

VACUUM FLUORESCENT DISPLAY MODULE

ENGINEERING PROPOSAL

TF204LD57R1-M

EVALUATION

- ACCEPTED WITHOUT ANY CHANGE
- THE FOLLOWING CHANGE IS REQUIRED

December 22 2017

## Important Safety Notice

Please read this note carefully before using the product.

### Warning

- The module should be disconnected from the power supply before handling.
- The power supply should be switched off before connecting or disconnecting the power or interface cables.
- The module contains electronic components that generate high voltages (approx. 51V) which may cause an electrical shock when touched.
- Do not touch the electronic components of the module with any metal objects.
- The VFD used on the module is made of glass and should be handled with care. When handling the VFD, it is recommended that cotton gloves be used.
- The module is equipped with a circuit protection fuse.
- Under no circumstances should the module be modified or repaired. Any unauthorized modifications or repairs will invalidate the product warranty.
- The module should be abolished as the factory waste.

## 変更履歴

改訂記号 改訂日	変更内容		変更理由	送付先 (○で囲んで下さい)
	旧	新		
2017/9/27 Rev.-	新規作成			1. 顧客名 KingHigh Technology
2017/11/06 Rev.A	<p>Page 1</p> <p>2-3. ENVIRONMENT CONDITIONS Operation Temperature Min -10°C ~ Max +65°C</p> <p>Page 5</p> <p>Note: 1. Caution:...</p> <p>Note: 2. Do not...</p> <p>Note: 3. This setting...</p> <p>Page 6</p> <p>5-3. Line Feed(LF)</p> <p>DC1 The cursor moves to the same column on the top line.</p> <p>DC2 All displayed character are scrolled up one line.</p> <p>Device Control 2(DC1) Code: 12 HEX---Scroll up mode</p> <p>Page 7</p> <p>5-11. User Definable Font(UDF)12 Any 57 dot patterns consisting of...</p> <p>Page 12</p> <p>M204MD01AA MECHANICAL DIMENSION FIGURE -1 T.B.D</p> <p>Page 15</p> <p>N/A</p> <p>Page 16</p> <p>N/A</p> <p>Page 17</p> <p>N/A</p> <p>Page 18</p> <p>N/A</p>	<p>2-3. ENVIRONMENT CONDITIONS Operation Temperature Min -40°C ~ Max +85°C</p> <p>N/A</p> <p>5-3. Line Feed(LF)</p> <p>DC1 : The cursor moves to the same column on the top line.</p> <p>DC2 : All displayed character are scrolled up one line.</p> <p>Device Control 2(DC2) Code: 12 HEX---Scroll up mode</p> <p>5-11. User Definable Font(UDF) Any 5x7 dot patterns consisting of...</p> <p>M204MD01AA MECHANICAL DIMENSION ADD</p> <p>※All fonts in Font Table reference the current module KH204LD57R1-M</p> <p>KH204LD57R1-M International character font ADD</p> <p>※All fonts in Font Table reference the current module KH204LD57R1-M</p> <p>KH204LD57R1-M KATAKANA character font ADD</p>	<p>Customer request to modify.</p> <p>Data Delete</p> <p>Clerical corrections.</p> <p>Clerical corrections.</p> <p>Clerical corrections.</p> <p>Data ADD</p> <p>Customer request to modify.</p> <p>Data ADD</p> <p>Customer request to modify.</p> <p>Data ADD</p>	<p>2. 営業 FTS 袁</p> <p>3. 他</p>
2017/12/22 Rev.B	<p>Page 10</p> <p>6-1. Connector connection CN1 : 20pin Connector</p> <p>CN2 : 3pin Connector</p> <p>Page 12</p> <p>M204MD01AA MECHANICAL DIMENSION</p> <p>Page 14</p> <p>M204MD01AA LABEL PATTERN N/A</p>	<p>6-1. Connector connection CN1 : 20pin Connector(IRISO IMSA-9032B-20B-GF or equivalent)</p> <p>CN2 : 3pin Connector(AMP 171825-3 or equivalent)</p> <p>M204MD01AA MECHANICAL DIMENSION Connector modify.</p> <p>M204MD01AA LABEL PATTERN ADD</p>	<p>Data Modify</p> <p>Data Modify</p> <p>Data ADD</p>	
			送付方法 1.社内便 2.郵便 3.佐川急便 4.FAX	
				1/1 頁

## 1. FEATURES

- 1-1. TF204MD01AA is KINGHIGH VFD module.
- 1-2. This vacuum fluorescent display (VFD) module consists of a 20 character by 4 line 5×7dot matrix display, DC-DC/AC converter, refresh memory, character generator, control circuit, and all necessary control logics.
- 1-3. Since a DC-DC/AC converter is included, only 5Vdc power source is required to operate the module.
- 1-4. This module is controlled by CIG VFD serial transmission interface (synchronous clock).

