

APPLICATION		REVISIONS			
NEXT ASSY	FINAL ASSY	LTR	DESCRIPTION	DATE	APPROVED
		-	PRODUCTION RELEASE/E.O. 32901	7/21/97	D. Goodale
		A	E.O. 34070		

LIQUID CRYSTAL DISPLAY  
2 X 6 CHINESE GB CHARACTER  
SLB324-04XH

REV	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A									
SHEET	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
REV	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

**REVISION STATUS**

PROJ. NO. 368	CONTRACT			INDUSTRIAL ELECTRONIC ENGINEERS, INC. VAN NUYS, CALIFORNIA			
	DRAWN	R. January		LIQUID CRYSTAL DISPLAY 2 X 6 CHINESE GB CHARACTER			
CHECK	D. Summers	8-18-97					
<small>NOTICE IS HEREBY GIVEN THAT THIS DRAWING IS PART OF A PROPRIETARY ITEM OWNED BY INDUSTRIAL ELECTRONIC ENGINEERS, INC. AND SHALL NOT BE REPRODUCED, OR COPIED OR USED AS THE BASIS FOR MANUFACTURE OR SALE OF APPARATUS WITHOUT WRITTEN PERMISSION OF I.E.E. INC.</small>	APPROVED		SIZE	CODE IDENT NO.	SLB324-04XH		
	D. Goodale 7- 21- 97		A	05464			
	APPROVED		SCALE			SHEET 1 OF 40	

TABLE OF CONTENTS

PARAGRAPH NUMBER & TITLE

1.0	GENERAL DESCRIPTION
1.1	Introduction
1.2	Application
1.3	Special Features
1.4	Description
2.0	BLOCK DIAGRAM
3.0	THEORY OF OPERATION
4.0	OPERATION
4.1	Loading ASCII Character Data
4.2	Control Codes
4.3	Character Chart
4.4	User Defined Characters
4.5	Dedicated Hardware Lines
4.6	Serial Data and Self-test
4.7	Connector Pin Assignments
5.0	ELECTRICAL CHARACTERISTICS
5.1	Power ON / OFF Sequence
5.2	Interface Signals
5.3	Absolute Maximum Ratings
5.4	Normal Operating Ratings
6.0	OPTICAL CHARACTERISTICS
7.0	ENVIRONMENTAL CHARACTERISTICS
8.0	ACCESSORIES
9.0	OUTLINE & INSTALLATION DRAWING

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>	
	SCALE	N/A	REV <b>A</b>	SHEET 2

1.0 GENERAL DESCRIPTION

1.1 Introduction

This specification describes the interface requirements and features of a 2 line Liquid Crystal Display (LCD) , 6 characters wide. The characters are formed using a 16x16 dot matrix.

1.2 Application

This unit may be used as a console display which provides alphanumeric information that is easily readable in high ambient light. It is ideal for point-of-sale terminals, office computers, and a wide range of business and industrial equipment.

1.3 Special Features

Minimum depth	3 User defined character (16x16 dot)
Power and data on same connector	2 US-ASCII Character font (8x16 dot & 5x8 dot)
11-29 Volt Operation	Chinese GB Character (16x16 dot)
Low cost	EIA-232C data interface
Shielded I/O Connector standard	EIA-422A data interface
Wide operating temperatures (-20 to +70°)	Software self test
78 bytes receive buffer	

1.4 Description

This LCD is a self-contained multiplexed unit which provides a simple interface to a microprocessor system.

The display is available with one I/O connector and a choice of either EIA-232C or EIA-422A interfacing.

This unit consists of a liquid crystal display cell and a minimal amount of electronic hardware. All display characters and control codes can be accessed in a 8-bit format. Primary complexity is contained within the microprocessor software, which controls all display functions.

A single 11-29 volt power supply is required for operation. At +12VDC, total power is approximately .72 watts and current is about 60mA.

Data is entered serially at 9600 Baud at rates determined by execution times.

The large characters are easily readable, even in direct sunlight and provide comfortable short or long-term viewing.

Figure 3 depicts Chinese GB character set (16x16 dot) and Figure 4 depicts US-ASCII character (8x16 dot) and Figure 5 depicts US-ASCII character (5x8 dot) used in this module.

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>	
	SCALE	N/A	REV <b>A</b>	SHEET 3

2.0 BLOCK DIAGRAM

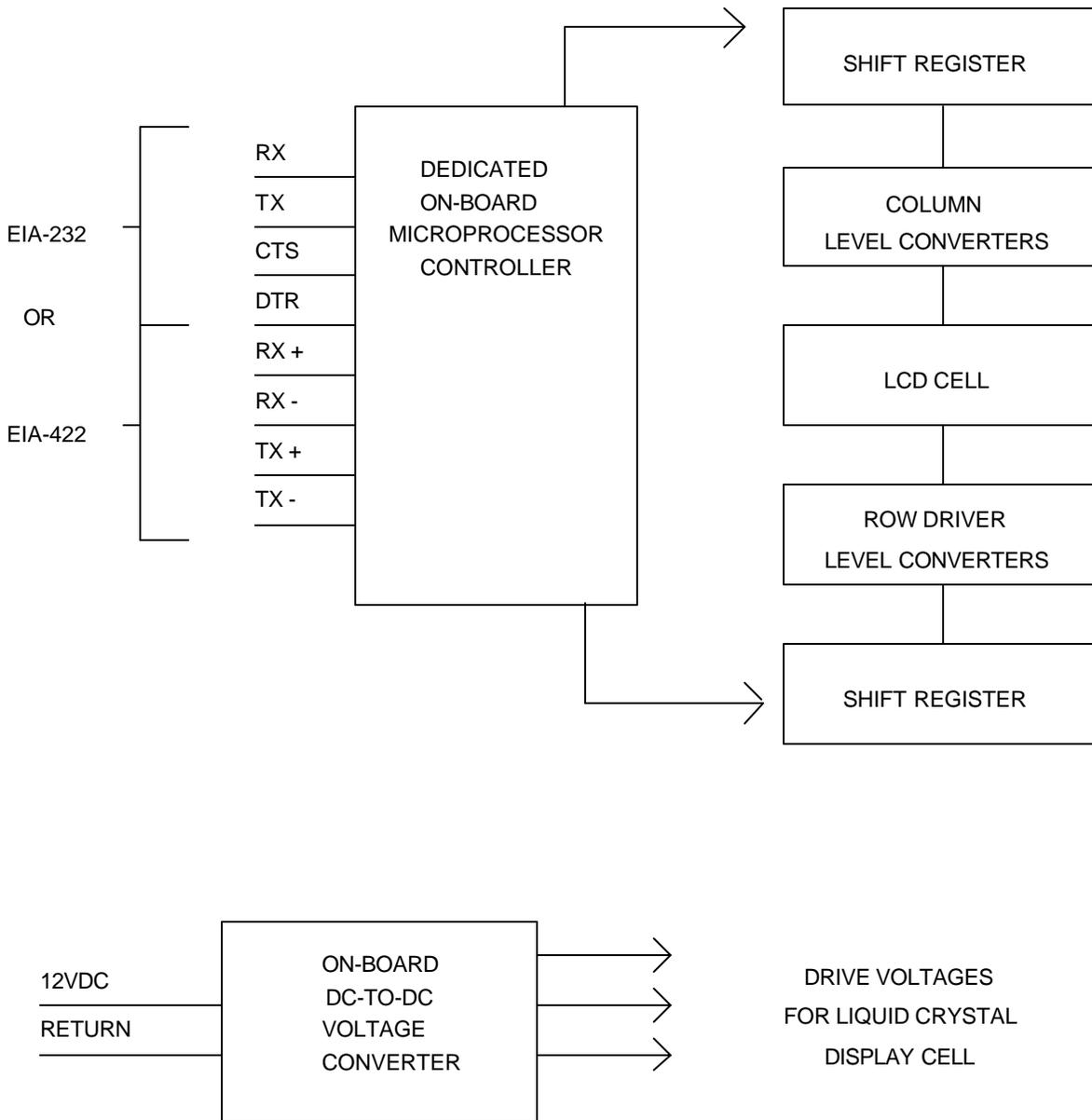


FIGURE 1

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>
	SCALE N/A	REV <b>A</b>	SHEET 4

### 3.0 THEORY OF OPERATION

Liquid Crystal Displays utilize ambient light falling on the display to reflect the image to the observer. The LCD cell is constructed by sandwiching a liquid crystal mixture between two glass plates that are coated with a polarizer, and lined with transparent electrodes. A selectively applied electric field aligns the nematic molecules (crystals) so that they either transmit or block the polarized light from being reflected back out of the cell to the viewer.

