

LED Digital Sign



The LED digital signs are specifically designed for fixed installations in branding, advertising and retail applications. They are built to withstand the toughest conditions, for high usage and to still look great in years to come.

The LED digital signs are of front service access, powered by hydraulic technology, which relieves the headaches of maintenance. Furthermore, there is no need for extra steel frame to support them: you could mount them to building walls or poles directly. Also there is no need for computer. You could control it by Android or IOS based smart devices via 4G or WIFI.

1. Specifications

Model No.	LDS4	LDS6	LDS8	LDS10	LDS16
Pixel pitch	4 mm	6.67 mm	8 mm	10 mm	16 mm
LED type	SMD 1921	SMD 3535	SMD 3535	SMD 3535	SMD 3535
Brightness	5500 nits	6000 nits	6000 nits	6500 nits	7200 nits
Power consumption	AV. 300 W/m ²	Avg. 300 W/m ²	Avg. 300 W/m ²	Avg. 300 W/m ²	Avg. 450 W/m ²
Resolution	640 x 400	384 x 240	320 x 200	256 x 160	160 x 96
Dimensions	256*160 cm / 8.4*5.25 Ft	256*160 cm / 8.4*5.25 Ft	256*160 cm / 8.4*5.25 Ft	256*160 cm / 8.4*5.25 Ft	256*153.6 cm / 8.4*5.04 Ft
Weight	250 kg (551.16 lb)/pc	240 kg (529.11 lb)/pc	230 kg (507.06 lb)/pc	230 kg (507.06 lb)/pc	220 kg (485.02 lb)/pc
Operating system	Novastar / Linsn / Xixun / DBstar / Colorlight, etc				
IP rating	IP 65				
Serviceability	Front				
Refresh rate	1920 Hz				
Color depth	14 Bit				
Viewing angle	Horizontal 140°; Vertical 120°				
LED lifetime	80,000 hrs (50% brightness)				
Operational temperature	-20°C ~+50°C / -4°F ~ +122°F				
Operational humidity	10%~90%				
Input voltage	100~240V / 50~60Hz				

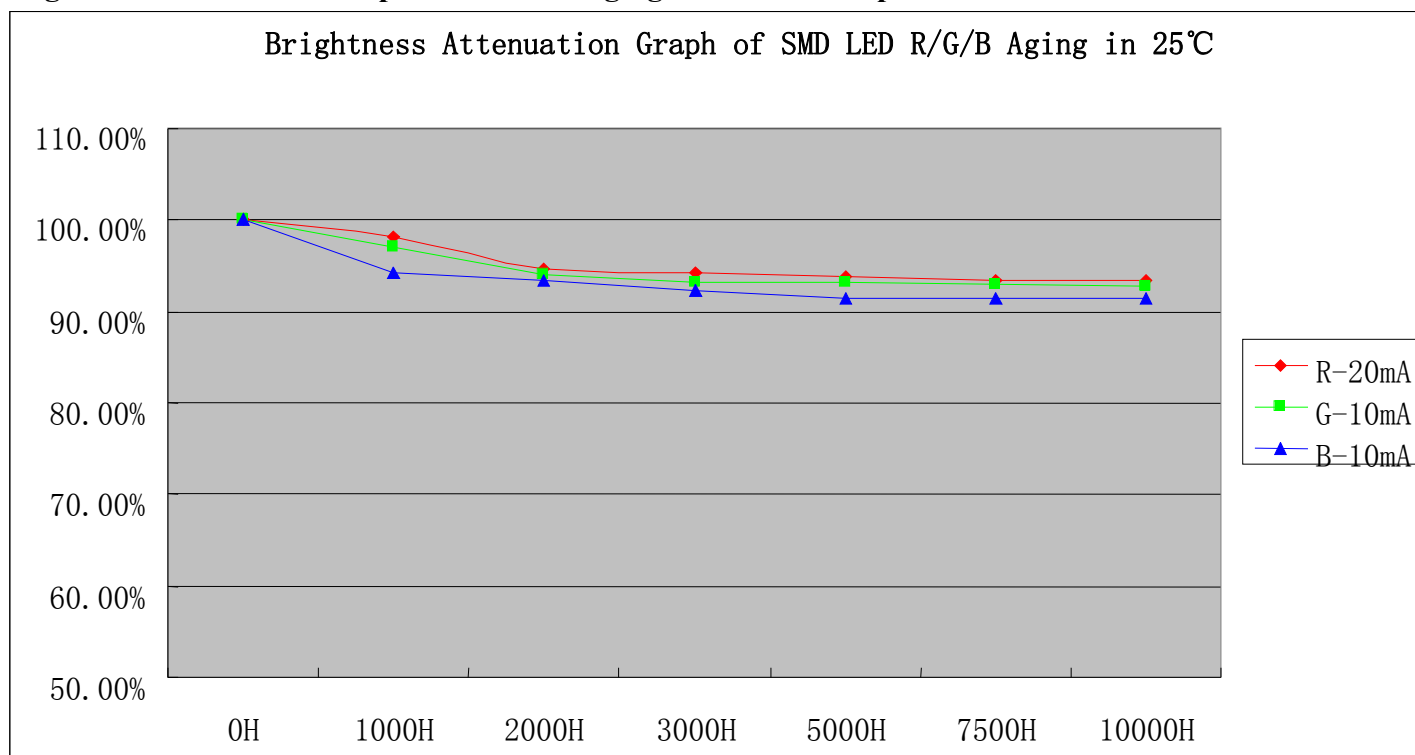
Note: Please be aware that dimensions could be customized according to project-specific requirement.

