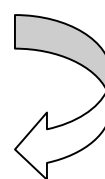


LCD Controller Manual

MCT4827K Version 2.02



84-2

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1. MCT4827K V2.02 ,

2. MCT4827K V2.02 Connector

3.

4. MCT4827K V2.02 Image Overwrite

[1.] MCT4827K V2.02 Special Font

1. MCT4827K V2.02

◆ MCT4827K V2.02

◆ LCD Resolution : 24bit Color TFT 480*272 dots

◆

:

KS5601

◆ LCD Back Light : LED Type

◆ Font : 16*16 dots

16*16 dots

8*16 dots

8*16 dots

16*16

◆ Image File Memory

◆ 8bit Color/480*272 => 110 [Page]

◆ 16bit Color/480*272 => 54 [Page]

Font

/

◆ MCT4827K V2.02

◆ CPU : ARM920T 200[MHz]

◆ Display Type : 16Bit Color TFT 480*272 dots

◆ : +5[VDC]

◆ : 400[mA]

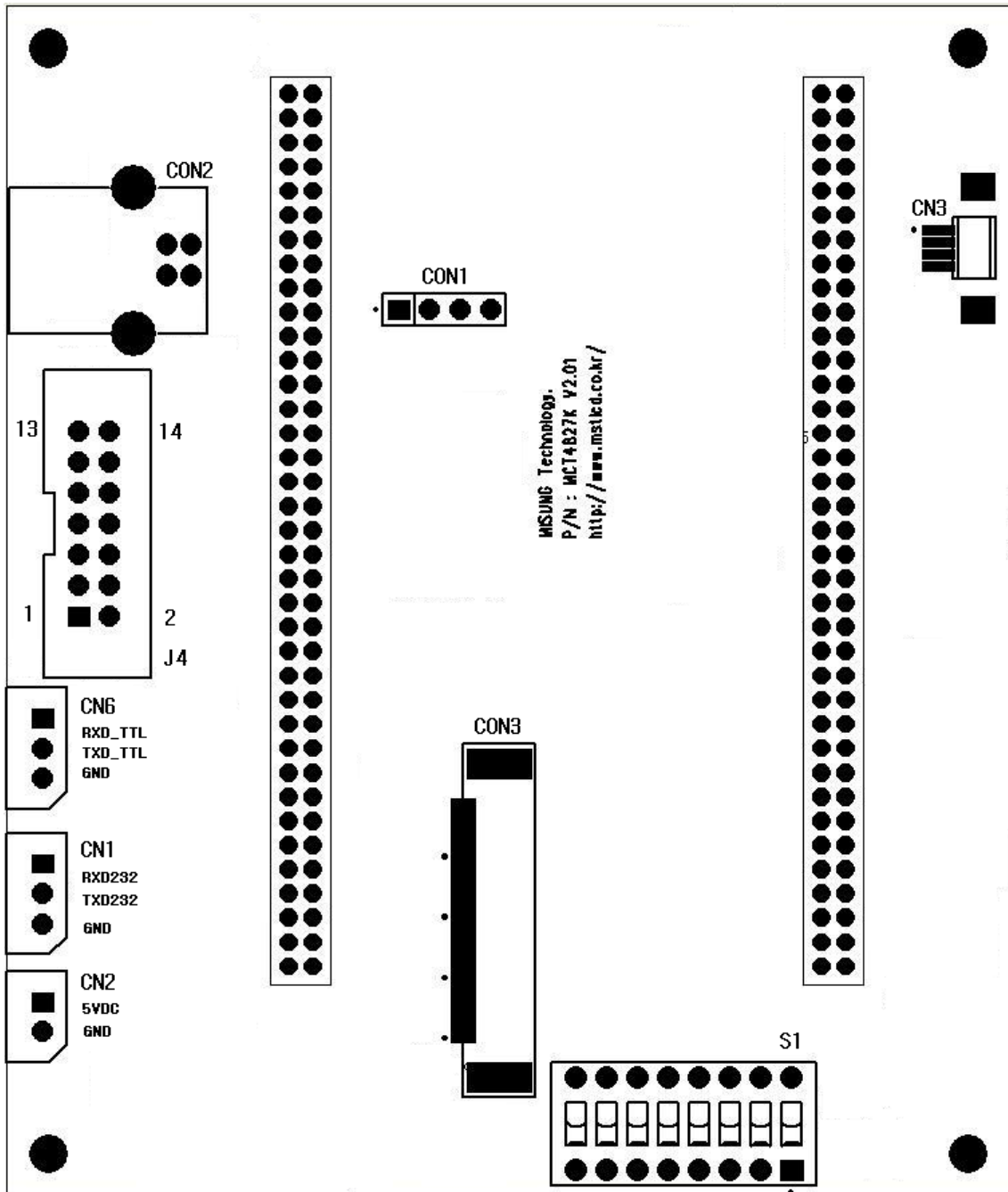
◆ : RS-232C => 9600, 19200, 57600, 115200 [bps]

