

The DM-0640-01C is a dc-plasma subsystem with character fields of 6 lines of 40 characters. The use of plasma technology provides a bright (100 fL typical) neon-orange display, with a wide 150° viewing angle. Using a 5x7 matrix of dots forms the display's characters. This format allows for the representation of 256 characters including ASCII fonts, numerals, punctuation, and commonly used scientific symbols.

A dedicated microcontroller and its supporting chips control the display refresh and all user input functions. Characters and display command functions are entered into the display module via either an 8-bit parallel input interface or a RS232 serial input/output interface. All data and function commands conform to the accepted standard ASCII format.

The DM-0640-01C module contains an on board converter which provides all high voltage requirements of the display panel. It simplifies the power requirements of the display panel. It simplifies the power requirement to +5 volts and +12 volts DC power supply.

A self-test function is provided so the user can be assured of system performance prior to final installation.

SPECIFICATIONS***Absolute Maximum Ratings***

PARAMETER	SYM	MIN	MAX	UNITS
Supply Voltage	V _{CC}	-	+7.0	VDC
High Level Input Voltage	V _{IH}	-	V _{CC}	VDC
Low Level Input Voltage	V _{IL}	0	-	VDC
Converter Supply Voltages	V _{DD}	8.0	15.0	VDC
Vibration (Sine) (10 -55 Hz)		-	2	G
Shock Non-Operating				
x-plane (5 times, 9 ms MIL-STD-202A)		-	2.5	G
y-plane (5 times, 9 ms MIL-STD-202A)		-	2.5	G
z-plane (5 times, 9 ms MIL-STD-202A)		-	5	G

Recommended Operating Conditions

PARAMETER	SYM	MIN	TYP	MAX	UNITS
Converter Supply Voltage	V _{DD}	10.8	12.0	13.2	VDC
High Voltage Supply Current	I _{DD}			3.0	A
Logic Supply Voltage	V _{CC}	4.75	5.0	5.25	VDC
Logic Supply Current	I _{CC}	-	0.6		Amps
High Level Input Voltage	V _{IH}	3.17	-	V _{CC}	VDC
High Level Input Current (V _{OH} = 2.4VDC)	I _{OH}			+20	mA
Low Level Input Voltage	V _{IL}	0	-	0.8	VDC
Low Level Output Current (V _{OL} = 0.45VDC)	I _{OL}			-20	mA
High Level Output Voltage	V _{OH}	2.4	-	V _{CC}	VDC
Low Level Output Voltage	V _{OL}	-	-	0.8	VDC

Environmental Characteristics

Operating Temperature	0 to 55 °C
Storage Temperature	-40 to +85 °C
Operating Relative Humidity	10 to 90% non-condensing

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MODEL: **DM-0640-01C**

DISPLAY PRODUCTS DIVISION

6 X 40 DOT MATRIX (5 X 7), ALPHA NUMERIC, GAS-PLASMA DISPLAY

J3- Power Connector

Pin Number	Function
1	+12 VDC
2	+5 VDC
3	GND
4	N/C

J5 - Serial Interface

Pin Number	Function
2	TRANSMIT DATA
3	RECIEVE DATA
4	READY TO SEND
5	CLEAR TO SEND
7	GND

J1 - Data Connector (Parallel Interface)

Pin Number	Function	Pin Number	Function	Pin Number	Function
1	D7	10	CURSER DISABLE	19	GND
2	D6	11	N/C	20	GND
3	D1	12	ERROR	21	N/C
4	D5	13	READY	22	SYSTEM SELECT
5	D4	14	N/C	23	N/C
6	D2	15	DATA STROBE	24	N/C
7	D3	16	INT	25	+5 VDC
8	N/C	17	DATA TAKEN	26	+5 VDC
9	D0	18	N/C		

Switch Settings - Serial Baud Rate

SW6	SW7	SW8	Baud Rate
ON	ON	ON	150
ON	ON	OFF	300
ON	OFF	ON	600
ON	OFF	OFF	1200
OFF	ON	ON	2400
OFF	ON	OFF	4800
OFF	OFF	ON	9600
OFF	OFF	OFF	19200

Other Switch Settings

		Functions
SW1		NOT USED
SW2	ON	ENABLE BLINK
SW2	OFF	DISABLE BLINK
SW3	ON	HALF DUPLEX *
SW3	OFF	FULL DUPLEX **
SW4	ON	STANDARD CHARACTER SET
SW4	OFF	ALTERNATE CHARACTER SET
SW5	ON	BLINK TO BLANK
SW5	OFF	BLINK TO BOX

