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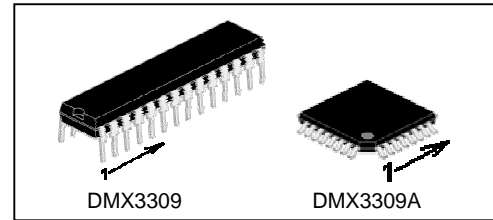
- 5V SUPPLY VOLTAGE
- RECEIVE DMX512 SIGNAL
- 9 PWM OUTPUTS
- SYNCHRON SIGNAL DECODING (SSD)
- PACKAGE: DIL28S / TQFP32 (RoHS)

DMX3309   DMX3309A

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
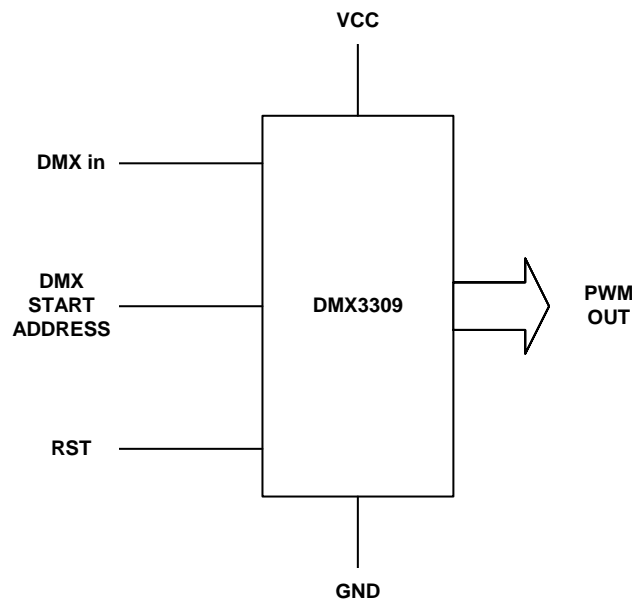
PIN CONFIGURATION
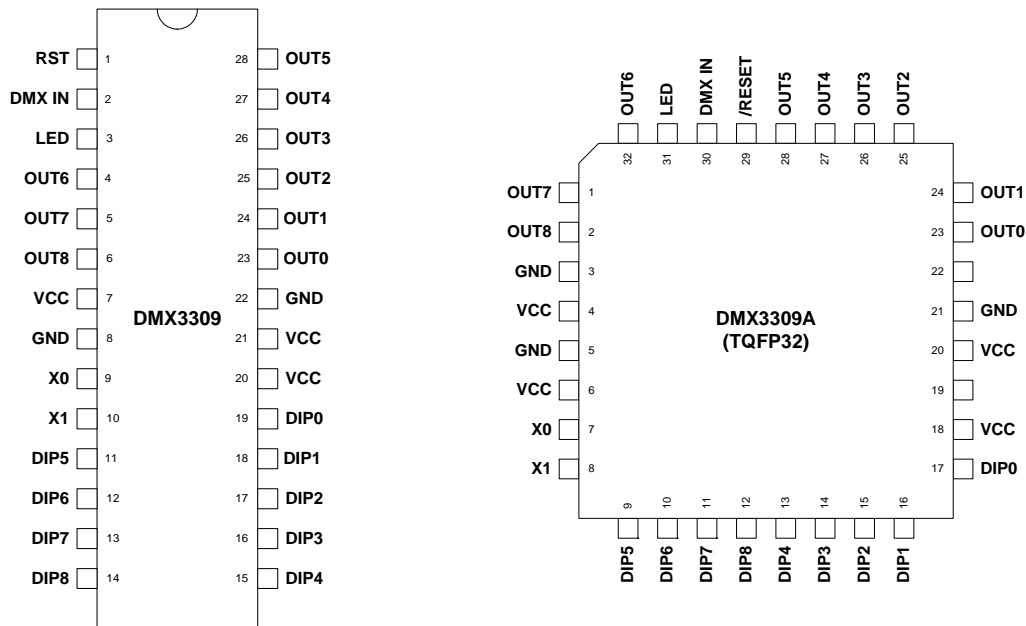
PIN DESCRIPTION

| 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 Sypply 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

