

LCD Controller Manual

MM1232CE - EDO Version 1.0



3 48-6

110002

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1. MM1232CE - EDO ,

2. MM1232CE - EDO Connector

2-1. RS-232C Connector

2-2. Power Connector

3.

3-1.

3-1-1.

3-1-2.

3-1-3. Text Layer

3-1-4. Text Layer ON/OFF

3-1-5. Text Layer

3-1-6. Serial Baud Rate

3-1-7. Clear

3-1-8. Cursor

3-1-9. Backlight ON/OFF

3-1-10. MM1232CE - EDO Rebooting

3-1-11. Reset

3-1-12. Keypad Start

[1.] MM1232CE - EDO

Special Font

1. MM1232CE - EDO

◆ MM1232CE - EDO

- ◆ LCD Resolution : FSTN Mono 122*32 dots
- ◆ : (GB2132-80)
- ◆ Font : (GB2312-80) 16*16 dots
8*16 dots
16*16 dots

◆ MM1232CE - EDO

- ◆ CPU : 8BIT micro controller
- ◆ Display Type : FSTN Mono 122*32 dots
- ◆ : DC 5[V]
- ◆ : RS-232C 9600, 19200, 57600,115200 [bps]

◆ MM1232CE - EDO

- ◆ , :가 2 , 2 , 가 2
- ◆ / Font
- ◆
- ◆ : Enter
- ◆ Clear : Clear
- ◆

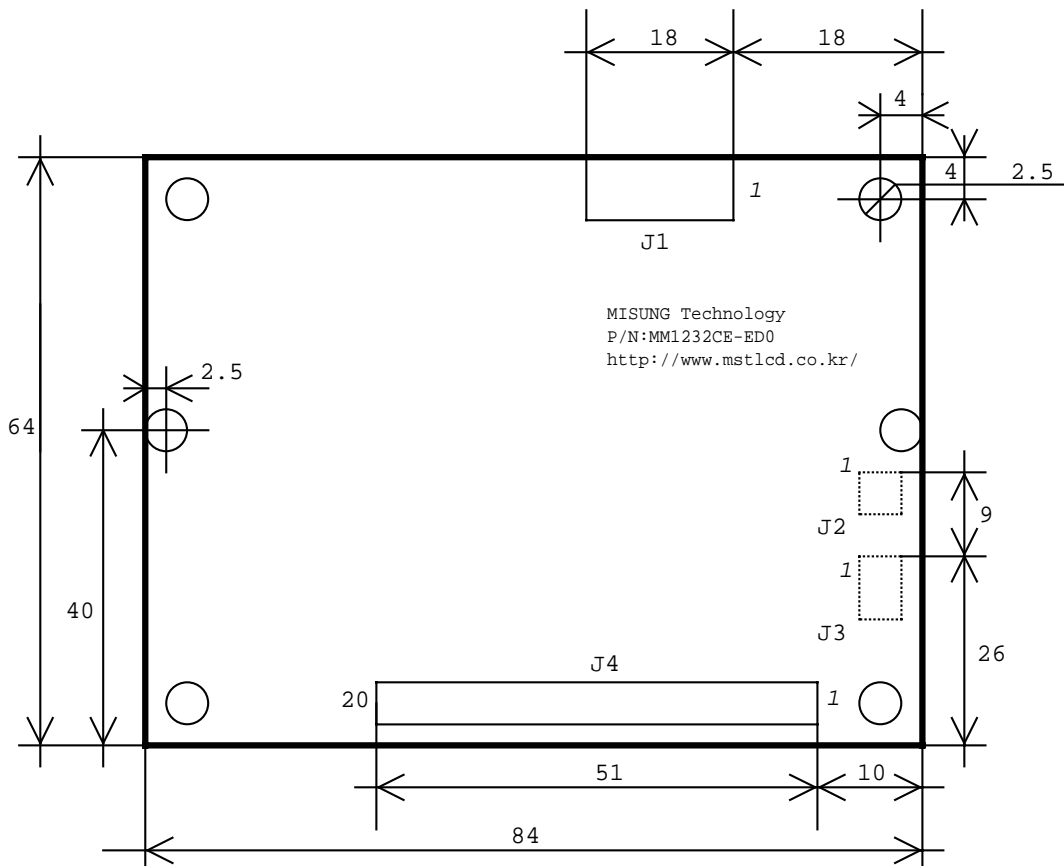
2. MM1232CE - EDO Connector

2 MM1232CE - EDO Dimensions Connector

MM1232CE - EDO



MM1232CE - EDO Dimensions



MM1232CE - EDO

2-1. RS-232C Connector : J3

Pin Number	Symbol	Description
1	RXD	Receive Data : LCD Controller
2	TXD	Transmit Data : LCD Controller
3	GND	Ground

