

# LEDELS.com- LED signage lighting solution

Series Name: M20 Waterproof  
Item No: LL-F12T4715X2A160



## Product Feature:

1. SMD2835 TopLED as light source, super luminous flux.
2. large viewing angle with even light shadow.
3. lower light decay and long life span up to 35000 hours.
4. Low cost against high performance, good color uniformity.
5. Energy saving, environment-friendly.
6. Suitable for backlighting to channel letters and light boxes.
7. Suitable for accent lighting, edge lighting.
8. Waterproof, IP65, ideal for outdoor use
9. Easy installation and maintenance free.

## Series Number:

LL-F12T4715W2A160 Pure White  
LL-F12T4715N2A160 Cold white

## Specification

LED Type SMD2835 Top LED  
Available Color Pure White /Warm white  
Angle( $2\theta_{1/2}$ )  $\geq 160^\circ$

### Luminous Flux (lm)

Red Light	Green Light	Blue Light	Yello Light	White Light	Warm White
				50~60	44~50

### Wavelength Scope (nm / K)

Red Light	Green Light	Blue Light	Yellow Light	White Light	Warm White
				6000-7000	2800-35000

LED Qty 2pcs  
Life Span 35,000 Hours

## Electrical Parameter

Working Voltage 12VDC  
Power consumption Maximum **0.48W**  
Driving Method constant voltage

## Wires & Serial connection per link

Lead Wires AWG20 # grey&white wires, 50mm between 2 adjacent module 60mm at 2 ends, Grey=positive, White=negative wire

Standard Length In Serial Connection 20PCS  
Maximum Length In Serial Connector  $\leq 25$ pcs

## Outer Parameter

Shell/ housing material ABS milky white  
Module dimension 47mm (L)\*15mm (W)\*6.8mm (H)  
PCB Color White

## Way of installation

Screw /  
Double-sided adhesive tape tape size: 40mm\*7mm\*0.2mm, foamed double-sided adhesive tape

## Environment Parameter

Working Temperature  $-40^\circ\text{C}$ — $60^\circ\text{C}$   
Storage Temperature  $-50^\circ\text{C}$ — $80^\circ\text{C}$   
IP Degree IP65

CE

RoHS

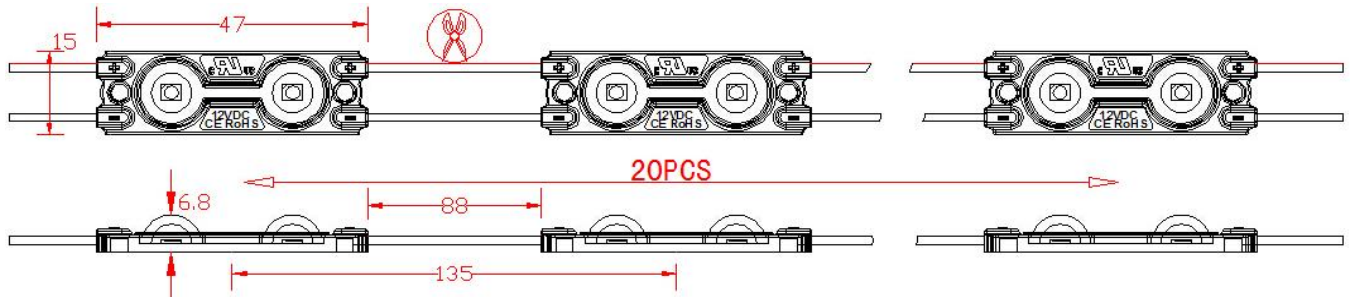
Caution !