2. Experimental Parameters of Testing

Data of the Normal Temperature Aging Attenuation								
Item	Aging Time	0H	1000H	2000H	3000H	5000H	7500H	10000H
R	Avg. Brightness(mcd)	210	206	199	198	197	196	196
	Brightness Reduction%	100.00%	98.10%	94.76%	94.29%	93.81%	93.33%	93.33%
G	Avg. Brightness(mcd)	500	485	470	466	466	465	464
	Brightness Reduction%	100.00%	97.00%	94.00%	93.20%	93.20%	93.00%	92.80%
B	Avg. Brightness(mcd)	105	99	98	97	96	96	96
	Brightness Reduction%	100.00%	94.29%	93.33%	92.38%	91.43%	91.43%	91.43%

2.1. Normal Temperature

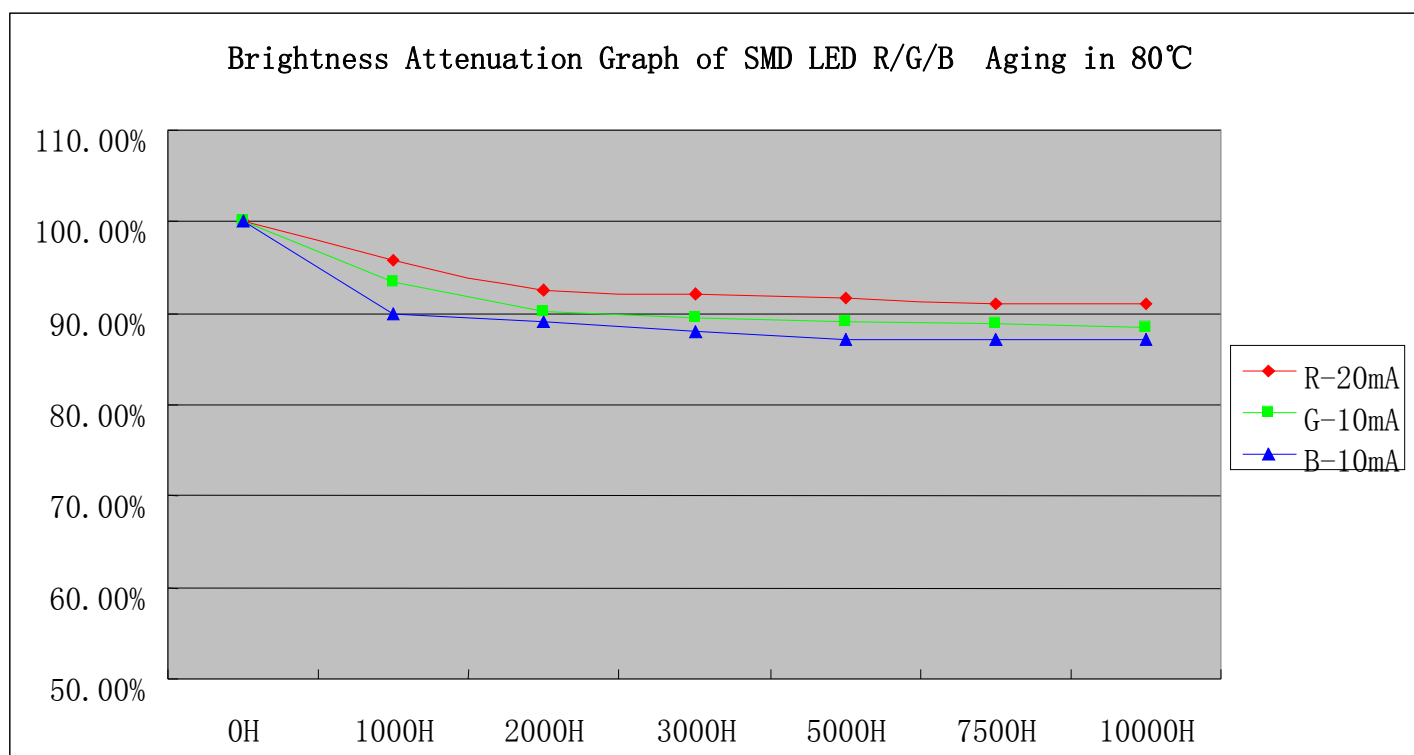
Brightness Attenuation Graph of Modules Aging in Normal Temperature