8 Bit Parallel

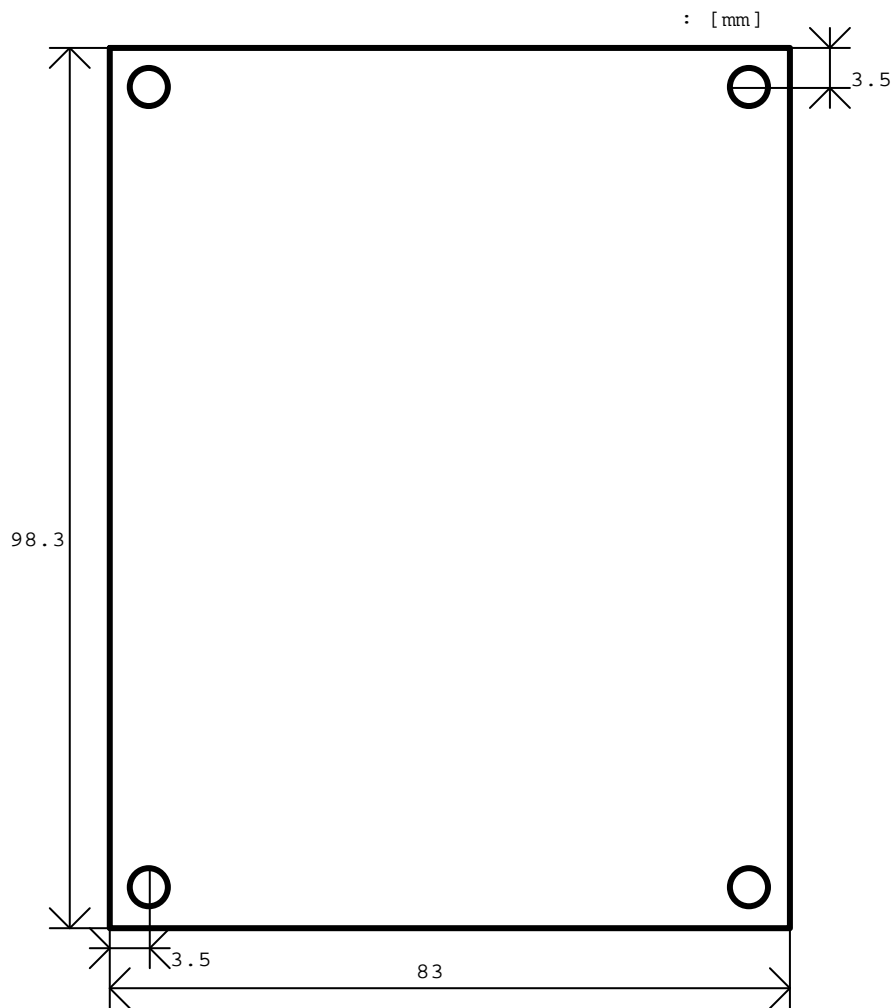
2. MCT4827K V2.02 Connector

2 MCT4827K V2.02 Dimensions Connector

MCT4827K V2.02



MCT4827K V2.02 Dimensions



2-1. RS-232C Connector : CN1

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

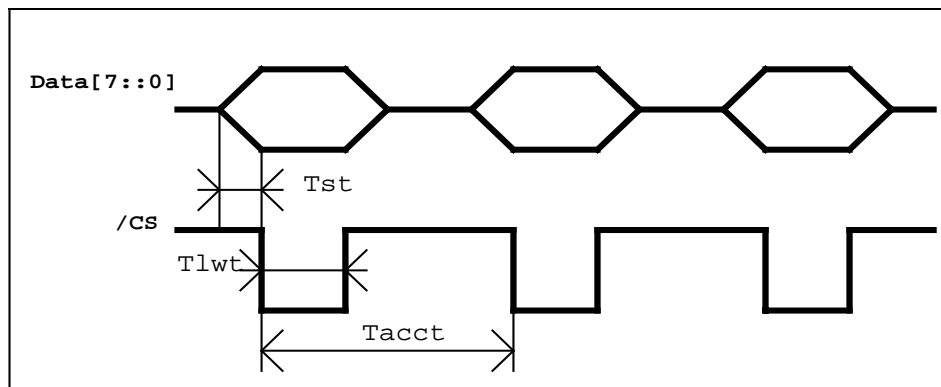
2-2. Power Connector : CN2

Pin Number	Symbol	Description
1	VCC5	+5[VDC]/1 [A]
2	GND	DC Ground

2-3. Parallel Connector: J4

Pin Number	Symbol	Description
1	BUSY	Busy Output(Active Low)
2	RESERVED	Reserved
3	RESERVED	Reserved
4	RESERVED	Reserved
5	GND	Ground
6	/CS	Chip Select(Falling Edge Active)
7	D7	Data 7
8	D6	Data 6
9	D5	Data 5
10	D4	Data 4
11	D3	Data 3
12	D2	Data 2
13	D1	Data 1
14	D0	Data 0

Parallel Timing



Tst : Setup Time : $1[\mu\text{s}] < Tst$.

Tlwt : Low Width Time : $1[\mu\text{s}] < Tlwt$.

Tacct : Access Time : $100[\mu\text{s}] < Tacct$.

2-4. TTL RS232C Connector : CN6

Pin Number	Symbol	Description
