



3 STATES ENCODER

3 态编码 IC

GENERAL DESCRIPTION 功能叙述

The M6E is a CMOS ASIC encoder. It will en-code 12 parallel data inputs (A0~A11) and serially transmit them to the output when transmits enable (\overline{TE}) depressed. The address inputs are 3 states i.e. LOW (0) or OPEN (X) and HIGH (1). It will transmit 2 cycles each time \overline{TE} depressed.

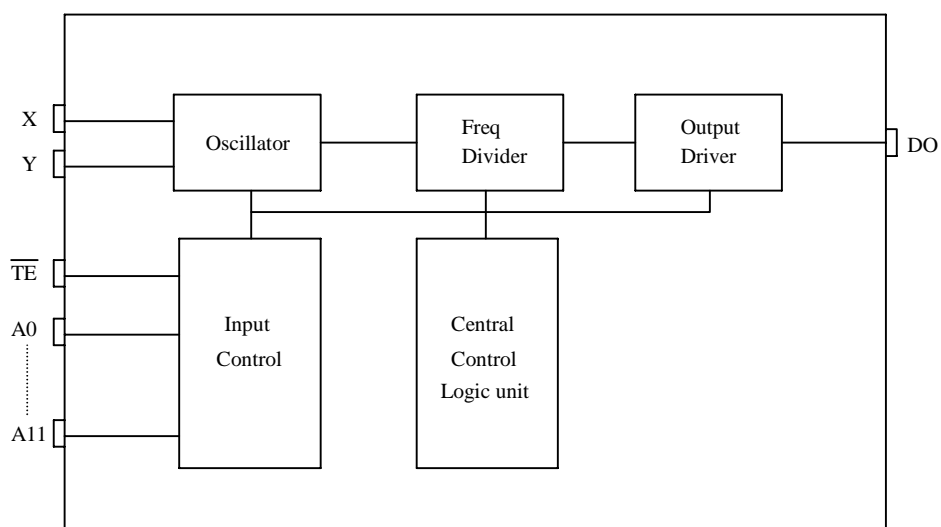
FEATURES 产品特长

- Same Rosc matched to the DECODER M6D/F
- $3^{12} = 531, 441$ codes, "0", "X", "1" Tri-states
- 2 cycles transmission each time
- DIP 18 or SO available

APPLICATIONS 产品应用

- Car/home alarm system, garage control etc..

BLOCK DIAGRAM 功能方块图



*All specs and applications shown above subject to change without prior notice.
(以上电路及规格仅供参考,本公司得径行修正)



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M6E

ABSOLUTE MAXIMUM RATING

(TA=25°C)

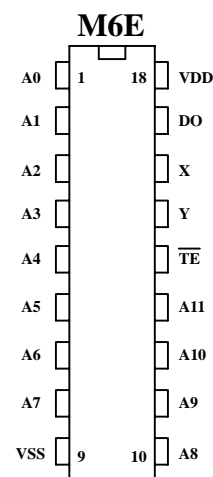
Parameter	Rating	Unit
Supply Voltage	-0.3 to 15	V
Input Voltage	-0.2~V _{DD} +0.2	V
Operating Temperature	-20 to 75	°C
Storage Temperature	-50 to 125	°C

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	
Quiescent Current	I _{SB}	—	0.1	0.5	mA	No load
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	—	48	—	KHz	External ± 30%

PIN DESCRIPTION

No.	Name	Description
1~8	A0~A7	3 states address inputs
9	VSS	Negative power supply
10~13	A8~A11	3 states address inputs
14	\overline{TE}	Transmit enable
15	Y	Oscillator output
16	X	Oscillator input
17	DO	Data output
18	VDD	Positive power supply





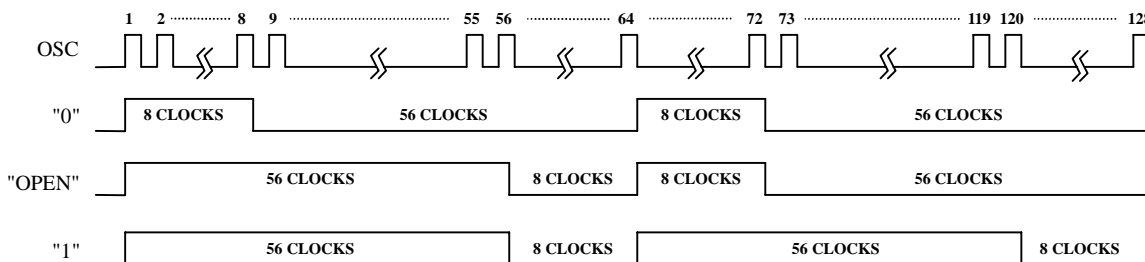
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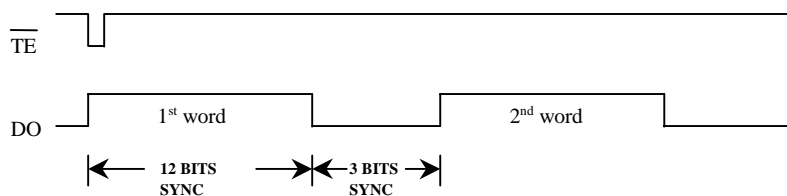
M6E