2-2. Power Connector : J2

Pin Number	Symbol	Description
1	VCC	+5[VDC]
2	GND	Ground

3.

'Esc' = 0x1b [hex]

			Parameter		
'Esc'	'J'	'0x01'		GB2312 - 80	3-1-1
'Esc'	'E'	'0x01'			3-1-2
		'0x02'			
'Esc'	'P'	'0x01'		Text Layer OFF	3-1-3
		'0x02'		Text Layer ON	
		'0x03'		Text Layer ON	
		'0x04'		Text Layer OFF	3-1-4
		'0x05'		Text Layer Font ON	
		'0x06'		Text Layer Font 가 ON	3-1-5
		'0x07'		Text Layer Font ON	
		'0x08'		Text Layer Font OFF	
'Esc'	'D'	'0x01'		clear	3-1-7
'Esc'	'C'	'0x01'	(X,Y)	X,Y cursor (X,Y hex 가 :0x00 ~ 0x1d :0x00 ~ 0x07)	3-1-8
'Esc'	'L'	'0x01'		Backlight ON	3-1-9
		'0x02'		Backlight OFF	
'Esc'	'A'	'0x01'		Reset	3-1-10
'Esc'	'T'	'0x03'		Keypad 1 가 "0~9", "*", "#" ASCII Serial	3-1-11

3-1.

Parameter	'+'
'Esc' = 0x1b (Hex)	
Graphic	X MM1232CE - EDO byte(Hex)

3-1-1.

	'ESC'+ 'J'
	'0x01'
Parameter	
	'ESC'+ 'J' '0x01'
	'ESC'+ 'J'+ '0x01' => GB2312-80 ' GB2312-80 2byte 'ESC'+ 'J'+ '0xB0'+ '0xA2' [가] 가 display

3-1-2.

	'ESC'+ 'E'
	'0x01' or '0x02'
Parameter	
	'ESC'+ 'E' '0x01' '0x02'
	'ESC'+ 'E'+ '0x01' => ASCII 256 'ESC'+ 'E'+ '0x02' =>

3-1-3. Text Layer

	'ESC'+ 'P'
	'0x01' or '0x02'
Parameter	
	'ESC'+ 'P' '0x01' Text Layer '0x02' Text Layer
	'ESC'+ 'P'+ '0x01' => Text Layer 'ESC'+ 'P'+ '0x02' => Text Layer

3-1-4. Text Layer ON/OFF

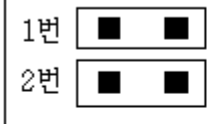
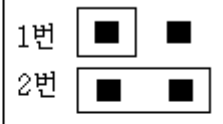
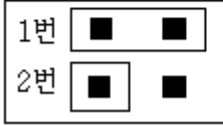
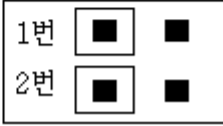
	'ESC'+ 'P'
	'0x03' or '0x04'
Parameter	

	'ESC'+ 'P'	'0x03'	Text Layer	ON
		'0x04'	OFF	
	'ESC'+ 'P'+ '0x03' => Text Layer		ON	
	'ESC'+ 'P'+ '0x04' => Text Layer		OFF	

3-1-5. Text Layer

	'ESC'+ 'P'			
	'0x04' or '0x05' or '0x06' or '0x07'			
Parameter				
	'ESC'+ 'P' (가 ,)	'0x04'	Text Layer	Display Font
		'0x05' 가		
		'0x06'	OFF	'0x07'
	'ESC'+ 'P'+ '0x04' => Text Layer Font 8*16 dots => 16*32 dots 16*16 dots => 32*32 dots 'ESC'+ 'P'+ '0x05' => Text Layer Font 가 8*16 dots => 16*16 dots 16*16 dots => 32*16 dots 'ESC'+ 'P'+ '0x06' => Text Layer Font 8*16 dots => 8*32 dots 16*16 dots => 16*32 dots 'ESC'+ 'P'+ '0x07' => Text Layer Font OFF			

