



3 STATES ENCODER

3 態編碼 IC

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 $\overline{\text{TE}}$ depressed. These address inputs are 3 states i.e. LOW (0), OPEN (X) and HIGH (1).

FEATURES 產品特長

RC oscillator.

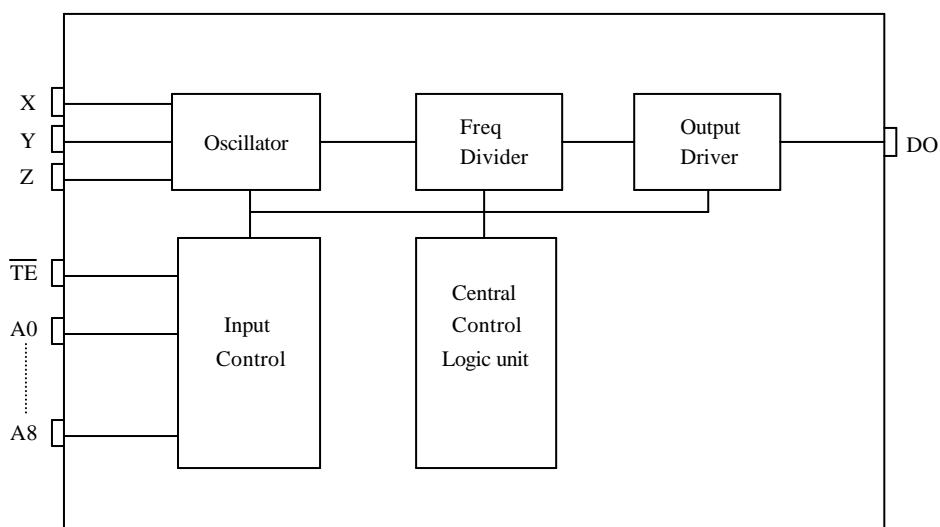
$3^9 = 19,683$ codes, "0", "X", "1" Tri-states.

Minimum two transmission words.

APPLICATIONS 產品應用

Car/home alarm system, garage control etc..

BLOCK DIAGRAM 功能方塊圖



*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)



ABSOLUTE MAXIMUM RATING

(TA=25)

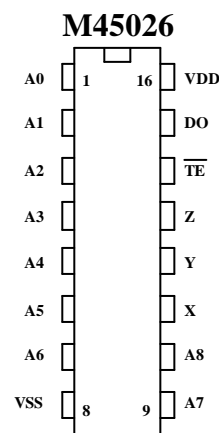
Parameter	Rating	Unit
Supply Voltage	-0.3 to 15	V
Input Voltage	-0.2~V _{DD} +0.2	V
Operating Temperature	-20 to 75	
Storage Temperature	-50 to 125	

ELECTRICAL CHARACTERISTICS

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Conditions
Operating Voltage	V _{DD}	2.4		15	V	
Operating Current	I _{OP}		0.1	1	μ A	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	Fosc		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	$\overline{\text{TE}}$	Transmit enable
15	DO	Data output
16	VDD	Positive power supply



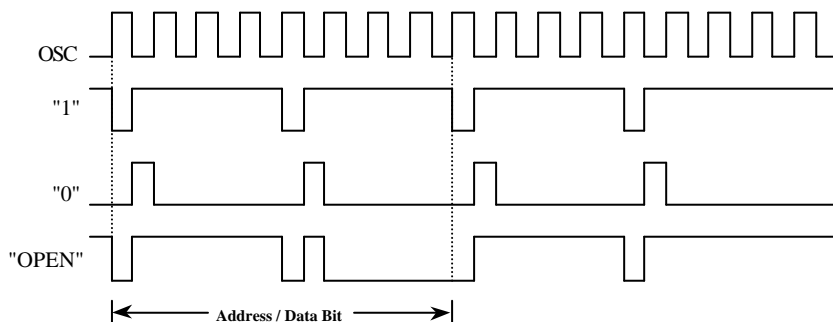


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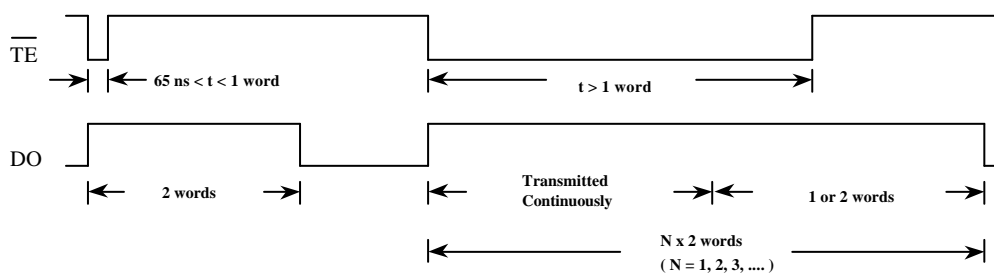
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TIMING WAVEFORM

