



LED Display

Product Data Sheet

LTP-14988M

Spec No.: DS30-2007-0075

Effective Date: 04/10/2007

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY**LTP-14988M****DATA SHEET**

Rev	Description	By
-	Original Spec	<u>PHANOMKRON J.</u>

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FEATURES

- * 1.457 inch (37.02 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.
- * 8×8 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCII AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.
- * **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

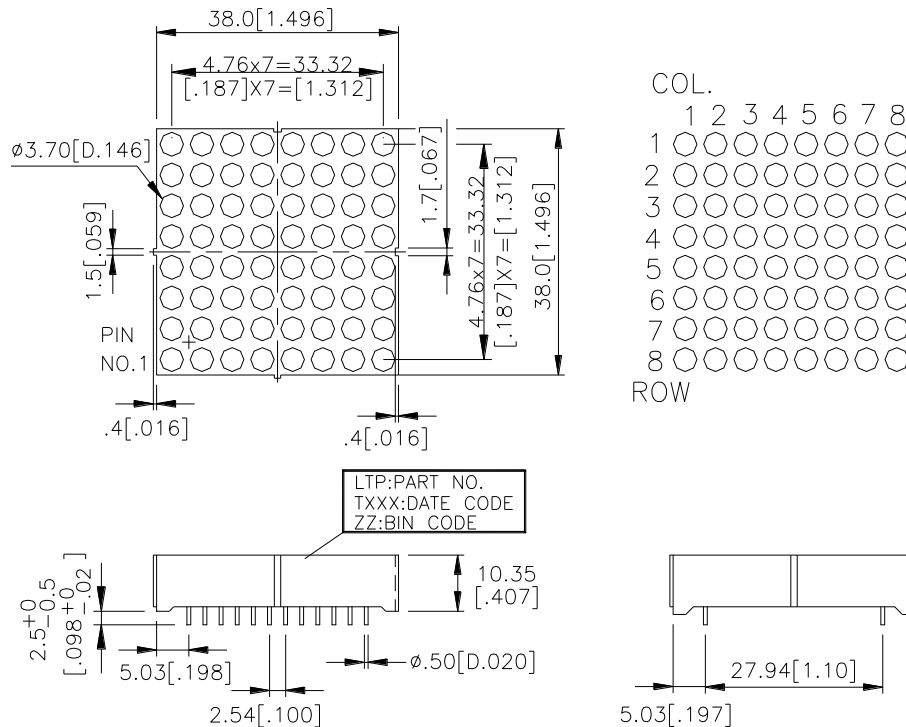
DESCRIPTION

The LTP-14988M is a 1.457 inch (37.02 mm) matrix height 8×8 dot matrix display. This device is multi-color applicable display. The Green LED chips, which made from GaP on GaP. The Red Orange LED chips, which made from GaAsP on GaP. The device has black face and transparent dots.

DEVICE

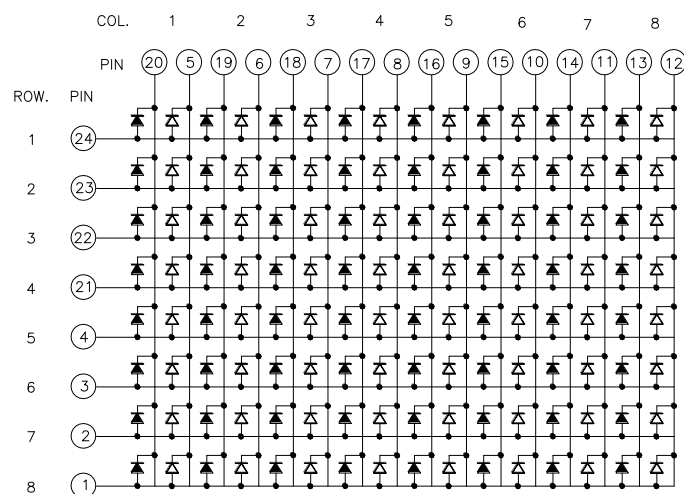
PART NO.	DESCRIPTION
MULTI-COLOR	ANODE ROW
LTP-14988M	CATHODE COLUMN

PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise note.
2. Pin tip's shift tolerance is ± 0.4 mm.

INTERNAL CIRCUIT DIAGRAM



The sign "▶" stands for RED ORANGE color chips.
The sign "◀" stands for GREEN color chips.