## 2. GENERAL SPECIFICATIONS

### 2-1. DIMENSIONS, WEIGHT (Refer to FIGURE-1)

Table-1

Item	Specification	Unit
Outer Dimensions	(W) 222±1	mm
	(H) 78±1	
	(T) 35 MAX.	
Weight	Approx. 350	g

### 2-2. SPECIFICATIONS OF THE DISPLAY PANEL

Table-2

Item	Specification	Unit
Display Area	164.1(W)×42.4(H)	mm
Number of Dots	20 digits (5×7dots)×4 rows	dot
Character Pitch (W×H)	8.3×11.1	mm
Character Size (W×H)	6.4×9.1	mm
Dot Pitch (W×H)	1.35 (W) × 1.35 (H)	Mm
Dot Size (W×H)	1.0 (W) × 1.0 (H)	mm
Color Illumination	Green ( $\lambda_p=505\text{nm}$ )	—
Luminance	1000 Typ.	cd/m <sup>2</sup>

### 2-3. ENVIRONMENT CONDITIONS

Table-3

Item	Symbol	Min.	Max.	Unit
Operation Temperature	$T_{opr}$	-40	+85	°C
Storage Temperature	$T_{stg}$	-40	+85	°C
Operating Humidity	$H_{opr}$	20	80	%
Storage Humidity	$H_{stg}$	20	90	%
Vibration (10 ~ 55Hz)	—		4	G
Shock	—		40	G

Note) Avoid operations and or storage in moist environmental conditions.

## 2-4. ABSOLUTE MAXIMUM RATINGS

Table-4

Item	Symbol	Min.	Typ.	Max.	Unit
Power Supply Voltage	$V_{cc}$	-0.3	—	7.0	V
Logic Input Voltage	$V_I$	-0.3	—	+ $V_{cc}$	V

## 2-5. RECOMMEND OPERATING CONDITIONS

Table-5

Item	Symbol	Min.	Typ.	Max.	Unit	
Supply Voltage	$V_{cc}$	4.75	5.0	5.25	V	
Logic Input Voltage	"H"	$V_{IH}$	2	—	$V_{cc}$	V
	"L"	$V_{IL}$	0.0	—	0.8	V

## 2-6. ELECTRICAL CHARACTERISTICS

Table-6

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	
Supply Current (Note)	$I_{cc}$	$V_{cc}=5.0V_{dc}$ All on	—	1,100	1,300	mA	
Power Consumption	—		—	5.5	6.5	W	
Luminance	$L$		500	1,000	—	cd/m <sup>2</sup>	
Logic Input Voltage	"H"	$V_{OH}$	$I_{OH}=-2.0mA$	2.4	—	—	V
	"L"	$V_{OL}$	$I_{OL}=2.0mA$	—	—	0.5	V

Note) The surge current can be approx. 2 times the specified supply current at power on.

### 3. AC ELECTRICAL SPECIFICATIONS

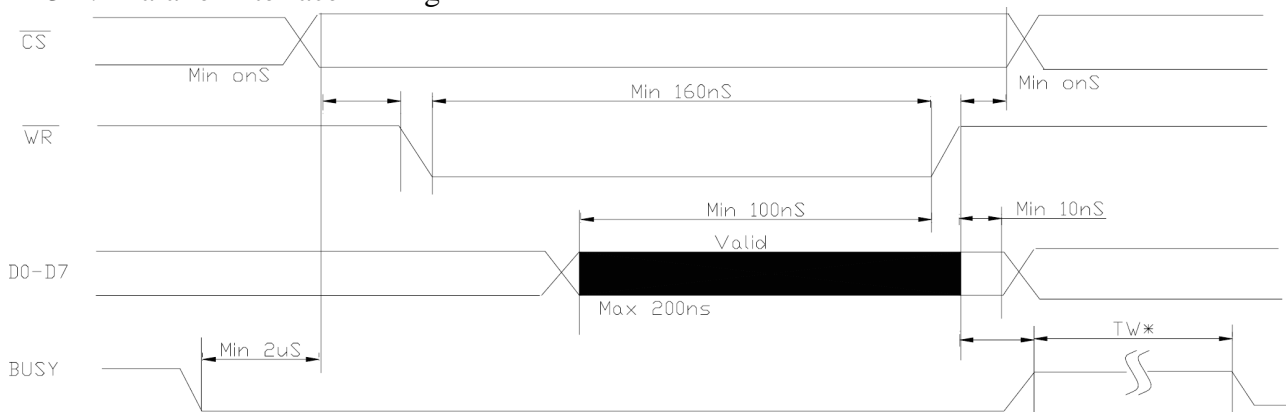
This module provides the function of 8 bit parallel and serial data write.  
 Each control data and character fonts are shown in character table 1 and character table 2.  
 All data write should be done during BUSY line is low.

Table-7

CS	WR	Function	Bus direction
0	↑	Data write	Module←Host
1	×	No operation	Module×Host