DMX LEVEL: 64

DMX LEVEL: 192
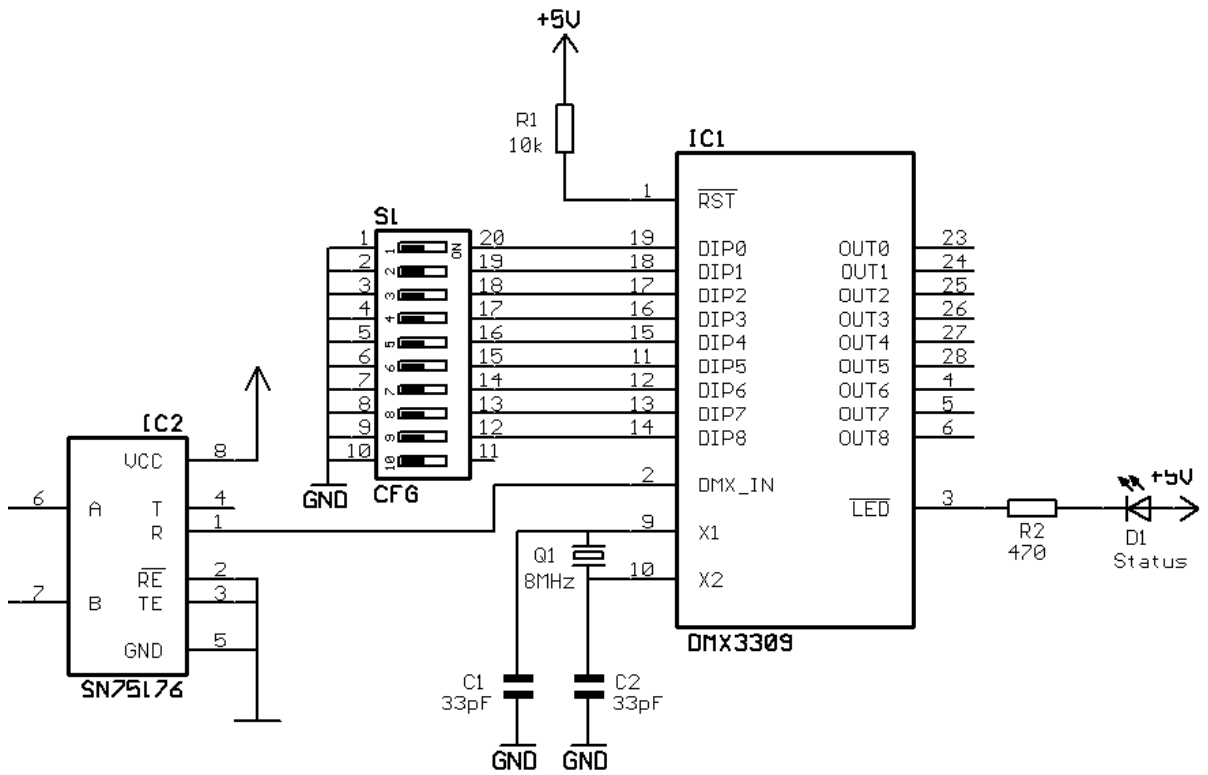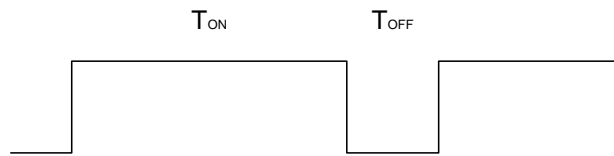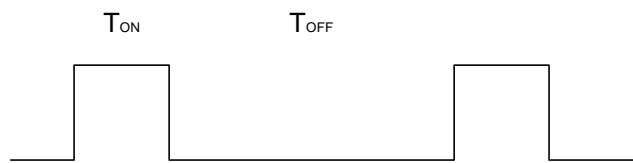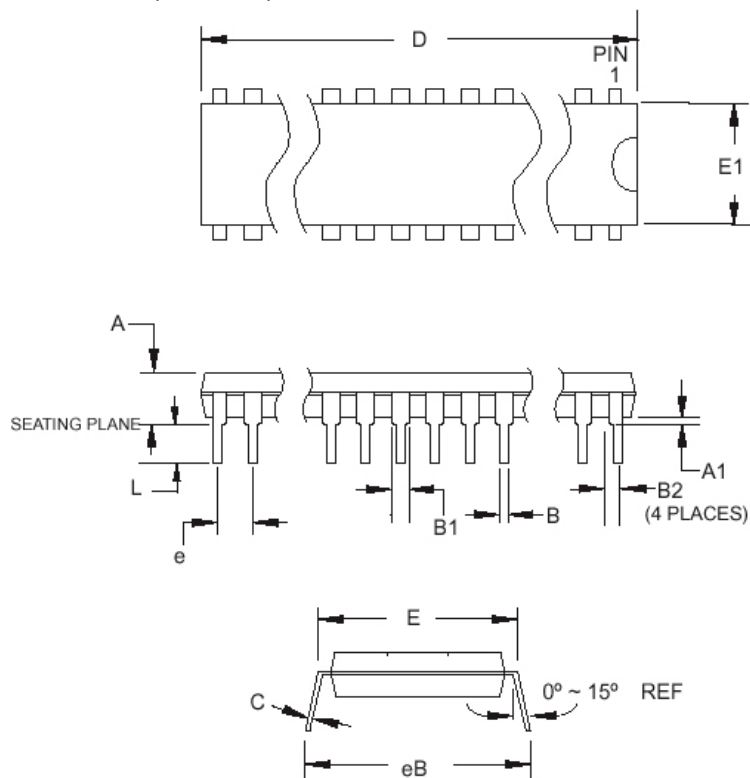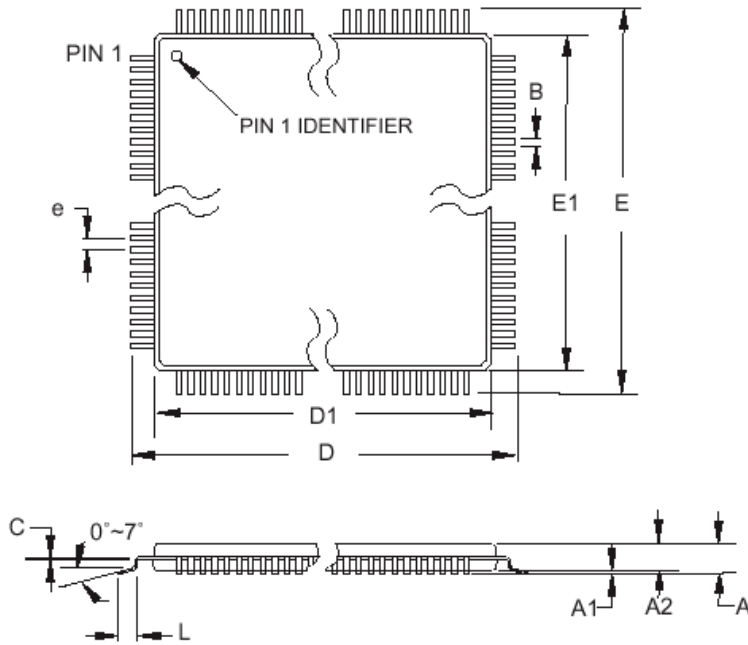
PACKAGING INFORMATIONS

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)

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.

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			

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