



一華半導體股份有限公司
MOSDESIGN SEMICONDUCTOR CORP.

3 STATES ENCODER

3 態編碼 IC

EN/DECODER

M45026/7/8

GENERAL DESCRIPTION 功能敘述

The M45026 is a CMOS ASIC encoder. It will en-code 9 parallel inputs and serially transmit them to the output when \overline{TE} depressed. These address inputs are 3 states i.e. LOW (0)、 OPEN (X) and HIGH (1).

FEATURES 產品特長

RC oscillator.

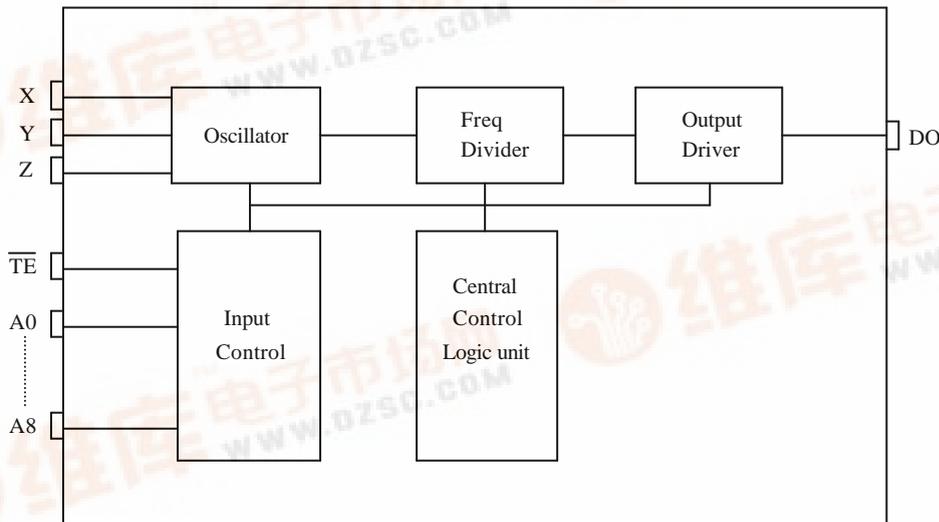
$3^9 = 19,683$ codes, "0","X","1" Tri-states.

Minimum two transmission words.

APPLICATIONS 產品應用

Car/home alarm system, garage control etc..

BLOCK DIAGRAM 功能方塊圖





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ABSOLUTE MAXIMUM RATING

(TA=25)

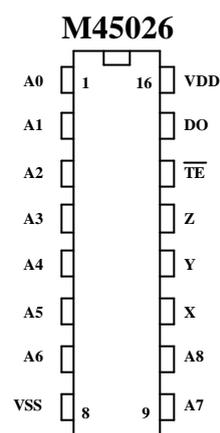
Parameter	Rating	Unit
Supply Voltage	-0.3 to 15	V
Input Voltage	-0.2~V _{DD} +0.2	V
Operating Temperature	-20 to 75	
Storage Temperature	-50 to 125	

ELECTRICAL CHARACTERISTICS

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Conditions
Operating Voltage	V _{DD}	2.4		15	V	
Operating Current	I _{OP}		0.1	1	μA	No load
Quiescent Current	I _{SB}		0.1	0.5	mA	
Output Drive Current	I _O		2		mA	@ V _{DS} =1.2V
Input Voltage	V _{IH}	V _{DD} -0.2	V _{DD}	V _{DD}	V	
	V _{IL}	V _{SS}	V _{SS}	V _{SS} +0.2		
Oscillator Frequency	F _{osc}		22		KHz	External ±30%

