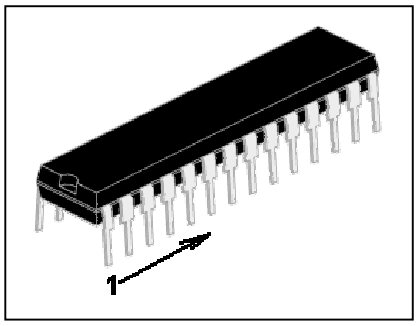
DMX711

DMX512 controller to set up to 6 DMX values

FEATURES

- 5V SUPPLY VOLTAGE
- RECEIVE DMX512 SIGNAL
- TRANSMIT DMX512 SIGNAL
- UP TO 6 ANALOGE OR DIGITAL INPUTS ARE INSERT IN THE DMX512 SIGNAL
- PACKAGE: DIL28S (RoHS)

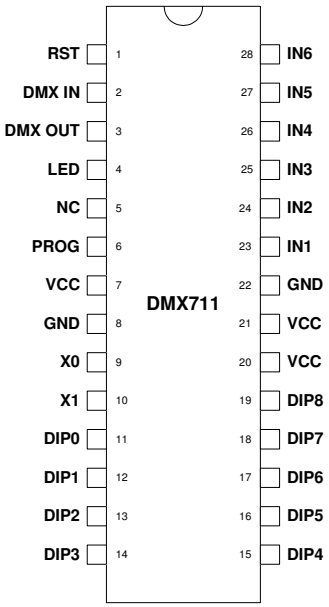


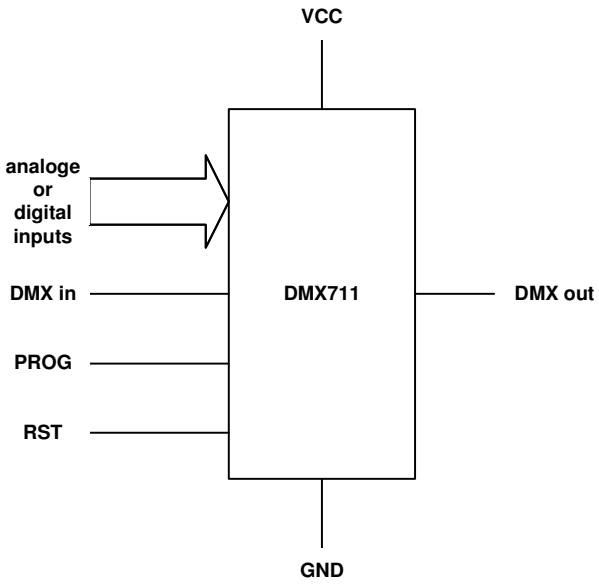
DESCRIPTION

The DMX711 is a DMX512 controller to set up to 6 values in the DMX signal. The values of the output signal are 0 or 255 in digital mode and 0 – 255 in analoge mode, dependent on the input signal.
The first channel to set is given by the DIP switch.

To set the number of inputs (1-6), put the PROG input of the device to GND and use the DIP0,1,2 pins for the number of inputs. Then switch the power on and the value is stored in the internal EEPROM.

PIN CONFIGURATION





PIN DESCRIPTION

MNEMONIC	PIN	TYPE	NAME AND FUNCTION
RST	1	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	I	**DMX-SIGNAL** Input for the DMX512 signal
DMX OUT	3	O	**DMX-SIGNAL** Output for the DMX512 signal
VCC	7;20;21	I	**POWER** This is the power supply
GND	8;22	I	**GROUND** 0V reference
X0	9	I	**XTAL0** Input from the inverting oscillator amplifier
X1	10	O	**XTAL1** Output from the inverting oscillator amplifier
LED	4	O	**STATUS LED** LED output. This pin can sink 20mA to drive a LED.
IN 1	23	IN	**DIGITAL/ANALOG INPUT 1** Input for the DMX value 1 (start address)
IN 2	24	IN	**DIGITAL/ANALOG INPUT 2** Input for the DMX value 2 (start address+1)
IN 3	25	IN	**DIGITAL/ANALOG INPUT 3** Input for the DMX value 3 (start address+2)
IN 4	26	IN	**DIGITAL/ANALOG INPUT 4** Input for the DMX value 4 (start address+3)
IN 5	27	IN	**DIGITAL/ANALOG INPUT 5** Input for the DMX value 5 (start address+4)
IN 6	28	IN	**DIGITAL/ANALOG INPUT 6** Input for the DMX value 6 (start address+5)
DIP0-8	11;12;13; 14;15;16; 17;18;19	IN	**ADDRESS INPUT** Input for the start address to set the DMX values
PROG	6	IN	**PROGRAMMING ENABLE** Put this input to GND on power up to store the address input value as the number of channels to set
NC	5		**NOT CONNECTED**