* HALF DUPLEX MODE: PARALLEL INPUT IS ECHOED TO SERIAL OUTPUT, NO DISPLAY

** FULL DUPLEX MODE: PARALLEL INPUT IS ECHOED TO SERIAL OUTPUT, NO DISPLAY SERIAL INPUT IS SENT TO DISPLAY, NO ECHO.

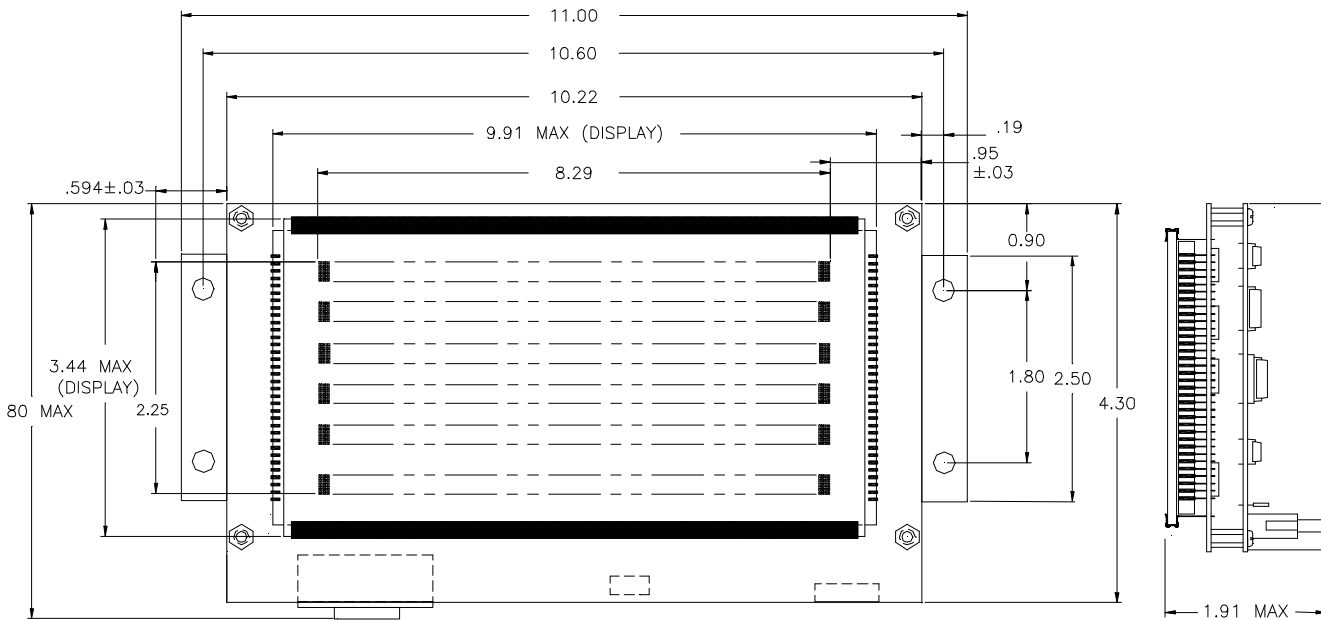
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DISPLAY PRODUCTS DIVISION

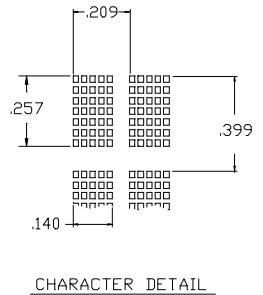
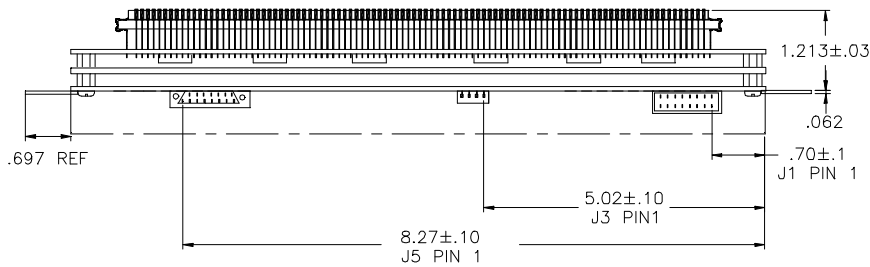
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6 X 40 DOT MATRIX (5 X 7), ALPHA NUMERIC, GAS-PLASMA DISPLAY

Outline and Mounting Drawing:



COMPONENTS OMITED FOR CLARITY



CHARACTER DETAIL

SPECIFICATIONS ARE FOR REFERENCE ONLY

9200-0107 Rev. A

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