

Harvatek LED Yarn Datasheet

MX01 Series



Official Product	HT Part No MX01 Series	Your Part No.		Data Sheet No.
Tentative Product	*****	*****		
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Revision History

Revision	Page	Version No.	Revision Date
Preliminary	All	1.0	2015/06/17
Update Information	All	1.1	2015/11/12
Update IP65→IP68、Update Picture	5、6	1.2	2016/03/31
Correction contents	1	1.3	2016/07/07
Add Washing condition	5	1.4	2016/09/02
Add Model name(LED Pitch)	6	1.5	2016/10/03
Update Module Name	6	1.6	2016/12/30
Update Product Out Line Dimension	6	1.7	2017/02/21
Update Product Specification	5	1.8	2017/02/23
Update Packing、125M/Reel→50M/Reel、tolerance is±3%	7	1.9	2017/03/27
Update Module Name	6	2	2017/05/23
Add Cut end Module Name & Packing	6、8	2.1	2017/07/21
Modify Maximum current, update picture	5、6	2.2	2017/08/29
Modify the contents、update packing	5、6、7	2.3	2017/09/01

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Introduction

- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by HARVATEK for any infringements of intellectual property or other rights of the third parties which may result from it use.
- HARVATEK is continually making an effort to improve the quality of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing HARVATEK products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such HARVATEK products cause loss of human life, bodily injury or damage to property.
- The HARVATEK products listed in this document are intended for usage in general electronics (computer, personal equipment, office equipment, industrial robotics, domestic, etc...) These products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury.
- In developing your designs, please ensure that HARVATEK products are used within specified operating ranges as set forth in the most recent HARVATEK products specifications.
- Also, please keep in mind of the precautions listed in this document.

ATTENTION: Electric Static Discharge (ESD) protection



The symbol shown on the page herein to introduce 'Electro-Optical Characteristics'. ESD protection for GaP and AlGaAs based chips is still necessary even though they are safe in low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are

STATIC SENSITIVE devices. ESD protection has to considered and taken in the initial design stage. If manual work/process is needed, please ensure the device is well protected from ESD during all the process.

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Product Feature

Waterproof
Washable
Flexible
Foldable
360° luminous
Good light conductivity
Can easily twisted or sewed onto cloth
Offers multiple choices for the color of LED

Application

Clothing & Accessories
Home decoration
Sports and leisure
Safety Warning

Product Specification

LED life :	40000 hours.
LED color :	White / Blue / Green / Red / Yellow / Magenta / Rosegold / Turquoise
Operating temperature :	0°C ~35°C
Breaking strength :	More than 30kg
Outside diameter :	3.0 ± 0.5mm
Sewing space	7.0 ± 0.5mm
Input voltage :	DC 4.5 ~ 5V
Maximum current :	500mA(100cm)
LED Pich :	2±0.2cm; 4±0.2cm
Waterproof and Dustproof	IP68(IEC60598-1)

※Washing condition

- Following Criteria : AATCC135-2012
- Machine Cycle : Normal
- Washing Temp. : 27 +/- 3°C
- Drying Procedure : Line(Prohibit drying)
- Note : Using laundry bag is better

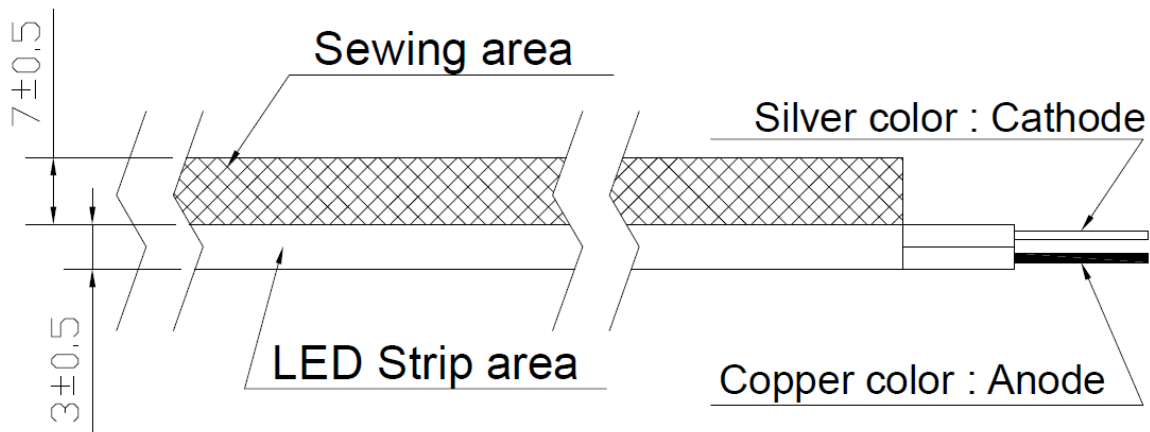
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Model Name