↑ : Rising edge of pulse    × : Don't care

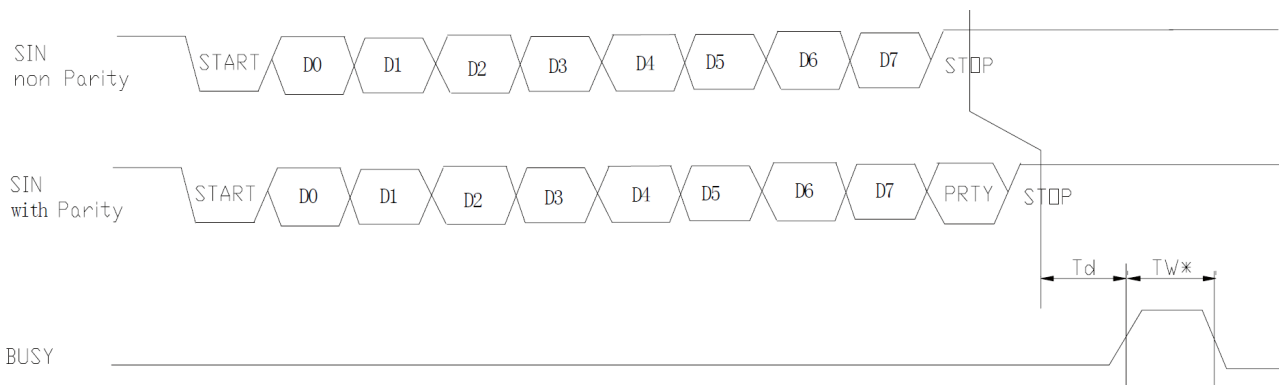
#### 3-1. Parallel interface Timing



TW\* : see 4. BUSY Time

#### 3-2. Serial Interface Timing

Serial data write, asynchronous-8bit TTL level is also acceptable.  
 Following baud rates can be selected by combination of the Jumper wires.  
 (see 7. Jumper Function Table) 300, 600, 1200, 2400, 4800, 9600, 19200 bps  
 Besides, parity bit-even, odd and non parity can be selected by 2 Jumper wires.  
 (see 7. Jumper Function Table)



TW\* see 4. BUSY Time

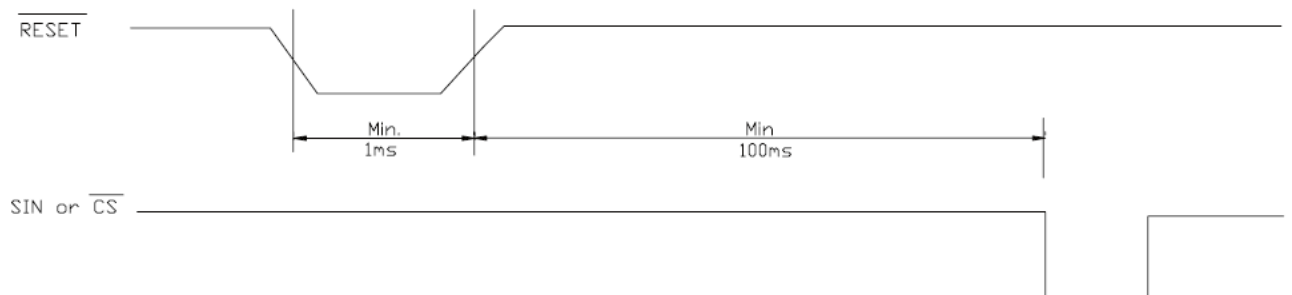
- START : start bit
- PRTY : Parity bit
- STOP : stop bit
- D0~D7(LSB~MSB)
- Td : 10uS (typ.) at Quick Write Mode  
 0uS (Min) ~ 400uS (Max) at Flicker less Mode

### 3-3. Reset Timing

Following chart shows the reset timing.

Reset pulse (active low) should be longer than 1mS.

It is required at 100mS to accept the data after reset pulse rises up.



### 4. BUSY Time

Input data execution time (TW\*) at Quick Write Mode are shown as follows.

Table-8

Data		Execution time (TW)		Data Writing Mode
		DC1 Mode	DC2 Mode	
Character Data, HT, LF		200us (Max)	700us (Max) at scrolling	Quick write mode
BS, FF, CR, CTO, CT1, DC1, DC2, DC4, DC5, DC6, DC7		200us (Max)		
CLR		700us (Max)		
ESC	1st byte	200us (Max)		
	2nd byte	"C"	200us (Max)	
		"I"	1200us (Max)	
		Except "C", "I"	200us (Max)	
3rd byte ~		200us (Max)		

Above execution time are only talking about Quick Write Mode as mentioned.

Within Flicker less Mode, Approximately 2 to 15 times of above table should be considered.

Operating with Flicker less Mode, therefore, always watching of BUSY line is recommended.

**5. BASIC FUNCTION**

## Command List

Table-9

Command Name	Hex Code			
	BYTE1	BYTE2	BYTE3	Parameter
Back Space	08h	—	—	—
Horizontal Tab	09h	—	—	—
Line Feed	0Ah	—	—	—
From Feed	0Ch	—	—	—
Carriage Return	0Dh	—	—	—
Clear	0Eh	—	—	—
Device Control 1	11h	—	—	—
Device Control 2	12h	—	—	—
Device Control 4	14h	—	—	—
Device Control 5	15h	—	—	—
Device Control 6	16h	—	—	—
Device Control 7	17h	—	—	—
Character Table 0	18h	—	—	—
Character Table 1	19h	—	—	—
Escape	1Bh	—	—	—
User Definable Font (UDF)		43h	00	PT1 ...PT5
Cursor Moving		48h	—	n
Initialize		49h	—	—
Selection of Writing Mode		53h	—	n
Blink Speed Control		54h	—	n

