

User's Guide

C-29-1002FN

VFD

(Vacuum Fluorescent Character Display Module)

For product support, contact

New haven Display International
2511 Technology Drive #101
Elgin, IL 60124
Tel: (847) 844-8795 Fax: (847) 844-8796

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Vacuum Fluorescent Display Specification

PART NUMBER: C-29-1002FN

FEATURES: 8 Digits, Alphanumeric, with Icons – AUDIO

APPLICATION: Character Display (Alphanumeric)

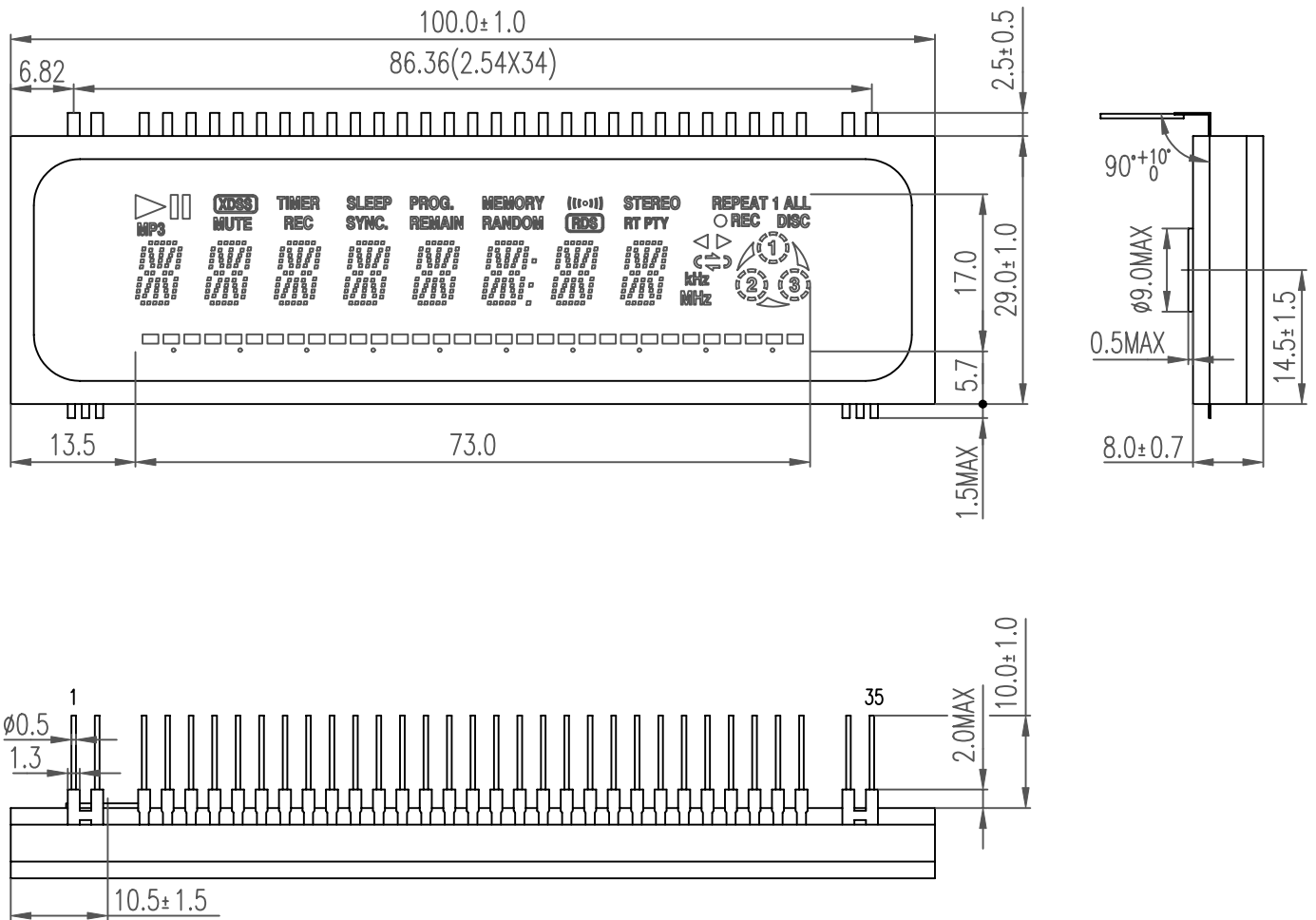
RATINGS: Below

Outer Dimensions	Panel Length	P.L.	100.0	mm	
	Panel Height	P.H.	29.0	mm	
	Panel Thickness	P.T.	8.0	mm	
Leads	Lead Pitch	L.P.	2.54	Mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	10.5	mm	
	Character Width	C.W.	5.0	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	3.4	3.8	4.2	Vac
Peak Grid Voltage	Ec	-	28.0	32.0	Vp-p
Peak Anode Voltage	Eb	-	28.0	32.0	Vp-p
Cut-off Bias	Ek	-	-	-	-
Duty Cycle	Du	-	1/11	-	-
Pulse Width	Tp	-	100	-	uS
Operating Temperature	Topr	-40	-	+ 80	C
Storage Temperature	Tstg	-55	-	+ 85	C
Color of Illumination	Green / Red				

Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	lf -	Ef = 3.8 Vac eb = ec = 0	148.5 -	165.0 -	181.5 -	mAac -
Anode Current	ib/1~8G	Ef = 3.8 Vac eb = 28.0 Vp-p ec = 28.0 Vp-p Du = 1/11 tp = 100 uS	-	9.0	16.0	mAp-p
	ib/9G		-	11.0	22.0	mAp-p
	ib/10G		-	15.0	30.0	mAp-p
	-		-	-	-	mAp-p
	-		-	-	-	mAp-p
Grid Current	ic/1~8G		-	8.5	17.0	mAp-p
	ic/9G		-	10.0	20.0	mAp-p
	ic/10G		-	12.0	24.0	mAp-p
	-		-	-	-	mAp-p
	-		-	-	-	mAp-p
Luminance	L(G)		350 (102)	700 (204)	-	cd/m ² (fL)
	L(R)		35 (10.2)	70 (20.4)		cd/m ² (fL)
						cd/m ² (fL)
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 3.8 Vac Eb = 28.0 Vdc	-5.0	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 3.8 Vac ec = 28.0 Vp-p Du = 1/11 tp = 100 uS	-5.0	-	-	Vdc

附图 1: 外形图 Outline Drawing (Unit:mm)

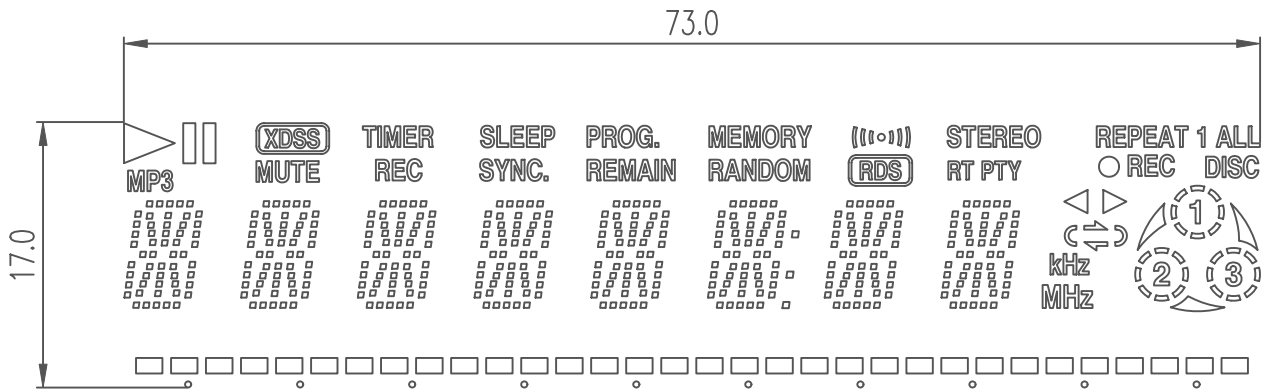


管脚连接 (PIN CONNECTION)

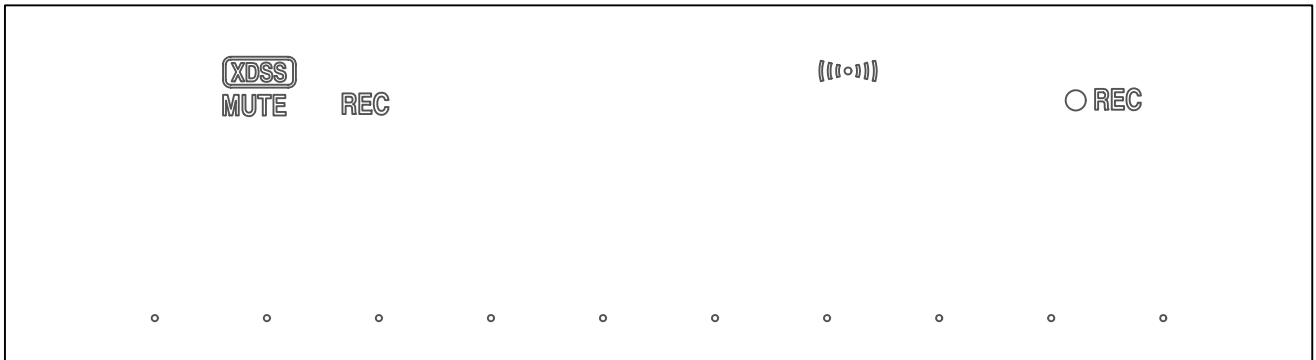
端子序号 (PIN NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
连接 (CONNECTION)	F	F	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	NC	P1	P2	P3	P4
端子序号 (PIN NO.)	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
连接 (CONNECTION)	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	NP	F	F	

注 :F: 灯丝 (Filament) P: 阳极 (Anode) G: 栅极 (Grid) NC: 无连接 (No connection) NP: 无引出脚 (No pin)

