



## Wah Wang Data Sheet for Mini RGB Lighting Rope



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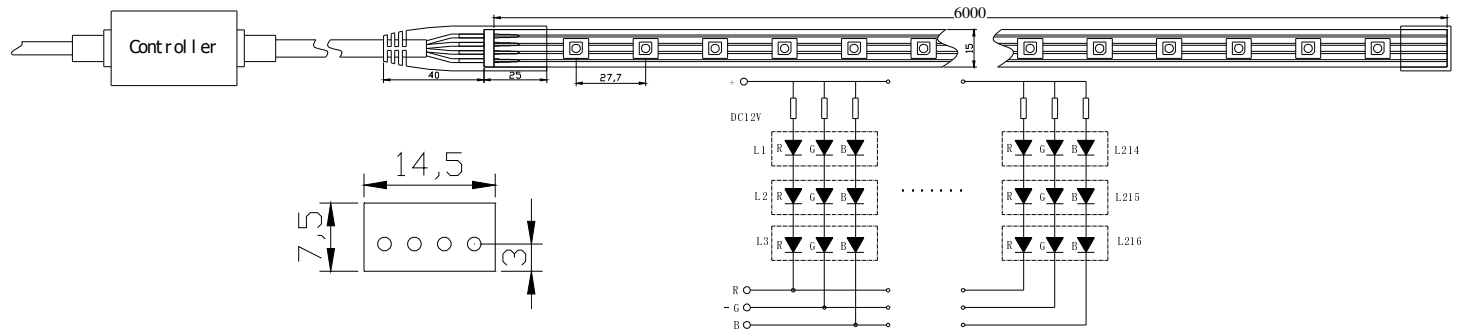
## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-12 Full Color Series

### Features

- **6 meter per reel**
- Width of strip: 15mm
- 216pcs LED per reel
- 3pcs LED per small unit
- Size of small Unit (L X W): 83\*15mm
- Operating Voltage : 12V DC
- Operating Current: 3240mA per reel

### Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation per meter	6.48	W
Operating Temperature Range	-40 °C to +80 °C	
Storage Temperature Range	-40 °C to +80 °C	



Dimension Drawing

### Electrical Optical Characteristics at Ta=25°C

Part Number	Water Proof	Source Color	Dominant Wavelength $\lambda_d$				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50RGB-12	Yes	Blue	465	----	475	nm	210	240	----	lm	120°
		Green	515	----	525	nm	420	450	----	lm	120°
		Red	620	----	630	nm	240	270	----	lm	120°

### Notes:

1. All dimensions are in millimeter.
2. Tolerance of measurement is  $\pm 0.25\text{mm}$  (.01") unless others otherwise noted.
3. Tolerance of measurement of luminous intensity is  $\pm 15\%$
4.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is  $\pm 10$  degree
5. Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
6. The dominant wavelength  $\lambda_d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
7. Specifications are subject to change without notice.

## CAUTIONS

1. Storage
  - a. The Flexible SMD Strip should be stored at stored at 30°C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
  - b. If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
  - c. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
2. Static Electricity
  - a. Static electricity or surge voltage damages the Flexible SMD Strip.
  - b. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
  - c. All devices, equipment and machinery must be properly grounded.
  - d. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
3. Heat Generation
  - a. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
  - b. The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
  - c. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
  - d. The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
4. Others
  - a. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
  - b. The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
  - c. User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
  - d. The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
  - e. The appearance and specifications of the product may be modified for improvement without notice.



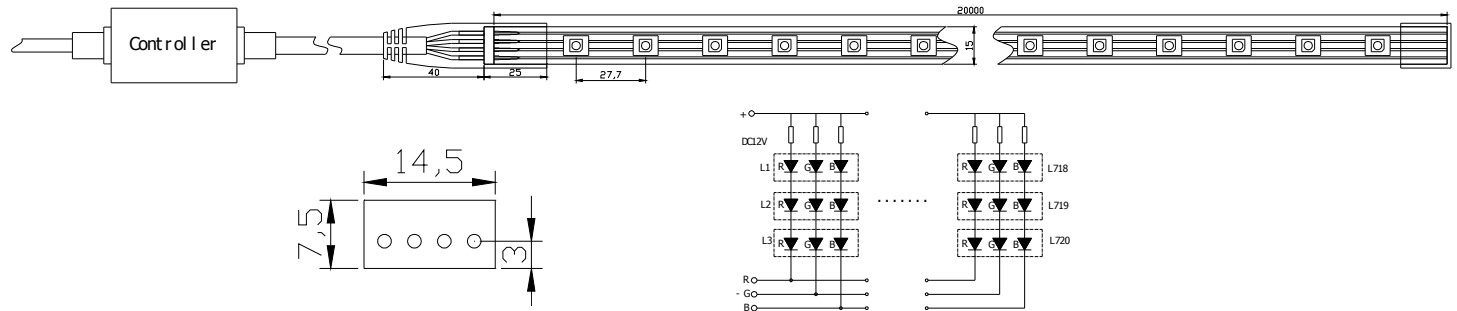
## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-12 Full Color Series