- 5-1. Back Space(BS)  
Code: 08h  
Function: The cursor moves one character to the left. At the left end, it moves to the upper right end. At the top left end, the cursor doesn't move
- 5-2. Horizontal Tab(HT)  
Code: 09h  
Function: The cursor moves one character to the right. At the right end, the cursor moves to the lower left end. At the bottom right end, the cursor motion depends upon DC1 and DC2 mode. DC1: The cursor moves to the top left end. DC2: All displayed characters are scrolled up one line. The cursor moves to the bottom left end and all written characters in the top line is disappeared. The bottom line is cleared.
- 5-3. Line Feed(LF)  
Code: 0Ah  
Function: The cursor moves to the same column on the lower line. At the bottom line, it is depended upon DC1 and DC2 mode.  
DC1 : The cursor moves to the same column on the top line.  
DC2 : All displayed character are scrolled up one line.  
The cursor keeps the same Column on the bottom line, and the bottom Line is cleared.
- 5-4. Form Feed(FF)  
Code: 0Ch  
Function: The cursor moves to the top left end.
- 5-5. Carriage Return(CR)  
Code: 0Dh  
Function: The cursor moves to the left end on the same line.
- 5-6. CLR Clear(0E)  
Code: 0Eh  
Function: All displayed characters are cleared. The cursor doesn't move.
- 5-7. Device Control 1(DC1) Code: 11 HEX---Character over write mode.  
Device Control 2(DC2) Code: 12 HEX---Scroll up mode  
Function: Alternative LINE ENDING MODE is specified by DC1 and DC2 when character data or HT or LF is written. Just after power on or initialize, DC1 is selected (Default Mode).
- 5-8. Device Control 4(DC4) Code: 14 Hex --- Cursor is turned to invisible.  
Device Control 5(DC5) Code: 15 Hex --- Cursor is displayed as a blinking all dot character.  
Device Control 6(DC6) Code: 16 Hex --- Cursor is turned to invisible.  
Device Control 7(DC7) Code: 17 Hex --- Cursor is turned to invisible.  
Function: Above four codes control the cursor rendition. DC4 is default mode.  
The mode is maintained until other mode is selected. The blinking speed can be varied by ESC sequence. (see 5.10 ESC)

5-9. Character Table 0(CT0) Code: 18 Hex --- international character font  
 Character Table 1(CT1) Code: 19 Hex --- KATAKANA character font  
 Function: Above two codes select Character Table. Just after power on CT0 is selected (Default Mode). Any characters from those 2 tables can be displayed on the screen by the bank selection.

5-10. Escape(ESC)

Code: 1Bh

Function: The character or data strings succeeding of ESC code control the various functions.

Such as user definable font, cursor addressing, screen luminance control, selection of Data writing mode, blink speed control and initialize

5-11. User Definable Font(UDF)

Code: ESC (1B Hex) + "C" (43 Hex)+ CHR + PT1 + PT2 + PT3 + PT4 + PT5

Function: Users desired fonts can be defined by software. The fonts will be memorized in RAM of the CPU. Display mode set to Over-write mode.

Any 5x7 dot patterns consisting of data from PT1 through PT5 can be stored in character code location specified by CHR.

Maximum number of UDF are 2 character codes where already defined by UDF, the over-write-latest font replaces the former font.

Definable area: CHR = 1 (01h) - 255 (FFh)

Specify the character code location from 01 Hex to FF Hex by CHR.

If CHR overlaps the control codes such as BS, HT, etc.. the control function will be lost.

And therefore, the overlap to the ESC code may not avail further UDF.

Definable area: PT1 through PT5 (4th to 8th byte)

Specify ON or OFF of 35 dot position (5x7 dot).

Following table shows the relation of dot position and the data formation

("1"= dot turn on, "0"= dot turn off)

Table-10

	7(MSB)	6	5	4	3	2	1	0(LSB)
4th byte	P8	P7	P6	P5	P4	P3	P2	P1
5th byte	P16	P15	P14	P13	P12	P11	P10	P9
6th byte	P24	P23	P22	P21	P20	P19	P18	P17
7th byte	P32	P31	P30	P29	P28	P27	P26	P25
8th byte	*	*	*	*	*	P35	P34	P33

\*don't care

Following is the dot assignment.

Table-11

P1	P2	P3	P4	P5
P6	P7	P8	P9	P10
P11	P12	P13	P14	P15
P16	P17	P18	P19	P20
P21	P22	P23	P24	P25
P26	P27	P28	P29	P30
P31	P32	P33	P34	P35

After execution of above sequence, a defined font will be stored in the character code location “CHR” (Hex).

Following is an example of UDF sequence.

Example“!” dot pattern should be stored in character code location A0 Hex.

Desired Dot Pattern					Turn on dot number
		●			P3
		●			P8
		●			P13
		●			P18
		●			P33

Table-13

	b7	b6	b5	b4	b3	b2	b1	b0	Data (Hex)
4th byte	1	0	0	0	0	1	0	0	84h
5th byte	0	0	0	1	0	0	0	0	10h
6th byte	0	0	0	0	0	0	1	0	02h
7th byte	0	0	0	0	0	0	0	0	00h
8th byte	0	0	0	0	0	0	0	1	01h

Then syntax should be written 1Bh + 43h + A0h + 84h + 10h + 02h + 00h + 01h

5-12. Cursor Moving

Code: ESC (1B Hex) + “H” (48 Hex) + 1 Byte data

Function: The cursor can be moved to any position of screen by following ESC sequence.