2.2. High Temperature

Data Statistics of Brightness Attenuation of Modules Aging in High Temperature								
Aging Time		0H	1000H	2000H	3000H	5000H	7500H	10000H
Items								
R	Avg. Brightness(mcd)	213	204	197	196	195	194	194
	Brightness Reduction %	100.00%	95.77%	92.49%	92.02%	91.55%	91.08%	91.08%
G	Avg. Brightness(mcd)	510	476	460	456	454	453	451
	Brightness Reduction %	100.00%	93.33%	90.20%	89.41%	89.02%	88.82%	88.43%
B	Avg. Brightness(mcd)	109	98	97	96	95	95	95
	Brightness Reduction %	100.00%	89.91%	88.99%	88.07%	87.16%	87.16%	87.16%

Brightness Attenuation Graph of Modules Aging in High Temperature



2.3 Reliability Testing

Types	Testing	Reference Standard	Testing Condition	Lasting time	Acceptance Criteria
LED					
Environmental Test	Temperature Cycling	JESD22-A104-A	-40°C ~ 25°C ~ 100°C ~ 25°C 30mins,5mins,30mins,5mins	Cycled 100times	0/50
	Thermal Shock	JESD22-A106	-40°C ~ 100°C 30mins,30mins	Cycled 100times	0/50
	High-temperature Storage	JIS C 7021 (1977)B-11	Ta=60°C RH=90%	1000 hours	0/50
Lifetime Test	Normal Temperature Test	JESD22-A108-A	Ta=25°C Testing condition: power-up	1000 hours	0/50
	High Temperature Operating Life	JESD22-A101	Ta =85°C RH=85% Testing condition: power-up	1000 hours	0/50
Vibration Test	Mechanical Vibration	MIL-STD-883 Method 2007	20G mins,20 to 2000Hz 4 cycles, 4mins.Each,X,Y,Z	--	0/50
LED Unit(One Cabinet)					
Environment Storage Test	Low Temperature Storage Test	GB2423.2	Store it under the condition of (-40±2)0C for 4h, then recovered it in room temperature for 4h. Every function works well.	8 hours	0/50
	High Temperature Storage Test	GB2423.2	Store it under the condition of (60±2)0C for 4h, then recovered it in room temperature for 4h. Every function works well.	8 hours	0/50
Aging Test	Normal Temperature Aging Test		Ta=25°C 72 hours uninterruptible power supply	72 hours	0/50
	High Temperature Loading Test	GB2423.2-89	Worked under the condition of (40±2)0C for 8h, and checked every hour one time. Every function works well.	8 hours	0/50
Vibration Test	Mechanical Vibration	GB6587.4-86	Worked under the condition of frequency of shock in 5HZ-55HZ-5HZ, with 0.19mm amplitude for 5 minutes	5 minutes	0/50