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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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User's Guide

D0103MT-20-0110N

VFD- **RoHS Compliant**

(Vacuum Fluorescent Display Module)

For product support, contact

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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

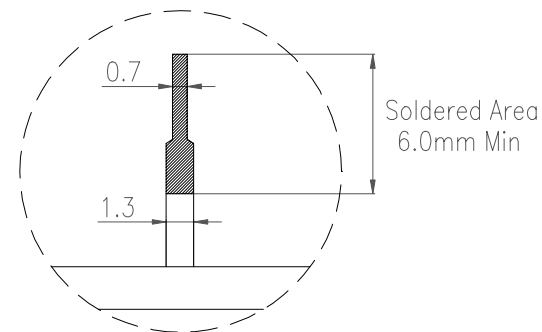
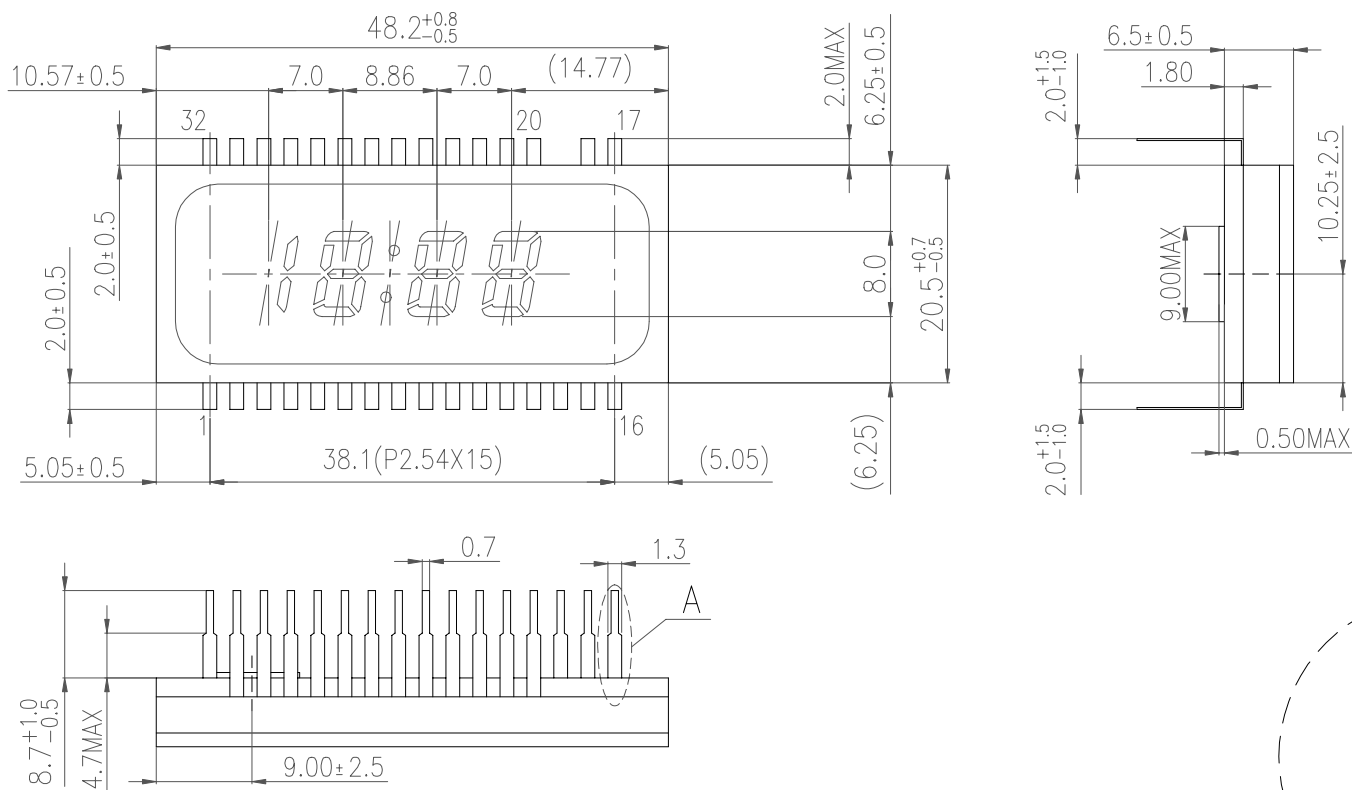
Outer Dimensions	Panel Length	P.L.	48.2	mm	
	Panel Height	P.H.	20.5	mm	
	Panel Thickness	P.T.	6.5	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	DIL		
Character Size	Character Height	C.H.	8.0	mm	
	Character Width	C.W.	4.4	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	1.3	1.4	1.65	Vdc
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 Vdc eb = ec = 0	70.0 -	78.0 -	86.0 -	mA _{dc} -
Anode Current	ib/digit ib/SEG(4b+4c) ib/COLON - -	Ef = 1.4 Vdc eb = 12.0 Vdc ec = 12.0 Vdc 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 Vdc Ec = 12.0 Vdc Du = 1	(-2.0)	-	-	V _{dc}

Dynamic State: Drive Mode

附图1: 外形图 Outline Drawing (Unit:mm)



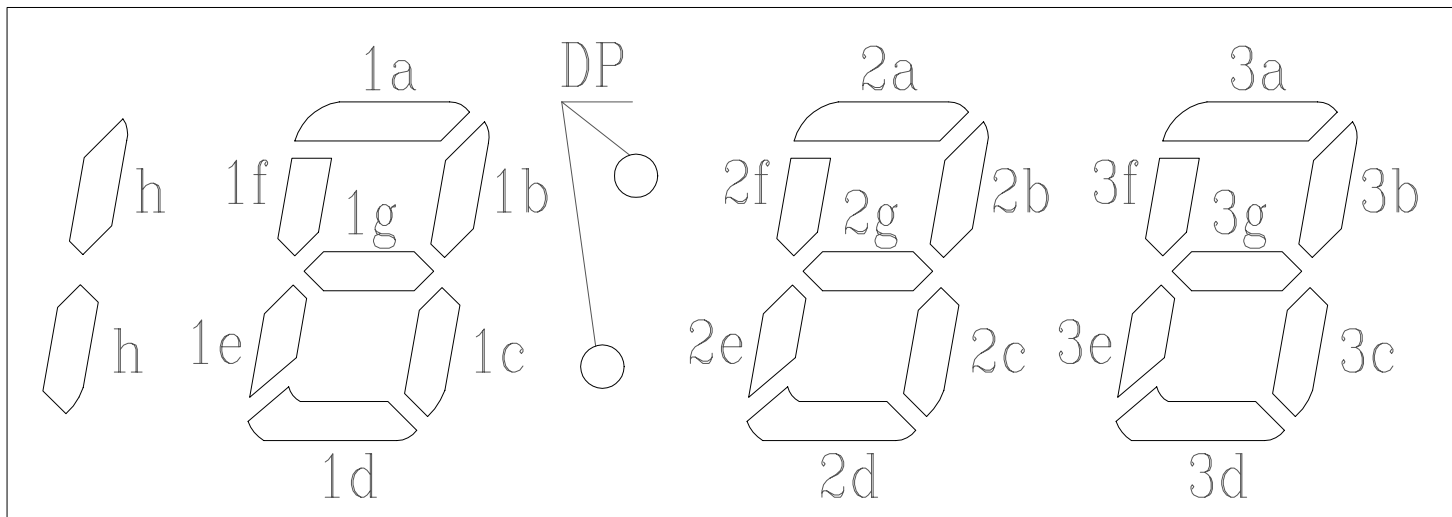
管脚连接 (PIN CONNECTION)

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