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	Oszillator Frequency		8		MHz	

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	40.0 mA
DC Current VCC and GND Pins	200.0 mA

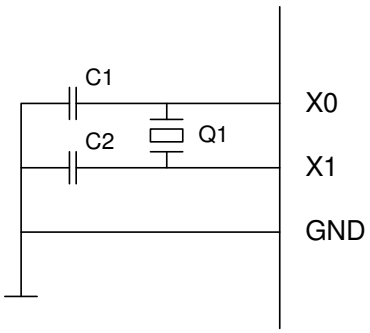
Error-Codes

The LED display internal errors. The error code is the number of flashes between 2 long times the LED is off.

Error-Code	Description
3	No valid DMX signal is recognize at the DMX INPUT

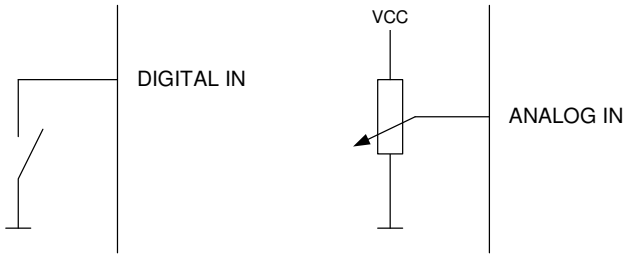
DEVICE CONFIGURATION EXAMPELS

Oscilator Configurations



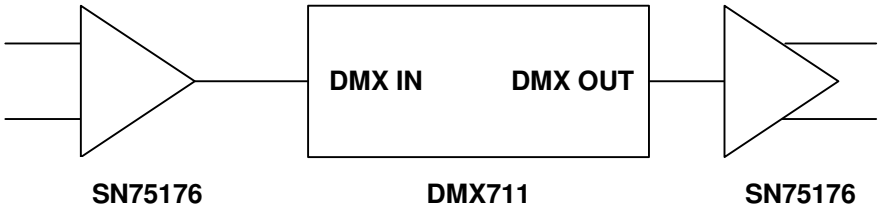
This example illustrates how to use the DMX711 with a 8MHz crystal. The value of the capacitors should be in the range of 12-33pF.

Digital And Analog Input Configuration



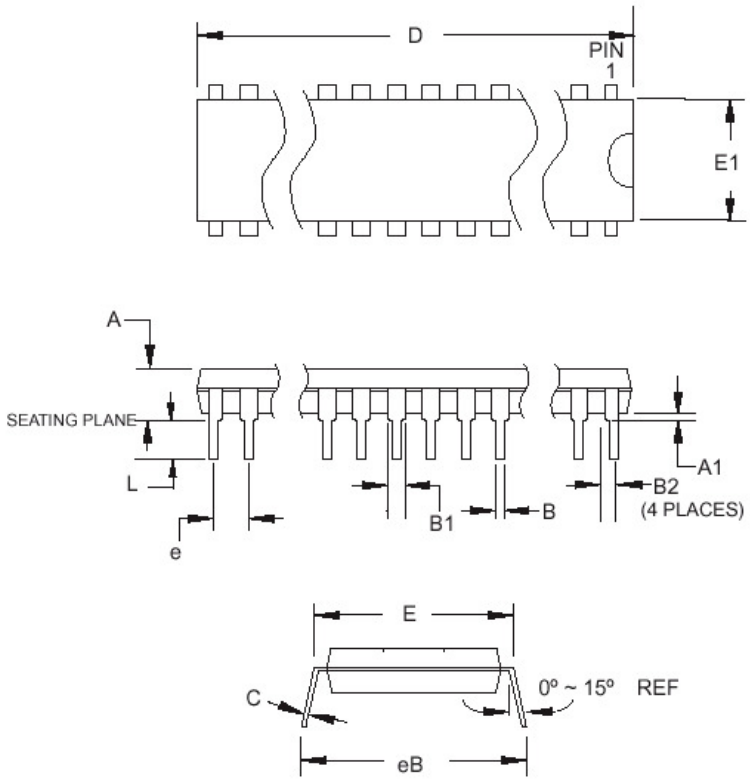
The input pins of the DMX711 can be used as digital or analog inputs. In the digital mode you have to connect a switch to GND. The analoge mode permit a signal from GND to VCC.

DMX Interface Configuration



The DMX711 receives the DMX signal at the DMX IN. At the DMX OUT the new changed DMX signal is transmit.

PACKAGING INFORMATIONS



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			

DMX4ALL GmbH
Reiterweg 2A
D-44869 Bochum
Germany