This display consists of two display areas, each comprising a matrix of 18 x 120 dots, to display two lines of characters. A matrix addressing technique provides individual control of the electric field applied to each dot used to create the character. A standard character is generated within a 16 x 16 dot matrix. A unselected dot passes the light which reflects back appearing as a yellow-green background. Selected dots block the light to create the lines of the dark blue characters. The 18 high dot columns allow for creation of special characters and fonts. Liquid crystal displays have several advantages over other display technologies. LCDs operate from low voltage and power, are viewable in direct sunlight, have long life, and are more economical to manufacture.

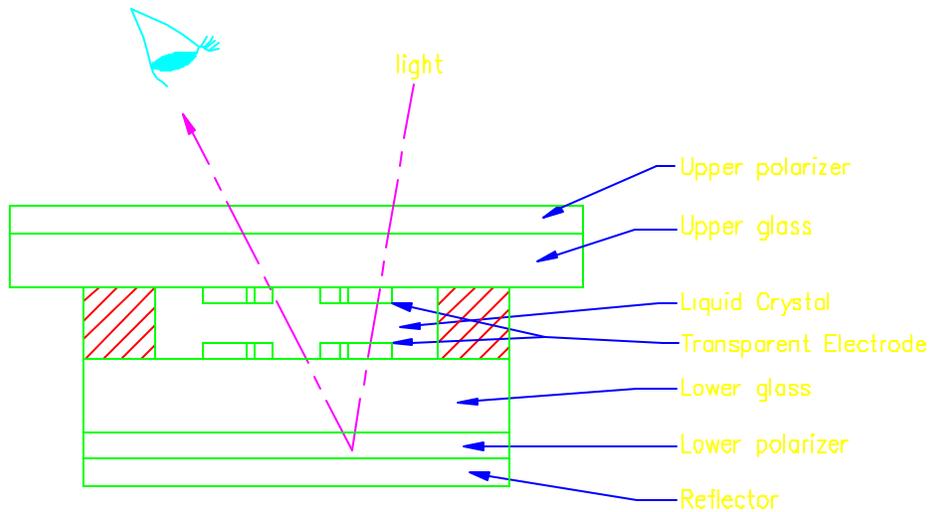


FIGURE 2

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b>	<b>N/A</b>	<b>REV A</b>
			<b>SHEET 5</b>

4.0 OPERATION

4.1 Loading ASCII Character Data

All printing characters are located in 2 byte code for Chinese or 1 byte code for US ASCII. Control character assignments are as follows.

4.2 Control Codes

NOTE: CARE SHOULD BE TAKEN NOT TO SEND UNDEFINED CONTROL OR COMMAND CODES TO THE DISPLAY MODULE AS THIS MAY CAUSE A SOFTWARE MALFUNCTION OF THE MODULE.

4.2.1 Instruction

DATA (HEX)	DESCRIPTION						
01-L-C	MOVE CURSOR TO LINE L COLUMN C  <table border="0" style="margin-left: 40px;"> <tr> <td style="text-align: center;"><u>FOR 16x16 DOT CHARACTERS</u></td> <td style="text-align: center;"><u>FOR 5x8 DOT CHARACTERS</u></td> </tr> <tr> <td style="text-align: center;">L = 01-02 (HEX)</td> <td style="text-align: center;">L = 01-04 (HEX)</td> </tr> <tr> <td style="text-align: center;">C = 01-06 (HEX)</td> <td style="text-align: center;">C = 01-14 (HEX)</td> </tr> </table>	<u>FOR 16x16 DOT CHARACTERS</u>	<u>FOR 5x8 DOT CHARACTERS</u>	L = 01-02 (HEX)	L = 01-04 (HEX)	C = 01-06 (HEX)	C = 01-14 (HEX)
<u>FOR 16x16 DOT CHARACTERS</u>	<u>FOR 5x8 DOT CHARACTERS</u>						
L = 01-02 (HEX)	L = 01-04 (HEX)						
C = 01-06 (HEX)	C = 01-14 (HEX)						
04-L-C-D	GRAPH MODE: DISPLAY 8 PIXEL DATA D ON LINE L COLUMN C  L = 01-24 (HEX) C = 01-0F (HEX) D=8 PIXEL DATA example: 04-01-01-A3: turn on 1st, 3rd, 7th and 8th pixel from upper left corner						
06	BEGIN BLINK FIELD AT CURRENT CURSOR LOCATION OR AT GRAPH MODE						
07	END BLINK FIELD AT CURRENT CURSOR LOCATION OR AT GRAPH MODE						
08	BACKSPACE CURSOR LOCATION ONE POSITION (for 5x8 US-ASCII: cursor stays when at HOME location)						
	<table border="0" style="margin-left: 40px;"> <tr> <td style="vertical-align: top;">Wrap Around Mode</td> <td style="vertical-align: top;">When the cursor is at the top-left location, it is moved to the bottom-right.</td> </tr> <tr> <td style="vertical-align: top;">Vertical Scroll Mode</td> <td style="vertical-align: top;">When the cursor is at the top-left location, the characters on the top line are scrolled to the bottom line and the top line is cleared. The cursor is moved to the top-right location.</td> </tr> <tr> <td style="vertical-align: top;">Horizontal Scroll Mode</td> <td style="vertical-align: top;">When the cursor is at the left end of either line, all characters on that line are scrolled one character to the right. Cursor does not move.</td> </tr> </table>	Wrap Around Mode	When the cursor is at the top-left location, it is moved to the bottom-right.	Vertical Scroll Mode	When the cursor is at the top-left location, the characters on the top line are scrolled to the bottom line and the top line is cleared. The cursor is moved to the top-right location.	Horizontal Scroll Mode	When the cursor is at the left end of either line, all characters on that line are scrolled one character to the right. Cursor does not move.
Wrap Around Mode	When the cursor is at the top-left location, it is moved to the bottom-right.						
Vertical Scroll Mode	When the cursor is at the top-left location, the characters on the top line are scrolled to the bottom line and the top line is cleared. The cursor is moved to the top-right location.						
Horizontal Scroll Mode	When the cursor is at the left end of either line, all characters on that line are scrolled one character to the right. Cursor does not move.						

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 6

4.2.1 Instruction (Cont'd)

DATA (HEX)	DESCRIPTION
09	ADVANCE CURSOR LOCATION ONE POSITION (for 5x8 US-ASCII: cursor wraps around after bottom right character location)
	Wrap Around Mode      When the cursor is at the bottom-right location, it is moved to the top-left.
	Vertical Scroll Mode      When the cursor is at the bottom-right location, the characters on the bottom line are scrolled to the top line and the bottom line is cleared. The cursor is moved to the bottom-left.
	Horizontal Scroll Mode      When the cursor is at the right end of either line, all characters on that line are scrolled one character to the left. Cursor does not move.
0A	* LINE FEED (cursor moves down one line in the same column)
	The following is true for each display mode when the cursor is on the lower line.
	Wrap Around Mode      The cursor is moved to the top line on same column.
	Vertical Scroll Mode      The characters on the bottom line are scrolled to the top line and the bottom line is cleared. Cursor does not move.
	Horizontal Scroll Mode      Cursor does not move.
0D	CARRIAGE RETURN (returns cursor to left-most character position of the same line; does not clear display)
0E	+ MAKE CURSOR INDICATOR INVISIBLE (the cursor location counter continues to function but there is no visible indicator of next character location)
0F	MAKE CURSOR INDICATOR VISIBLE, UNDER BAR (cursor is flashing block in 5x8 dot character)
<10>	VERTICAL SCROLL MODE (vertical scroll from bottom line after line has been filled)
<11>	+ HORIZONTAL SCROLL MODE (from right to left on either line, after line has been filled)
<12>	WRAP AROUND DATA ENTRY: (After bottom right character enters, cursor moves to home position)
14	RESET (goes to system default settings and clears all DOWN LOAD CHARACTERS)
15	+ DISPLAY CLEAR AND CURSOR HOME
16	+ CURSOR HOME (returns cursor to upper left-most position)

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>	
	SCALE	N/A	REV <b>A</b>	SHEET 7

4.2.1 Instruction (Cont'd)

DATA (HEX)		DESCRIPTION
1B	1B-26-XX-YY-D <sub>1</sub> -D <sub>2</sub> ....-D <sub>32</sub>	DEFINE DOWN LOAD CHARACTERS (16x16 DOT CHARACTER ONLY) XX-YY=UDC 2 byte code (A200 ~ FFFF) EACH CHARACTER PATTERN IS 32 BYTES (See 4.3)
	1B-3F-XX-YY	DELETE DOWNLOAD CHARACTER LOCATION XX-YY (A200 to FFFF) (16x16 DOT CHARACTER)
	1B-40	TERMINATE SELF TEST (all configurations go to default setting and clear all DOWN LOAD CHARACTERS)
	1B-74-N	SELECT CHARACTER SET (change character set will make cursor home)  + N=01, 16x16 DOT CHINESE CHARACTER & 8x16 DOT US-ASCII CHARACTER N=02, 5x8 DOT US-ASCII CHARACTER
1F	1F-40	EXECUTE SELF TEST (Use 1B-40 to terminate self test)
20-7F	US-ASCII	
A2B1 to A2FC	CHINESE GB NUMBER CHARACTER	
XX-YY	2 BYTE CHINESE GB CHARACTER XX = B0 to F7 YY = A1 to FE	

+ Display automatically defaults to these conditions after power-up or reset.