PIN DESCRIPTION

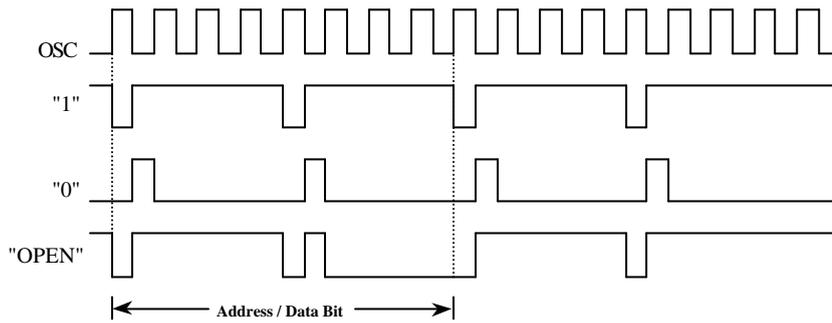
No.	Name	Description
1~7	A0~A7	3 states address inputs
8	VSS	Negative power supply
9~10	A7、A8	3 states address inputs
11	X	Oscillator input
12	Y	Oscillator output
13	Z	Oscillator output
14	\overline{TE}	Transmit enable
15	DO	Data output
16	VDD	Positive power supply



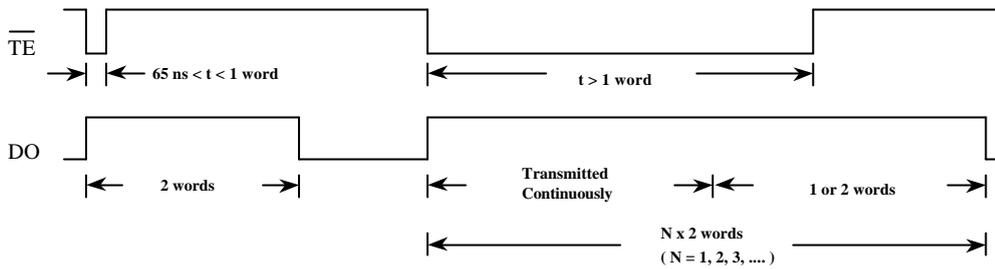


TIMING WAVEFORM

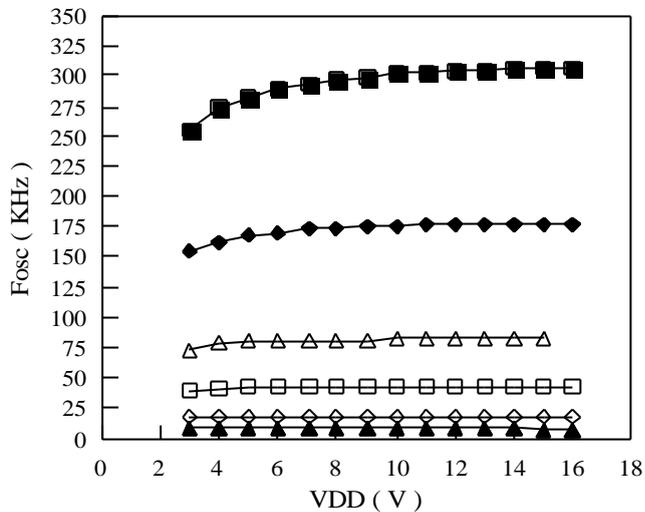
(1) Bit format



(2) TIMING DIAGRAM



M45026 F-V Curve



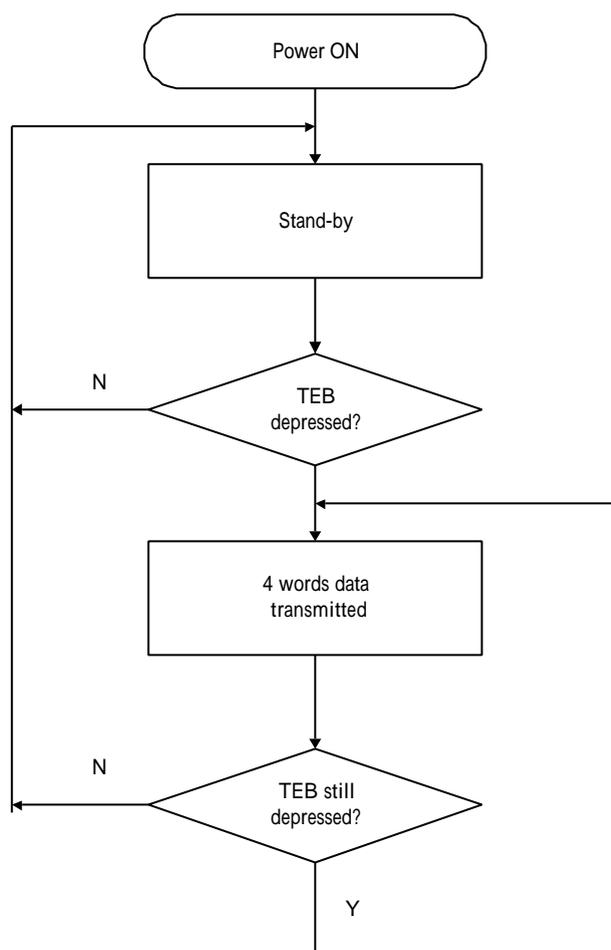
- Rz=20KO , Cy=120PF, Rx=10KO
- ◆ Rz=20KO , Cy=250PF, Rx=10KO
- △ Rz=20KO , Cy=500PF, Rx=10KO
- Rz=20KO , Cy=1000PF, Rx=10KO
- ◇ Rz=20KO , Cy=2200PF, Rx=10KO
- ▲ Rz=20KO , Cy=5000PF, Rx=10KO



