

User's Guide

D0103MT-20-0110N

VFD- **RoHS Compliant**

(Vacuum Fluorescent Display Module)

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February 12, 2008

Vacuum Fluorescent Display Specification

PART NUMBER: D0103MT-20-0110N

FEATURES: 3 Digits, 7-Segmented, with colon: Clock – High Brightness

APPLICATION: Character Display (*7-Segmented*)

RATINGS: Below

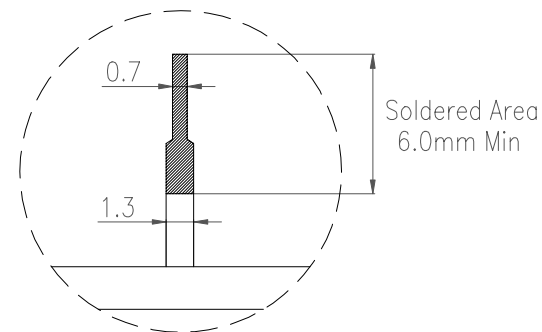
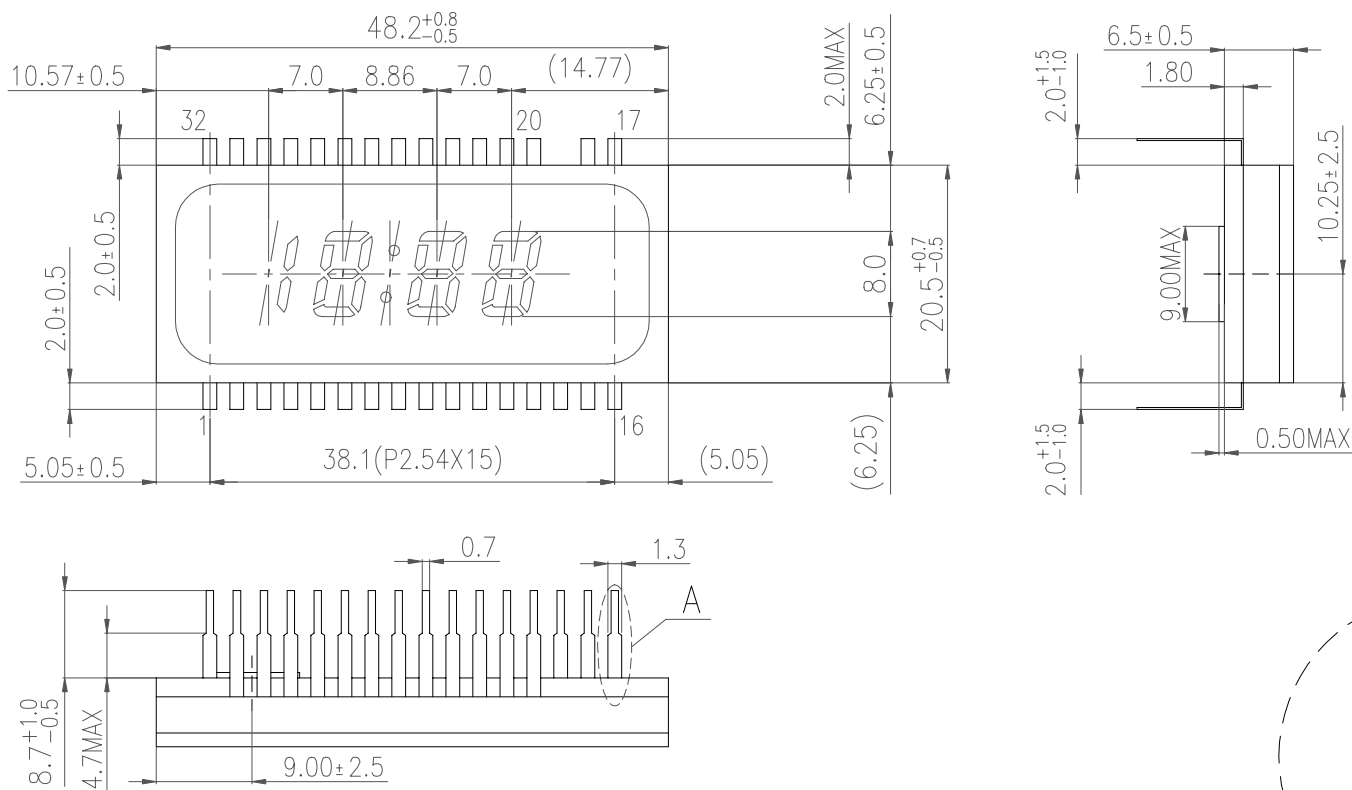
Outer Dimensions	Panel Length	P.L.	48.2	mm	
	Panel Height	P.H.	20.5	mm	
	Panel Thickness	P.T.	6.5	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	DIL		
Character Size	Character Height	C.H.	8.0	mm	
	Character Width	C.W.	4.4	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	1.3	1.4	1.65	Vdc
Peak Grid Voltage	ec	-	12.0	16.0	Vdc
Peak Anode Voltage	eb	-	12.0	16.0	Vdc
Cut-off Bias	Ek	-	-	-	Vdc
Duty	-	-	1	-	-
Life	-	40,000	-	-	Hrs
Operating Temperature	Topr	-40	-	+ 80	C
Storage Temperature	Tstg	-55	-	+ 85	C
Color of Illumination	Green				