< > These instructions are mutually exclusive

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 8

Character Set Chart

A2B0		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	
A2C0		16.	17.	18.	19.	20.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A2D0		(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	①	②	③	④	⑤	⑥	⑦
A2E0		⑧	⑨	⑩			(一)	(二)	(三)	(四)	(五)	(六)	(七)	(八)	(九)	(十)	
A2F0		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII				
B0A0		啊	阿	埃	挨	哎	唉	哀	皑	癌	蔼	矮	艾	碍	爱	隘	
B0B0		鞍	氨	安	俺	按	暗	岸	胺	案	肮	昂	盎	凹	敖	熬	翱
B0C0		袄	傲	奥	澳	澳	芭	捌	扒	叭	吧	芭	八	疤	巴	拔	跋
B0D0		靶	把	耙	坝	霸	罢	爸	白	柏	百	摆	佰	败	拜	裨	斑
B0E0		班	搬	扳	般	颁	版	扮	拌	伴	伴	瓣	半	办	伴	邦	帮
B0F0		榜	榜	膀	绑	棒	磅	蚌	蚌	傍	傍	苞	胞	包	褒	剥	
B1A0		薄	雹	保	堡	饱	宝	抱	报	暴	豹	鲍	爆	杯	碑	悲	
B1B0		阜	北	辈	背	贝	狈	倍	狈	备	惫	焙	被	奔	笨	本	笨
B1C0		崩	邶	甬	泵	迸	迸	鼻	比	鄙	笔	彼	碧	蓖	蔽	毕	
B1D0		毙	泌	币	庇	痹	闭	蔽	弊	必	辟	壁	臂	避	陛	鞞	边
B1E0		编	贬	扁	便	变	卞	辨	辨	辨	遍	标	彪	膘	表	蹇	慈
B1F0		别	瘧	彬	斌	斌	斌	斌	斌	斌	斌	柄	丙	秉	饼	炳	
B2A0		病	并	玻	菠	播	拨	笨	波	博	勃	搏	铂	倍	伯	鼻	
B2B0		舶	膊	膊	泊	泊	捕	卜	哺	补	埠	不	布	步	步	鄙	
B2C0		佈	擦	猜	裁	材	才	财	睬	睬	采	彩	菜	蔡	餐	参	蚕
B2D0		残	惭	惨	灿	苍	舱	仓	沧	贛	操	糙	槽	曹	草	厕	策
B2E0		侧	册	溺	层	蹭	插	叉	茫	茫	查	碴	捺	察	岔	差	诧
B2F0		拆	柴	豺	裁	惨	单	参	参	参	参	产	圃	颠	昌	猖	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 9

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 10

B3A0	场	尝	常	长	偿	肠	厂	敞	畅	唱	倡	超	抄	钞	朝	
B3B0	嘲	潮	巢	吵	炒	车	扯	撤	掣	彻	澈	郴	臣	辰	尘	晨
B3C0	忱	沉	陈	趁	衬	撑	称	城	橙	成	呈	乘	程	惩	澄	诚
B3D0	承	逞	骋	秤	吃	痴	持	匙	池	迟	弛	驰	耻	齿	侈	尺
B3E0	赤	翅	斥	炽	充	冲	虫	崇	宠	抽	酬	畴	踌	稠	愁	筹
B3F0	仇	绸	瞅	丑	臭	初	出	橱	厨	踮	锄	雏	滁	除	楚	
B4A0	础	储	矗	搐	触	处	揣	川	穿	椽	传	船	喘	串	疮	
B4B0	窗	幢	床	闯	创	吹	炊	捶	锤	垂	春	椿	醇	唇	淳	纯
B4C0	蠢	戳	绰	疵	茨	磁	雌	辞	慈	瓷	词	此	刺	赐	次	聪
B4D0	葱	囱	匆	从	丛	凑	粗	醋	簇	促	蹕	篡	窜	摧	崔	催
B4E0	脆	瘁	粹	淬	翠	村	存	寸	磋	撮	搓	措	挫	错	搭	达
B4F0	答	瘩	打	大	歹	傣	戴	带	殆	代	贷	袋	待	逮		
B5A0	怠	耽	担	丹	单	郸	掸	胆	旦	氮	但	惮	淡	诞	弹	
B5B0	蛋	当	挡	党	荡	档	刀	捣	蹈	倒	岛	祷	导	到	稻	悼
B5C0	道	盗	德	得	的	蹬	灯	登	等	瞪	凳	邓	堤	低	滴	迪
B5D0	敌	笛	狄	涤	翟	嫡	抵	底	地	蒂	第	帝	弟	递	缔	颠
B5E0	掂	滇	碛	点	典	靛	垫	电	佃	甸	店	惦	奠	淀	殿	弼
B5F0	叮	雕	凋	刁	掉	吊	钓	调	跌	爹	碟	蝶	送	谍	叠	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 11

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 12

B6A0	丁	叮	叮	钉	顶	鼎	锭	定	订	丢	东	冬	董	懂	动	
B6B0	栋	侗	恫	冻	洞	兜	抖	斗	陡	豆	逗	痘	都	督	毒	铁
B6C0	独	读	堵	睹	赌	杜	镀	肚	度	渡	妒	端	短	锻	段	断
B6D0	锻	堆	兑	队	对	墩	吨	蹲	敦	顿	囤	钝	盾	遁	辇	哆
B6E0	多	夺	垛	躲	朵	踩	舵	刹	惰	堕	蛾	峨	鹅	俄	额	讹
B6F0	娥	恶	厄	扼	遏	鄂	饿	恩	而	儿	耳	尔	饵	洱	二	
B7A0	贰	发	罚	筏	伐	乏	阨	法	祛	藩	帆	番	翻	樊	矾	
B7B0	钒	繁	凡	烦	反	返	范	贩	犯	饭	泛	坊	芳	方	防	房
B7C0	防	妨	仿	访	纺	放	菲	非	啡	飞	肥	匪	诽	吠	肺	废
B7D0	沸	费	芬	吩	氛	分	纷	坟	焚	汾	粉	奋	份	忿	愤	
B7E0	粪	丰	封	枫	峰	锋	风	疯	烽	逢	冯	缝	讽	奉	凤	
B7F0	佛	否	夫	敷	肤	孵	扶	拂	辐	福	氟	符	伏	俘	服	
B8A0	浮	涪	福	袱	弗	甫	抚	辅	俯	釜	斧	脯	腑	府	腐	
B8B0	赴	副	覆	赋	复	傅	付	阜	父	腹	负	富	讣	附	妇	缚
B8C0	咐	噤	哽	该	改	概	钙	盖	溉	干	甘	杆	柑	竿	肝	赶
B8D0	感	秆	敢	赣	冈	刚	钢	缸	肛	纲	岗	港	杠	篙	皋	高
B8E0	膏	羔	糕	搞	稿	告	哥	歌	搁	戈	鸽	路	疙	割	革	
B8F0	葛	格	蛤	隔	恪	个	各	给	根	跟	耕	更	庚	羹		