1	RXD_TTL	Receive Data_5VDC
2	TXD_TTL	Transmit Data_5VDC
3	GND	DC Ground

2-5. USB Device Connector : CON2

2-6. USB Host Connector: CON1 => Reserved

2-7. Touch : CN3

2-8. Switch : S1

Pin Number	Symbol	Description
1		BaudRate
2		
3		8/16bit color
4		USB download
5		Reserved
6		Logo image display
7		Parallel on/off
8		Touch 0

** BaudRate : S1-1,2 Switch on/off

S1-1	S1-2	BaudRate [bps]
ON	ON	9,600
ON	OFF	19,200
OFF	ON	57,600
OFF	OFF	115,200

** 8/16bit Color : S1-3 Switch on/off

S1-3	Symbol	Description
OFF	8Bit(256) Color	8Bit(256) Color
ON	16Bit Color	16Bit Color

** USB download : S1-4 Switch on/off

S1-4	Symbol	Description
ON		USB image download
OFF		

** Logo image display : S1-6 Switch on/off

S1-6	Symbol	Description
ON		Logo image display
OFF		

**** Parallel interface : S1-7 Switch on/off**

S1-7	Symbol	Description
ON		Parallel interface
OFF		

**** Touch 0 : S1-8 Switch on/off**

S1-8	Symbol	Description
ON		Touch 0
OFF		

3.

