,5 | V | |
| ICC | Operating Supply Current | | | | mA | |
| VIH1 | Input High Voltage | 0,6 | | VCC+0,5 | V | |
| VIH2 | Input High Voltage | 0,9 | | VCC+0,5 | V | RESET Pin |
| VIL | Input Low Voltage | -0,5 | | 0,2 | V | |
| fOSZ | Oszilator Frequency | | 8 | | MHz | |
| fPWM | PWM Frequency | | 125 | | Hz | |

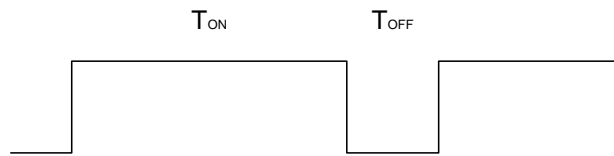
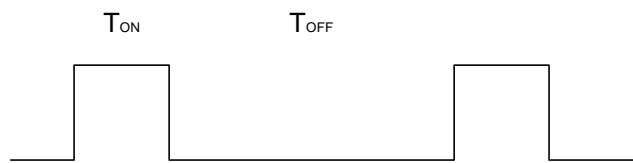
Absolute Maximum Ratings

| | |
|---|-------------------|
| Operating Temperature | -55°C to +125° |
| Storage Temperature | -65°C to +150°C |
| Voltage on any Pin except RESET with respect to Ground | -0.5V to VCC+0.5V |
| Voltage on RESET with respect to Ground | -0.5V to +13.0V |
| Maximum Operating Voltage | 6.0V |
| DC Current per I/O Pin | 20.0 mA |
| DC Current VCC and GND Pins | 200.0 mA |

DEVICE CONFIGURATION EXAMPLE

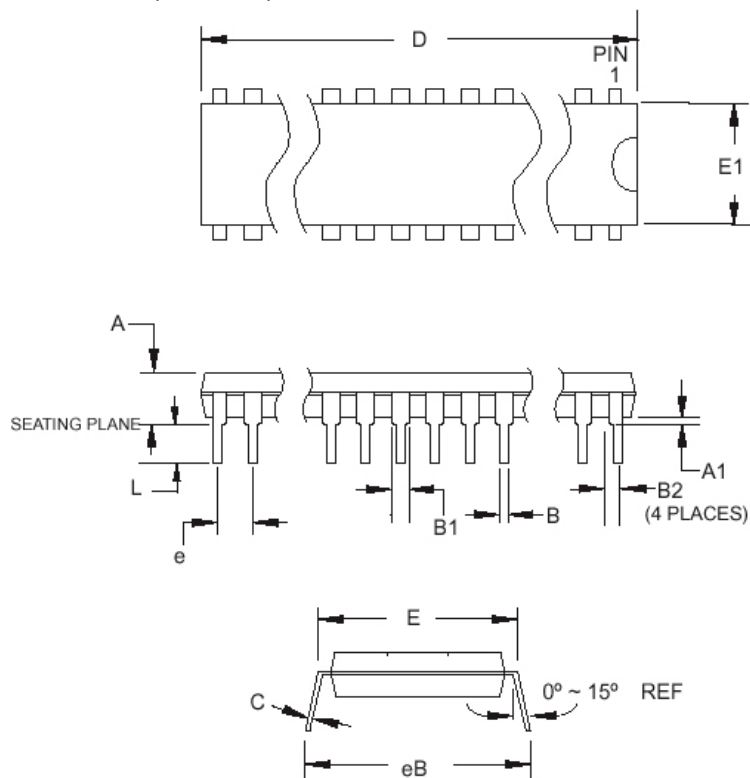


PWM WAVEFORM



PACKAGING INFORMATIONS

DMX3309 (DIL28S)

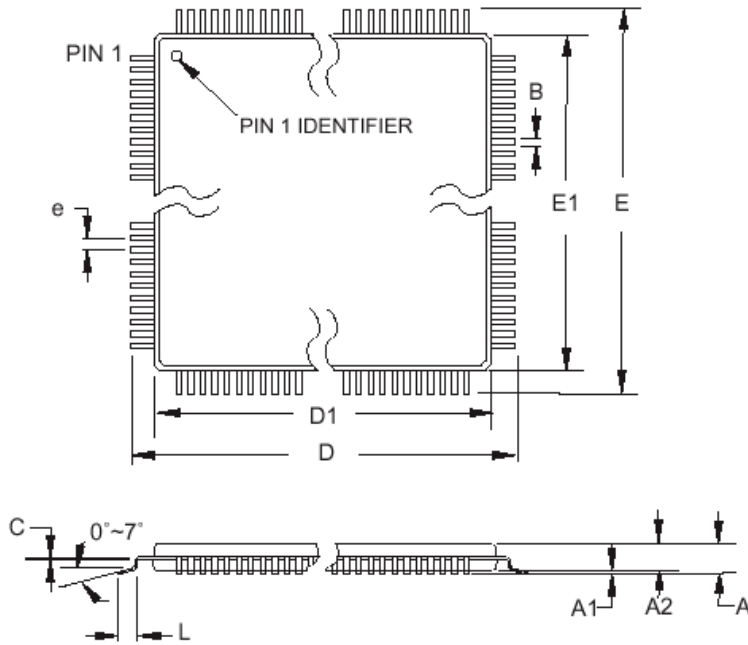


COMMON DIMENSIONS
(Unit of Measure = mm)

| SYMBOL | MIN | NOM | MAX | NOTE |
|--------|-----------|-----|--------|--------|
| A | - | - | 4.5724 | |
| A1 | 0.508 | - | - | |
| D | 34.544 | - | 34.798 | Note 1 |
| E | 7.620 | - | 8.255 | |
| E1 | 7.112 | - | 7.493 | Note 1 |
| B | 0.381 | - | 0.533 | |
| B1 | 1.143 | - | 1.397 | |
| B2 | 0.762 | - | 1.143 | |
| L | 3.175 | - | 3.429 | |
| C | 0.203 | - | 0.356 | |
| eB | - | - | 10.160 | |
| e | 2.540 TYP | | | |

PACKAGING INFORMATIONS

DMX3309A (TQFP32)



COMMON DIMENSIONS
(Unit of Measure = mm)

| SYMBOL | MIN | NOM | MAX | NOTE |
|--------|----------|------|------|--------|
| A | - | - | 1.20 | |
| A1 | 0.05 | - | 0.15 | |
| A2 | 0.95 | 1.00 | 1.05 | |
| D | 8.75 | 9.00 | 9.25 | |
| D1 | 6.90 | 7.00 | 7.10 | Note 2 |
| E | 8.75 | 9.00 | 9.25 | |
| E1 | 6.90 | 7.00 | 7.10 | Note 2 |
| B | 0.30 | - | 0.45 | |
| C | 0.09 | - | 0.20 | |
| L | 0.45 | - | 0.75 | |
| e | 0.80 TYP | | | |

1. This package conforms to JEDEC reference MS-026, Variation ABA.
2. Dimensions D1 and E1 do not include mold protrusion. Allowable protrusion is 0.25 mm per side. Dimensions D1 and E1 are maximum plastic body size dimensions including mold mismatch.
3. Lead coplanarity is 0.10 mm maximum.



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