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 13

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 14

B9A0	埂	耿	梗	工	攻	功	恭	龚	供	躬	公	宫	弓	巩	汞	
B9B0	拱	贡	共	钩	勾	沟	苟	狗	垢	构	购	够	辜	菇	咕	箍
B9C0	估	沽	孤	姑	鼓	古	蛊	骨	谷	股	故	顾	固	雇	刮	瓜
B9D0	副	寡	挂	褂	乖	拐	怪	棺	关	官	冠	观	管	馆	罐	惯
B9E0	灌	贯	光	广	逛	瑰	规	圭	硅	归	龟	闺	轨	鬼	诡	癸
B9F0	桂	柜	跪	贵	刽	棍	滚	棍	锅	郭	国	果	裹	过	哈	
BAA0	骸	孩	海	氦	亥	害	骇	酣	憨	邯	韩	合	涵	寒	函	
BAB0	喊	罕	翰	撼	捍	旱	憾	悍	焊	汗	汉	夯	杭	航	壕	嚎
BAC0	豪	毫	郝	好	耗	号	浩	呵	喝	荷	荷	核	禾	和	何	合
BAD0	盒	貉	阍	河	涸	赫	褐	鹤	贺	嘿	黑	痕	很	狠	恨	哼
BAE0	亨	横	衡	恒	轰	哄	烘	虹	鸿	洪	宏	弘	红	喉	侯	猴
BAF0	吼	厚	候	后	呼	乎	忽	瑚	壶	葫	胡	蝴	狐	糊	湖	
BBA0	弧	虎	唬	护	互	沪	户	花	哗	华	猾	滑	画	划	化	
BBB0	话	槐	徊	怀	淮	坏	欢	环	桓	还	缓	换	患	唤	痪	蒙
BBC0	涣	涣	宦	幻	荒	慌	黄	磺	蝗	簧	皇	凰	惶	煌	晃	幌
BBD0	恍	谎	灰	挥	辉	徽	恢	蛔	回	毁	悔	慧	卉	惠	晦	贿
BBE0	秽	会	烩	汇	讳	诲	绘	幸	昏	婚	魂	浑	混	豁	活	伙
BBF0	火	获	或	惑	霍	货	祸	击	圾	基	机	畸	稽	积	契	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 15

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 16

BCA0	肌	饥	迹	激	讯	鸡	姬	绩	缉	吉	极	棘	辑	籍	集
BCB0	及	急	疾	汲	即	嫉	级	挤	几	脊	己	薊	技	翼	伎
BCC0	祭	剂	悖	济	寄	寂	计	记	既	忌	际	妓	继	纪	伽
BCD0	夹	佳	家	加	荚	颊	贾	甲	钾	假	稼	价	架	驾	嫁
BCE0	监	坚	尖	笺	间	煎	兼	肩	艰	奸	緘	茧	检	柬	殓
BCF0	拣	捡	简	俭	剪	减	荐	檻	鉴	践	贱	见	键	箭	件
BDA0	健	舰	剑	钺	渐	蹇	涧	建	僵	姜	将	浆	江	疆	蒋
BDB0	桨	奖	讲	匠	酱	降	蕉	椒	礁	焦	胶	交	郊	饶	娇
BDC0	嚼	搅	皎	矫	侥	脚	狡	角	皎	缴	绞	剿	教	酵	轿
BDD0	叫	窖	揭	接	皆	桔	街	阶	截	劫	节	桔	杰	捷	睫
BDE0	洁	结	解	姐	戒	藉	芥	界	借	介	疥	诫	届	巾	筋
BDF0	金	今	津	襟	紧	锦	仅	谨	进	靳	晋	禁	近	烬	浸
BEA0	尽	劲	荆	兢	茎	睛	晶	鲸	京	惊	精	梗	经	井	警
BEB0	景	颈	静	境	敬	镜	径	痉	靖	竟	竞	净	炯	窘	揪
BEC0	纠	玖	韭	久	灸	九	酒	既	救	旧	臼	舅	咎	就	鞫
BED0	拘	狙	疽	居	驹	菊	局	咀	矩	举	沮	聚	拒	据	巨
BEE0	距	踞	锯	俱	句	惧	炬	剧	捐	鹃	娟	倦	眷	卷	绢
BEF0	攫	抉	掘	倔	爵	觉	决	诀	绝	均	菌	钧	军	君	峻

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 17

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 18

BFA0	俊	竣	浚	郡	骏	喀	咖	卡	喀	开	揩	楷	凯	慨	刊		
BFB0	堪	勘	坎	砍	看	康	慷	糠	扛	抗	亢	炕	考	拷	烤	靠	
BFC0	坷	苛	柯	棵	磕	颞	科	壳	咳	可	渴	克	刻	客	课	肯	
BFD0	啃	垦	恳	坑	吭	空	恐	孔	控	抠	口	扣	寇	枯	哭	窟	
BFE0	苦	酷	庠	裤	夸	垮	垮	跨	跨	跨	块	筷	佻	快	宽	款	匡
BFF0	筐	狂	框	矿	眶	旷	况	亏	盔	崑	窥	葵	奎	魁	傀		
COA0	溃	愧	溃	坤	昆	捆	困	括	扩	廓	阔	垃	拉	喇	蜡		
COB0	腊	辣	啦	菜	来	赖	蓝	婪	栏	拦	篮	阑	兰	澜	调	揽	
COC0	览	懒	缆	烂	滥	琅	榔	狼	廊	郎	朗	浪	捞	劳	牢	老	
COD0	佬	焙	酪	烙	涝	勒	乐	雷	雷	雷	雷	雷	雷	雷	雷	雷	雷
COE0	类	泪	棱	楞	冷	厘	梨	犁	黎	篱	狸	离	漓	理	李	里	
COF0	鲤	礼	莉	荔	吏	栗	丽	厉	励	砾	历	利	例	例	例		
C1A0	痢	立	粒	沥	隶	力	璃	哩	俩	联	莲	连	簪	廉	怜		
C1B0	遑	帘	敛	脸	链	恋	炼	练	粮	凉	梁	梁	良	两	辆	量	
C1C0	晾	亮	谅	潦	聊	僚	疗	僚	寥	辽	潦	了	撝	镣	廖	料	
C1D0	列	裂	烈	劣	猎	琳	林	磷	霖	临	邻	鳞	淋	凛	赁	吝	
C1E0	拎	玲	菱	零	龄	铃	伶	羚	凌	灵	陵	岭	领	另	令	溜	
C1F0	琉	榴	硫	溜	留	刘	瘤	流	柳	六	龙	羸	吮	筮	庭		
C2A0	隆	垄	拢	陇	楼	娄	楼	篓	漏	陋	芦	卢	颅	庐	炉		
C2B0	虏	卤	虏	鲁	麓	碌	露	路	赂	鹿	谿	禄	录	陆	戮	驴	
C2C0	吕	铝	侣	旅	履	屐	虑	氯	律	率	滤	绿	峦	挛	挛		

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 19

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 20

C2D0	染	卵	乱	掠	略	抡	轮	伦	仑	沦	纶	论	萝	螺	罗	逻
C2E0	箩	箩	骡	裸	落	洛	骆	络	妈	麻	玛	码	蚂	马	骂	嘛
C2F0	吗	埋	买	麦	卖	迈	脉	瞞	侵	蛮	满	蔓	曼	慢	漫	
C3A0		谩	芒	茫	盲	氓	忙	莽	猫	茅	锚	毛	矛	柳	卯	茂
C3B0	冒	帽	貌	贸	么	玫	枚	梅	酶	霉	煤	没	眉	媒	镁	每
C3C0	美	味	寐	妹	媚	门	闷	们	萌	蒙	檬	盟	锰	猛	梦	孟
C3D0	眯	髓	靡	糜	迷	谜	弥	米	秘	觅	泌	蜜	密	幕	棉	眠
C3E0	绵	冕	免	勉	媿	緬	面	苗	描	瞄	藐	秒	渺	庙	妙	蔑
C3F0	灭	民	抿	皿	敏	悯	闽	明	螟	鸣	铭	名	命	谬	摸	
C4A0		募	蘑	模	膜	磨	摩	虞	抹	末	莫	墨	默	沫	漠	寞
C4B0	陌	谋	牟	某	拇	牡	亩	姆	母	墓	暮	幕	募	慕	木	目
C4C0	睦	牧	穆	拿	哪	呐	纳	那	娜	纳	氛	乃	奶	耐	奈	南
C4D0	男	难	囊	挠	脑	恼	闹	淖	呢	馁	内	嫩	能	妮	霓	倪
C4E0	泥	尼	拟	你	匿	膩	逆	溺	蒿	拈	年	碾	撵	捻	念	娘
C4F0	酿	鸟	尿	捏	聂	孽	啮	镊	镍	逞	您	柠	狩	凝	宁	
C5A0		拧	泞	牛	扭	钮	纽	脓	浓	农	弄	奴	努	怒	女	暖
C5B0	虐	症	挪	儒	孺	诺	哦	欧	鸥	殴	藕	呕	偶	沤	啪	趴
C5C0	爬	帕	怕	琶	拍	排	牌	徘	湃	派	攀	潘	盘	磐	盼	畔
C5D0	判	叛	兵	彪	旁	榜	胖	抛	咆	刨	炮	袍	跑	泡	坯	胚
C5E0	培	裴	赔	陪	配	佩	沛	喷	盆	评	抨	烹	彭	彭	蓬	棚
C5F0	礴	篷	膨	朋	鹏	捧	碰	坯	砒	霹	批	拔	劈	琵	毗	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 21