'Esc' = 0x1b [hex]

			Parameter	
'Esc'	'K'	'0x01'		
		'0x02'		KS5601
		'0x03'		(default)
		'0x04'		
'Esc'	'E'	'0x01'		
		'0x02'		
		'0x03'		(default)
		'0x04'		
		'0x05'		MST1 FONT
'Esc'	'P'	'0x01'		Text reverse off
		'0x02'		Text reverse on
		'0x03'		Reserved
		'0x04'		Reserved
		'0x05'		Text under line on
		'0x06'		Text under line off
		'0x07'		Font ON
		'0x08'		Font 가 ON
		'0x09'		Font ON
		'0x0a'		Font OFF
		'0x0b'		Reserved
		'0x0c'		Reserved
		'0x0d'		Reserved
		'0x0e'		Reserved
		'0x0f'		Reserved
		'0x10'		Reserved
		'0x11'		Reserved
		'0x12'		Reserved
		'0x13'		Reserved
'0x14'		Font 가 3 , 2		
'0x15'		Font 가 2 , 3		
'0x16'		Font 가 3 , 3		
'Esc'	'D'	'0x01'		clear
		'0x02'	(X1,Y1,X2,Y2)	Text Clear X1, Y1, X2, Y2 hex X1,X2:0x00 ~ 0x3b, Y1,Y2:0x00 ~ 0x10)
		'0x03'		Reserved

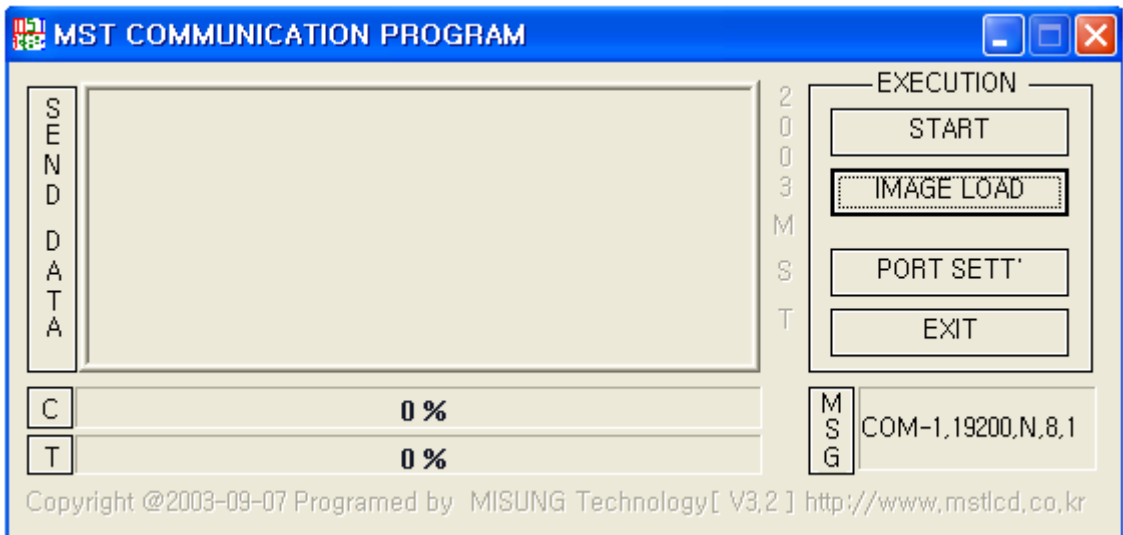
			Parameter	
		'0x04'	(X1,Y1,X2,Y2)	Graphic clear (X1, Y1, X2, Y2 hex X1,X2:0x0000 ~ 0x01e0, Y1,Y2:0x0000 ~ 0x0110)
'Esc'	'C'	'0x01'	(X,Y)	Text X,Y cursor (X,Y hex 가 :0x00 ~ 0x3c :0x00 ~ 0x11)
		'0x02'		Reserved
		'0x03'		Reserved
		'0x04'		Reserved
		'0x05'		Reserved
		'0x06'	(X,Y)	Graphic X,Y cursor (X, Y) X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110
'Esc'	'L'	'0x01'		LCD Back Light OFF
		'0x02'		LCD Back Light ON
'Esc'	'V'	'0x01'		LCD Back Light UP
		'0x02'		LCD Back Light DOWN
'Esc'	'G'	'0x01'	(X,Y)	Graphic _____ X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110
		'0x02'	(X,Y)	Graphic _____ X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110
		'0x03'	(X1,Y1,X2,Y2)	Graphic <u>Line</u> X1,X2:0x0000 ~ 0x01e0 Y1,Y2:0x0000 ~ 0x0110
		'0x04'	(X1,Y1,X2,Y2)	Graphic <u>Line</u> X1,X2:0x0000 ~ 0x01e0 Y1,Y2:0x0000 ~ 0x0110
		'0x05'	(X1,Y1,X2,Y2)	Graphic <u>Rectangle</u> X1,X2:0x0000 ~ 0x01e0f Y1,Y2:0x0000 ~ 0x0110
		'0x06'	(X1,Y1,X2,Y2)	Graphic <u>Rectangle</u> X1,X2:0x0000 ~ 0x01e0 Y1,Y2:0x0000 ~ 0x0110
		'0x07'	(X1,Y1,X2,Y2)	Graphic <u>Rectangle</u> X1,X2:0x0000 ~ 0x01e0 Y1,Y2:0x0000 ~ 0x0110
		'0x08'	(X1,Y1,X2,Y2)	Graphic <u>Rectangle</u> X1,X2:0x0000 ~ 0x01e0 Y1,Y2:0x0000 ~ 0x0110
		'0x09'	(X,Y,radius)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 Radius :0x00 ~ 0x110
		'0x0a'	(X,Y,radius)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 Radius :0x00 ~ 0x110
		'0x0b'	(X,Y,radius)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 Radius :0x00 ~ 0x110
		'0x0c'	(X,Y,radius)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 Radius :0x00 ~ 0x110
		'0x0d'	(X,Y,a,b)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 a :480/2 b :272/2