附图 2: 显示内容 Display Pattern

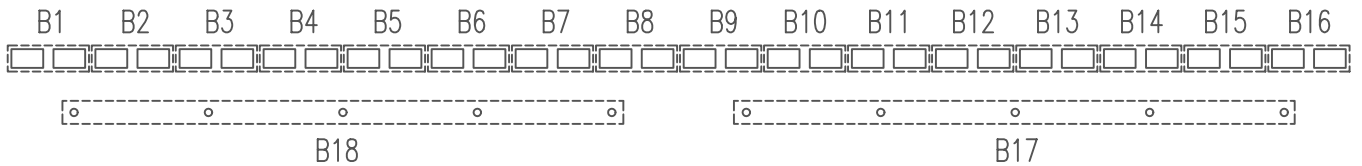
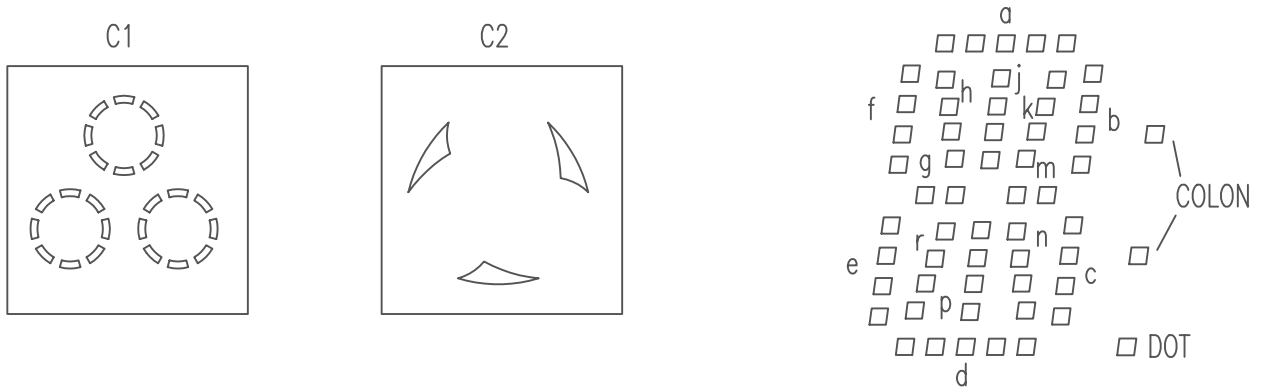
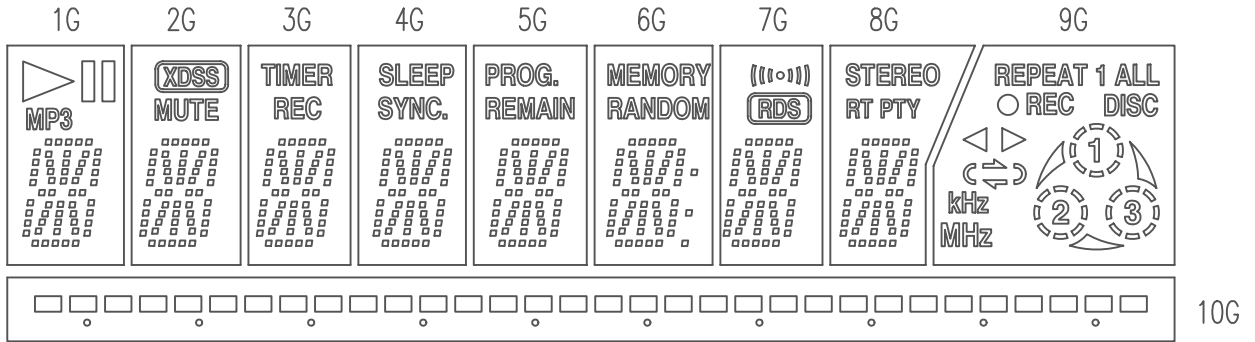


红色 Red (X=0.627,Y=0.371)



绿色 Green : 其他 Other (X=0.250, Y=0.440)

附图 3: 栅网分割 Grid Assignment



附图 4: 阳极连接 Anode Connection

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P1			TIMER	SLEEP	PROG.	MEMORY		STEREO	REPEAT	B18
P2		MUTE	REC	SYNC.	REMAIN	RANDOM		RT	1	B17
P3	MP3					COLON		PTY	ALL	B16
P4						DOT			DISC	B15
P5	d	d	d	d	d	d	d	d		B14
P6	p	p	p	p	p	p	p	p		B13
P7	n	n	n	n	n	n	n	n		B12
P8	r	r	r	r	r	r	r	r		B11
P9	e	e	e	e	e	e	e	e		B10
P10	c	c	c	c	c	c	c	c		B9
P11	m	m	m	m	m	m	m	m		B8
P12	g	g	g	g	g	g	g	g	C1	B7
P13	f	f	f	f	f	f	f	f	C2	B6
P14	b	b	b	b	b	b	b	b	1	B5
P15	k	k	k	k	k	k	k	k	2	B4
P16	h	h	h	h	h	h	h	h	3	B3
P17	j	j	j	j	j	j	j	j	kHz	B2
P18	a	a	a	a	a	a	a	a	MHz	B1