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 22

C6A0	啤	脾	疲	皮	匹	痞	僻	屁	譬	篇	偏	片	骗	辏	漂	
C6B0	瓢	票	撇	瞥	拼	频	贫	品	聘	乒	坪	苹	萍	平	凭	瓶
C6C0	评	屏	坡	泼	颇	婆	破	魄	迫	柏	剖	扑	铺	仆	葡	葡
C6D0	菩	蒲	埔	朴	圃	普	浦	谱	曝	瀑	期	欺	栖	戚	妻	七
C6E0	凄	漆	柒	沏	其	棋	奇	歧	畦	崎	脐	齐	旗	祈	祁	骑
C6F0	起	岂	乞	企	启	契	砌	器	气	迄	弃	汽	泣	讫	拍	
C7A0	恰	洽	牵	扞	钎	铅	千	迁	签	仟	谦	乾	黔	钱	钳	
C7B0	前	潜	遣	浅	谴	堑	嵌	欠	歉	枪	呛	腔	羌	墙	蔷	强
C7C0	抢	橇	锹	敲	梢	桥	瞧	乔	侨	巧	鞘	撬	翘	峭	俏	窍
C7D0	切	茄	且	怯	窃	钦	侵	亲	秦	琴	勤	芹	擒	禽	寝	沁
C7E0	青	轻	氢	倾	卿	清	擎	晴	氛	情	顷	请	庆	琼	穷	秋
C7F0	丘	邱	球	求	囚	酋	洵	趋	区	蛆	曲	躯	屈	驱	渠	
C8A0	取	娶	聃	趣	去	圉	颞	杈	醛	泉	全	痊	拳	犬	券	
C8B0	劝	缺	快	痼	却	鹞	榷	确	雀	裙	群	然	燃	冉	染	辄
C8C0	壤	攘	嚷	让	饶	抗	绕	惹	热	仨	仁	人	忍	韧	任	认
C8D0	刃	妊	纫	扔	仍	日	戎	茸	蓉	荣	融	熔	溶	容	绒	冗
C8E0	揉	柔	肉	茹	孺	孺	如	辱	乳	汝	入	褥	软	阮	蕊	
C8F0	瑞	锐	闰	润	若	弱	撒	洒	萨	腮	腮	塞	赛	三	叁	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 23

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 24

C9A0	伞	散	桑	噪	丧	搔	骚	扫	嫂	瑟	色	涩	森	憎	莎	
C9B0	砂	杀	刹	沙	纱	傻	啥	煞	筛	晒	珊	苔	杉	山	删	煽
C9C0	衫	闪	陕	擅	贖	瞎	善	汕	扇	缮	埝	伤	商	赏	晌	上
C9D0	尚	裳	梢	捎	稍	烧	芍	勺	韶	少	哨	邵	绍	奢	除	蛇
C9E0	舌	舍	赦	摄	射	慑	涉	社	设	砷	申	呻	伸	身	深	娠
C9F0	绅	神	沈	审	婶	甚	肾	慎	渗	声	生	甥	牲	升	绳	
CAA0	省	盛	剩	胜	圣	师	失	狮	施	湿	诗	尸	虱	十	石	
CAB0	拾	时	什	食	蚀	实	识	史	矢	使	屎	驶	始	式	示	士
CAC0	世	柿	事	拭	誓	逝	势	是	嗜	噬	适	仕	侍	释	饰	氏
CAD0	市	恃	室	视	试	收	手	首	守	寿	授	售	受	瘦	兽	蔬
CAE0	枢	梳	殊	抒	输	叔	舒	淑	疏	书	赎	孰	熟	薯	暑	曙
CAF0	署	蜀	黍	鼠	属	术	述	树	束	戍	竖	墅	庶	数	漱	
CBA0	恕	刷	耍	摔	衰	甩	帅	栓	拴	霜	双	爽	谁	水	睡	
CBB0	税	吮	瞬	顺	舜	说	硕	朔	烁	斯	嘶	思	私	司	丝	
CBC0	死	肆	寺	嗣	四	伺	似	伺	巳	松	耸	怱	颂	送	宋	讼
CBD0	诵	搜	艘	擞	嗽	苏	酥	俗	素	速	粟	堡	塑	溯	宿	诉
CBE0	肃	酸	蒜	算	虽	隋	随	绥	髓	碎	岁	穗	遂	隧	崇	孙
CBF0	损	笋	蓑	梭	唆	缩	琐	索	锁	所	塌	他	它	她	塔	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 25

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 26

CCA0	獠	挞	蹋	踏	胎	苔	抬	台	泰	猷	太	态	汰	坍	摊	
CCB0	贪	瘫	滩	坛	檀	痰	潭	潭	谈	坦	毯	袒	碳	探	叹	炭
CCC0	汤	塘	塘	堂	棠	膛	唐	糖	倘	鞘	淌	趟	烫	掏	涛	滔
CCD0	缘	萄	桃	逃	淘	陶	讨	套	特	藤	腾	疼	誉	梯	剔	踢
CCE0	锦	提	题	蹄	啼	体	替	嚏	惕	涕	剃	屣	天	添	填	田
CCF0	甜	恬	舔	臛	挑	条	迢	眺	跳	贴	铁	帖	厅	听	炅	
CDA0		汀	廷	停	亭	庭	挺	艇	通	桐	酏	臆	同	铜	彤	童
CDB0	桶	捅	筒	统	痛	偷	投	头	透	凸	秃	突	囤	徒	途	涂
CDC0	屠	土	吐	兔	湍	团	推	颍	腿	蛭	褪	退	吞	屯	臀	拖
CDD0	托	脱	鸵	陀	驮	驼	橛	妥	拓	唾	挖	哇	蛙	洼	娃	瓦
CDE0	袜	歪	外	豌	弯	湾	玩	顽	丸	烷	完	碗	挽	晚	皖	惋
CDF0	宛	婉	万	腕	汪	王	亡	枉	网	往	旺	望	忘	妄	威	
CEA0		巍	微	危	韦	迮	桅	圃	唯	惟	为	淮	维	苇	菱	委
CEB0	伟	伪	尾	纬	未	蔚	味	畏	胃	喂	魏	位	渭	谓	尉	慰
CEC0	卫	瘟	温	蚊	文	闻	纹	吻	稳	紊	问	翁	瓮	挝	蛙	蜗
CED0	涡	窝	我	斡	卧	握	沃	巫	呜	鸪	乌	污	诬	屋	元	荒
CEE0	梧	吾	吴	毋	武	五	梧	午	舞	伍	侮	坞	戊	雾	晤	物
CEF0	勿	务	悟	误	昔	熙	析	西	晒	矽	晰	嗜	吸	锡	恒	
CFA0		稀	息	希	悉	膝	夕	惜	熄	烯	溪	汐	犀	檄	袞	席
CFB0	习	媳	喜	统	洗	系	隙	戏	细	瞎	虾	匣	霞	辖	暇	峡

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 27

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 28

CFC0	侠	狭	下	厦	夏	吓	掀	掀	先	仙	鲜	纤	咸	贤	衔	舷
CFD0	闲	涎	弦	嫌	显	险	现	献	县	腺	馅	羨	宪	陷	限	线
CFE0	相	厢	镶	香	箱	襄	湘	乡	翔	祥	详	想	响	享	项	巷
CFF0	橡	像	向	象	萧	硝	霄	削	哮	嚣	销	消	宵	淆	晓	
DOA0		小	孝	校	肖	啸	笑	效	楔	些	歇	蝎	鞋	协	挟	携
DOB0	邪	斜	胁	谐	写	械	卸	蟹	懈	泄	泻	谢	屑	薪	芯	铤
DOC0	欣	辛	新	忻	心	信	衅	星	腥	猩	猩	兴	刑	型	形	邢
DOD0	行	醒	幸	杏	性	姓	兄	凶	胸	匈	汹	雄	熊	休	修	羞
DOE0	朽	嗅	锈	秀	袖	绣	墟	戍	需	虚	嘘	须	徐	许	蓄	酗
DOF0	叙	旭	序	畜	恤	絮	婿	绪	续	軒	喧	宣	悬	旋	玄	
D1A0		选	癣	眩	绚	靴	薛	学	穴	雪	血	勋	熏	循	旬	询
D1B0	寻	驯	巡	殉	汛	训	讯	逊	迅	压	押	鸦	鸭	呀	丫	芽
D1C0	牙	蚜	崖	衙	涯	雅	哑	亚	訝	焉	咽	阍	烟	淹	盐	严
D1D0	研	蜒	岩	延	言	颜	阎	炎	沿	奄	掩	眼	衍	演	艳	堰
D1E0	燕	厌	砚	雁	唁	彦	焰	宴	谚	验	映	央	鸯	秧	杨	扬
D1F0	伴	痲	羊	洋	阳	氧	仰	痒	养	岸	漾	邀	腰	妖	瑶	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 29