PIN CONNECTION

NO	CONNECTION	NO	CONNECTION
1	ANODE ROW 8	13	CATHODE COL. 8 RED ORANGE
2	ANODE ROW 7	14	CATHODE COL. 7 RED ORANGE
3	ANODE ROW 6	15	CATHODE COL.6 RED ORANGE
4	ANODE ROW 5	16	CATHODE COL. 5 RED ORANGE
5	CATHODE COL. 1 GREEN	17	CATHODE COL. 4 RED ORANGE
6	CATHODE COL. 2 GREEN	18	CATHODE COL. 3 RED ORANGE
7	CATHODE COL. 3 GREEN	19	CATHODE COL. 2 RED ORANGE
8	CATHODE COL. 4 GREEN	20	CATHODE COL. 1 RED ORANGE
9	CATHODE COL. 5 GREEN	21	ANODE ROW 4
10	CATHODE COL. 6 GREEN	22	ANODE ROW 3
11	CATHODE COL. 7 GREEN	23	ANODE ROW 2
12	CATHODE COL. 8 GREEN	24	ANODE ROW 1

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	GREEN	RED ORANGE	UNIT
Average Power Dissipation Per Dot	75	75	mW
Peak Forward Current Per Dot	100	100	mA
Average Forward Current Per Dot	25	25	mA
Derating Linear From 25°C Per Dot	0.33	0.33	mA/°C
Reverse Voltage Per Dot	5	5	V
Operating Temperature Range	-35°C to +105°C		
Storage Temperature Range	-35°C to +105°C		

Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C or
of temperature unit (during assembly) not over max. temperature rating above.

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

GREEN

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	2000	4000		μcd	I _p =80mA 1/16Duty
Peak Emission Wavelength	λ _p		565		nm	I _f =20mA
Spectral Line Half-Width	Δλ		30		nm	I _f =20mA
Dominant Wavelength	λ _d		569		nm	I _f =20mA
Forward Voltage any Dot	V _F		2.1	2.6	V	I _f =20mA
			3.0	3.7		I _f =80mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _p =80mA 1/16Duty

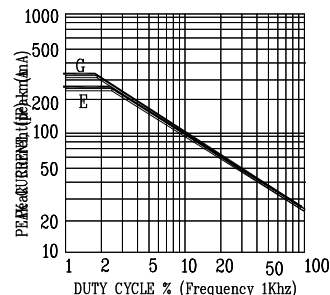
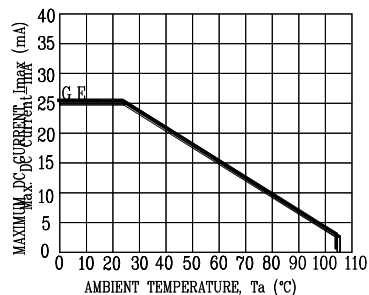
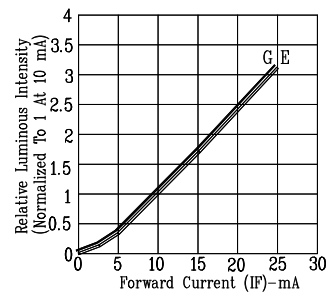
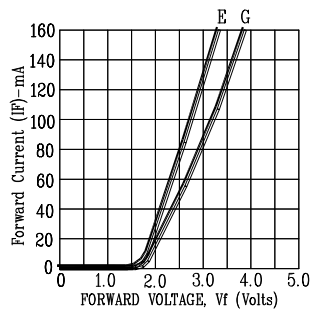
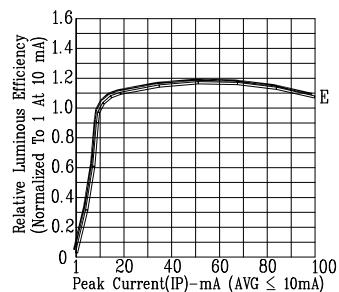
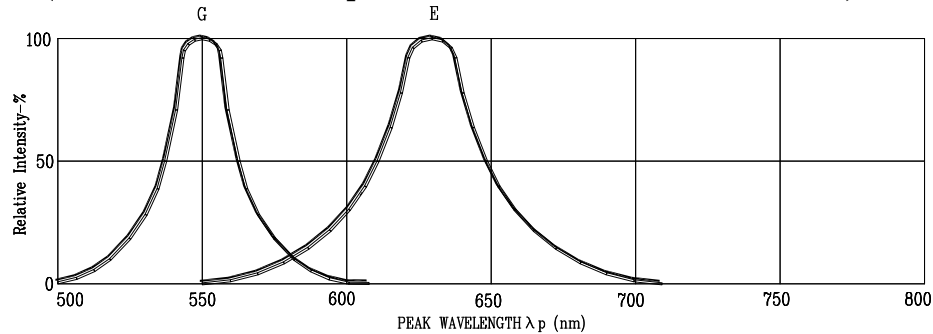
RED ORANGE

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1780	4800		μcd	I _p =80mA 1/16Duty
Peak Emission Wavelength	λ _p		630		nm	I _f =20mA
Spectral Line Half-Width	Δλ		40		nm	I _f =20mA
Dominant Wavelength	λ _d		621		nm	I _f =20mA
Forward Voltage any Dot	V _F		2.0	2.6	V	I _f =20mA
			2.6	3.4		I _f =80mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _p =80mA 1/16Duty

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE: G=GREEN & E=RED ORANGE