**Electrical
Characteristics**

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	lf -	Ef = 1.4 V _{dc} eb = ec = 0	70.0 -	78.0 -	86.0 -	mA _{dc} -
Anode Current	ib/digit ib/SEG(4b+4c) ib/COLON - -	Ef = 1.4 V _{dc} eb = 12.0 V _{dc} ec = 12.0 V _{dc} Du = 1 All segments Lit	- - - - -	1.3 0.5 0.3 - -	2.6 1.0 0.6 - -	mA _{dc} - - - -
Grid Current	Ic / ALL - - -		- - - -	5.0 - - -	10.0 - - -	mA _{dc} - - -
Luminance	L(Green) -		1370 (400)	2060 (600)	-	cd/m ² fL
Luminance Ratio	Lmin/Lmax		-	-	2	%
-	Ecco		-	-	-	V _{dc}
Anode Cut-off Voltage	Ebco	Ef = 1.4 V _{dc} Ec = 12.0 V _{dc} Du = 1	(-2.0)	-	-	V _{dc}

Dynamic State: Drive Mode

附图1: 外形图 Outline Drawing (Unit:mm)



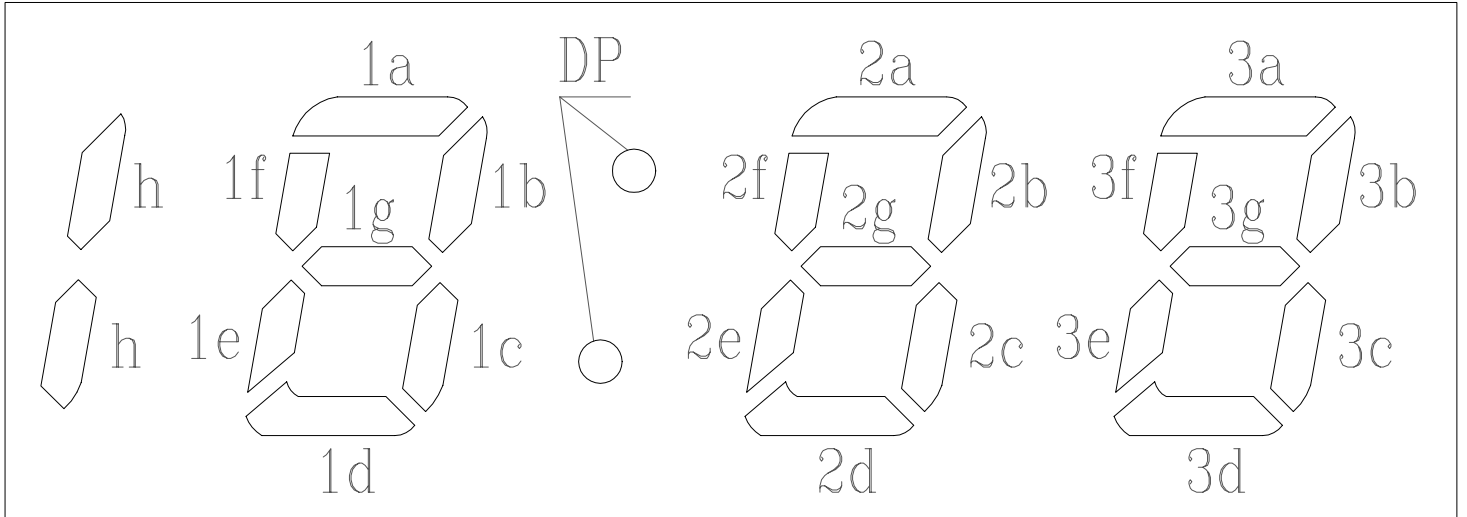
管脚连接 (PIN CONNECTION)

端子序号 (PIN NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
连接 (CONNECTION)	F(-)	G	h	1g	1e	1d	1c	2g	2e	2c	3g	3e	3d	3c	G	F(+)	NX
端子序号 (PIN NO.)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
连接 (CONNECTION)	NX	NP	3b	3a	3f	2b	2a 2d	2f	DP	G	1b	1a	1f	G	NX		

注: F(+), F(-): 灯丝 (Filament) G: 栅极 (Grid)
 NP: 无引出脚 (No pin) NX: 无外接脚 (No extend pin)

附图2：显示内容和栅网分割 Display Pattern And Grid Assignment

G



显示颜色 Colour of illumination:

绿色 Green (X=0.250 Y=0.440): 所有图形 All Patterns