Syntax

Table-14

Line \ Colum	Left end	2nd	3rd	—	Right end
Top	00h	01h	02h	—	13h
2nd	14h	15h	16h	—	27h
3rd	28	29	2A	—	3B
Bottom	3C	3D	3E	—	4F

Data = 50 Hex to FF Hex The cursor doesn’t move.

5-13. Initialize

Code: ESC (1B Hex) + “I” (49 Hex)

Function: All displayed character and all setting factors are cleared by following ESC sequence. Execution of above sequence, module is reset as just after power on.

Just after power on, the screen luminance is set to 100%.

## 5-14. Selection of Writing Mode

Code: ESC (1B Hex) + "S" (53 Hex) ... Flicker less Mode

Function: Flicker less Mode can be selected by following ESC sequence.

Within Flicker less Mode, although BUSY might become longer, flicker less-high speed-continuous-data write can be achieved since refreshing of the screen has priority over the data acceptance.

Quick data write with minimum BUSY time will be given by Quick Write Mode since the data acceptance has the priority over the refreshing of the screen. Within this mode, continuous high speed data write may cause flicker display.

## Note

When serial data write with high speed baud rate at Flicker less Mode, it may have The read error of the data, Busy Check within Flicker less Mode or setting to the Quick Write Mode is recommended for serial data write.

Just after power on or initialize. Quick Write Mode is selected until other mode is set. After selected Flicker less Mode .Quick Write Mode can't be selected unless

## 5-15. Blink Speed Control

Code: 1Fh 42h

Function: Cursor moves to end position (left end of 2nd line).

## 5-16. Cursor display

Code: ESC (1B Hex) + "T" (54 Hex) + 1 Byte Data

Definable" Data" area:

Data = 00 Hex 256  
 FF Hex 255  
 FE Hex 254  
 ⋮  
 01 Hex 1

Period of Blinking = Data Value x 28 ms

At power on default, 20 (14 Hex) is set to data.

## 6. INTERFACE CONNECTION

### 6-1. Connector connection

CN1 : 20pin Connector(IRIS0 IMSA-9032B-20B-GF or equivalent)

Table -15

Pin No	Terminal	Pin No	Terminal
1	D7	2	D6
3	D5	4	D4
5	D3	6	D2
7	D1	8	D0
9	WR	10	CS
11	SIN/TO	12	BUSY
13	GND	14	GND
15	Vcc	16	Vcc
17	GND	18	GND
19	GND	20	RESET

CN2 : 3pin Connector(AMP 171825-3 or equivalent)

Table-16

Pin No	Description
1	Vcc
2	SIN/TO
3	GND

## 7. Jumper Function Table

It is possible to select the function of the Jumper JA, J4 ~ J0 as shown below

Table-17

JA	J4	J3	J2	J1	J0	Function	
X	X	X	1	1	1	Baud rate selection	19,200 bps
X	X	X	1	1	0		9,600 bps
X	X	X	1	01	1		4,800 bps
X	X	X	1	0	0		2,400 bps
X	X	X	0	1	1		1,200 bps
X	X	X	0	1	0		600 bps
X	X	X	0	0	1		300 bps
X	X	X	0	0	0		300 bps
X	1	1	X	X	X		Parity selection
X	1	0	X	X	X	Odd Parity	
X	0	X	X	X	X	Non Parity	
1	X	X	X	X	X	Character font selection	International Font (CT0)
0	X	X	X	X	X		JIS Font (CT1)
1	1	1	1	1	1	Setting at Factory	