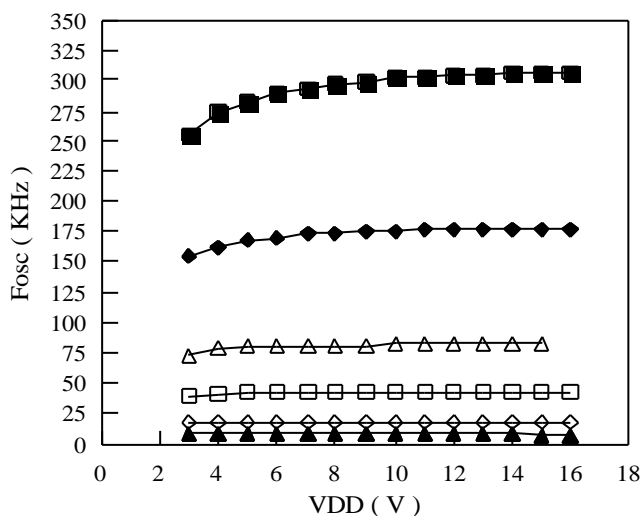
(1) Bit format



(2) TIMING DIAGRAM



M45026 F-V Curve



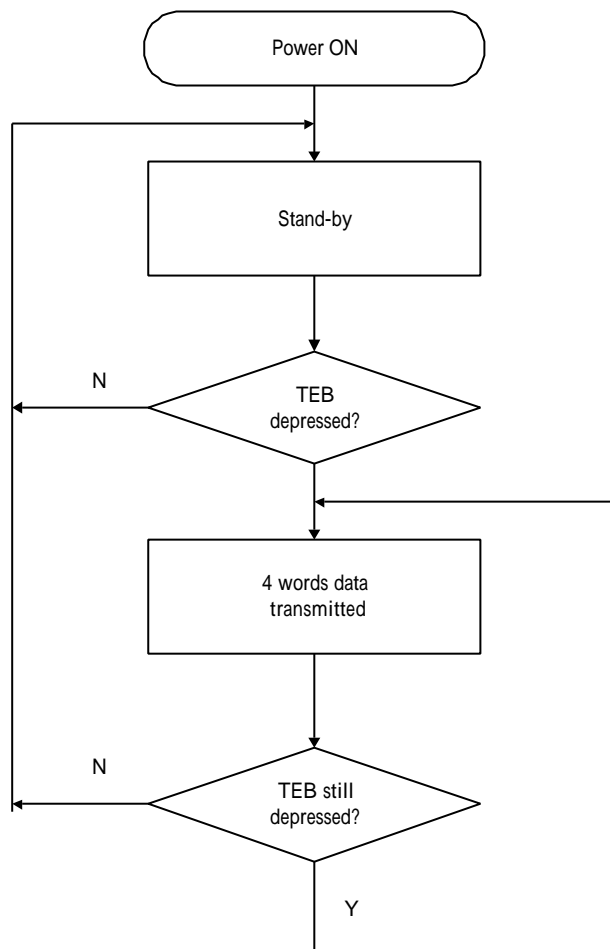
- $R_z=20\text{KO}, C_y=120\text{PF}, R_x=10\text{KO}$
- ◆ $R_z=20\text{KO}, C_y=250\text{PF}, R_x=10\text{KO}$
- △ $R_z=20\text{KO}, C_y=500\text{PF}, R_x=10\text{KO}$
- $R_z=20\text{KO}, C_y=1000\text{PF}, R_x=10\text{KO}$
- ◇ $R_z=20\text{KO}, C_y=2200\text{PF}, R_x=10\text{KO}$
- ▲ $R_z=20\text{KO}, C_y=5000\text{PF}, R_x=10\text{KO}$



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OPERATING FLOWCHART

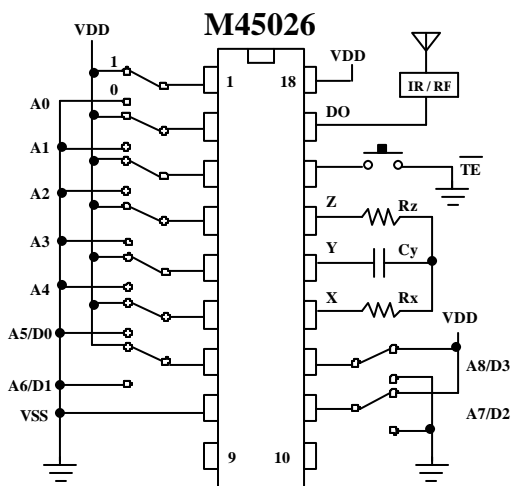
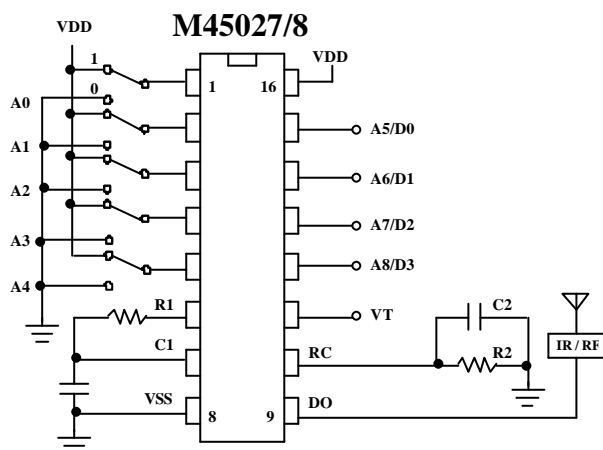
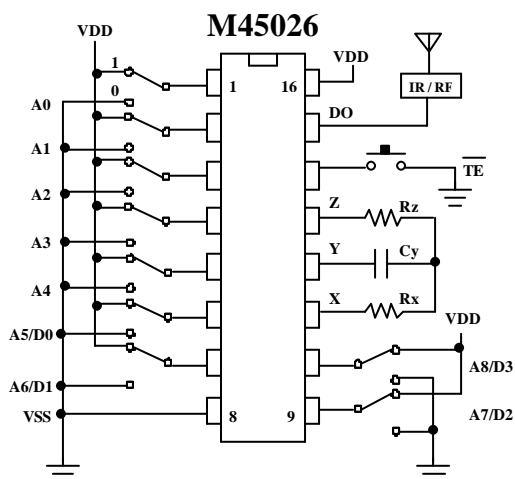




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APPLICATION DIAGRAM 參考電路圖



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

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(以上電路及規格僅供參考,本公司得逕行修正)