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OPERATING FLOWCHART

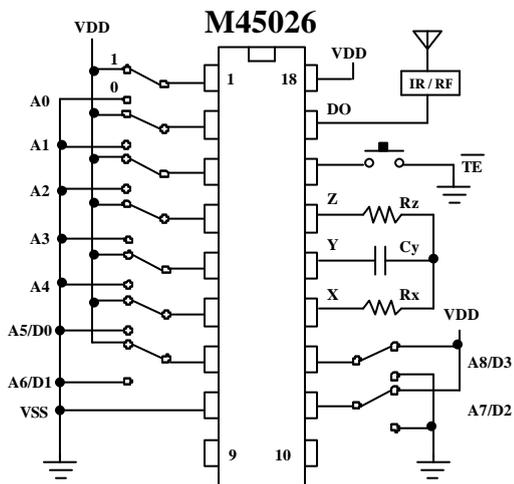
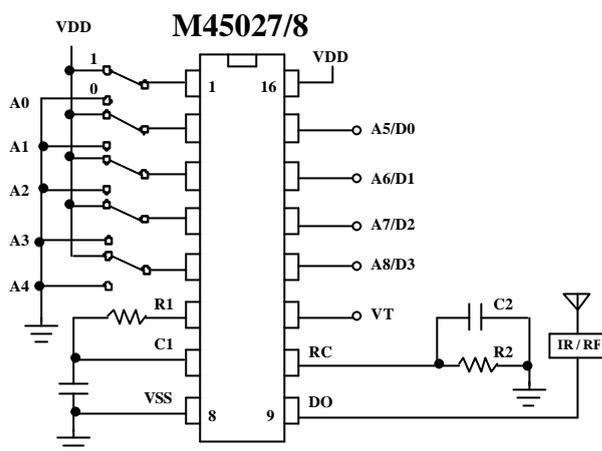
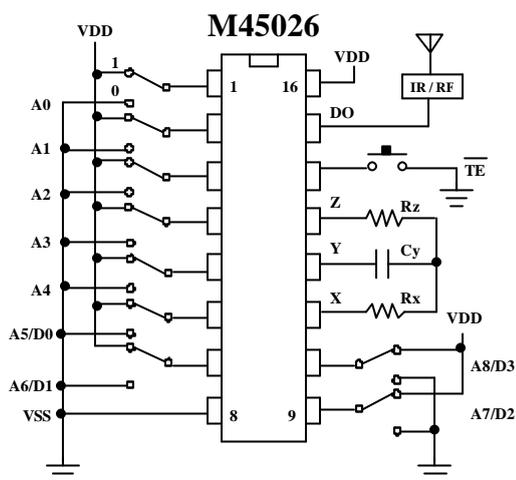




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APPLICATION DIAGRAM 參考電路圖



* @VDD=12V, Rx=20 K , Rz=10K , Cy=500 PF.

* All specs and applications shown above subject to change without prior notice.

(以上電路及規格僅供參考,本公司得逕行修正)