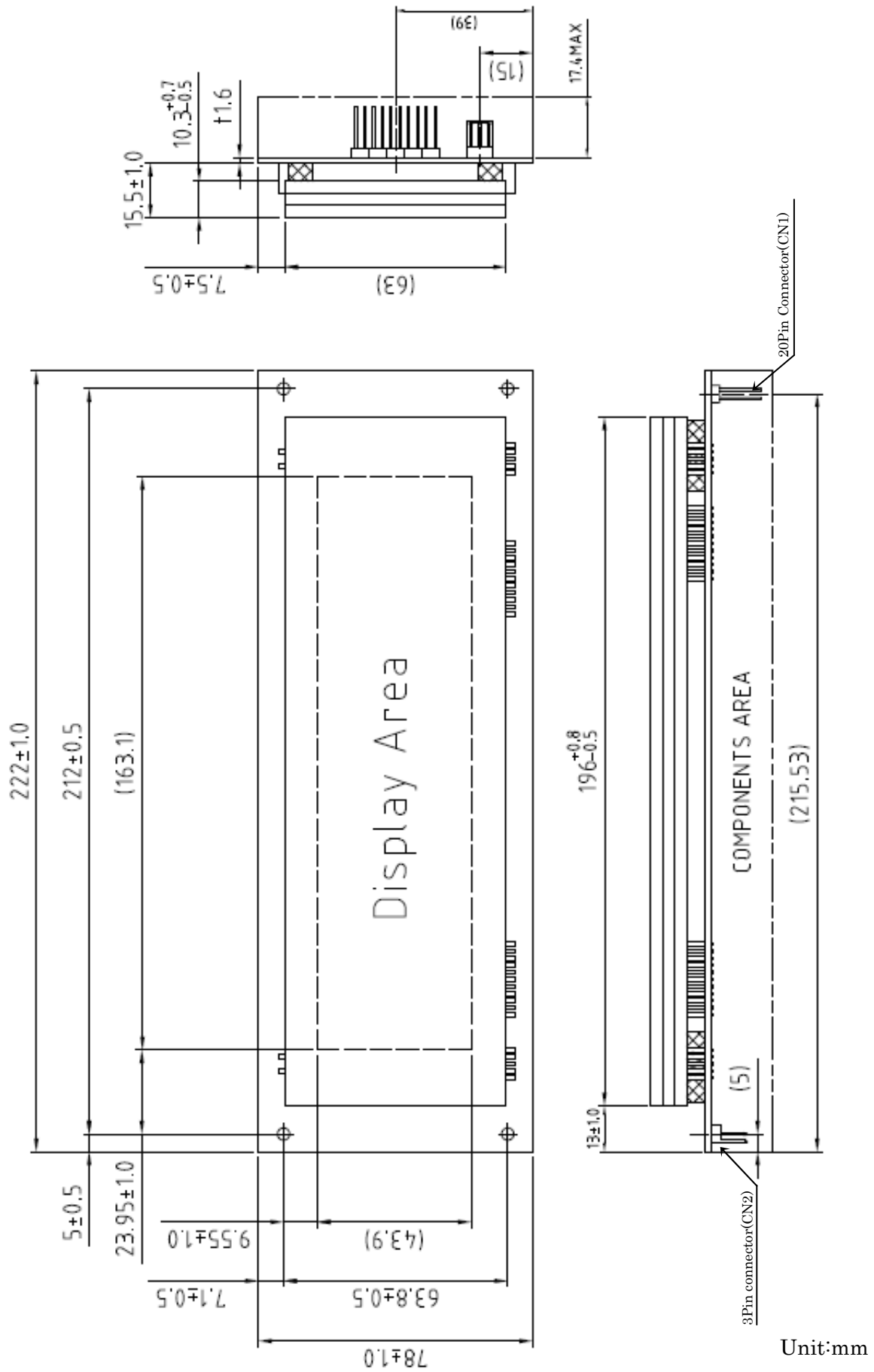
0 : Short 1 : Open X : Don't care

## 8. The test mode function

Test Mode is set by keeping SIN (TO) low for more than 100mS at power on or initialize. During Test Mode, all character fonts are displayed automatically, and no any data are acceptable.

