# ABACOM
TECHNOLOGIES

D2MB Two Channel Data Decoder

The D2MB two channel data decoder, with monostable and bistable outputs, provides an ideal complement to an RF link using a pair of compatible AM or FM transmitter and receiver modules and employing an MC145026 (Motorola) data encoder IC on the transmitter end. The D2MB is deal for applications where more than one coded control is required. Each channel is independantly controlled and provides one monostable output and one bistable output with all four outputs being open collector. The monostable output time delay is configured by an external RC network.
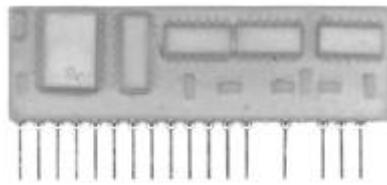
Technical Specification

- High-miniaturization SIL thick-film hybrid circuit
- Decoder : MC145027 ; (Motorola)
- Encoder clock frequency : 1.7KHz
- Parallel programming with 9 bits giving 1,944 unique codes
- Ability to set monostable low output after end of valid coded signal
- Consumption : less than 1 mA quiescent
- Monostable outputs : open collector, 50 mA max
- Bistable outputs : open collector, 50mA max
- Dipped in resin
- Dimensions: 51.2 x 16 x 4.3 mm. Pin pitch 2.54 mm

Block Diagram and Pin Out
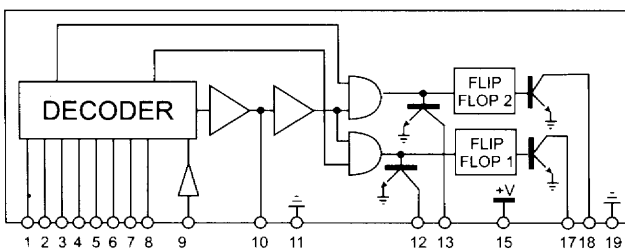
1-8)	Addresses 1 to 8
9)	Data input from receiver
10)	RC network
11,19)	Ground
12)	Mono. output CH1
13)	Mono. output CH2
15)	Supply: +5V to +15V
17)	Bistable output CH2
18)	Bistable output CH2

Application
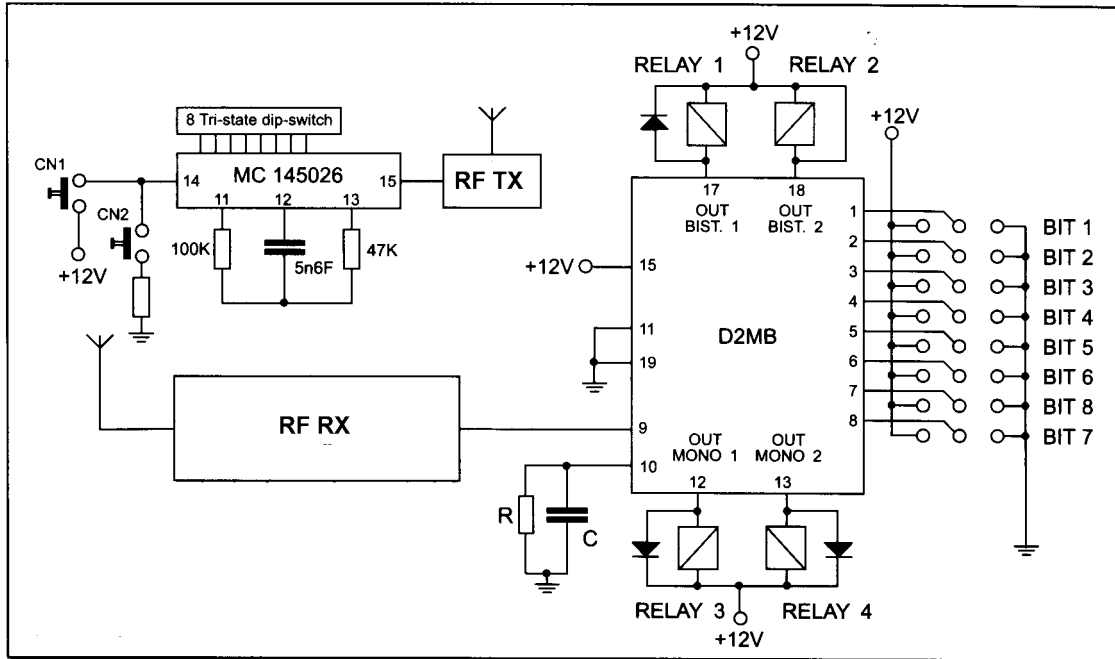
Channel 1 and channel 2 outputs cannot be controlled simultaneously. Transmitter bit 9 (pin 10) selects channel 1 when high or channel 2 when low.

Address inputs 1 to 5 are tri-state, inputs 6 to 8 are two-state with internal pull-ups.

The RC network on pin 11 determines the time the monostable outputs remain low after the end of a valid coded signal.
As the monostable output triggers the bistable output, this network confers an extra degree of noise immunity on both outputs. Time delay is approx. RxC. Typical values are 82KΩ and 4,7pF. Minimum response time is obtained by setting C=0 which then equals the MC145027 decoding time.

Both outputs are open-collector. On power-up, the bistable output is reset to the"OFF"' state.

Timing Diagram

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