TIMING WAVEFORM

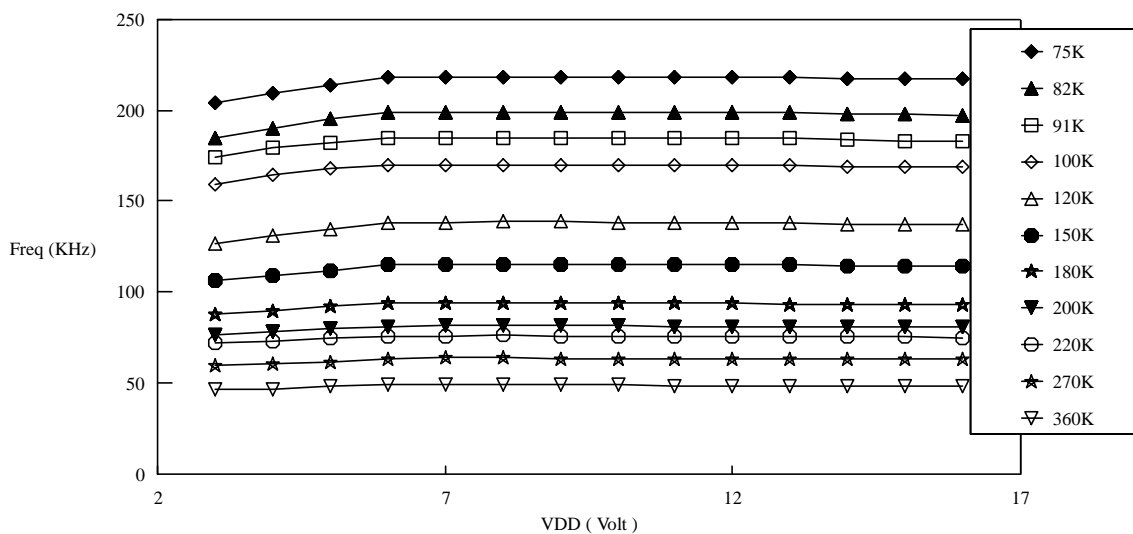
(1) Bit format



(2) TIMING DIAGRAM



M6E F-V curve

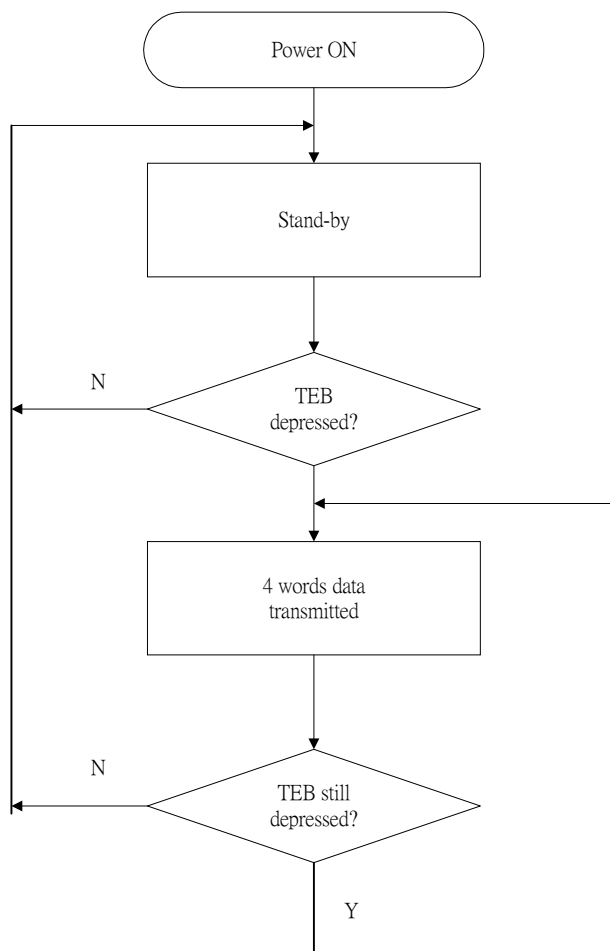




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OPERATING FLOWCHART





RECONNENDED OSCILLATOR PARAMETERS

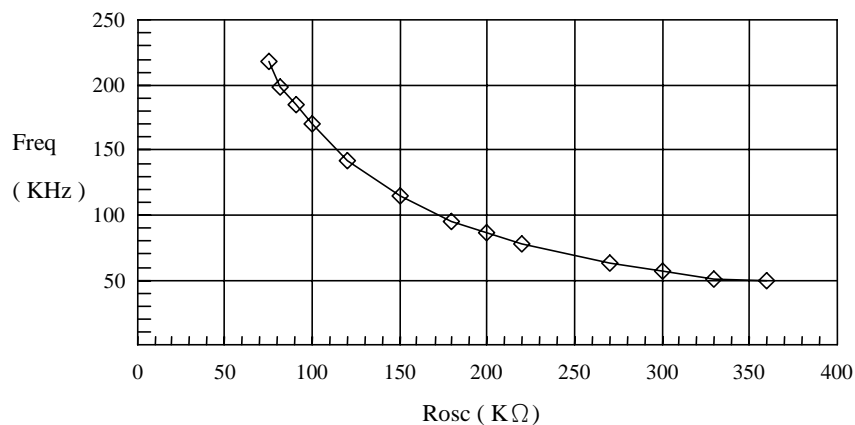
Rosc (KΩ)	M6E/D/F (KHz)
75	218
82	199
91	185
100	170
120	142
150	115
180	95
200	86
220	78
270	63
300	57
330	51
360	49

DATA OUTPUT

M6E (D0~D3)	M6D/F (D0~D3)
0 (VSS)	0 (VSS)
X (OPEN)	1 (VDD)
1 (VDD)	1 (VDD)
POWER ON	0 (VSS)

Freq-Rosc Chart

(@Vdd=12V)





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APPLICATION DIAGRAM 参考电路图

SOP-20PIN