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 30

D2A0	摇	尧	遥	窑	谣	姚	咬	舀	药	要	耀	椰	噎	耶	爷	
D2B0	野	冶	也	页	掖	业	叶	曳	腋	夜	液	一	壹	医	揖	铤
D2C0	依	伊	衣	颐	夷	遗	移	仪	腴	疑	沂	宜	姨	彝	椅	蚁
D2D0	倚	已	乙	矣	以	艺	抑	易	邑	屹	亿	役	臆	逸	肄	疫
D2E0	亦	裔	意	毅	忆	义	益	溢	诣	议	谊	译	异	翼	翌	绎
D2F0	茵	荫	因	殷	音	阴	姻	吟	银	淫	寅	饮	尹	引	隐	
D3A0	印	英	櫻	嬰	鷹	应	纓	瑩	莹	营	荧	蝇	迎	贏	盈	
D3B0	影	穎	硬	映	嶙	拥	佣	痾	痾	雍	踊	蛹	咏	泳	涌	
D3C0	永	愿	勇	用	幽	优	悠	忧	尤	由	邮	柚	犹	油	游	酉
D3D0	有	友	右	佑	釉	诱	又	幼	迂	淤	于	孟	榆	虞	愚	舆
D3E0	余	俞	逾	鱼	愉	渝	渔	隅	予	娱	雨	与	屿	禹	宇	语
D3F0	羽	玉	域	芋	郁	吁	遇	喻	峪	御	愈	欲	狱	育	誉	
D4A0	浴	寓	裕	预	豫	馭	鴛	渊	冤	元	垣	袁	原	援	猿	
D4B0	园	员	圆	猿	源	缘	远	苑	愿	怨	院	曰	约	越	跃	钥
D4C0	岳	粤	月	悦	阅	耘	云	郢	匀	陨	允	运	蕴	酝	晕	韵
D4D0	孕	匝	砸	杂	裁	哉	灾	宰	载	再	在	咱	攒	暂	贲	贲
D4E0	脏	葬	遭	糟	凿	藻	枣	早	澡	蚤	躁	噪	造	皂	灶	燥
D4F0	责	择	则	泽	贼	怎	增	憎	曾	赠	扎	喳	渣	札	轧	

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 31

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 32

D5A0	侧	闸	眨	栅	榨	乍	炸	诈	摘	斋	宅	窄	债	寨		
D5B0	贻	毡	詹	粘	沾	盍	折	辘	崭	展	蘸	栈	占	战	站	湛
D5C0	绽	樟	章	彰	漳	张	掌	涨	杖	丈	帐	账	仗	胀	瘴	障
D5D0	招	昭	找	沼	赵	照	罩	兆	肇	召	遮	折	哲	蛰	辙	者
D5E0	锺	蔗	这	浙	珍	斟	真	甄	砧	臻	贞	针	侦	枕	疹	诊
D5F0	震	振	镇	阵	蒸	挣	睁	征	狰	争	征	整	拯	正	政	
D6A0		帧	症	郑	证	芝	枝	支	吱	蚰	知	肢	脂	汁	之	织
D6B0	职	直	植	殖	执	值	侄	址	指	止	趾	只	旨	纸	志	挚
D6C0	掷	至	致	置	帜	峙	制	智	秩	稚	质	炙	痔	滞	治	窒
D6D0	中	盅	忠	钟	衷	终	种	肿	重	仲	众	舟	周	州	洲	诒
D6E0	粥	轴	肘	帚	咒	皱	宙	昼	驟	珠	株	蛛	朱	猪	诸	诛
D6F0	逐	竹	烛	煮	拄	瞩	嘱	主	著	柱	助	蛀	贮	铸	筑	
D7A0		住	注	祝	驻	抓	爪	拽	专	砖	转	撰	赚	篆	桩	庄
D7B0	装	妆	撞	壮	状	椎	锥	追	赘	坠	缀	谆	准	捉	拙	卓
D7C0	桌	琢	茁	酌	啄	着	灼	浊	兹	咨	资	姿	滋	淄	孜	紫
D7D0	仔	籽	滓	子	自	渍	字	鬃	棕	踪	宗	综	总	纵	邹	走
D7E0	奏	揍	租	足	卒	族	祖	诅	阻	组	钻	纂	嘴	醉	最	罪
D7F0	尊	遵	昨	左	佐	柞	做	作	坐	座						

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 33

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 34

Character Set Chart

D8A0	予	丌	兀	丐	卅	卅	丕	亘	丞	鬲	舜	疆	丨	禹	丿	
D8B0	匕	乇	夭	爻	厄	氏	囟	胤	馗	毓	翠	戔	、	亟	黹	乚
D8C0	乚	亅	丰	幸	畜	馥	仄	庠	厝	屮	厥	厥	厥	屮	屮	屮
D8D0	甌	甌	甌	甌	卦	卣	卣	刈	刈	刈	割	割	割	刺	刺	刺
D8E0	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜	剜
D8F0	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞	仞
D9A0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
D9B0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
D9C0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
D9D0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
D9E0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
D9F0	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏	侏
DAA0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠
DAB0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠
DAC0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠
DAD0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠
DAE0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠
DAF0	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠	讠

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 35

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 36

DBA0	邸	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DBB0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DBC0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DBD0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DBE0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DBF0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCA0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCB0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCC0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCD0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCE0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DCF0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DDA0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
ddb0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DDC0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DDD0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DDE0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅
DDF0	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅	郅

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 37

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 38

DEA0	菓	蔻	蓓	蓼	葱	草	蒯	蕤	蕞	蕈	菅	菩	蕲	蕹
DEB0	蕘	薇	蕙	蕪	蕞	薜	薏	薹	蕻	蕺	蕻	藜	蕘	蕻
DEC0	蔡	蕞	蕪	弁	弁	奘	弁	奕	奚	奕	匏	九	旭	旭
DED0	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌
DEE0	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌
DEF0	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌
DFA0	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌	扌
DFB0	貳	貳	吓	叱	叭	叩	叨	叻	吒	吡	吹	呖	呖	呖
DFC0	呃	叱	呖	呖	呖	呖	呖	呖	呖	呖	呖	呖	呖	呖
DFD0	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬
DFE0	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬
DFF0	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬	噬
EOA0	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜
EOB0	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜
EOC0	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜
EOD0	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜
EOE0	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜	嗜
EOF0	囹	囹	囹	囹	囹	囹	囹	囹	囹	囹	囹	囹	囹	囹

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 39

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 40

E1A0	帷	幄	幔	幃	幙	幟	岌	屹	岍	岐	岨	岍	岎	岏
E1B0	岌	岍	岎	岏	岙	岜	岝	岞	岟	岠	岡	岢	岣	岤
E1C0	岥	岧	岨	岩	岪	岫	岬	岭	岮	岯	岰	岱	岲	岳
E1D0	岴	岵	岶	岷	岸	岹	岺	岻	岼	岽	岾	岿	岮	岯
E1E0	狎	狝	狞	狟	狠	狡	狢	狣	狤	狥	狦	狨	狩	狪
E1F0	狫	独	狭	狮	狯	狰	狱	狲	狳	狴	狵	狶	狷	狸
E2A0	狹	狺	狻	狼	狽	狾	狿	獀	獁	獂	獃	獄	獅	獆
E2B0	獇	獈	獉	獊	獋	獌	獍	獎	獏	獐	獑	獒	獓	獔
E2C0	狺	狻	狼	狽	狾	狿	獀	獁	獂	獃	獄	獅	獆	獇
E2D0	庀	庑	庒	库	应	底	庖	店	庘	庙	庚	庛	府	庝
E2E0	𠂇	𠂈	𠂉	𠂊	𠂋	𠂌	𠂍	𠂎	𠂏	𠂐	𠂑	𠂒	𠂓	𠂔
E2F0	𠂕	𠂖	𠂗	𠂘	𠂙	𠂚	𠂛	𠂜	𠂝	𠂞	𠂟	𠂠	𠂡	𠂢
E3A0	悃	悄	悅	悆	悇	悈	悉	悊	悋	悌	悍	悎	悏	悐
E3B0	悑	悒	悓	悔	悕	悖	悗	悘	悙	悚	悛	悜	悝	悞
E3C0	悟	悠	悡	悢	患	悤	悥	悦	悧	您	悩	悪	悫	悬
E3D0	闕	闕	闕	闕	闕	闕	闕	闕	闕	闕	闕	闕	闕	闕
E3E0	汜	汨	汩	汫	汭	汯	汰	汱	汲	汳	汴	汶	汷	汸
E3F0	汹	決	汻	汼	汽	汾	汿	汽	汿	汽	汿	汽	汿	汽

