



GENERAL DESCRIPTION 功能敘述

The M1EA is a CMOS ASIC encoder. It will en-code 12 parallel data inputs and serially transmit them to the output when transmit enable (\overline{TE}) depressed. These address inputs are 2 states i.e. LOW (0) or OPEN (1).

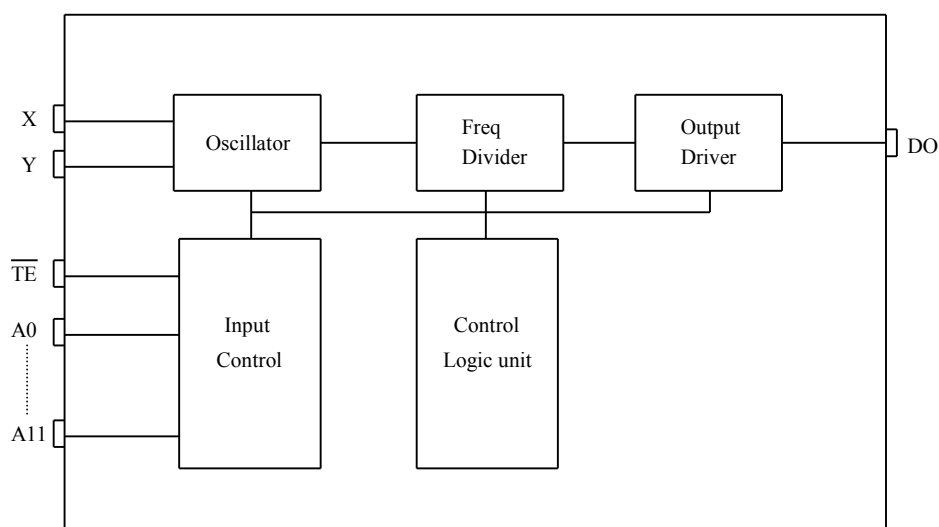
FEATURES 產品特長

- Same Rosc matched to the Decoder M1DA/FA.
- $2^{12} = 4,096$ codes.
- 4 cycles transmission each time.
- Direct data transmit type : (Eliminating \overline{TE} and diodes).
- M1EA-H : switch to VDD.

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)



EN/DECODER
M1EA

ABSOLUTE MAXIMUM RATING

(TA=25°C)

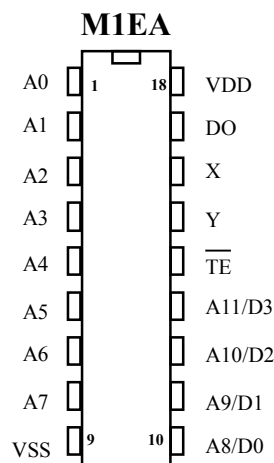
Parameter	Rating	Unit
Supply Voltage	-0.3 to 12	V
Input Voltage	-0.2~V _{DD} +0.2	V
Operating Temperature	-20 to 70	°C
Storage Temperature	-50 to 125	°C

ELECTRICAL CHARACTERISTICS

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Conditions
Operating Voltage	V _{DD}	2.4	—	12	V	
Operating Current	I _{OP}	—	0.1	1	mA	No load
Quiescent Current	I _{SB}	—	0.1	0.5	μA	
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}	—	76	—	KHz	External±30%,R _{osc} =270KΩ

PIN DESCRIPTION

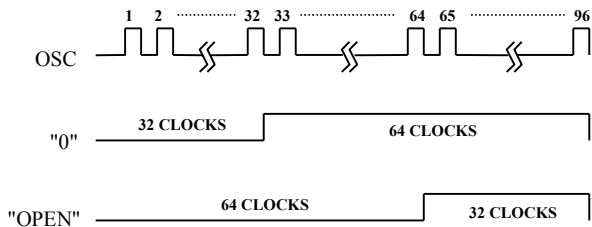
No.	Name	Description
1~8	A0~A7	Address inputs
9	VSS	Negative power supply
10~13	A8~A11 / D0~D3	Address inputs / Data input
14	\overline{TE}	Transmit enable
15	Y	Oscillator output
16	X	Oscillator input
17	DO	Data output
18	VDD	Positive power supply