M X 0 1 U S D - 2 0 X 0 Y 0

Material	Dice	LED Package	Color	LED Pitch	Yarn Color	Packing	Total Length	IP
M: LED Yarn	X: No Dice	01: 0603 LED	TX-- : White(IP) BS-- : White(No IP) USD- : Red NG-- : Green NB-- : Blue UY-- : Amber HWS- : Turquoise BSN- : Rose Gold MN-- : Magenta	2 : 2 cm 4 : 4 cm	X : No Yarn 0 : White	X : Paper Tube B : Blue transparent anit-static bag	0Y : 5000cm 01 : 100cm	0 : No IP P : IP

Product Out Line Dimension

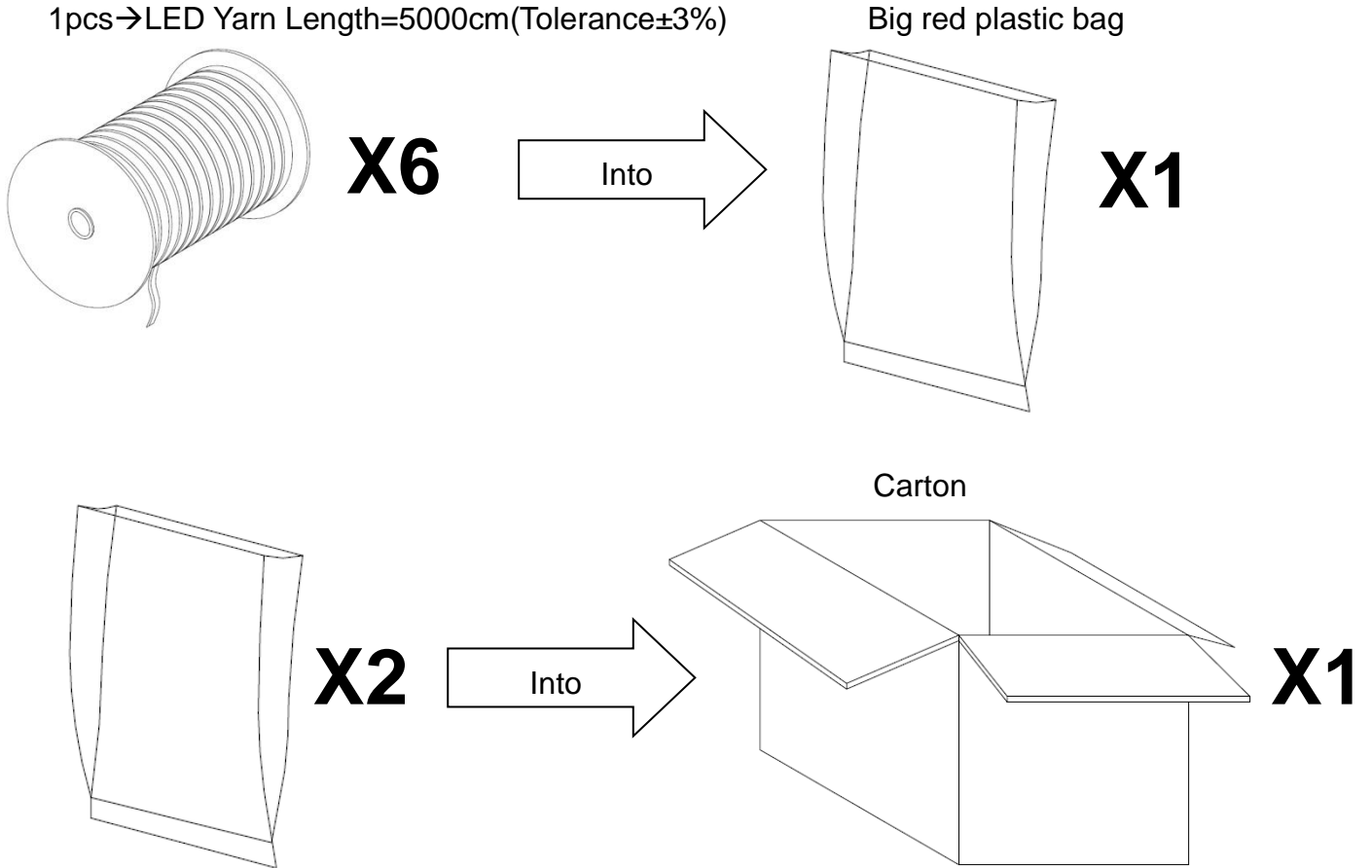


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Packing

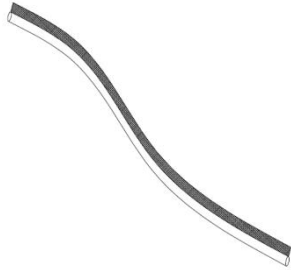
◆Reel Packing :