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 41

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 42

Character Set Chart (Cont'd)

E4A0	洄	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E4B0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E4C0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E4D0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E4E0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E4F0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5A0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5B0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5C0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5D0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5E0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E5F0	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧	洧
E6A0	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪
E6B0	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪
E6C0	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪
E6D0	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪	姪
E6E0	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟
E6F0	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟	駟

FIGURE 3 - CHINESE GB CHARACTER SET

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 43

E7A0	纆	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕
E7B0	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕
E7C0	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕
E7D0	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕	紕
E7E0	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎	玎
E7F0	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊	琊
E8A0	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛	琛
E8B0	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋	璋
E8C0	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳
E8D0	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳
E8E0	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳	枳
E8F0	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇	崇
E9A0	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈
E9B0	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈
E9C0	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈
E9D0	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈	椈
E9E0	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷	猷
E9F0	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲	轲

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH		
	SCALE	N/A	REV	<b>A</b>	SHEET 44

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 45

EAA0	扱	緇	接	辘	辘	喜	戈	戛	戛	戛	戛	戛	戛	戛
EAB0	馱	瓠	瓠	瓠	瓠	瓠	支	杳	見	吁	昊	昊	昊	昕
EAC0	昀	昀	昀	昀	昀	昀	呢	耆	晟	晔	晔	晔	晔	哈
EAD0	晷	暄	暄	暄	暄	暄	暄	曦	羲	贲	贲	贲	贲	贲
EAE0	賅	賅	賅	賅	賅	賅	賅	賅	覘	覘	覘	覘	覘	覘
EAF0	犖	犖	犖	犖	犖	犖	犖	犖	犖	犖	犖	犖	犖	犖
EBA0	穉	穉	穉	穉	穉	穉	穉	穉	穉	穉	穉	穉	穉	穉
EBB0	氙	氙	氙	氙	氙	氙	氙	氙	氙	氙	氙	氙	氙	氙
EBC0	彤	肱	肱	肱	肱	肱	肱	肱	肱	肱	肱	肱	肱	肱
EBD0	胄	胄	胄	胄	胄	胄	胄	胄	胄	胄	胄	胄	胄	胄
EBE0	豚	豚	豚	豚	豚	豚	豚	豚	豚	豚	豚	豚	豚	豚
EBF0	膈	膈	膈	膈	膈	膈	膈	膈	膈	膈	膈	膈	膈	膈
ECA0	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭	瞭
ECB0	毅	毅	毅	毅	毅	毅	毅	毅	毅	毅	毅	毅	毅	毅
ECC0	焯	焯	焯	焯	焯	焯	焯	焯	焯	焯	焯	焯	焯	焯
ECD0	煨	煨	煨	煨	煨	煨	煨	煨	煨	煨	煨	煨	煨	煨
ECE0	爨	爨	爨	爨	爨	爨	爨	爨	爨	爨	爨	爨	爨	爨
ECF0	裱	裱	裱	裱	裱	裱	裱	裱	裱	裱	裱	裱	裱	裱
EDA0	恣	恣	恣	恣	恣	恣	恣	恣	恣	恣	恣	恣	恣	恣
EDB0	矧	矧	矧	矧	矧	矧	矧	矧	矧	矧	矧	矧	矧	矧

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 46

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 47

EDCO	砧	砭	砺	砮	砵	砧	砣	砵	砷	砹	砵	砷	砹	砵	砷
EDDO	砹	砷	砵	砷	砵	砷	砹	砷	砵	砷	砹	砷	砵	砷	砹
EDEO	砷	砵	砷	砵	砷	砹	砷	砵	砷	砹	砷	砵	砷	砹	砷
EDFO	眇	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈
EEOO		睢	睢	睢	睢	睢	睢	睢	睢	睢	睢	睢	睢	睢	睢
EEBO	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈
EECO	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈	眈
EEDO	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐
EEEO	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐
EEFO	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐	钐
EFAO		铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈
EFBO	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈
EFCO	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈
EFDO	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈
EFEO	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈
EFFO	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈	铈

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH		
	SCALE	N/A	REV	<b>A</b>	SHEET 48

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 49

04/26/04

FOA0	稭	稷	穉	黏	馥	穰	販	皎	皓	督	蟠	賤	瓠	甬	鳩
FOB0	鸛	鸛	鳩	鳩	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓
FOC0	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓
FOD0	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓	鷓
FOE0	疣	疔	疔	疽	疔	疔	疔	疔	疔	疔	疔	疔	疔	疔	疔
F0F0	痧	瘰	疔	痲	痲	痲	痲	痲	痲	痲	痲	痲	痲	痲	痲
F1A0	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰
F1B0	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰	瘰
F1C0	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰
F1D0	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰
F1E0	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰
F1F0	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰	褰
F2A0	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛	顛
F2B0	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬	虬
F2C0	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶
F2D0	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶	蚶
F2E0	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻
F2F0	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻	蟻

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 50

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 51

F3A0	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮
F3B0	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮	蝮
F3C0	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪	簪
F3D0	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱	笱
F3E0	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲
F3F0	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲	篲
F4A0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F4B0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F4C0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F4D0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F4E0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F4F0	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩	舩
F5A0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩
F5B0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩
F5C0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩
F5D0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩
F5E0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩
F5F0	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩	酩

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 52

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 53

F6A0	航	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨
F6B0	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨	鯨
F6C0	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼	隼
F6D0	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴	魴
F6E0	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽
F6F0	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽
F7A0	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽	鯽
F7B0	粗	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅
F7C0	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅	鞅
F7D0	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨
F7E0	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨
F7F0	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨	屨

Industrial Electronic Engineers, Inc.  Van Nuys, California	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	SLB324-04XH	
	SCALE	N/A	REV <b>A</b>	SHEET 54

FIGURE 3 - CHINESE GB CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 55



<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 56

FIGURE 4 - 7x14 in 8x16 BLOCK DOT US CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>	
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 57	



FIGURE 5 - 5x8 US-ASCII CHARACTER SET

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>
	SCALE N/A	REV <b>A</b>	SHEET 58

4.4

User Defined Character Loading (16 x 16 Dot Matrix)

A maximum of three characters may be created temporarily (until power-off or reset) by a user-defined downloaded character pattern. To do so, enter the following sequence of commands and data:

<u>BYTE</u>	<u>DESCRIPTION</u>
1-2	Start load 1B-26 (HEX)
3-4	Location to begin download (2 byte, A200 to FFFF)
5-36	Character dot data (32 bytes)

CHARACTER DOT DATA

BYTE #	7	6	5	4	3	2	1	0
5	1	2	3	4	5	6	7	8
6	9	10	11	12	13	14	15	16
7	17	18	19	20	21	22	23	24
8	25	26	27	28	29	30	31	32
9	33	34	35	36	37	38	39	40
10	41	42	43	44	45	46	47	48
11	49	50	51	52	53	54	55	56
12	57	58	59	60	61	62	63	64
13	65	66	67	68	69	70	71	72
14	73	74	75	76	77	78	79	80
15	81	82	83	84	85	86	87	88
16	89	90	91	92	93	94	95	96
17	97	98	99	100	101	102	103	104
18	105	106	107	108	109	110	111	112
19	113	114	115	116	117	118	119	120
20	121	122	123	124	125	126	127	128
21	129	130	131	132	133	134	135	136
22	137	138	139	140	141	142	143	144
23	145	146	147	148	149	150	151	152
24	153	154	155	156	157	158	159	160
25	161	162	163	164	165	166	167	168
26	169	170	171	172	173	174	175	176
27	177	178	179	180	181	182	183	184
28	185	186	187	188	189	190	191	192
29	193	194	195	196	197	198	199	200
30	201	202	203	204	205	206	207	208
31	209	210	211	212	213	214	215	216
32	217	218	219	220	221	222	223	224
33	225	226	227	228	229	230	231	232
34	233	234	235	236	237	238	239	240
35	241	242	243	244	245	246	247	248
36	249	250	251	252	253	254	255	256

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>	
	SCALE    N/A	REV <b>A</b>	SHEET    59	

## CHARACTER MATRIX

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176
177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208
209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224
225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256

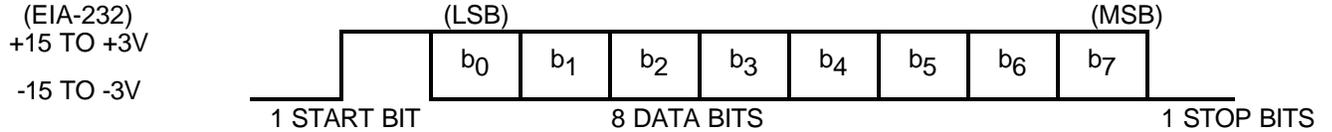
<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>		
	<b>SCALE</b>	<b>N/A</b>	<b>REV</b>	<b>A</b>	<b>SHEET 60</b>

4.5 Dedicated Hardware Lines

Not available.

