

User's Guide

D0104MT-24-0503

VFD- RoHS Compliant

(Vacuum Fluorescent Display Module)

For product support, contact

Newhaven Display International
2511 Technology Drive, #101
Elgin, IL 60124

Tel: (847) 844-8795 Fax: (847) 844-8796

February 12, 2008

Vacuum Fluorescent Display Specification

PART NUMBER: D0104MT-24-0503

FEATURES: 4 Digits, 7-Segmented, Clock

APPLICATION: Character Display (7-Segmented)

RATINGS: Below

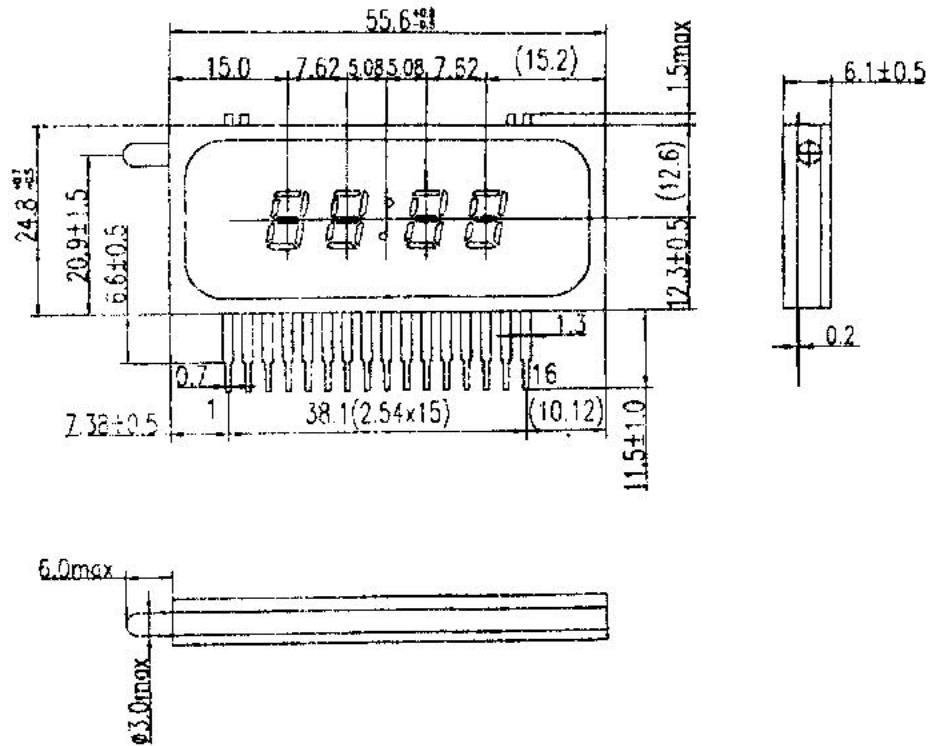
Outer Dimensions	Panel Length	P.L.	55.6	mm	
	Panel Height	P.H.	24.8	mm	
	Panel Thickness	P.T.	6.1	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	7.6	mm	
	Character Width	C.W.	5.4	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	1.53	1.7	1.87	Vdc
Peak Grid Voltage	ec	-	24.0	35.0	Vp-p
Peak Anode Voltage	eb	-	24.0	35.0	Vp-p
Cut-off Bias	Ek	-	-	-	Vdc
Duty Cycle	Du	-	1/ 7.5	-	-
Pulse Width	tp	-	80	-	uS
Operating Temperature	Topr	-20	-	+ 70	C
Storage Temperature	Tstg	-55	-	+ 80	C
Color of Illumination	Green				

D0104MT-24-0503

**Electrical
Characteristics**

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	if	Ef = 1.7 Vdc	70.0	78.0	86.0	mA
	-	eb = ec = 0	-	-	-	-
Anode Current	ib/1G,2G,4G, 5G	Ef = 1.7 Vdc	-	1.8	3.6	mA _{p-p}
	lb/3G	eb = 24.0 Vp-p	-	-	-	mA _{p-p}
	-	ec = 24.0 Vp-p	-	-	-	mA _{p-p}
	-	Du = 1/7.5	-	-	-	mA _{p-p}
	-	tp = 80 uS	-	-	-	mA _{p-p}
Grid Current	ic/1G,2G,4G, 5G	Ek = 2Vdc	-	1.8	3.6	mA _{p-p}
	lc/3G		-	1.5	3.0	mA _{p-p}
	-		-	-	-	mA _{p-p}
	-		-	-	-	mA _{p-p}
	-		-	-	-	mA _{p-p}
Luminance	L(G)		686	1440	-	cd/m ²
	-		(200)	(420)		fL
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 1.7 Vdc Eb = 24.0 Vdc	(-2.0)	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 1.7 Vdc ec = 24.0 Vp-p Du = 1/7.5 tp = 80 uS	(-20)	-	-	Vdc

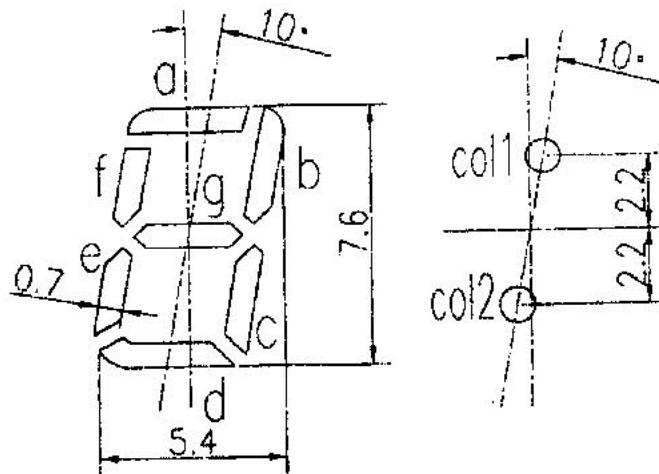
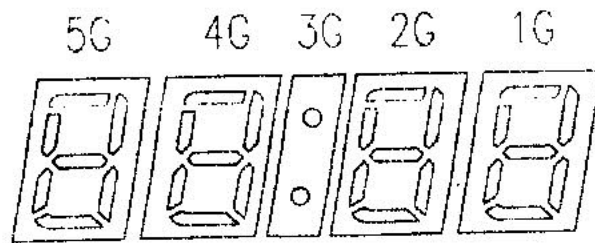
Outline Drawing (Unit:mm)



Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connect	F(-)	g	f	G5	e	d	G4	c	G3	b	G2	a	col2	G1	col1	F(+)

D0104MT-24-0503

Display Pattern And Grid Assignment



(color of illumination)

(Green):(x=0.250,y=0.440)