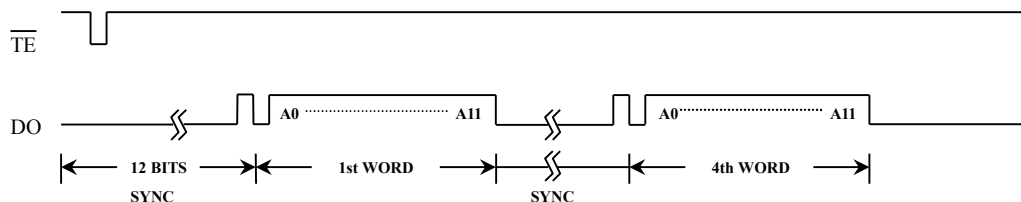


TIMING WAVEFORM

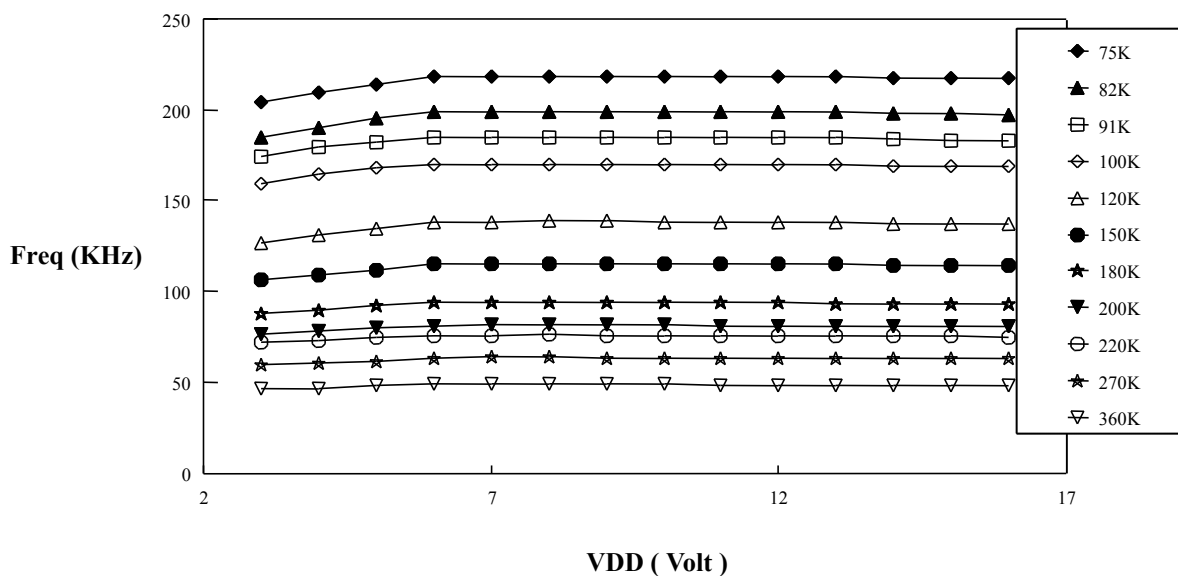
(1) BIT FORMAT



(2) TIMING DIAGRAM



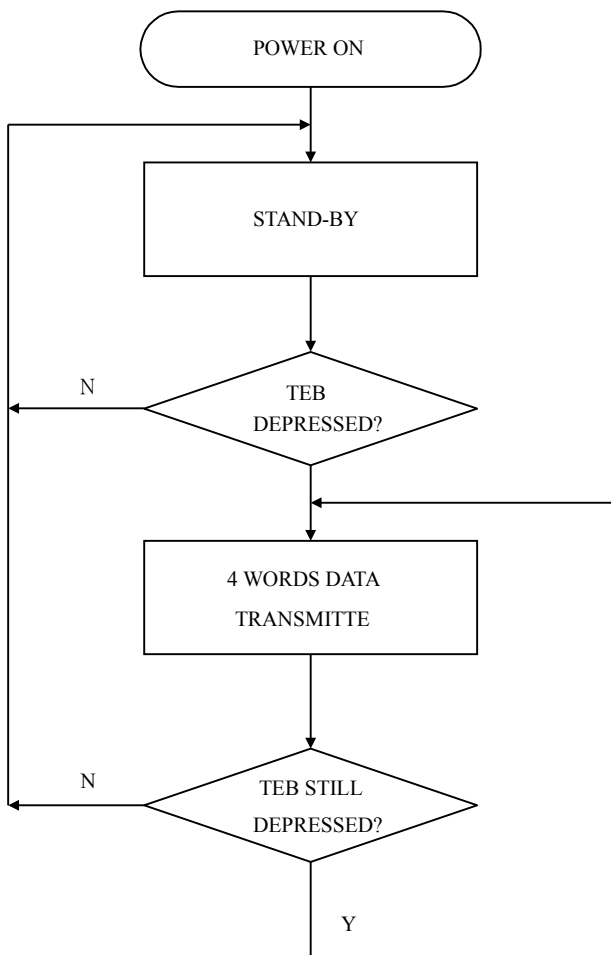
M1EA F-V curve





2 STATES ENCODER
2 態編碼 IC

OPERATING FLOWCHART





RECONNENDED OSCILLATOR PARAMETERS

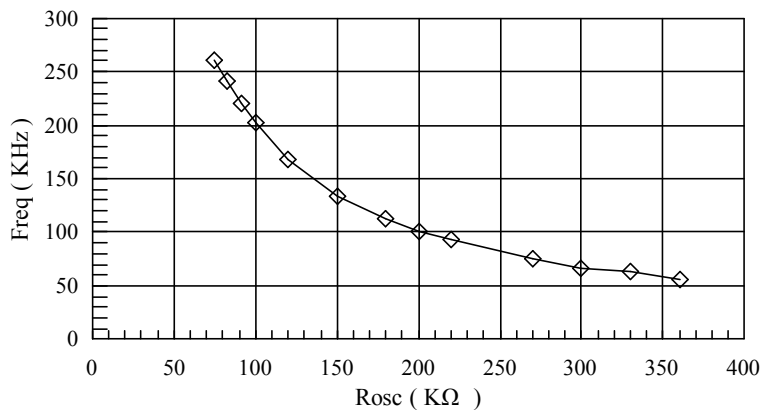
Rosc (KΩ)	M1EA (KHz)
75	261
82	241
91	220
100	203
120	168
150	133
180	113
200	101
220	94
270	75
300	67
330	63
360	56

DATA OUTPUT

M1EA (D0~D3)	M1DA/FA (D0~D3)
0 (VSS)	1 (VDD)
1 (OPEN)	0 (VSS)

Freq-Rosc Chart

(@Vdd=12V)



◇ M1EA



APPLICATION DIAGRAM 參考電路圖