ESD sensitive

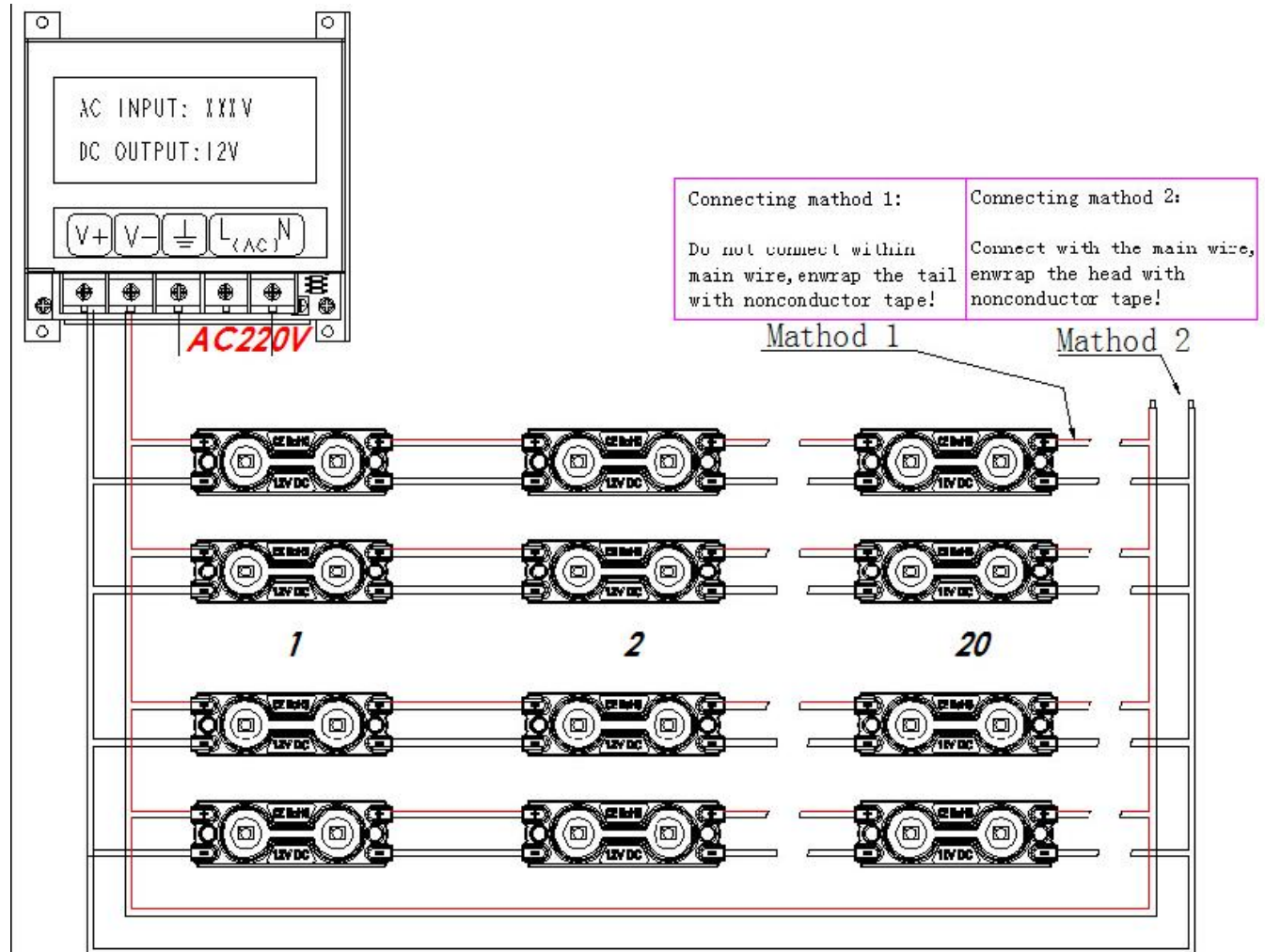


Module dimension (Unit: mm) :

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Connection Diagram (Unit: mm) :



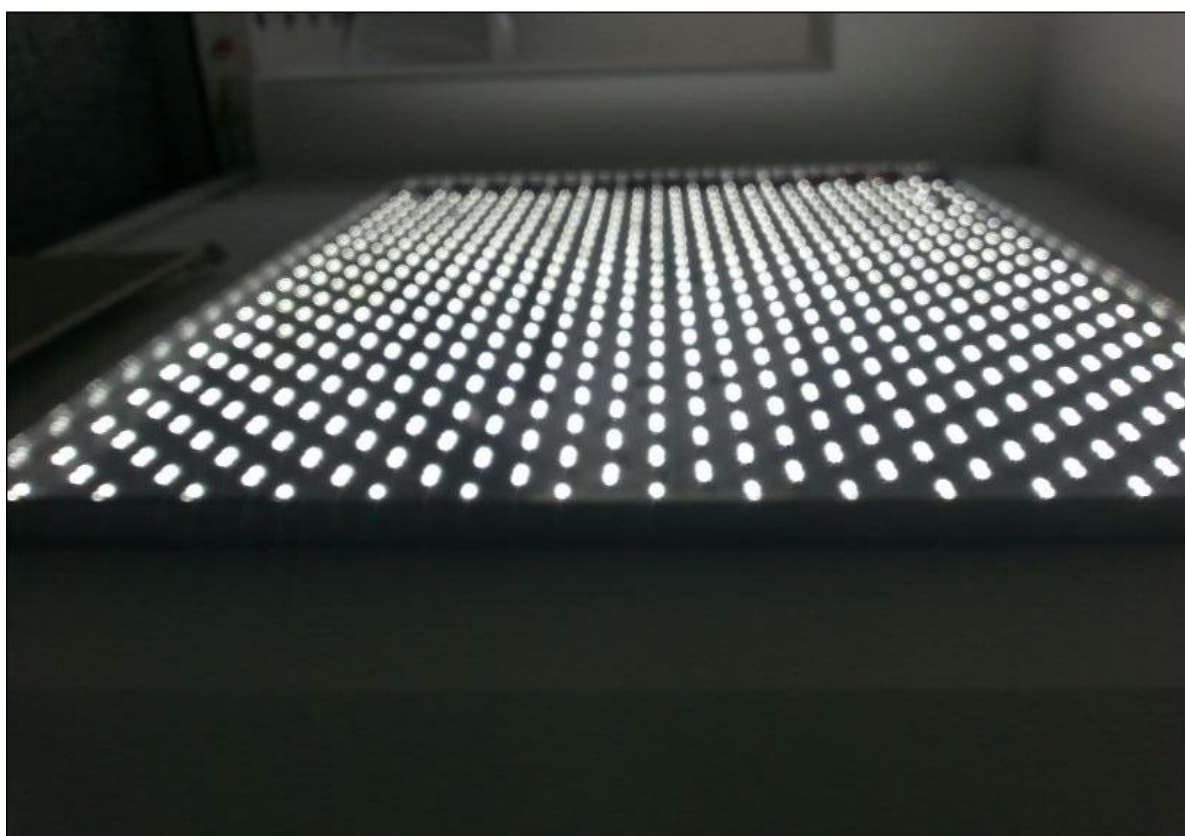
For an acrylic letters whose thickness is just 40mm, 160 degrees' beam angle takes a great advantage. By using less module lights, it cost you less labor for installation, less power consumption, less cost for power transformer. The most important point is it achieves a **uniform** light distribution on the surface of acrylic sheet.