### Features

- **20 meter per reel**
- Width of strip: 15mm
- 720pcs LED per reel
- 3pcs LED per small unit
- Size of small Unit (L X W): 83\*15mm
- Operating Voltage : 12V DC
- Operating Current: 10800mA per reel

### Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation per meter	6.48	W
Operating Temperature Range	-40 °C to +80 °C	
Storage Temperature Range	-40 °C to +80 °C	



Dimension Drawing

### Electrical Optical Characteristics at Ta=25°C

Part Number	Water Proof	Source Color	Dominant Wavelength $\lambda_d$				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50RGB-12	Yes	Blue	465	----	475	nm	700	800	----	lm	120°
		Green	515	----	525	nm	1400	1500	----	lm	120°
		Red	620	----	630	nm	800	900	----	lm	120°

### Notes:

- All dimensions are in millimeter.
- Tolerance of measurement is  $\pm 0.25\text{mm}$  (.01") unless others otherwise noted.
- Tolerance of measurement of luminous intensity is  $\pm 15\%$
- $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is  $\pm 10$  degree
- Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
- The dominant wavelength  $\lambda_d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Specifications are subject to change without notice.

## CAUTIONS

- Storage
  - The Flexible SMD Strip should be stored at stored at 30°C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
  - If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
  - Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
- Static Electricity
  - Static electricity or surge voltage damages the Flexible SMD Strip.
  - It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
  - All devices, equipment and machinery must be properly grounded.
  - It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
- Heat Generation
  - Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
  - The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
  - It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
  - The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
- Others
  - Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
  - The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
  - User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
  - The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
  - The appearance and specifications of the product may be modified for improvement without notice.



## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-220 Full Color Series

Features	Absolute Maximum Ratings at Ta=25℃		
	Parameter	MAX.	Unit
	Power Dissipation per meter	4.95	W
	Operating Temperature Range	-40℃ to +80℃	
	Storage Temperature Range	-40℃ to +80℃	

<b>6 meter per reel</b> <ul style="list-style-type: none"><li>Width of strip: 15mm</li><li>216 pcs LED per reel</li><li>72pcs LED per small unit</li><li>Size of small Unit (L X W): 2000mm*15mm</li><li>Operating Voltage : 220V AC</li><li>Operating Current: 135mA per reel</li></ul>	
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### Electrical Optical Characteristics at Ta=25℃

Part Number	Water Proof	Source Color	Dominant Wavelength $\lambda_d$				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50FC-220	Yes	Blue	465	----	475	nm	210	240	----	lm	120°
		Green	515	----	525	nm	420	450	----	lm	120°
		Red	620	----	630	nm	240	270	----	lm	120°

#### Notes:

- All dimensions are in millimeter.
- Tolerance of measurement is  $\pm 0.25\text{mm}(0.01")$  unless others otherwise noted.
- Tolerance of measurement of luminous intensity is  $\pm 15\%$
- $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is  $\pm 10$  degree
- Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
- The dominant wavelength  $\lambda_d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Specifications are subject to change without notice.

### CAUTIONS

- Storage
  - The Flexible SMD Strip should be stored at stored at 30℃ or less and 70%RH or less after being shipped and the storage life limits are 3 months.
  - If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
  - Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
- Static Electricity
  - Static electricity or surge voltage damages the Flexible SMD Strip.
  - It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
  - All devices, equipment and machinery must be properly grounded.
  - It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
- Heat Generation
  - Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
  - The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
  - It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
  - The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
- Others
  - Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
  - The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
  - User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
  - The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
  - The appearance and specifications of the product may be modified for improvement without notice.



## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-220 Full Color Series

Features

- **20 meter per reel**
- Width of strip: 15mm
- 720pcs LED per reel
- 72pcs LED per small unit
- Size of small Unit (L X W): 2000mm\*15mm
- Operating Voltage : 220V AC
- Operating Current: 450mA per reel

**Absolute Maximum Ratings at Ta=25°C**

Parameter	MAX.	Unit
Power Dissipation per meter	4.95	W
Operating Temperature Range	-40 °C to +80 °C	
Storage Temperature Range	-40 °C to +80 °C	

**Dimension Drawing**

Electrical Optical Characteristics at Ta=25°C											
Part Number	Water Proof	Source Color	Dominant Wavelength λd				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50FC-220	Yes	Blue	465	----	475	nm	700	800	----	lm	120°
		Green	515	----	525	nm	1400	1500	----	lm	120°
		Red	620	----	630	nm	800	900	----	lm	120°