4.6 Serial Data and Self-test

Serial characters are received with data formatted as a 10-bit word. The command set is structured to allow transmission of 8 data bits. The data rate is fixed at 9600 baud. The level is EIA-232C.



Self-test is a very useful feature and can be activated by sending 1F-40 (HEX). The test may be terminated by sending 1B-40 (HEX). Characters from B0A1 (HEX) to F7FE (HEX) will be displayed advancing through the characters at approximately 2.0 characters per second. This self-test capability can be used to speed up both in-field fault isolation and incoming receiving inspection.

4.6 Connector Pin Assignment

EIA-232C

J1 (RJ-45)* PIN NO.	FUNCTION
1	SIGNAL GROUND
2,7	+11 VOLTS +17/-1 VDC
3	TRANSMIT DATA (OUTPUT)
4	DATA SET READY (INPUT)
5	DATA TERMINAL READY (OUTPUT)
6	RECEIVE DATA (INPUT)
8	POWER RETURN

\* Shielded connector is standard.

EIA-422A

J1 (RJ-45)* PIN NO.	FUNCTION
1	SIGNAL GROUND
2,7	+11 VOLTS +17/-1 VDC
3	TRANSMIT DATA (A+)
4	TRANSMIT DATA (A-)
5	RECEIVE DATA (A-)
6	RECEIVE DATA (A+)
8	POWER RETURN

\* Shielded connector is standard.

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>
	SCALE N/A	REV <b>A</b>	SHEET 61

5.0 ELECTRICAL CHARACTERISTICS

5.1 Power ON / OFF Sequence

There are no deleterious effects associated with power ON and OFF of this display; however, rapid ON/OFF sequencing is not recommended. Neither data nor power connectors should be connected/disconnected while power is applied.

Because of the power-up cycle within the microprocessor, rise time of the power supply should be less than 100mS. The display module is not ready to accept data for 850mS (typ) - 1.2 sec (max).

5.2 Interface Signals

All logic signals abide by the following convention: logic "1" is a high, logic "0" is a low.

5.3 Absolute Maximum Ratings

EIA-232C: +15VDC to -15VDC  
EIA-422A: +15VDC to -10VDC

5.4 Normal Operating Ratings

Primary voltage: 11-29 VOLTS DC

Power dissipation: 0.72 WATTS

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>	
	<b>SCALE</b>	<b>N/A</b>	<b>REV</b> <b>A</b>	<b>SHEET</b> 62

6.0 OPTICAL CHARACTERISTICS

Format: 2 lines of 6 characters  
 Character height: .78 in. (20mm)  
 Character width: .78 in. (20mm)  
 Character spacing: 0.98 in. (25mm) center-to-center  
 Character design: 16 x 16 dot matrix, 8x16 dot matrix, 5x8 dot matrix  
 Type of cursor indicator: UNDER BAR  
 Character set: Chinese GB and US-ASCII  
 Color: Dark blue characters on yellow-green background  
 Viewing angle: 100 degrees vertically, 90 degrees horizontally

6.1 Display Viewing/Contrast

This display has built-in temperature compensation circuitry and therefore should not require readjustment of the contrast once it is set at the factory. Potentiometer R4 (when used) is adjusted to obtain 10.70 VDC at 22°C when measured from +5V to TP1.

7.0 ENVIRONMENTAL CHARACTERISTICS

Operating temperature: -20 to +70 (°C) -4 to 158 (°F)  
 Storage temperature: -40 to +70 (°C) -40 to +158 (°F)  
 Relative humidity: ( 40°C) 0 to 95% (non-condensing)  
 ( -40°C) Absolute humidity must be lower than the humidity of 95% RH at 40°C  
 Vibration: 10G, 10-400Hz (3 axis)  
 Shock: 10G, 18ms

8.0 ACCESSORIES

IEE has a large selection of cable lengths and connector combinations available. The display enclosure is available in several standard colors with multiple mounting methods and pole lengths. Contact IEE for specifics.

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	SIZE <b>A</b>	CODE IDENT NO. <b>05464</b>	<b>SLB324-04XH</b>	
	SCALE N/A	REV <b>A</b>	SHEET 63	

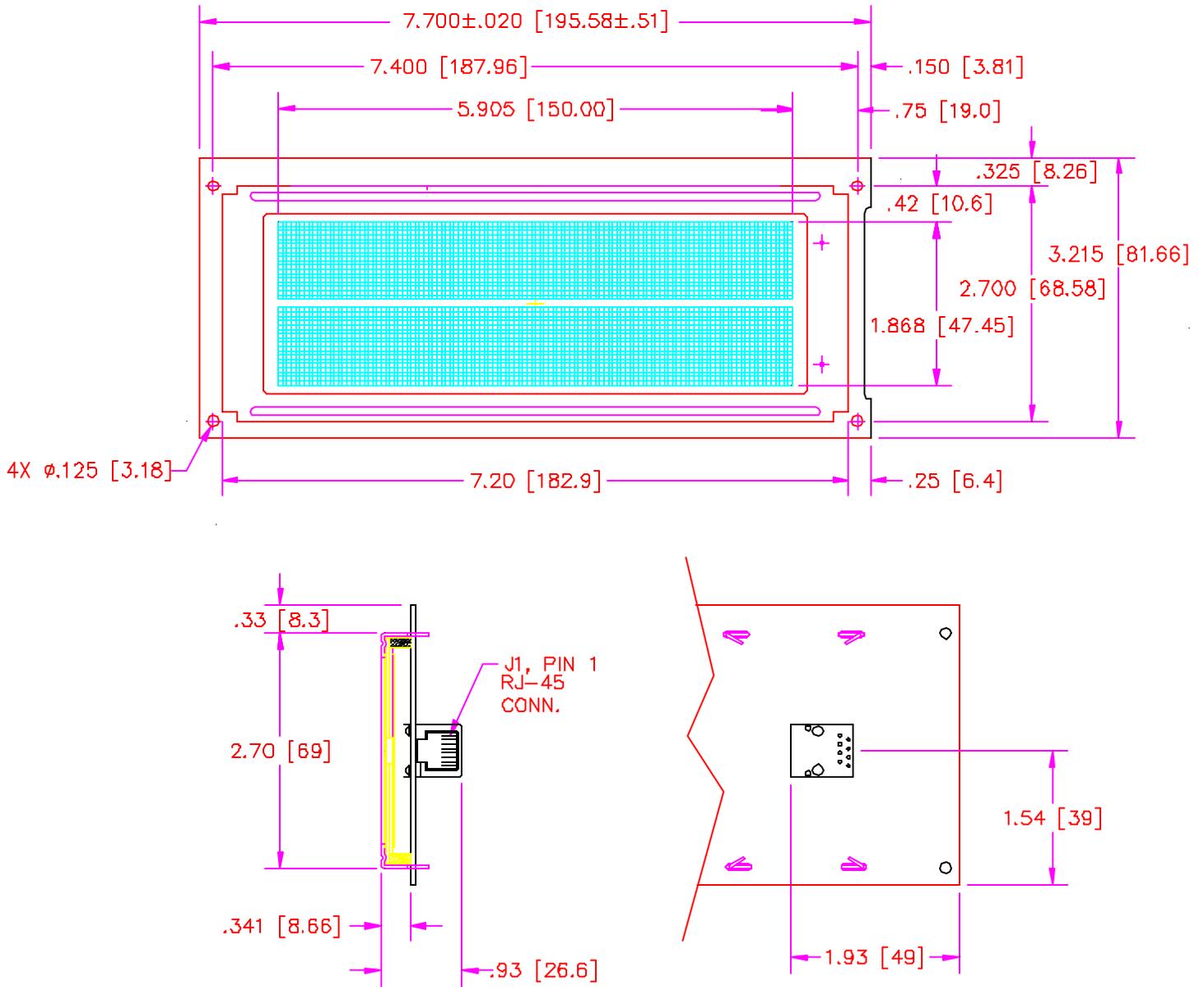


FIGURE 5

**TOLERANCE:**

.XX = ±.03 (0.8)  
 .XXX = ±.010(0.25)  
 Dim. in inches (mm)

<b>Industrial Electronic Engineers, Inc.</b>  <b>Van Nuys, California</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>05464</b>	<b>SLB324-04XH</b>
	<b>SCALE</b> N/A	<b>REV</b> <b>A</b>	<b>SHEET</b> 64