3-1-6. Serial Baud Rate

	J5 Header pin	
Parameter		
	MM1232CE - EDO J5 Header pin	
	NO.1 [9600] 	NO.2 [19200] 
	NO.3 [57600] 	NO.4 [115200] 

3-1-7. Clear

	'ESC'+ 'D'
	'0x01'
Parameter	'X1'+ 'Y1'+ 'X2'+ 'Y2'
	'ESC'+ 'D' '0x01' Clear .
	'ESC'+ 'D'+ '0x01' => Clear

3-1-8. Cursor

	'ESC'+ 'C'
	'0x01'
Parameter	'X'+ 'Y'
	'ESC'+ 'C' '0x01' Parameter Cursor ↑ . Text Layer X <u>0x00 ~ 0x1d</u> , Y <u>0x00 ~ 0x07</u> .
	'ESC'+ 'C'+ '0x01'+ 'X'+ 'Y' => Text Layer (X, Y) Cursor

3-1-9. Backlight ON/OFF

	'ESC'+ 'L'
	'0x01' or '0x02'
Parameter	
	'ESC'+ 'L' '0x01' Backlight ON. '0x02' Backlight OFF.
	'ESC'+ 'L'+ '0x01' => CCFL Power ON. 'ESC'+ 'L'+ '0x02' => CCFL Power OFF.

[1.] MM1232CE - EDO

Special Font

< 1- 1 > MM1232CE - EDO

(Special Font)

Special

< 1- 1 >

	0x00	0x01	0x02	0x03	0x04	0x05	0x06	0x07	0x08	0x09	0x0A	0x0B	0x0C	0x0D	0x0E	0x0F
0x00		☎	☎	☎	☎	☎	☎	☎		No.	Co.	TM.	am.		PM.	Tel.
0x10	I	II	III	IV	V	VI	VII	VIII	IX	X	μ	m	d	l	k	cc
0x20	mm ³	cm ³	m ³	km ³	fm	nm	μm	mm	cm	km	mm ²	cm ²	m ²	km ²	ha	μg
0x30	mg	kg	kt	cal	kcal	dB	‰	‰	ps	ns	μs	ms	pV	nV	μV	mV
0x40	kV	MV	PA	nA	μA	mA	KA	PW	nW	μW	mW	kW	MW	Hz	kHz	MHz
0x50	GHz	THz	Ω	kΩ	MΩ	PF	nF	μF	mol	cd	rad	rad/s	rad/s ²	sr	Pa	kPa
0x60	MPa	GPa	Wb	lm	lx	Bq	Gy	Sv	‰	㉿	㊀	㊁	㊂	㊃	㊄	㊅
0x70	㊆	㊇	㊈	㊉	㊊	㊋	㊌	㊍	㊎	㊏	㊑	㊒	㊓	㊔	㊕	㊖
0x80	㊗	㊘	㊙	㊚	㊛	㊜	㊝	㊞	㊟	㊠	㊡	㊢	㊣	㊤	㊥	㊦
0x90	㊧	㊨	㊩	㊪	㊫	㊬	㊭	㊮	㊯	㊰	㊱	㊲	㊳	㊴	㊵	㊶
0xA0	㊷	㊸	㊹	㊺	㊻	㊼	㊽	㊾	㊿	①	②	③	④	⑤	⑥	⑦
0xB0	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓
0xC0	㉔	㉕	㉖	㉗	㉘	㉙	㉚	㉛	㉜	㉝	㉞	㉟	㊀	㊁	㊂	㊃
0xD0	㊄	㊅	㊆	㊇	㊈	㊉	㊊	㊋	㊌	㊍	㊎	㊏	㊑	㊒	㊓	㊔
0xE0	㊕	㊖	㊗	㊘	㊙	㊚	㊛	㊜	㊝	㊞	㊟	㊠	㊡	㊢	㊣	㊤
0xF0	㊥	㊦	㊧	㊨	㊩	㊪	㊫	㊬	㊭	㊮	㊯	㊰	㊱	㊲	㊳	㊴

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