TF204MD01AA MECHANICAL DIMENSION

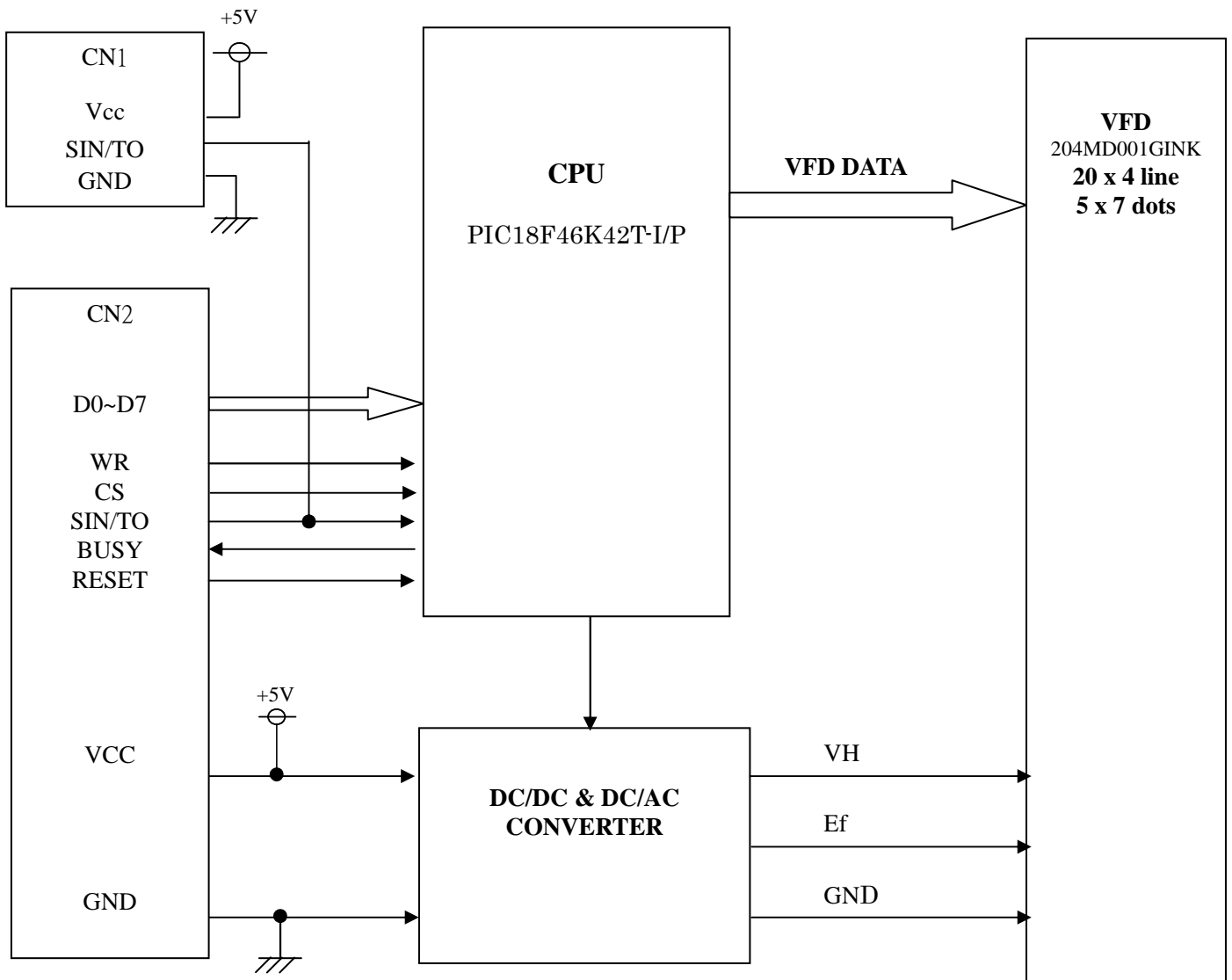
FIGURE -1



Unit:mm

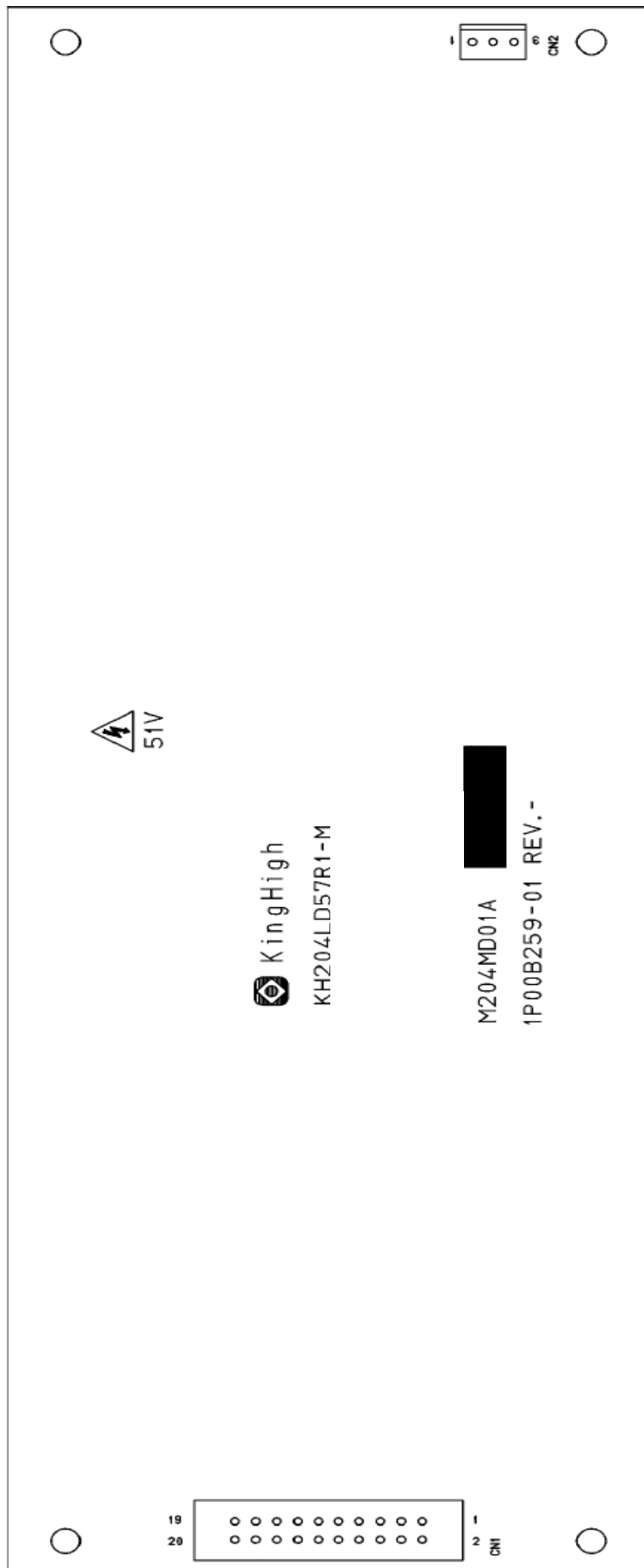
TF204MD01AACIRCUIT BLOCK DIAGRAM

FIGURE-2



TF204MD01AALABEL PATTERN

FIGURE-3



## 9. OPERATING RECOMMENDATIONS

- 9-1. Since VFDs are made of glass material.  
Avoid applying excessive shock or vibration beyond the specifications for the module.  
Careful handling is essential, especially the exhaust chip when mounting the module.
- 9-2. Applying lower voltage than the specified may cause non activation for selected pixels.  
Conversely, higher voltage may cause may non-selected pixel to be activated.
- 9-3. If the start up time of the supply voltage is slow, the controller may not be reset.  
The supply voltage must be risen up to specified voltage level within 30msec.
- 9-4. DC/DC converter is equipped on the module, the surge current may be approximately 10 times the specified supply current at the power on.
- 9-5. Avoid using the module where excessive noise interface is expected. Noise affects the interface signal and cause improper operation.
- 9-6. When fixed pattern is displayed for long time, you may see uneven luminance.  
It is recommended to change the display patterns sometimes is order to keep best display quality