1pcs→LED Yarn Length=5000cm(Tolerance±3%)

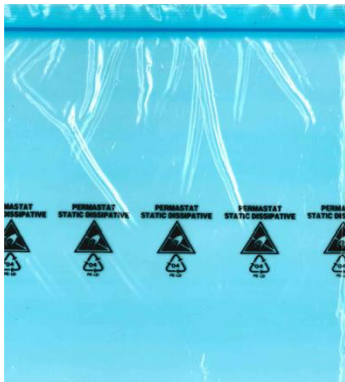
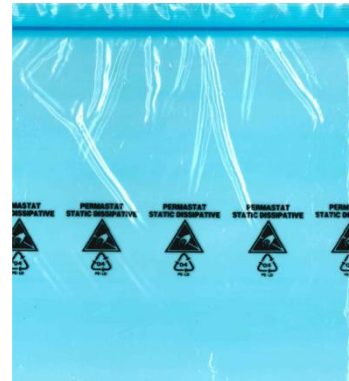
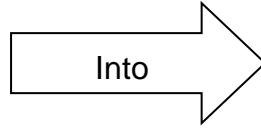


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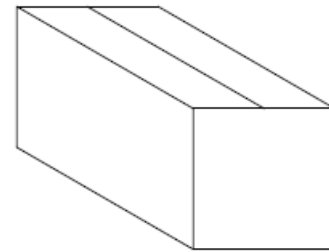
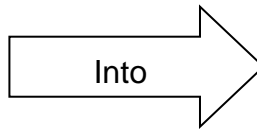
◆Cut end Packing :



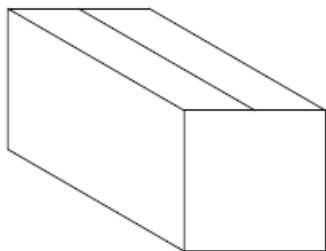
X20



X8

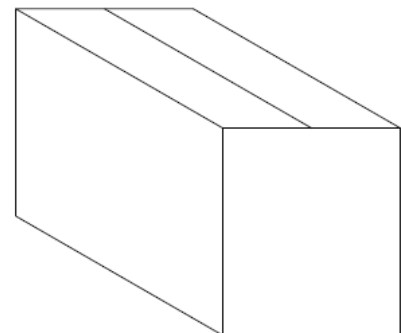
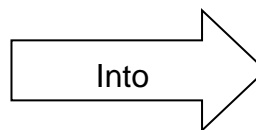


Carton 369mm*201mm*136mm



Carton 369mm*201mm*136mm

X2



Carton 429mm*387mm*171mm

(Total : 320pcs)

Storage

It's recommended to store the products in the following conditions:

Temperature: 5°C ~40°C

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LEDs and Eye Safety:

In the 1993 edition of IEC-60825-1, LEDs were included: "Throughout this part 1 light emitting diodes (LED) are included whenever the word "laser" is used."The CENELEC document EN 60825-1 contains all the technical content of the IEC standard.

The scope of the IEC standard states that "...products which are sold to other manufacturers for use as components of any system for subsequent sale are not subject to IEC 60825-1, since the final product will itself be subject to this standard. "Therefore, it is important to determine the Laser Safety Class of the final product. However, it is important that employees working with LEDs are trained to use them safely.

Most of the products containing LEDs will fall in either Class 1 or Class 2. A Class 1 label is optional:

CLASS 1 LED PRODUCT

If a label is not used, this description must be included in the information for the user. Amendment 2 to IEC 60825-1 is expected to be published in January 2001. The CENELEC equivalent is expected to follow three months after the IEC publication. This document contains increased Class 1 and Class 2 limits, as well as the introduction of less restrictive Class 1M and Class 2M.

For the exact classification and further information, the IEC document can be used:

IEC-60825-1 ISBN 2-8318-4169-0

To avoid LED embedded yarn being contaminated, please wear gloves during cutting.

In order to avoid damage LEDs in led embedded yarn, please notice the maximum gap (length) between LEDs, and cut the LED yarn strip according to customer requirement.

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