			Parameter	
		'0x0e'	(X,Y,a,b)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 a :480/2 b :272/2
		'0x0f'	(X,Y,a,b)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 a :480/2 b :272/2
		'0x10'	(X,Y,a,b)	Graphic _____ X Y X:0x0000 ~ 0x01e0, Y:0x0000 ~ 0x0110 a :480/2 b :272/2
'Esc'	'A'	'0x01'		Reset (MCT4827K V2.02 Rebooting)
		'0x02'		LCD Back light -> delay 3sec
		'0x03'		Echo '0x06' Send
		'0x04'		User font display 16Byte Send Image data가 16Byte dummy data 16Byte .
		'0x05'	(l)	16/24Bit Color mode l:R.G.B [Bytes]. R.G.B =>R:0x00~0xff; G:0x00~0xff; B:0x00~0xff; 1Byte : 8Bit -> 0~255
		'0x06'	(l)	Text background color , l:0x00~0xff 16/24Bit Color mode l:R.G.B [Bytes]. 1Byte : 8Bit -> 0~255
		'0x07'		Reserved
		'0x08'	(l)	Text overlay on
		'0x09'	(l)	Text overlay off
		'0x0a'	(l)	Image overlay on
		'0x0b'	(l)	Image overlay off
		'0x0c'	(l)	Image overlay background color setting
'Esc'	'I'	'0x01'	(l)	Image One page draw (l 24bit-0x00~0x26 16bit-0x00~0x36 8bit-0x00~0x6f)
		'0x02'		Reserved
		'0x03'		Reserved
		'0x04'	(X,Y)	Reserved
		'0x05'	(I,J)	Reserved
		'0x06'	(l,X1,Y1,X2,Y2)	l: Page Number, X1,Y1(start point), X2,Y2(end point) 2byte .
		'0x07'	(l,X1,Y1,X2,Y2)	l: Page Number, X1,Y1 - image start point X2,Y2 - image size
'Esc'	'T'	'0x01'		Reserved
		'0x02'		Reserved
		'0x03'		Touch enable
		'0x04'		Touch disable
		'0x05'		Touch Down
		'0x06'		Touch Up
		'0x07'		Reserved