## 10. The environmental specifications for this product

- 10-1. With respect to EU RoHS Directive  
The contained amount of six prohibited substances in this product , which are cadmium, hexavalent chromium, lead, mercury, polybrominated biphenyl:PBB and polybrominated diphenyl ether :PBDE, is less than the permitted level stipulated in the EU RoHS Directive, or these substances are not included in the Directive.  
The substances excluded are based on Article 4 of the EU RoHS Directive.
- 10-2. With respect to Chinese RoHS  
This product contains only “lead and its compound” from among six controlled substances, which are cadmium, hexavalent chromium, lead, mercury, polybrominated biphenyl:PBB and polybrominated diphenyl ether :PBDE.  
The contained amount of the controlled substances except lead and its compound in this product is less than the level stipulated in the Chinese RoHS.  
As for the display of information on containing EHS, please refer to the following.  
< Display of information on containing EHS >
  - \*Product and part the substances are contained : Vacuum Fluorescent Display(VFD)
  - \*Chemical materials contained : Lead and its compound
  - \*Time limit of use for environmental protection : 10 years
  - \*Reason for containing the substances: No materials are available except them under the current technology.

**Font Tables**  
International font set

character table 1

				DB7	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	
				DB6	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	
				DB5	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	
				DB4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
DB3	DB2	DB1	DB0		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
0	0	0	0	0			SP	0	a	P	'	P	E	Σ		"	À	á	â	ó	
0	0	0	1	1		DC1	!	1	Q	a	q	¢	Q	i	±	Á	Ñ	á	ñ		
0	0	1	0	2		DC2	"	2	R	b	r	¥	≡	¢	2	Ä	ó	ä	ó		
0	0	1	1	3			#	3	S	c	s	£	×	£	3	Ä	ó	ä	ó		
0	1	0	0	4		DC4	\$	4	T	d	t	£	÷	¤	'	Ä	ö	ä	ö		
0	1	0	1	5		DC5	¥	5	E	e	U	ø	0	¥	¥	Ä	ö	ä	ö		
0	1	1	0	6		DC6	&	6	F	f	v	¥	?	!	π	E	ö	ø	ö		
0	1	1	1	7		DC7	'	7	G	g	w	ó	E	S	.	ç	×	ç	÷		
1	0	0	0	8	BS	CT0	(	8	H	X	h	x	€	≤	'	.	E	ø	ä	ø	
1	0	0	1	9	HT	CT1	)	9	I	Y	i	y	η	≥	θ	!	E	ú	é	ú	
1	0	1	0	A	LF		*	!	J	Z	j	z	θ	#	æ	#	E	ú	é	ú	
1	0	1	1	B		ESC	+	;	K	[	k	(	λ	Γ	⊗	⊗	E	ü	ë	ü	
1	1	0	0	C	FF		,	<	L	\	l	l	π	θ	"	¼	ü	ü	ü		
1	1	0	1	D	CR		-	=	M	I	m	)	τ	J		½	ü	ü	ü		
1	1	1	0	E	CLR		.	>	N	^	n	~	φ	θ	θ	■	ü	ü	ü		
1	1	1	1	F			/	?	O	_	o	¥	ø	⊗	¯	¿	ü	ü	ü		

※All fonts in Font Table reference the current module KH204LD57R1-M.



KATAKANA character font

character table 2

				DB7	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	
				DB6	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	
				DB5	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	
				DB4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
DB3	DB2	DB1	DB0		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	0	0	0			SP	0	0	P	`	P	5	W		-	夕	三	日	
0	0	0	1	1		DC1	!	1	A	Q	a	q	Γ	3	。	ア	チ	△	月	■
0	0	1	0	2		DC2	"	2	B	R	b	r	Δ	θ	「	イ	ツ	×	火	■
0	0	1	1	3			#	3	C	S	c	s	※	Я	」	ウ	テ	モ	※	■
0	1	0	0	4		DC4	\$	4	D	T	d	t	3	θ	、	エ	ト	ナ	木	
0	1	0	1	5		DC5	%	5	E	U	e	u	W	θ	・	オ	ナ	工	金	■
0	1	1	0	6		DC6	&	6	F	V	f	v	W	θ	ヲ	カ	ニ	ヨ	土	■
0	1	1	1	7		DC7	'	7	G	W	g	w	W	θ	ヲ	キ	ヌ	ラ	年	■
1	0	0	0	8	BS	CT0	(	8	H	X	h	x	W	θ	イ	ク	ネ	リ	分	■
1	0	0	1	9	HI	CT1	)	9	I	Y	i	y	Y	ト	ウ	ケ	ル	月	テ	
1	0	1	0	A	LF		*	:	J	Z	j	z	φ	▲	エ	コ	ハ	レ	こ	↓
1	0	1	1	B		ESC	+	;	K	[	k	[	4	4	オ	サ	ヒ	ロ	ゝ	→
1	1	0	0	C	FF		,	<	L	\	l		4		カ	シ	フ	ワ	●	↑
1	1	0	1	D	CR		-	=	M	]	m	]	W		ユ	ズ	ハ	ン	○	←
1	1	1	0	E	CLR		.	>	N	^	n	~	W	≠	ヨ	セ	ホ	ゝ	※	※
1	1	1	1	F			/	?	0	_	o	¥	ト	ス	ッ	ソ	マ	°	◇	♪

※All fonts in Font Table reference the current module KH204LD57R1-M,

TF204LD57R1-M KATAKANA character font

