# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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## MODEL:

## PD02D104

DISPLAY PRODUCTS DIVISION

128 x 64 DOT MATRIX, GAS-PLASMA DISPLAY WITH CONTROLLER AND DC - DC CONVERTER

PLASMADOT<sup>™</sup> full field dot matrix DC plasma display systems include driver electronics, on-board power supply, and a dedicated microprocessor to perform display refresh and user interface operations. Bi-directional communication with the display system is accomplished via an 8-bit ASCII interface in either parallel or RS-232C formats. Text inputs can be displayed in a choice of standard fonts and styles, or users can program custom characters to accommodate special requirements. Graphic input commands may also be used to display overlays to further enhance the displayed information.

#### **FEATURES**

Display Format:	64 rows x 128 columns
Overall Size:	8.00" x 5.00" x 1.50"
Overall Viewing Area:	5.10" x 2.54"
Pixel Size:	. 020" x .020"
Row Pitch:	. 040"
Column Pitch:	. 040"
Luminance	50 fL
Viewing Angle	130°

#### ELECTRICAL SPECIFICATIONS

#### **Absolute Maximum Ratings**

Item	Symbol	Value	Unit
Converter Input Voltage	Vp	-0.3 to +35.0	V
Operating Temperature	Topr	0 to +60	°C
Storage Temperature	Tstg	-40 to + 85	°C
Logic Input Voltage	Vin	-0.3 to +7.0	V

#### Recommended Operating Conditions (Measured with all pixels lit.)

Item	Symbol	Min	Тур	Max	Unit
Converter Input Voltage	Vp	10.8	12	26	V
Converter Input Power	Pin			15	Watts
Operating Temperature	Topr	0	25	60	°C

#### **RS232 Interface Signals** (Topr = $+25^{\circ}$ C)

Item	Symbol	Min	Тур	Max	Unit
Input Threshold Voltage - Low	Vtl	0.8	1.2		V
Input Threshold Voltage - High	Vth		1.5	2.4	V
Output Voltage Swing	Vout	±5	±8		V

#### SPECIFICATIONS ARE FOR REFERENCE ONLY

9200-0115 Rev. A

Phone: (714) 994-6500 14930 East Alondra Blvd., La Mirada, CA 90638-5752 Fax: (714) 994-3013

MODEL:

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## **Parallel Interface Signals** (Topr = $+25^{\circ}$ C)

Item	Symbol	Min	Max	Unit
Input High Voltage	Vih	3.5	Vcc	V
Input Low Voltage	Vil	-0.5	0.8	V
Input Leakage Current	Iin	-10	+10	UA
Output High Voltage	Voh	3.5		V
Output Low Voltage	Vol		0.5	V

#### SERIAL INTERFACE PORT

Data Bits: Parity: Start Bits: Stop Bits: Baud Rate: 8 None 1 1 4800, 9600, 19.2K, 38.4K

BAUD RATE	JUMPER 1	JUMPER 2
4800	Х	Х
9600		Х
19.2K	Х	
38.4K		

'X' indicates an installed shunt.

#### **Environmental Specifications**

Item	Min	Max	Unit
Operating Temperature	0	+60	°C
Storage Temperature	-40	+ 85	°C
Humidity (Non-Condensing)	0	95	%
Vibration (10-55 Hz, .06" P-P)		3	G
Shock P (acceleration, 11 Msec)		30	G
Altitude (Operating)		20,000	ft.
Altitude (Non-Operating)		70,000	ft.

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#### **CUSTOMER INTERFACE**

Parallel Communication Interface Connector J2

Mating Connector: AMP Part No. 746285-6 (or equivalent)

J2 Pin No.	Description	<b>Computer Port</b>	J2 Pin No.	Description	Computer Port
1	DATA 0	2	2	GND	18
3	DATA 1	3	4	GND	19
5	DATA 2	4	6	GND	20
7	DATA 3	5	8	GND	21
9	DATA 4	6	10	GND	22
11	DATA 5	7	12	TEST*	14
13	DATA 6	8	14	GND	23
15	DATA 7	9	16	GND	24
17	WR*	1	18	GND	25
19	SEL*	17	20	GND	12
21	RD*	16	22	GND	13
23	RESET*	-	24	BUSY	11
25	BLANK*	15	26	GND	10

\* = Negative true logic

#### PARALLEL COMMUNICATIONS PORT CABLE CONNECTOR

All interface signals for the 8-bit I/O port are supplied to the display by a 26-pin ribbon cable header. It is recommended to use a receptacle with the center polarization.

#### Power Supply Connector J3

Mating Connector	r: Amp Part No. 1-480424-0		
J3 Pin No.	Description		
1	+12 Volts Input		
2	GND		
3	GND		
4	+5 Vdc @ 150 mAmps		

#### Serial Communications Interface Connector J1

Mating Connector:		Amp Part No. 747321-4 (or equivalent)
J1 Pin No.	Name	Description
2	TxD	Transmit Data (Output) -
		Output sent by the display back to the host.
3	RxD	Receive Data (Input) -
		Data sent by the host to the display system.
4	CTS	Clear to Send (Input) -
		Input indicates if the host is ready to accept data from
		The display system.
8	DTR	Data Terminal Ready (Output) -
		Output indicates to the host if the display system is
		Ready to accept data.
5	GND	Signal Ground -
		Logic return for all serial interface signals.

\*Pins 1,6,7, and 9 are not connected.

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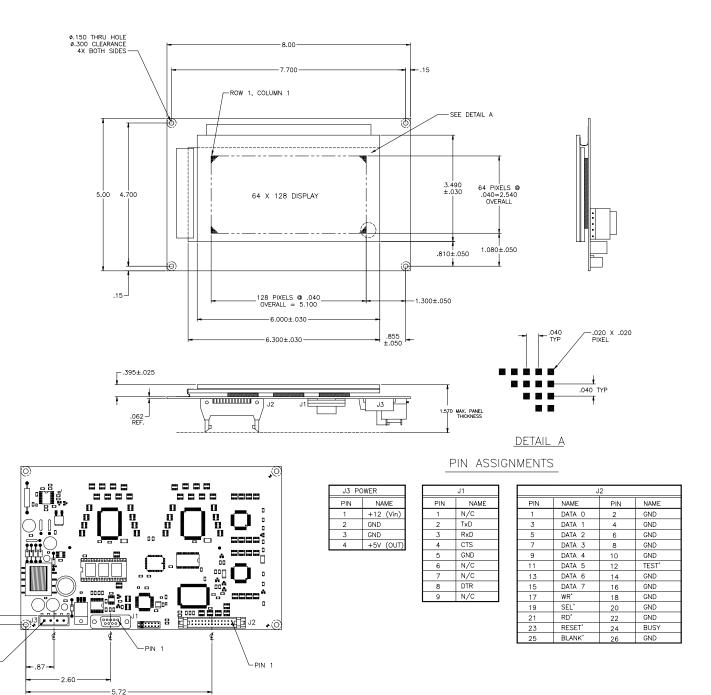
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#### **Outline and Mounting Dimensions:**



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PIN 1