		Parameter	
	'0x08'		Reserved
	'0x09'		Reserved
	'0x0a'		Touch Zero Calibration

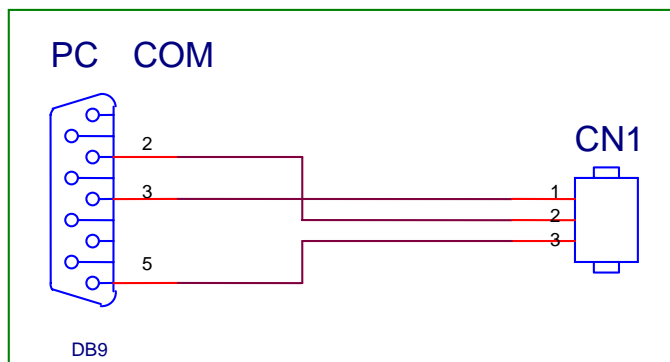
4. MCT4827K V2.02 Image Overwrite

Image Overwrite Application Program



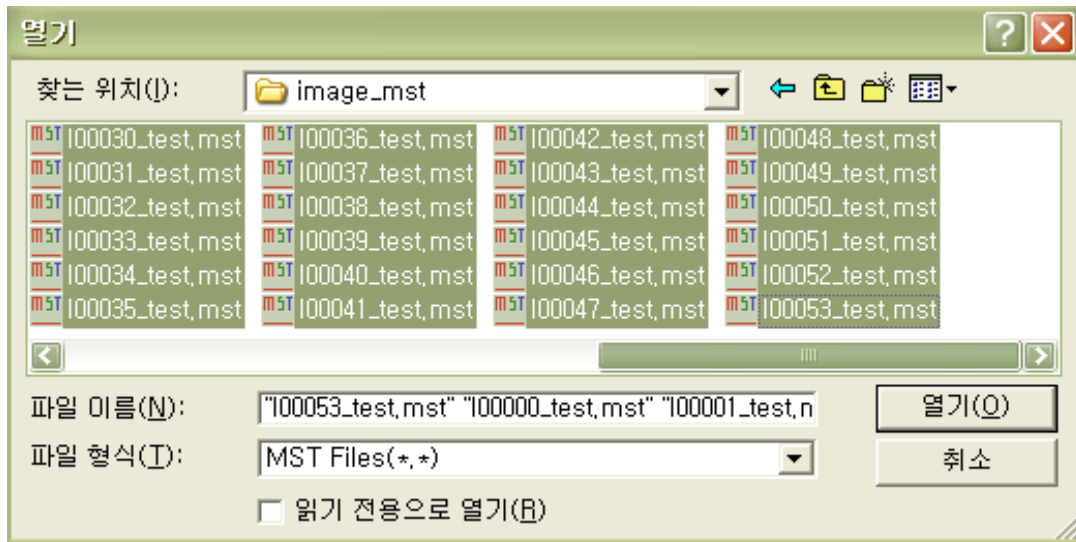
MCT4827K V2.02가 Image display , Overwrite Application Program
 Image page Overwrite .

