

DISPLAY Elektronik GmbH

DATA SHEET

BACKLIGHT

DE LP-509-RGB

Product Specification

Version: 1

17.11.2016

GENERAL SPECIFICATION

MODEL NO. :

DE LP-509-RGB

CUSTOMER P/N

Version No.	Change Description	Date
0	Original Version	20.10.2016
1	Change Dominant Wavelength	17.11.2016

PREPARED BY: ZX

DATE: 17.11.2016

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DATE: 17.11.2016

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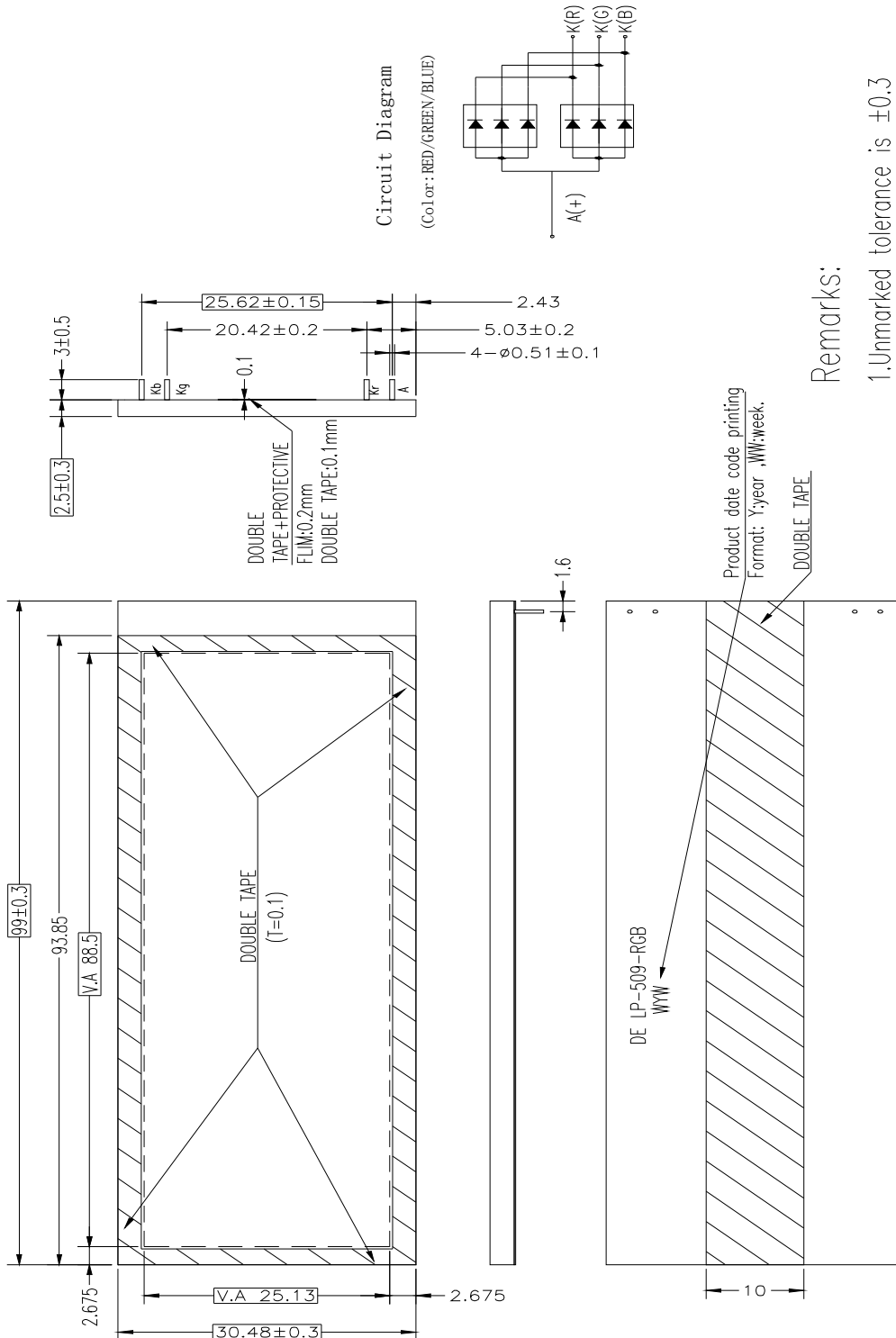
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1. FEATURES

Backlight Color: RGB

RoHS: Conformed

2. EXTERNAL DIMENSION (unit: mm)



Remarks:

1. Unmarked tolerance is ± 0.3
2. All materials comply with RoHS
3. ...:critical dimension.
4. Operation temperature: -20°C to $+70^{\circ}\text{C}$
Storage temperature: -40°C to $+90^{\circ}\text{C}$

3. ELECTRICAL/OPTICAL SPECIFICATIONS

Electronics/Optical Specifications:

Ta=25°C. Unless specified, The Ambient temperature Ta=25°C

Item	Symbol	RED			GREEN			BLUE			Unit	Condition
		MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.		
Forward Voltage	Vf	1.9	2.1	2.5	2.8	3.0	3.4	2.9	3.1	3.5	V	If=20*2 mA
Dominant Wave Length	λD	620	625	630	515	520	525	465	470	475	nm	
Color Chromaticity	X	—	—	—	—	—	—	—	—	—		
	Y	—	—	—	—	—	—	—	—	—		
Uniformity	Avg	65			65			65			%	
Luminance	Lv	50	180		120	300		30	80		cd/m ²	
Reverse Current (Per LED)	Ir			10			10			10	μA	Vr= 5.0 V
Lifetime		50000(brightness reduce half)									Hours	

4. ACCEPT QUALITY LEVEL (AQL).

4.1. AQL standard value: Critical defect =0, Major defect=0.65; Minor defect =2.5.

4.2. Inspection Plan: ANSI Z-1.4, Normal Inspection Level II, Single Sampling Plan.

5. RELIABILITY TEST

Test Item	Test Condition
High Temperature Storage	+90°C x 96h
Low temperature Storage	-40°C x 96h
High Temperature Operation	+70°C x 96h
Low Temperature Operation	-20°C x 96h
High Temperature, High Humidity	60°C x 90%RH x 4 Weeks
Thermal Shock	-20°C x 30min → 25°C x 10s → +70°C x 30min x 5 Cycles
Vibration Test	Frequency x Swing x Time 40Hz x 4mm x 4h
Drop Test	Height x Number of drop 1.0m x 6 drops