- Notes:**
- 22. All dimensions are in millimeter.
  - 23. Tolerance of measurement is ±0.25mm(.01") unless others otherwise noted.
  - 24. Tolerance of measurement of luminous intensity is ±15%
  - 25. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is ±10 degree
  - 26. Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
  - 27. The dominant wavelength λ<sub>d</sub> is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
  - 28. Specifications are subject to change without notice.
- CAUTIONS**
- 13. Storage
    - a. The Flexible SMD Strip should be stored at stored at 30 °C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
    - b. If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
    - c. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
  - 14. Static Electricity
    - a. Static electricity or surge voltage damages the Flexible SMD Strip .
    - b. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
    - c. All devices, equipment and machinery must be properly grounded.
    - d. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
  - 15. Heat Generation
    - a. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
    - b. The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
    - c. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
    - d. The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
  - 16. Others
    - a. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
    - b. The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
    - c. User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
    - d. The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
    - e. The appearance and specifications of the product may be modified for improvement without notice.



## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-220 Full Color Series

Features

- **50 meter per reel**
- Width of strip: 15mm
- 1800pcs LED per reel
- 72pcs LED per small unit
- Size of small Unit (L X W): 2000mm\*15mm
- Operating Voltage : 220V AC
- Operating Current: 1225mA per reel

Parameter	MAX.	Unit
Power Dissipation per meter	4.95	W
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	

**Dimension Drawing**

Electrical Optical Characteristics at Ta=25°C											
Part Number	Water Proof	Source Color	Dominant Wavelength λd				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50FC-220	Yes	Blue	465	----	475	nm	1750	2000	----	lm	120°
		Green	515	----	525	nm	3500	4000	----	lm	120°
		Red	620	----	630	nm	2000	2250	----	lm	120°

- Notes:**
- 29. All dimensions are in millimeter.
  - 30. Tolerance of measurement is ±0.25mm(.01") unless others otherwise noted.
  - 31. Tolerance of measurement of luminous intensity is ±15%
  - 32. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is ±10 degree
  - 33. Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
  - 34. The dominant wavelength λ<sub>d</sub> is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
  - 35. Specifications are subject to change without notice.
- CAUTIONS**
- 17. Storage
    - a. The Flexible SMD Strip should be stored at stored at 30°C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
    - b. If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
    - c. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
  - 18. Static Electricity
    - a. Static electricity or surge voltage damages the Flexible SMD Strip.
    - b. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
    - c. All devices, equipment and machinery must be properly grounded.
    - d. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
  - 19. Heat Generation
    - a. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
    - b. The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
    - c. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
    - d. The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
  - 20. Others
    - a. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
    - b. The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
    - c. User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
    - d. The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
    - e. The appearance and specifications of the product may be modified for improvement without notice.



## Wah Wang Data Sheet for Flexible LED Strip WW-LRT50FC-220 Full Color Series

Features

- **100 meter per reel**
- Width of strip: 15mm
- 3600pcs LED per reel
- 72pcs LED per small unit
- Size of small Unit (L X W): 2000mm\*15mm
- Operating Voltage : 220V AC
- Operating Current: 2250mA per reel

**Absolute Maximum Ratings at Ta=25°C**

Parameter	MAX.	Unit
Power Dissipation per meter	4.95	W
Operating Temperature Range	-40 °C to +80 °C	
Storage Temperature Range	-40 °C to +80 °C	

**Dimension Drawing**

Electrical Optical Characteristics at Ta=25°C											
Part Number	Water Proof	Source Color	Dominant Wavelength $\lambda_d$				Luminous Flux				Viewing Angle
			Min.	Typ.	Max	Unit	Min.	Typ.	Max.	Unit	
WW-LRT50FC-220	Yes	Blue	465	----	475	nm	3500	4000	----	lm	120°
		Green	515	----	525	nm	7000	8000	----	lm	120°
		Red	620	----	630	nm	4000	4500	----	lm	120°

- Notes:**
- 36. All dimensions are in millimeter.
  - 37. Tolerance of measurement is  $\pm 0.25\text{mm}(.01")$  unless others otherwise noted.
  - 38. Tolerance of measurement of luminous intensity is  $\pm 15\%$
  - 39.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is  $\pm 10$  degree
  - 40. Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
  - 41. The dominant wavelength  $\lambda_d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
  - 42. Specifications are subject to change without notice.
- CAUTIONS**
- 21. Storage
    - a. The Flexible SMD Strip should be stored at stored at 30°C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
    - b. If the Flexible SMD Strip is stored more than 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
    - c. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
  - 22. Static Electricity
    - a. Static electricity or surge voltage damages the Flexible SMD Strip.
    - b. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
    - c. All devices, equipment and machinery must be properly grounded.
    - d. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip
  - 23. Heat Generation
    - a. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
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    - c. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
    - d. The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.
  - 24. Others
    - a. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
    - b. The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
    - c. User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible SMD Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
    - d. The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
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