, MCT4827K V2.02 PC Serial Cable

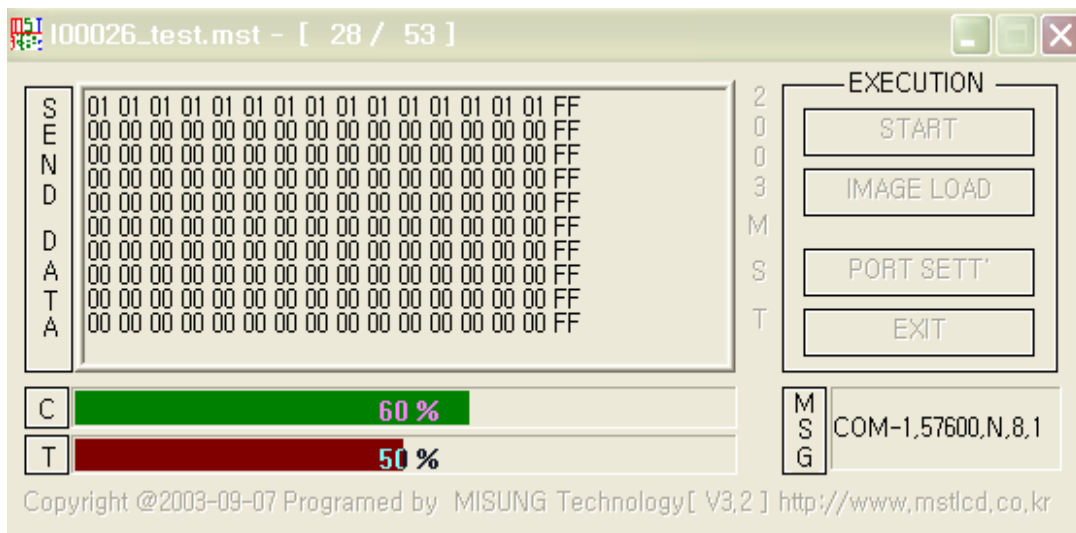


'IMAGE LOAD'

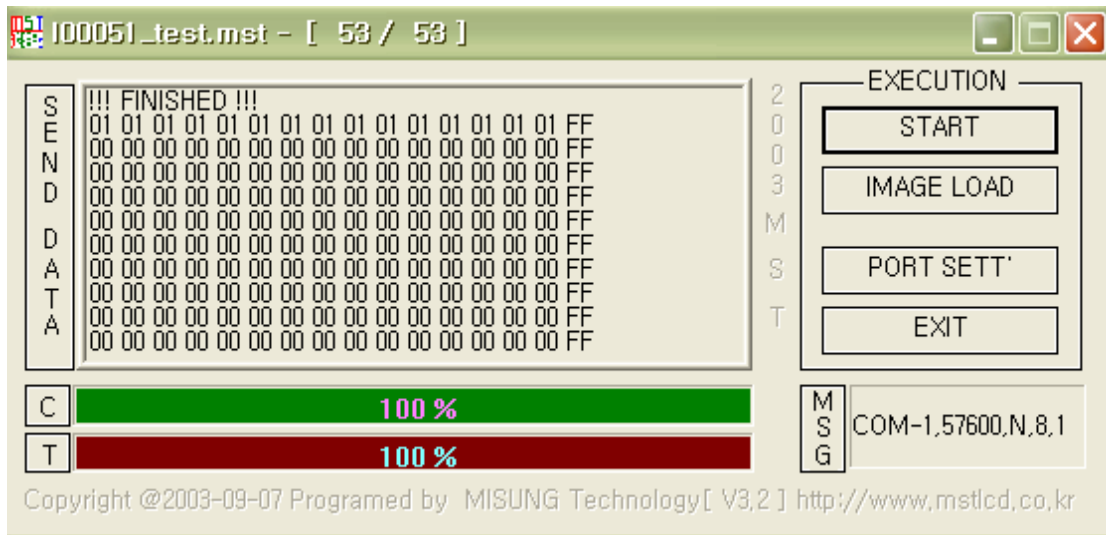
image , .



, 'START' MCT4827K V2.02 Overwrite

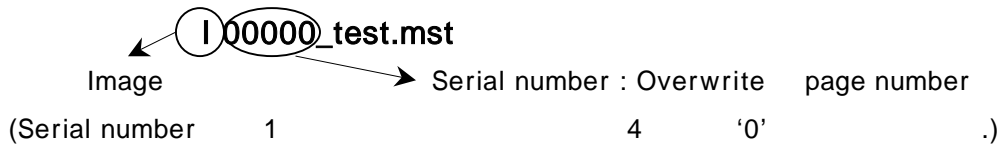


Bar Bar Download
 , Bar
 Bar 가 '100%' Image Overwrite



'IMAGE LOAD'

Image



Ex) 1 page Overwrite file I00001_test.mst

[1.] MCT4827K V2.02

Special Font

< 1- 1 > MCT4827K V2.02

(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.		FM.	Tel.
0x10	I	II	III	IV	V	VI	VII	VIII	IX	X	ℓℓ	mℓ	dℓ	ℓ	kℓ	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	ℓg
0x30	m ^g	k ^g	kt	cal	kcal	dB	m/s	m/s ²	ps	ns	μs	ms	pV	nV	μV	mV
0x40	kV	MV	PA	nA	μA	mA	KA	FW	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	Im	lx	Bq	Gy	Sv	°/kg	㉿	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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