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Backlighting for sign box whose thickness is 60mm in Austria

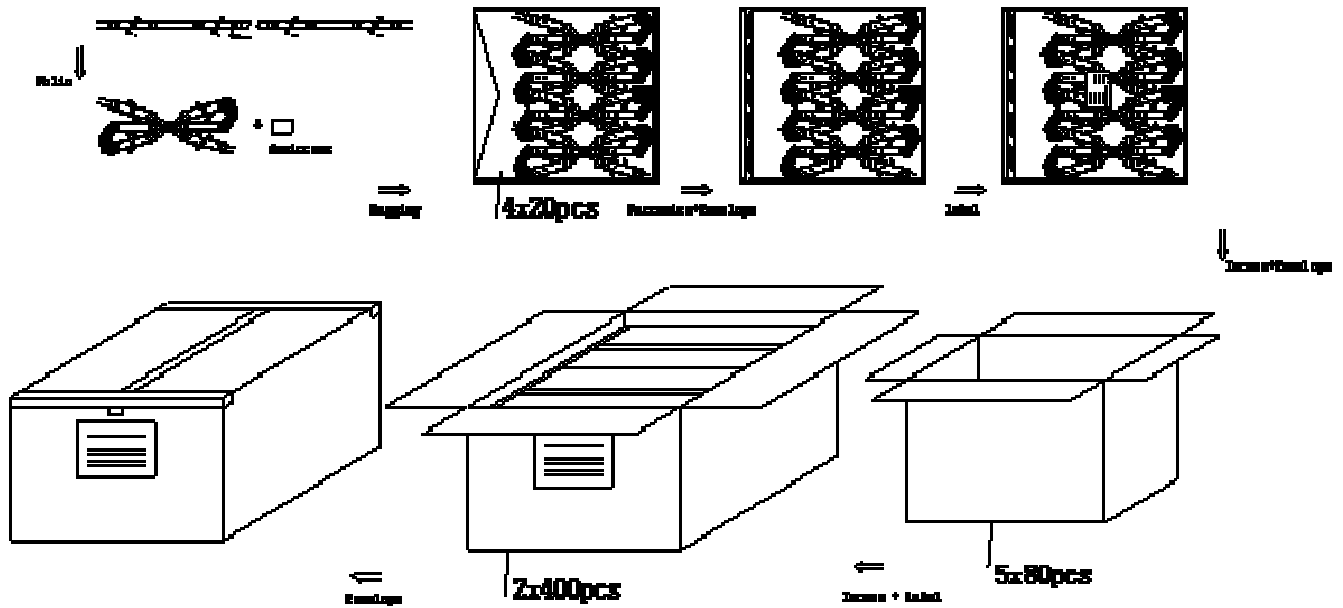


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Outer Package Dimension (Unit: mm) :



## Cautions:

1. 5 chains ( 400pcs of modules) in one aluminum -foil bag .
2. 12 bags ( 5000 pcs of modules) in one small cardboard carton
3. One outer cardboard carton contains two small cartons . ( 1200 pcs in one outer carton)
4. Net Weight: 6.5Kg/1000PCS
5. Gross Weight : 7.2kg /1000PCS